

# Dinwiddie County Planning Commission



## Regular Meeting Agenda March 11, 2026 7:00 PM

- 1. CALL TO ORDER**
- 2. ROLL CALL**
- 3. PLEDGE OF ALLEGIANCE AND MOMENT OF SILENCE**
- 4. APPROVAL OF AGENDA**
- 5. CITIZEN COMMENTS**
- 6. PUBLIC HEARING**

### **A. CASE C-26-1**

The applicant, Virginia Power and Electric Co. C/O Dominion Energy, through its agent, Harold Timmons with TEP Group, is seeking a conditional use permit to allow for the construction and operation of a 420-foot self-support wireless telecommunications tower with a four-foot lightning rod on the following described property containing approximately 22.20 +/- acres. The tower as designed will require a reduction in standard setback requirements by the Board of Supervisors. The property is located at 28908 Ellington Rd. North Dinwiddie, VA and is further designated as Tax Map Parcel No. 49-31A. The property is zoned A-2, Agricultural General, which may be changed to allow such use upon receiving a conditional use permit. The County's Comprehensive Land Use Plan places this property within the Rural Conservation Area which allows limited commercial, service development at the Ordinance defined density.

Documents:

[C-26-1 PC Staff Report - March 11, 2026 Mtg.pdf](#)

[C-26-1, Application.pdf](#)

[C-26-1 LocationMap.pdf](#)

- 7. OLD BUSINESS**
- 8. NEW BUSINESS**
- 9. COMMISSIONERS' COMMENTS**
- 10. PLANNING DIRECTOR'S COMMENTS**
- 11. ADJOURNMENT**

Any persons having an interest in the above matters are encouraged to attend the meeting at the specific time and location to express their views. A copy of the full text of the above matters is on file and may be examined in the Planning Department located in the Dinwiddie Government Center Building at 14010 Boydton Plank Road, Dinwiddie, Virginia 23841 between the hours of 8:30 a.m. and 5:00 p.m., Monday through Friday, except legally declared holidays. Individuals desiring to attend the meeting and requiring special accommodations are requested to contact the Planning Office at (804) 469-4500 no less than five (5) working days prior to the public hearings.



# Staff Report

## Planning Commission

March 11, 2026

<b>Case #:</b>	C-26-1
<b>Applicant:</b>	Virginia Power and Electric Co. C/O Dominion Energy, through its agent, Harold Timmons with TEP Group
<b>CUP Request:</b>	To construct and operate a 420-foot self-support wireless telecommunications tower with a four-foot lightning rod at the Carson Substation
<b>Property Location:</b>	28908 Ellington Rd. North Dinwiddie, VA
<b>Tax Map Parcel #:</b>	49-31A
<b>Property Size:</b>	22.20 +/- acres
<b>Magisterial District:</b>	Rowanty

---

### CASE OVERVIEW

The applicant, Virginia Power and Electric Co. C/O Dominion Energy, through its agent, Harold Timmons with TEP Group, is seeking a conditional use permit to allow for the construction and operation of a 420-foot self-support wireless telecommunications tower with a four-foot lightning rod on the following described property containing approximately 22.20 +/- acres. The tower as designed will require a reduction in standard setback requirements by the Board of Supervisors. The property is located at 28908 Ellington Rd. North Dinwiddie, VA and is further designated as Tax Map Parcel No. 49-31A. The property is zoned A-2, Agricultural General, which may be changed to allow such use upon receiving a conditional use permit. The County's Comprehensive Land Use Plan places this property within the Rural Conservation Area which allows limited commercial, service development at the Ordinance defined density.

### ATTACHMENTS

Conditional Use Permit Application and Supporting Documents including the FCC National Environmental Policy Act (NEPA) Compliance Checklist, Tower Site Location Map

### LAND USE/ZONING ANALYSIS

The property under review is designated by the Comprehensive Land Use Plan as a part of the Rural Conservation Area. As such, the area is expected to accommodate future public service facility development for this general area as appropriate.

The subject property includes the existing Dominion Energy substation, transmission lines, and 200-foot guyed telecommunications tower within the fenced-substation compound and 400-foot guyed tower telecommunications tower on the adjoining Dominion Energy property to the rear of the substation. Dominion Energy will be the owner and operator of the proposed tower. The proposal is to remove the existing towers and construct the new 420-foot self-support tower adjacent to the substation compound. The new tower is to provide communication between Dominion Energy facilities and work crews. The proposed 420-foot tower is necessary to maintain the centerline and tip height of the existing LMR antennas; this allows for the lightning rod to be the highest appurtenance on the tower which is a Dominion Energy standard. To note: Dominion Energy owns the property to the rear of the substation. The properties around

this land parcel have agricultural, forestal, and low density residential uses. The adjoining properties to the west on the north side of Ellington Road are zoned A-2, Agricultural General, and include agricultural crop lands and the transmission line corridor. The adjoining property to the east is the CSX railroad right-of-way, and on the east side of the railroad is a single-family residence and power transmission lines. The properties to the south across Ellington Road are zoned A-2, Agricultural General, and contain single-family residences and surrounding agricultural uses. The existing substation and proposed tower are screened from view from Ellington Road with the existing heavily wooded vegetative 225-foot deep buffer area.

Section 22-71 (45) of the Dinwiddie County Zoning Code allows for the location of this proposed use, “communication tower with station”, within the A-2, Agricultural, General, Zoning District provided that a conditional use permit is approved.

Additionally, Article IX of Chapter 22 of the Code of Dinwiddie, Virginia sets forth guidelines for the siting of telecommunication antennae and towers. Section 22-269 outlines the purpose and intent of the article, and within this section the goals of the ordinance are set forth. The goals are as follows:

- a. encourage the location of antennae and towers in areas where the adverse impact on the community is minimal;
- b. to accommodate wireless telecommunication services to county residents, businesses, and travelers;
- c. strongly encourages the co-location of telecommunication equipment on existing towers;
- d. maximize the use of existing structures;
- e. make available public property to facilitate the deployment of wireless telecommunication facilities;
- f. minimize adverse visual effects of wireless telecommunication facilities through careful siting and design and;
- g. minimize adverse impacts on the natural, scenic, environmental, historic, cultural, and recreational resources of the county.

The applicant’s plan does comply with all federal, state, and local regulations regarding providing future co-location of equipment on the existing telecommunication tower and equipment site.

It is the applicant’s intent to develop their telecommunication network within the framework established by the above stated goals. The tower is designed with a zero-fall radius; the tower is engineered to collapse within its own footprint which will not impact adjacent properties. Additionally, there will be no impact on the subject and adjacent properties concerning by-right agricultural, forestal, and residential uses.

*As per the Zoning Ordinance, Article IX, Section 22-274 (3) Setback requirements, “Towers must be setback a distance equal to 200% of the height of the antenna or tower to the nearest residential structure and in no case less than 400 feet”. The distance from the proposed tower to the nearest residential structure is approximately 800 feet. In addition, Section 22-274 (4) requires that “All antenna support structures must be setback 110% of the height of the structure from all property lines”. The proposed location of the tower does not meet this setback requirement; therefore, a setback waiver is needed to allow the tower to locate closer to the front (eastern), side (southern), and rear (western) property lines than allowed by Section 22-274 (4). The existing State Police tower and veterinary clinic building are both located closer to the road than the proposed tower would be, and the proposed tower would comply with and exceeds the setback requirements for an accessory structure in the A-2, Agricultural, General Zoning District.*

As per the Zoning Ordinance, Article IX, Section 22-274 (3) Setback requirements, “Towers must be setback a distance equal to 200% of the height of the antenna or tower to the nearest residential structure and in no case less than 400 feet” (200% of the height of the proposed tower is 840 feet), and the distance from the proposed tower to the nearest residential structures located across Ellington Rd. is approximately 577 feet

and 675 feet. In addition, Section 22-274 (4) requires that “All antenna support structures must be setback 110% of the height of the structure from all property lines (462 feet)”. The proposed location of the tower does not meet this setback requirement at the front property line and at the western property line; the setback from the proposed tower to the nearest property line, the western property line, is 195 feet, which is a difference of 267 feet and the abutting property is vacant cropland. The distance from the proposed tower to the front property line is 317 feet, which is a difference of 145 feet. The applicant and their agent are requesting that the Board of supervisors consider approving the reduced setbacks to allow for implementation of the tower removal and relocation project.

## **OVERVIEW OF IMPACTS**

### **Public Utilities & Public Safety**

The potential impacts on the subject property are minimal. Electricity and broadband fiber are the utilities needed to develop the site for a wireless telecommunication tower/facility. There is no impact on the public school system. The Section 106 filing as part of the National historic Preservation Act of 1966 (NHPA) has taken place, and final comments on the 106 filing and the Phase I Environmental Site Assessment and NEPA Review shall be received prior to issuance of a Building Permit. Due to the existing vegetative buffer visibility of the proposed tower from the surrounding properties will be limited and minimal. Finally, there is no hazard to air space navigation, and the tower will be designed to collapse upon itself once wind loads exceed the required limits, and there are required monthly site maintenance visits to the tower.

### **Transportation**

Given that the proposed tower is accessed from Ellington Road by the existing gravel driveway, there are no impacts on the transportation network. The number of trips generated by the proposed use are minimal given that the tower compound area is visited infrequently.

In general, the road system in this particular area is adequate to handle the traffic generated by the subject use. If the proposed use is granted a conditional use permit, the applicant will be required to comply with all VDOT entrance requirements.

### **Dominion's Tower Replacement and Relocation Decisions**

Below are the responses to the questions that arose during the Pre-Application Meeting discussion with Mr. Mark Bassett and held on February 13, 2025.

1. Why can't Dominion place the new tower at the same location as the existing guyed tower, given that the guyed tower is being removed?
  - i. Installing the new tower at the guyed tower location is an option, but we chose to be near the substation to lessen the cost of creating a physically diverse fiber connection from the substation to the new tower and to be closer to our power source (substation power) to increase the electrical service for the tower location.
  
2. Why is Dominion replacing both existing towers with a single new one?
  - i. The 400' guyed tower is being replaced due to age. We could not move the radio systems to the existing tower in the substation since it is only 220' and RF coverage would be impacted. We chose a new location near the substation for the reasons mentioned above and decided to consolidate the towers to lower ongoing maintenance costs and to return ground space to substation engineering for future use. In addition, the reduction in the number of towers in the area contributes to an overall reduction in the proliferation of towers within the county as well.

3. Why is collocation (sharing the tower with other users) not permitted?

i. The tower is intended to support Dominion's operational and telecommunication needs.

Since the tower is critical for effective day-to-day operations, the security of the system is a major concern. Limiting access to the tower ensures system safety and functionality. However, Dominion is amenable to discussions regarding collocation by other parties in the future. Dominion utilizes a designated third-party company to manage collocation requests when permitted, for all its towers. Any entity interested in collocating equipment on the new structure must coordinate through the vendor and agree to adhere to established processes, procedures and guidelines.

4. What are the key reasons for selecting the proposed tower location?

i. Several site-specific factors influenced the choice of the new tower's location:

- **Ownership and Accessibility:** The proposed location is within Dominion-owned property, eliminating lease-related costs.
- **Environmental and Safety Considerations:**  
The north side of the substation consists of wetlands, which are unsuitable for tower construction. The west side is occupied by high-voltage power lines, posing safety and operational challenges. The east side is adjacent to a railroad easement, where installing and maintaining a tower would be impractical and hazardous.

ii. Infrastructure and Operational Efficiency:

- The selected location is adjacent to the substation, allowing easier integration with existing electrical infrastructure.
- It provides access to existing Dominion Energy (DE) fiber optic lines.

By strategically selecting this location, Dominion ensures long-term reliability, cost-effectiveness, and compliance with safety and environmental regulations.

## **RECOMMENDATION**

As set forth in the Zoning Ordinance Sec. 22-22. (Conditional use permits generally), "*Any provisions of this Chapter which allow a use with a conditional use permit shall not prohibit the Board of Supervisors from denying an application for a particular permit upon finding, after public hearing, that the issuance of such permit would not be in compliance with the intent, purpose and design of this Chapter and/or Section 22-2 of this Code*". Section 22-2. (Purpose and design of chapter) states that "*For the purpose of promoting the health, safety and general welfare of the public and of further accomplishing the objectives of Va. Code Section 15.1-427 of the Code of Virginia, 1950, as amended, the provisions of this chapter are hereby adopted as the zoning regulations of the County, together with the accompanying map. This Chapter has been designed:*

- 1) *To provide for adequate light, air, convenience of access and safety from fires, floods and other dangers;*
- 2) *To reduce or prevent congestion in the public streets;*
- 3) *To facilitate the creation of a convenient, attractive and harmonious community;*
- 4) *To expedite the provision of adequate police and fire protection, disaster evacuation, civil defense, transportation, water, sewerage, schools, parks, forests, playgrounds, recreational facilities, airports, and other public requirements;*
- 5) *To protect against destruction of or encroachment upon historic areas; and*
- 6) *To protect against one or more of the following: overcrowding of land, undue density of population in relation to the community facilities existing or available, obstruction of light and air, danger and*

*congestion in travel and transportation or loss of life, health or property from fire, flood, panic, or other dangers.”*

The Planning staff reviewed the conditional use permit request and is satisfied that with appropriate conditions the impacts of the proposed wireless telecommunications tower are addressed. The issuance of the permit would be in compliance with the intent, purpose and design of this Chapter 22 and/or Section 22-2 of this Code.

The Staff has reviewed the conditional use permit request for a 424-foot tall tower (420-foot monopole plus a four-foot lightning rod) to be located on the existing Dominion Energy substation site and finds that the applicant has successfully addressed the impacts of the wireless telecommunication tower/facility:

1. The impact of the proposed tower will be minimal given that the proposed tower will not have direct effects on public utilities, the transportation network, public safety, schools, and water quality.
2. The subject property is of adequate acreage and the proposed location of the 420-foot self-supporting tower will not adversely impact the surrounding land uses.
3. The proposed location of the tower conforms with the goals of the Rural Conservation Area as set forth in the Comprehensive Land Use Plan, and to the requirements of the Zoning Ordinance.

Therefore, staff recommends APPROVAL of the request for a conditional use permit to construct the subject telecommunications tower based on the following conditions:

1. The applicant shall limit the height and type of wireless telecommunication tower to a 420-foot self-supporting tower (420-foot self-supporting plus a four-foot lightning rod) located on the existing Dominion Energy substation property as stated in the application.
2. The wireless telecommunication tower/facility owner shall negotiate in good faith with the County for paid, leased tower space if the County should desire to locate broadband or other communications equipment for commercial or like services to third parties.
3. The self-supporting tower will be constructed to meet or exceed the setbacks as shown on Site Plan sheet number C-1 of the tower overall site plan with revisions titled “Carson Substation 28908 Ellington Rd. Petersburg, VA 23805 (Dinwiddie County)”, Parcel Plan, as designed by Tower Engineering Professionals and dated 10/17/2024.
5. The conditional use permit shall be reviewed at least every two (2) years for compliance with the subject CUP conditions and all applicable Zoning Ordinance requirements for wireless telecommunication facilities.
6. The applicant shall maintain compliance with all federal, state, and county rules and regulations related to the wireless telecommunication tower/facility use.

### **PLANNING COMMISSION RECOMMENDATION**

Since this is a zoning matter, the standard statement regarding the Planning Commission recommendation on this zoning matter must be read. In order to assist, staff prepared the following motions:

*Motion to recommend approval to the Board of Supervisors with conditions:*

**BE IT RESOLVED, that in order to assure compliance with Virginia Code Section 15.2-2286(A) (7) it is stated that the public purpose for which this Resolution is initiated is to fulfill the requirements of public necessity, convenience, general welfare and good zoning practice, I move that conditional use permit request, C-26-1, as presented, be recommended for approval with conditions to the Board of Supervisors.**

*Motion to recommend disapproval to the Board of Supervisors:*

**BE IT RESOLVED**, that in order to assure compliance with Virginia Code Section 15.2-2286(A) (3) & (7) and Zoning Ordinance Sections 22-22 and 22-2 it is stated that the public purpose for which this Resolution is initiated is to fulfill the requirements of public necessity, convenience, general welfare and good zoning practice, I move that conditional use permit request, C-26-1, as presented, be recommended for disapproval to the Board of Supervisors as the issuance of a conditional use permit would not be in compliance with the intent, purpose, and design of the Dinwiddie County Zoning Code.



RALEIGH OFFICE  
326 TRYON RD  
RALEIGH, NC 27603  
T: 919.661.6351  
WWW.TEPGROUP.NET

January 8, 2026

Dinwiddie County Planning Department  
14010 Boydton Plank Road  
Dinwiddie, VA 23841

---

**Project Address:** 28908 Ellington Rd. North Dinwiddie, VA 23805

**Parcel Number:** 49-31A

**Project Type:** 420' Self-Support + 4' lightning rod = 424' total with appurtenances

Enclosed are the documents required for the submittal of an application for a 420-ft self-support (424-ft total with appurtenances) communication tower and related ground equipment on property currently under the ownership of Dominion Energy. The property is located at 28908 Ellington Rd. North Dinwiddie, VA 23805 on Parcel #49-31A in Dinwiddie County, Virginia. Included in this submittal are the documents required for a Use Permit for the proposed communications tower. Attached are the following documents:

- Land Use Application
- Tower Application
- Zoning Drawings
- Photo Simulations
- Power of Attorney Form
- Setback Waiver Request
- Tower Height Survey
- Fall Zone Letter
- FAA 1A Survey
- Non-Ionizing Electromagnetic Radiation (NIER) Report
- NEPA Report
- State Historic Preservation Information
- FCC Licenses
- Dominion's Existing Site Inventory Registrations within Dinwiddie County

---

*TEP is a family of companies licensed to provide different services in different jurisdictions. Depending on the jurisdiction, professional engineering and land surveying services are provided by TEP OpCo LLC, a Delaware limited liability company, TEP Engineering, PLLC, a North Carolina professional limited liability company, or M&H Engineering, PLLC, a New York professional limited liability company. General contractor services are provided by TEPDB OpCo LLC, a Delaware limited liability company. We acquire the requisite licenses in each state. Additional information can be obtained from the company.*

## **Project Narrative**

The applicant for this tower is Dominion Energy (“Dominion”). Dominion will be the owner and operator of the proposed tower. Dominion currently has an existing 200-ft self-supporting tower located within the subject property, and another 400-ft guyed tower located on parcel 49-31B. The purpose for requesting the Use Permit is to allow Dominion to construct one new and modern 420-ft self-supporting tower as a replacement for both the existing 200-ft self-supporting and 400-ft guyed tower structures. The existing 200-ft tower is located adjacent to the center of the existing fenced substation compound, and the existing 400-ft guyed tower is located in the middle northeastern portion of parcel # 49-31B. The proposal is to remove the existing towers and construct a new 420-ft self-support tower in the southwestern portion of the parcel as shown on the site development plans provided. The subject parcel also contains an existing Dominion substation. The proposed tower will be located on the same parcel as the substation, but not within the substation.

Dominion will use the new structure in the same or in a very similar manner as it uses the current tower on the property which is to provide communication between facilities and work crews. The proposed structure will be a privately owned structure that will have sufficient capacity to allow Dominion to mount the equipment that is essential in their day-to-day operations. Dominion also understands that the County promotes the construction of towers that can be collocated upon by more than a single user. At the present time, the collocation of equipment by non-Dominion entities is not a priority nor the essential purpose of the structure. Dominion is open to considering the aspect of collocation at a point in the future.

As stated in Section 22-273 of the Dinwiddie County Code, we have provided the required items that are applicable to our project. However, there are a few items that are not applicable as this tower currently is intended for Dominion’s internal use only. We are not proposing this be used by wireless providers, item 22-273(5), a radio frequency statement and propagation maps, have not been created and do not apply to our project. The network in question is Dominion’s internal communication network and is not publicly accessible, although Dominion is not against potential collocation in the future. This tower will have no impact on other existing carriers’ coverage and bandwidth within the area. This also applies to item 22-273(6), the demonstration of the inadequacy of other structures, and item 22-273(7), certified mailers to existing tower owner. The new location will improve the internal communication for Dominion as well as operations and maintenance. This is the most appropriate spot for the proposed tower given additional external factors that had to be considered by Dominion.

The proposed steel lattice tower will be designed to withstand wind speeds and forces as required by State and local building regulations as well as those standards defined by the American National Standards Association (ANSA) specifications. Regardless, Dominion carries extensive liability insurance in the instance there is damage or injuries resulting from our operations.

The tower will be designed by the manufacturer to be protected from strikes by lightning. Two



important factors combine to protect our facility from lightning. First, the tower will be grounded using rods and cables that will be buried within the fenced compound. Second, the tower itself will provide a "cone of protection," a 45-degree circular arc from the top of the tower to the ground, which will protect all structures within that area from lightning strikes. Should the tower receive a lightning strike, the electrical surge would be directed into the ground and dissipated immediately.

The Telecommunications Act of 1996 recognizes the importance of ensuring the integrity of wireless communication networks that provide nationwide communication services. Nevertheless, our client understands the concerns regarding health and safety and recognizes their responsibility to address those concerns. Consequently, this antenna facility site will comply with FCC regulations governing the safety of RF emissions.

## **ORDINANCE REVIEW**

Below is a review of Sections 22-273 and 22-274 of the Dinwiddie County, VA Wireless Telecommunication Facilities Ordinance and appropriate responses:

### **Sec. 22-273. - Required information.**

In addition to other information required for a conditional use permit, any standard process review application for wireless telecommunication facilities shall include the following:

- 1) Scaled drawings showing plan and elevation view, signed and sealed by appropriate licensed professionals, showing the location and dimensions of all improvements, including information concerning the structure, equipment, utilities, grounding, topography, setbacks, drives, parking, fencing, landscaping, adjacent uses, and other information deemed necessary to assess the siting and design.

**Scaled drawings including the above listed information have been included with this application package.**

- 2) Photographs of the site from a minimum of five points surrounding the site as designated by the director of planning or his/her designee that include a simulated photographic image to scale of the proposed wireless telecommunication facility. The photograph with the simulated image shall include the foreground, mid-ground, and the background of the site. A map shall be provided indicating the location and distance from the point at which the photograph was taken to the proposed site.

**Photosimulations have been included with this application package, including photographs from (8) surrounding view points.**



- 3) A statement from an electrical engineer licensed by the Commonwealth of Virginia that the cumulative effect of all existing and proposed antennas will not result in a ground level exposure of non-ionizing electromagnetic radiation (NIER) which exceeds the lowest applicable exposure standards established by the FCC.

A signed and sealed NIER Report has been submitted with this application package.

- 4) An inventory of the applicant's (structure owner and wireless service provider) existing facilities that are either within the jurisdiction of Dinwiddie County or within five miles of the border thereof, including specific information about the location and height of each antenna and/or antenna support structure.

The FCC licenses for all existing Dominion structures located within Dinwiddie County or within 5 miles of the border have been included in this application package.

- 5) A radio frequency engineer's statement which specifically describes the coverage area objective, the "hand-off" sites, equipment specifications, methodology, assumptions, constraints and other factors used in the design. The engineer's statement shall be supported by propagation maps, which include a legend identifying signal strength. At a minimum, the following coverage maps shall be presented:
  - a) Existing network coverage (minimum ten mile radius surrounding the proposed site).
  - b) Estimated coverage from the proposed site.
  - c) Composite network coverage (existing and proposed sites).
  - d) Composite network coverage (existing and proposed sites) demonstrating the effect on coverage as the height of the proposed structure is reduced at twenty-foot increments to a minimum height of 80 feet AGL.

Not applicable - this structure is not initially intended for use by wireless providers. The purpose of this structure is to provide an internal communication network for Dominion facilities and work crews. This tower will have no impact on other existing carriers' coverage and bandwidth within the area.

- 6) Verifiable evidence in written form demonstrating the inadequacy or unavailability of other structures within a three mile radius of the proposed site capable of achieving the coverage objective. In assessing the adequacy of existing structures, the applicant should consider the use of one or more existing structures or a combination of an existing structure and a new structure at a lower height as a means to achieve coverage objectives.

Not applicable - this structure is not initially intended for use by wireless providers. The purpose of this structure is to provide an internal communication network for Dominion facilities and work crews.



- 7) Certified mailing of verification forms provided by the county, known as "Standard Letter of Contact with Existing Tower Owners," to the owner or operator of all existing antenna support structures or secondary support structures in excess of 80 feet within a three-mile radius of the proposed site. The owner or operator of said structures shall be given a minimum of 14 days after certification of delivery to respond.

Not applicable - this structure is not initially intended for use by wireless providers. The purpose of this structure is to provide an internal communication network for Dominion facilities and work crews.

- 8) An engineering report by a structural engineer licensed by the Commonwealth of Virginia describing the structure height, design, and capacity of the proposed antenna support structure including the number and type of antenna which could be accommodated in accordance with the requirements set forth in the latest revision to ANSI EIA/TIE-222.

A tower height survey has been included with this application package.

- 9) Applications proposing antenna support structures shall include a copy of their co-location policy.

Not applicable - this structure is not initially intended for use by wireless providers. The purpose of this structure is to provide an internal communication network for Dominion facilities and work crews. Dominion does not currently allow collocation on its communication structures.

- 10) An FAA air navigation hazard determination report. A consultant study will not be accepted as a substitute to this requirement.

An FAA 1A survey has been included in this application package. The FAA Notice of No Hazard has been filed with the FAA. Due to the government shutdown documents from the FAA have been delayed and are now taking upwards of 75 days to be completed. A copy of the notice will be filed upon receipt. In the interim we have provided a TOWAIR Study that provides FAA information regarding the tower and any potential air navigation impacts.

- 11) FCC environmental compliance report identifying the impact on environmental resources, prepared in accordance with the National Environmental Policy Act of 1969 (NEPA).

A NEPA report has been included in this application package.

- 12) Report describing the impact on historic resources prepared in accordance with Section 106 of the National Historic Preservation Act of 1966 (NHPA). This report should be accompanied by written comment by the state historic preservation office.



Historic Preservation data has been included in this application package, separately and as part of the NEPA report.

13) A copy of the FCC license for each wireless service provider included in the application.

FCC licenses for Dominion's antennas have been included in this application package.

14) An engineering report certifying that the proposed structure is capable of supporting similar users, including the primary user, in accordance with the table below.

Structure Height (AGL)	Minimum Number of Antenna Positions
80 ft. or less	1
81 ft. to 100 ft.	2
101 ft. to 120 ft.	3
121 ft. or greater	5

Not applicable - this structure is not initially intended for use by wireless providers. The purpose of this structure is to provide an internal communication network for Dominion facilities and work crews.

**Sec. 22-274. - General standards.**

A. The following are general standards for standard review process projects:

1. The site shall be a minimum of 2,000 square feet excluding vehicular access areas.

The area of construction is 0.23 acres (+/- 9,822 sq ft).

2. Setbacks: The following setback requirements shall apply to all towers and antennas for which a conditional use permit is required, however, the board of supervisors may reduce the standard setback requirements if the goals of this article would be better served thereby.

Acknowledged and understood. Please refer to sheet C-1, Site Plan, of the submitted drawings for the setback table, and please see the Setback Waiver request included with this application package.

3. All antenna support structures must be setback 200 percent of the height of the structure to the nearest residential structure, and in no case less than 400 feet.



Acknowledged and understood. Please refer to sheet C-1, Site Plan, of the submitted drawings for the setback table, and please see the Setback Waiver request included with this application package.

4. All antenna support structures shall be setback 110 percent of the height of the structure from all property lines.

Acknowledged and understood. Please refer to sheet C-1, Site Plan, of the submitted drawings for the setback table, and please see the Setback Waiver request included with this application package.

5. All wireless telecommunication facilities must satisfy the minimum zoning district setback requirements for primary structures.

Acknowledged and understood. Please refer to sheet C-1, Site Plan, of the submitted drawings for the setback table, and please see the Setback Waiver request included with this application package.

6. All antenna support structures shall be enclosed by security fencing not less than six feet in height and shall be equipped with an appropriate anti-climbing device.

The 75'x50' tower compound will be enclosed with a 8ft chain link fence, with (3) strands of barbed wire atop. Access to the compound will be via a 12ft locked gate. Please see sheet C-6, *Fence Details*, in the submitted drawings for further information.

7. Landscaping: The following requirements shall govern the landscaping surrounding wireless telecommunications facilities:

- a. Any combination of landscaped vegetative buffers, landscaped earthen berms, or preservation of existing vegetation shall be provided around the perimeter of the site of any wireless telecommunications facilities to effectively screen the view of the equipment compound from adjacent parcels. The standard buffer shall consist of a mix of native trees and shrubs planted in a landscaped area at least 15 feet wide outside the perimeter of the compound.

The proposed tower is to be located within the existing electrical substation, currently owned by Dominion. The substation is heavily surrounded by existing trees and greenery, so landscaping has not been proposed due to the existing nature of the subject property. Dominion is requesting that the existing mature vegetation be deemed sufficient for the screening of the ground equipment in lieu of planted landscaping.

- b. Existing mature tree growth and natural landforms on the site shall be preserved to the maximum extent possible. In some cases, such as wireless



telecommunication facilities sited on large, wooded lots, the board of supervisors may determine that the natural growth around the perimeter may be sufficient buffer.

**Acknowledged and understood.**

- c. All living and diseased-free trees eight inches or larger in diameter, measured four and one-half feet from the base shall be preserved and protected during construction of wireless telecommunication facilities, except where clearing is required to accommodate the proposed facilities and vehicular access.

**Acknowledged and understood.**

- d. The wireless telecommunication facility owner is responsible for maintaining all plant material in a healthy condition. Dead plants shall be removed and replaced in-kind.

**Acknowledged and understood.**

- 8. The treatment, color, and lighting system for wireless telecommunication facilities shall be as follows:

- a. Antennas or antenna support structures shall either maintain a galvanized steel finish, or subject to any applicable standards of the FAA, be painted a neutral color, so as to reduce visual obtrusiveness. Dish antennas will be a neutral, nonreflective color with no logos.

**Acknowledged and understood. The tower shall be constructed of galvanized steel or painted per applicable standards of the FAA or other applicable Federal or State agency regulations.**

- b. At a facility site, the design of the buildings and related structures shall, to the extent possible, use materials, colors, textures, screening, and landscaping that will blend the tower facilities to the natural setting and the built environment.

**Acknowledged and understood. Please refer to sheets C-2, *Site Layout*, and C-6, *Fence Details*, for additional information.**

- c. If an antenna is installed on a structure other than a tower, the antenna and supporting electrical and mechanical equipment must be of a neutral color that is identical to, or closely compatible with, the color of the supporting structure so as to make the antenna and related equipment as visually unobtrusive as possible.



**Not applicable. All antennas will be installed on the tower structure.**

- d. Antenna support structures shall not be artificially lighted, unless required by the FAA or other applicable authority. If lighting is required, the board of supervisors may review the lighting alternatives and approve the design, in accordance with applicable requirements, that would cause the least disturbance to the surrounding views.

**Lighting is proposed at the mid-level point of the tower (~200-ft)**

9. The applicant may provide co-location opportunities without compensation as a community benefit to improve radio communication for county departments and emergency services. The applicant may provide the county the right of first refusal on any available position on the structure. If co-location opportunity is provided prior to submitting an application for co-location, the structure owner shall provide written notice of their intent to co-locate to the department of public safety and the department of planning. The department of public safety shall inform the structure owner within 14 days upon receipt of written notice of their intention to locate county-owned equipment on the structure.

**Acknowledged and understood.**

10. The applicant shall post a bond, equivalent to the cost of removal of the antenna support structure with the director of planning.

**Acknowledged and understood.**

11. The owner of each antenna support structure shall have a safety inspection conducted annually by a registered professional engineer licensed by the Commonwealth of Virginia and a copy of the inspection report shall be filed with the department of planning by March 30. The report shall state the current user status of the antenna and/or tower, and the structural condition of the facility.

**Acknowledged and understood.**

12. The owner of the antenna support structure shall provide in writing to the planning department the name, address and telephone number of a contact person during the approval process and shall notify the department of planning of any changes during this process. Upon issuance of the conditional use permit, the owner of the antenna support structure shall provide in writing to the planning department and the commissioner of the revenue the name, address and telephone number of a contact person for the tower owner and the name and address of each registered agent for each lessee of tower



space. This list shall be kept current and a revised list submitted to the county departments noted above each time a change is made.

**Acknowledged and understood.**

13. Application review fees shall be paid at the time that the application is submitted. Any additional costs relating to additional reviews, errors, omissions, discrepancies, delays, extensions, as the result of actions or requests by the applicant, shall be reimbursed by the applicant in order to recover all use of an outside consultant to provide:
  - a. Technical review services, a review fee will be charged in the amount specified in section 22-8 at the time an application is filed;
  - b. Construction inspection services, a construction inspection fee shall be charged at the time the building permit is requested. The fee amount shall be established by resolution of the board of supervisors.

**Acknowledged and understood.**

B. The following are general standards for standard review process projects and administrative review-eligible projects:

- (1) Speculative structures are not permitted. Applications to construct new antenna support structures will not be considered unless evidence is presented of a legally binding commitment by at least one wireless service provider agreeing to install his equipment on the proposed structure upon its construction for a minimum period of one year.

**Acknowledged and understood. This structure is intended to serve as an internal communication system for Dominion's facilities and its work crews.**

- (2) Commercial advertising is not permitted on any component of the wireless telecommunication facility.

**Acknowledged and understood.**

- (3) Wireless telecommunication facilities shall be designed and installed so as not to interfere with the Dinwiddie County Public Safety Communications System. Any entity operating wireless facilities determined to interfere with the public safety communications system shall take corrective action immediately upon notification.

**Acknowledged and understood. This structure is intended to serve as an internal communication system for Dominion's facilities and its work crews and will not interfere with Dinwiddie County Public Safety communications.**

- (4) All wireless telecommunication facilities must meet or exceed current standards and regulations of the FAA, the FCC, and any other agency of the federal government with



the authority to regulate their operation. If such standards [and] regulations are changed, then the owners of the facilities shall bring such facilities into compliance with such revised standards and regulations as required. Failure to comply shall constitute grounds for the removal of the facility at the owner's expense.

**Acknowledged and understood. All application FAA and FCC documents have been included in this application package.**

- (5) At such time that any component of the wireless telecommunication facility ceases to be operated for a continuous period of 12 months, it shall be considered abandoned, and the owner of such facility shall remove same within 90 days of receipt of notice from the department of planning of the removal requirement.

**Acknowledged and understood.**

### **Dominion's Tower Replacement and Relocation Decisions**

Below are the responses to the questions that arose during the Pre-Application Meeting discussion with Mr. Mark Bassett and held on February 13, 2025.

**1. Why can't Dominion place the new tower at the same location as the existing guyed tower, given that the guyed tower is being removed?**

- i. Installing the new tower at the guyed tower location is an option, but we chose to be near the substation to lessen the cost of creating a physically diverse fiber connection from the substation to the new tower and to be closer to our power source (substation power) to increase the electrical service for the tower location.

**2. Why is Dominion replacing both existing towers with a single new one?**

- i. The 400' guyed tower is being replaced due to age. We could not move the radio systems to the existing tower in the substation since it is only 220' and RF coverage would be impacted. We chose a new location near the substation for the reasons mentioned above and decided to consolidate the towers to lower ongoing maintenance costs and to return ground space to substation engineering for future use. In addition, the reduction in the number of towers in the area contributes to an overall reduction in the proliferation of towers within the county as well.

**3. Why is collocation (sharing the tower with other users) not permitted?**

- i. The tower is intended to support Dominion's operational and telecommunication needs. Since the tower is critical for effective day-to-day operations, the security of the system is a major concern. Limiting access to the tower ensures system safety and functionality. However, Dominion is amenable to discussions regarding collocation by other parties in the future. Dominion utilizes a designated third-party company to manage collocation



requests when permitted, for all its towers. Any entity interested in collocating equipment on the new structure must coordinate through the vendor and agree to adhere to established processes, procedures and guidelines.

4. **What are the key reasons for selecting the proposed tower location?**

- i. Several site-specific factors influenced the choice of the new tower's location:
  - **Ownership and Accessibility:** The proposed location is within Dominion-owned property, eliminating lease-related costs.
  - **Environmental and Safety Considerations:**
    - The north side of the substation consists of wetlands, which are unsuitable for tower construction.
    - The west side is occupied by high-voltage power lines, posing safety and operational challenges.
    - The east side is adjacent to a railroad easement, where installing and maintaining a tower would be impractical and hazardous.
- ii. **Infrastructure and Operational Efficiency:**
  - The selected location is adjacent to the substation, allowing easier integration with existing electrical infrastructure.
  - It provides access to existing Dominion Energy (DE) fiber optic lines.

By strategically selecting this location, Dominion ensures long-term reliability, cost-effectiveness, and compliance with safety and environmental regulations.

Should you have any questions or concerns, please feel free to contact me at 919-703-4144.

Sincerely,



Abby Porter  
Zoning and Permitting Specialist  
[aporter@tepgroup.net](mailto:aporter@tepgroup.net)



# COUNTY OF DINWIDDIE

Stewardship  
Teamwork  
Respect  
INTEGRITY  
Value-Added Customer Service  
Excellence



Director of Planning and Zoning  
Mark Bassett  
P.O. Drawer 70  
Dinwiddie, VA 23841  
Phone: (804) 469-4500 ext. 2116  
mbassett@dinwiddieva.us

## OFFICE OF PLANNING AND ZONING

### LAND USE AMENDMENT APPLICATION

#### 1) LAND USE INFORMATION

For:  BOS  PC  BZA

New  Renewal

Type:  Variance

Rezoning

Special Exception

Conditional Use Permit

Amendment

Street Vacation

Previous/Renewed Case#: N/A

Existing Zoning: A-2

Existing Acreage: 0.23

Amend Previous Case:  YES  NO

Proposed Zoning: A-2

Proposed Acreage: 0.23

Land Use Taxation:  YES  NO

Total Acreage: 0.23

Description of Request: Dominion is proposing to remove the existing 200' self-support tower on parcel #49-31A, and to construct a new 420-ft self-support tower in the southwestern portion of the parcel.

Water:  Public  Well

Sewer:  Public  Septic

Attached:  Misc. Information  Master Plan

Text Statement  Proffered Conditions

#### 2) APPLICANT/AGENT INFORMATION

Applicant(s): Virginia Power and Electric Co C/O Dominion Energy Phone: 972-342-5568

Address: 7500 W Broad St, Richmond, VA 23294 Email: hktimmons@tepgroup.net

Agent(s): TEP Group, Harold Timmons Phone: 919-703-4144

Address: 326 Tryon Rd, Raleigh, NC 27603 Email: hktimmons@tepgroup.net

Property Owner  Contract Purchaser  Other: \_\_\_\_\_

#### 3) PROPERTY OWNER INFORMATION

Owner's name: Virginia Power and Electric Co C/O Dominion Energy Phone: 972-342-5568

Address: 7500 W Broad St, Richmond, VA 23294

Mailing Address: \_\_\_\_\_ Tax Parcel #: 49-31A

(If different from what is listed in the Assessor's Office)

**4) SUBJECT PARCEL INFORMATION**

**General Location of Project:** The existing tower is located adjacent to the center of the existing fenced substation compound. The proposal is to remove the existing tower and construct a new 420' self-support tower southwestern portion of the parcel.

**Tax Map#:** 49-31A  
Subdivision Name: N/A  
Section: N/A Block: N/A  
Address: 28908 ELLINGTON RD  
NORTH DINWIDDIE, VA 23805  
Zoning: A-2 Acreage: 0.23  
Existing Use: Substation  
Conditions:

**Tax Map#:**  
Subdivision Name:  
Section: Block:  
Address:  
Zoning: Acreage:  
Existing Use:  
Conditions:

**Tax Map#:**  
Subdivision Name:  
Section: Block:  
Address:  
Zoning: Acreage:  
Existing Use:  
Conditions:

**Tax Map#:**  
Subdivision Name:  
Section: Block:  
Address:  
Zoning: Acreage:  
Existing Use:  
Conditions:

**Tax Map#:**  
Subdivision Name:  
Section: Block:  
Address:  
Zoning: Acreage:  
Existing Use:  
Conditions:

**Tax Map#:**  
Subdivision Name:  
Section: Block:  
Address:  
Zoning: Acreage:  
Existing Use:  
Conditions:

**Explain the proposed use, type of development, operation program, the reason for this request, etc.:**

Dominion will be the owner and operator of the proposed tower. Dominion currently has an existing, 200-ft self supporting tower. The proposal is to remove the existing tower and construct a new 420-ft self-support tower in the southwestern portion of the parcel as shown on the site development plans provided. Dominion will use the new structure in the same or in a very similar manner as it uses the current tower on the property which is to provide communication between facilities and work crews.

**State how this request will not be materially detrimental to adjacent property, the surrounding neighborhood, or the county in general. Include, where applicable, information concerning the use of public utilities, the effect of requests on public schools, the effect on traffic, including means of access to the nearest public road, the effect on existing and future area development, etc.:**

The proposed tower structure will be located on the same parcel as the existing substation, currently owned and operated by Dominion & the existing tower located within the substation that is to be removed. There will be no impact to public traffic, schools, or utilities. The surrounding area will not be detrimentally impacted as this is located next to an existing substation and will serve as a private communication system for Dominion's facilities & work crews

**List case numbers and explain any existing use permit, special exception, conditional use, or variance previously granted on the parcels in question:**

N/A - no open cases.

**If requesting a variance or special exception, explain the unique physical hardship or extraordinary situation that is justification for the request:**

N/A

**Complete names and addresses (including Zip codes) of all owners adjacent, across the road or highway from the property and across the railroad right-of-way, waterways, from such property must be obtained by the applicant from the Commissioner of Revenue, County Government Center. If such property lies in another county or city, the respective jurisdiction will provide the information to the applicant. Applications with incomplete parcel information will not be accepted.**



**REQUIRED INFORMATION FOR APPLICATION**

The applicant/agent must **INITIAL** next to each requirement and ensure that all information listed below is included in the application packet.

- 1. **TAX MAPS.** A copy of the appropriate county tax map with property marked (provided at the pre-application conference). HT
- 2. **PLANS/PLATS.** If available provide a survey plat of the entire parcel. Any request that requires plans must be accompanied by those plans at the time of submission of this application. All plans and plats are to be folded. HT
- 3. **FEES.** The fee must accompany this application. Checks must be made payable to: "Treasurer, County of Dinwiddie". HT
- 4. **ACKNOWLEDGEMENT.** Incomplete applications will not be accepted. HT

*I/We hereby certify that to the best of my/our knowledge, all the above statements and the statements contained in any exhibits transmitted are true and that the adjacent property owners listed herewith are the owners of record as of the date of the application.*

**APPLICANT'S NAME\*** Virginia Power and Electric Co C/O Dominion Energy  
(Same name as used in Item 2, Page 1)

**APPLICANT'S SIGNATURE** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**AGENT'S NAME\*\*** Harold Timmons, Agent for Dominion  
(Person other than, but acting for, the property and responsible for this application)

**SIGNATURE OF AGENT\*** Harold Timmons **DATE:** 01/07/2026

\* If the applicant is not the owner of the property, the applicant must file a power of attorney from the property owner(s) giving the applicant authority to submit this application.

\*\* Agent must file power of attorney from the property owner(s) giving the agent authority to submit this application.

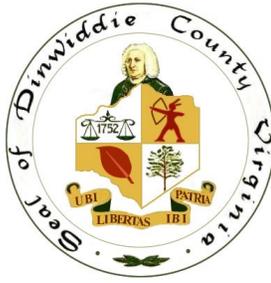
**OFFICE USE ONLY**

**Rec'd:** \_\_\_\_\_ **Date Rec'd:** \_\_\_\_\_ **Time Rec'd:** \_\_\_\_\_

**Fee Amount:** \_\_\_\_\_ **Receipt No.:** \_\_\_\_\_ **Case No.:** \_\_\_\_\_

**Application has been amended:**  YES  NO

**Reviewed by:** \_\_\_\_\_



**Dinwiddie County Planning Department**  
P. O. Box 70  
Dinwiddie, Virginia 23841  
(804) 469-4500 • (804) 469-5322 Fax

## Co-Location & New Communication Tower Application

*Information must be typed or printed and completed in full.  
Attach additional pages where necessary.*

### 1) LAND USE INFORMATION

Application Type: (Check One):  Co-Location  New Communication Tower

Description of Request: 420-ft self-support communication tower and related ground equipment on property currently under the ownership of Dominion Energy

Existing Zoning: A-2 Existing Acreage: 0.23ac Cost of work: TBD

Contractor: TBD Address: TBD

Work#: TBD Cell#: TBD Email: TBD

### 2) APPLICANT/AGENT INFORMATION

Applicant(s): Virginia Power and Electric (C/O Dominion Energy) Home/Cell# \_\_\_\_\_  
Address: \_\_\_\_\_ Work# \_\_\_\_\_

Agent(s): TEP Group, Harold Timmons Home/Cell# \_\_\_\_\_  
Address: 326 Tryon Rd, Raleigh, NC 27603 Work# 919-703-4144

Property Owner  Contract Purchaser  Other: \_\_\_\_\_

### 3) PROPERTY OWNER INFORMATION

Property Owner's Name and address (see note on last page):  
Virginia Power and Electric (C/O Dominion Energy)

Contact# 919-703-4144

Property Tax Parcel Number: 49-31A

Property Owner's Mailing Address (If this address is different from that listed in the Assessor's Office.):

N/A

Phone# \_\_\_\_\_

4.)

**SUBJECT PARCEL INFORMATION**

**General Location of Project:** The existing tower is located adjacent to the center of the existing fenced substation compound. The proposal is to remove the existing tower and construct a new 420-ft self-support tower in the southwestern portion of the parcel as shown on the site development plans provided.

**Tax Map #** 49-31A  
**Subdivision Name:** N/A  
**Section:** N/A **Block** N/A  
**Address:** 28908 Ellington Rd, North Dinwiddie, VA 23805  
**Zoning:** A-2 **Acreage** 0.23  
**Existing Use:** Substation  
**Conditions:**

**Tax Map #** N/A  
**Subdivision Name:**  
**Section:** **Block**  
**Address:**  
**Zoning:** **Acreage:**  
**Existing Use:**  
**Conditions:**

1. Explain fully the proposed use, type of development, operation program, reason for this request, etc.:  
Dominion will be the owner and operator of the proposed tower. Dominion currently has an existing, 200-ft self supporting tower.

The proposal is to remove the existing tower and construct a new 420-ft self-support tower in he southwestern portion of the parcel as shown on the site development plans provided. Dominion will use the new tructure in the same or in a very similar manner as it uses the current tower on the property which is to provide communication between facilities and work crews.

2. State how this request will not be materially detrimental to adjacent property, the surrounding neighborhood or county in general. Include, where applicable, information concerning: Use of public utilities; effect of request on public schools; effect on traffic, to include means of access to nearest public road; effect on existing and future area development; etc.:

The proposed tower strctire will be located on the same parcel as the exisitng substation, currently owned and operated by Dominion & the existing tower located within the substation that is to be removed. There will be no impact to public traffic, schools, or utilities. The surrounding area will not be detrimentally impacted as this is located next to an existing substation and will serve as a private communication system for Dominion's facilities & work crews.

3. List case numbers and explain any existing use permit, special exception, conditional use or variance previously granted on the parcels in question:

N/A - no open cases.

4. The required fee must accompany this application. A fee schedule is available from the Planning Department, 14016 Boydton Plank Road, Pamplin Administration Building, Dinwiddie Virginia. Checks must be made payable to: "Treasurer, County of Dinwiddie".
5. Enclosed with the application, a copy of the appropriate county tax map with the property marked (provided at pre-application conference) and, if available, a surveyed plat of the entire parcel.
6. Enclose with this application any required plans or plats (plans must be folded).
7. I/We hereby certify that to the best of my/our knowledge all the above statements and the statements contained in any exhibits transmitted are true and that the adjacent property owners listed herewith are the owners of record as of the date of the application:

Date: January 7, 2026

SIGNATURE OF AGENT Harold Timmons  
*(This is the person who is acting for the property owner and responsible for this application.)*

AGENT'S NAME Harold Timmons  
(Typed or printed)

SIGNATURE OF APPLICANT see provided Agent form  
(Same name as used in Item 2, Page 1)

APPLICANT'S NAME Virginia Electric and Power Co. c/o Dominion Energy  
(Typed or printed)

**I authorize you, the merchant, to initiate an electronic debit to my account for the amount rendered on this check plus the legal limit returned check fee if the item is dishonored. The use of a check for payment is my acceptance of this policy.**

Signature Harold Timmons

**SITE NAME:** CARSON SUBSTATION

**PROJECT DESCRIPTION:** PROPOSED WIRELESS COMMUNICATIONS FACILITY

**TOWER TYPE:** 420' SELF-SUPPORT

**SITE ADDRESS:** 28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

**AREA OF CONSTRUCTION:** 0.23 AC  
(9,822 ± SQ. FT.)

**JURISDICTION:** DINWIDDIE COUNTY

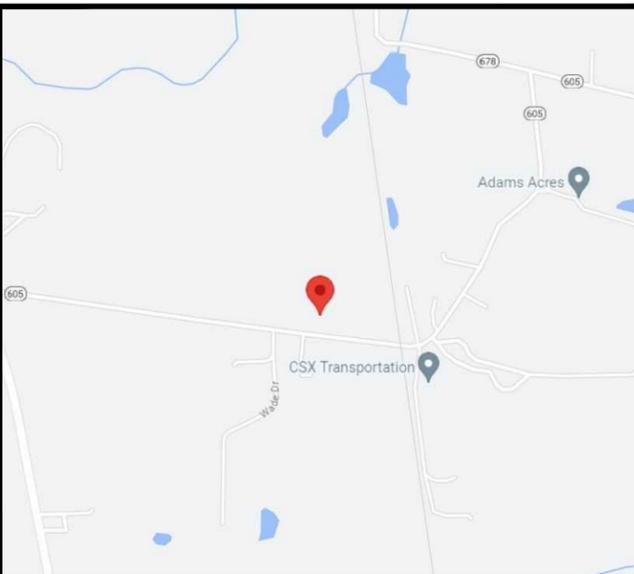
**CURRENT ZONING:** A-2

**PARCEL #:** 49-31A

**PROJECT INFORMATION**

**LATITUDE** N 37° 05' 04.54" NAD 83 (37.084594°)\*  
**LONGITUDE** W 77° 24' 25.17" NAD 83 (-77.406992°)\*  
**EXISTING GROUND ELEV. (AMSL) = 159.8'± \***  
**PROPOSED GROUND ELEV. (AMSL) = 160.5'±**  
 \* INFORMATION PROVIDED BY POINT TO POINT LAND SURVEYORS, INC.

**1-A CERTIFICATION**



**LOCATION MAP**

FROM RICHMOND INTERNATIONAL AIRPORT: GET ON VA-895 E IN HENRICO (3.9 MI). CONTINUE TO FOLLOW RICHARD E BYRD TERMINAL DR. KEEP LEFT TO STAY ON RICHARD E BYRD TERMINAL DR (0.6 MI). TURN LEFT TOWARD S AIRPORT DR (289 FT). TURN LEFT ONTO S AIRPORT DR TOLL ROAD (2.4 MI). KEEP LEFT AT THE FORK, FOLLOW SIGNS FOR VA-895 E/I-295 AND MERGE ONTO VA-895 E TOLL ROAD (0.6 MI). FOLLOW I-295 S AND I-95 S TO US-301 S IN PRINCE GEORGE COUNTY. TAKE EXIT 41 FROM I-95 S (31.9 MI). MERGE ONTO VA-895 E TOLL ROAD (1.4 MI). TAKE THE EXIT ONTO I-295 S TOWARD I-95 S/HOPEWELL/ROCKY MT (24.2 MI). USE THE LEFT 2 LANES TO TAKE THE INTERSTATE 295 EXIT TOWARD EMPORIA/ROCKY MT NORTH CAROLINA/INTERSTATE 95 (0.7 MI). MERGE ONTO I-95 S (5.4 MI). TAKE EXIT 41 TOWARD US-301 S (0.2 MI). KEEP LEFT AT THE FORK TO CONTINUE TOWARD US-301 S (285 FT). DRIVE TO STATE RTE 605 IN DINWIDDIE COUNTY (3.1 MI). TURN LEFT ONTO US-301 S (151 FT). CONTINUE STRAIGHT ONTO VA-35 N (0.4 MI). TURN LEFT ONTO STATE RTE 605 (1.9 MI). TURN LEFT TO STAY ON STATE RTE 605 DESTINATION WILL BE ON THE RIGHT (0.7 MI).

**DRIVING DIRECTIONS**

PLANS PREPARED FOR:



**DOMINION RESOURCE SERVICES, INC.**  
 707 EAST MAIN STREET  
 RICHMOND, VA 23219

**SITE NAME: CARSON SUBSTATION**  
 28908 ELLINGTON RD  
 PETERSBURG, VA 23805  
 (DINWIDDIE COUNTY)

PLANS PREPARED BY:



REV	DATE	ISSUED FOR:
6	11-15-24	PRELIMINARY
5	10-17-24	PRELIMINARY
4	09-18-24	PRELIMINARY
3	04-16-24	PRELIMINARY
2	12-04-23	PRELIMINARY
1	10-13-23	PRELIMINARY
0	09-27-23	PRELIMINARY

**DRAWN BY:** SAB **CHECKED BY:** TDS

**TOWER OWNER:**  
**NAME:** DOMINION RESOURCE SERVICES, INC.  
**ADDRESS:** 707 EAST MAIN STREET  
**CITY, STATE, ZIP:** RICHMOND, VA 23219  
**CONTACT:** RICKY CRUDA  
**PHONE:** (972) 342-5568

**CIVIL ENGINEER:**  
**NAME:** TOWER ENGINEERING PROFESSIONALS, INC.  
**ADDRESS:** 326 TRYON ROAD  
**CITY, STATE, ZIP:** RALEIGH, NC 27603  
**CONTACT:** TYLER D. SHENK, P.E.  
**PHONE:** (919) 661-6351

**PROPERTY OWNER:**  
**NAME:** VIRGINIA ELECTRIC & POWER CO  
 C/O DOMINION VA POWER FACILITY MGT  
**ADDRESS:** 7500 W BROAD ST  
**CITY, STATE, ZIP:** RICHMOND, VA 23294-2003

**UTILITIES:**  
**POWER COMPANY:** DOMINION ENERGY  
**CONTACT:** CUSTOMER SERVICE  
**PHONE:** (866) 366-4357  
**METER # NEAR SITE:** UNKNOWN

**TELEPHONE COMPANY:** TBD  
**CONTACT:** TBD  
**PHONE:** UNKNOWN  
**PHONE # NEAR SITE:** UNKNOWN  
**PEDESTAL # NEAR SITE:** UNKNOWN

**CONTACT INFORMATION**

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING:

- |  |                                    |
|--|------------------------------------|
| 1. VIRGINIA CONSTRUCTION CODE (2021 EDITION) | 4. 2020 VA ELECTRIC CODE (NFPA 70) |
| 2. INTERNATIONAL CODE COUNCIL                | 5. LOCAL BUILDING CODE             |
| 3. ANSITIA/EIA-222-G                         | 6. CITY/COUNTY ORDINANCES          |

**CODE COMPLIANCE**

**SURVEYOR:**  
**NAME:** POINT TO POINT LAND SURVEYORS, INC.  
**ADDRESS:** 100 GOVERNORS TRACE, STE 103  
**CITY, STATE, ZIP:** PEACHTREE CITY, GA 30269  
**CONTACT:** G. DARRELL TAYLOR, PLS  
**PHONE:** (919) 661-6351

**ELECTRICAL ENGINEER:**  
**NAME:** TOWER ENGINEERING PROFESSIONALS, INC.  
**ADDRESS:** 326 TRYON ROAD  
**CITY, STATE, ZIP:** RALEIGH, NC 27603  
**CONTACT:** TYLER D. SHENK, P.E.  
**PHONE:** (919) 661-6351

SHEET	DESCRIPTION	REV
T-1	TITLE SHEET	6
N1-N2	PROJECT NOTES	3
-	SITE SURVEY	-
C-1	SITE PLAN	5
C-1A	AERIAL SITE PLAN	5
C-2	SITE LAYOUT	4
C-3	TOWER ELEVATION	2
C-4A	OMNI ANTENNA MOUNTING DETAILS	2
C-4B	MICROWAVE MOUNTING DETAILS	2
C-5	FOUNDATION NOTES & DETAILS	0
C-6	FENCE DETAIL	6
C-7	ICE BRIDGE DETAILS	0
C-8	EROSION CONTROL PLAN	5
C-9	SILT FENCE DETAILS	0
C-10	ACCESS ROAD DETAIL	0
C-11	CULVERT DETAIL	5
E-1	ELECTRICAL NOTES	0
E-2	GROUNDING PLAN	4
E-3	GROUNDING DETAILS I	0
E-4	GROUNDING DETAILS II	0
E-5	GATE & FENCE GROUNDING DETAILS	0

**INDEX OF SHEETS**



**SHEET NUMBER:** T-1 **REVISION:** 6  
 TEP #: 132110.854246

**GENERAL NOTES:**

1. ALL REFERENCES MADE TO LESSEE IN THESE DOCUMENTS SHALL BE CONSIDERED DOMINION ENERGY OR ITS DESIGNATED REPRESENTATIVE.
2. ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE IN PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING TO HAVE SUFFICIENT EXPERIENCE AND ABILITY, IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED AND IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE OF VIRGINIA.
3. WORK SHALL BE COMPLETED IN ACCORDANCE WITH ANSI/TIA 222-H STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES, ASCE 7-05 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES AND THE VIRGINIA CONSTRUCTION CODE (2021 EDITION).
4. UNLESS SHOWN OR NOTED OTHERWISE ON THE CONTRACT DRAWINGS, OR IN THE SPECIFICATIONS, THE FOLLOWING NOTES SHALL APPLY TO THE MATERIALS LISTED HEREIN, AND TO THE PROCEDURES TO BE USED ON THIS PROJECT.
5. ALL HARDWARE ASSEMBLY MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERSEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
6. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO ENSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION AND/OR FIELD MODIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, GUYS OR TIE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER THE COMPLETION OF THE PROJECT.
7. THE LESSEE SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHILE WORK IS BEING PERFORMED. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH ALL CONDITIONS PRIOR TO SUBMITTING THE PROPOSAL. ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS (LATEST REVISION) SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING ANY MATERIALS ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. CONTRACTOR SHALL NOT SCALE CONTRACT DRAWINGS IN LIEU OF FIELD VERIFICATION. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE LESSEE AND THE LESSEE'S ENGINEER. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE LESSEE AND/OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES OR THE PROCEDURES. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTORS.
8. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE LESSEE AND ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
9. THESE DOCUMENTS DO NOT INCLUDE THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. SAFETY, CARE OF ADJACENT PROPERTIES, AND COMPLIANCE WITH LOCAL, PROVINCIAL AND FEDERAL REGULATIONS REGARDING SAFETY, SHALL BE THE CONTRACTOR'S RESPONSIBILITY, AND THIS, PER THE INTERNATIONAL CODE - REGULATORS RESPECTING OCCUPATIONAL SAFETY & HEALTH THE SUCCESSFUL CONTRACTOR WILL SUBMIT HIS SAFETY MANUAL AT THE PROJECT SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
10. ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIALS ACCESS, WITH THE LESSEE'S PROJECT MANAGER.
11. BILL OF MATERIALS AND PART NUMBERS LISTED ON CONSTRUCTION DRAWINGS ARE INTENDED TO AID CONTRACTOR/LESSEE. CONTRACTOR/LESSEE SHALL VERIFY PARTS AND QUANTITIES WITH MANUFACTURER PRIOR TO BIDDING AND/OR ORDERING MATERIALS.
12. THE CONTRACTOR SHALL REWORK (DRY, SCARIFY, ETC.) ALL MATERIAL NOT SUITABLE FOR SUBGRADE IN ITS PRESENT STATE. AFTER REWORKING, IF THE MATERIAL REMAINS UNSUITABLE, THE CONTRACTOR SHALL UNDERCUT THIS MATERIAL AND REPLACE WITH APPROVED MATERIAL. ALL SUBGRADES SHALL BE PROOF-ROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK PRIOR TO PAVING. ANY SOFT MATERIAL SHALL BE REWORKED OR REPLACED.
13. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL PIPES, DITCHES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTED BY THE LESSEE. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO MAINTAIN DRAINAGE STRUCTURE IN OPERABLE CONDITION.
14. ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED FOR ONE YEAR FROM ACCEPTANCE DATE.
15. ANY BUILDINGS ON THIS SITE ARE INTENDED TO SHELTER EQUIPMENT WHICH WILL ONLY BE PERIODICALLY MAINTAINED, AND ARE NOT INTENDED FOR HUMAN OCCUPANCY.
16. TEMPORARY FACILITIES FOR PROTECTION OF TOOLS AND EQUIPMENT SHALL CONFORM TO LOCAL REGULATIONS AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
17. RENTAL CHARGES, SAFETY, PROTECTION AND MAINTENANCE OF RENTED EQUIPMENT SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
18. THE CONTRACTOR AND ITS SUBCONTRACTORS SHALL CARRY LIABILITY INSURANCE IN THE AMOUNTS AND FORM IN ACCORDANCE WITH SPECIFICATIONS. CERTIFICATES DEMONSTRATING PROOF OF COVERAGE SHALL BE PROVIDED TO PRIOR TO THE START OF THE WORK ON THE PROJECT.

19. THE CONTRACTOR SHALL CONTACT ALL APPLICABLE UTILITY SERVICES TO VERIFY LOCATIONS OF EXISTING UTILITIES AND REQUIREMENTS FOR NEW UTILITY CONNECTIONS PRIOR TO EXCAVATING. CONTRACTOR WILL BE RESPONSIBLE TO ASSIST IN COORDINATING AND OBTAINING PRIMARY POWER TO THE SITE PRIOR TO TOWER ERECTION BEFORE PROJECT COMPLETION. (ON SITE VISITS WITH UTILITY COMPANY REPRESENTATIVES AS NECESSARY, ETC...)
21. THE CONTRACTOR SHALL GUARANTEE THE WORK PERFORMED ON THE PROJECT BY THE CONTRACTOR AND ANY OR ALL OF THE SUBCONTRACTORS WHO PERFORMED WORK FOR THE CONTRACTOR ON THIS PROJECT. THE GUARANTEE SHALL BE FOR A FULL YEAR FOLLOWING ISSUANCE OF THE FINAL PAYMENT OF HOLDBACK.
22. AWARDED CONTRACTOR WILL BE REQUIRED TO SIGN AND RETURN A COPY OF AN AWARD LETTER FOR THE LESSEE'S FILE.
23. CONTRACTOR WILL BE REQUIRED TO PROVIDE PROOF OF LICENSE TO PERFORM WORK IN JURISDICTION AT TIME OF BID AWARD.
24. CONTRACTOR WILL PROVIDE A CONSTRUCTION SCHEDULE PRIOR TO CONSTRUCTION STARTING AND WILL PROVIDE UPDATE/CHANGES (WITH EXPLANATIONS) TO THAT SCHEDULE WHEN/IF ITEMS ARE DELAYED OR PUSHED OUT.
25. CONTRACTOR WILL BE RESPONSIBLE TO PROVIDE PROJECT MANAGERS WITH PHOTOS OF THE MAJOR CONSTRUCTION MILESTONES AS THEY OCCUR.
26. CONTRACTOR SHOULD BE PREPARED FOR RANDOM SAFETY INSPECTIONS AT ALL TIMES.
27. CONTRACTOR IS EXPECTED TO MAINTAIN PROPER WORKING CONDITIONS AND PROCEDURES PER LOCAL AND FEDERAL STANDARDS AT ALL TIMES.
28. CONTRACTOR WILL BE REQUIRED TO OBTAIN THE NECESSARY ELECTRICAL PERMITS AND INSPECTIONS AS REQUIRED BY JURISDICTION.
29. CONTRACTOR IS RESPONSIBLE FOR CONCRETE COMPRESSION TESTING.
30. CONTRACTOR IS RESPONSIBLE FOR GROUND MEG TESTING AND PROVIDING PROOF OF RESULT.
31. WHEN REQUESTED, PROVIDE 3 COPIES OF FABRICATION AND ERECTION DRAWINGS PRIOR TO FABRICATION. ALLOW UP TO 1 WEEK FOR REVIEW BY CONSULTANT.
32. IN ADDITION TO CONTRACTOR'S QUALITY CONTROL PROGRAM, INDEPENDENT TESTING AND INSPECTION MAY BE PERFORMED BY LESSEE OR LESSEE'S REPRESENTATIVE.
33. SUBMIT RED-LINES COPY OF CONSTRUCTION DRAWINGS UPON COMPLETION OF CONSTRUCTION HIGHLIGHTING CHANGES IN THE STAMPED AND SIGNED AS-BUILT CONDITION FROM SHOWN ON THE DRAWINGS.
34. CONTRACTOR WILL BE RESPONSIBLE FOR ALL GRADING AND FILL COMPACTION TESTING REQUIRED AS SET FORTH IN THE GEO TECHNOLOGICAL REPORT PROVIDED BY LESSEE.

**CONCRETE:**

1. ALL CONCRETE AND CONCRETE MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE VIRGINIA CONSTRUCTION CODE (2021 EDITION).
2. THE CONTRACTOR SHALL TAKE SAMPLES OF THE CONCRETE POURED UNDER THE CONDITIONS OUTLINED IN THE VIRGINIA CONSTRUCTION CODE, 2021 EDITION.
3. ANY FAILURE OF A CONCRETE TEST CYLINDER TO MEET THE SPECIFIED STRENGTH REQUIREMENTS MUST BE REPORTED TO THE DESIGN ENGINEER IMMEDIATELY. CORRECTIVE ACTION MUST BE APPROVED BY THE ENGINEER AND ALL RELATED COSTS SHALL BE AT THE CONTRACTOR'S EXPENSE.
4. THE MINIMUM 28-DAY COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE A MINIMUM OF 4,000 PSI (21 MPA), EXCEPT AS NOTED OR DIRECTED IN THE SOIL REPORT. THE CONCRETE, WHEN POURED, SHALL CONTAIN 7% AIR ENTRAINMENT WITH AN ALLOWABLE VARIATION OF +2%.
5. CONTRACTOR MUST TAKE SLUMP TEST AT LEAST ONCE FROM EACH TRANSIT MIXER AFTER A MINIMUM OF 5% CONCRETE LOAD HAD BEEN DISCHARGED. SLUMP, UNLESS NOTED OTHERWISE ON THE DRAWINGS, SHALL BE 75 MM (2.95 INCHES).
6. MIXED CONCRETE ON SITE (REMOTE AREAS) WITH THE CORRECT PROPORTION OF CEMENT, SAND, GRAVEL, AND AIR-ENTRAINING AGENT ALREADY ADDED, THE DRY PREMIX IS TO BE MIXED IN A CONCRETE BATCHER IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
7. BEFORE POURING CONCRETE, THE TRANSPORTING EQUIPMENT AND FORMS SHALL BE CLEANED AND ALL DEBRIS AND ICE SHALL BE REMOVED FROM PLACES TO BE OCCUPIED BY THE CONCRETE. ANY WATER THAT HAS ACCUMALATED IN THE FORMS SHALL BE REMOVED.
8. ALL CONCRETE SHALL BE VIBRATED AND WORKED AROUND THE REINFORCEMENTS, EMBEDDED FIXTURES AND INTO THE CORNERS OF THE FORMS. ANY EXCESS WATER THAT ACCUMALATES WHILE THE CONCRETE IS BEING POURED SHALL BE REMOVED.

PLANS PREPARED FOR:



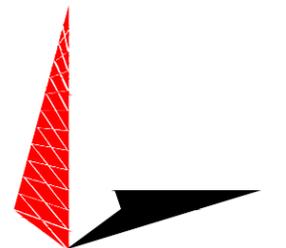
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON  
SUBSTATION**

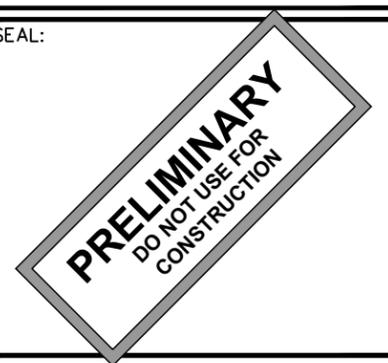
28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:



3	04-16-24	PRELIMINARY
2	12-04-23	PRELIMINARY
1	10-13-23	PRELIMINARY
0	09-27-23	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

**PROJECT  
NOTES**

SHEET NUMBER: REVISION:

**N-1**

**3**

TEP#: 132110.854246

**CONCRETE (CONTINUED):**

9. THE DESIGN ENGINEER SHALL RECEIVE A MINIMUM OF 24 HOURS NOTICE OF EVERY POUR.
10. THE CONCRETE IN FOUNDATIONS MUST BE POURED IN CONTINUOUS POURS BETWEEN CONSTRUCTION JOINTS. NO CONSTRUCTION JOINTS OTHER THAN THOSE SHOWN ON SITE SPECIFIC DRAWINGS WILL BE PERMITTED. THE CONTRACTOR SHALL PROVIDE EFFICIENT EQUIPMENT TO COMPLETE THE POURING OF EACH SECTION IN ONE CONTINUOUS POUR.
11. ALL FRAMEWORK SHALL BE BUILT IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE SHALL BE THOROUGHLY BRACED AND PLUMBED SO THAT THE FINISHED CONCRETE WILL CONFORM TO THE SHAPES, LINES, GRADES, AND DIMENSIONS INDICATED ON THE SITE DRAWINGS.
12. FORMS AND SHORING SHALL NOT BE REMOVED UNTIL THE CONCRETE IS ADEQUATELY SET. THEIR REMOVAL SHALL BE DONE IN SUCH A MANNER AS TO ENSURE THE COMPLETE SAFETY OF THE STRUCTURE.
13. FORMS WHICH SUPPORT THE WEIGHT OF THE CONCRETE, OR OF SUPERIMPOSED LOADS, SHALL NOT BE REMOVED UNTIL THE CONCRETE IS STRONG ENOUGH TO CARRY ITS OWN WEIGHT, AND SUCH SUPERIMPOSED LOADS AS MAY BE PLACED UPON IT.
14. THE CONCRETE SHALL BE MAINTAINED IN A MOIST CONDITION FOR AT LEAST 5 DAYS AFTER IT HAS BEEN POURED.
15. ALL SURFACES WHICH ARE NOT PROTECTED BY FORMS OR A SEALED WATERPROOF COATING SHALL BE KEPT MOIST BY CONTINUOUS SPRINKLING, OR OTHER MEANS SUCH AS COVERING WITH MOIST SAND, SAWDUST, OR BURLAP.
16. WHERE NECESSARY, THE CONCRETE SHALL BE PROTECTED AGAINST THE WEATHER BY A FRAMED HOUSING, TARPAULINS, OR OTHER SUITABLE COVERING.

**REINFORCING STEEL (REBAR):**

1. REINFORCING STEEL SHALL MEET CODE AND BE PLACED ACCORDING TO THE APPLICABLE DRAWINGS. THE MINIMUM THICKNESS OF CONCRETE OVER THE STEEL SHALL BE AT LEAST 3".
2. ALL REINFORCEMENTS THAT ARE REQUIRED FOR A DAYS POUR ON CONCRETE SHALL BE SECURELY FIXED IN PLACE IN SUFFICIENT TIME TO PERMIT INSPECTION BEFORE CONCRETING BEGINS.
3. THE DESIGN ENGINEER SHALL BE GIVEN 24 HOURS NOTICE BEFORE THE CONCRETE IS TO BE POURED. FAILURE TO COMPLY MAY NECESSITATE, BUT NOT BE LIMITED TO, THE REMOVAL OF THE POURED CONCRETE AT THE CONTRACTOR'S EXPENSE.

**GROUTING:**

1. WHERE GROUT IS INDICATED ON THE DRAWINGS UNDER STRUCTURAL BASE PLATES, THIS SHALL BE A NON-SHRINK, NON-FERROUS TYPE. METHODS OF MIXING AND PLACING MUST BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

**COLD WEATHER CONCRETING:**

1. THE CONTRACTOR SHALL PROVIDE AND HAVE ON THE SITE READY FOR USE, ADEQUATE EQUIPMENT FOR HEATING CONCRETE MATERIALS AND PROTECTING FRESH CONCRETE DURING FREEZING OR NEAR FREEZING WEATHER CONDITIONS, ACCORDING TO THE 2021 VIRGINIA CONSTRUCTION CODE.
2. ALL CONCRETE MATERIALS, REBAR, FORMS, FILLERS, AND THE EARTH WITH WHICH THE CONCRETE IS TO COME INTO CONTACT WITH, SHALL BE FREE FROM FROST AND ICE.
3. WHENEVER THE SURROUNDING TEMPERATURE IS BELOW 39°F, ALL CONCRETE POURED IN THE FORMS SHALL HAVE A TEMPERATURE OF 68°F FOR 4 DAYS.
4. THE HOUSING, COVERING, OR OTHER PROTECTION USED FOR THE CURING SHALL REMAIN IN PLACE AND INTACT FOR AT LEAST 24 HOURS AFTER THE ARTIFICIAL HEATING IS DISCONTINUED.
5. SALT, CALCIUM CHLORIDE, OR OTHER CHEMICALS SHALL NOT BE USED IN THE CONCRETE MIX TO PREVENT THE WATER CONTENT FROM FREEZING.

**UTILITIES:**

1. CONTRACTOR SHALL CONTACT A SUBSURFACE UTILITY LOCATOR FOR LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. LOCATION OF EXISTING SEWER, WATER LINES, GAS LINES, CONDUITS OR OTHER STRUCTURES ACROSS, UNDERNEATH, OR OTHERWISE ALONG THE LINE OF PROPOSED WORK ARE NOT NECESSARILY SHOWN ON THE PLANS, AND IF SHOWN ARE ONLY APPROXIMATELY CORRECT. CONTRACTOR ASSUMES SOLE RESPONSIBILITY FOR VERIFYING LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES (INCLUDING TEST PITS BY HAND IF NECESSARY) IN AREAS OF CONSTRUCTION PRIOR TO STARTING WORK. CONTACT ENGINEER IMMEDIATELY IF LOCATION OF ELEVATION IS DIFFERENT FROM THAT SHOWN ON THE PLANS, OR IF THERE APPEARS TO BE A CONFLICT.
2. CONTRACTOR SHALL COORDINATE ALL UTILITY CONNECTIONS WITH APPROPRIATE UTILITY LICENSEES AND CONSTRUCTION MANAGER.
3. DAMAGE BY THE CONTRACTOR TO UTILITIES OR PROPERTY OF OTHERS, INCLUDING EXISTING PAVEMENT AND OTHER SURFACES DISTURBED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPAIRED TO PRE-CONSTRUCTION CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE LICENSEE. FOR GRASSES AREAS, SEED AND MULCH SHALL BE ACCEPTABLE.

**UTILITIES (CONT.):**

4. THE CONTRACTOR SHALL COORDINATE WITH THE LESSEE THE REQUIREMENTS FOR AND LIMITS OF OVERHEAD AND/OR UNDERGROUND ELECTRICAL SERVICE.
5. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF NEW UNDERGROUND TELEPHONE SERVICE WITH THE TELEPHONE UTILITY AND THE LESSEE'S REQUIREMENTS.
6. ALL UNDERGROUND UTILITIES SHALL BE INSTALLED AND TESTED SATISFACTORY PRIOR TO COMMENCING ANY PAVING OPERATIONS WHERE SUCH UTILITIES ARE WITHIN THE LIMITS OF PAVEMENT.

PLANS PREPARED FOR:



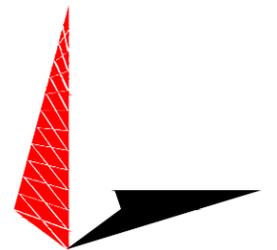
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON  
SUBSTATION**

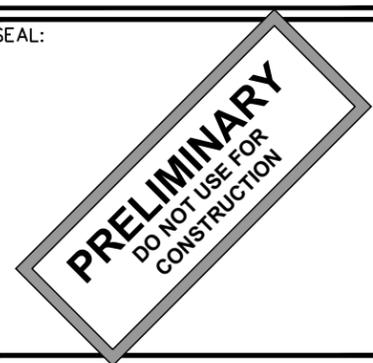
28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:



3	04-16-24	PRELIMINARY
2	12-04-23	PRELIMINARY
1	10-13-23	PRELIMINARY
0	09-27-23	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:  
**PROJECT  
NOTES**

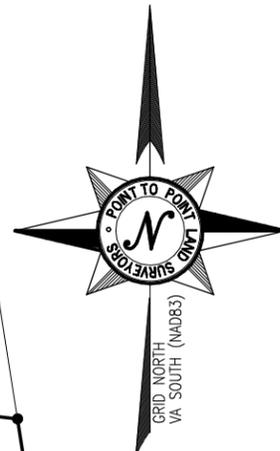
SHEET NUMBER: **N-2** REVISION: **3**  
TEP#: 132110.854246

**PARENT PARCEL**

OWNER: VIRGINIA ELECTRIC AND POWER COMPANY  
 SITE ADDRESS: 28908 ELLINGTON RD, PETERSBURG, VA 23805  
 PARCEL ID: 49-31A  
 AREA: 22.19189 ACRES  
 ALL ZONING INFORMATION SHOULD BE VERIFIED WITH THE PROPER ZONING OFFICIALS  
 REFERENCE: DEED BOOK 138 PAGE 118

**GPS NOTES**

THE FOLLOWING GPS STATISTICS UPON WHICH THIS SURVEY IS BASED HAVE BEEN PRODUCED AT THE 95% CONFIDENCE LEVEL:  
 POSITIONAL ACCURACY: 0.06 FEET (HORZ) 0.14 FEET (VERT)  
 TYPE OF EQUIPMENT: GEOMAX ZENITH35 PRO BASE AND ROVER, DUAL FREQUENCY  
 TYPE OF GPS FIELD PROCEDURE: REAL-TIME KINEMATIC NETWORKS  
 DATE OF SURVEY: 06/26/2023  
 DATUM / EPOCH: NAD\_83(2011)(EPOCH:2010.0000)  
 PUBLISHED / FIXED CONTROL USE: N/A  
 GEOID MODEL: 18  
 COMBINED GRID FACTOR(S): 0.99995591 CENTERED ON THE GPS BASE POINT AS SHOWN HEREON.  
 CONVERGENCE ANGLE: 00°39'49.10"  
 BENCHMARKS USED: ADJUSTED NETWORK SOLUTION USING LEICA SMARTNET REFERENCE STATION NETWORK.



VICINITY MAP  
NOT TO SCALE

**GENERAL NOTES**

\* THIS SPECIFIC PURPOSE SURVEY IS FOR THE LEASED PREMISES AND EASEMENTS ONLY. THIS SPECIFIC PURPOSE SURVEY WAS PREPARED FOR THE EXCLUSIVE USE OF DOMINION ENERGY AND EXCLUSIVELY FOR THE TRANSFERRAL OF THE LEASED PREMISES AND THE RIGHTS OF EASEMENT SHOWN HEREON AND SHALL NOT BE USED AS AN EXHIBIT OR EVIDENCE IN THE FEE SIMPLE TRANSFERRAL OF THE PARENT PARCEL NOR ANY PORTION OR PORTIONS THEREOF. BOUNDARY INFORMATION SHOWN HEREON HAS BEEN COMPILED FROM TAX MAPS AND DEED DESCRIPTIONS ONLY. NO BOUNDARY SURVEY OF THE PARENT PARCEL WAS PERFORMED.

THIS DRAWING DOES NOT REPRESENT A BOUNDARY SURVEY.

THIS SPECIFIC PURPOSE SURVEY WAS PREPARED WITHOUT BENEFIT OF A TITLE REPORT WHICH MAY REVEAL ADDITIONAL CONVEYANCES, EASEMENTS, OR RIGHTS-OF-WAY NOT SHOWN HEREON.

EQUIPMENT USED FOR ANGULAR & LINEAR MEASUREMENTS: GEOMAX ZOOM ROBOTIC AND/OR LEICA TS12 [DATE OF LAST FIELD VISIT: 08/29/2024]. SEE GPS NOTES FOR GPS EQUIPMENT.

THE 1' CONTOURS AND SPOT ELEVATIONS SHOWN ON THIS SPECIFIC PURPOSE SURVEY ARE ADJUSTED TO NAVD 88 DATUM (COMPUTED USING GEOID18) AND HAVE A VERTICAL ACCURACY OF ± 0.5'. CONTOURS OUTSIDE THE IMMEDIATE SITE AREA ARE APPROXIMATE.

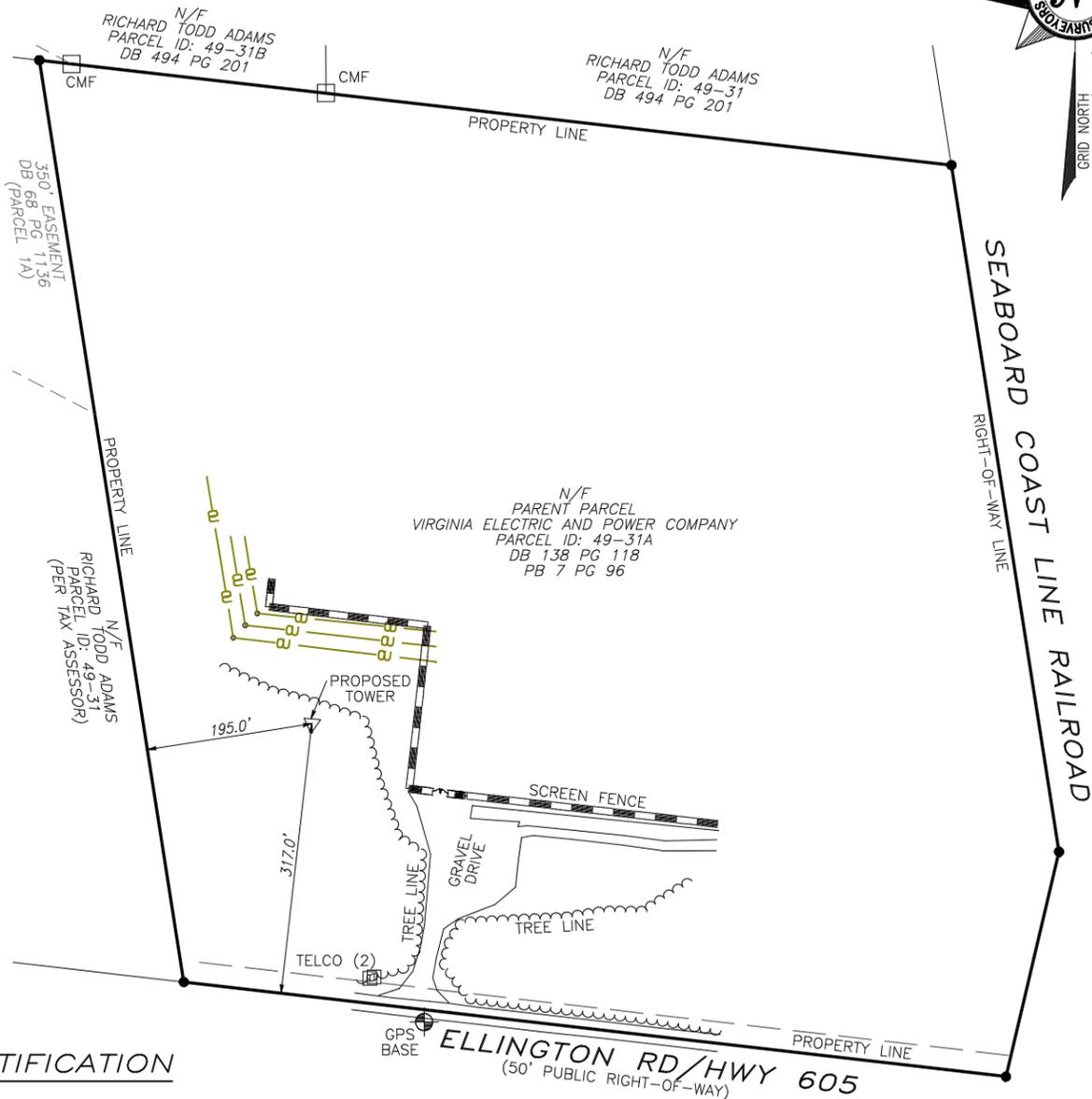
BEARINGS SHOWN ON THIS SPECIFIC PURPOSE SURVEY ARE BASED ON VIRGINIA GRID NORTH (NAD 83) SOUTH ZONE.

PER THE FEMA FLOODPLAIN MAPS, THE SITE IS LOCATED IN AN AREA DESIGNATED AS ZONE X (AREA OF MINIMAL FLOOD HAZARD). COMMUNITY PANEL NO. : 51053C0300C DATED: 06/01/2022

NO WETLAND AREAS HAVE BEEN INVESTIGATED BY THIS SPECIFIC PURPOSE SURVEY.

ALL ZONING INFORMATION SHOULD BE VERIFIED WITH THE PROPER ZONING OFFICIALS.

ANY UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM ABOVE GROUND FIELD SURVEY INFORMATION. THE SURVEYOR MAKES NO GUARANTEES THAT ANY UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT ANY UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED ANY UNDERGROUND UTILITIES.



**SURVEYOR'S NOTES**

ALL PRIVATE UTILITY INFORMATION WAS PROVIDED BY GPRS (WORK ORDER # 562857-67878 DATED 06/26/2023 AND WORK ORDER # 691522 DATED AUGUST 12, 2024) AND ARE APPROXIMATE BASED ON FIELD LOCATED PAINT MARKS.

**LEGEND**

POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
IPS	IRON PIN SET
IPF	IRON PIN FOUND
CMF	CONCRETE MONUMENT FOUND
CRB	CAPPED REBAR
RB	REBAR
OTP	OPEN TOP PIPE
UP	UTILITY POLE
LP	LIGHT POLE
SSMH	SANITARY SEWER MANHOLE
SDMH	STORM DRAIN MANHOLE
INV	INVERT
FH	FIRE HYDRANT
EP	EDGE OF PAVEMENT
BC	BACK OF CURB
OU	OVERHEAD UTILITY
CMP	CORRUGATED METAL PIPE
RCP	REINFORCED CONCRETE PIPE
PVC	POLYVINYL CHLORIDE PIPE
GW	GUY WIRE ANCHOR
TR	TRANSFORMER
CLF	CHAIN LINK FENCE
BWF	BARBED WIRE FENCE
WV	WATER VALVE
WM	WATER METER
CO	SEWER CLEAN-OUT
GV	GAS VALVE
HH	HANDHOLE
CP	CONCRETE PAD
BFO	BURIED FIBER OPTIC
N/F	NOW OR FORMERLY
R/W	RIGHT-OF-WAY

**SURVEYOR'S CERTIFICATION**

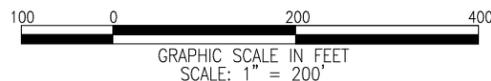
I HEREBY CERTIFY THAT THIS MAP IS CORRECT AND THAT ANY VISIBLE ENCROACHMENTS ARE SHOWN HEREON.

*G. Darrell Taylor*  
 G. DARRELL TAYLOR, PLS DATE 08/31/2024

THIS MAP IS NOT A CERTIFIED SURVEY AND HAS NOT BEEN REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS. THIS MAP IS ONLY INTENDED FOR THE PARTIES AND PURPOSES SHOWN. THIS MAP IS NOT FOR RECORDATION.

**UTILITY LEGEND**

OU	OVERHEAD UTILITY LINE
FO	UNDERGROUND FIBEROPTIC LINE
G	UNDERGROUND GAS LINE
S	UNDERGROUND SEWER LINE
E	UNDERGROUND ELECTRIC LINE
W	UNDERGROUND WATER LINE
ULG	UNKNOWN UNDERGROUND UTILITY LINE



SURVEY NOT VALID WITHOUT SHEET 2 OF 2



Know what's below.  
Call before you dig.



NO.	DATE	REVISION
1	08/20/24	MOVED PROPOSED TOWER-NRW
2	08/31/24	ADDITIONAL TOPO - NRW

\* SPECIFIC PURPOSE SURVEY PREPARED BY:

**POINT TO POINT LAND SURVEYORS**  
 100 Governors Trace, Ste. 103  
 Peachtree City, GA 30269  
 (p) 678.565.4440  
 (f) 678.565.4497  
 (w) pointtopointsurvey.com



SPECIFIC PURPOSE SURVEY PREPARED FOR:



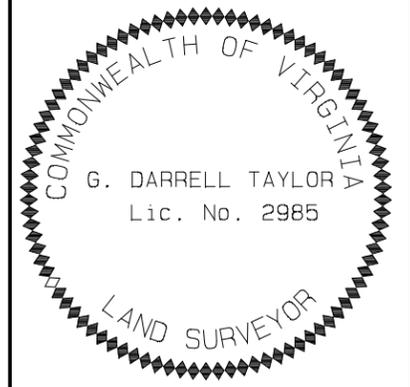
CARSON

ROWANTY MAGISTERIAL DISTRICT  
 DINWIDDIE COUNTY, VIRGINIA

DRAWN BY: MK	SHEET: 1 OF 2
CHECKED BY: JKL	
APPROVED: D. MILLER	
DATE: 09/22/2023	
P2P JOB #: 230767VA	

**SITE INFORMATION**

LATITUDE = 37°05'04.54" (NAD 83) (37.084594°)  
 LONGITUDE = -77°24'25.17" (NAD 83) (-77.406992°)  
 AT CENTER OF PROPOSED TOWER  
 ELEVATION AT CENTER OF PROPOSED TOWER = 159.8' A.M.S.L.



NO.	DATE	REVISION
1	08/20/24	MOVED PROPOSED TOWER-NRW
2	08/31/24	ADDITIONAL TOPO - NRW



\* SPECIFIC PURPOSE SURVEY PREPARED BY:

**POINT TO POINT LAND SURVEYORS**  
 100 Governors Trace, Ste. 103  
 Peachtree City, GA 30269  
 (p) 678.565.4440  
 (f) 678.565.4497  
 (w) pointtopointsurvey.com



SPECIFIC PURPOSE SURVEY PREPARED FOR:



CARSON

ROWANTY MAGISTERIAL DISTRICT  
 DINWIDDIE COUNTY, VIRGINIA

DRAWN BY: MK

CHECKED BY: JKL

APPROVED: D. MILLER

DATE: 09/22/2023

P2P JOB #: 230767VA

SHEET:

**2**

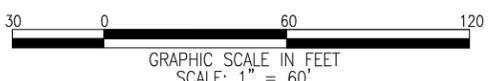
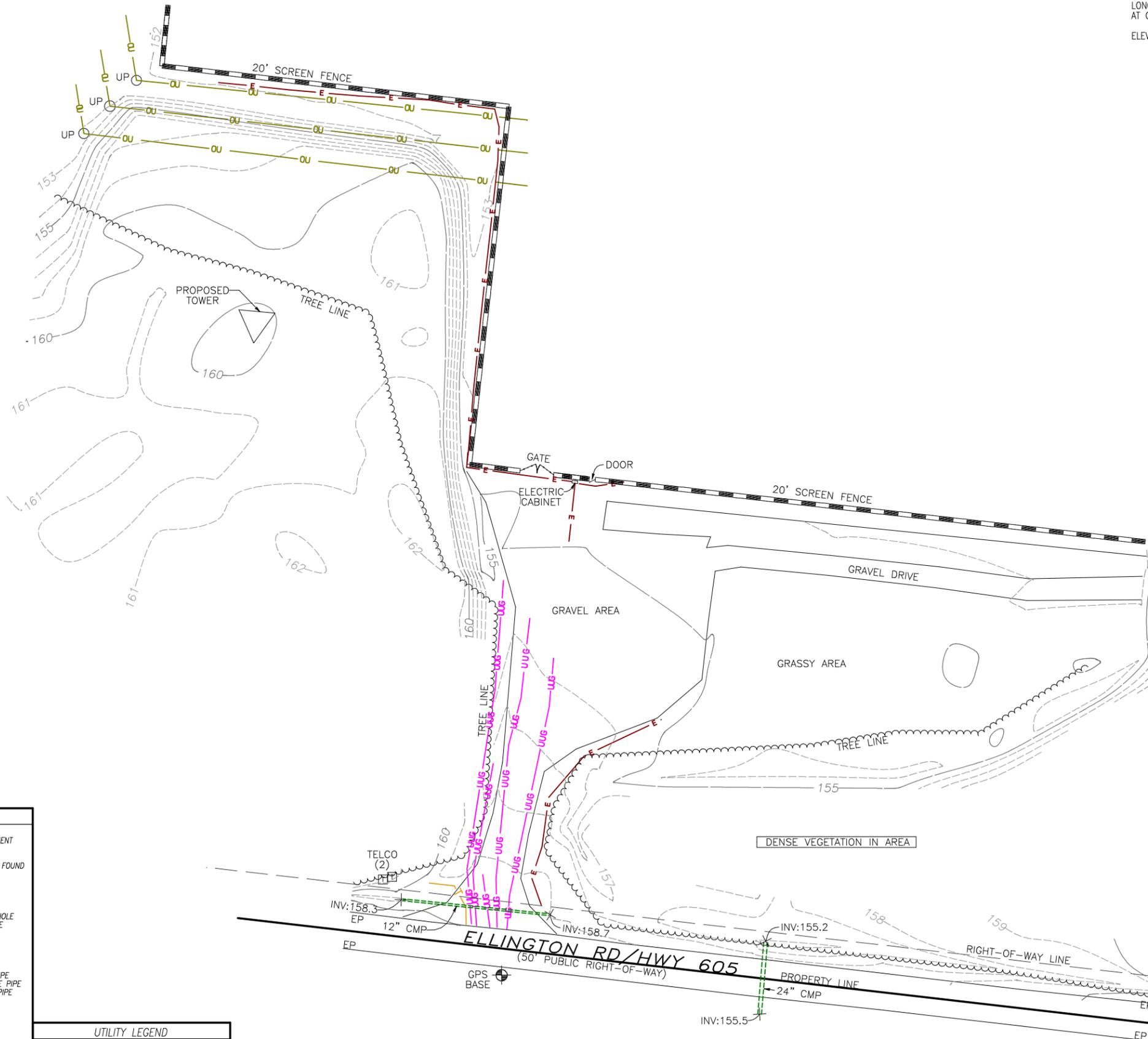
OF 2

**LEGEND**

POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
IPS	IRON PIN SET
IPF	IRON PIN FOUND
CMF	CONCRETE MONUMENT FOUND
CRB	CAPPED REBAR
RB	REBAR
OTP	OPEN TOP PIPE
UP	UTILITY POLE
LP	LIGHT POLE
SSMH	SANITARY SEWER MANHOLE
SDMH	STORM DRAIN MANHOLE
INV	INVERT
FH	FIRE HYDRANT
EP	EDGE OF PAVEMENT
BC	BACK OF CURB
OU	OVERHEAD UTILITY
CMP	CORRUGATED METAL PIPE
RCP	REINFORCED CONCRETE PIPE
PVC	POLYVINYL CHLORIDE PIPE
GW	GUY WIRE ANCHOR
TR	TRANSFORMER
CLF	CHAIN LINK FENCE
BWF	BARBED WIRE FENCE
WV	WATER VALVE
WM	WATER METER
CO	SEWER CLEAN-OUT
GV	GAS VALVE
HH	HANDHOLE
CP	CONCRETE PAD
BFO	BURIED FIBER OPTIC
N/F	NOW OR FORMERLY
R/W	RIGHT-OF-WAY

**UTILITY LEGEND**

OU	OVERHEAD UTILITY LINE
UT	UNDERGROUND TELECOMMUNICATIONS LINE
FO	UNDERGROUND FIBEROPTIC LINE
GS	UNDERGROUND GAS LINE
SS	UNDERGROUND SEWER LINE
E	UNDERGROUND ELECTRIC LINE
W	UNDERGROUND WATER LINE
UUG	UNKNOWN UNDERGROUND UTILITY LINE

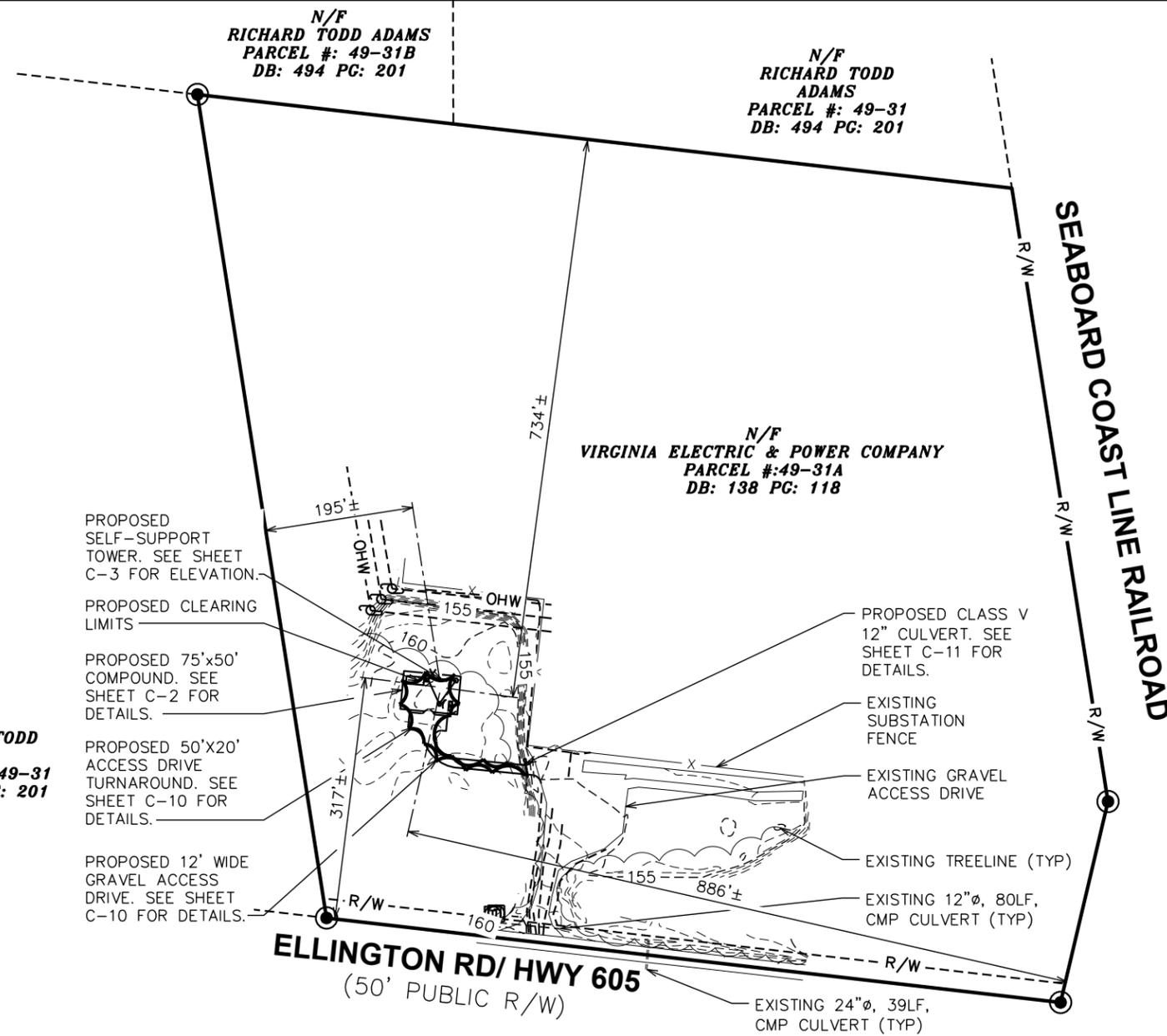


SURVEY NOT VALID WITHOUT SHEET 1 OF 2

E:\Point To Point\Dropbox\2P2P Current Jobs\2023\230767VA-Carson\230767VA.dwg

**NOTES:**

1. THE BASIS OF THE MERIDIANS AND COORDINATES FOR THIS PLAT IS THE VIRGINIA SOUTH GRID STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983 VA NORTH GRID SPCS NAD 83), BASED ON DIFFERENTIAL GPS OBSERVATIONS PERFORMED ON JUNE 26, 2023.
2. VERTICAL INFORMATION SHOWN, BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88) IN FEET.
3. ALL DISTANCES ARE GROUND UNLESS OTHERWISE NOTED.
4. THE TOWER IS LOCATED IN ZONE "X." AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN ACCORDING TO FEMA COMMUNITY PANEL #51053C0300C DATED JUNE 1, 2022.
5. EXISTING VEGETATION AROUND THE PERIMETER OF THE PROPOSED TOWER COMPOUND WILL PROVIDE A NATURAL LANDSCAPE BUFFER.



PLANS PREPARED FOR:  
  
 DOMINION RESOURCES SERVICES, INC.  
 707 EAST MAIN STREET  
 RICHMOND, VA 23219

PROJECT INFORMATION:  
**CARSON SUBSTATION**  
 28908 ELLINGTON RD  
 PETERSBURG, VA 23805  
 (DINWIDDIE COUNTY)

PLANS PREPARED BY:  
  
**TOWER ENGINEERING PROFESSIONALS**  
 326 TRYON ROAD  
 RALEIGH, NC 27603  
 OFFICE: (919) 661-6351  
 www.tepgroup.net

SEAL:

5	10-17-24	PRELIMINARY
4	09-18-24	PRELIMINARY
3	04-16-24	PRELIMINARY
2	12-04-23	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB | CHECKED BY: TDS

SHEET TITLE:  
**SITE PLAN**

SHEET NUMBER: **C-1** | REVISION: **5**  
 TEP#: 132110.854246

**LEGEND**

- EXIST. PROPERTY LINE
- - - ADJ. PROPERTY LINE
- ⊙ EXIST. UTILITY POLE
- ⊙ EXIST. LIGHT POLE
- ⊙ EXIST. HYDRANT
- ⊙ EXIST. TELCO PEDESTAL
- ⊙ PROPERTY CORNER
- LEASE/EASE. CORNER
- - -200- - - EXIST. CONTOUR LINE
- /// EDGE OF PAVEMENT
- - -OHW- - - OVERHEAD WIRE
- - -R/W- - - RIGHT-OF-WAY
- X - CHAIN LINK FENCE
- ~ ~ ~ EXISTING TREE LINE

**SETBACK TABLE**

TOWER HEIGHT	RESIDENTIAL SETBACK	REQUIRED	ACTUAL	DIFFERENCE	PROPERTY SETBACK	REQUIRED	ACTUAL	DIFFERENCE
420'	200%	840'			110%	462'		
	FRONT	840'	577'	263'	FRONT	462'	317'	145'
	BACK	840'	2,483'	-1,643'	BACK	462'	734'	-272'
	EAST	840'	1,102'	-262'	EAST	462'	886'	-424'
	WEST	840'	675'	165'	WEST	462'	195'	267'

**SITE PLAN**

SCALE: 1" = 200'



**NOTES:**

1. SITE PLAN SHOWN TAKEN FROM INFORMATION PROVIDED BY DINWIDDIE COUNTY GIS & GOOGLE MAPS
2. TEP DOES NOT GUARANTEE OR ENSURE THE PRECISION ACCURACY, OR CORRECTNESS AND ASSUMES NO RESPONSIBILITY OR LIABILITY FOR DAMAGES, LOSS OF REVENUE, OR INJURY THAT MIGHT OCCUR. THE INFORMATION SHOWN IS INCORPORATED FOR REFERENCE ONLY.



**49-31B**  
 EXISTING 400-FT± TALL GUYED TOWER TO BE REMOVED. TOWER REMOVAL WILL BE PERMITTED SEPARATELY AS NEEDED. TOWER COORDINATES: 37° 05' 16.8" N, 77° 24' 28.4" W ASR 1016966

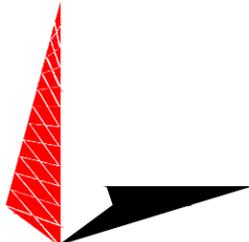
**28908**  
**49-31A**  
 EXISTING 200-FT ± TALL SELF-SUPPORT TOWER TO BE REMOVED. TOWER REMOVAL WILL BE PERMITTED SEPARATELY AS NEEDED. TOWER COORDINATES: 37° 05' 7.5" N, 77° 24' 22.1" W ASR 1016965

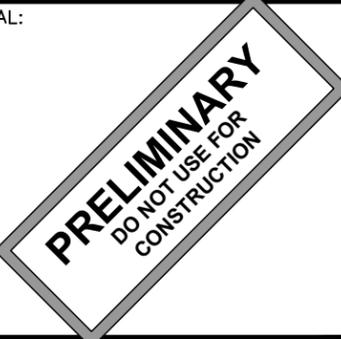
PROPOSED SELF-SUPPORT TOWER. SEE SHEET C-3 FOR ELEVATION.



PLANS PREPARED FOR:  
  
 DOMINION RESOURCES SERVICES, INC.  
 707 EAST MAIN STREET  
 RICHMOND, VA 23219

PROJECT INFORMATION:  
**CARSON SUBSTATION**  
 28908 ELLINGTON RD  
 PETERSBURG, VA 23805  
 (DINWIDDIE COUNTY)

PLANS PREPARED BY:  
  
**TOWER ENGINEERING PROFESSIONALS**  
 326 TRYON ROAD  
 RALEIGH, NC 27603  
 OFFICE: (919) 661-6351  
 www.tepgroup.net

SEAL:  


5	10-17-24	PRELIMINARY
4	09-18-24	PRELIMINARY
3	04-16-24	PRELIMINARY
2	12-04-23	PRELIMINARY
REV	DATE	ISSUED FOR:

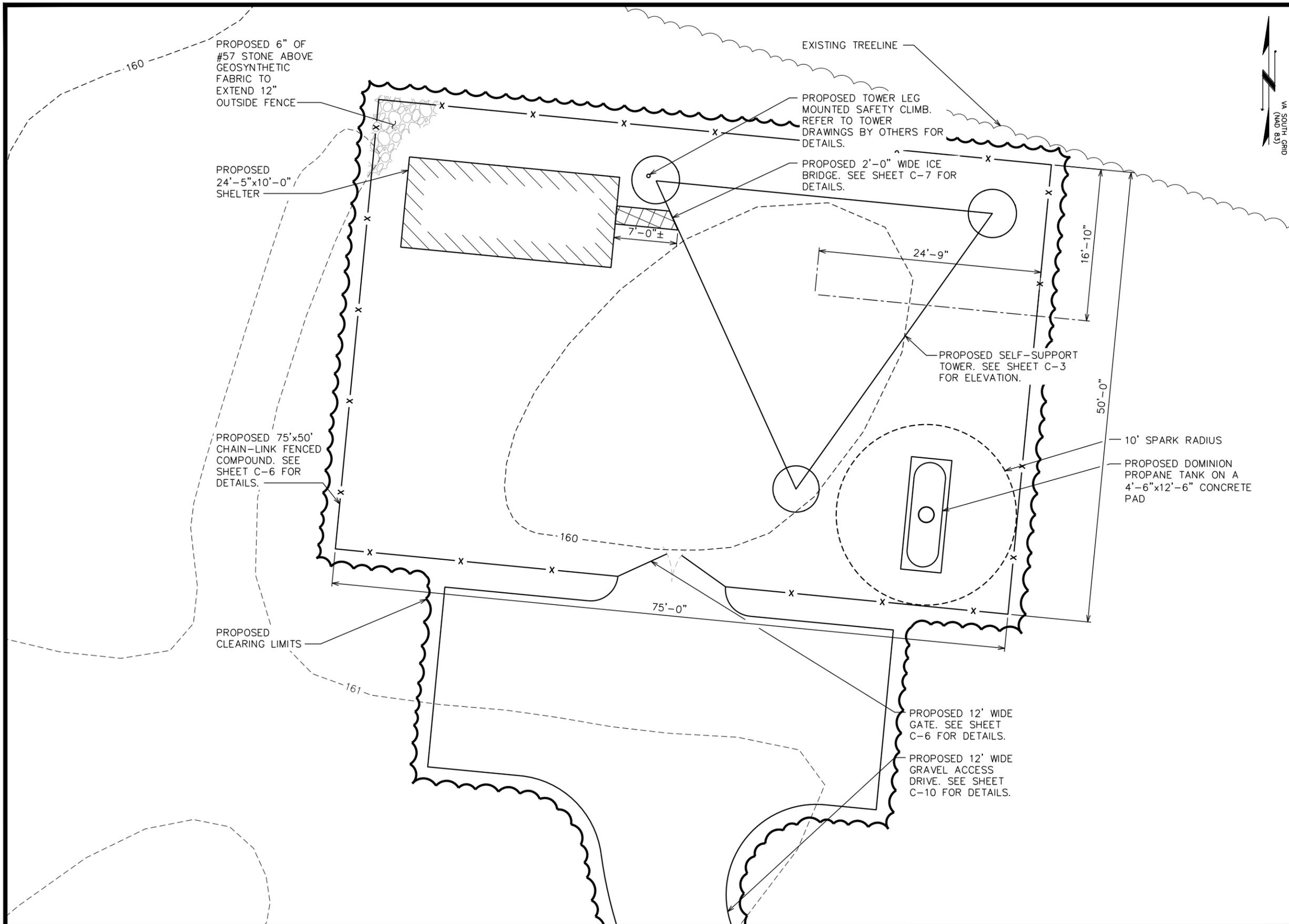
DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:  
**AERIAL SITE PLAN**

SHEET NUMBER: **C-1A** REVISION: **5**  
 TEP#: 132110.854246

**AERIAL SITE PLAN**  
 SCALE: 1" = 200'





PLANS PREPARED FOR:



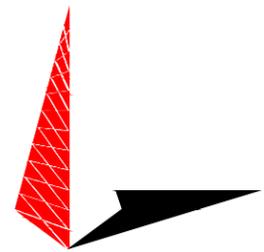
**Dominion Energy**  
 DOMINION RESOURCES SERVICES, INC.  
 707 EAST MAIN STREET  
 RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON SUBSTATION**

28908 ELLINGTON RD  
 PETERSBURG, VA 23805  
 (DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
 326 TRYON ROAD  
 RALEIGH, NC 27603  
 OFFICE: (919) 661-6351  
 www.tepgroup.net

SEAL:



REV	DATE	ISSUED FOR:
4	09-18-24	PRELIMINARY
3	04-16-24	PRELIMINARY
2	12-04-23	PRELIMINARY
1	10-13-23	PRELIMINARY

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

**SITE LAYOUT**

SHEET NUMBER: **C-2** REVISION: **4**

TEP#: 132110.854246

**SITE LAYOUT**  
 SCALE: 3/32" = 1'-0"



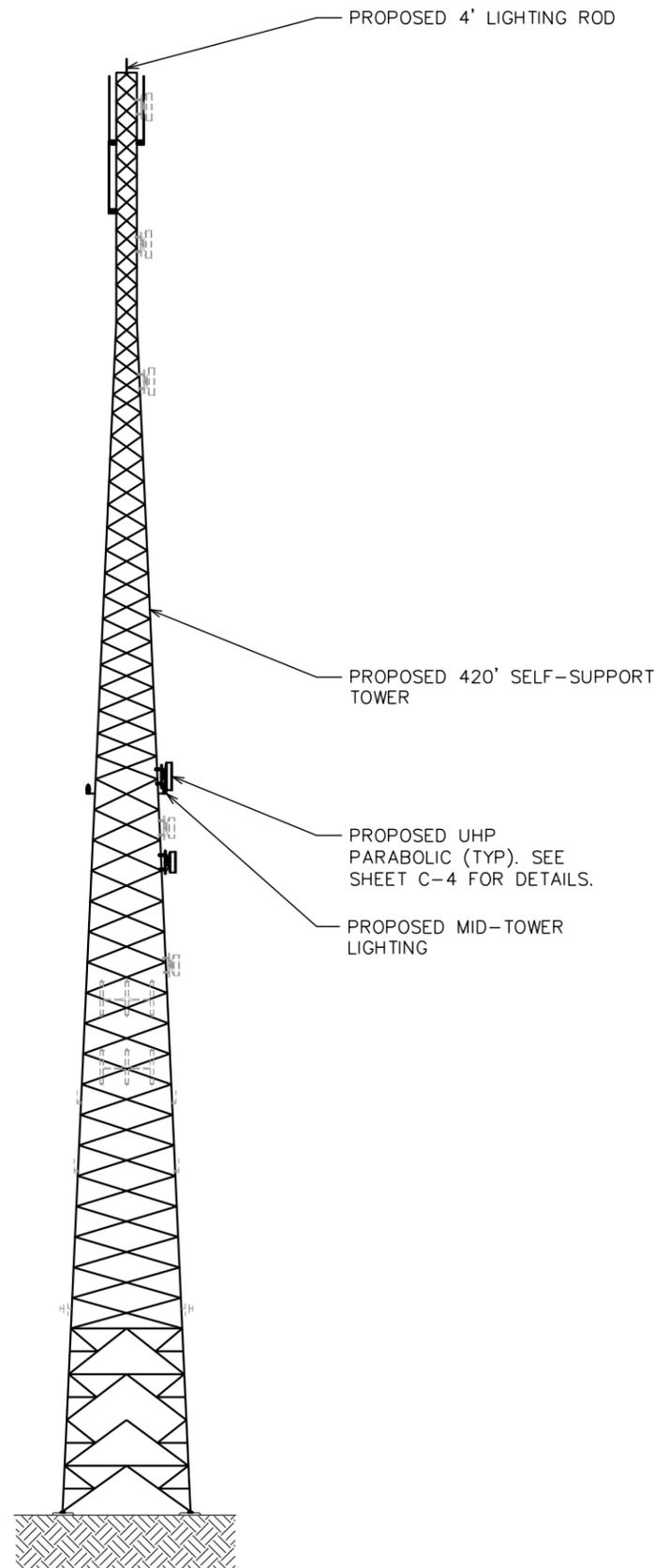
**NOTES:**

1. PROPOSED CABLES TO BE RUN PER SPECIFICATIONS OF PASSING STRUCTURAL ANALYSIS.
2. TOWER SHALL BE CONSTRUCTED OF GALVANIZED STEEL OR PAINTED PER APPLICABLE STANDARDS OF THE FAA OR OTHER APPLICABLE FEDERAL OR STATE AGENCY
3. TOWER ELEVATION SHOWN FOR REFERENCE ONLY. VERIFY ACTUAL TOWER DESIGN & LOADING WITH TOWER DRAWINGS FROM MANUFACTURER AND/OR PASSING STRUCTURAL ANALYSIS PRIOR TO CONSTRUCTION.

- 424'-0"±  
T/ LIGHTNING ROD
- 420'-0"±  
T/ TOWER
- 410'-0"±  
Q/FUTURE 8' UHP PARABOLIC
- 399'-0"±  
Q/20' OMNI ANTENNA (TYP OF 2)
- 379'-0"±  
Q/20' OMNI ANTENNA
- 370'-0"±  
Q/FUTURE 8' UHP PARABOLIC
- 330'-0"±  
Q/FUTURE 8' UHP PARABOLIC

- 215'-0"±  
Q/8' UHP PARABOLIC
- 200'-0"±  
Q/FUTURE 6' UHP PARABOLIC
- 190'-0"±  
Q/6' UHP PARABOLIC
- 160'-0"±  
Q/FUTURE 6' UHP PARABOLIC
- 150'-0"±  
Q/FUTURE PLTE ANTENNA
- 130'-0"±  
Q/FUTURE ANTENNAS BY OTHERS
- 120'-0"±  
Q/FUTURE OMNI ANTENNA (TYP OF 2)
- 100'-0"±  
Q/FUTURE DIPOLE ANTENNA (TYP OF 2)
- 60'-0"±  
Q/FUTURE YAGI ANTENNA (TYP OF 2)

- 0'-0" (REFERENCE)  
T/ CONCRETE



PLANS PREPARED FOR:

**Dominion Energy**  
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON SUBSTATION**

28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:

**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:

**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION

REV	DATE	ISSUED FOR:
2	12-04-23	PRELIMINARY
1	10-13-23	PRELIMINARY
0	09-27-23	PRELIMINARY

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

**TOWER ELEVATION**

SHEET NUMBER: **C-3** REVISION: **2**

TEP#: 132110.854246

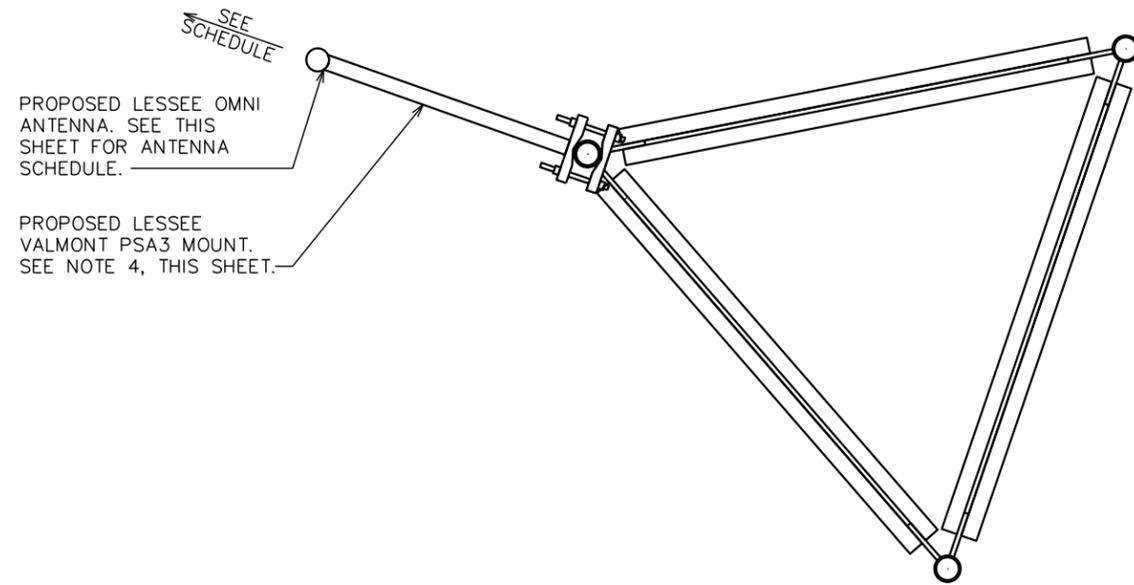
**TOWER ELEVATION**

SCALE: 1" = 50'



**NOTES:**

1. TEP DID NOT ANALYZE MOUNT TO DETERMINE ADEQUATE STRUCTURAL CAPACITY FOR ANY VERIZON LOADING.
2. SEE THIS SHEET FOR PROPOSED ANTENNA SCHEDULE.
3. CONTRACTOR TO VERIFY PROPOSED LOADING WITH TOWER STRUCTURAL ANALYSIS PRIOR TO CONSTRUCTION.
4. INSTALL ANTENNA MOUNT PER MANUFACTURER INSTRUCTIONS



PLANS PREPARED FOR:



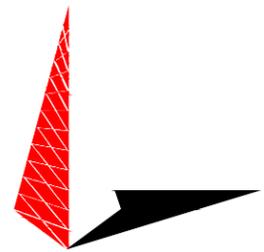
**Dominion Energy**  
 DOMINION RESOURCES SERVICES, INC.  
 707 EAST MAIN STREET  
 RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON SUBSTATION**

28908 ELLINGTON RD  
 PETERSBURG, VA 23805  
 (DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
 326 TRYON ROAD  
 RALEIGH, NC 27603  
 OFFICE: (919) 661-6351  
 www.tepgroup.net

**TYPICAL OMNI ANTENNA LAYOUT**

SCALE: N.T.S.

**FINAL ANTENNA, EQUIPMENT, AND CABLE SCHEDULE**

POS.	SECTOR	FREQUENCY	ANTENNA MFR (MODEL #)	MOUNTING HEIGHT	CABLE SIZE	AZIMUTH (TN)	*CABLE LENGTH	MECH. D-TILT	ELEC. D-TILT	DIPLEXERS	RADIO MFR (MODEL #)	TMA	J-BOX (TOWER)
1	TBD	LMR	COMMSCOPE DB420-B OMNI ANTENNA (20 FT)	℄ @ 399'-0"±	(1) 7/8 COAX	TBD	429'±	**	**	-	-	-	-
1	TBD	LMR	COMMSCOPE DB420-B OMNI ANTENNA (20 FT)	℄ @ 399'-0"±	(1) 7/8 COAX	TBD	429'±	**	**	-	-	-	-
1	TBD	LMR	COMMSCOPE DB224-A OMNI ANTENNA (21 FT)	℄ @ 379'-0"±	(1) 7/8 COAX	TBD	409'±	**	**	-	-	-	-

- \* CONTRACTOR TO VERIFY CABLE RUN LENGTHS PRIOR TO CONSTRUCTION
- \*\* CONTRACTOR TO REFERENCE MOST RECENT TOWER LOADING DOCUMENT FOR MECHANICAL AND ELECTRICAL D-TILTS

SEAL:

**PRELIMINARY**  
 DO NOT USE FOR CONSTRUCTION

REV	DATE	ISSUED FOR:
2	12-04-23	PRELIMINARY
1	10-13-23	PRELIMINARY
0	09-27-23	PRELIMINARY

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

**PROPOSED ANTENNA LAYOUT & SCHEDULE**

SHEET NUMBER: **C-4A** REVISION: **2**

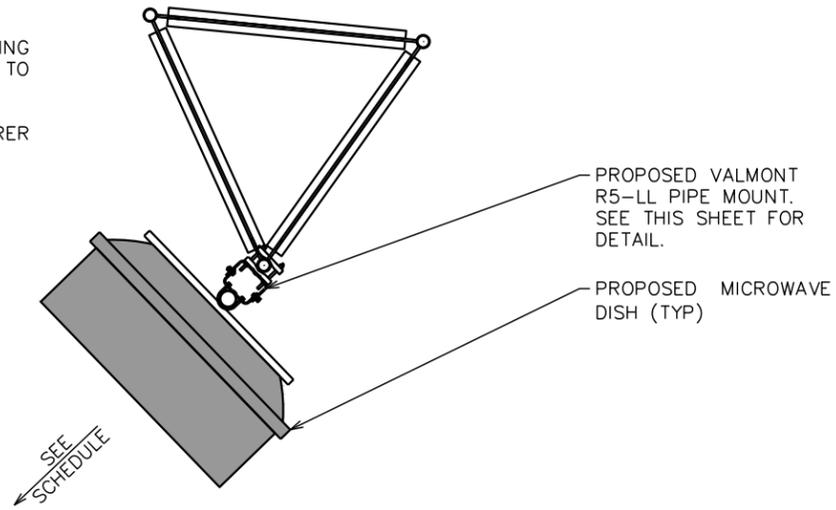
TEP#: 132110.854246

**FINAL ANTENNA, EQUIPMENT, AND CABLE SCHEDULE**

SCALE: N.T.S.

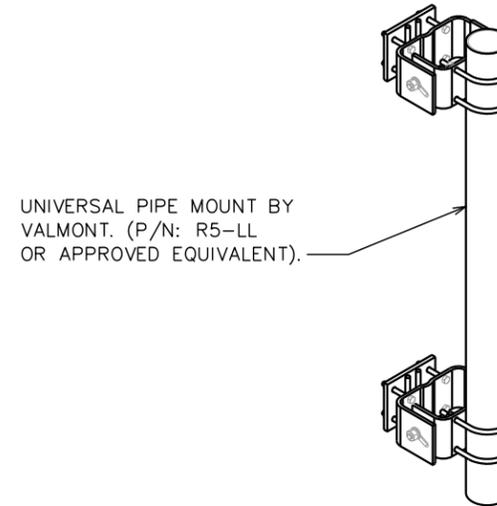
**NOTES:**

1. TEP DID NOT ANALYZE MOUNT TO DETERMINE ADEQUATE STRUCTURAL CAPACITY FOR ANY VERIZON LOADING.
2. SEE THIS SHEET FOR PROPOSED ANTENNA SCHEDULE.
3. CONTRACTOR TO VERIFY PROPOSED LOADING WITH TOWER STRUCTURAL ANALYSIS PRIOR TO CONSTRUCTION.
4. INSTALL ANTENNA MOUNT PER MANUFACTURER INSTRUCTIONS



**NOTES:**

1. CONTRACTOR TO VERIFY LEG SIZE WITH TOWER MODIFICATION DESIGN.
2. UNIVERSAL PIPE MOUNT INCLUDES 4½"x84" PIPE MOUNT HARDWARE TO ATTACH TO 1½"Ø TO 10¾"Ø ROUND MEMBERS OR 2½" TO A 8" ANGLE MEMBERS.
3. PIPE MOUNT SHALL BE INSTALLED PLUMB 90 DEGREES VERTICAL.



PLANS PREPARED FOR:



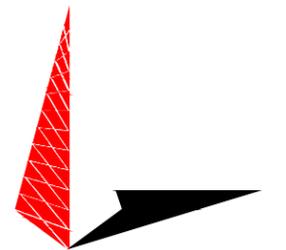
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON SUBSTATION**

28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**

326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

**PROPOSED MICROWAVE**

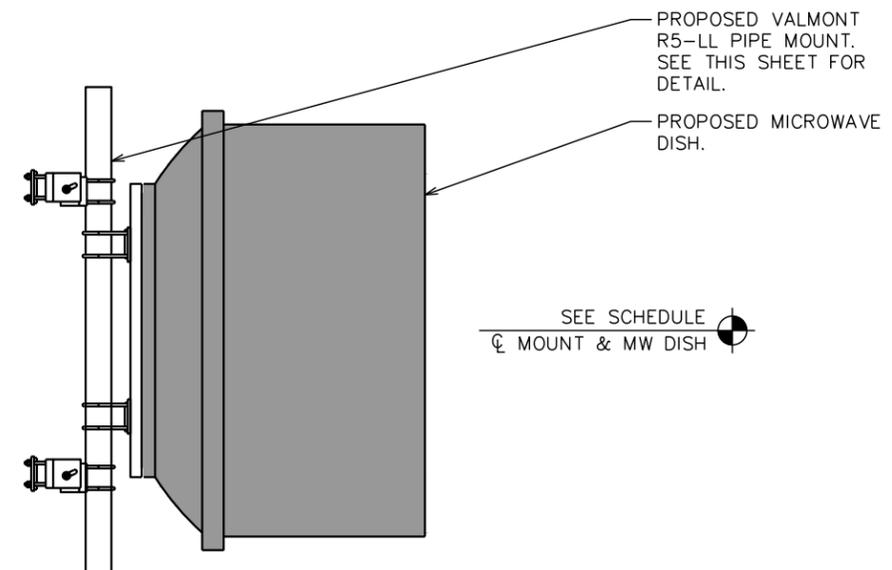
SCALE: N.T.S.

**PROPOSED PIPE MOUNT**

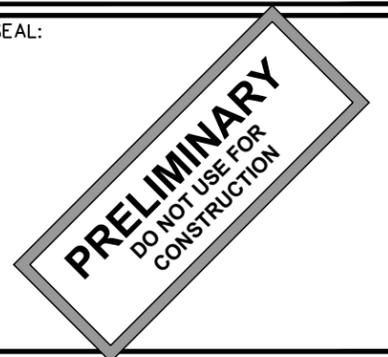
SCALE: N.T.S.

**PROPOSED MICROWAVE ANTENNA/COAX SCHEDULE**

SECTOR	TECHNOLOGY	MANUFACTURER (MODEL #)	MOUNTING HEIGHT	AZIMUTH (TRUE NORTH)	EQUIPMENT	COAX	COAX LENGTH
LEG C	L6G/UG6	COMMSCOPE (HX8-6W) 8' UHP PARABOLIC	215'-0"	242°	-	(2) EWP63-59W	245'±
LEG C	L6G/UG6	COMMSCOPE (HX8-6W) 6' UHP PARABOLIC	190'-0"	242°	-	(2) EWP63-59W	220'±



SEAL:



REV	DATE	ISSUED FOR:
2	12-04-23	PRELIMINARY
1	10-13-23	PRELIMINARY
0	09-27-23	PRELIMINARY

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

**MICROWAVE MOUNTING DETAILS**

SHEET NUMBER: REVISION:

**C-4B** **2**

TEP#: 132110.854246

**PROPOSED MICROWAVE ANTENNA/COAX SCHEDULE**

SCALE: N.T.S.

**PROPOSED PIPE MOUNT PROFILE**

SCALE: N.T.S.

## FOUNDATION NOTES

- FOUNDATION DESIGN BASED ON 2,000 PSF SOIL BEARING CAPACITY.
- CONCRETE SHALL BE MIN. 4,000 PSI AFTER 28 DAYS.
- REINFORCING STEEL  $F_y = 60,000$  PSI
- ALL BACKFILL SHALL BE THOROUGHLY COMPACTED TO A MINIMUM OF 95% DENSITY USING THE MODIFIED PROCTOR METHOD.
- SURFACE OF FINISHED SLAB SHALL BE LEVEL AND FLAT WITHIN  $1/4"$ .
- CONTRACTOR SHALL VERIFY WITH MANUFACTURER ACTUAL DIMENSIONS OF CABINET PRIOR TO LAYING OUT FOUNDATION.
- MAXIMUM SIZE OF CONCRETE AGGREGATE SHALL NOT EXCEED 1 INCH; SIZE SUITABLE FOR INSTALLATION METHOD UTILIZED; OR ONE-THIRD CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING.
- REINFORCEMENT SHALL BE DEFORMED AND CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60 UNLESS OTHERWISE NOTED.
- WELDING IS PROHIBITED ON REINFORCING STEEL AND EMBEDMENTS.
- MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE 3 INCHES UNLESS OTHERWISE NOTED.
- CONCRETE COVER FROM TOP OF FOUNDATION TO ENDS OF VERTICAL REINFORCEMENT SHALL BE 3 INCHES MINIMUM.
- FOUNDATION DESIGN ASSUMES FIELD INSPECTIONS WILL BE PERFORMED TO VERIFY THAT CONSTRUCTION MATERIALS, INSTALLATION METHODS, AND ASSUMED DESIGN PARAMETERS ARE ACCEPTABLE BASED ON CONDITIONS EXISTING AT THE SITE.
- FOUNDATION DESIGN ASSUMED CONTINUOUS CONCRETE PLACEMENT WITHOUT CONSTRUCTION JOINTS.
- WELDED WIRE FABRIC SHALL BE SUPPLIED IN FLAT SHEETS. (NOT ROLLED).
- TEST CYLINDERS SHALL BE MOLDED AND LABORATORY CURED IN ACCORDANCE WITH ASTM C31. THREE CYLINDERS SHALL BE TAKEN FRO EACH DAY'S CONCRETE PLACEMENT. CYLINDERS SHALL BE TESTED IN ACCORDANCE WITH ASTM C39.
- TOPS OF CONCRETE FOUNDATION MUST BE WITHIN 0.02" OF ELEVATION SPECIFIED BY THE CUSTOMER.

## GENERAL STRUCTURAL NOTES

SPECIFICATIONS / CODES:

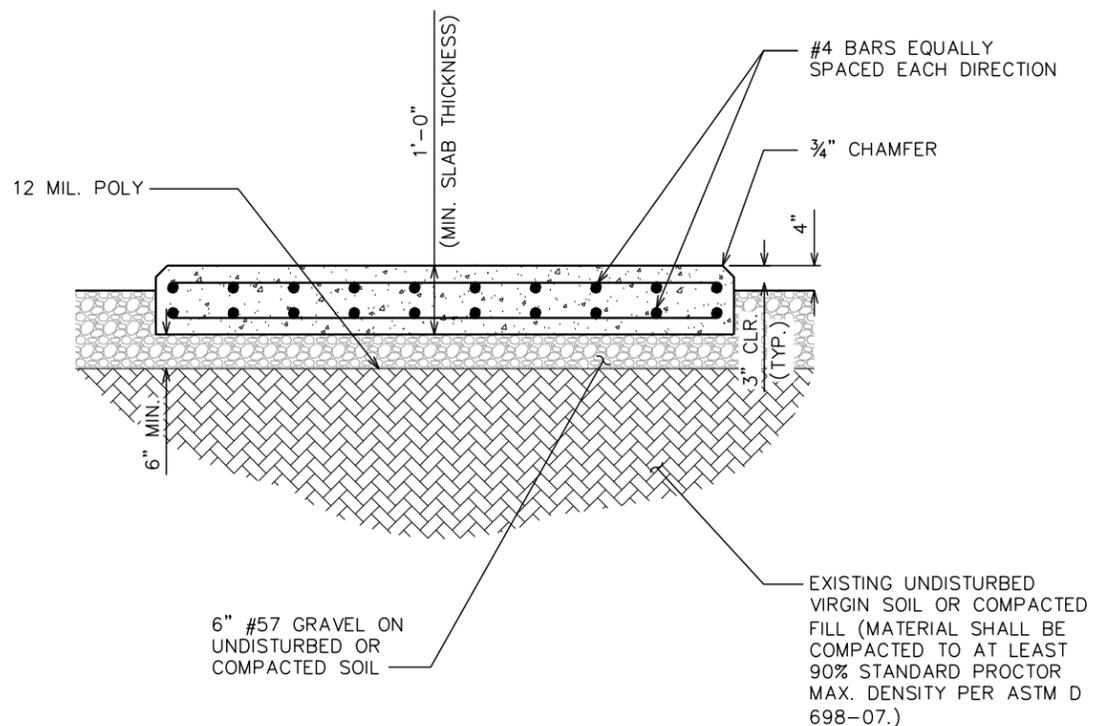
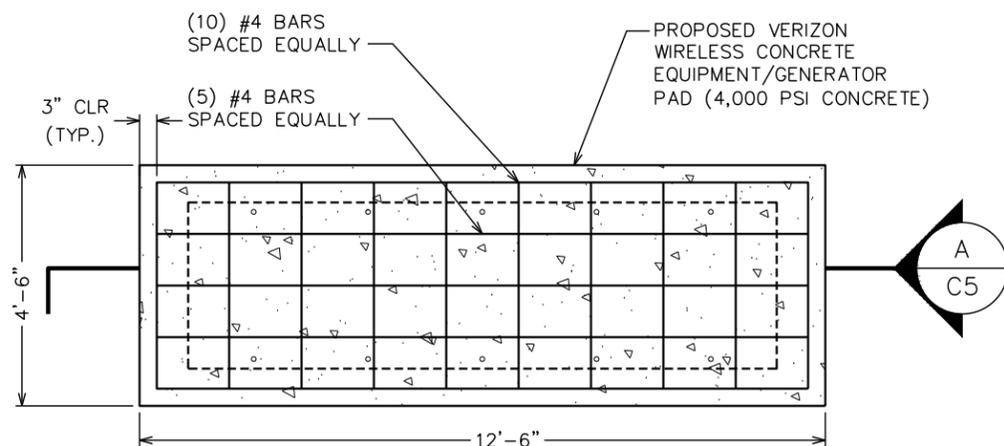
- ALL CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE ACI CODE.
- REINFORCING STEEL SHALL BE PLACED IN ACCORDANCE WITH THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI). "MANUAL OF STANDARD PRACTICE".

## VERIZON FOUNDATION NOTES

SCALE: N.T.S.

## NOTES:

- FROST DEPTH FOR DINWIDDIE COUNTY IS 20 INCHES.
- APPLICATION RATE OF FIBERS SHALL BE DETERMINED BY THE READY MIX CONCRETE SUPPLIER.
- THE CONCRETE SUPPLIER SHALL FOLLOW ALL MANUFACTURERS RECOMMENDATIONS FOR FIBERMESH APPLICATION INCLUDING THE MINIMUM APPLICATION RATE OF 3 LBS/YD<sup>3</sup>.



PLANS PREPARED FOR:



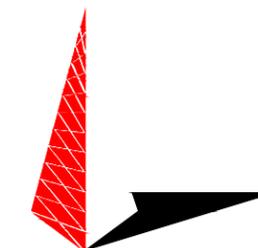
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

## CARSON SUBSTATION

28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

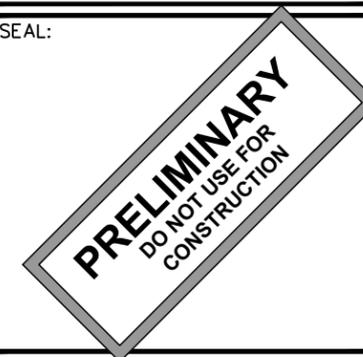
PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**

326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:



REV	DATE	ISSUED FOR:
0	09-27-23	PRELIMINARY

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:  
**FOUNDATION NOTES & DETAILS**

SHEET NUMBER: **C-5** REVISION: **0**  
TEP#: 132110.854246

## EQUIPMENT FOUNDATION PLAN VIEW

SCALE: N.T.S.

## EQUIPMENT FOUNDATION SECTION VIEW

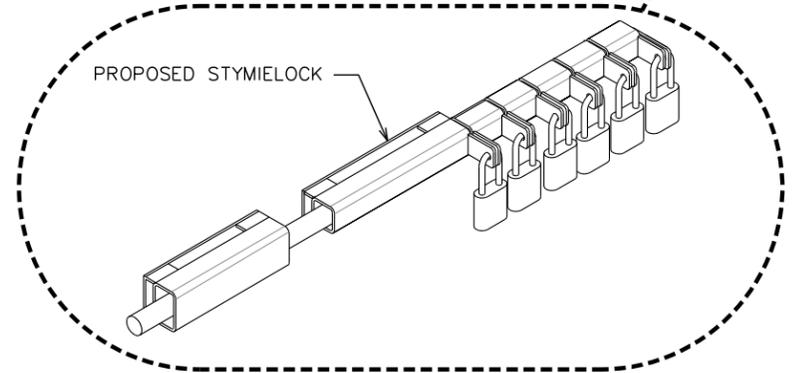
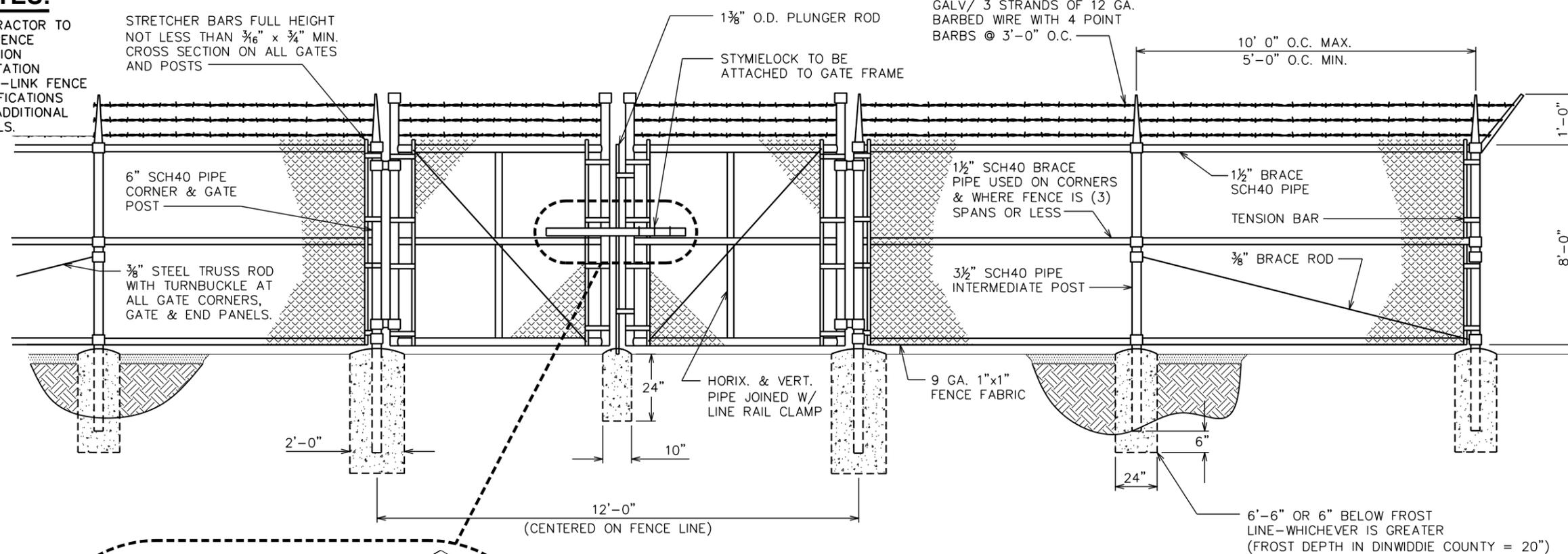
SCALE: N.T.S.

A  
C5

**NOTES:**

CONTRACTOR TO REFERENCE DOMINION SUBSTATION CHAIN-LINK FENCE SPECIFICATIONS FOR ADDITIONAL DETAILS.

STRETCHER BARS FULL HEIGHT NOT LESS THAN 3/16" x 3/4" MIN. CROSS SECTION ON ALL GATES AND POSTS



PLANS PREPARED FOR:

DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON SUBSTATION**

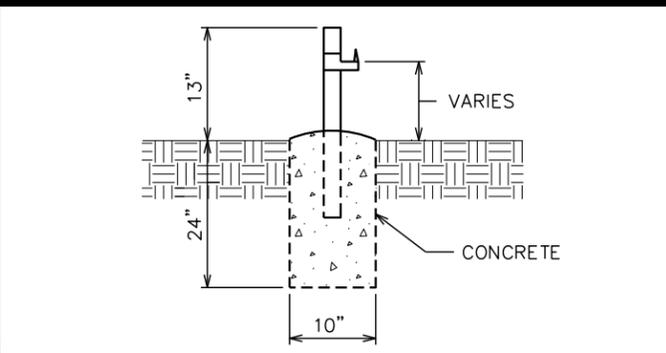
28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:

**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

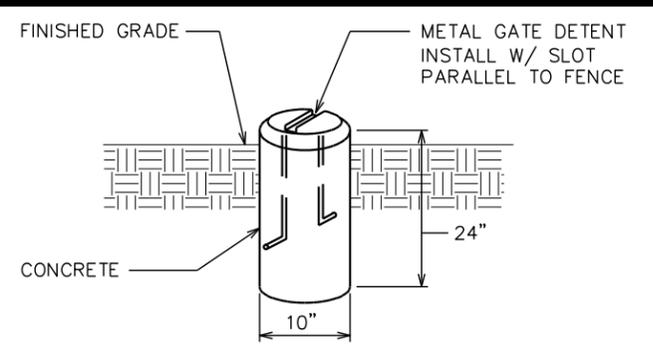
**TYPICAL FENCE ELEVATION**

SCALE: N.T.S.



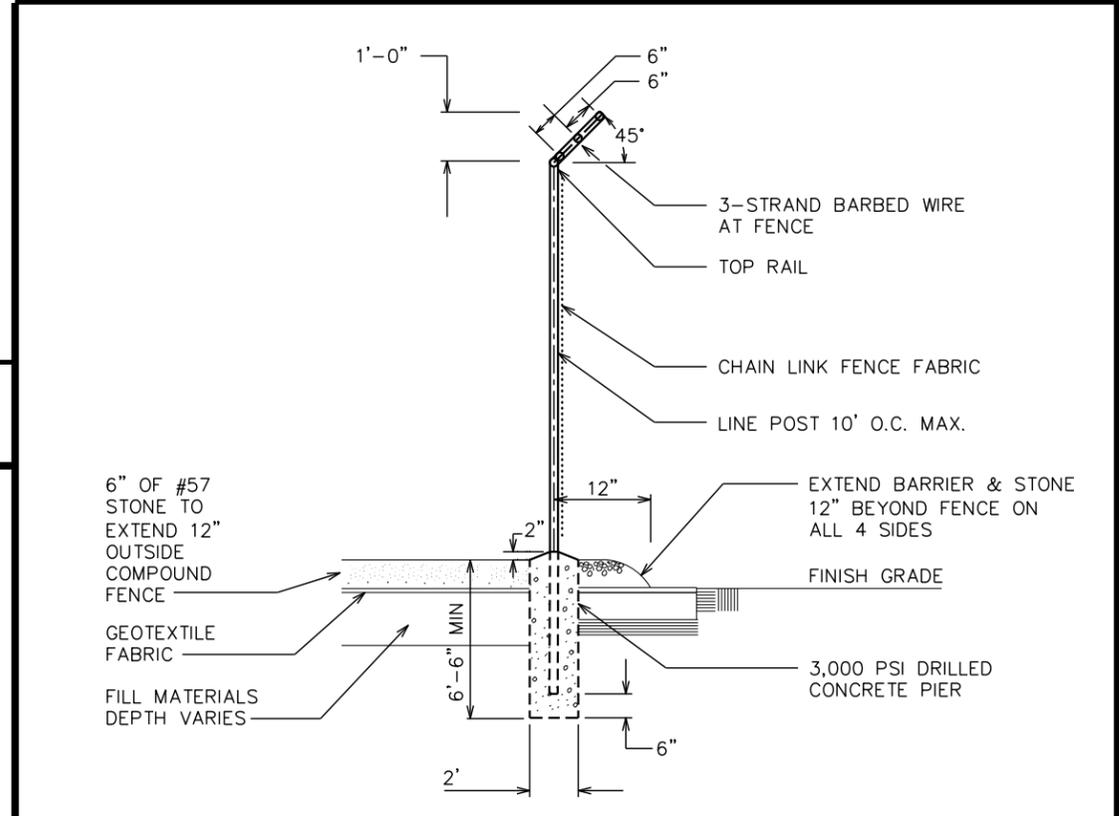
**GATE STOP / KEEPER DETAIL**

SCALE: N.T.S.



**GATE DETENT DETAIL**

SCALE: N.T.S.



**FENCE / BARBED WIRE ARM DETAIL**

SCALE: N.T.S.

SEAL:

REV	DATE	ISSUED FOR:
6	11-15-24	PRELIMINARY
5	10-17-24	PRELIMINARY
4	09-18-24	PRELIMINARY
3	04-16-24	PRELIMINARY

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

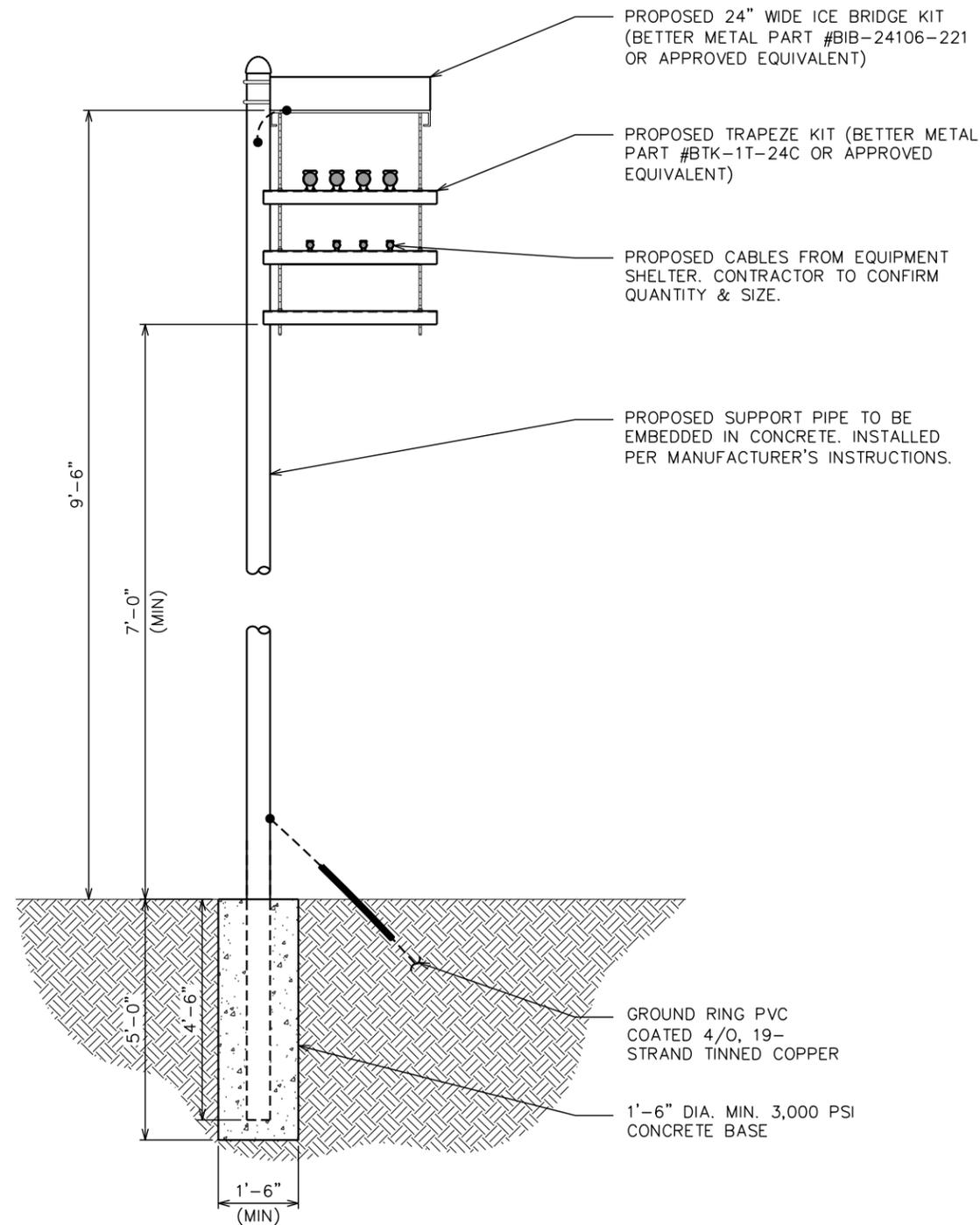
**FENCE DETAIL**

SHEET NUMBER: **C-6** REVISION: **6**

TPE#: 132110.854246

**NOTE:**

EACH WAVEGUIDE SECTION TO BE THROUGH-BOLTED ON BOTH SIDES.



PLANS PREPARED FOR:



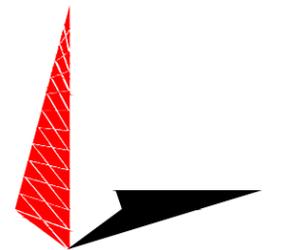
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON  
SUBSTATION**

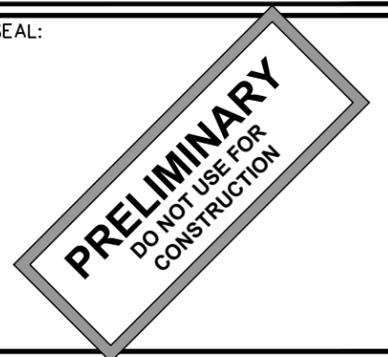
28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:



0	09-27-23	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

**ICE BRIDGE  
DETAILS**

SHEET NUMBER: REVISION:

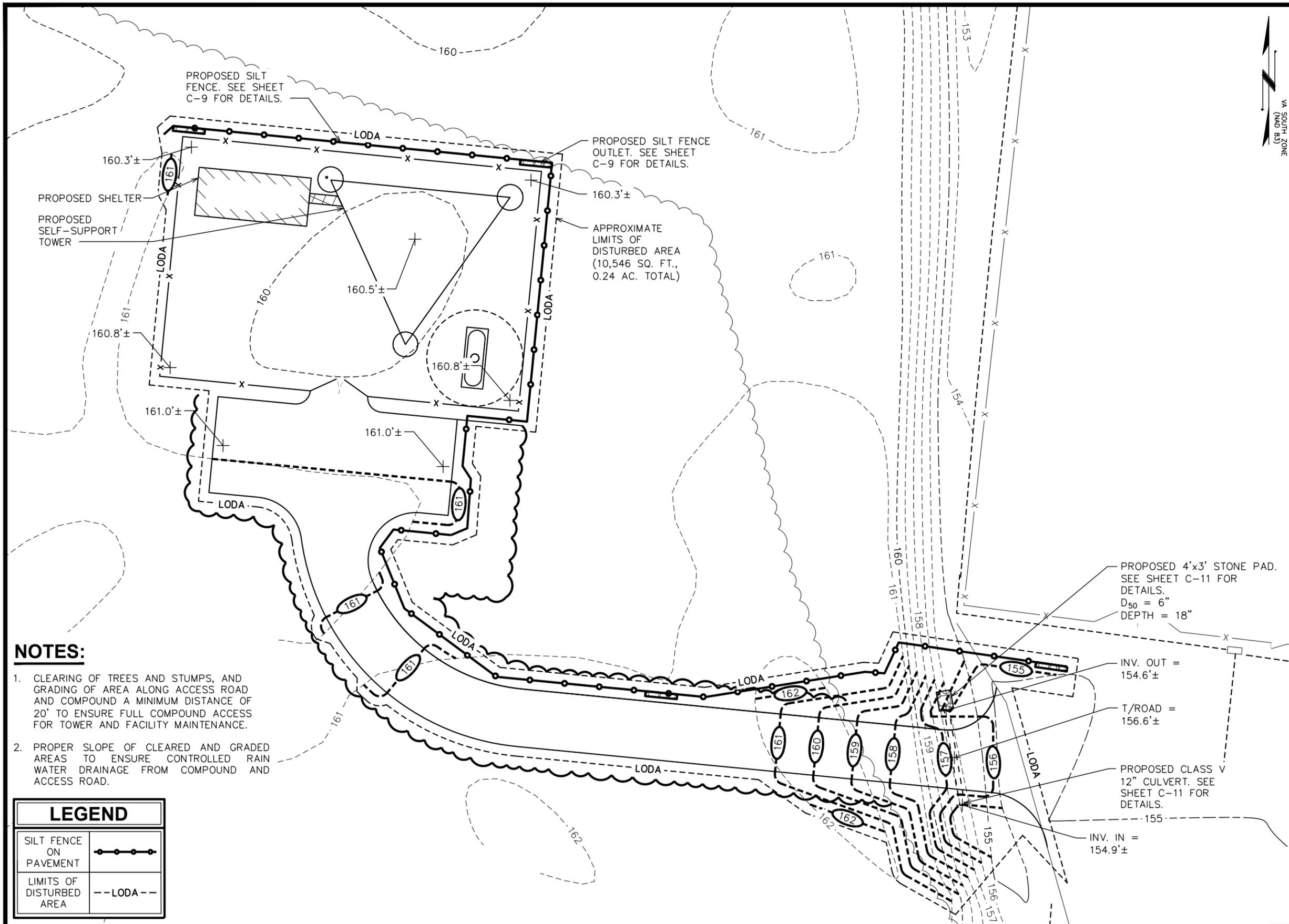
**C-7**

**0**

TEP#: 132110.854246

**ICE BRIDGE DETAILS**

SCALE: N.T.S.



PLANS PREPARED FOR:



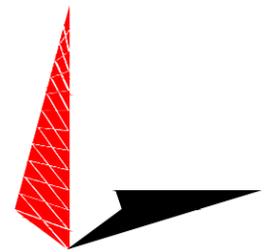
**Dominion Energy**  
 DOMINION RESOURCES SERVICES, INC.  
 707 EAST MAIN STREET  
 RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON SUBSTATION**

28908 ELLINGTON RD  
 PETERSBURG, VA 23805  
 (DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
 326 TRYON ROAD  
 RALEIGH, NC 27603  
 OFFICE: (919) 661-6351  
 www.tepgroup.net

SEAL:

**PRELIMINARY**  
 DO NOT USE FOR  
 CONSTRUCTION

REV	DATE	ISSUED FOR:
5	10-17-24	PRELIMINARY
4	09-18-24	PRELIMINARY
3	04-16-24	PRELIMINARY
2	12-04-23	PRELIMINARY

DRAWN BY: SAB CHECKED BY: TDS

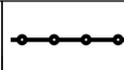
SHEET TITLE:

**EROSION CONTROL PLAN**

SHEET NUMBER: **C-8** REVISION: **5**

TEP#: 132110.854246

- NOTES:**
- CLEARING OF TREES AND STUMPS, AND GRADING OF AREA ALONG ACCESS ROAD AND COMPOUND A MINIMUM DISTANCE OF 20' TO ENSURE FULL COMPOUND ACCESS FOR TOWER AND FACILITY MAINTENANCE.
  - PROPER SLOPE OF CLEARED AND GRADED AREAS TO ENSURE CONTROLLED RAIN WATER DRAINAGE FROM COMPOUND AND ACCESS ROAD.

LEGEND	
SILT FENCE ON PAVEMENT	
LIMITS OF DISTURBED AREA	

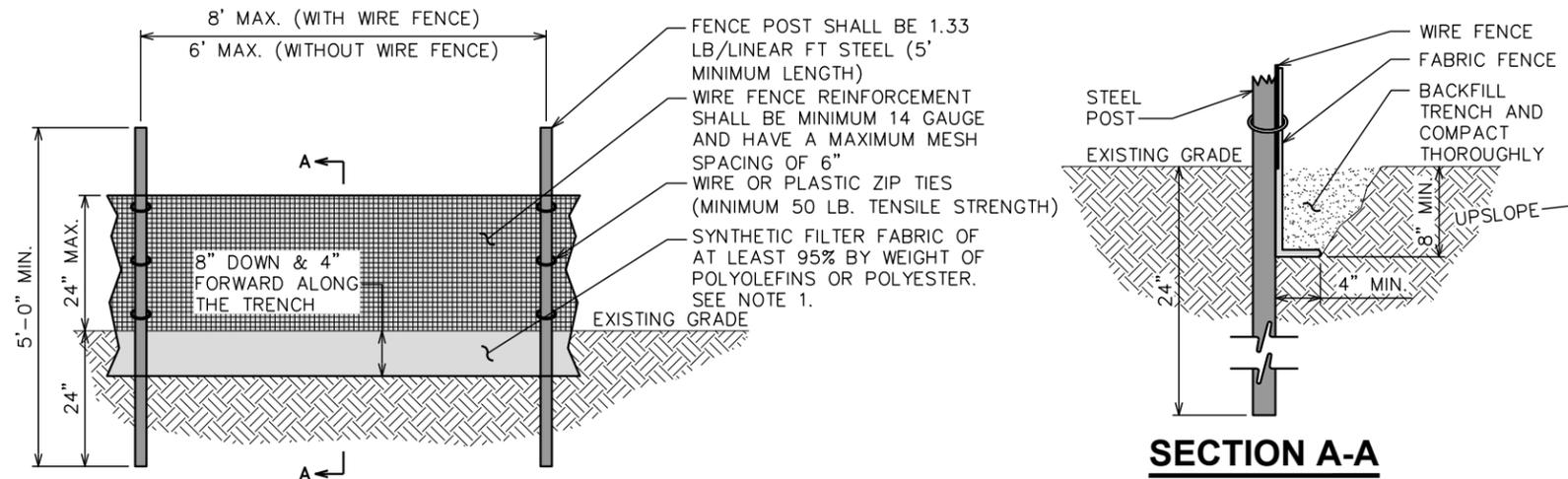
**EROSION CONTROL PLAN**

SCALE: 1" = 20'



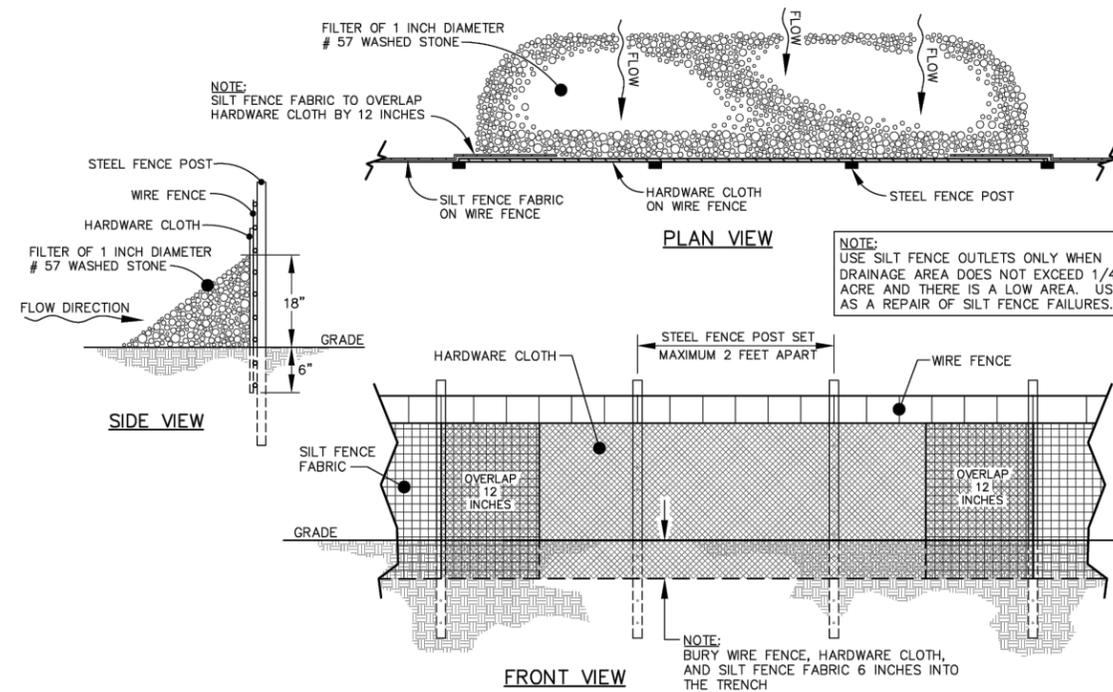
**NOTES:**

1. FILTER FABRIC SHALL CONFORM TO THE REQUIREMENTS LISTED IN ASTM D 6461.
2. ENDS OF INDIVIDUAL FILTER FABRIC SHALL BE SECURELY FASTENED AT A SUPPORT POST WITH 4 FEET MINIMUM OVERLAP TO THE NEXT POST.
3. PLACE 12 INCHES OF FABRIC ALONG THE BOTTOM AND SIDE OF THE TRENCH.
4. INSPECT SEDIMENT FENCE(S) AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL.
5. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE.
6. AFTER CONSTRUCTION IS COMPLETE, THE CONTRACTOR SHALL REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS, BRING THE AREA TO GRADE AND PROPERLY STABILIZE THE SITE.



**SILT FENCE DETAIL**

SCALE: N.T.S.



**STANDARD SILT FENCE OUTLET DETAIL**

SCALE: N.T.S.

PLANS PREPARED FOR:



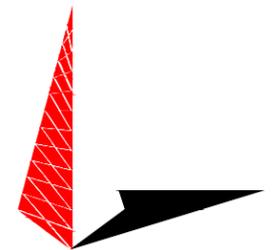
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON SUBSTATION**

28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

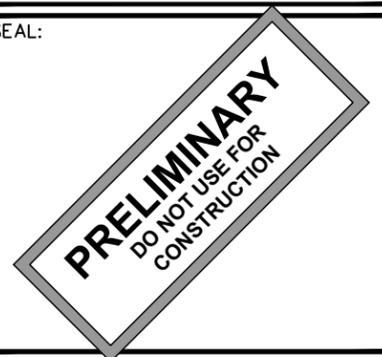
PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**

326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:



0	09-27-23	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

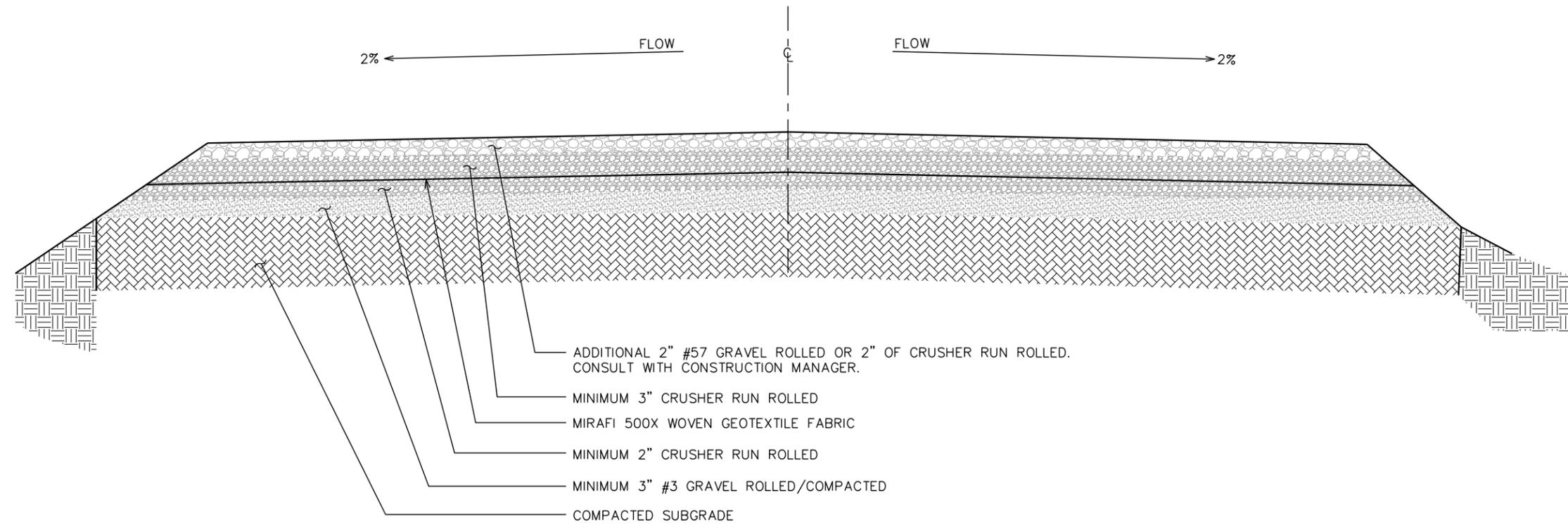
**SILT FENCE DETAILS**

SHEET NUMBER: REVISION:

**C-9**

**0**

TEP#: 132110.854246



PLANS PREPARED FOR:



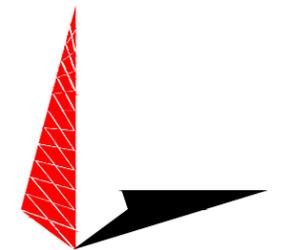
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON  
SUBSTATION**

28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

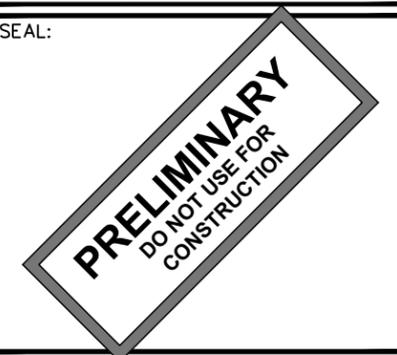
PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**

326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:



0	09-27-23	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:  
**ACCESS ROAD  
DETAIL**

SHEET NUMBER: **C-10** REVISION: **0**  
TEP#: 132110.854246

**STANDARD ROAD SECTION**

SCALE: N.T.S.

PLANS PREPARED FOR:



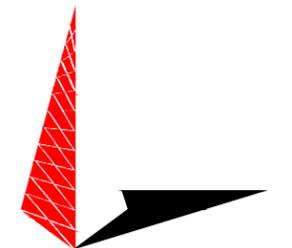
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

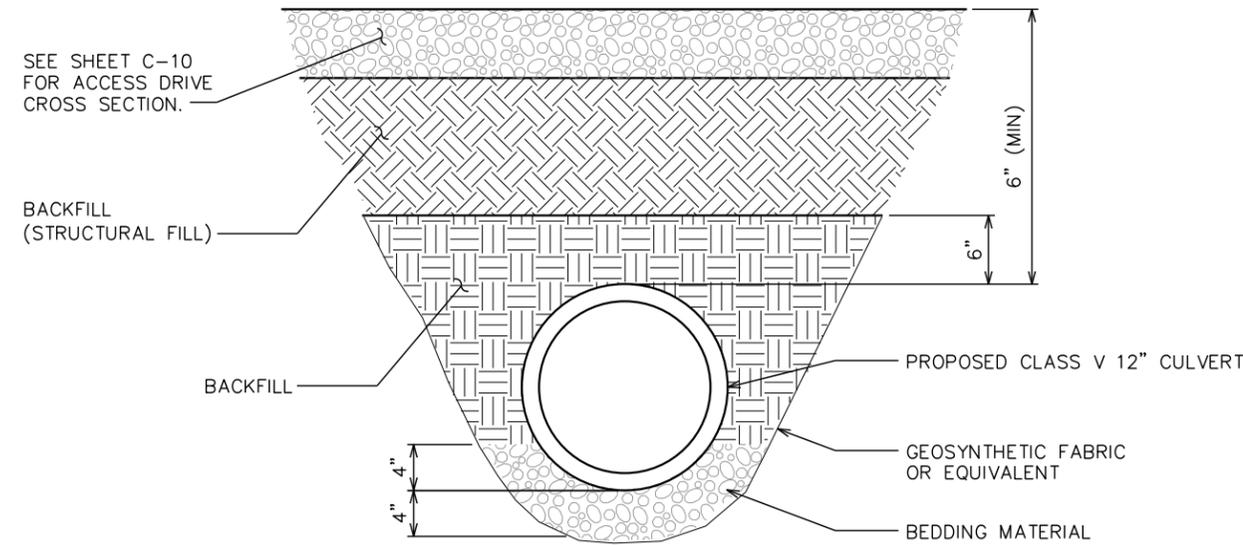
**CARSON  
SUBSTATION**

28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net



**CULVERT DETAIL**

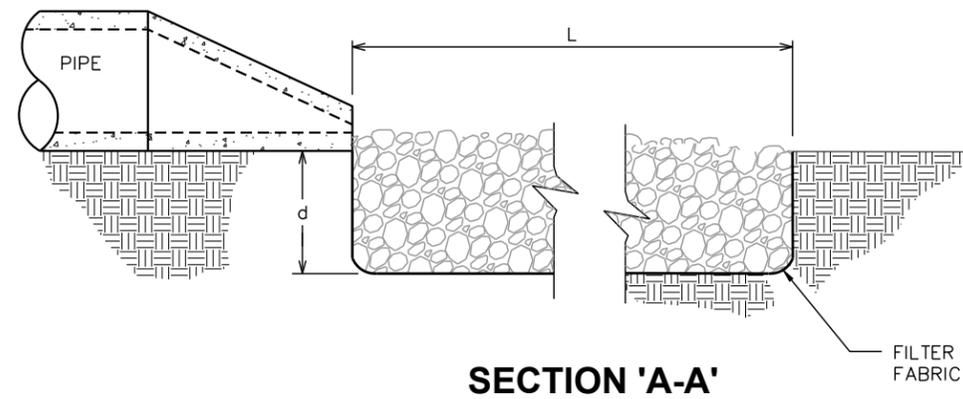
SCALE: N.T.S.

**NOTES:**

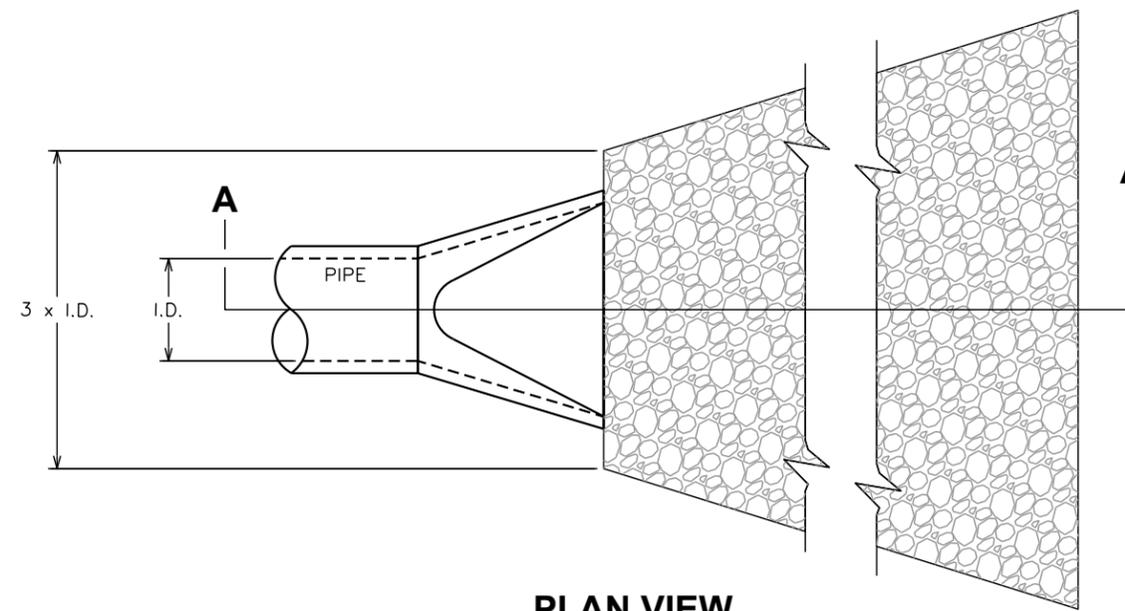
- L = THE LENGTH OF THE RIPRAP APRON.
- d = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6" (INCHES).
- A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.

**DISSIPATOR PAD SIZING**

RIP-RAP APRON NO.	CULVERT DIAMETER (IN)	WIDTH (FT)	LENGTH (FT)	DEPTH (IN)	D <sub>50</sub> (IN)
1	12	3	4	18	6

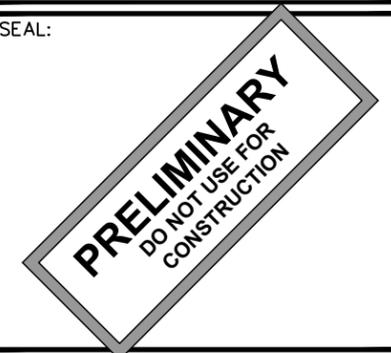


**SECTION 'A-A'**



**PLAN VIEW**

SEAL:



REV	DATE	ISSUED FOR:
5	10-17-24	PRELIMINARY
4	09-18-24	PRELIMINARY
3	04-16-24	PRELIMINARY
2	12-04-23	PRELIMINARY

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

**CULVERT  
DETAILS**

SHEET NUMBER: REVISION:

**C-11** **5**

TEP#: 132110.854246

**DISSIPATOR PAD DETAILS**

SCALE: N.T.S.

## ELECTRICAL NOTES:

### SCOPE:

1. PROVIDE LABOR, MATERIALS, INSPECTION, AND TESTING TO PROVIDE CODE COMPLIANCE FOR ELECTRIC, TELEPHONE, AND GROUNDING/LIGHTNING SYSTEMS.

### CODES:

1. THE INSTALLATION SHALL COMPLY WITH APPLICABLE LAWS AND CODES. THESE INCLUDE BUT ARE NOT LIMITED TO THE LATEST ADOPTED EDITIONS OF:
 

A. THE NATIONAL ELECTRICAL SAFETY CODE	D. LOCAL AND STATE AMENDMENTS
B. THE NATIONAL ELECTRIC CODE – NFPA-70	E. THE INTERNATIONAL ELECTRIC CODE – IEC (WHERE APPLICABLE)
C. REGULATIONS OF THE SERVING UTILITY COMPANY	
2. PERMITS REQUIRED SHALL BE OBTAINED BY THE CONTRACTOR.
3. AFTER COMPLETION AND FINAL INSPECTION OF THE WORK, THE OWNER SHALL BE FURNISHED A CERTIFICATE OF COMPLETION AND APPROVAL.

### TESTING:

1. UPON COMPLETION OF THE INSTALLATION, OPERATE AND ADJUST THE EQUIPMENT AND SYSTEMS TO MEET SPECIFIED PERFORMANCE REQUIREMENTS. THE TESTING SHALL BE DONE BY QUALIFIED PERSONNEL.

### GUARANTEE:

1. IN ADDITION TO THE GUARANTEE OF THE EQUIPMENT BY THE MANUFACTURER, EACH PIECE OF EQUIPMENT SPECIFIED HEREIN SHALL ALSO BE GUARANTEED FOR DEFECTS OF MATERIAL OR WORKMANSHIP OCCURRING DURING A PERIOD OF ONE (1) YEAR FROM FINAL ACCEPTANCE OF THE WORK BY THE OWNER AND WITHOUT EXPENSE TO THE OWNER.
2. THE WARRANTY CERTIFICATES & GUARANTEES FURNISHED BY THE MANUFACTURERS SHALL BE TURNED OVER TO THE OWNER.

### UTILITY CO-ORDINATION:

1. CONTRACTOR SHALL COORDINATE WORK WITH THE POWER AND TELEPHONE COMPANIES AND SHALL COMPLY WITH THE SERVICE REQUIREMENTS OF EACH UTILITY COMPANY.

### EXAMINATION OF SITE:

1. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL VISIT THE SITE OF THE JOB AND SHALL FAMILIARIZE HIMSELF WITH THE CONDITIONS AFFECTING THE PROPOSED ELECTRICAL INSTALLATION AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. FAILURE TO COMPLY WITH THE INTENT OF THIS SECTION WILL IN NO WAY RELIEVE THE CONTRACTOR OF PERFORMING THE WORK NECESSARY FOR A COMPLETE AND WORKING SYSTEM OR SYSTEMS.

### CUTTING, PATCHING AND EXCAVATION:

1. COORDINATION OF SLEEVES, CHASES, ETC., BETWEEN SUBCONTRACTORS WILL BE REQUIRED PRIOR TO THE CONSTRUCTION OF ANY PORTION OF THE WORK. CUTTING AND PATCHING OF WALLS, PARTITIONS, FLOORS, AND CHASES IN CONCRETE, WOOD, STEEL OR MASONRY SHALL BE DONE AS PROVIDED ON THE DRAWINGS.
2. NECESSARY EXCAVATIONS AND BACKFILLING INCIDENTAL TO THE ELECTRICAL WORK SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWING.
3. SEAL PENETRATIONS THROUGH RATED WALLS, FLOORS, ETC., WITH APPROVED METHOD AS LISTED BY UL.

### RACEWAYS / CONDUITS GENERAL:

1. CONDUITS SHALL BE INSTALLED IN LISTED RACEWAYS. CONDUIT SHALL BE RIGID STEEL, EMT, SCH40 PVC, OR SCH80PVC AS INDICATED ON THE DRAWINGS. THE RACEWAY SYSTEM SHALL BE COMPLETE COMPLETE BEFORE INSTALLING CONDUITS.
2. EXTERIOR RACEWAYS AND GROUNDING SLEEVES SHALL BE SEALED AT POINTS OF ENTRANCE AND EXIT. THE RACEWAY SYSTEM SHALL BE BONDED PER NEC.

### EXTERIOR CONDUIT:

1. EXPOSED CONDUIT SHALL BE NEATLY INSTALLED AND RUN PARALLEL OR PERPENDICULAR TO STRUCTURAL ELEMENTS. SUPPORTS AND MOUNTING HARDWARE SHALL BE HOT DIPPED GALVANIZED STEEL.
2. THE CONDUIT SHALL BE RIGID STEEL AT GRADE TRANSITIONS OR WHERE EXPOSED TO DAMAGE.
3. UNDERGROUND CONDUITS SHALL BE RIGID STEEL, SCH40 PVC, OR SCH80 PVC AS INDICATED ON THE DRAWINGS.
4. BURIAL DEPTH OF CONDUITS SHALL BE AS REQUIRED BY CODE FOR EACH SPECIFIC CONDUIT TYPE AND APPLICATION, BUT SHALL NOT BE LESS THAN THE FROST DEPTH AT THE SITE.
5. CONDUIT ROUTES ARE SCHEMATIC. CONTRACTOR SHALL FIELD VERIFY ROUTES BEFORE BID. COORDINATE ROUTE WITH WIRELESS CARRIER AND/OR BUILDING OWNER.

### INTERIOR CONDUIT:

1. CONCEALED CONDUIT IN WALLS OR INTERIOR SPACES ABOVE GRADE MAY BE EMT OR PVC.
2. CONDUIT RUNS SHALL USE APPROVED COUPLINGS AND CONNECTORS. PROVIDE INSULATED BUSHING FOR ALL CONDUIT TERMINATIONS. CONDUIT RUNS IN A WET LOCATION SHALL HAVE WATERPROOF FITTINGS.
3. PROVIDE SUPPORTS FOR CONDUITS IN ACCORDANCE WITH NEC REQUIREMENTS. CONDUITS SHALL BE SIZED AS REQUIRED BY NEC.

### EQUIPMENT:

1. DISCONNECT SWITCHES SHALL BE SERVICE ENTRANCE RATED, HEAVY DUTY TYPE.
2. CONTRACTOR SHALL VERIFY MAXIMUM AVAILABLE FAULT CURRENT AND COORDINATE INSTALLATION WITH THE LOCAL UTILITY BEFORE STARTING WORK. CONTRACTOR WILL VERIFY THAT EXISTING CIRCUIT BREAKERS ARE RATED FOR MORE THAN AVAILABLE FAULT CURRENT AND REPLACE AS NECESSARY.
3. NEW CIRCUIT BREAKERS SHALL BE RATED TO WITHSTAND THE MAXIMUM AVAILABLE FAULT CURRENT AS DETERMINED BY THE LOCAL UTILITY.

### CONDUCTORS:

1. FURNISH AND INSTALL CONDUCTORS SPECIFIED IN THE DRAWINGS. CONDUCTORS SHALL BE COPPER AND SHALL HAVE TYPE THWN (MIN) (75° C) INSULATION, RATED FOR 600 VOLTS.
2. THE USE OF ALUMINUM CONDUCTORS SHALL BE LIMITED TO THE SERVICE FEEDERS INSTALLED BY THE UTILITY.
3. CONDUCTORS SHALL BE PROVIDED AND INSTALLED AS FOLLOWS:
  - A. MINIMUM WIRE SIZE SHALL BE #12 AWG.
  - B. CONDUCTORS SIZE #8 AND LARGER SHALL BE STRANDED. CONDUCTORS SIZED #10 AND #12 MAY BE SOLID OR STRANDED.
  - C. CONNECTION FOR #10 AWG #12 AWG SHALL BE BY TWISTING TIGHT AND INSTALLING INSULATED PRESSURE OR WIRE NUT CONNECTIONS.
  - D. CONNECTION FOR #8 AWG AND LARGER SHALL BE BY USE OF STEEL CRIMP-ON SLEEVES WITH NYLON INSULATOR.
3. CONDUCTORS SHALL BE COLOR CODED IN ACCORDANCE WITH NEC STANDARDS.

### UL COMPLIANCE:

1. ELECTRICAL MATERIALS, DEVICES, CONDUCTORS, APPLIANCES, AND EQUIPMENT SHALL BE LABELED/LISTED BY UL OR ACCEPTED BY JURISDICTION (I.E., LOCAL COUNTY OR STATE) APPROVED THIRD PARTY TESTING AGENCY.

### GROUNDING:

1. ELECTRICAL NEUTRALS, RACEWAYS AND NON-CURRENT CARRYING PARTS OF ELECTRICAL EQUIPMENT AND ASSOCIATED ENCLOSURES SHALL BE GROUNDED IN ACCORDANCE WITH NEC ARTICLE 250. THIS SHALL INCLUDE NEUTRAL CONDUCTORS, CONDUITS, SUPPORTS, CABINETS, BOXES, GROUND BUSSES, ETC. THE NEUTRAL CONDUCTOR FOR EACH SYSTEM SHALL BE GROUNDED AT A SINGLE POINT.
2. PROVIDE GROUND CONDUCTOR IN RACEWAYS PER NEC.
3. PROVIDE BONDING AND GROUND TO MEET NFPA 780 – "LIGHTNING PROTECTION" AS A MINIMUM.
4. PROVIDE GROUNDING SYSTEM AS INDICATED ON THE DRAWINGS, AS REQUIRED BY THE NATIONAL ELECTRIC CODE, RADIO EQUIPMENT MANUFACTURERS, AND MOTOROLA R56 (AS APPLICABLE).

## ABBREVIATIONS AND LEGEND

A	– AMPERE	PNLBD	– PANELBOARD
AFG	– ABOVE FINISHED GRADE	PVC	– RIGID NON-METALLIC CONDUIT
ATS	– AUTOMATIC TRANSFER SWITCH	RGS	– RIGID GALVANIZED STEEL CONDUIT
AWG	– AMERICAN WIRE GAUGE	SW	– SWITCH
BCW	– BARE COPPER WIRE	TGB	– TOWER GROUND BAR
BFG	– BELOW FINISHED GRADE	UL	– UNDERWRITERS LABORATORIES
BKR	– BREAKER	V	– VOLTAGE
C	– CONDUIT	W	– WATTS
CKT	– CIRCUIT	XFMR	– TRANSFORMER
DISC	– DISCONNECT	XMTR	– TRANSMITTER
EGR	– EXTERNAL GROUND RING		
EMT	– ELECTRIC METALLIC TUBING		
FSC	– FLEXIBLE STEEL CONDUIT		
GEN	– GENERATOR		
GPS	– GLOBAL POSITIONING SYSTEM		
GRD	– GROUND		
IGB	– ISOLATED GROUND BAR		
IGR	– INTERIOR GROUND RING (HALO)		
KW	– KILOWATTS		
NEC	– NATIONAL ELECTRIC CODE		
PCS	– PERSONAL COMMUNICATION SYSTEM		
PH	– PHASE		
PNL	– PANEL		

	UNDERGROUND ELECTRICAL CONDUIT
	UNDERGROUND TELEPHONE CONDUIT
	KILOWATT-HOUR METER
	UNDERGROUND BONDING AND GROUNDING CONDUCTOR.
	GROUND ROD
	CADWELD
	GROUND ROD WITH INSPECTION WELL

PLANS PREPARED FOR:



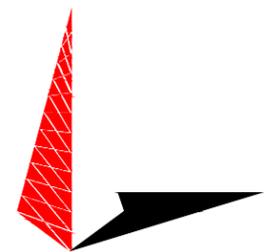
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

## CARSON SUBSTATION

28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:



0	09-27-23	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

## ELECTRICAL NOTES

SHEET NUMBER: REVISION:

**E-1**

**0**

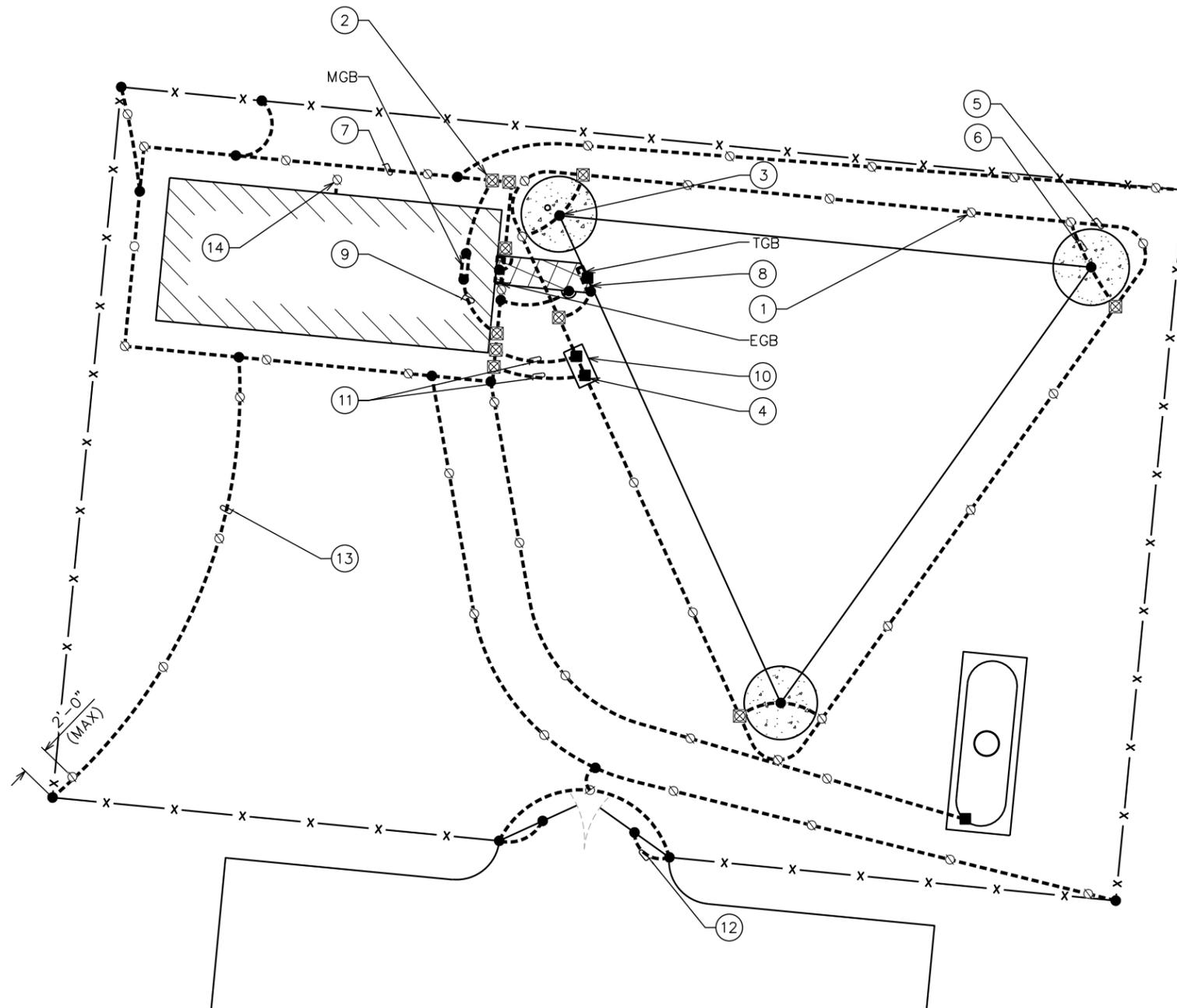
TEP#: 132110.854246

**DOMINION GROUNDING NOTES:**

1. ALL GROUND RODS TO BE 5/8"x10' COPPER CLAD GROUND ROD.
2. ALL BELOW GRADE CONNECTIONS SHALL BE EXOTHERMIC CONNECTIONS.
3. ALL BELOW GRADE EXOTHERMIC CADWELDS WILL HAVE 3M SCOTCHCOAT APPLIED OVER ALL EXPOSED BARE COPPER.
4. ALL GROUND WIRING TO BE 4/0, 19-STRAND TINNED COPPER WIRE.
5. ALL ABOVE GRADE CONNECTIONS TO A GROUND WIRE (LUGS) SHALL BE CRIMPED STYLE, (I.E...GROUND BARS).
6. ALL ABOVE GRADE MECHANICAL COMPRESSION CONNECTIONS SHALL BE TWO-BOLT HOLE STYLE AND HAVE A LIBERAL COATING OF DIOXIDE GREASE APPLIED.
7. IF GROUND RODS CANNOT BE DRIVEN VERTICALLY:
  - DRIVE GROUND RODS AT 45° ANGLE
  - IF GROUND RODS CANNOT BE DRIVEN AT A 45° ANGLE, LAY GROUND RODS DOWN HORIZONTALLY PERPENDICULAR TO THE GROUND RING
8. ALL GROUNDING CONDUCTORS TO BE BURIED AT A MINIMUM OF 18".
9. ALL GROUNDING SYSTEMS ARE TO BE MADE COMMON.
10. ALL BELOW GRADE GROUND WIRING TO BE 4/0, 19-STRAND TINNED COPPER WIRE.
11. ALL BARE 4/0, 19-STRAND TINNED COPPER GROUND WIRE ABOVE GRADE (I.E. GROUND RISERS) TO BE INSIDE NON-METALLIC LIQUIDTITE.
12. GROUNDING OF ALL COMMUNICATIONS EQUIPMENT (I.E. RACKS, CABINETS, ETC.) IS TO BE DESIGNED, FURNISHED AND INSTALLED BY OTHERS.
13. GROUNDING SYSTEM SHALL BE MEGGAR TESTED TO VERIFY SITE GROUND RESISTANCE AS FOLLOWS:
  - TOWER GROUND RING TO BE TESTED ISOLATED FROM TOWER. THIS TEST CAN ONLY BE DONE PRIOR TO CADWELDING TOWER LEGS AND TGB TO TOWER GROUND RING AND PRIOR TO CONNECTING TO SHELTER GROUND RING.
14. ALL TRENCHES MUST REMAIN OPEN FOR DOMINION VISUAL INSPECTIONS. TRENCHES CAN ONLY BE CLOSED AFTER INSPECTIONS HAVE BEEN COMPLETED AND APPROVED BY DOMINION.

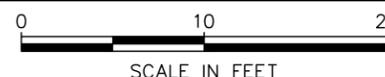
**DRAWING NOTES:**

- |   |   |   |
|---|---|---|
| ① GROUND ROD 5/8"x10' COPPER CLAD GROUND ROD (TYP)    | ⑩ PROPOSED 18"x30" PG HANDHOLE WITH LID. INSTALL 6" GRAVEL BASE AT BOTTOM OF BOX.   | ⑫ GATE POST GROUNDING (TYP)   |
| ② GROUND ROD WITH INSPECTION WELL (TYP)               | ⑪ PROPOSED (2) BARE 4/0 GROUND LEADS SPACED 12"-18" APART, EXOTHERMICALLY WELDED TO PROPOSED SHELTER GROUND RING AND MECHANICALLY CONNECTED TO TOWER GROUND RING USING (2) BURNDY VERSITAP TYPE QPX MECHANICAL CONNECTORS INSIDE PROPOSED HANDHOLE BOX. | ⑬ #2 GROUND LEAD FROM SHELTER GROUNDING RING TO FENCE POST (TYP)  |
| ③ CADWELD (TYP)                                       |   | ⑭ AC NEUTRAL GROUNDED TO GROUND BAR INSIDE SHELTER WITH A #2 THHN COPPER GROUND LEAD EXOTHERMICALLY WELDED TO A SINGLE GROUND ROD OUTSIDE THE SHELTER THAT IS ISOLATED FROM DOMINION SHELTER RING |
| ④ 2-HOLE LUG MECHANICAL CONNECTION (TYP)              |   |   |
| ⑤ PROPOSED TOWER GROUND RING                          |   |   |
| ⑥ GROUND LEAD FROM TOWER TO TOWER GROUND RING (TYP)   |   |   |
| ⑦ PROPOSED SHELTER GROUND RING                        |   |   |
| ⑧ PROPOSED TOWER GROUND BAR                           |   |   |
| ⑨ PROPOSED GROUND LEAD FROM GROUND BAR TO GROUND RING |   |   |



**TOWER GROUNDING PLAN**

SCALE: 1" = 10'



PLANS PREPARED FOR:



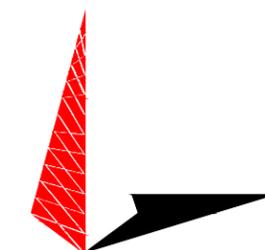
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON SUBSTATION**

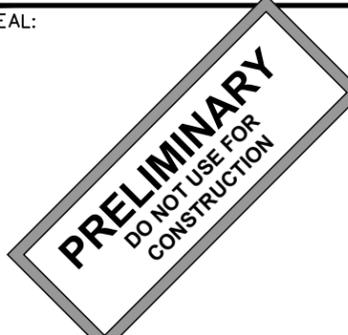
28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:



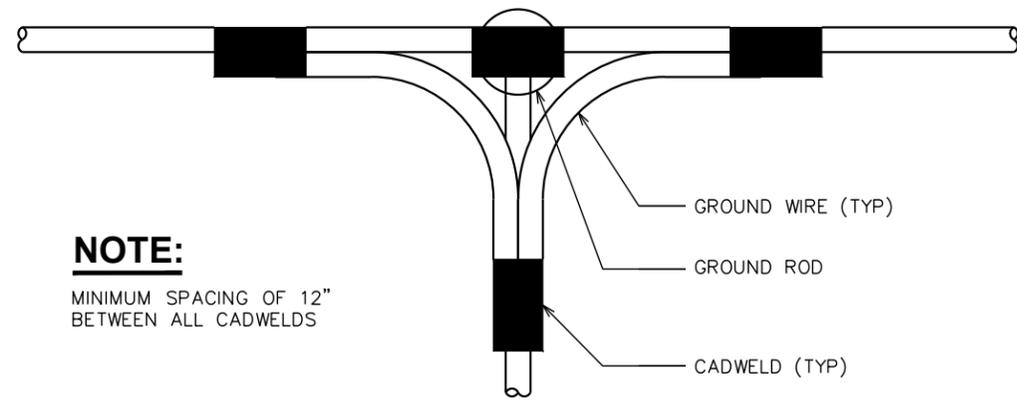
4	09-18-24	PRELIMINARY
3	04-16-24	PRELIMINARY
2	12-04-23	PRELIMINARY
1	10-13-23	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

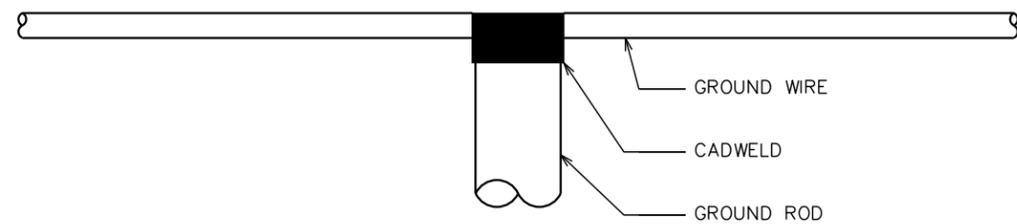
**GROUNDING PLAN**

SHEET NUMBER:	REVISION:
<b>E-2</b>	<b>4</b>
TEP#: 132110.854246	

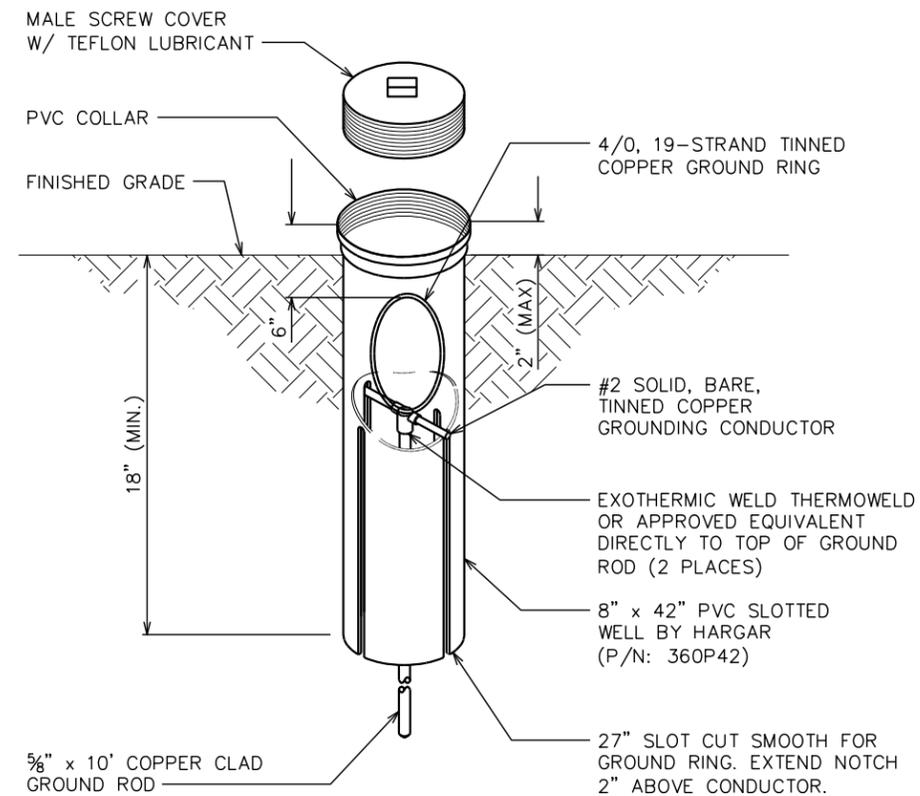


**NOTE:**  
MINIMUM SPACING OF 12"  
BETWEEN ALL CADWELDS

**TOP VIEW**



**SIDE VIEW**

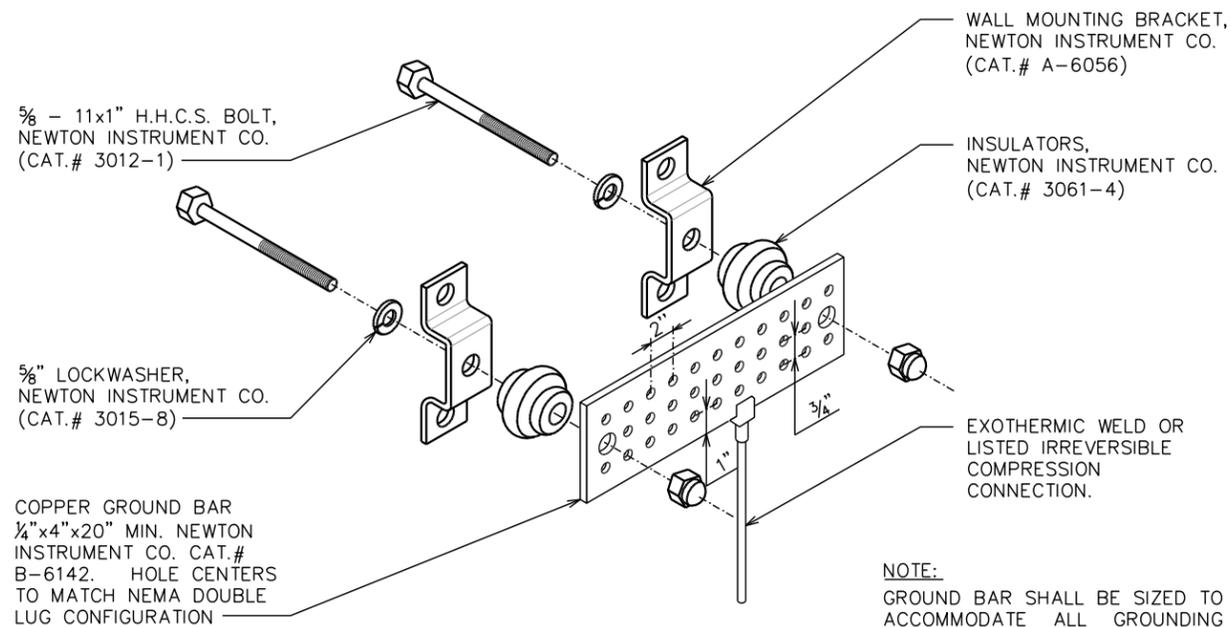


**GROUND ROD WITH INSPECTION WELL DETAIL**

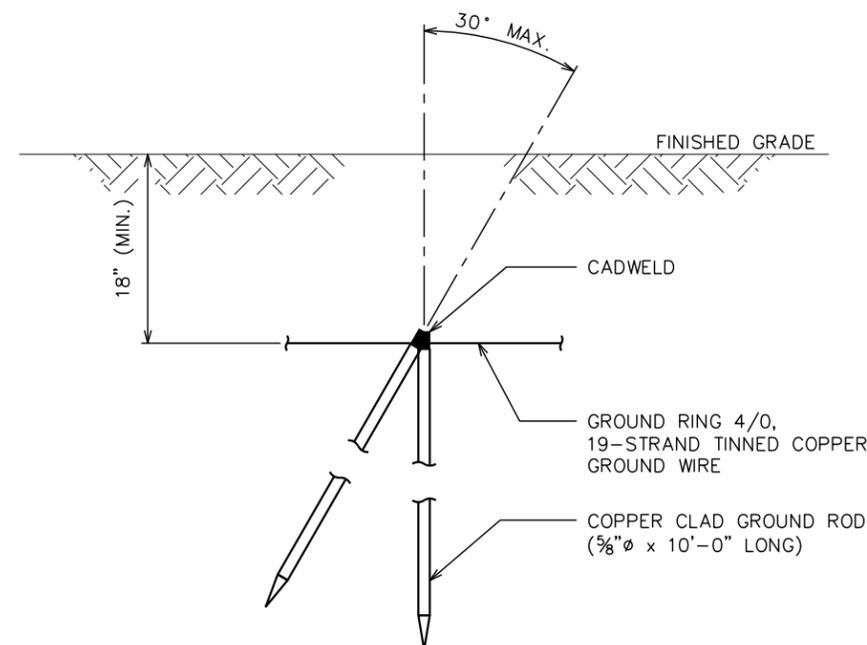
SCALE: N.T.S.

**CADWELD GROUNDING DETAIL**

SCALE: N.T.S.



**NOTE:**  
GROUND BAR SHALL BE SIZED TO  
ACCOMMODATE ALL GROUNDING  
CONNECTIONS REQUIRED PLUS  
PROVIDE 50% SPARE CAPACITY.



**COPPER-CLAD STEEL GROUND ROD DETAIL**

SCALE: N.T.S.

**STANDARD GROUND BAR DETAIL**

SCALE: N.T.S.

PLANS PREPARED FOR:

**Dominion Energy**  
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON SUBSTATION**

28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:

**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:

**PRELIMINARY**  
DO NOT USE FOR  
CONSTRUCTION

0	09-27-23	PRELIMINARY
REV	DATE	ISSUED FOR:

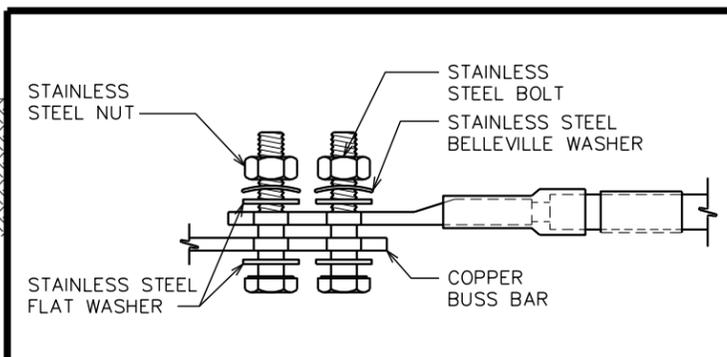
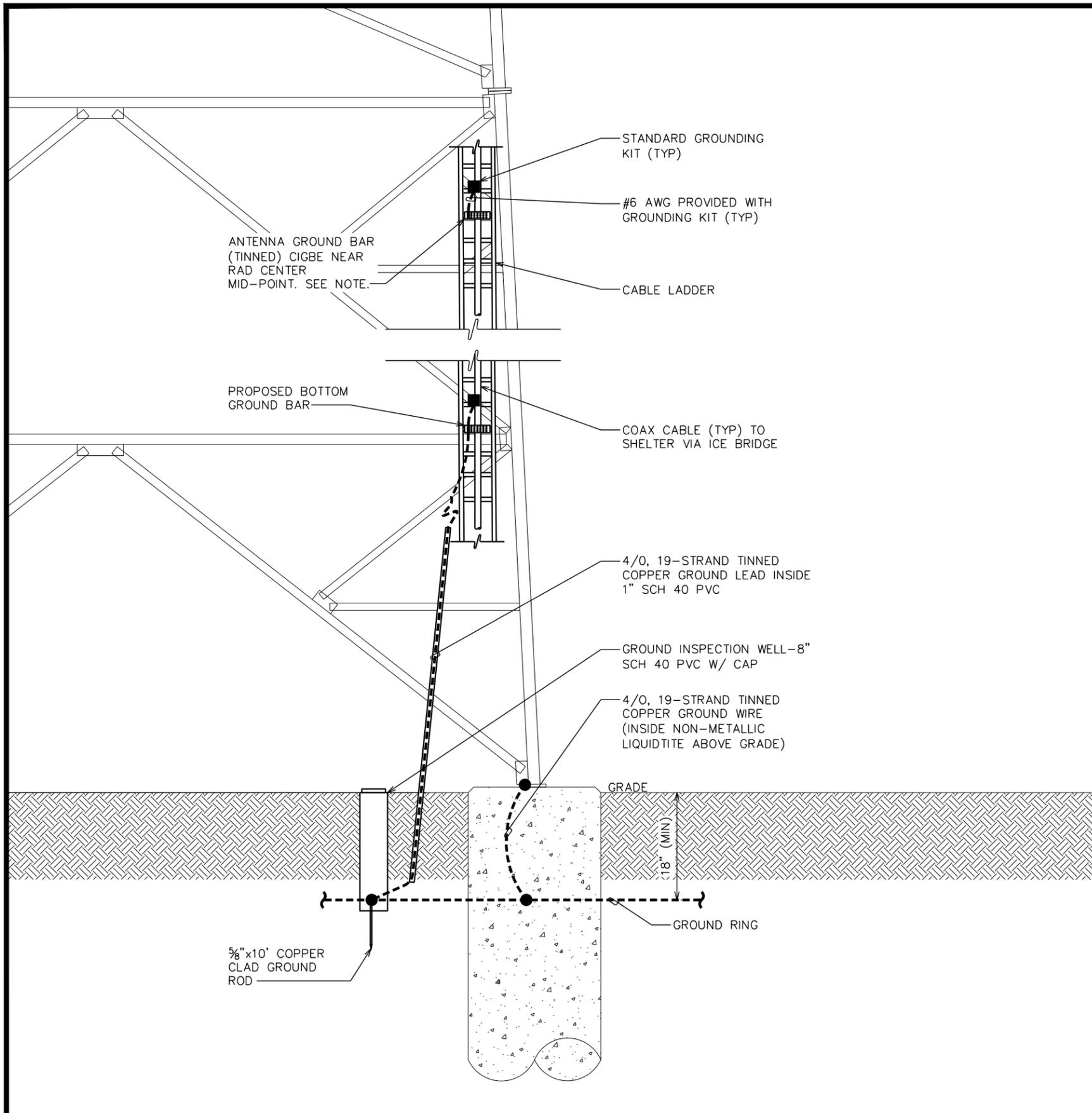
DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

**GROUNDING DETAILS I**

SHEET NUMBER: **E-3** REVISION: **0**

TEP#: 132110.854246



- NOTES:**
1. ALL HARDWARE SHALL BE 18-8 STAINLESS STEEL, INCLUDING THE BELLEVILLE WASHERS. COAT ALL SURFACES WITH KOPR-SHIELD BEFORE MATING.
  2. FOR GROUND BOND TO STEEL ONLY: INSERT A DRAGON TOOTH WASHER BETWEEN THE LUG AND STEEL. COAT ALL SURFACES WITH KOPR-SHIELD.

**LUG DETAILS**  
SCALE: N.T.S.

**TOWER GROUNDING DETAIL**  
SCALE: N.T.S.

PLANS PREPARED FOR:

**Dominion Energy**  
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON SUBSTATION**

28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:

**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:

**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION

REV	DATE	ISSUED FOR:
0	09-27-23	PRELIMINARY

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

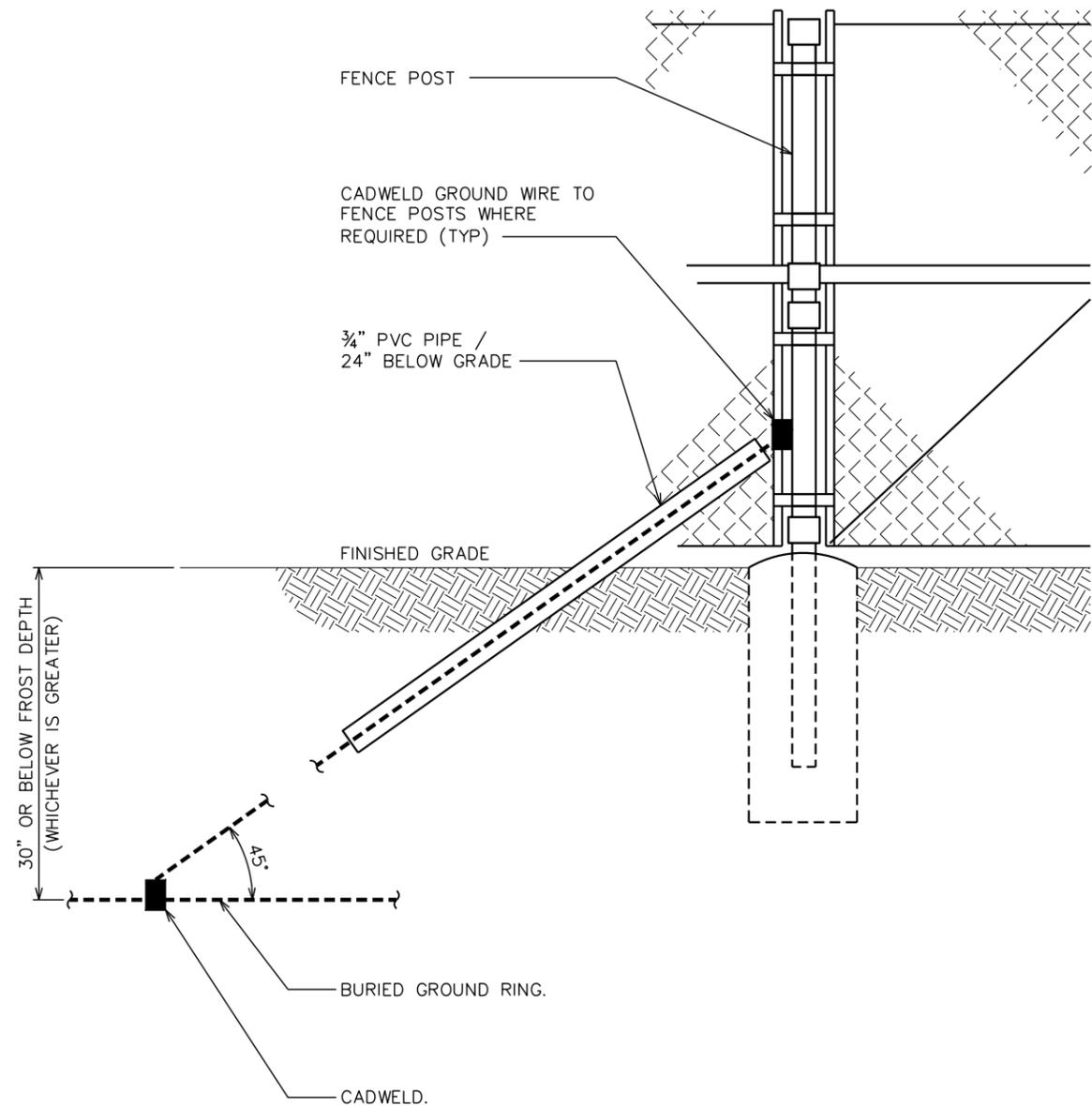
**GROUNDING DETAILS II**

SHEET NUMBER: **E-4** REVISION: **0**

TEP#: 132110.854246

**NOTE:**

FROST DEPTH FOR DINWIDDIE COUNTY IS 20 INCHES.

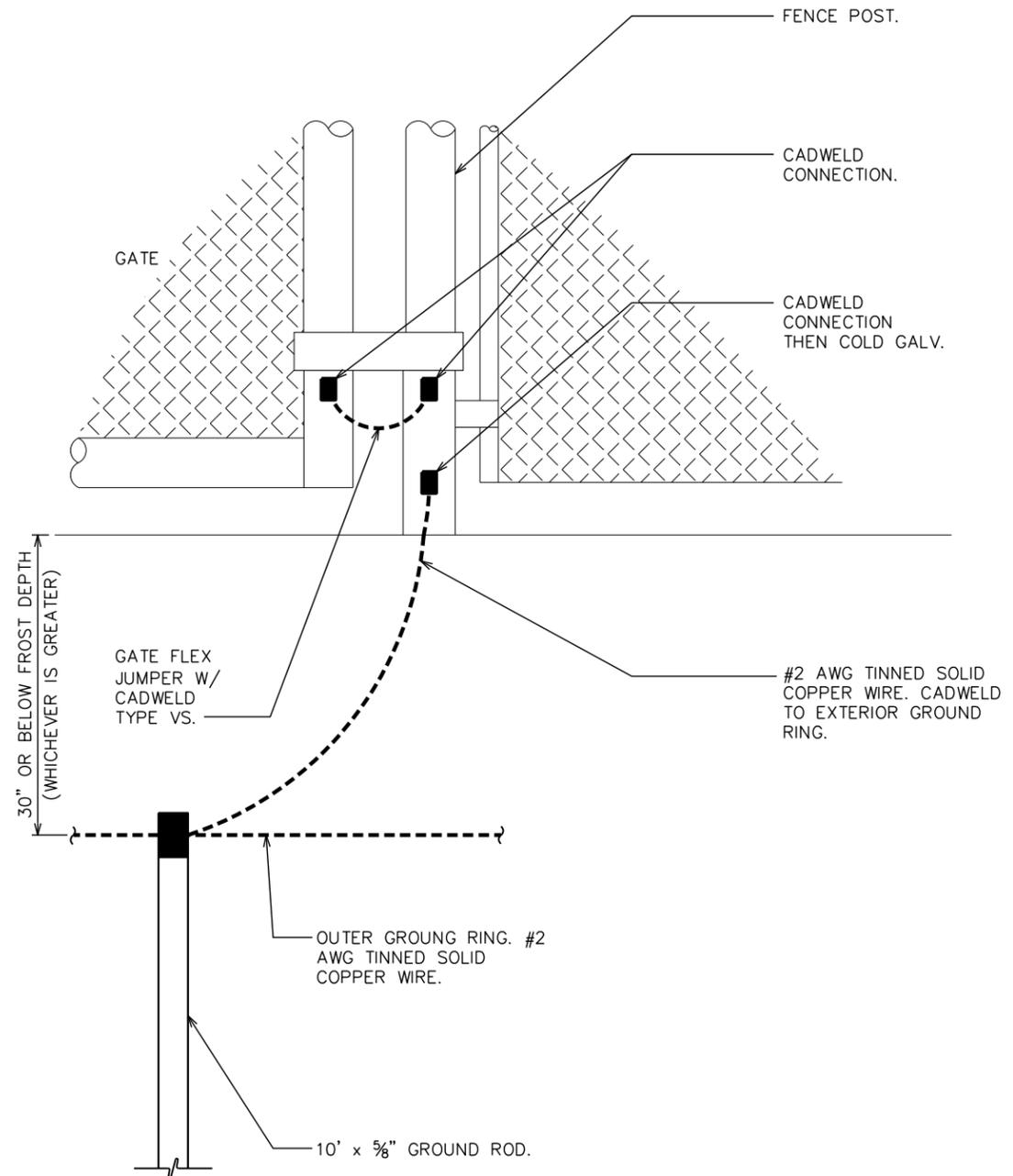


**GATE POST GROUNDING**

SCALE: N.T.S.

**NOTE:**

FROST DEPTH FOR DINWIDDIE COUNTY IS 20 INCHES.



**FENCE GROUNDING**

SCALE: N.T.S.

PLANS PREPARED FOR:



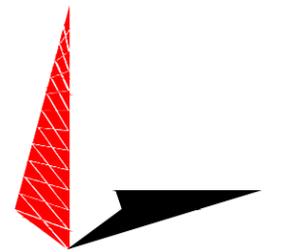
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON SUBSTATION**

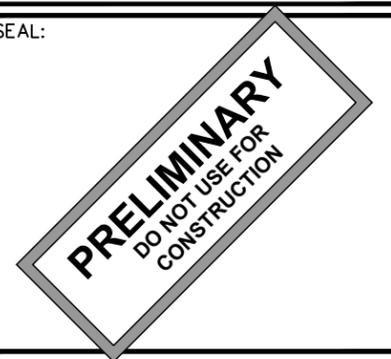
28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:



0	09-27-23	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:  
**GATE & FENCE GROUNDING DETAILS**

SHEET NUMBER: **E-5** REVISION: **0**  
TEP#: 132110.854246



**SITE NAME: CARSON SUBSTATION  
PROPOSED 420' SELF-SUPPORT TOWER**

28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

# VIEW MAP



**EXISTING VIEW: VIEW 1**  
**VIEW SOUTHWEST FROM ELLINGTON ROAD**



SITE NAME: CARSON SUBSTATION  
ADDRESS: 28908 ELLINGTON RD  
PETERSBURG, VA 23805  
COUNTY: DINWIDDIE



# PROPOSED VIEW: VIEW 1

## VIEW SOUTHWEST FROM ELLINGTON ROAD



SITE NAME: CARSON SUBSTATION  
ADDRESS: 28908 ELLINGTON RD  
PETERSBURG, VA 23805  
COUNTY: DINWIDDIE



**PROPOSED 420'-0" SELF-SUPPORT TOWER:**  
**PROPOSED EQUIPMENT @ 399'-0":**

- (2) OMNI ANTENNA

**PROPOSED EQUIPMENT @ 379'-0":**

- (1) OMNI ANTENNA

**PROPOSED EQUIPMENT @ 215'-0":**

- (1) DISH ANTENNA (NOT VISIBLE)

**PROPOSED EQUIPMENT @ 190'-0":**

- (1) DISH ANTENNA (NOT VISIBLE)

**PHOTO TAKEN FROM APPROXIMATELY 2,800 FEET FROM PROPOSED TOWER LOCATION**

## EXISTING VIEW: VIEW 2 VIEW WEST FROM ELLINGTON ROAD



SITE NAME: CARSON SUBSTATION  
ADDRESS: 28908 ELLINGTON RD  
PETERSBURG, VA 23805  
COUNTY: DINWIDDIE



## PROPOSED VIEW: VIEW 2 VIEW WEST FROM ELLINGTON ROAD



SITE NAME: CARSON SUBSTATION  
ADDRESS: 28908 ELLINGTON RD  
PETERSBURG, VA 23805  
COUNTY: DINWIDDIE



- PROPOSED 420'-0" SELF-SUPPORT TOWER (NOT VISIBLE)
- PHOTO TAKEN FROM APPROXIMATELY 1,650 FEET FROM NEW TOWER LOCATION

# EXISTING VIEW: VIEW 3

## VIEW NORTHWEST FROM ELLINGTON ROAD



SITE NAME: CARSON SUBSTATION  
ADDRESS: 28908 ELLINGTON RD  
PETERSBURG, VA 23805  
COUNTY: DINWIDDIE



# PROPOSED VIEW: VIEW 3

## VIEW NORTHWEST FROM ELLINGTON ROAD



SITE NAME: CARSON SUBSTATION  
ADDRESS: 28908 ELLINGTON RD  
PETERSBURG, VA 23805  
COUNTY: DINWIDDIE



- PROPOSED 420'-0" SELF-SUPPORT TOWER:  
PROPOSED EQUIPMENT @ 399'-0":
- (2) OMNI ANTENNA
- PROPOSED EQUIPMENT @ 379'-0":
- (1) OMNI ANTENNA
- PROPOSED EQUIPMENT @ 215'-0":
- (1) DISH ANTENNA
- PROPOSED EQUIPMENT @ 190'-0":
- (1) DISH ANTENNA (NOT VISIBLE)

PHOTO TAKEN FROM APPROXIMATELY  
1,240 FEET FROM NEW TOWER LOCATION

## EXISTING VIEW: VIEW 4 VIEW NORTH FROM WADE DRIVE



SITE NAME: CARSON SUBSTATION  
ADDRESS: 28908 ELLINGTON RD  
PETERSBURG, VA 23805  
COUNTY: DINWIDDIE



# PROPOSED VIEW: VIEW 4 VIEW NORTH FROM WADE DRIVE



SITE NAME: CARSON SUBSTATION  
ADDRESS: 28908 ELLINGTON RD  
PETERSBURG, VA 23805  
COUNTY: DINWIDDIE



PROPOSED 420'-0" SELF-SUPPORT TOWER:  
PROPOSED EQUIPMENT @ 399'-0":  
• (2) OMNI ANTENNA  
PROPOSED EQUIPMENT @ 379'-0":  
• (1) OMNI ANTENNA  
PROPOSED EQUIPMENT @ 215'-0":  
• (1) DISH ANTENNA (NOT VISIBLE)  
PROPOSED EQUIPMENT @ 190'-0":  
• (1) DISH ANTENNA (NOT VISIBLE)

PHOTO TAKEN FROM APPROXIMATELY  
900 FEET FROM NEW TOWER LOCATION

# EXISTING VIEW: VIEW 5

## VIEW NORTHEAST FROM HALIFAX ROAD



SITE NAME: CARSON SUBSTATION  
ADDRESS: 28908 ELLINGTON RD  
PETERSBURG, VA 23805  
COUNTY: DINWIDDIE

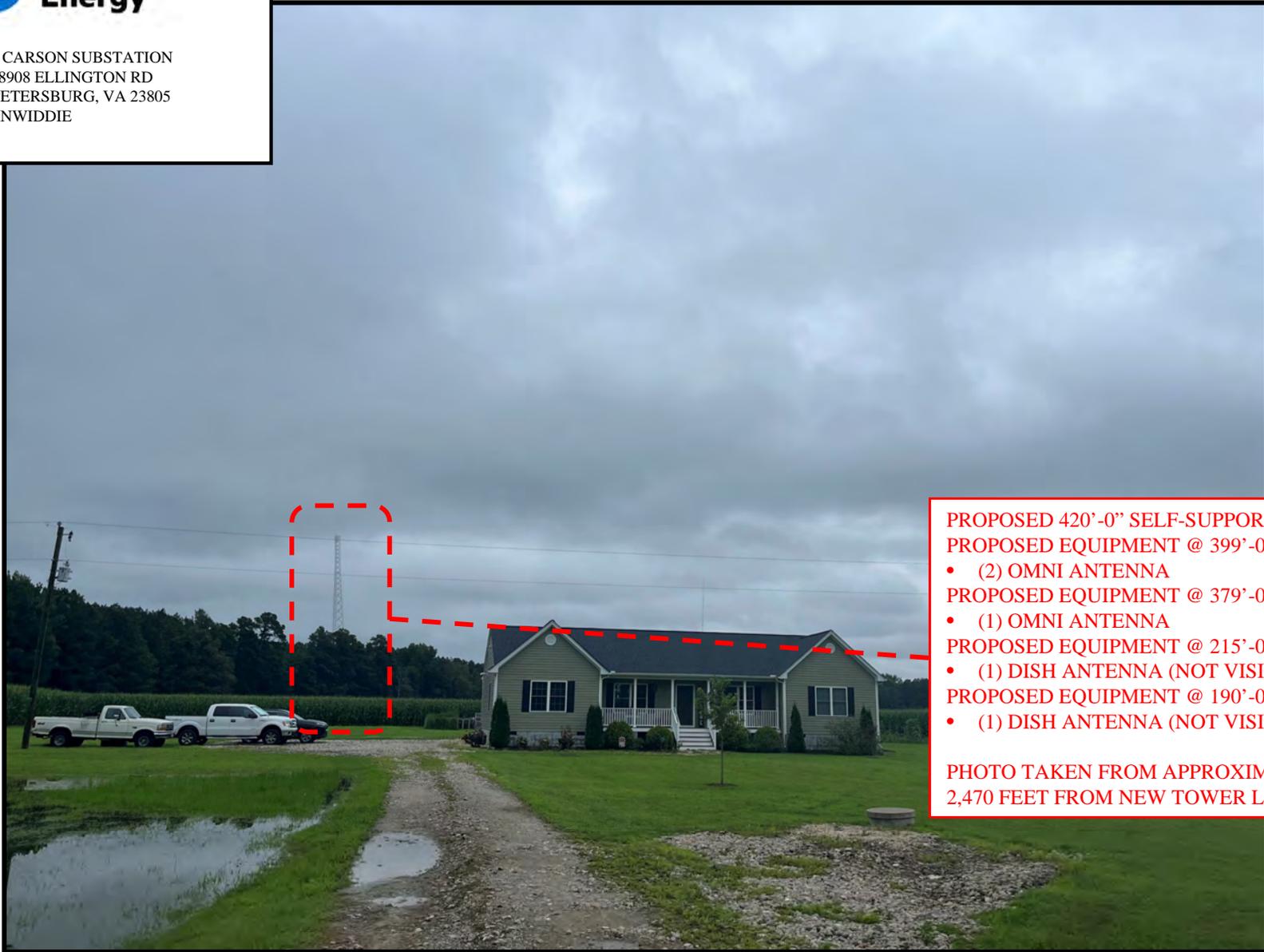


# PROPOSED VIEW: VIEW 5

## VIEW NORTHEAST FROM HALIFAX ROAD



SITE NAME: CARSON SUBSTATION  
ADDRESS: 28908 ELLINGTON RD  
PETERSBURG, VA 23805  
COUNTY: DINWIDDIE



- PROPOSED 420'-0" SELF-SUPPORT TOWER:  
PROPOSED EQUIPMENT @ 399'-0":
- (2) OMNI ANTENNA
- PROPOSED EQUIPMENT @ 379'-0":
- (1) OMNI ANTENNA
- PROPOSED EQUIPMENT @ 215'-0":
- (1) DISH ANTENNA (NOT VISIBLE)
- PROPOSED EQUIPMENT @ 190'-0":
- (1) DISH ANTENNA (NOT VISIBLE)

PHOTO TAKEN FROM APPROXIMATELY  
2,470 FEET FROM NEW TOWER LOCATION

## EXISTING VIEW: VIEW 6 VIEW EAST FROM ELLINGTON ROAD



SITE NAME: CARSON SUBSTATION  
ADDRESS: 28908 ELLINGTON RD  
PETERSBURG, VA 23805  
COUNTY: DINWIDDIE



## PROPOSED VIEW: VIEW 6 VIEW EAST FROM ELLINGTON ROAD



SITE NAME: CARSON SUBSTATION  
ADDRESS: 28908 ELLINGTON RD  
PETERSBURG, VA 23805  
COUNTY: DINWIDDIE



PROPOSED 420'-0" SELF-SUPPORT TOWER:  
PROPOSED EQUIPMENT @ 399'-0":  
• (2) OMNI ANTENNA  
PROPOSED EQUIPMENT @ 379'-0":  
• (1) OMNI ANTENNA  
PROPOSED EQUIPMENT @ 215'-0":  
• (1) DISH ANTENNA (NOT VISIBLE)  
PROPOSED EQUIPMENT @ 190'-0":  
• (1) DISH ANTENNA (NOT VISIBLE)

PHOTO TAKEN FROM APPROXIMATELY  
1,400 FEET FROM NEW TOWER LOCATION

## EXISTING VIEW: VIEW 7 VIEW SOUTHEAST FROM COLONY DRIVE



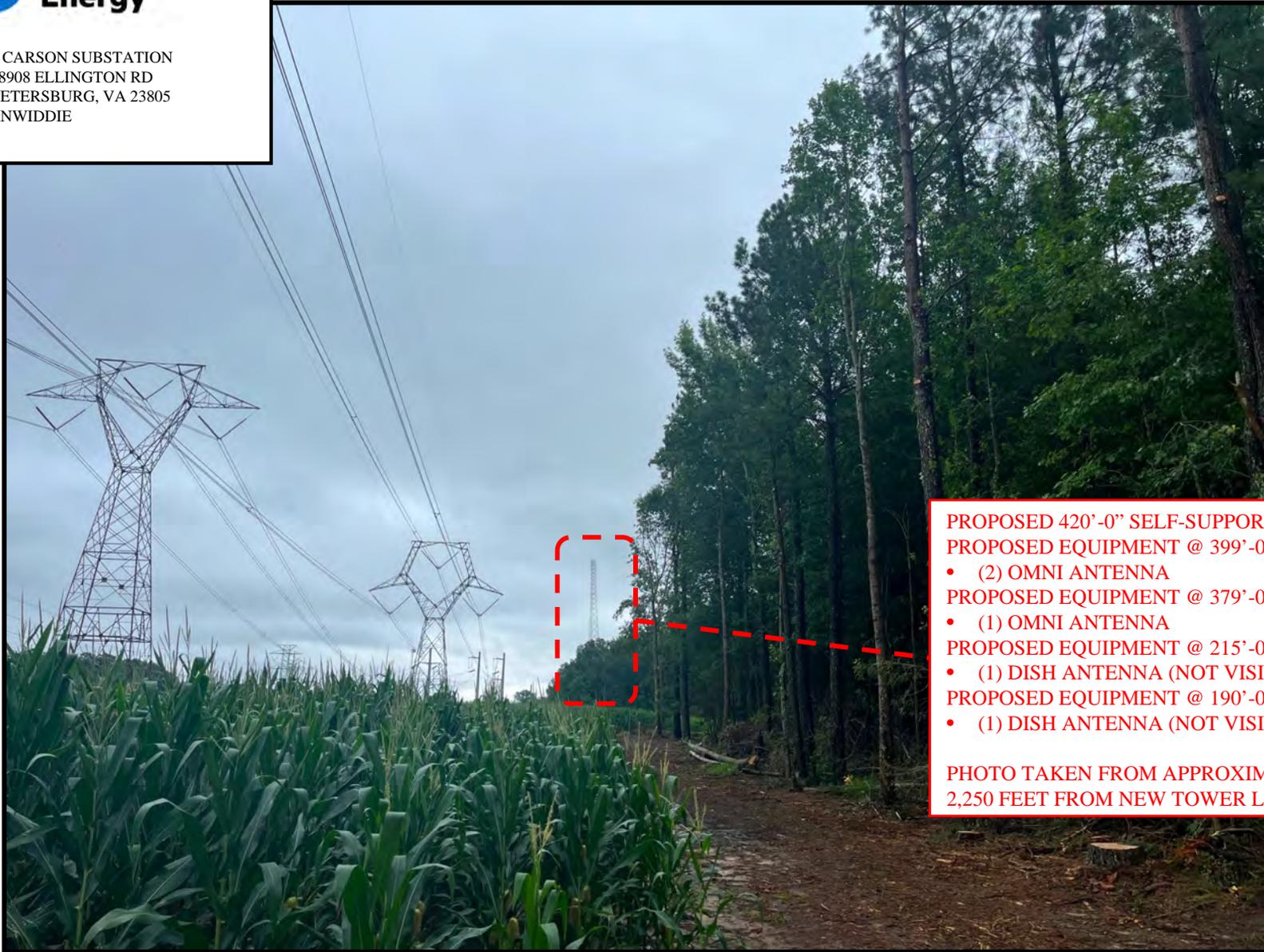
SITE NAME: CARSON SUBSTATION  
ADDRESS: 28908 ELLINGTON RD  
PETERSBURG, VA 23805  
COUNTY: DINWIDDIE



# PROPOSED VIEW: VIEW 7 VIEW SOUTHEAST FROM COLONY DRIVE



SITE NAME: CARSON SUBSTATION  
ADDRESS: 28908 ELLINGTON RD  
PETERSBURG, VA 23805  
COUNTY: DINWIDDIE



**PROPOSED 420'-0" SELF-SUPPORT TOWER:**  
**PROPOSED EQUIPMENT @ 399'-0":**

- (2) OMNI ANTENNA

**PROPOSED EQUIPMENT @ 379'-0":**

- (1) OMNI ANTENNA

**PROPOSED EQUIPMENT @ 215'-0":**

- (1) DISH ANTENNA (NOT VISIBLE)

**PROPOSED EQUIPMENT @ 190'-0":**

- (1) DISH ANTENNA (NOT VISIBLE)

**PHOTO TAKEN FROM APPROXIMATELY  
2,250 FEET FROM NEW TOWER LOCATION**

**EXISTING VIEW: VIEW 8**  
**VIEW SOUTH FROM EXISTING 400' GUYED TOWER**



SITE NAME: CARSON SUBSTATION  
ADDRESS: 28908 ELLINGTON RD  
PETERSBURG, VA 23805  
COUNTY: DINWIDDIE



**PROPOSED VIEW: VIEW 8**  
**VIEW SOUTH FROM EXISTING 400' GUYED TOWER**



SITE NAME: CARSON SUBSTATION  
ADDRESS: 28908 ELLINGTON RD  
PETERSBURG, VA 23805  
COUNTY: DINWIDDIE



**PROPOSED 420' -0" SELF-SUPPORT TOWER  
(NOT VISIBLE)**

**PHOTO TAKEN FROM APPROXIMATELY  
1,230 FEET FROM NEW TOWER LOCATION**



# Dinwiddie County Planning & Zoning Department SPECIAL LIMITED POWER OF ATTORNEY

Planning Department  
Post Office Drawer 70  
Dinwiddie, Virginia 23841  
Phone (804) 469-4500 ext. 2117 Fax (804) 469-5322

Know all men by these presents: That I (We)

(Name): VIRGINIA ELECTRIC AND POWER COMPANY (Telephone): (423) 715-4006  
(Address): 600 E. CANAL ST RICHMOND VA 23219

the owner(s) of all those tracts or parcels of land ("Property") conveyed to me (us), by deed recorded in the Clerk's Office of the Circuit Court of the County of Dinwiddie, Virginia, by

Instrument No. DB 138, on Page 118, and is described as Tax Map Parcel #. 49-31A do hereby make, constitute and appoint

(Name): HAROLD K. TIMMONS (Telephone): (336) 210-9684  
(Address): TEP GROUP, 10700 SIKES PLACE, SUITE 360, CHARLOTTE, NC 28277

To act as my true and lawful attorney-in-fact and in my (our) name, place and stead with full power and authority I (we) would have if acting personally to file planning applications for my (our) above described Property, to include (put a checkmark next to the appropriate action that applies(y):

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Rezoning Request (including proffers) | <input type="checkbox"/> Building Permit(s)       |   |
| <input checked="" type="checkbox"/> Conditional Use Permit     | <input type="checkbox"/> Subdivision Exception    |   |
| <input type="checkbox"/> Preliminary Subdivision Plat          | <input type="checkbox"/> Site Plan of Development | <input type="checkbox"/> Landscape Plan       |
| <input type="checkbox"/> Final Subdivision Plat                | <input type="checkbox"/> Site Plan Modification   | <input type="checkbox"/> Lighting Plan        |
| <input type="checkbox"/> Subdivision Construction Plans        | <input type="checkbox"/> Variance Request         | <input type="checkbox"/> Transfer of Approval |

My attorney-in-fact shall have the authority to offer proffered conditions and to make amendments to previously approved proffered conditions except as follows:

(No proffered conditions currently exist on this parcel to our knowledge.)

This authorization shall expire one year from the day it is signed, or unto it is otherwise rescinded or modified in witness thereof, I (we) have hereto set my (our) hand and seal this 8<sup>th</sup> day of MAY, 2025.

Signature(s) BY: VIRGINIA ELECTRIC AND POWER COMPANY  
Karl M. Long  
State of Virginia, City/County of RICHMOND, To-wit:

I, JIMMY JOE JOHNSON, a Notary Public in and for the jurisdiction aforesaid, certify that the person(s) who signed to the foregoing instrument and who is (are) known to me, personally appeared before me and has acknowledged the same before me in the jurisdiction aforesaid this 8<sup>th</sup> day of MAY, 2025.

My commission expires: 10-31-2027  
NOTARY REG. NO. 221899

Jimmy Joe Johnson  
Notary Public



RALEIGH OFFICE  
326 TRYON RD  
RALEIGH, NC 27603  
T: 919.661.6351  
WWW.TEPGROUP.NET

January 7, 2026

Dinwiddie County Planning Department  
14010 Boydton Plank Road  
Dinwiddie, VA 23841

---

**RE: Request for Consideration of Reduced Setbacks under Section 22-274 of the Dinwiddie County Code of Ordinances**

**Project Address:** 28908 Ellington Rd. North Dinwiddie, VA 23805

**Property Use:** Existing Electrical Power Sub-Station

**Parcel Number:** 49-31A

**Proposed Project:** Removal of Existing Tower within the substation and construct a new, 420' Self-Support (+ 4' lightning rod, 424' total with appurtenances) outside of the substation

Dominion Energy requests that the Board of Supervisors exercise its discretionary authority under **Section 22-274(a)(2)** to reduce the standard setback requirements for the proposed antenna support structure. The setback provisions of Section 22-274(a)(2), are as follows:

- Setbacks: The following setback requirements shall apply to all towers and antennas for which a conditional use permit is required, however, the board of supervisors may reduce the standard setback requirements if the goals of this article would be better served thereby.
- All antenna support structures must be setback *200 percent* of the height of the structure to the nearest residential structure, and in no case less than *400 feet*.
- All antenna support structures shall be setback *110 percent* of the height of the structure from all property lines.

Specifically, we request that the Board of Supervisors consider finding the setbacks provided to be acceptable for the proposed development based on the following justification for reduction:

- **Environmental Constraints:** Construction is restricted on the north side of the property due to protected wetlands.
- **Safety & Hazard Mitigation:** Existing high-voltage power lines to the west and east, along with an adjacent railroad easement, make alternative placement impractical and hazardous.

- **Operational Efficiency:** Proximity to the substation and existing fiber optic infrastructure ensures long-term reliability and cost-effectiveness.
- **Engineered Safety:** While the tower is within the 200% residential and 110% property line setbacks at select points, the structure will be designed with a **zero-fall radius**. The tower is engineered to collapse within its own footprint. This "zero-fall radius" ensures that even in a catastrophic failure, the structure will not impact adjacent properties or neighbors.

Dominion Energy has thoroughly evaluated the proposed new tower location as it was determined that the new tower should not be located within the electrical substation. In review of alternative locations outside of the substation, it was determined that of the portions of the property that were available, the proposed location was the best alternative. By strategically selecting this location, Dominion ensures the structures' long-term reliability, cost-effectiveness, and compliance with safety and environmental regulations.

The table below provides information regarding areas where the proposed location meets or exceeds the code requirements as well as the area where the proposed location does not allow the setbacks to be met. The requirements from the chart shown below (see Sheet C-1 of the site development plans) shows where the requirements are not met. In this regard, the tower design addresses safety and setback non-compliance through the following mechanisms:

- **Height-to-Distance Ratio:** In instances where residential structure requirements are not met, the tower's total height remains less than the distance to those structures, providing a physical safety buffer.
- **Mitigation of Setback Deficiencies:** Although the tower fails to meet the 110% property line setback requirement at the front and west boundaries, the fall zone radius is intended to negate the safety risks typically associated with distance standards.

SETBACK TABLE								
TOWER HEIGHT	RESIDENTIAL SETBACK	REQUIRED	ACTUAL	DIFFERENCE	PROPERTY SETBACK	REQUIRED	ACTUAL	DIFFERENCE
420'	200%	840'			110%	462'		
	FRONT	840'	577'	263'	FRONT	462'	317'	145'
	BACK	840'	2,483'	-1,643'	BACK	462'	734'	-272'
	EAST	840'	1,102'	-262'	EAST	462'	886'	-424'
	WEST	840'	675'	165'	WEST	462'	195'	267'

Based on the justifications stated above and on behalf of Dominion Energy, we respectfully request that the County Board of Supervisors consider approving the reduced setbacks requested in regard to this tower removal and relocation project.



Should you have any questions or concerns, please feel free to contact me at 336-210-9684 or [hktimmons@tepgroup.net](mailto:hktimmons@tepgroup.net).

Sincerely,

*Harold Timmons*

Harold Timmons  
Zoning and Real Estate Specialist  
Tower Engineering Professionals  
[hktimmons@tepgroup.net](mailto:hktimmons@tepgroup.net)





Powering Your Every Day.™

# Tower Replacement Project Carson Sub

(Rev 0.0)

## Table of Contents

1	OVERVIEW .....	3
1.1	SURVEY REPORT .....	3
1.1.1	EXISTING CONDITION .....	3
1.1.2	PROPOSED TOWER HEIGHT .....	3
2	REVISION HISTORY .....	4

# 1 OVERVIEW

Dominion Energy will build a new self-support tower at the **Carson Sub** to replace the two existing guyed towers at two different locations. These existing towers have heights of 220ft and 400ft. There are currently three 20ft omni antennas at the 400ft tower with tip heights extending to 419ft. These LMR antennas extend pass the tip of the existing 400ft tower. Dominion standards requires that the tower lightning rod should be the highest appurtenance on the tower. This yields to a proposal for a **420ft** tower with a 4ft lightning rod.

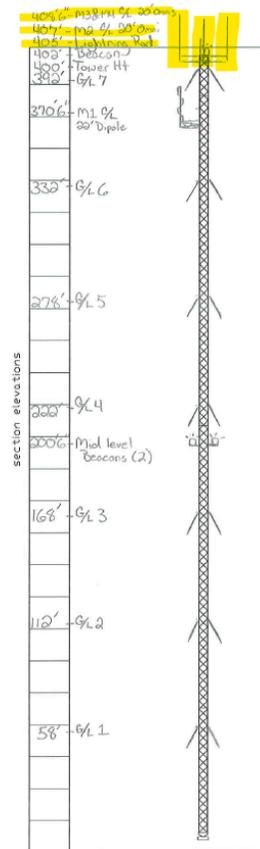
## 1.1 SURVEY REPORT

### 1.1.1 EXISTING CONDITION

1.1.1.1 Documented tower survey report indicating three 20ft omni antennas, extending pass the tower tip of the existing 400ft tower.



20ft omni antennas with 418ft tip heights.



### 1.1.2 PROPOSED TOWER HEIGHT

The proposed **420ft** tower is necessary to maintain the centerline and tip height of the existing LMR antennas. This will also comply with the Dominion standard requiring that the lightning rod be the highest appurtenance on the tower.

## 2 REVISION HISTORY

Rev	Date	Author	Reason for Revision
0.0	7/3/25	Ricky Cruda	Original

1-8-2026

Dominion Energy Services  
Ricky Cruda



**World Tower**  
COMPANY, INC.

Reference: Proposed 420' Self Supporting Tower  
Carson Sub, Virginia  
World Tower File No. C2507-007 R2

---

1213 Compressor Drive

P.O. Box 508

Mayfield, KY 42066

270-247-3642

FAX: 270-247-0909

E-mail: [worldtower@worldtower.com](mailto:worldtower@worldtower.com)

Web: [www.worldtower.com](http://www.worldtower.com)

---

The proposed structure has been designed by a licensed professional engineer to safely support the specified loading (see attached engineering drawing) in accordance with the TIA-222-G Tower Standard for a 113 mph design wind gust per the specifications provided. The tower has designated reserve capacity of 30%.

The structure has been designed based on standard steel design techniques and procedures including all applicable safety factors, therefore, the structure is considered "safe" at its design wind loading. If an extreme wind event were to occur, failure would not be expected at the instant the design wind speed is exceeded. Any wind loading that occurs over and above the design wind loading would begin to overcome the design safety factors before a failure could occur. Safety factors for tower members vary based on failure mode, but all tower members can support a minimum of 1.25 times their design load without permanent deformation.

A tower structure is no more likely to fall down than a steel building, or a watertank or bridge or any other structure designed to similar steel safety factors.

This particular tower, being designated to have 30% excess safety factor before failure can begin to be a possibility, is considered overdesigned more than a typical structure, to resist its primary loading, which is wind. Combined with inherent steel safety factors the tower is capable of resisting 55% more than its design load without permanent deformation.

Therefore, the fall radius of the tower is considered to be zero, considering the tower is highly unlikely to fall, less a direct hit by a tornado, or some other act of war, or some other unknown workmanship condition that could not be predicted at any elevation of this tower or any other steel structure. Tower failures are rare, even during high wind hurricane winds or tornado strikes.

Please contact us at your convenience should you have further questions concerning the safety of tower structures or other aspects of tower design.

Sincerely,

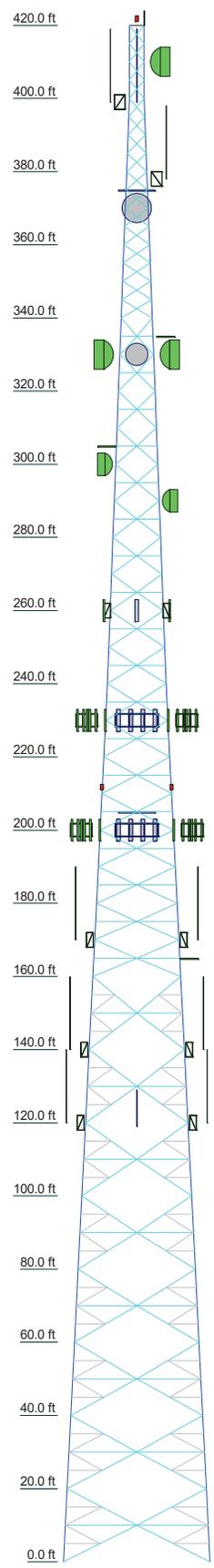
Kirk R. Hall, P.E.  
World Tower Company, Inc.



1-8-2026

*Fabrication, Installation, and Maintenance of TV, AM, FM, & Wireless Communications Towers*

Section	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15	T16	T17	T18	T19	T20	T21	
Legs	SR 1 3/4	SR 2 1/4	SR 2 1/2	SR 2 3/4	SR 3	SR 3 1/4	SR 3 1/2	SR 3 3/4	SR 4	SR 4 1/4	SR 4 1/2	SR 4 3/4	SR 5	SR 5 1/4	SR 5 1/2	SR 5 3/4	SR 6	SR 6 1/4	SR 6 1/2	SR 6 3/4	SR 6 3/4	
Leg Grade																						
Diagonals				L2x2x3/16	L3x3x3/16	L3x3x1/4	L3 1/2x3 1/2x1/4	L4x4x1/4	L4x4x1/4	L4x4x3/8	A572-50	L5x5x5/16	L5x5x3/8	L5x5x3/8	L5x5x7/16							
Diagonal Grade																						
Top Girts																						
Horizontals																						
Red. Horizontals																						
Red. Diagonals																						
Inner Bracing																						
Face Width (ft)	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
# Panels @ (ft)																						
Weight (K)	159.5	17.7	18.5	15.3	12.7	11.2	10.2	9.1	8.8	7.9	7.1	6.3	5.3	4.8	4.0	3.5	2.9	2.4	1.9	1.5	1.2	0.9



**SYMBOL LIST**

MARK	SIZE	MARK	SIZE
A	L1 3/4x1 3/4x1/8		

**MATERIAL STRENGTH**

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A529-50	50 ksi	65 ksi

**TOWER DESIGN NOTES**

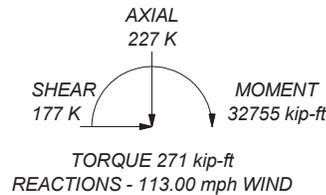
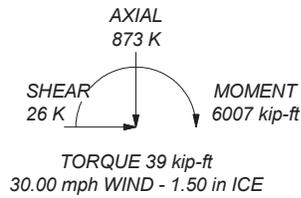
1. Tower is located in Dinwiddie County, Virginia.
2. Tower designed for Exposure C to the TIA-222-G Standard.
3. Tower designed for a 113.00 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 30.00 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60.00 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0 ft
8. TOWER RATING: 70%

ALL REACTIONS ARE FACTORED

MAX. CORNER REACTIONS AT BASE:

DOWN: 1021 K  
SHEAR: 110 K

UPLIFT: -828 K  
SHEAR: 91 K



<b>World Tower Company, Inc.</b>		Job: <b>420' WSST Tower / Run# C2507-007 R2</b>	
1213 Compressor Dr Mayfield, KY Phone: 270-247-3642 FAX:		Project: <b>Carson Sub</b>	
Client: Dominion Energy Services	Code: TIA-222-G	Drawn by: Cort Walker	App'd:
Date: 11/07/25	Path:	Scale: NTS	Dwg No. E-1



POINT TO POINT LAND SURVEYORS, INC.  
100 Governor's Trace, Suite 103  
Peachtree City, GA 30269  
(p) 678.565.4440 (f) 678.565.4497  
[info@pointtopointsurvey.com](mailto:info@pointtopointsurvey.com)  
[www.P2PLS.com](http://www.P2PLS.com)

### FAA 1-A SURVEY CERTIFICATION

**Applicant:** Dominion Energy

**Site Name:** CARSON

**Horizontal Datum Source:**

Ground survey     GPS survey

**Vertical Datum Source:**

NAVD 88     NGVD 29     GPS survey

**Structure Type:**

New Tower     Existing Tower     Roof Top     Water Tank

**CENTER OF PROPOSED TOWER:**

**Latitude:** 37° 05' 04.54" NAD 83 (37.084594°)

**Longitude:** -77° 24' 25.17" NAD 83 (-77.406992°)

**Ground Elevation:** 159.8 feet AMSL NAVD 88

**CERTIFICATION:** I certify that the latitude of 37° 05' 04.54" (37.084594°) and the longitude of -77° 24' 25.17" (-77.406992°) are accurate to within +/- 20 feet horizontally, and that the site elevation of 159.8 feet AMSL is accurate to within +/- 3 feet vertically. The horizontal datum (coordinates) are based on the North American Datum of 1983 (NAD 83) and are expressed in degrees, minutes and seconds to the nearest hundredth of a second. The vertical datum (heights) are based on the North American Vertical Datum of 1988 (NAVD 88) and are determined to the nearest tenth of a foot.

**Surveyor Signature/Seal:**

**Printed Name:**

G. Darrell Taylor

**Professional Surveyor #:**

2985

**Company:**

Point to Point Land Surveyors, Inc.

**Phone:**

678-565-4440

**Date:**

August 20, 2023





RF DESIGN & SERVICES

# Non-Ionizing Radiation (NIER) Study

Site Number: <b>N/A</b>	Site Name: <b>Carson Substation</b>	Location: <b>Petersburg, Virginia</b>
Tenant: <b>Dominion Energy</b>		



Prepared For: **Dominion Energy Services, Richmond, Virginia**

May 30, 2025

132110 P-399362

Prepared By

Gautam J. Sopal

Tower Engineering Professionals

Approved By

TEP Engineering, PLLC

2710075311



*Handwritten signature and date: 05/30/25*

*TEP is a family of companies licensed to provide different services in different Jurisdictions. Depending on the jurisdiction, professional engineering and land Surveying services are provided by TEP OpCo LLC, a Delaware limited liability Company, TEP Engineering, PLLC, a North Carolina professional limited liability Company, or M&H Engineering, PLLC, a New York professional limited Liability company. General contractor services are provided by TEPDB OpCo LLC, A Delaware limited liability company. We acquire the requisite licenses in each State. Additional information can be obtained from the company.*



**RF DESIGN & SERVICES**

RF Design and Services  
326 Tryon Road  
Raleigh, North Carolina 27603  
(815) 721-6954  
WWW.TEPGROUP.NET

## Contents

DISCLAIMER NOTICE .....	3
INTRODUCTION .....	4
SITE AND FACILITY CONSIDERATIONS .....	4
POWER DENSITY CALCULATIONS .....	4
SITE MITIGATION & CONTROL .....	5
COMPLIANCE DETERMINATION .....	5
APPENDIX 1 SITE PHOTOS .....	6
APPENDIX 2.1 ANTENNA INVENTORY .....	7
APPENDIX 3.1 MPE LIMIT STUDY GENERAL POPULATION.....	8
APPENDIX 3.2 MPE LIMIT STUDY OCCUPATIONAL LIMIT .....	9
APPENDIX 3.3 MPE LIMIT STUDY GENERAL POPULATION – HORIZONTAL VIEW .....	10
APPENDIX 3.4 MPE LIMIT STUDY OCCUPATIONAL LIMIT – HORIZONTAL VIEW .....	11
APPENDIX 4.1 BARRIER & SIGN TYPES.....	12
APPENDIX 4.2 BARRIER & SIGN TYPES.....	13
APPENDIX 5 INFORMATION PERTAINING TO MPE STUDIES .....	14
APPENDIX 6 MPE STANDARDS METHODOLOGY .....	16



**RF DESIGN & SERVICES**

RF Design and Services  
326 Tryon Road  
Raleigh, North Carolina 27603  
(815) 721-6954  
WWW.TEPGROUP.NET

## Disclaimer Notice

This work is based upon our best interpretation of available information. However, these data and their interpretation are constantly changing. Therefore, we do not warrant that any undertaking based on this report will be successful, or that others will not require further research or actions in support of this proposal or future undertaking. In the event of errors, our liability is strictly limited to the replacement of this document with a corrected one. Liability for consequential damages is specifically denied. Any use of this document constitutes an agreement to hold Tower Engineering Professionals and its employees harmless and indemnify it for all liability, claims, demands, and litigation expenses and attorney's fees arising out of such use.

Work product documents released prior to account settlement remain the sole property of Tower Engineering Professionals and must be returned on demand. Underlying work notes and data relating to this document remain the property of Tower Engineering Professionals. This document shall not be reproduced in whole or part without the permission of Tower Engineering Professionals. Any dispute hereunder shall be adjudicated in North Carolina. Any use or retention of this document constitutes acceptance of these terms, the entire work product, and all charges associated therewith.

COPYRIGHT © 2025 BY

TOWER ENGINEERING PROFESSIONALS

RALIEGH, NORTH CAROLINA



**RF DESIGN & SERVICES**

RF Design and Services  
326 Tryon Road  
Raleigh, North Carolina 27603  
(815) 721-6954  
WWW.TEPGROUP.NET

## Non-Ionizing Electromagnetic Radiation (NIER) Study

Carson Substation  
Petersburg, Virginia

### INTRODUCTION

Tower Engineering Professionals RF Design & Services Division (TEP-RF) of Raleigh, North Carolina, has been retained by Dominion Energy Services, (DE), of Richmond, Virginia to evaluate the RF emissions compared to the Maximum Permissible Exposure (MPE) limit for facilities at this location. This evaluation uses compliance standards as outlined in Federal Communications Commission (FCC) document OET-65.

### SITE AND FACILITY CONSIDERATIONS

<i>Site Number</i>	N/A
<i>Site Name</i>	Carson Substation
<i>Address</i>	28908 Ellington Rd., Petersburg, Virginia
<i>Co-ordinates</i>	37.084594, -77.406992
<i>Structure Type</i>	Self-Support Tower
<i>Structure Height</i>	420 ft
<i>Tenants</i>	Dominion Energy (DE)

### POWER DENSITY CALCULATIONS

Power densities were calculated based on FCC MPE limits for both General Population/Uncontrolled and Occupational/Controlled environments.

For the purpose of this study, a radius of 100' from the base of the tower with a height of 6' above ground level was used, beyond 100' the MPE levels become *di minimus*. This study utilized FCC recognized and accepted software programs using the maximum ERP levels for the antenna models provided by DE. Diagrams depicting the predicted spatial average power density level at any specific location may be found in Appendix 3, MPE Limit Study. Descriptions of RF signage can be found in Appendix 4, Barrier & Sign Types. A discussion regarding the FCC limits may be found in Appendix 5, Information Pertaining to MPE Studies. Prediction Models used in this study may be found in Appendix 6, MPE Standards Methodology.



**RF DESIGN & SERVICES**

RF Design and Services  
326 Tryon Road  
Raleigh, North Carolina 27603  
(815) 721-6954  
WWW.TEPGROUP.NET

All data used in this study was collected from one or more of the following sources:

- DE furnished data and does not include other unidentified communication facilities.
- Load List for Carson Substation RF NIER Study 05/28/2025.
- FCC databases.
- Carrier standard configurations.
- Empirical data collected by TEP.

### **SITE MITIGATION & CONTROL**

In order to comply with FCC, tenant, & Virginia Electric & Power C/O Dominion VA requirements, TEP recommends the placement of signage at the following points:

#### Site Entrance

1. Site ID Sign (tower owner defined)
2. RF Information Sign (Green)

#### Tower Access Point

1. RF Exposure Sign (Red)

#### *Alpha Sector*

No additional mitigation is required.

#### *Beta Sector*

No additional mitigation is required.

#### *Gamma Sector*

No additional mitigation is required.

### **COMPLIANCE DETERMINATION**

With the above mitigation implemented, this installation **WILL BE** in compliance with current FCC MPE limits as described in FCC OET-65.



**RF DESIGN & SERVICES**

RF Design and Services  
326 Tryon Road  
Raleigh, North Carolina 27603  
(815) 721-6954  
WWW.TEPGROUP.NET

## Appendix 1 Site Photos



Aerial View of the Site



**RF DESIGN & SERVICES**

RF Design and Services  
 326 Tryon Road  
 Raleigh, North Carolina 27603  
 (815) 721-6954  
 WWW.TEPGROUP.NET

## Appendix 2.1 Antenna Inventory

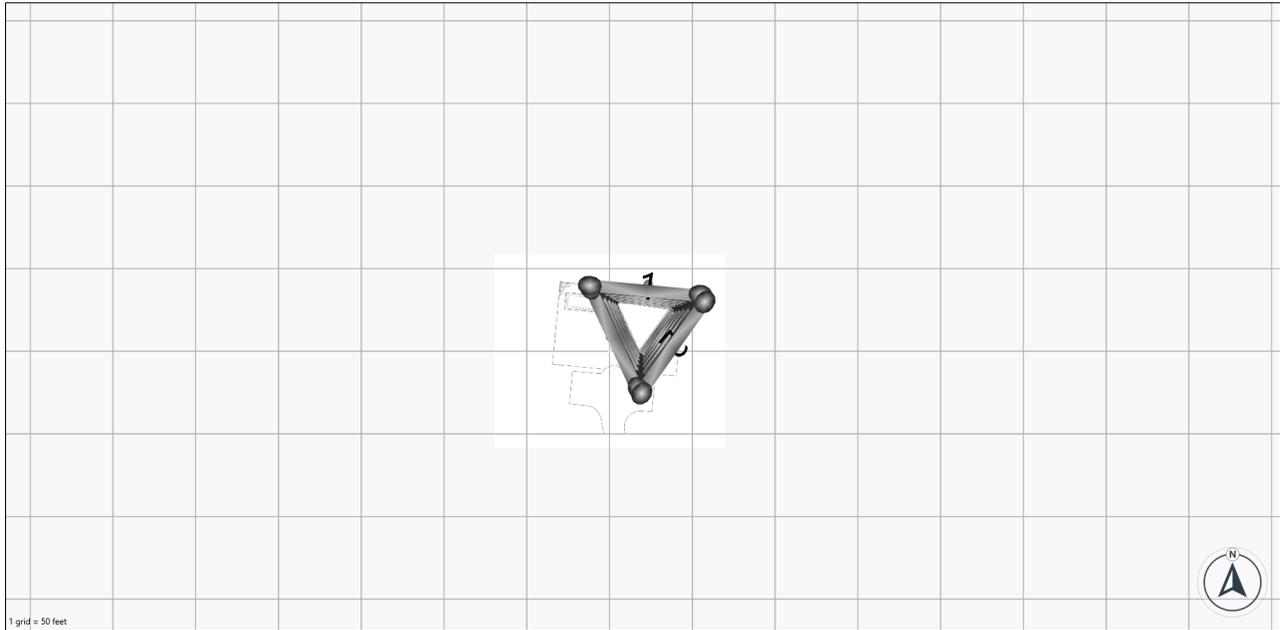
Ant #	Carrier	Manufacturer	Antenna Model	Az (deg)	TX (MHz)	RX (MHz)	EDT (deg)	MDT (deg)	Gain (dBd)	ERP (W)	Rad Ctr (ft)
1	DE	SINCLAIR	SC369-T11 ZLNF (D00) N/E)	Omni	450	450	0	0	12	3926	409
2	DE	SINCLAIR	SC369-T11 ZLNF (D00) N/E)	Omni	450	450	0	0	12	3926	409
3	DE	SINCLAIR	SC290-T11 ZLNF (D00) N/E)	Omni	150	150	0	0	12	1967	388



RF DESIGN & SERVICES

RF Design and Services  
 326 Tryon Road  
 Raleigh, North Carolina 27603  
 (815) 721-6954  
 WWW.TEPGROUP.NET

## Appendix 3.1 MPE Limit Study General Population



**Legend**

Study Zone	Elev. (ft)	Type	Exposure Profile	Max MPE	Att	Carriers
Floor Study Zone	0.0	Floor	2D Sula 9 General...	0.00%	0.00	DE

5%-100%	100%-500%	500%-5000%	5000%+
---------	-----------	------------	--------

Exposure Profile Name	Model	Exposure Area	Standard	Resolution	RCF
2D Sula 9 General Population - 0.25...	Sula 9	Spatial Avg. (6 ft)	FCC General Public	0.25	1.0

● DE

**Mitigation**     Existing     Proposed     Installed     To Remove     Max MPE

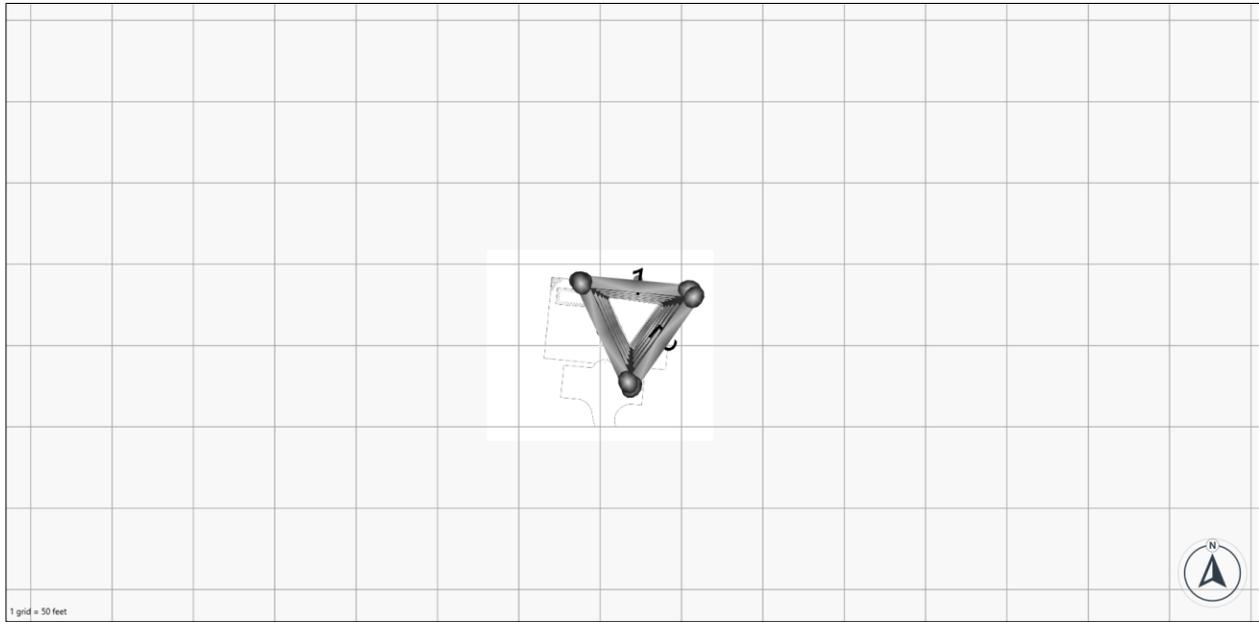
Grid Size: 50.00 feet Floor = Elevation +6' | Mid-Level = Elevation +/- 3'



RF DESIGN & SERVICES

RF Design and Services  
 326 Tryon Road  
 Raleigh, North Carolina 27603  
 (815) 721-6954  
 WWW.TEPGROUP.NET

## Appendix 3.2 MPE Limit Study Occupational Limit



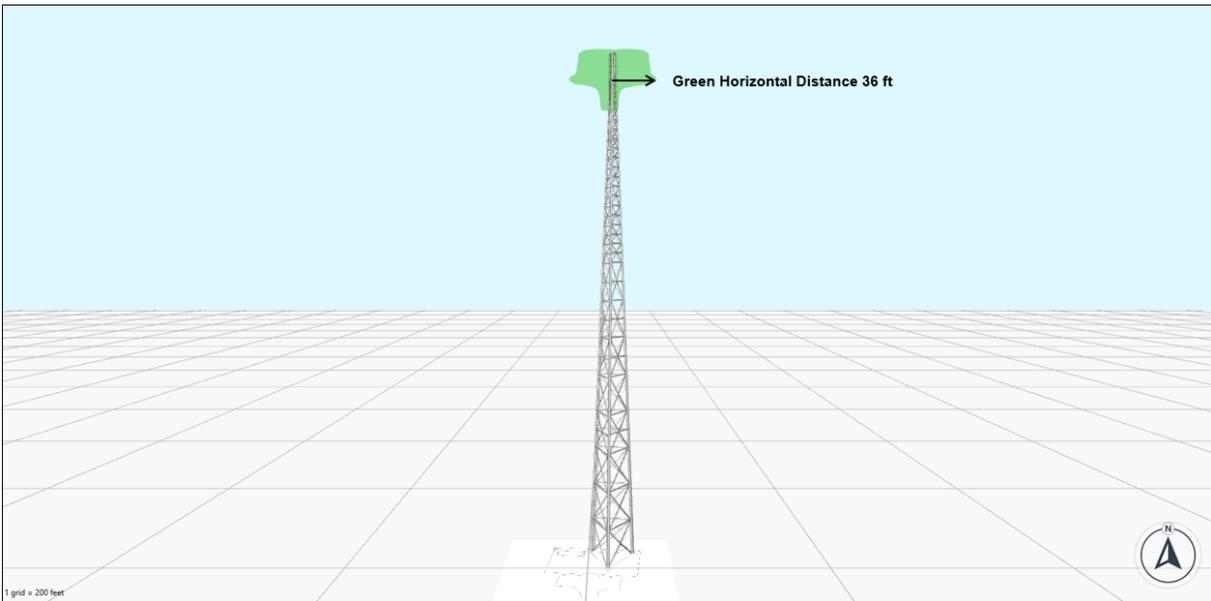
Legend						
Study Zone	Elev. (ft)	Type	Exposure Profile	Max MPE	Att	Carriers
Floor Study Zone	0.0	Floor	2D Sula 9 Occupational -...	0.00%	0.00	DE
5%-100%		100%-500%		500%-5000%		5000%+
Exposure Profile Name	Model	Exposure Area	Standard	Resolution	RCF	
2D Sula 9 Occupational - 0.25 Res	Sula 9	Spatial Avg. (6 ft)	FCC Occupational	0.25	1.0	
<p>● DE</p> <p><b>Mitigation</b>    <span style="display:inline-block; width:15px; height:10px; background-color:gray; border:1px solid black;"></span> Existing    <span style="display:inline-block; width:15px; height:10px; background-color:orange; border:1px solid black;"></span> Proposed    <span style="display:inline-block; width:15px; height:10px; background-color:green; border:1px solid black;"></span> Installed    <span style="display:inline-block; width:15px; height:10px; background-color:red; border:1px solid black;"></span> To Remove    <span style="display:inline-block; width:15px; height:10px; background-color:purple; border:1px solid black;"></span> Max MPE</p>						
Grid Size: 50.00 feet			Floor = Elevation +6'   Mid-Level = Elevation +/- 3'			



RF DESIGN & SERVICES

RF Design and Services  
 326 Tryon Road  
 Raleigh, North Carolina 27603  
 (815) 721-6954  
 WWW.TEPGROUP.NET

### Appendix 3.3 MPE Limit Study General Population – Horizontal View



**Legend**

Study Zone	Elev. (ft)	Type	Exposure Profile	Max MPE	Att	Carriers
Vertical 2D Study Zone	215.0	Mid-Level	2D Sula 9 General...	63.24%	0.00	DE

5%-100%	100%-500%	500%-5000%	5000%+
---------	-----------	------------	--------

Exposure Profile Name	Model	Exposure Area	Standard	Resolution	RCF
2D Sula 9 General Population - 0.25...	Sula 9	Spatial Avg. (6 ft)	FCC General Public	0.25	1.0

● DE

**Mitigation**     Existing     Proposed     Installed     To Remove     Max MPE

Grid Size: 200.00 feet Floor = Elevation +6' | Mid-Level = Elevation +/- 3'





RF DESIGN & SERVICES

RF Design and Services  
326 Tryon Road  
Raleigh, North Carolina 27603  
(815) 721-6954  
WWW.TEPGROUP.NET

## Appendix 4.1 Barrier & Sign Types



Stanchion Type



Cone Type



A-Frame Type



RF DESIGN & SERVICES

RF Design and Services  
 326 Tryon Road  
 Raleigh, North Carolina 27603  
 (815) 721-6954  
 WWW.TEPGROUP.NET

## Appendix 4.2 Barrier & Sign Types

RF Safety Exposure Categorization								
Exposure Conditions	Control Measures	Signage						
<ul style="list-style-type: none"> <li>Operational of the source(s) or locations where RF fields are too weak to cause exposures greater than General Public limit.</li> </ul> <table border="1"> <tr> <td>Cat.</td> <td>Occupational Worker</td> <td>General Public</td> </tr> <tr> <td>1</td> <td>&lt;20%</td> <td>&lt;100%</td> </tr> </table> <ul style="list-style-type: none"> <li>Green zone is where the time and spatial-average is below 20% of Occupational Worker limit or &lt;100% of General Public limit.</li> </ul>	Cat.	Occupational Worker	General Public	1	<20%	<100%	<ul style="list-style-type: none"> <li>RF Safety Guideline/NIER report must be submitted to RFSO for approval.</li> <li>No special EME safety practices required in these areas.</li> <li>No signage required except Information sign.</li> </ul>	<p>*the antenna owner information and Antenna Structure Registration Number and must be displayed on the sign.</p> <p>INFORMATION sign for access to rooftop/access door.</p>
Cat.	Occupational Worker	General Public						
1	<20%	<100%						
<ul style="list-style-type: none"> <li>Operational of the source(s) or locations where RF exposure could cause exposure greater than General Public limit but not the Occupational Worker limit to be exceeded in accessible areas.</li> </ul> <table border="1"> <tr> <td>Cat.</td> <td>Occupational Worker</td> <td>General</td> </tr> <tr> <td>2</td> <td>≥20% but &lt;100%</td> <td>&gt;100%</td> </tr> </table> <ul style="list-style-type: none"> <li>Blue zone is where the spatial average is between 20%-100% of Occupational Worker limit. This limit MUST be less than the Occupational limit.</li> </ul>	Cat.	Occupational Worker	General	2	≥20% but <100%	>100%	<ul style="list-style-type: none"> <li>RF Safety Guideline/NIER report must be submitted to RFSO for approval.</li> <li>Recommended RF safety awareness training for all workers in this area.</li> <li>Controlled areas with barriers and/or signage required in these areas.</li> <li>Do not walk in front of the antenna face or no loitering in this controlled area.</li> <li>Individual MUST have full control over any area where the exposure levels exceed the limit.</li> </ul>	<p>NOTICE signage shall be posted on the barriers/stanchion to prevent anyone from entering into the area (must be cordon off around the antennas - 4 posts /3 signs).</p> <p>Or must be posted in location that can be easily viewed by individuals that enter the areas of concerns.</p>
Cat.	Occupational Worker	General						
2	≥20% but <100%	>100%						
<ul style="list-style-type: none"> <li>Operational of the source(s) or locations where RF exposure exceeded the Occupational Worker limit in accessible areas.</li> </ul> <table border="1"> <tr> <td>Cat.</td> <td>Occupational Worker</td> <td>General Public</td> </tr> <tr> <td>3</td> <td>≥100%</td> <td>≥500%</td> </tr> </table> <ul style="list-style-type: none"> <li>Yellow zone is where the spatial average is above 100% of Occupational Worker limit.</li> </ul>	Cat.	Occupational Worker	General Public	3	≥100%	≥500%	<ul style="list-style-type: none"> <li>RF Safety Guideline/NIER report must be submitted to RFSO for approval.</li> <li>Individual <b>shall not</b> enter and work in these areas without RS approval</li> <li>Required RF safety training and access area is restricted only for authorized worker.</li> <li>Controlled areas with barriers and signage required in these areas.</li> <li>Do not walk in front of the antenna face.</li> <li>Require reduction of RF power and approval from Radiation Safety prior any work on the antennas.</li> </ul>	<p>CAUTION signage shall be posted on the barriers/stanchion to prevent anyone from entering into the area (must be cordon off around the antennas - 4 posts /3 signs).</p>
Cat.	Occupational Worker	General Public						
3	≥100%	≥500%						
<ul style="list-style-type: none"> <li>Exposure will exceed exposure limit in accessible areas.</li> </ul> <table border="1"> <tr> <td>Cat.</td> <td>Occupational Worker</td> <td>General Public</td> </tr> <tr> <td>4</td> <td>&gt;500%</td> <td>&gt;1000%</td> </tr> </table> <ul style="list-style-type: none"> <li>Red zone is where the time and spatial-averaged levels fall above 500% of Occupational Worker limit or is not feasible to prevent exposures.</li> </ul>	Cat.	Occupational Worker	General Public	4	>500%	>1000%	<ul style="list-style-type: none"> <li>RF Safety Guideline/NIER report must be submitted to RFSO for approval.</li> <li>MUST re-engineer site to reduce the EME fields.</li> <li><b>No access allowed-Prohibited access!</b> There must be controls to detect any unauthorized enter and terminate the RF energy in the area.</li> <li>Lock out tag out of transmitters during the maintenance of the antenna system.</li> <li>PPE is not sufficient.</li> <li>Special RF training and PPE are required. (Applies only to individuals trained by RS).</li> </ul>	<p>RF WARNING &amp; Pacemaker DANGER signage or appropriate DANGER sign shall be posted very near radiation RF sources or if appropriate DANGER sign.</p>
Cat.	Occupational Worker	General Public						
4	>500%	>1000%						



RF Design and Services  
326 Tryon Road  
Raleigh, North Carolina 27603  
(815) 721-6954  
WWW.TEPGROUP.NET

## Appendix 5 Information Pertaining to MPE Studies

In 1985, the FCC first adopted guidelines to be used for evaluating human exposure to RF emissions. The FCC revised and updated these guidelines on August 1, 1996, as a result of a rule-rulemaking proceeding initiated in 1993. The new guidelines incorporate limits for Maximum Permissible Exposure (MPE) in terms of electric and magnetic field strength and power density for transmitters operating at frequencies between 300 kHz and 100 GHz.

The FCC's MPE limits are based on exposure limits recommended by the National Council on Radiation Protection and Measurements (NCRP), and, over a wide range of frequencies, the exposure limits were developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI) to replace the 1982 ANSI guidelines. Limits for localized absorption are based on recommendations of both ANSI/IEEE and NCRP.

The FCC's limits, and the NCRP and ANSI/IEEE limits on which they are based, are derived from exposure criteria quantified in terms of specific absorption rate (SAR). The basis for these limits is a whole-body averaged SAR threshold level of 4 watts per kilogram (4 W/kg), as averaged over the entire mass of the body, above which expert organizations have determined that potentially hazardous exposures may occur. The MPE limits are derived by incorporating safety factors that lead, in some cases, to limits that are more conservative than the limits originally adopted by the FCC in 1985. Where more conservative limits exist, they do not arise from a fundamental change in the RF safety criteria for whole-body averaged SAR, but from a precautionary desire to protect subgroups of the general population who, potentially, may be more at risk.

The FCC exposure limits are also based on data showing that the human body absorbs RF energy at some frequencies more efficiently than at others. The most restrictive limits occur in the frequency range of 30-300 MHz where whole-body absorption of RF energy by human beings is most efficient. At other frequencies, whole-body absorption is less efficient, and consequently, the MPE limits are less restrictive.



**RF DESIGN & SERVICES**

RF Design and Services  
326 Tryon Road  
Raleigh, North Carolina 27603  
(815) 721-6954  
WWW.TEPGROUP.NET

MPE limits are defined in terms of power density (units of milliwatts per centimeter squared:  $\text{mW}/\text{cm}^2$ ), electric field strength (units of volts per meter:  $\text{V}/\text{m}$ ) and magnetic field strength (units of amperes per meter:  $\text{A}/\text{m}$ ). The far-field of a transmitting antenna is where the electric field vector (E), the magnetic field vector (H), and the direction of propagation can be considered to be all mutually orthogonal ("plane-wave" conditions).

**Occupational/controlled exposure** limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

**General population/uncontrolled exposure** limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment-related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area. Additional details can be found in FCC OET 65.



RF Design and Services  
326 Tryon Road  
Raleigh, North Carolina 27603  
(815) 721-6954  
WWW.TEPGROUP.NET

## Appendix 6 MPE Standards Methodology

This study predicts RF field strength and power density levels that emanate from communications system antennae. It considers all transmitter power levels (less filter and line losses) delivered to each active transmitting antenna at the communications site. Calculations are performed to determine power density and MPE levels for each antenna as well as composite levels from all antennas. The calculated levels are based on where a human (Observer) would be standing at various locations at the site. The point of interest where the MPE level is predicted is based on the height of the Observer.

Compliance with the FCC limits on RF emissions are determined by spatially averaging a person's exposure over the projected area of an adult human body, which is approximately six-feet or two-meters, as defined in the ANSI/IEEE C95.1 standard. The MPE limits are specified as time-averaged exposure limits. This means that exposure is averaged over an identifiable time interval. It is 30 minutes for the general population/uncontrolled RF environment and 6 minutes for the occupational/controlled RF environment. However, in the case of the general public, time averaging should not be applied because the general public is typically not aware of RF exposure, and they do not have control of their exposure time. Therefore, it should be assumed that any RF exposure to the general public will be continuous.



**RF DESIGN & SERVICES**

RF Design and Services  
 326 Tryon Road  
 Raleigh, North Carolina 27603  
 (815) 721-6954  
 WWW.TEPGROUP.NET

The FCC's limits for exposure at different frequencies are shown in the following Tables.

Limits for Occupational/Controlled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes)
0.3 - 3.0	614	1.63	100*	6
3.0 - 30	1842/f	4.89/f	900/F <sup>2</sup>	6
30 - 300	61.4	0.163	1.0	6
300 - 1500	--	--	f/300	6
1500 - 100,000	--	--	5	6

f = frequency

\* = Plane-wave equivalent power density



**RF DESIGN & SERVICES**

RF Design and Services  
 326 Tryon Road  
 Raleigh, North Carolina 27603  
 (815) 721-6954  
 WWW.TEPGROUP.NET

Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

<b>Limits for General Population/Uncontrolled Exposure</b>				
<b>Frequency Range (MHz)</b>	<b>Electric Field Strength (E) (V/m)</b>	<b>Magnetic Field Strength (H) (A/m)</b>	<b>Power Density (S) (mW/cm<sup>2</sup>)</b>	<b>Averaging Time  E <sup>2</sup>,  H <sup>2</sup> or S (minutes)</b>
0.3 - 1.34	614	1.63	100*	30
1.34 - 30	824/f	2.19/f	180/F <sup>2</sup>	30
30 -300	27.5	0.073	0.2	30
300 -1500	--	--	f/1500	30
1500 -100,000	--	--	1.0	30

f = frequency

\* = Plane-wave equivalent power density

General population/uncontrolled exposures apply in situations in which the general public may be exposed or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

It is important to understand that these limits apply cumulatively to all sources of RF emissions affecting a given area. For example, if several different communications



**RF DESIGN & SERVICES**

RF Design and Services  
326 Tryon Road  
Raleigh, North Carolina 27603  
(815) 721-6954  
WWW.TEPGROUP.NET

system antennas occupy a shared facility such as a tower or rooftop, then the total exposure from all systems at the facility must be within compliance of the FCC guidelines.

The field strength emanating from an antenna can be estimated based on the characteristics of an antenna radiating in free space. There are basically two field areas associated with a radiating antenna. When close to the antenna, the region is known as the Near Field. Within this region, the characteristics of the RF fields are very complex, and the wave front is extremely curved. As you move further from the antenna, the wave front has less curvature and becomes planar. The wave front still has a curvature, but it appears to occupy a flat plane in space (plane-wave radiation). This region is known as the Far Field.

Two models are utilized to predict Near and Far field power densities. They are based on the formulae in FCC OET 65.

### **Cylindrical Model (Near Field Predictions)**

Spatially averaged plane-wave equivalent power densities parallel to the antenna may be estimated by dividing the antenna input power by the surface area of an imaginary cylinder surrounding the length of the radiating antenna. While the actual power density will vary along the height of the antenna, the average value along its length will closely follow the relation given by the following equation:

$$S = P \div 2\pi RL$$

Where:

S = Power Density

P = Total Power into antenna

R = Distance from the antenna

L = Antenna aperture length



**RF DESIGN & SERVICES**

RF Design and Services  
326 Tryon Road  
Raleigh, North Carolina 27603  
(815) 721-6954  
WWW.TEPGROUP.NET

For directional-type antennas, power densities can be estimated by dividing the input power by that portion of a cylindrical surface area corresponding to the angular beam width of the antenna. For example, for the case of a 120-degree azimuthal beam width, the surface area should correspond to 1/3 that of a full cylinder. This would increase the power density near the antenna by a factor of three over that for a purely omni-directional antenna. Mathematically, this can be represented by the following formula:

$$S = (180 / \theta_{BW}) P \div \pi RL$$

Where:

S = Power Density

$\theta_{BW}$  = Beam width of antenna in degrees (3 dB half-power point)

P = Total Power into antenna

R = Distance from the antenna

L = Antenna aperture length

If the antenna is a 360-degree omni-directional antenna, this formula would be equivalent to the previous formula.



**RF DESIGN & SERVICES**

RF Design and Services  
326 Tryon Road  
Raleigh, North Carolina 27603  
(815) 721-6954  
WWW.TEPGROUP.NET

### **Spherical Model (Far Field Predictions)**

Spatially averaged plane-wave power densities in the Far Field of an antenna may be estimated by considering the additional factors of antenna gain and reflective waves that would contribute to exposure.

The radiation pattern of an antenna has developed in the Far Field region and the power gain needs to be considered in exposure predictions. Also, if the vertical radiation pattern of the antenna is considered, the exposure predictions would most likely be reduced significantly at ground level, resulting in a more realistic estimate of the actual exposure levels.

Additionally, to model a truly "worst case" prediction of exposure levels at or near a surface, such as at ground-level or on a rooftop, reflection off the surface of antenna radiation power can be assumed, resulting in a potential four-fold increase in power density.

These additional factors are considered, and the Far Field prediction model is determined by the following equation:

$$S = EIRP \times Rc \div 4\pi R^2$$

Where:

S = Power Density

EIRP = Effective Radiated Power from antenna

Rc = Reflection Coefficient (2.56)

R = Distance from the antenna

The EIRP includes the antenna gain. If the antenna pattern is considered, the antenna gain is relative based on the horizontal and vertical pattern gain values at that particular location in space, on a rooftop or on the ground. However, it is recommended that the antenna radiation pattern characteristics not be considered to provide a conservative "worst case" prediction. This is the equation is utilized for the Far Field exposure predictions herein.



# Dominion Energy<sup>SM</sup>

## FEDERAL COMMUNICATIONS COMMISSION (FCC) NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) COMPLIANCE CHECKLIST

**SITE NAME: CARSONS SUBSTATION  
PROPOSED 424-FT AGL OVERALL REPLACEMENT  
SELF SUPPORT COMMUNICATIONS TOWER**

**28908 ELLINGTON ROAD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)**

**LATITUDE: N 37° 5' 4.5" ±  
LONGITUDE: W 77° 24' 25.2" ±**

**DATE INSPECTED: SEPTEMBER 23, 2024  
DATE NEPA ISSUED: DECEMBER 4, 2025**

**COMPLETED BY:**



*TEP is a family of companies licensed to provide different services in different jurisdictions. Depending on the jurisdiction, professional engineering and land surveying services are provided by TEP OpCo LLC, a Delaware limited liability company, TEP Engineering, PLLC, a North Carolina professional limited liability company, or M&H Engineering, PLLC, a New York professional limited liability company. General contractor services are provided by TEPDB OpCo LLC, a Delaware limited liability company. We acquire the requisite licenses in each state. Additional information can be obtained from the company.*

**Project Site Specific  
FCC NEPA Compliance Checklist  
Dominion Energy  
Carsons Substation**



Ms. Kayla Stanley  
Dominion Energy – Project Manager

Re: **FCC NEPA Compliance Checklist**  
**Dominion Energy**  
**Carsons Substation**  
**28908 Ellington Road**  
**Petersburg, VA 23805**  
**(Dinwiddie County)**

To Whom it May Concern,

TEP OpCo, LLC (TEP) conducted an FCC Compliance NEPA Checklist (NEPA) for a proposed **420-ft (424-ft overall with appurtenances) AGL self-support replacement communications tower** for the site designated as **Carsons Substation** and is pleased to submit the findings to Dominion Energy. The proposed site is located on a parcel of real estate in **Dinwiddie County, VA**. The parent property is occupied by a Dominion Energy electrical substation and an existing self-support telecommunications tower facility. The surrounding properties are primarily occupied by residential and agricultural land uses.

The NEPA Checklist research conducted by TEP indicates that the site is **not**: located in an officially designated wilderness area; located in an officially designated wildlife preserve; located in a floodplain and proposed to be constructed less than one foot above the base flood elevation; located in a residential zoned area and required to be equipped with high intensity white lights; and will **not**: affect threatened or endangered species or their designated critical habitats; adversely affect districts, sites, buildings, structures or objects listed or eligible for listing on the National Register of Historic Places; affect Indian religious sites; or involve significant changes in surface features.

TEP conducted the Section 106 of the NHPA portion of the NEPA checklist and the Native American consultation. TEP filed the proposed **Carsons Substation** site with the FCC Tower Construction Notification System (TCNS) on **3/31/2025** and was assigned TCNS Identification Number **293757**. TEP has received correspondence from, or referred to the FCC, all the applicable tribes with known ancestral and/or aboriginal rights to **Dinwiddie County, VA** as per FCC TCNS.

The results of the NEPA Checklist conducted by TEP conclude that no further investigation (i.e. NEPA Environmental Assessment) is warranted or recommended for the **Carsons Substation** site.

This NEPA Checklist is limited to the location of the proposed 420-ft (424-ft overall with appurtenances) self-support tower within a proposed 75-ft x 50-ft fenced tower compound with an associated 50-ft x 20-ft access drive turnaround area, a 4-ft x 3-ft stone pad, a class V 12-in diameter culvert, and a proposed 12-ft wide x ~200-ft long gravel access drive, as depicted on the “Erosion Control Plan – Sheet C-8” dated October 17, 2024, which was completed by TEP for Dominion Energy. Any future or additional lease areas or access and/or utility easements not depicted on the aforementioned site plan were not assessed as part of this NEPA Checklist and are not warranted with this document.

Sincerely

A handwritten signature in black ink that reads 'Ryan A. Malek'.

Ryan A. Malek  
Director of Environmental Regulatory Compliance  
TEP OPCO, LLC

## FCC NEPA COMPLIANCE AUDIT CHECKLIST



**DOMINION ENERGY**  
**CARSONS SUBSTATION**  
**424-FT AGL OVERALL SELF-SUPPORT**  
**REPLACEMENT TOWER**  
**28908 ELLINGTON ROAD**  
**PETERSBURG, VA 23805**  
**DINWIDDIE COUNTY**

<b>An Environmental Assessment (EA) must be filed when an applicant answers Yes to one or more of the following circumstances, and should include the specified supporting information:</b>		
<b>(1) Facility will be located in an officially designated wilderness area.</b> <i>Federally-designated wilderness areas may be administered by federal agencies (e.g., the U.S. Forest Service (USFS), Bureau of Land Management (BLM), National Park Service (NPS), or U.S. Fish and Wildlife Service (FWS)). Wilderness areas may also be designated by state or Tribal governments.</i>	<b>Yes</b> ( )	<b>No</b> (X)
<input type="checkbox"/> If the facility is in a non-federal wilderness area or is in a Federal wilderness area but is not subject to review by another federal agency, an EA is required. <input type="checkbox"/> If the facility is not in a wilderness area, include a statement to that effect. If the facility is on USFS, BLM, NPS, or FWS land, submit documentation showing that it is not within a designated wilderness area.		
<b>(2) Facility will be located in an officially designated wildlife preserve.</b> <i>A wildlife preserve may be designated in a variety of ways. Federally designated wildlife preserves include national wildlife refuges as well as some national parks, monuments, and preserves. Many states also designate preserves, protected areas, or fish and wildlife areas managed by a state Department of Fish and Game or equivalent agency. Local and Tribal governments may also designate wildlife preserves.</i>	<b>Yes</b> ( )	<b>No</b> (X)
<input type="checkbox"/> If the facility is in a non-federal wildlife preserve or is in a federal wildlife preserve but is not subject to review by another federal agency, an EA is required. <input type="checkbox"/> If the proposed facility is not located in an officially designated wildlife preserve, include a statement to that effect and explain any measures taken to confirm that the site is not within a designated wildlife preserve. The applicant should cite specifically to the sections of the relevant databases, maps, references, or information from the relevant government agencies (e.g., Department of the Interior).		
<b>(3) Facility may affect listed threatened or endangered species or designated critical habitats; or is likely to jeopardize the continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats.</b> <i>Consult FWS resources to identify when this circumstance applies. Attach to the EA any relevant correspondence with FWS, Memoranda of Agreement/Understanding, Blanket Clearance Letters, Endangered Species Act (ESA) Section 4(d) rules, or other conditions and recommendations.</i>	<b>Yes</b> ( )	<b>No</b> (X)
<input type="checkbox"/> If no listed <sup>vi</sup> or proposed <sup>vii</sup> threatened or endangered species or designated or proposed critical habitats <sup>viii</sup> are present in the county or counties where the "action area" <sup>ix</sup> is located, explain the basis for the applicant's determination that: (i) no listed or proposed threatened or endangered species or designated or proposed critical habitats are present within the county (or counties) of the project's action area and/or; (ii) that there would be no effect on listed or proposed threatened or endangered species or designated or proposed critical habitats within the county (or counties) of the project's action area. Provide the materials (with citations) that formed the basis for this determination (e.g., maps or lists from relevant databases). In most instances, use of FWS's Information for Planning and Conservation (IPaC) database <sup>x</sup> will be sufficient to determine whether endangered or threatened species are present in the county or counties, although other databases sometimes contain more specific information that may be used in addition to IPaC. If IPaC data are not available for the project area, applicants should contact the appropriate local FWS Field Office. Include any correspondence from FWS indicating that no endangered or threatened species are present. <input type="checkbox"/> If listed or proposed threatened or endangered species or designated or proposed critical habitats are present in the county or counties where the "action area" is located and would not be affected by the proposed facilities, explain how the applicant determined that there would be no effect on listed or proposed threatened or endangered species or designated or proposed critical habitats within the county (or counties) of the project's action area. Include any correspondence from FWS indicating that there would be no effect. <input type="checkbox"/> If the applicant did not receive a letter from FWS indicating that there would be no effect, provide an informal biological assessment or a description of the protected species in the project area and an explanation of why the project will not adversely affect them, prepared by a biologist. Provide the name(s) and qualifications of the biologist(s) who prepared the biological assessment or description along with any FWS staff who may be familiar with its contents. <sup>xi</sup> Provide the materials (with citations) that formed the basis for the biologist's determination (e.g., maps or lists from relevant databases; recommendations from state wildlife agencies or other experts). The applicant's analysis of effects must use the best scientific and commercial data available.		

<ul style="list-style-type: none"> <li><input type="checkbox"/> If the proposed facility may affect, but is not likely to adversely affect, listed or proposed threatened or endangered species or designated or proposed critical habitats in the action area, provide a letter from FWS concurring with the applicant's informal biological assessment. If any measures are proposed to mitigate effects on species or habitats, the EA must outline those measures with FWS concurrence. For species that require ESA 4(d) Programmatic Biological Opinions (e.g., the northern long-eared bat<sup>xii</sup> and the American burying beetle<sup>xiii</sup>) the consistency letter provided by FWS needs to be included with the application.</li> <li><input type="checkbox"/> If the proposed facility may affect, and is likely to adversely affect, listed or proposed threatened or endangered species or listed or proposed designated critical habitats in the action area,<sup>xiv</sup> the applicant will need to prepare a formal biological assessment as outlined in 50 CFR § 402.01 <i>et seq.</i> The applicant should first provide the formal biological assessment to the Commission for initiation of formal consultation with the FWS. If any measures are proposed to mitigate effects on species or habitats, the EA must outline any mitigation measures from the Biological Opinion.</li> </ul>			
<p><b>(4) Facility may affect districts, sites, buildings, structures or objects significant in American history, architecture, archeology, engineering or culture, that are listed, or are eligible for listing, in the National Register of Historic Places.</b></p> <p><i>Consult the Nationwide Programmatic Agreement (47 CFR Part 1, Appendix C) (NPA) to determine how to evaluate this circumstance. Summarize the results of the Section 106 consultation process in the EA. EAs should not include copies of Forms 620/621 or cultural resources reports.</i></p>	<table border="1"> <tr> <td style="text-align: center;">Yes ( )</td> <td style="text-align: center;">No (X)</td> </tr> </table>	Yes ( )	No (X)
Yes ( )	No (X)		
<ul style="list-style-type: none"> <li><input type="checkbox"/> If the proposed facility is excluded from historic preservation review under Section III of the NPA, provide a statement describing why the facilities are excluded. Facilities constructed in industrial parks, strip malls, shopping centers, and rights-of-way that are otherwise excluded under Section III.D or III.E of the NPA require a table summarizing the results of Tribal notification completed using the Tower Construction Notification System (TCNS).</li> <li><input type="checkbox"/> For all proposed facilities requiring Tribal notification, provide a copy of the Applicant's TCNS "Notice of Organization" list of notified Tribal Nations and a table summarizing their responses.</li> <li><input type="checkbox"/> For proposed facilities that would have no effect or no adverse effect on historic properties, provide a concurrence letter from the relevant State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO)<sup>xv</sup> or provide other documentation demonstrating how the applicant complied with the NPA.</li> <li><input type="checkbox"/> For proposed facilities where an adverse effect on historic properties has been mitigated with an MOA, provide a copy of the executed agreement <sup>xvi</sup>. A Declaratory Ruling on section 6409(a) of the Spectrum Act of 2012 (adopted 6/9/2020) clarifies, under the Commission's rules on environmental and historic preservation review, that FCC applicants do not need to submit environmental assessments based only on potential impacts to historic properties when parties have entered into a MOA to mitigate effects on those properties.</li> </ul>			
<p><b>(5) Facility may affect Indian religious sites.</b></p> <p><i>An applicant's documentation that it has completed the TCNS process will generally suffice to demonstrate whether the proposed construction may affect Tribal religious and cultural sites.</i></p>	<table border="1"> <tr> <td style="text-align: center;">Yes ( )</td> <td style="text-align: center;">No (X)</td> </tr> </table>	Yes ( )	No (X)
Yes ( )	No (X)		
<ul style="list-style-type: none"> <li><input type="checkbox"/> If the proposed facility might affect Indian religious sites, check with FCC staff to determine what should be included in the EA. Any information regarding historic properties or religious or sacred sites to which a Tribal Nation attributes significance may be highly confidential, private, and sensitive, and applicants should respect the wishes of the Tribal Nation with respect to the treatment of such information.</li> </ul>			
<p><b>(6) Facility will be located in a floodplain, if the facility will not be placed at least one foot above the base flood elevation of the floodplain.</b></p> <p><i>Provide a copy of the relevant Federal Emergency Management Agency (FEMA) map showing the location of the proposed facility relative to the 100-year floodplain. If that map is unavailable, provide the best available data.</i></p>	<table border="1"> <tr> <td style="text-align: center;">Yes ( )</td> <td style="text-align: center;">No (X)</td> </tr> </table>	Yes ( )	No (X)
Yes ( )	No (X)		
<ul style="list-style-type: none"> <li><input type="checkbox"/> If the facility will be located in a floodplain and elevated at least one foot above the base flood elevation of the floodplain, provide documentation that the proposed structure and associated equipment will be at least one foot above the floodplain (e.g., local building permit, construction plans).</li> <li><input type="checkbox"/> If the facility will be located in a floodplain and will not be elevated at least one foot above the base flood elevation of the floodplain,<sup>xvii</sup> provide an explanation of (i) why the facility (including equipment) will not be elevated and (ii) evidence of measures to be taken to ensure resilience in the event of floods and mitigation of impacts to the floodplain.</li> </ul>			
<p><b>(7) Facility construction will involve significant change in surface features (e.g., wetland fill, deforestation, significant tree removal, or water diversion).</b></p>	<table border="1"> <tr> <td style="text-align: center;">Yes ( )</td> <td style="text-align: center;">No (X)</td> </tr> </table>	Yes ( )	No (X)
Yes ( )	No (X)		
<ul style="list-style-type: none"> <li><input type="checkbox"/> If the proposed facility and associated construction, including trenching, will cause any substantial change in the character of the land used or in surface features, describe the nature and extent of the change, and discuss any efforts to mitigate these changes.<sup>xviii</sup> Examples of substantial change may include clearing trees, vegetation, desert crust, shrubland, or topsoil to an extent that would cause a clearly detectable change in a forest or ecological community and may have an appreciable impact on that community; the diversion of a water course; and wetland fill.</li> <li><input type="checkbox"/> If the facility is located in a wetland, provide a copy of the permit or permits the applicant or its consultant received from the U.S. Army Corps of Engineers or other permitting authority authorizing the construction of the proposed antenna structure.</li> <li><input type="checkbox"/> If the facility is not located in a wetland, provide a copy of the section of a map showing that the proposed antenna structure and associated equipment will not be located in a wetland. The Applicant should use FWS's National Wetlands Inventory maps and/or best available data.</li> </ul>			

<b>(8) Facility (antenna tower and/or supporting structures) will be equipped with high intensity white lights which are to be located in residential neighborhoods, as defined by the applicable zoning law.</b>	Yes ( )	No (X)
<input type="checkbox"/> If the facility will be equipped with high intensity white lights and located in a residentially zoned neighborhood, the EA must address the impact of the lighting to residents. <sup>xix</sup> <input type="checkbox"/> If the facility will be equipped with high intensity white lights but will not be located in a residentially zoned neighborhood, provide documentation of the location's zoning classification or explain the absence of zoning. <input type="checkbox"/> If the facility will not be equipped with high intensity white lights ( <i>i.e.</i> , FAA Lighting Style B, C, F, or G), document the lighting style to be used (if any). <sup>xx</sup>		
<b>(9) Facility would cause human exposure to levels of radiofrequency radiation in excess of Commission-adopted guidelines.</b>	Yes ( )	No (X)
<input type="checkbox"/> For facilities that do not qualify for an exemption pursuant to § 1.1307(b)(3), applicants must prepare an evaluation of human exposure to radiofrequency radiation confirming compliance with the limits in § 1.1310. Mitigation actions are required to the extent necessary to ensure compliance with the limits pursuant to § 1.1307(b)(4). An EA is required for facilities that will exceed the limits set out in § 1.1310. <sup>xxi</sup>		
<b>(10) Facility will be over 450 feet above ground level (AGL).</b> <i>New construction of a tower over 450 feet AGL,<sup>xxii</sup> replacement of a tower over 450 AGL that involves a substantial increase in size to the original tower, modification of an existing tower over 450 feet AGL that constitute a substantial increase in size of a tower,<sup>xxiii</sup> or certain lighting changes to a tower over 450 feet AGL<sup>xxiv</sup> require an EA addressing the proposed facility's effects on migratory birds. Consult FWS guidelines for information on avoiding adverse effects to migratory birds.</i>	Yes ( )	No (X)
<input type="checkbox"/> Document the location of the project in relation to wetlands, other Programmatic Environmental Assessment-identified locational features, National Wildlife Refuges, National Audubon Society Important Bird Areas (IBAs), Habitat Conservation Plan (HCP) areas, and other areas that may be environmentally sensitive for migratory birds. Applicant should cite specifically to the sections of relevant databases, maps, references, or to information from relevant government agencies ( <i>e.g.</i> , Department of the Interior). <input type="checkbox"/> If applicable, explain how the applicant will provide lighting under the proposed tower and associated buildings. No lighting or motion-sensor lighting is preferred. <input type="checkbox"/> Explain how the applicant determined whether there are Bald Eagle or Golden Eagle nests within 0.5 miles of the proposed antenna structure. <input type="checkbox"/> If the proposed facility requires mitigation, or any measures are proposed to mitigate effects on migratory bird species or habitats, describe such measures. Include copies of any Blanket Clearance Letters, Memoranda of Agreement/Understanding, and other FWS conditions or recommendations, as well as any conditions or recommendations of state wildlife agencies. <input type="checkbox"/> If the proposed facility will include steady-burning lights, explain the reasons for using such lighting.		
TEP OPCO, LLC  Print Name: Ryan A. Malek	Date: December 4, 2025  Signature: 	

The following provides additional information concerning each item on the checklist.

1. Designated Wilderness Areas – Based on a review of the National Wilderness Institute Map of Wilderness Areas, the US National Wilderness Preservation System Map webmapper, the National Park Service map of National Natural Landmarks, the Wild & Scenic Rivers webmapper, and the National Scenic and Historic Trails webmapper, the proposed tower site is not located within an officially designated wilderness area.
2. Designated Wildlife Preserves – Based on a review of the US Fish and Wildlife Service: National Wildlife Refuge System Map and applicable state wildlife preserve maps, the proposed tower site is not located within an officially designated wildlife preserve.
- 3A. Threatened and Endangered Species or Designated Critical Habitats – Based on a review of the U.S. Fish & Wildlife Service - Official Species List for the project (Project Code: 2025-0086104) dated December 3, 2025, and an on-site investigation, no federally threatened or endangered species were identified as potentially occurring within the proposed project area. Therefore, the proposed project will have no effect on federally threatened or endangered species or their designated critical habitats. Please see Attachment 3 for responses received from the USFWS Virginia Ecological Services Field Office and the Virginia Department of Conservation and Recreation, as well as a copy of TEP's Informal Biological Assessment.
- 3B. Proposed Threatened or Endangered Species or Proposed Critical Habitats - Based on a review of the USFWS Official Species List (Project Code: 2025-0086104) dated December 3, 2025, the monarch butterfly (*Danaus plexippus*), a federally proposed threatened species, was identified as potentially occurring within the project area. However, based on the lack of suitable habitat, it is the opinion of TEP that the proposed project action will not jeopardize the continued existence of the monarch butterfly or any additional proposed threatened or endangered species or involve the adverse modification of proposed critical habitat.
4. Historical Places – Based on the results of our coordination with the Dinwiddie County Planning and Zoning Department, the Dinwiddie County Historical Society, the Petersburg National Battlefield, the American Battlefield Trust, and the Virginia Department of Historic Resources (VA DHR), the proposed project will have no adverse effect on historic properties listed on or eligible for listing on the National Register of Historic Places within the FCC-designated area of potential effect (APE). On April 30, 2025, the VA DHR provided concurrence to TEP's findings through the FCC-Tower Construction Notification System (TCNS).
5. Indian Religious Sites – Based upon a review of available information obtained from the VA DHR, the Native American Consultative Database, the Bureau of Indian Affairs-Indian Reservations in the Continental United States, dated 5/96, and the responses to the TCNS #293757 filed 3/31/2025; no known Native American religious sites will be affected by the proposed tower site.
6. Floodplains – Based on a review of the floodplain map of the area (FEMA Flood Insurance Rate Map (FIRM) Community-Panel No. 51053C0300C, effective 6/1/2022 of Dinwiddie County, VA the proposed tower site is located within Zone X – areas of minimal flood hazard determined to be outside of the 500-year floodplain and is not located within a special flood hazard area (SFHA).
7. Surface Features – Based on a review of the U.S. Fish and Wildlife Service National Wetland Inventory (NWI) map of the area, the pertinent USGS topographic quadrangle, and an on-site inspection on September 23, 2024, by TEP personnel, the construction of the proposed tower is not anticipated to result in a significant change or modification to surface features such as fill in jurisdictional wetlands, deforestation, or water diversion.
8. High Intensity White Lights – The proposed 420-ft (424-ft with appurtenances) AGL self-support replacement tower will not be located in a residential neighborhood and is anticipated to be equipped with a dual-mode and medium intensity lighting system.
9. Radio Frequency Emissions – The scope of this FCC NEPA Checklist did not include an evaluation of the human exposure to RF radiation pursuant to 47 CFR Section 1.1310. FCC licensees transmitting from antennas mounted on this antenna structure are required to comply with radio frequency exposure standards.

10. Towers Over 450-ft Above Ground Level – The proposed tower is a 420-ft (424-ft with appurtenances) AGL self-support replacement tower, therefore an EA regarding the facility's effects on migratory birds is not required.

**Federal Communications Commission (FCC)**  
**National Environmental Policy Act (NEPA) Compliance Checklist**

**Table of Contents**

<u><b>Content</b></u>	<u><b>Page #</b></u>
<b>Project Site Plans.....</b>	<b>10</b>
<b>Attachment 1 – Officially Designated Wilderness Areas.....</b>	<b>33</b>
<b>Attachment 2 – Officially Designated Wildlife Preserves.....</b>	<b>42</b>
<b>Attachment 3 – Listed &amp; Proposed Threatened and Endangered Species.....</b>	<b>45</b>
<i>USFWS / State Wildlife Response and/or Informal Biological Assessment.....</i>	<i>46</i>
<b>Attachment 4 – Section 106 of the National Historic Preservation Act – State Historic     Preservation Office Consultation.....</b>	<b>70</b>
<i>SHPO Response / Concurrence.....</i>	<i>71</i>
<i>S106 Public Notice Affidavit.....</i>	<i>128</i>
<b>Attachment 5 – Section 106 of the National Historic Preservation Act – Tribal Consultation.....</b>	<b>177</b>
<b>Attachment 6 – Floodplains.....</b>	<b>201</b>
<b>Attachment 7 – Surface Features (e.g., Wetlands, Deforestation, Water Diversion).....</b>	<b>203</b>
<b>Attachment 8 – Radiofrequency Radiation Exposure Documentation (if applicable).....</b>	<b>NA</b>



**GENERAL NOTES:**

1. ALL REFERENCES MADE TO LESSEE IN THESE DOCUMENTS SHALL BE CONSIDERED DOMINION ENERGY OR ITS DESIGNATED REPRESENTATIVE.
2. ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE IN PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING TO HAVE SUFFICIENT EXPERIENCE AND ABILITY, IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED AND IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE OF VIRGINIA.
3. WORK SHALL BE COMPLETED IN ACCORDANCE WITH ANSI/TIA 222-H STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES, ASCE 7-05 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES AND THE VIRGINIA CONSTRUCTION CODE (2021 EDITION).
4. UNLESS SHOWN OR NOTED OTHERWISE ON THE CONTRACT DRAWINGS, OR IN THE SPECIFICATIONS, THE FOLLOWING NOTES SHALL APPLY TO THE MATERIALS LISTED HEREIN, AND TO THE PROCEDURES TO BE USED ON THIS PROJECT.
5. ALL HARDWARE ASSEMBLY MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERSEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
6. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO ENSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION AND/OR FIELD MODIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, GUYS OR TIE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER THE COMPLETION OF THE PROJECT.
7. THE LESSEE SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHILE WORK IS BEING PERFORMED. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH ALL CONDITIONS PRIOR TO SUBMITTING THE PROPOSAL. ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS (LATEST REVISION) SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING ANY MATERIALS ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. CONTRACTOR SHALL NOT SCALE CONTRACT DRAWINGS IN LIEU OF FIELD VERIFICATION. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE LESSEE AND THE LESSEE'S ENGINEER. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE LESSEE AND/OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES OR THE PROCEDURES. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTORS.
8. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE LESSEE AND ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
9. THESE DOCUMENTS DO NOT INCLUDE THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. SAFETY, CARE OF ADJACENT PROPERTIES, AND COMPLIANCE WITH LOCAL, PROVINCIAL AND FEDERAL REGULATIONS REGARDING SAFETY, SHALL BE THE CONTRACTOR'S RESPONSIBILITY, AND THIS, PER THE INTERNATIONAL CODE - REGULATORS RESPECTING OCCUPATIONAL SAFETY & HEALTH THE SUCCESSFUL CONTRACTOR WILL SUBMIT HIS SAFETY MANUAL AT THE PROJECT SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
10. ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIALS ACCESS, WITH THE LESSEE'S PROJECT MANAGER.
11. BILL OF MATERIALS AND PART NUMBERS LISTED ON CONSTRUCTION DRAWINGS ARE INTENDED TO AID CONTRACTOR/LESSEE. CONTRACTOR/LESSEE SHALL VERIFY PARTS AND QUANTITIES WITH MANUFACTURER PRIOR TO BIDDING AND/OR ORDERING MATERIALS.
12. THE CONTRACTOR SHALL REWORK (DRY, SCARIFY, ETC.) ALL MATERIAL NOT SUITABLE FOR SUBGRADE IN ITS PRESENT STATE. AFTER REWORKING, IF THE MATERIAL REMAINS UNSUITABLE, THE CONTRACTOR SHALL UNDERCUT THIS MATERIAL AND REPLACE WITH APPROVED MATERIAL. ALL SUBGRADES SHALL BE PROOF-ROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK PRIOR TO PAVING. ANY SOFT MATERIAL SHALL BE REWORKED OR REPLACED.
13. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL PIPES, DITCHES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTED BY THE LESSEE. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO MAINTAIN DRAINAGE STRUCTURE IN OPERABLE CONDITION.
14. ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED FOR ONE YEAR FROM ACCEPTANCE DATE.
15. ANY BUILDINGS ON THIS SITE ARE INTENDED TO SHELTER EQUIPMENT WHICH WILL ONLY BE PERIODICALLY MAINTAINED, AND ARE NOT INTENDED FOR HUMAN OCCUPANCY.
16. TEMPORARY FACILITIES FOR PROTECTION OF TOOLS AND EQUIPMENT SHALL CONFORM TO LOCAL REGULATIONS AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
17. RENTAL CHARGES, SAFETY, PROTECTION AND MAINTENANCE OF RENTED EQUIPMENT SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
18. THE CONTRACTOR AND ITS SUBCONTRACTORS SHALL CARRY LIABILITY INSURANCE IN THE AMOUNTS AND FORM IN ACCORDANCE WITH SPECIFICATIONS. CERTIFICATES DEMONSTRATING PROOF OF COVERAGE SHALL BE PROVIDED TO PRIOR TO THE START OF THE WORK ON THE PROJECT.

19. THE CONTRACTOR SHALL CONTACT ALL APPLICABLE UTILITY SERVICES TO VERIFY LOCATIONS OF EXISTING UTILITIES AND REQUIREMENTS FOR NEW UTILITY CONNECTIONS PRIOR TO EXCAVATING. CONTRACTOR WILL BE RESPONSIBLE TO ASSIST IN COORDINATING AND OBTAINING PRIMARY POWER TO THE SITE PRIOR TO TOWER ERECTION BEFORE PROJECT COMPLETION. (ON SITE VISITS WITH UTILITY COMPANY REPRESENTATIVES AS NECESSARY, ETC...)
21. THE CONTRACTOR SHALL GUARANTEE THE WORK PERFORMED ON THE PROJECT BY THE CONTRACTOR AND ANY OR ALL OF THE SUBCONTRACTORS WHO PERFORMED WORK FOR THE CONTRACTOR ON THIS PROJECT. THE GUARANTEE SHALL BE FOR A FULL YEAR FOLLOWING ISSUANCE OF THE FINAL PAYMENT OF HOLDBACK.
22. AWARDED CONTRACTOR WILL BE REQUIRED TO SIGN AND RETURN A COPY OF AN AWARD LETTER FOR THE LESSEE'S FILE.
23. CONTRACTOR WILL BE REQUIRED TO PROVIDE PROOF OF LICENSE TO PERFORM WORK IN JURISDICTION AT TIME OF BID AWARD.
24. CONTRACTOR WILL PROVIDE A CONSTRUCTION SCHEDULE PRIOR TO CONSTRUCTION STARTING AND WILL PROVIDE UPDATE/CHANGES (WITH EXPLANATIONS) TO THAT SCHEDULE WHEN/IF ITEMS ARE DELAYED OR PUSHED OUT.
25. CONTRACTOR WILL BE RESPONSIBLE TO PROVIDE PROJECT MANAGERS WITH PHOTOS OF THE MAJOR CONSTRUCTION MILESTONES AS THEY OCCUR.
26. CONTRACTOR SHOULD BE PREPARED FOR RANDOM SAFETY INSPECTIONS AT ALL TIMES.
27. CONTRACTOR IS EXPECTED TO MAINTAIN PROPER WORKING CONDITIONS AND PROCEDURES PER LOCAL AND FEDERAL STANDARDS AT ALL TIMES.
28. CONTRACTOR WILL BE REQUIRED TO OBTAIN THE NECESSARY ELECTRICAL PERMITS AND INSPECTIONS AS REQUIRED BY JURISDICTION.
29. CONTRACTOR IS RESPONSIBLE FOR CONCRETE COMPRESSION TESTING.
30. CONTRACTOR IS RESPONSIBLE FOR GROUND MEG TESTING AND PROVIDING PROOF OF RESULT.
31. WHEN REQUESTED, PROVIDE 3 COPIES OF FABRICATION AND ERECTION DRAWINGS PRIOR TO FABRICATION. ALLOW UP TO 1 WEEK FOR REVIEW BY CONSULTANT.
32. IN ADDITION TO CONTRACTOR'S QUALITY CONTROL PROGRAM, INDEPENDENT TESTING AND INSPECTION MAY BE PERFORMED BY LESSEE OR LESSEE'S REPRESENTATIVE.
33. SUBMIT RED-LINES COPY OF CONSTRUCTION DRAWINGS UPON COMPLETION OF CONSTRUCTION HIGHLIGHTING CHANGES IN THE STAMPED AND SIGNED AS-BUILT CONDITION FROM SHOWN ON THE DRAWINGS.
34. CONTRACTOR WILL BE RESPONSIBLE FOR ALL GRADING AND FILL COMPACTION TESTING REQUIRED AS SET FORTH IN THE GEO TECHNOLOGICAL REPORT PROVIDED BY LESSEE.

**CONCRETE:**

1. ALL CONCRETE AND CONCRETE MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE VIRGINIA CONSTRUCTION CODE (2021 EDITION).
2. THE CONTRACTOR SHALL TAKE SAMPLES OF THE CONCRETE POURED UNDER THE CONDITIONS OUTLINED IN THE VIRGINIA CONSTRUCTION CODE, 2021 EDITION.
3. ANY FAILURE OF A CONCRETE TEST CYLINDER TO MEET THE SPECIFIED STRENGTH REQUIREMENTS MUST BE REPORTED TO THE DESIGN ENGINEER IMMEDIATELY. CORRECTIVE ACTION MUST BE APPROVED BY THE ENGINEER AND ALL RELATED COSTS SHALL BE AT THE CONTRACTOR'S EXPENSE.
4. THE MINIMUM 28-DAY COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE A MINIMUM OF 4,000 PSI (21 MPA), EXCEPT AS NOTED OR DIRECTED IN THE SOIL REPORT. THE CONCRETE, WHEN POURED, SHALL CONTAIN 7% AIR ENTRAINMENT WITH AN ALLOWABLE VARIATION OF +2%.
5. CONTRACTOR MUST TAKE SLUMP TEST AT LEAST ONCE FROM EACH TRANSIT MIXER AFTER A MINIMUM OF 5% CONCRETE LOAD HAD BEEN DISCHARGED. SLUMP, UNLESS NOTED OTHERWISE ON THE DRAWINGS, SHALL BE 75 MM (2.95 INCHES).
6. MIXED CONCRETE ON SITE (REMOTE AREAS) WITH THE CORRECT PROPORTION OF CEMENT, SAND, GRAVEL, AND AIR-ENTRAINING AGENT ALREADY ADDED, THE DRY PREMIX IS TO BE MIXED IN A CONCRETE BATCHER IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
7. BEFORE POURING CONCRETE, THE TRANSPORTING EQUIPMENT AND FORMS SHALL BE CLEANED AND ALL DEBRIS AND ICE SHALL BE REMOVED FROM PLACES TO BE OCCUPIED BY THE CONCRETE. ANY WATER THAT HAS ACCUMALATED IN THE FORMS SHALL BE REMOVED.
8. ALL CONCRETE SHALL BE VIBRATED AND WORKED AROUND THE REINFORCEMENTS, EMBEDDED FIXTURES AND INTO THE CORNERS OF THE FORMS. ANY EXCESS WATER THAT ACCUMALATES WHILE THE CONCRETE IS BEING POURED SHALL BE REMOVED.

PLANS PREPARED FOR:



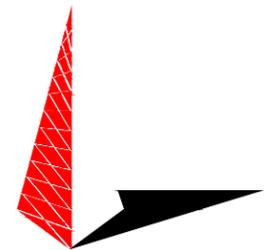
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON  
SUBSTATION**

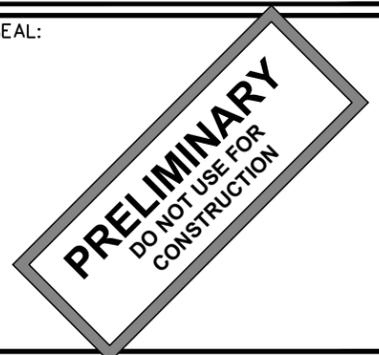
28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:



3	04-16-24	PRELIMINARY
2	12-04-23	PRELIMINARY
1	10-13-23	PRELIMINARY
0	09-27-23	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

**PROJECT  
NOTES**

SHEET NUMBER: <b>N-1</b>	REVISION: <b>3</b>
TEP#: 132110.854246	

**CONCRETE (CONTINUED):**

9. THE DESIGN ENGINEER SHALL RECEIVE A MINIMUM OF 24 HOURS NOTICE OF EVERY POUR.
10. THE CONCRETE IN FOUNDATIONS MUST BE POURED IN CONTINUOUS POURS BETWEEN CONSTRUCTION JOINTS. NO CONSTRUCTION JOINTS OTHER THAN THOSE SHOWN ON SITE SPECIFIC DRAWINGS WILL BE PERMITTED. THE CONTRACTOR SHALL PROVIDE EFFICIENT EQUIPMENT TO COMPLETE THE POURING OF EACH SECTION IN ONE CONTINUOUS POUR.
11. ALL FRAMEWORK SHALL BE BUILT IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE SHALL BE THOROUGHLY BRACED AND PLUMBED SO THAT THE FINISHED CONCRETE WILL CONFORM TO THE SHAPES, LINES, GRADES, AND DIMENSIONS INDICATED ON THE SITE DRAWINGS.
12. FORMS AND SHORING SHALL NOT BE REMOVED UNTIL THE CONCRETE IS ADEQUATELY SET. THEIR REMOVAL SHALL BE DONE IN SUCH A MANNER AS TO ENSURE THE COMPLETE SAFETY OF THE STRUCTURE.
13. FORMS WHICH SUPPORT THE WEIGHT OF THE CONCRETE, OR OF SUPERIMPOSED LOADS, SHALL NOT BE REMOVED UNTIL THE CONCRETE IS STRONG ENOUGH TO CARRY ITS OWN WEIGHT, AND SUCH SUPERIMPOSED LOADS AS MAY BE PLACED UPON IT.
14. THE CONCRETE SHALL BE MAINTAINED IN A MOIST CONDITION FOR AT LEAST 5 DAYS AFTER IT HAS BEEN POURED.
15. ALL SURFACES WHICH ARE NOT PROTECTED BY FORMS OR A SEALED WATERPROOF COATING SHALL BE KEPT MOIST BY CONTINUOUS SPRINKLING, OR OTHER MEANS SUCH AS COVERING WITH MOIST SAND, SAWDUST, OR BURLAP.
16. WHERE NECESSARY, THE CONCRETE SHALL BE PROTECTED AGAINST THE WEATHER BY A FRAMED HOUSING, TARPAULINS, OR OTHER SUITABLE COVERING.

**REINFORCING STEEL (REBAR):**

1. REINFORCING STEEL SHALL MEET CODE AND BE PLACED ACCORDING TO THE APPLICABLE DRAWINGS. THE MINIMUM THICKNESS OF CONCRETE OVER THE STEEL SHALL BE AT LEAST 3".
2. ALL REINFORCEMENTS THAT ARE REQUIRED FOR A DAYS POUR ON CONCRETE SHALL BE SECURELY FIXED IN PLACE IN SUFFICIENT TIME TO PERMIT INSPECTION BEFORE CONCRETING BEGINS.
3. THE DESIGN ENGINEER SHALL BE GIVEN 24 HOURS NOTICE BEFORE THE CONCRETE IS TO BE POURED. FAILURE TO COMPLY MAY NECESSITATE, BUT NOT BE LIMITED TO, THE REMOVAL OF THE POURED CONCRETE AT THE CONTRACTOR'S EXPENSE.

**GROUTING:**

1. WHERE GROUT IS INDICATED ON THE DRAWINGS UNDER STRUCTURAL BASE PLATES, THIS SHALL BE A NON-SHRINK, NON-FERROUS TYPE. METHODS OF MIXING AND PLACING MUST BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

**COLD WEATHER CONCRETING:**

1. THE CONTRACTOR SHALL PROVIDE AND HAVE ON THE SITE READY FOR USE, ADEQUATE EQUIPMENT FOR HEATING CONCRETE MATERIALS AND PROTECTING FRESH CONCRETE DURING FREEZING OR NEAR FREEZING WEATHER CONDITIONS, ACCORDING TO THE 2021 VIRGINIA CONSTRUCTION CODE.
2. ALL CONCRETE MATERIALS, REBAR, FORMS, FILLERS, AND THE EARTH WITH WHICH THE CONCRETE IS TO COME INTO CONTACT WITH, SHALL BE FREE FROM FROST AND ICE.
3. WHENEVER THE SURROUNDING TEMPERATURE IS BELOW 39°F, ALL CONCRETE POURED IN THE FORMS SHALL HAVE A TEMPERATURE OF 68°F FOR 4 DAYS.
4. THE HOUSING, COVERING, OR OTHER PROTECTION USED FOR THE CURING SHALL REMAIN IN PLACE AND INTACT FOR AT LEAST 24 HOURS AFTER THE ARTIFICIAL HEATING IS DISCONTINUED.
5. SALT, CALCIUM CHLORIDE, OR OTHER CHEMICALS SHALL NOT BE USED IN THE CONCRETE MIX TO PREVENT THE WATER CONTENT FROM FREEZING.

**UTILITIES:**

1. CONTRACTOR SHALL CONTACT A SUBSURFACE UTILITY LOCATOR FOR LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. LOCATION OF EXISTING SEWER, WATER LINES, GAS LINES, CONDUITS OR OTHER STRUCTURES ACROSS, UNDERNEATH, OR OTHERWISE ALONG THE LINE OF PROPOSED WORK ARE NOT NECESSARILY SHOWN ON THE PLANS, AND IF SHOWN ARE ONLY APPROXIMATELY CORRECT. CONTRACTOR ASSUMES SOLE RESPONSIBILITY FOR VERIFYING LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES (INCLUDING TEST PITS BY HAND IF NECESSARY) IN AREAS OF CONSTRUCTION PRIOR TO STARTING WORK. CONTACT ENGINEER IMMEDIATELY IF LOCATION OF ELEVATION IS DIFFERENT FROM THAT SHOWN ON THE PLANS, OR IF THERE APPEARS TO BE A CONFLICT.
2. CONTRACTOR SHALL COORDINATE ALL UTILITY CONNECTIONS WITH APPROPRIATE UTILITY LICENSEES AND CONSTRUCTION MANAGER.
3. DAMAGE BY THE CONTRACTOR TO UTILITIES OR PROPERTY OF OTHERS, INCLUDING EXISTING PAVEMENT AND OTHER SURFACES DISTURBED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPAIRED TO PRE-CONSTRUCTION CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE LICENSEE. FOR GRASSES AREAS, SEED AND MULCH SHALL BE ACCEPTABLE.

**UTILITIES (CONT.):**

4. THE CONTRACTOR SHALL COORDINATE WITH THE LESSEE THE REQUIREMENTS FOR AND LIMITS OF OVERHEAD AND/OR UNDERGROUND ELECTRICAL SERVICE.
5. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF NEW UNDERGROUND TELEPHONE SERVICE WITH THE TELEPHONE UTILITY AND THE LESSEE'S REQUIREMENTS.
6. ALL UNDERGROUND UTILITIES SHALL BE INSTALLED AND TESTED SATISFACTORY PRIOR TO COMMENCING ANY PAVING OPERATIONS WHERE SUCH UTILITIES ARE WITHIN THE LIMITS OF PAVEMENT.

PLANS PREPARED FOR:



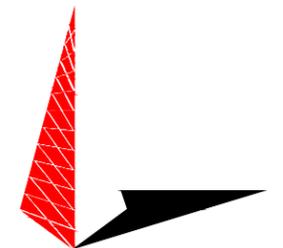
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON  
SUBSTATION**

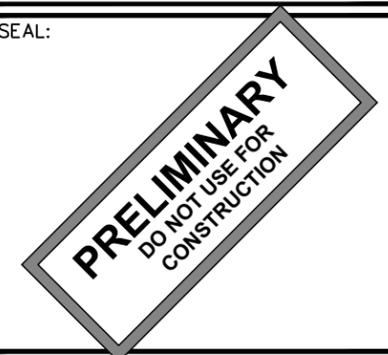
28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:



3	04-16-24	PRELIMINARY
2	12-04-23	PRELIMINARY
1	10-13-23	PRELIMINARY
0	09-27-23	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

**PROJECT  
NOTES**

SHEET NUMBER: REVISION:

**N-2**

**3**

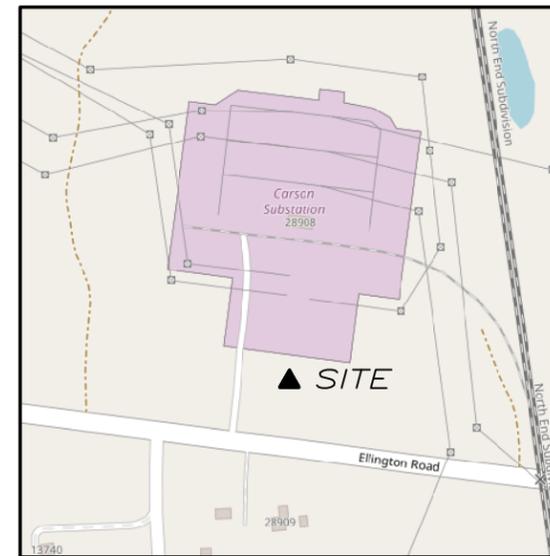
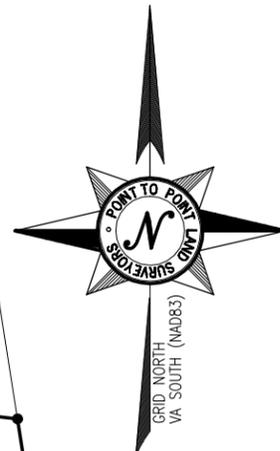
TEP#: 132110.854246

**PARENT PARCEL**

OWNER: VIRGINIA ELECTRIC AND POWER COMPANY  
 SITE ADDRESS: 28908 ELLINGTON RD, PETERSBURG, VA 23805  
 PARCEL ID: 49-31A  
 AREA: 22.19189 ACRES  
 ALL ZONING INFORMATION SHOULD BE VERIFIED WITH THE PROPER ZONING OFFICIALS  
 REFERENCE: DEED BOOK 138 PAGE 118

**GPS NOTES**

THE FOLLOWING GPS STATISTICS UPON WHICH THIS SURVEY IS BASED HAVE BEEN PRODUCED AT THE 95% CONFIDENCE LEVEL:  
 POSITIONAL ACCURACY: 0.06 FEET (HORZ) 0.14 FEET (VERT)  
 TYPE OF EQUIPMENT: GEOMAX ZENITH35 PRO BASE AND ROVER, DUAL FREQUENCY  
 TYPE OF GPS FIELD PROCEDURE: REAL-TIME KINEMATIC NETWORKS  
 DATE OF SURVEY: 06/26/2023  
 DATUM / EPOCH: NAD\_83(2011)(EPOCH:2010.0000)  
 PUBLISHED / FIXED CONTROL USE: N/A  
 GEOID MODEL: 18  
 COMBINED GRID FACTOR(S): 0.99995591 CENTERED ON THE GPS BASE POINT AS SHOWN HEREON.  
 CONVERGENCE ANGLE: 00°39'49.10"  
 BENCHMARKS USED: ADJUSTED NETWORK SOLUTION USING LEICA SMARTNET REFERENCE STATION NETWORK.



VICINITY MAP  
NOT TO SCALE

**GENERAL NOTES**

\* THIS SPECIFIC PURPOSE SURVEY IS FOR THE LEASED PREMISES AND EASEMENTS ONLY. THIS SPECIFIC PURPOSE SURVEY WAS PREPARED FOR THE EXCLUSIVE USE OF DOMINION ENERGY AND EXCLUSIVELY FOR THE TRANSFERRAL OF THE LEASED PREMISES AND THE RIGHTS OF EASEMENT SHOWN HEREON AND SHALL NOT BE USED AS AN EXHIBIT OR EVIDENCE IN THE FEE SIMPLE TRANSFERRAL OF THE PARENT PARCEL NOR ANY PORTION OR PORTIONS THEREOF. BOUNDARY INFORMATION SHOWN HEREON HAS BEEN COMPILED FROM TAX MAPS AND DEED DESCRIPTIONS ONLY. NO BOUNDARY SURVEY OF THE PARENT PARCEL WAS PERFORMED.

THIS DRAWING DOES NOT REPRESENT A BOUNDARY SURVEY.

THIS SPECIFIC PURPOSE SURVEY WAS PREPARED WITHOUT BENEFIT OF A TITLE REPORT WHICH MAY REVEAL ADDITIONAL CONVEYANCES, EASEMENTS, OR RIGHTS-OF-WAY NOT SHOWN HEREON.

EQUIPMENT USED FOR ANGULAR & LINEAR MEASUREMENTS: GEOMAX ZOOM ROBOTIC AND/OR LEICA TS12 [DATE OF LAST FIELD VISIT: 08/29/2024]. SEE GPS NOTES FOR GPS EQUIPMENT.

THE 1' CONTOURS AND SPOT ELEVATIONS SHOWN ON THIS SPECIFIC PURPOSE SURVEY ARE ADJUSTED TO NAVD 88 DATUM (COMPUTED USING GEOID18) AND HAVE A VERTICAL ACCURACY OF ± 0.5'. CONTOURS OUTSIDE THE IMMEDIATE SITE AREA ARE APPROXIMATE.

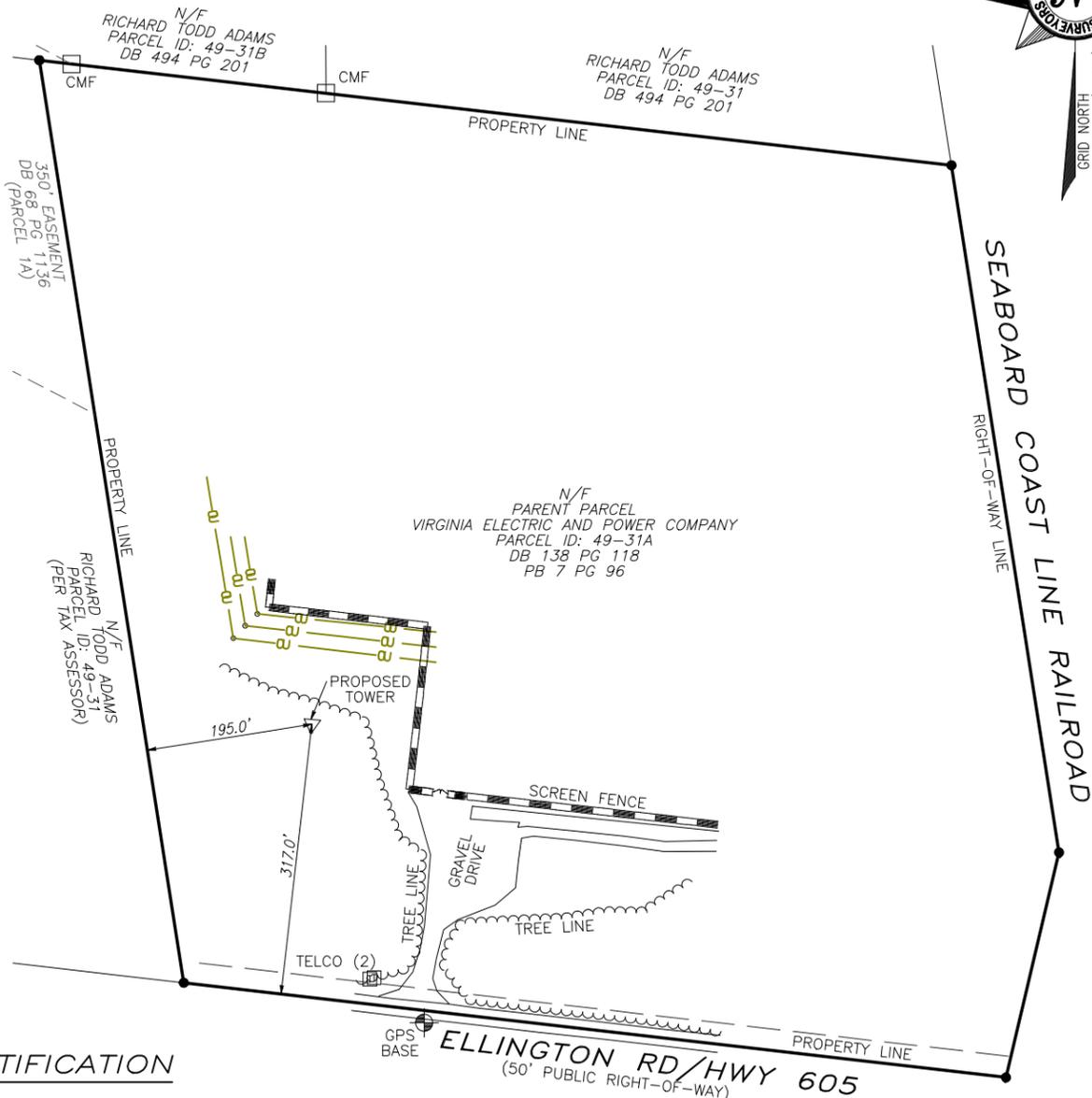
BEARINGS SHOWN ON THIS SPECIFIC PURPOSE SURVEY ARE BASED ON VIRGINIA GRID NORTH (NAD 83) SOUTH ZONE.

PER THE FEMA FLOODPLAIN MAPS, THE SITE IS LOCATED IN AN AREA DESIGNATED AS ZONE X (AREA OF MINIMAL FLOOD HAZARD). COMMUNITY PANEL NO. : 51053C0300C DATED: 06/01/2022

NO WETLAND AREAS HAVE BEEN INVESTIGATED BY THIS SPECIFIC PURPOSE SURVEY.

ALL ZONING INFORMATION SHOULD BE VERIFIED WITH THE PROPER ZONING OFFICIALS.

ANY UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM ABOVE GROUND FIELD SURVEY INFORMATION. THE SURVEYOR MAKES NO GUARANTEES THAT ANY UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT ANY UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED ANY UNDERGROUND UTILITIES.



**SURVEYOR'S NOTES**

ALL PRIVATE UTILITY INFORMATION WAS PROVIDED BY GPS (WORK ORDER # 562857-67878 DATED 06/26/2023 AND WORK ORDER # 691522 DATED AUGUST 12, 2024) AND ARE APPROXIMATE BASED ON FIELD LOCATED PAINT MARKS.

**LEGEND**

POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
IPS	IRON PIN SET
IPF	IRON PIN FOUND
CMF	CONCRETE MONUMENT FOUND
CRB	CAPPED REBAR
RB	REBAR
OTP	OPEN TOP PIPE
UP	UTILITY POLE
LP	LIGHT POLE
SSMH	SANITARY SEWER MANHOLE
SDMH	STORM DRAIN MANHOLE
INV	INVERT
FH	FIRE HYDRANT
EP	EDGE OF PAVEMENT
BC	BACK OF CURB
OU	OVERHEAD UTILITY
CMP	CORRUGATED METAL PIPE
RCP	REINFORCED CONCRETE PIPE
PVC	POLYVINYL CHLORIDE PIPE
GW	GUY WIRE ANCHOR
TR	TRANSFORMER
CLF	CHAIN LINK FENCE
BWF	BARBED WIRE FENCE
WV	WATER VALVE
WM	WATER METER
CO	SEWER CLEAN-OUT
GV	GAS VALVE
HH	HANDHOLE
CP	CONCRETE PAD
BFO	BURIED FIBER OPTIC
N/F	NOW OR FORMERLY
R/W	RIGHT-OF-WAY

**SURVEYOR'S CERTIFICATION**

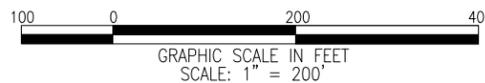
I HEREBY CERTIFY THAT THIS MAP IS CORRECT AND THAT ANY VISIBLE ENCROACHMENTS ARE SHOWN HEREON.

*G. Darrell Taylor* 08/31/2024  
 G. DARRELL TAYLOR, PLS DATE

THIS MAP IS NOT A CERTIFIED SURVEY AND HAS NOT BEEN REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS. THIS MAP IS ONLY INTENDED FOR THE PARTIES AND PURPOSES SHOWN. THIS MAP IS NOT FOR RECORDATION.

**UTILITY LEGEND**

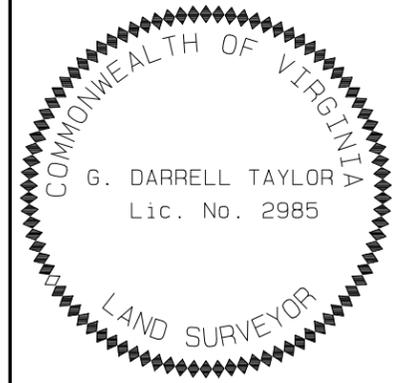
OU	OVERHEAD UTILITY LINE
FO	UNDERGROUND FIBEROPTIC LINE
G	UNDERGROUND GAS LINE
S	UNDERGROUND SEWER LINE
E	UNDERGROUND ELECTRIC LINE
W	UNDERGROUND WATER LINE
ULG	UNKNOWN UNDERGROUND UTILITY LINE



SURVEY NOT VALID WITHOUT SHEET 2 OF 2



Know what's below.  
Call before you dig.



NO.	DATE	REVISION
1	08/20/24	MOVED PROPOSED TOWER-NRW
2	08/31/24	ADDITIONAL TOPO - NRW

\* SPECIFIC PURPOSE SURVEY PREPARED BY:

**POINT TO POINT LAND SURVEYORS**  
 100 Governors Trace, Ste. 103  
 Peachtree City, GA 30269  
 (p) 678.565.4440  
 (f) 678.565.4497  
 (w) pointtopointsurvey.com



SPECIFIC PURPOSE SURVEY PREPARED FOR:



CARSON

ROWANTY MAGISTERIAL DISTRICT  
 DINWIDDIE COUNTY, VIRGINIA

DRAWN BY: MK	SHEET: 1 OF 2
CHECKED BY: JKL	
APPROVED: D. MILLER	
DATE: 09/22/2023	
P2P JOB #: 230767VA	

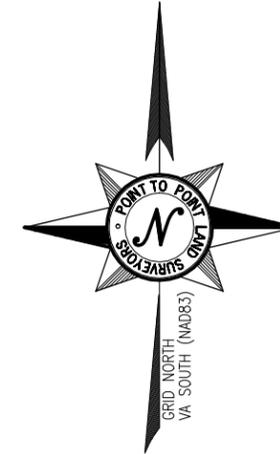
E:\Point To Point\Dropbox\p2p\Current Jobs\2023\230767VA-Carson\230767VA.pro

**SITE INFORMATION**

LATITUDE = 37°05'04.54" (NAD 83) (37.084594°)  
 LONGITUDE = -77°24'25.17" (NAD 83) (-77.406992°)  
 AT CENTER OF PROPOSED TOWER  
 ELEVATION AT CENTER OF PROPOSED TOWER = 159.8' A.M.S.L.



NO.	DATE	REVISION
1	08/20/24	MOVED PROPOSED TOWER-NRW
2	08/31/24	ADDITIONAL TOPO - NRW



\* SPECIFIC PURPOSE SURVEY PREPARED BY:

**POINT TO POINT LAND SURVEYORS**  
 100 Governors Trace, Ste. 103  
 Peachtree City, GA 30269  
 (p) 678.565.4440  
 (f) 678.565.4497  
 (w) pointtopointsurvey.com



SPECIFIC PURPOSE SURVEY PREPARED FOR:



CARSON

ROWANTY MAGISTERIAL DISTRICT  
 DINWIDDIE COUNTY, VIRGINIA

DRAWN BY: MK

CHECKED BY: JKL

APPROVED: D. MILLER

DATE: 09/22/2023

P2P JOB #: 230767VA

SHEET:

**2**

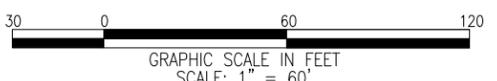
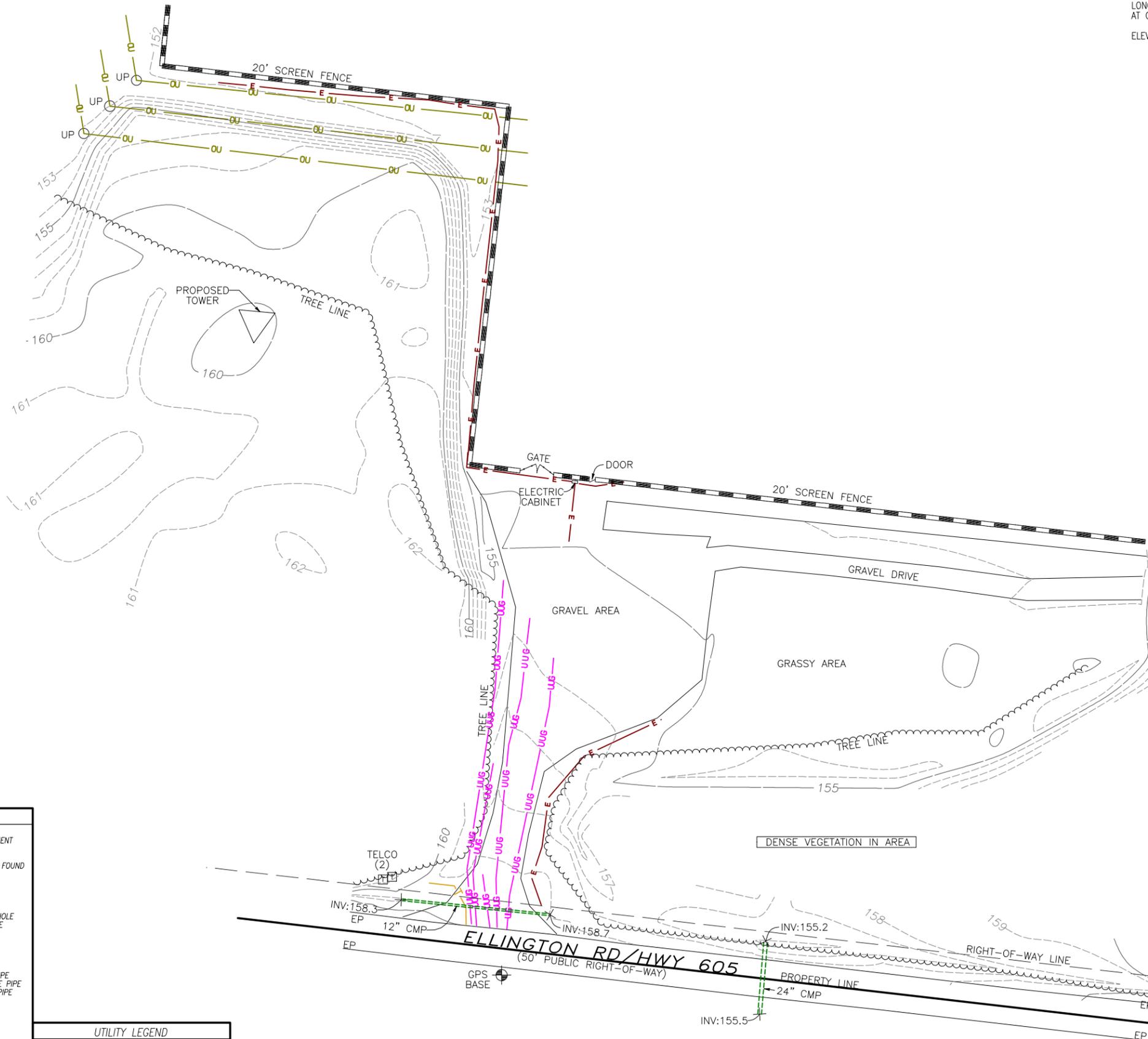
OF 2

**LEGEND**

POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
IPS	IRON PIN SET
IPF	IRON PIN FOUND
CMF	CONCRETE MONUMENT FOUND
CRB	CAPPED REBAR
RB	REBAR
OTP	OPEN TOP PIPE
UP	UTILITY POLE
LP	LIGHT POLE
SSMH	SANITARY SEWER MANHOLE
SDMH	STORM DRAIN MANHOLE
INV	INVERT
FH	FIRE HYDRANT
EP	EDGE OF PAVEMENT
BC	BACK OF CURB
OU	OVERHEAD UTILITY
CMP	CORRUGATED METAL PIPE
RCP	REINFORCED CONCRETE PIPE
PVC	POLYVINYL CHLORIDE PIPE
GW	GUY WIRE ANCHOR
TR	TRANSFORMER
CLF	CHAIN LINK FENCE
BWF	BARBED WIRE FENCE
WV	WATER VALVE
WM	WATER METER
CO	SEWER CLEAN-OUT
GV	GAS VALVE
HH	HANDHOLE
CP	CONCRETE PAD
BFO	BURIED FIBER OPTIC
N/F	NOW OR FORMERLY
R/W	RIGHT-OF-WAY

**UTILITY LEGEND**

	OVERHEAD UTILITY LINE
	UNDERGROUND TELECOMMUNICATIONS LINE
	UNDERGROUND FIBEROPTIC LINE
	UNDERGROUND GAS LINE
	UNDERGROUND SEWER LINE
	UNDERGROUND ELECTRIC LINE
	UNDERGROUND WATER LINE
	UNKNOWN UNDERGROUND UTILITY LINE

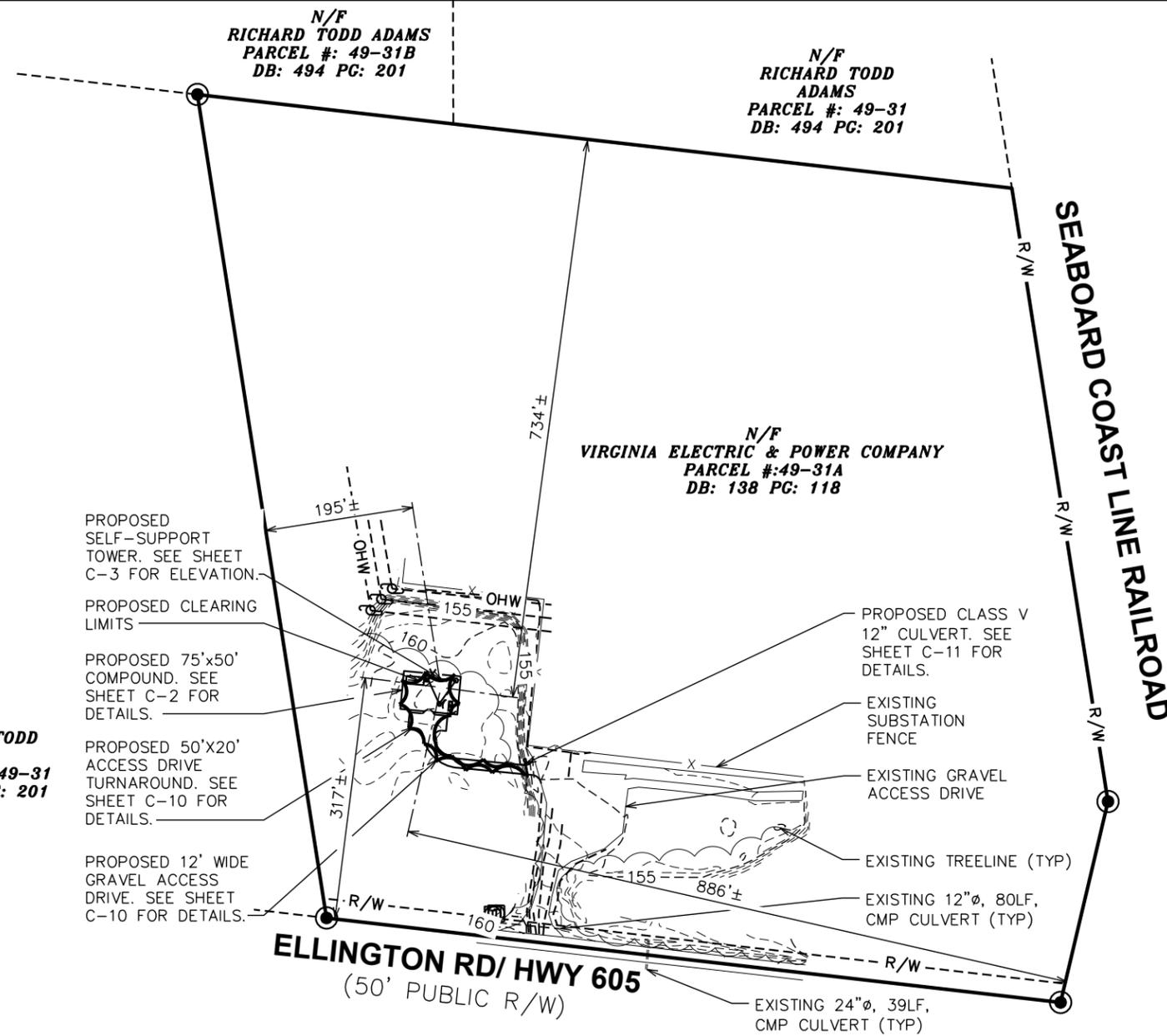


SURVEY NOT VALID WITHOUT SHEET 1 OF 2

E:\Point To Point\Dropbox\2P2P Current Jobs\2023\230767VA-Carson\230767VA.dwg

**NOTES:**

1. THE BASIS OF THE MERIDIANS AND COORDINATES FOR THIS PLAT IS THE VIRGINIA SOUTH GRID STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983 VA NORTH GRID SPCS NAD 83), BASED ON DIFFERENTIAL GPS OBSERVATIONS PERFORMED ON JUNE 26, 2023.
2. VERTICAL INFORMATION SHOWN, BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88) IN FEET.
3. ALL DISTANCES ARE GROUND UNLESS OTHERWISE NOTED.
4. THE TOWER IS LOCATED IN ZONE "X." AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN ACCORDING TO FEMA COMMUNITY PANEL #51053C0300C DATED JUNE 1, 2022.
5. EXISTING VEGETATION AROUND THE PERIMETER OF THE PROPOSED TOWER COMPOUND WILL PROVIDE A NATURAL LANDSCAPE BUFFER.



PLANS PREPARED FOR:  
  
 DOMINION RESOURCES SERVICES, INC.  
 707 EAST MAIN STREET  
 RICHMOND, VA 23219

PROJECT INFORMATION:  
**CARSON SUBSTATION**  
 28908 ELLINGTON RD  
 PETERSBURG, VA 23805  
 (DINWIDDIE COUNTY)

PLANS PREPARED BY:  
  
**TOWER ENGINEERING PROFESSIONALS**  
 326 TRYON ROAD  
 RALEIGH, NC 27603  
 OFFICE: (919) 661-6351  
 www.tepgroup.net

SEAL:

5	10-17-24	PRELIMINARY
4	09-18-24	PRELIMINARY
3	04-16-24	PRELIMINARY
2	12-04-23	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:  
**SITE PLAN**

SHEET NUMBER: **C-1** REVISION: **5**  
 TEP#: 132110.854246

**LEGEND**

- EXIST. PROPERTY LINE
- - - ADJ. PROPERTY LINE
- ⊙ EXIST. UTILITY POLE
- ⊙ EXIST. LIGHT POLE
- ⊙ EXIST. HYDRANT
- ⊙ EXIST. TELCO PEDESTAL
- ⊙ PROPERTY CORNER
- LEASE/EASE. CORNER
- - -200- - - EXIST. CONTOUR LINE
- /// EDGE OF PAVEMENT
- - -OHW- - - OVERHEAD WIRE
- - -R/W- - - RIGHT-OF-WAY
- X - CHAIN LINK FENCE
- ~ ~ ~ EXISTING TREE LINE

**SETBACK TABLE**

TOWER HEIGHT	RESIDENTIAL SETBACK	REQUIRED	ACTUAL	DIFFERENCE	PROPERTY SETBACK	REQUIRED	ACTUAL	DIFFERENCE
420'	200%	840'			110%	462'		
	FRONT	840'	577'	263'	FRONT	462'	317'	145'
	BACK	840'	2,483'	-1,643'	BACK	462'	734'	-272'
	EAST	840'	1,102'	-262'	EAST	462'	886'	-424'
	WEST	840'	675'	165'	WEST	462'	195'	267'

**SITE PLAN**

SCALE: 1" = 200'



**NOTES:**

1. SITE PLAN SHOWN TAKEN FROM INFORMATION PROVIDED BY DINWIDDIE COUNTY GIS & GOOGLE MAPS
2. TEP DOES NOT GUARANTEE OR ENSURE THE PRECISION ACCURACY, OR CORRECTNESS AND ASSUMES NO RESPONSIBILITY OR LIABILITY FOR DAMAGES, LOSS OF REVENUE, OR INJURY THAT MIGHT OCCUR. THE INFORMATION SHOWN IS INCORPORATED FOR REFERENCE ONLY.



EXISTING 400-FT± TALL GUYED TOWER TO BE REMOVED. TOWER REMOVAL WILL BE PERMITTED SEPARATELY AS NEEDED. TOWER COORDINATES:  
37° 05' 16.8" N, 77° 24' 28.4" W  
ASR 1016966

EXISTING 200-FT ± TALL SELF-SUPPORT TOWER TO BE REMOVED. TOWER REMOVAL WILL BE PERMITTED SEPARATELY AS NEEDED. TOWER COORDINATES:  
37° 05' 7.5" N, 77° 24' 22.1" W  
ASR 1016965

PROPOSED SELF-SUPPORT TOWER. SEE SHEET C-3 FOR ELEVATION.

PLANS PREPARED FOR:



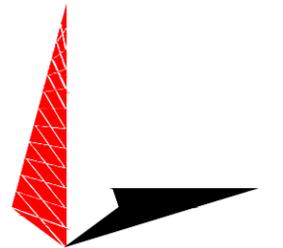
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON  
SUBSTATION**

28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

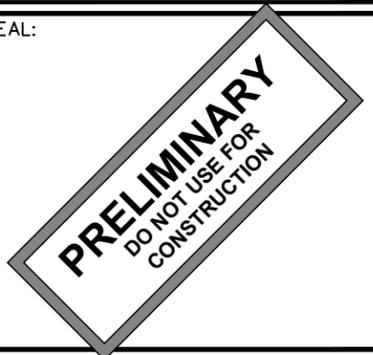
PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**

326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:



5	10-17-24	PRELIMINARY
4	09-18-24	PRELIMINARY
3	04-16-24	PRELIMINARY
2	12-04-23	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

**AERIAL SITE  
PLAN**

SHEET NUMBER: REVISION:

**C-1A**

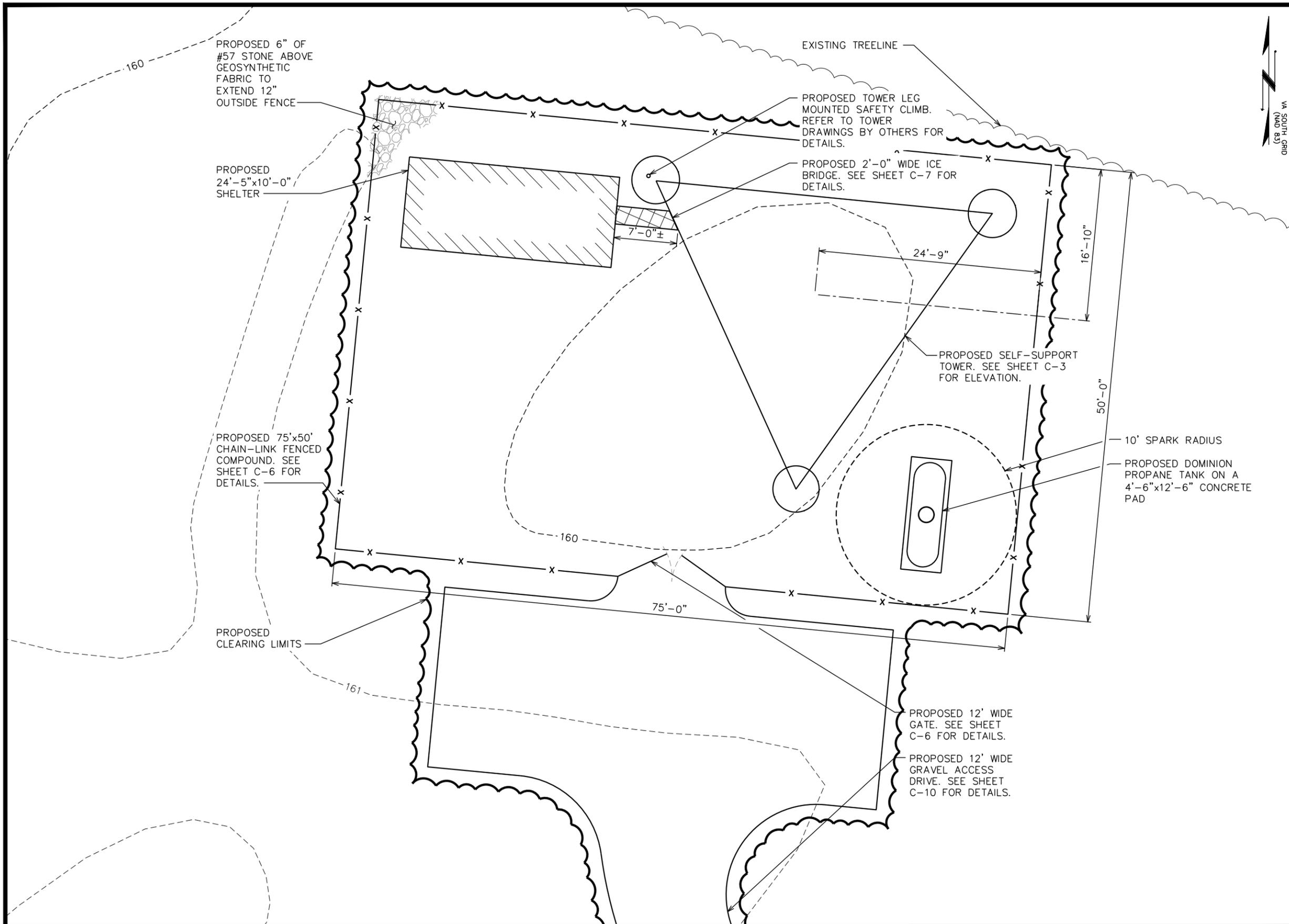
**5**

TEP#: 132110.854246

**AERIAL SITE PLAN**

SCALE: 1" = 200'





PLANS PREPARED FOR:



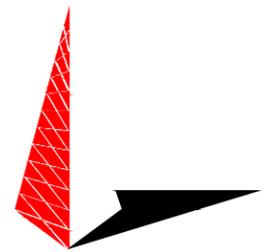
**Dominion Energy**  
 DOMINION RESOURCES SERVICES, INC.  
 707 EAST MAIN STREET  
 RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON SUBSTATION**

28908 ELLINGTON RD  
 PETERSBURG, VA 23805  
 (DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
 326 TRYON ROAD  
 RALEIGH, NC 27603  
 OFFICE: (919) 661-6351  
 www.tepgroup.net

SEAL:



REV	DATE	ISSUED FOR:
4	09-18-24	PRELIMINARY
3	04-16-24	PRELIMINARY
2	12-04-23	PRELIMINARY
1	10-13-23	PRELIMINARY

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

**SITE LAYOUT**

SHEET NUMBER: **C-2** REVISION: **4**

TEP#: 132110.854246

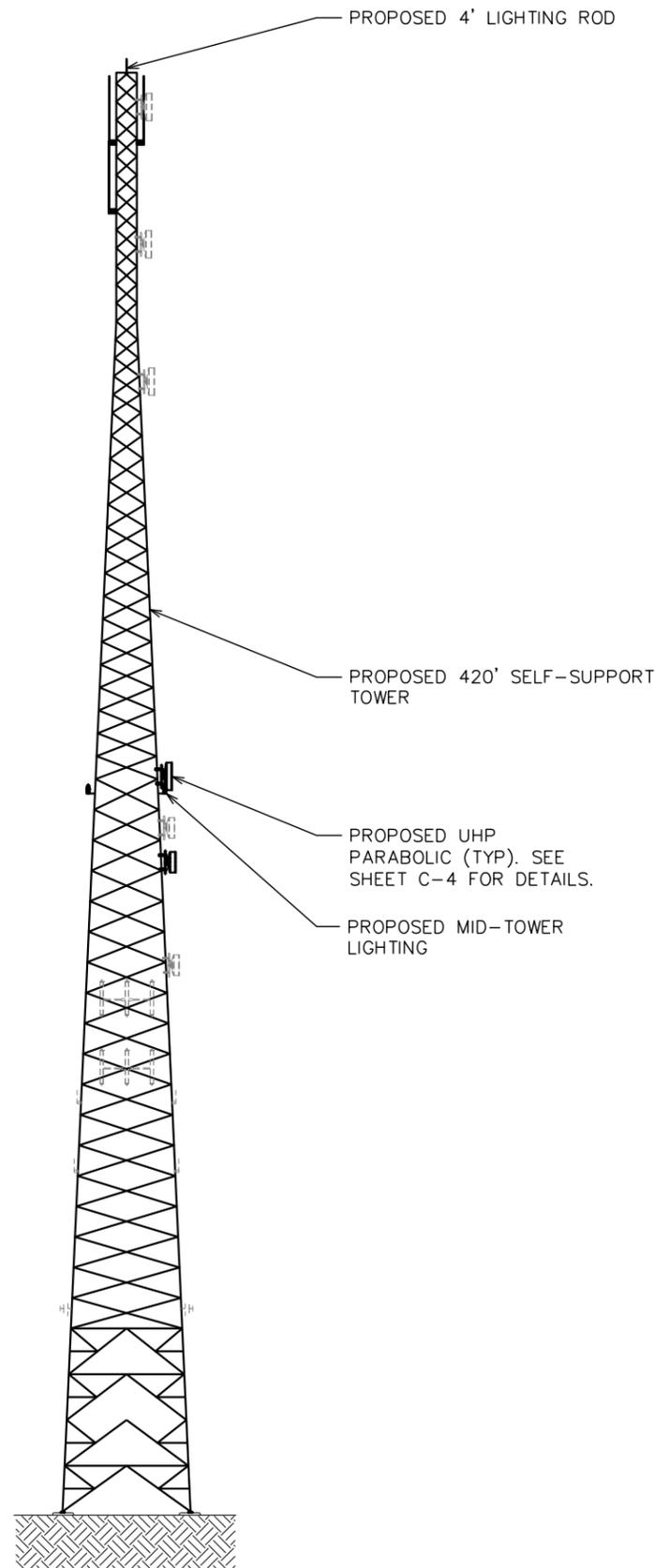
**SITE LAYOUT**  
 SCALE: 3/32" = 1'-0"



**NOTES:**

1. PROPOSED CABLES TO BE RUN PER SPECIFICATIONS OF PASSING STRUCTURAL ANALYSIS.
2. TOWER SHALL BE CONSTRUCTED OF GALVANIZED STEEL OR PAINTED PER APPLICABLE STANDARDS OF THE FAA OR OTHER APPLICABLE FEDERAL OR STATE AGENCY
3. TOWER ELEVATION SHOWN FOR REFERENCE ONLY. VERIFY ACTUAL TOWER DESIGN & LOADING WITH TOWER DRAWINGS FROM MANUFACTURER AND/OR PASSING STRUCTURAL ANALYSIS PRIOR TO CONSTRUCTION.

- 424'-0"±  
T/ LIGHTNING ROD
- 420'-0"±  
T/ TOWER
- 410'-0"±  
Q/FUTURE 8' UHP PARABOLIC
- 399'-0"±  
Q/20' OMNI ANTENNA (TYP OF 2)
- 379'-0"±  
Q/20' OMNI ANTENNA
- 370'-0"±  
Q/FUTURE 8' UHP PARABOLIC
- 330'-0"±  
Q/FUTURE 8' UHP PARABOLIC
  
- 215'-0"±  
Q/8' UHP PARABOLIC
- 200'-0"±  
Q/FUTURE 6' UHP PARABOLIC
- 190'-0"±  
Q/6' UHP PARABOLIC
  
- 160'-0"±  
Q/FUTURE 6' UHP PARABOLIC
- 150'-0"±  
Q/FUTURE PLTE ANTENNA
- 130'-0"±  
Q/FUTURE ANTENNAS BY OTHERS
- 120'-0"±  
Q/FUTURE OMNI ANTENNA (TYP OF 2)
- 100'-0"±  
Q/FUTURE DIPOLE ANTENNA (TYP OF 2)
  
- 60'-0"±  
Q/FUTURE YAGI ANTENNA (TYP OF 2)
  
- 0'-0" (REFERENCE)  
T/ CONCRETE



PLANS PREPARED FOR:



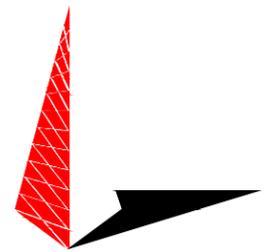
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON SUBSTATION**

28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:

**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION

REV	DATE	ISSUED FOR:
2	12-04-23	PRELIMINARY
1	10-13-23	PRELIMINARY
0	09-27-23	PRELIMINARY

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

**TOWER ELEVATION**

SHEET NUMBER: **C-3** REVISION: **2**

TEP#: 132110.854246

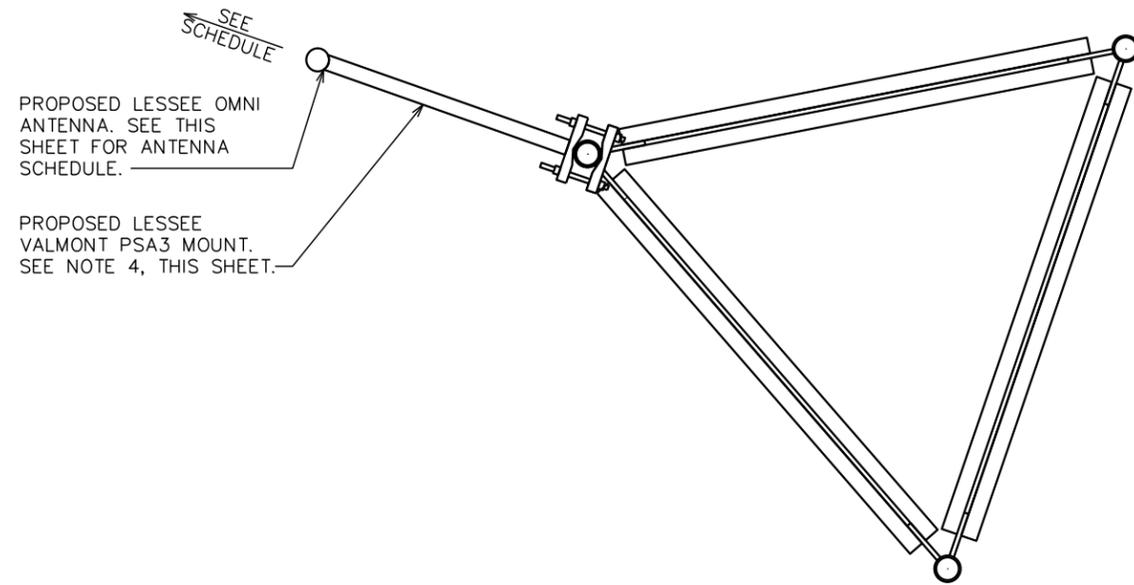
**TOWER ELEVATION**

SCALE: 1" = 50'



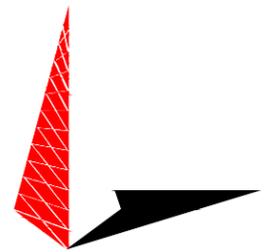
**NOTES:**

1. TEP DID NOT ANALYZE MOUNT TO DETERMINE ADEQUATE STRUCTURAL CAPACITY FOR ANY VERIZON LOADING.
2. SEE THIS SHEET FOR PROPOSED ANTENNA SCHEDULE.
3. CONTRACTOR TO VERIFY PROPOSED LOADING WITH TOWER STRUCTURAL ANALYSIS PRIOR TO CONSTRUCTION.
4. INSTALL ANTENNA MOUNT PER MANUFACTURER INSTRUCTIONS



PLANS PREPARED FOR:  
  
 DOMINION RESOURCES SERVICES, INC.  
 707 EAST MAIN STREET  
 RICHMOND, VA 23219

PROJECT INFORMATION:  
**CARSON SUBSTATION**  
 28908 ELLINGTON RD  
 PETERSBURG, VA 23805  
 (DINWIDDIE COUNTY)

PLANS PREPARED BY:  
  
**TOWER ENGINEERING PROFESSIONALS**  
 326 TRYON ROAD  
 RALEIGH, NC 27603  
 OFFICE: (919) 661-6351  
 www.tepgroup.net

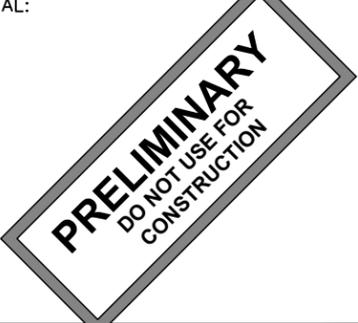
**TYPICAL OMNI ANTENNA LAYOUT**

SCALE: N.T.S.

**FINAL ANTENNA, EQUIPMENT, AND CABLE SCHEDULE**

POS.	SECTOR	FREQUENCY	ANTENNA MFR (MODEL #)	MOUNTING HEIGHT	CABLE SIZE	AZIMUTH (TN)	*CABLE LENGTH	MECH. D-TILT	ELEC. D-TILT	DIPLEXERS	RADIO MFR (MODEL #)	TMA	J-BOX (TOWER)
1	TBD	LMR	COMMSCOPE DB420-B OMNI ANTENNA (20 FT)	℄ @ 399'-0"±	(1) 7/8 COAX	TBD	429'±	**	**	-	-	-	-
1	TBD	LMR	COMMSCOPE DB420-B OMNI ANTENNA (20 FT)	℄ @ 399'-0"±	(1) 7/8 COAX	TBD	429'±	**	**	-	-	-	-
1	TBD	LMR	COMMSCOPE DB224-A OMNI ANTENNA (21 FT)	℄ @ 379'-0"±	(1) 7/8 COAX	TBD	409'±	**	**	-	-	-	-

- \* CONTRACTOR TO VERIFY CABLE RUN LENGTHS PRIOR TO CONSTRUCTION
- \*\* CONTRACTOR TO REFERENCE MOST RECENT TOWER LOADING DOCUMENT FOR MECHANICAL AND ELECTRICAL D-TILTS

SEAL:  


2	12-04-23	PRELIMINARY
1	10-13-23	PRELIMINARY
0	09-27-23	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:  
**PROPOSED ANTENNA LAYOUT & SCHEDULE**

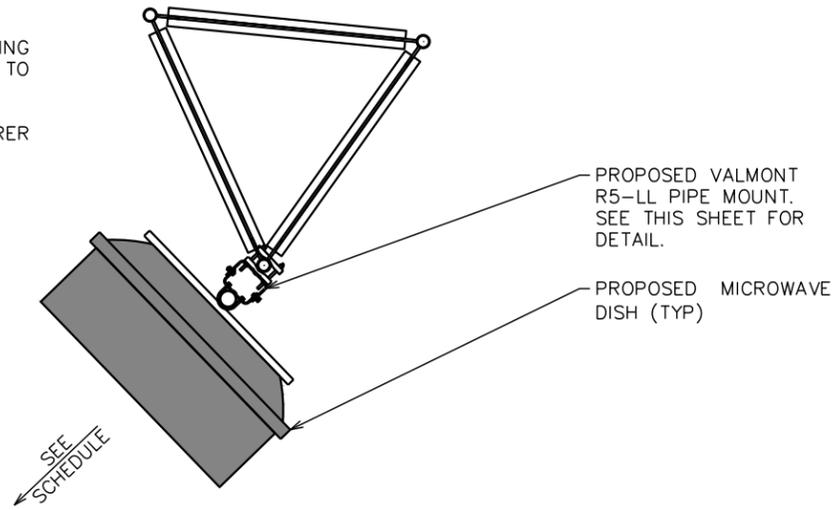
SHEET NUMBER: **C-4A** REVISION: **2**  
 TEP#: 132110.854246

**FINAL ANTENNA, EQUIPMENT, AND CABLE SCHEDULE**

SCALE: N.T.S.

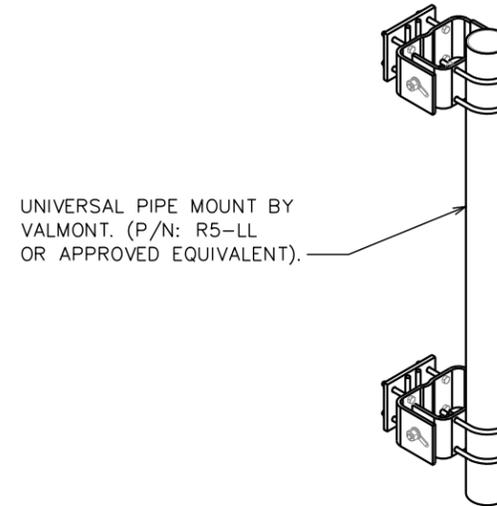
**NOTES:**

1. TEP DID NOT ANALYZE MOUNT TO DETERMINE ADEQUATE STRUCTURAL CAPACITY FOR ANY VERIZON LOADING.
2. SEE THIS SHEET FOR PROPOSED ANTENNA SCHEDULE.
3. CONTRACTOR TO VERIFY PROPOSED LOADING WITH TOWER STRUCTURAL ANALYSIS PRIOR TO CONSTRUCTION.
4. INSTALL ANTENNA MOUNT PER MANUFACTURER INSTRUCTIONS



**NOTES:**

1. CONTRACTOR TO VERIFY LEG SIZE WITH TOWER MODIFICATION DESIGN.
2. UNIVERSAL PIPE MOUNT INCLUDES 4½"x84" PIPE MOUNT HARDWARE TO ATTACH TO 1½"Ø TO 10¾"Ø ROUND MEMBERS OR 2½" TO A 8" ANGLE MEMBERS.
3. PIPE MOUNT SHALL BE INSTALLED PLUMB 90 DEGREES VERTICAL.



PLANS PREPARED FOR:



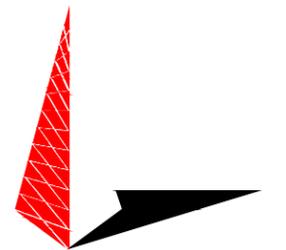
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON SUBSTATION**

28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**

326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

**PROPOSED MICROWAVE**

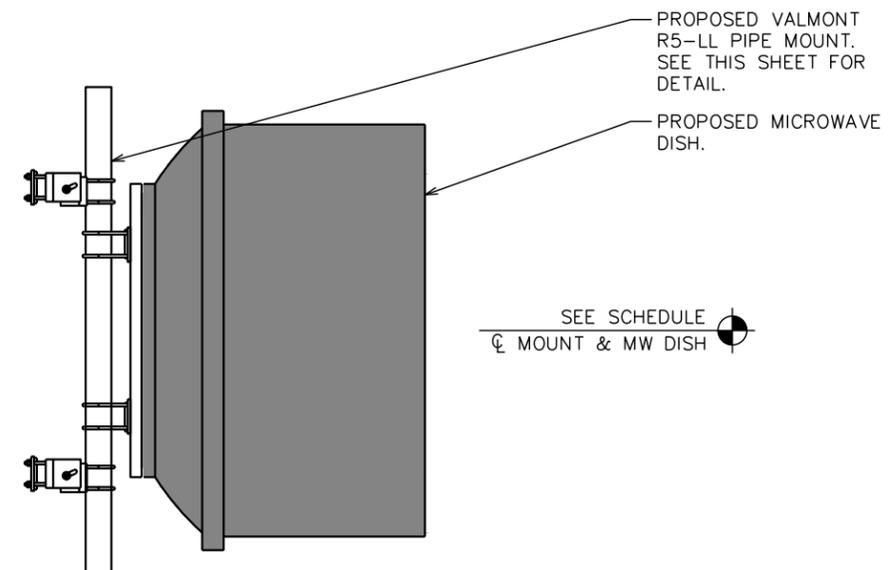
SCALE: N.T.S.

**PROPOSED PIPE MOUNT**

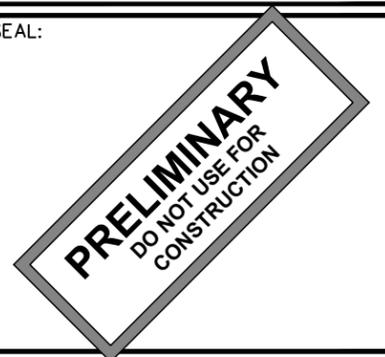
SCALE: N.T.S.

**PROPOSED MICROWAVE ANTENNA/COAX SCHEDULE**

SECTOR	TECHNOLOGY	MANUFACTURER (MODEL #)	MOUNTING HEIGHT	AZIMUTH (TRUE NORTH)	EQUIPMENT	COAX	COAX LENGTH
LEG C	L6G/UG6	COMMSCOPE (HX8-6W) 8' UHP PARABOLIC	215'-0"	242°	-	(2) EWP63-59W	245'±
LEG C	L6G/UG6	COMMSCOPE (HX8-6W) 6' UHP PARABOLIC	190'-0"	242°	-	(2) EWP63-59W	220'±



SEAL:



REV	DATE	ISSUED FOR:
2	12-04-23	PRELIMINARY
1	10-13-23	PRELIMINARY
0	09-27-23	PRELIMINARY

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

**MICROWAVE MOUNTING DETAILS**

SHEET NUMBER: REVISION:

**C-4B**

**2**

TEP#: 132110.854246

**PROPOSED MICROWAVE ANTENNA/COAX SCHEDULE**

SCALE: N.T.S.

**PROPOSED PIPE MOUNT PROFILE**

SCALE: N.T.S.

## FOUNDATION NOTES

- FOUNDATION DESIGN BASED ON 2,000 PSF SOIL BEARING CAPACITY.
- CONCRETE SHALL BE MIN. 4,000 PSI AFTER 28 DAYS.
- REINFORCING STEEL  $F_y = 60,000$  PSI
- ALL BACKFILL SHALL BE THOROUGHLY COMPACTED TO A MINIMUM OF 95% DENSITY USING THE MODIFIED PROCTOR METHOD.
- SURFACE OF FINISHED SLAB SHALL BE LEVEL AND FLAT WITHIN  $1/4"$ .
- CONTRACTOR SHALL VERIFY WITH MANUFACTURER ACTUAL DIMENSIONS OF CABINET PRIOR TO LAYING OUT FOUNDATION.
- MAXIMUM SIZE OF CONCRETE AGGREGATE SHALL NOT EXCEED 1 INCH; SIZE SUITABLE FOR INSTALLATION METHOD UTILIZED; OR ONE-THIRD CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING.
- REINFORCEMENT SHALL BE DEFORMED AND CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60 UNLESS OTHERWISE NOTED.
- WELDING IS PROHIBITED ON REINFORCING STEEL AND EMBEDMENTS.
- MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE 3 INCHES UNLESS OTHERWISE NOTED.
- CONCRETE COVER FROM TOP OF FOUNDATION TO ENDS OF VERTICAL REINFORCEMENT SHALL BE 3 INCHES MINIMUM.
- FOUNDATION DESIGN ASSUMES FIELD INSPECTIONS WILL BE PERFORMED TO VERIFY THAT CONSTRUCTION MATERIALS, INSTALLATION METHODS, AND ASSUMED DESIGN PARAMETERS ARE ACCEPTABLE BASED ON CONDITIONS EXISTING AT THE SITE.
- FOUNDATION DESIGN ASSUMED CONTINUOUS CONCRETE PLACEMENT WITHOUT CONSTRUCTION JOINTS.
- WELDED WIRE FABRIC SHALL BE SUPPLIED IN FLAT SHEETS. (NOT ROLLED).
- TEST CYLINDERS SHALL BE MOLDED AND LABORATORY CURED IN ACCORDANCE WITH ASTM C31. THREE CYLINDERS SHALL BE TAKEN FRO EACH DAY'S CONCRETE PLACEMENT. CYLINDERS SHALL BE TESTED IN ACCORDANCE WITH ASTM C39.
- TOPS OF CONCRETE FOUNDATION MUST BE WITHIN 0.02" OF ELEVATION SPECIFIED BY THE CUSTOMER.

## GENERAL STRUCTURAL NOTES

SPECIFICATIONS / CODES:

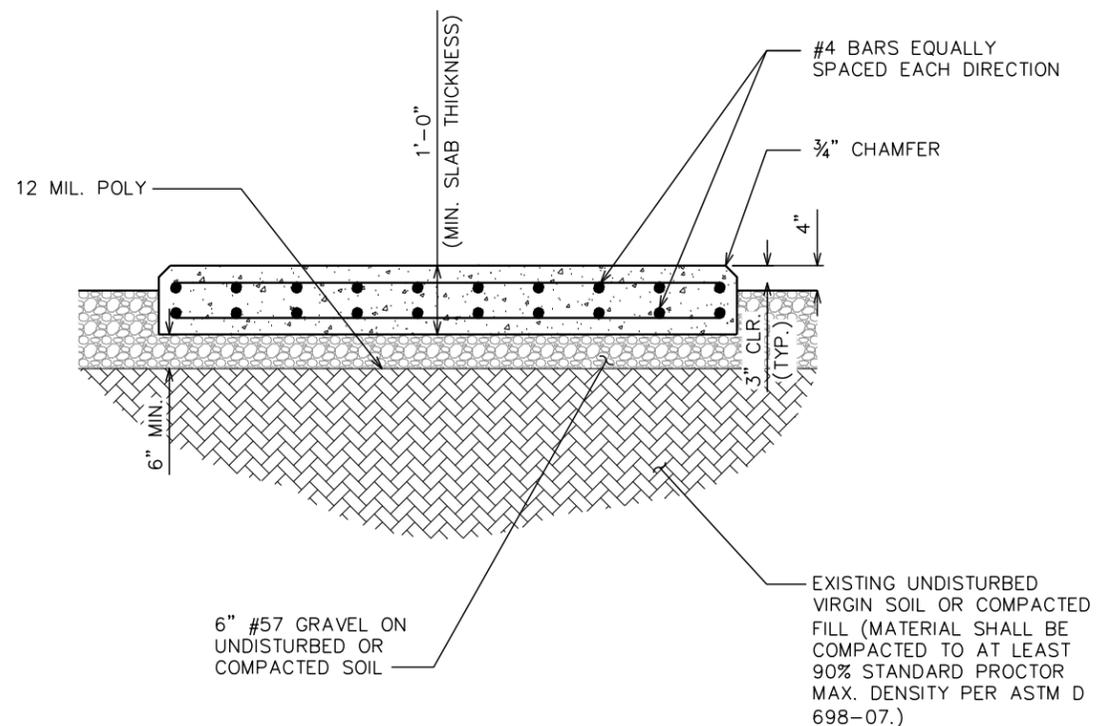
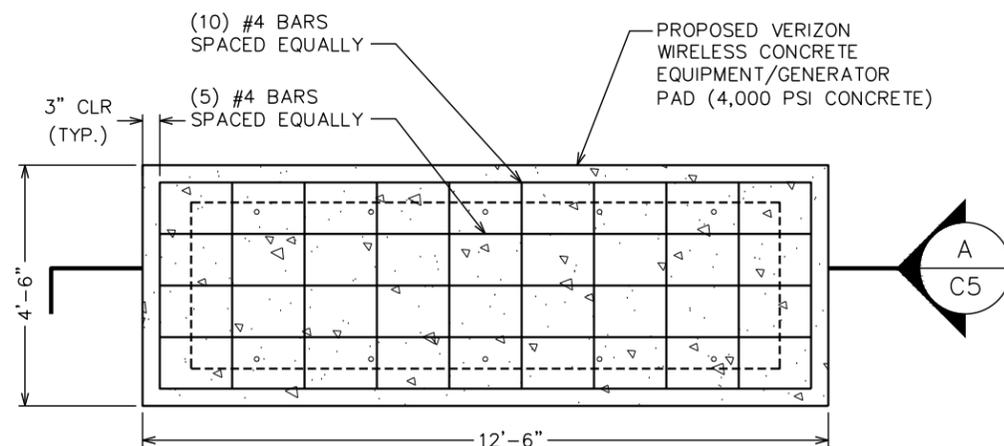
- ALL CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE ACI CODE.
- REINFORCING STEEL SHALL BE PLACED IN ACCORDANCE WITH THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI). "MANUAL OF STANDARD PRACTICE".

## VERIZON FOUNDATION NOTES

SCALE: N.T.S.

## NOTES:

- FROST DEPTH FOR DINWIDDIE COUNTY IS 20 INCHES.
- APPLICATION RATE OF FIBERS SHALL BE DETERMINED BY THE READY MIX CONCRETE SUPPLIER.
- THE CONCRETE SUPPLIER SHALL FOLLOW ALL MANUFACTURERS RECOMMENDATIONS FOR FIBERMESH APPLICATION INCLUDING THE MINIMUM APPLICATION RATE OF 3 LBS/YD<sup>3</sup>.



PLANS PREPARED FOR:



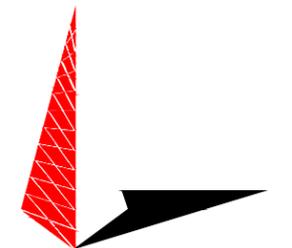
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

## CARSON SUBSTATION

28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:



REV	DATE	ISSUED FOR:
0	09-27-23	PRELIMINARY

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

## FOUNDATION NOTES & DETAILS

SHEET NUMBER: C-5 REVISION: 0

C-5

0

TEP#: 132110.854246

## EQUIPMENT FOUNDATION PLAN VIEW

SCALE: N.T.S.

## EQUIPMENT FOUNDATION SECTION VIEW

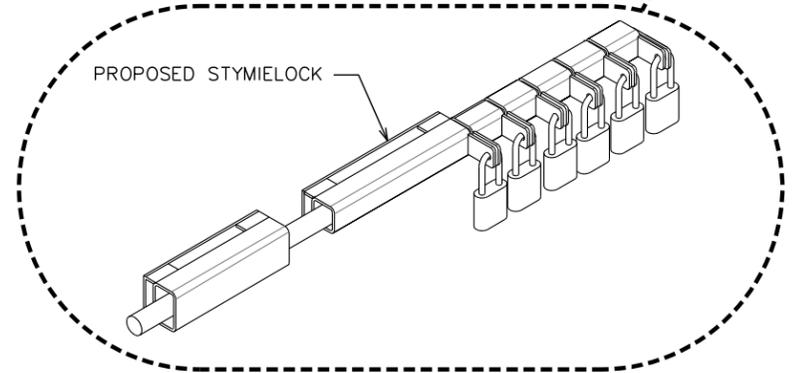
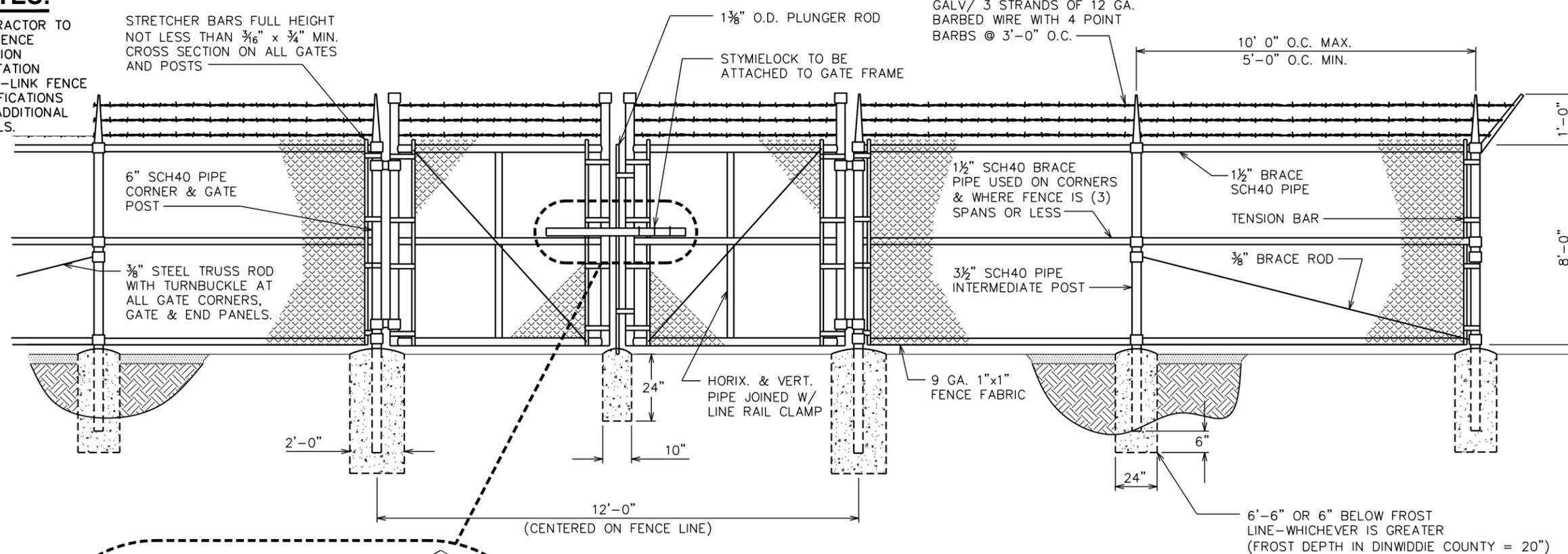
SCALE: N.T.S.

A  
C5

**NOTES:**

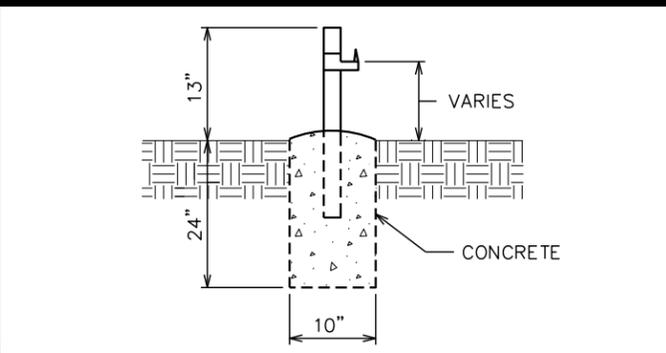
CONTRACTOR TO REFERENCE DOMINION SUBSTATION CHAIN-LINK FENCE SPECIFICATIONS FOR ADDITIONAL DETAILS.

STRETCHER BARS FULL HEIGHT NOT LESS THAN 3/16" x 3/4" MIN. CROSS SECTION ON ALL GATES AND POSTS



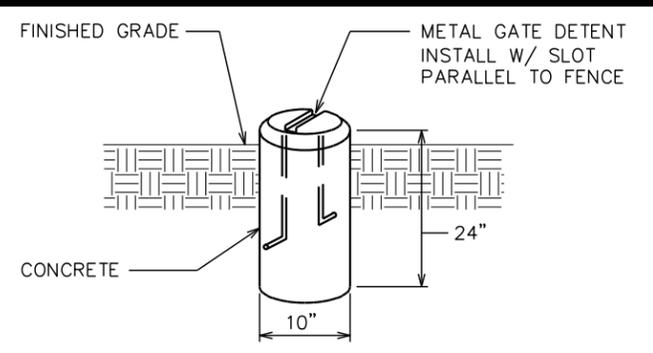
**TYPICAL FENCE ELEVATION**

SCALE: N.T.S.



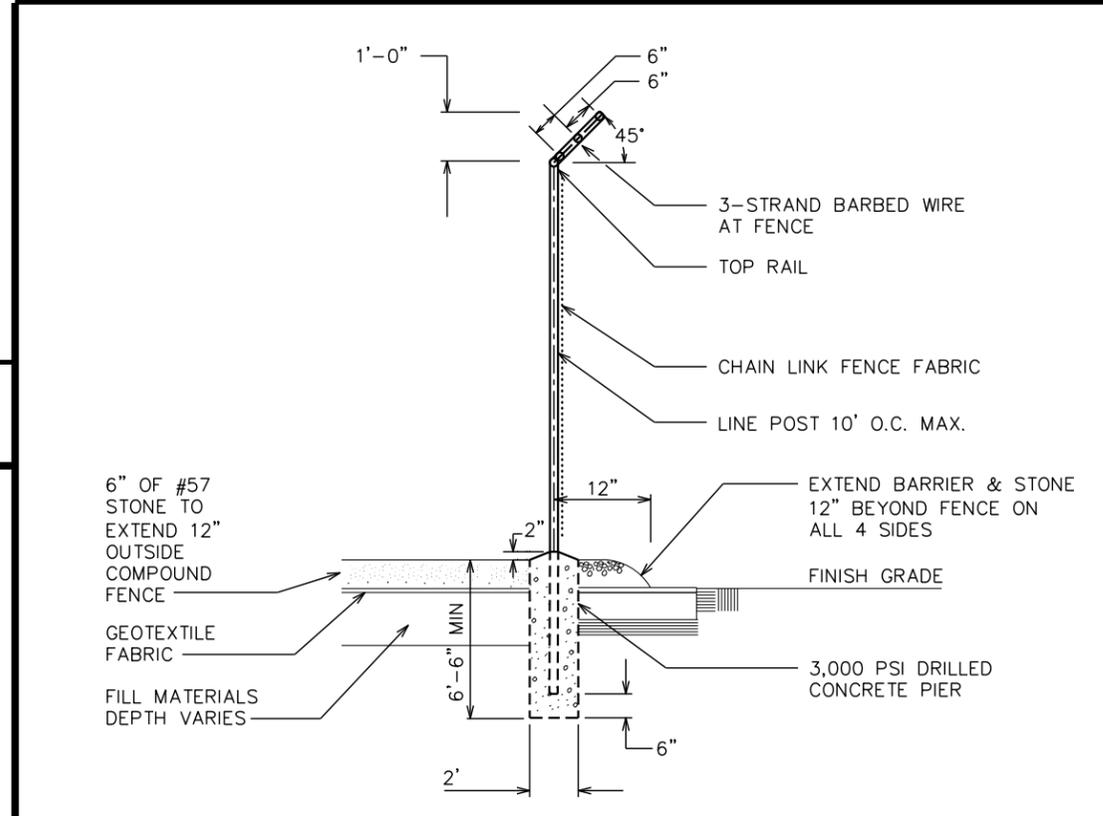
**GATE STOP / KEEPER DETAIL**

SCALE: N.T.S.



**GATE DETENT DETAIL**

SCALE: N.T.S.



**FENCE / BARBED WIRE ARM DETAIL**

SCALE: N.T.S.

PLANS PREPARED FOR:

DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON SUBSTATION**

28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:

**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:

REV	DATE	ISSUED FOR:
6	11-15-24	PRELIMINARY
5	10-17-24	PRELIMINARY
4	09-18-24	PRELIMINARY
3	04-16-24	PRELIMINARY

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

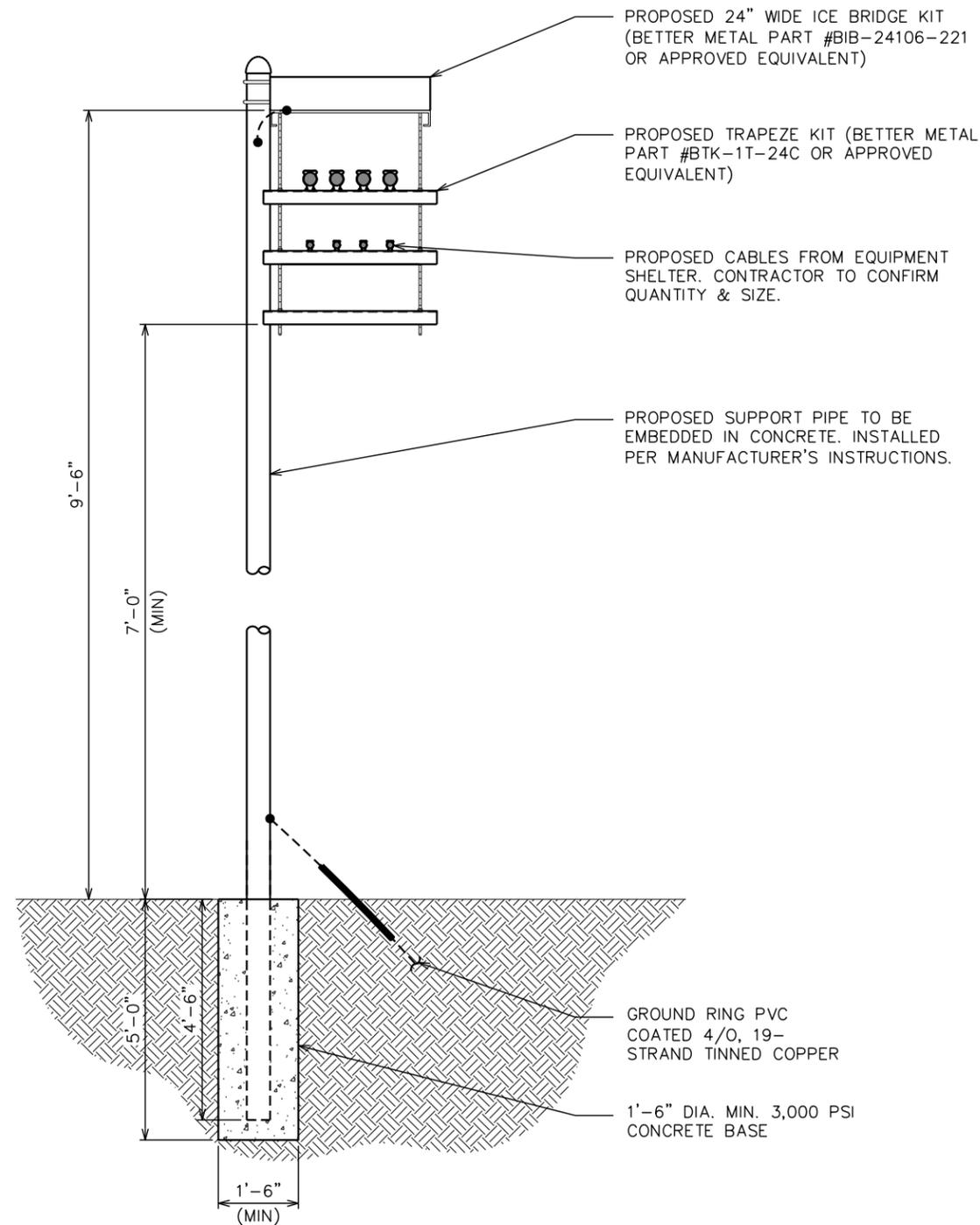
**FENCE DETAIL**

SHEET NUMBER: **C-6** REVISION: **6**

TPE#: 132110.854246

**NOTE:**

EACH WAVEGUIDE SECTION TO BE THROUGH-BOLTED ON BOTH SIDES.



PLANS PREPARED FOR:



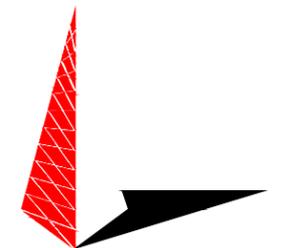
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON  
SUBSTATION**

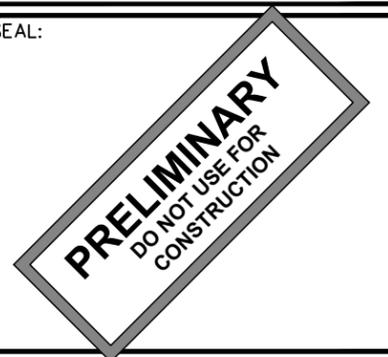
28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:



0	09-27-23	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

**ICE BRIDGE  
DETAILS**

SHEET NUMBER: REVISION:

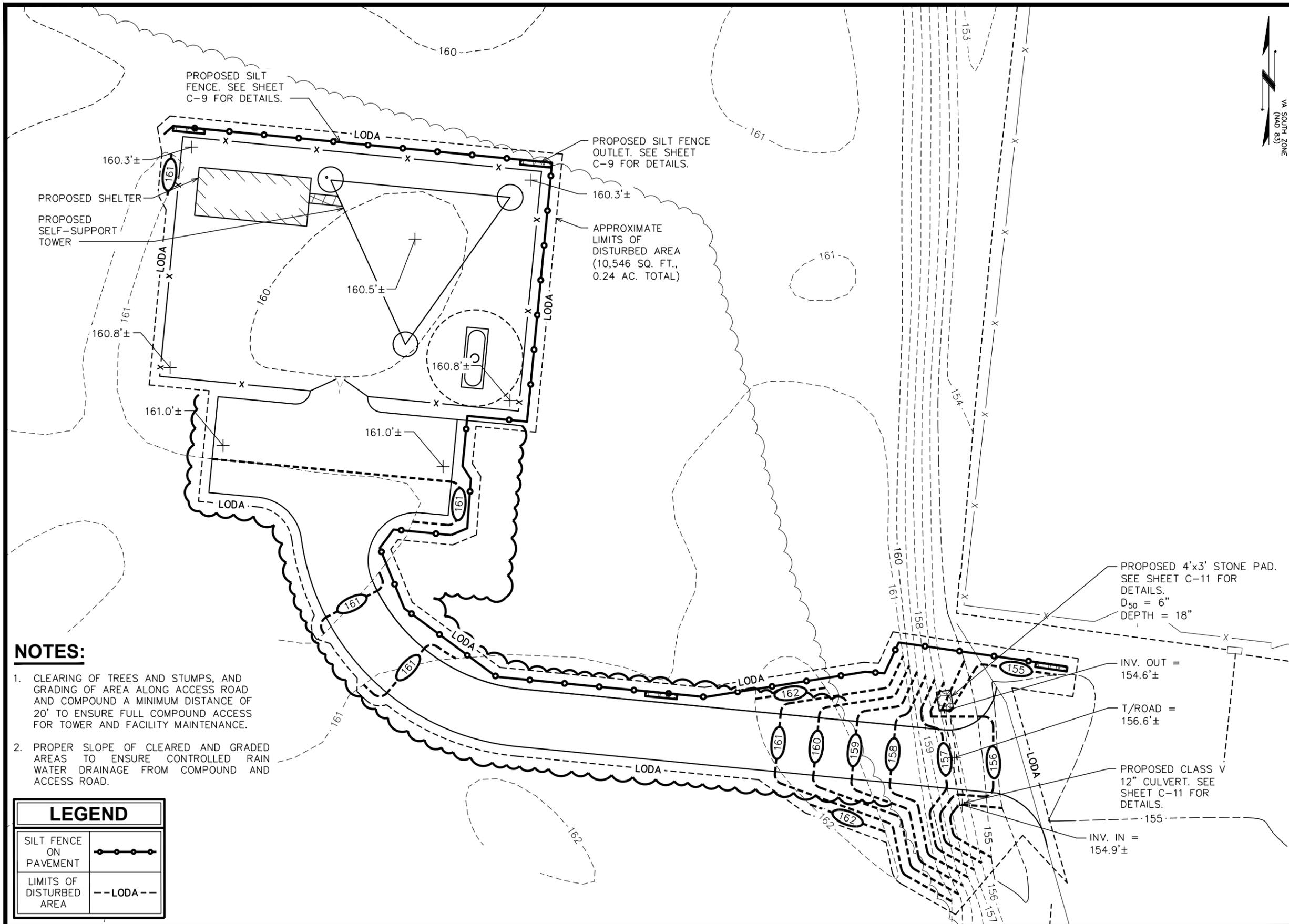
**C-7**

**0**

TEP#: 132110.854246

**ICE BRIDGE DETAILS**

SCALE: N.T.S.



**NOTES:**

1. CLEARING OF TREES AND STUMPS, AND GRADING OF AREA ALONG ACCESS ROAD AND COMPOUND A MINIMUM DISTANCE OF 20' TO ENSURE FULL COMPOUND ACCESS FOR TOWER AND FACILITY MAINTENANCE.
2. PROPER SLOPE OF CLEARED AND GRADED AREAS TO ENSURE CONTROLLED RAIN WATER DRAINAGE FROM COMPOUND AND ACCESS ROAD.

LEGEND	
SILT FENCE ON PAVEMENT	
LIMITS OF DISTURBED AREA	

**EROSION CONTROL PLAN**

SCALE: 1" = 20'



PLANS PREPARED FOR:  
  
 DOMINION RESOURCES SERVICES, INC.  
 707 EAST MAIN STREET  
 RICHMOND, VA 23219

PROJECT INFORMATION:  
**CARSON SUBSTATION**  
 28908 ELLINGTON RD  
 PETERSBURG, VA 23805  
 (DINWIDDIE COUNTY)

PLANS PREPARED BY:  
  
**TOWER ENGINEERING PROFESSIONALS**  
 326 TRYON ROAD  
 RALEIGH, NC 27603  
 OFFICE: (919) 661-6351  
 www.tepgroup.net

SEAL:

REV	DATE	ISSUED FOR:
5	10-17-24	PRELIMINARY
4	09-18-24	PRELIMINARY
3	04-16-24	PRELIMINARY
2	12-04-23	PRELIMINARY

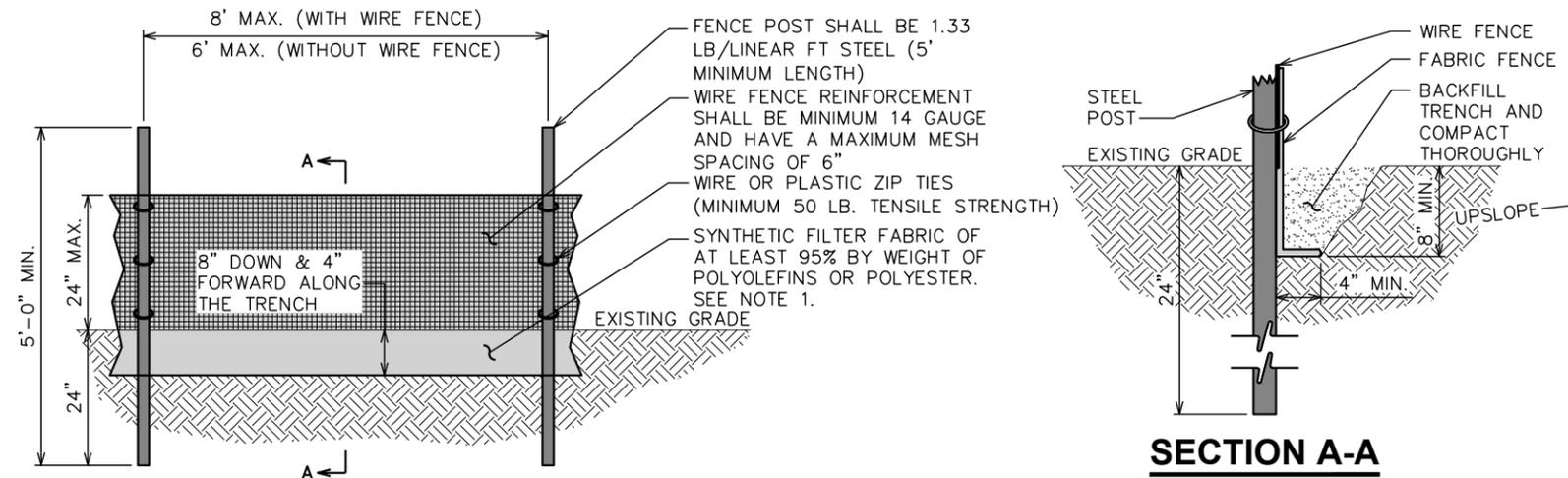
DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:  
**EROSION CONTROL PLAN**

SHEET NUMBER: **C-8** REVISION: **5**  
 TEP#: 132110.854246

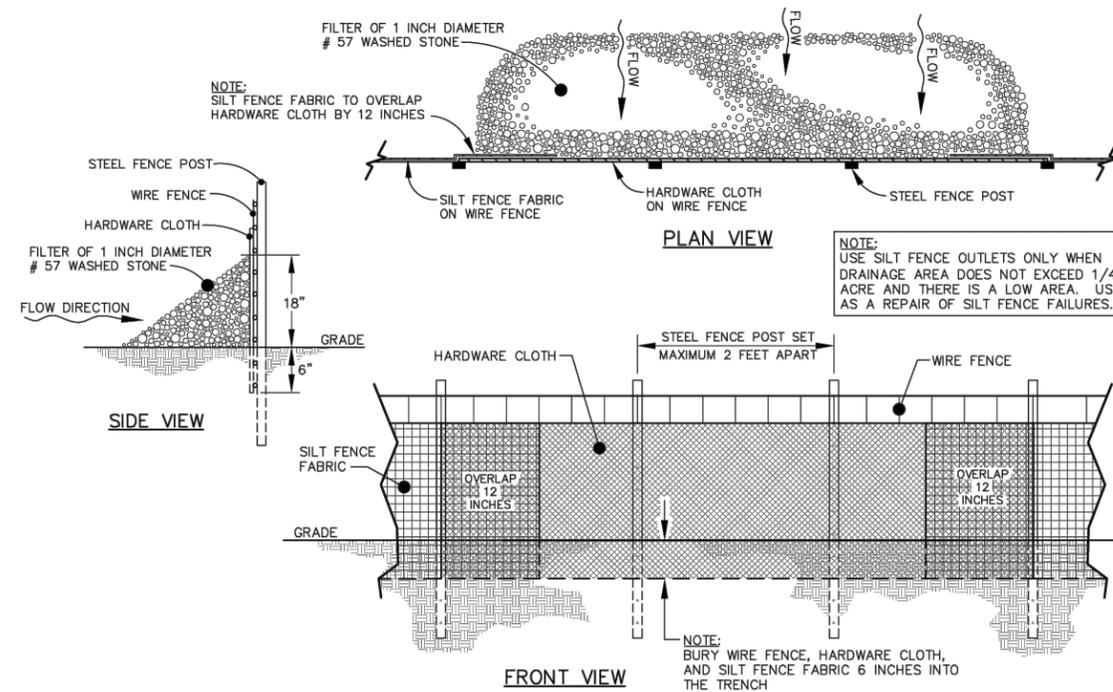
**NOTES:**

1. FILTER FABRIC SHALL CONFORM TO THE REQUIREMENTS LISTED IN ASTM D 6461.
2. ENDS OF INDIVIDUAL FILTER FABRIC SHALL BE SECURELY FASTENED AT A SUPPORT POST WITH 4 FEET MINIMUM OVERLAP TO THE NEXT POST.
3. PLACE 12 INCHES OF FABRIC ALONG THE BOTTOM AND SIDE OF THE TRENCH.
4. INSPECT SEDIMENT FENCE(S) AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL.
5. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE.
6. AFTER CONSTRUCTION IS COMPLETE, THE CONTRACTOR SHALL REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS, BRING THE AREA TO GRADE AND PROPERLY STABILIZE THE SITE.



**SILT FENCE DETAIL**

SCALE: N.T.S.



**STANDARD SILT FENCE OUTLET DETAIL**

SCALE: N.T.S.

PLANS PREPARED FOR:



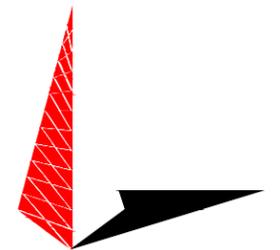
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON SUBSTATION**

28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

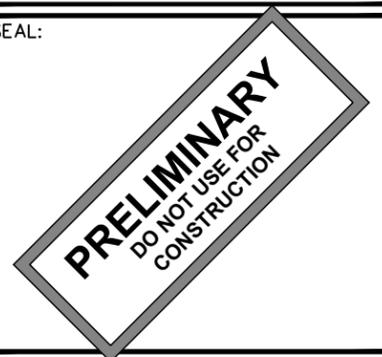
PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**

326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:



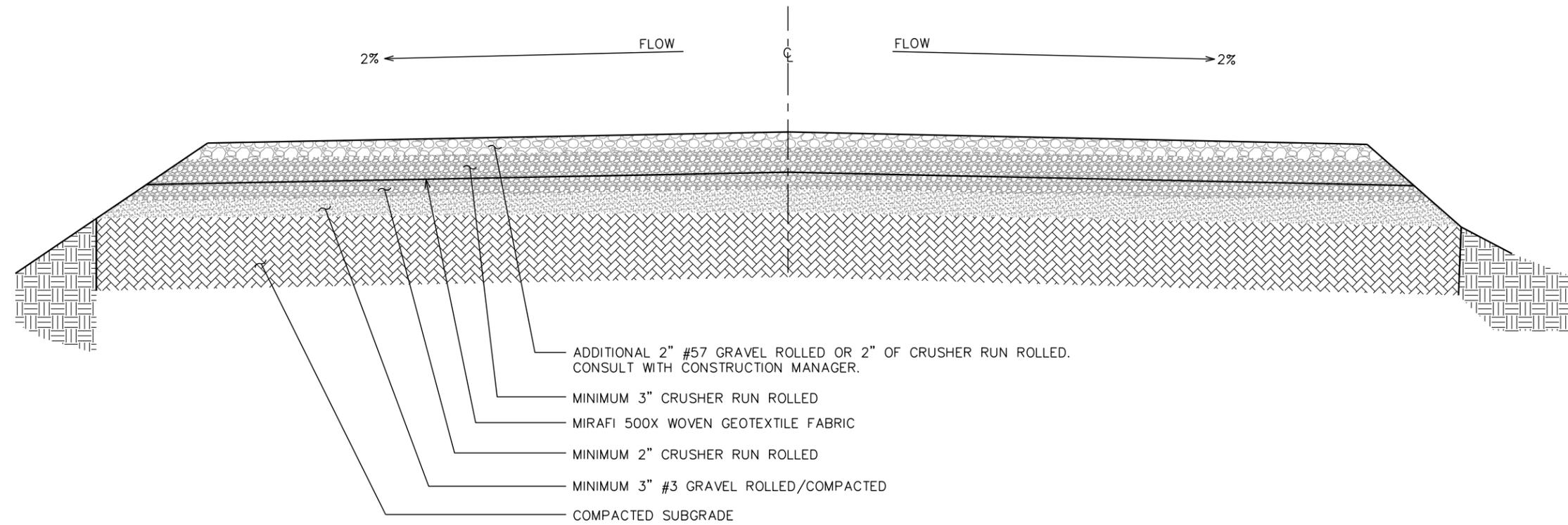
0	09-27-23	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

**SILT FENCE DETAILS**

SHEET NUMBER:	REVISION:
<b>C-9</b>	<b>0</b>
TEP#: 132110.854246	



PLANS PREPARED FOR:

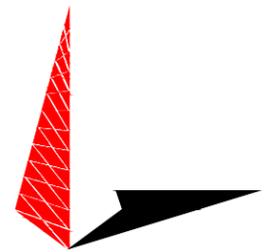


**Dominion Energy**  
 DOMINION RESOURCES SERVICES, INC.  
 707 EAST MAIN STREET  
 RICHMOND, VA 23219

PROJECT INFORMATION:

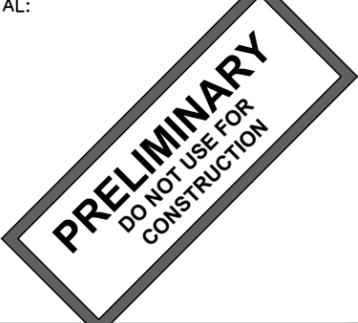
**CARSON SUBSTATION**  
 28908 ELLINGTON RD  
 PETERSBURG, VA 23805  
 (DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
 326 TRYON ROAD  
 RALEIGH, NC 27603  
 OFFICE: (919) 661-6351  
 www.tepgroup.net

SEAL:



0	09-27-23	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB | CHECKED BY: TDS

SHEET TITLE:

**ACCESS ROAD  
 DETAIL**

SHEET NUMBER: **C-10** | REVISION: **0**

TEP#: 132110.854246

**STANDARD ROAD SECTION**  
 SCALE: N.T.S.

PLANS PREPARED FOR:



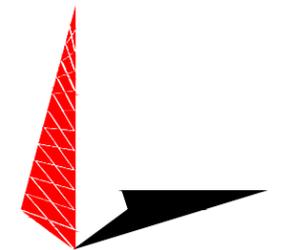
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON  
SUBSTATION**

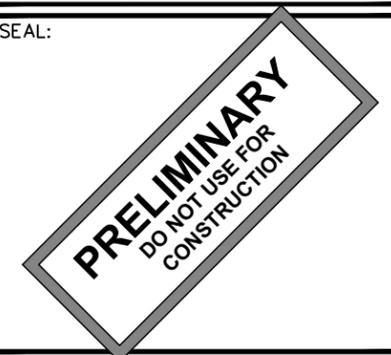
28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:



5	10-17-24	PRELIMINARY
4	09-18-24	PRELIMINARY
3	04-16-24	PRELIMINARY
2	12-04-23	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: TDS

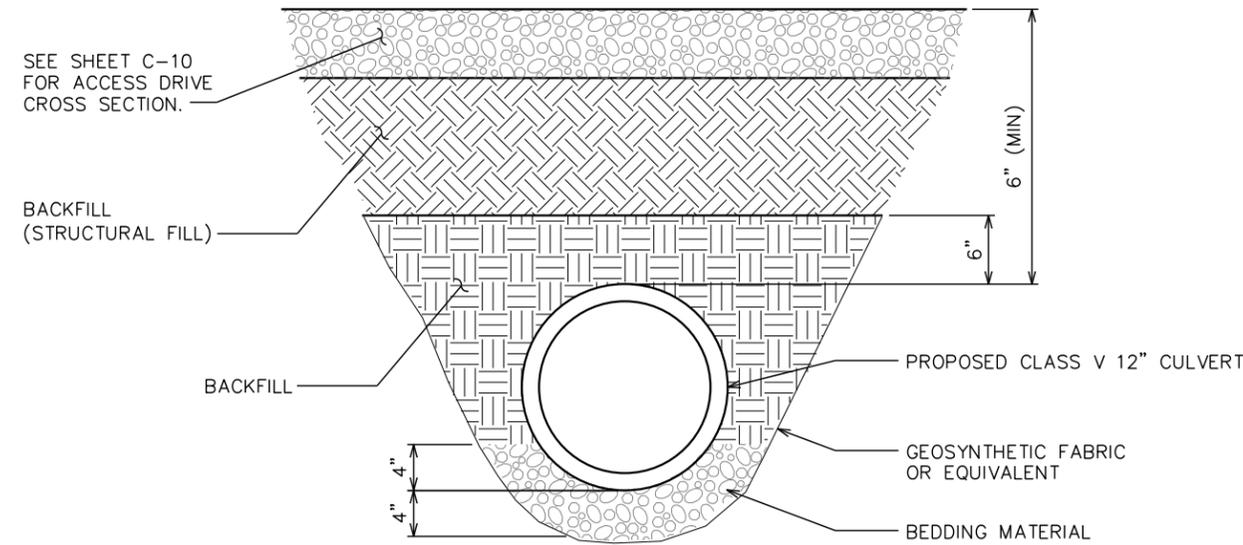
SHEET TITLE:

**CULVERT  
DETAILS**

SHEET NUMBER: REVISION:

**C-11** **5**

TEP#: 132110.854246



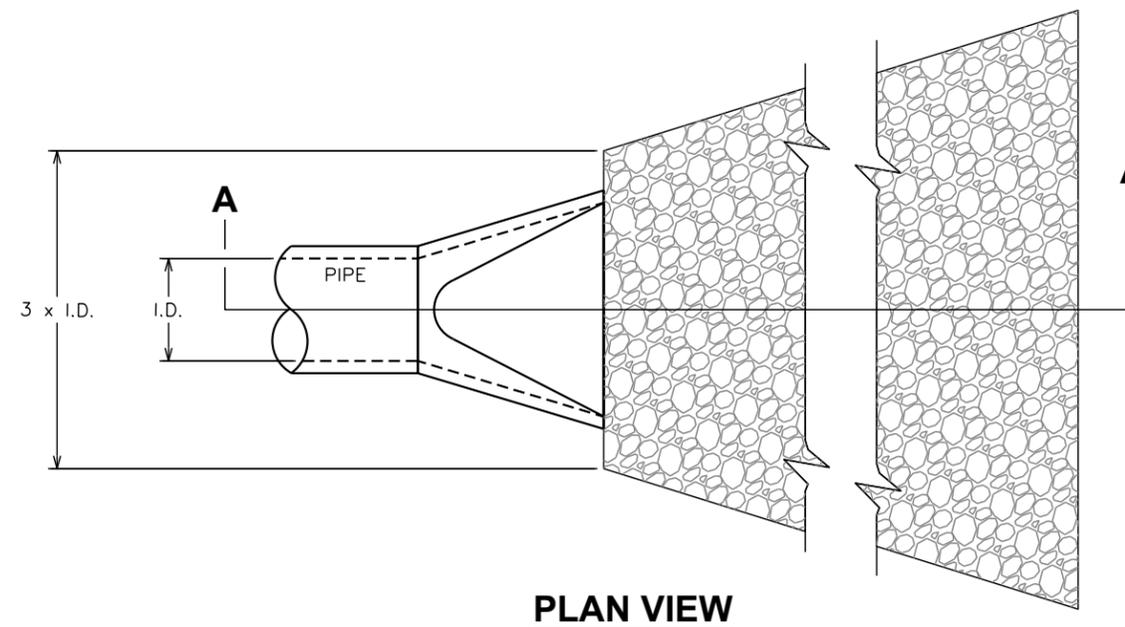
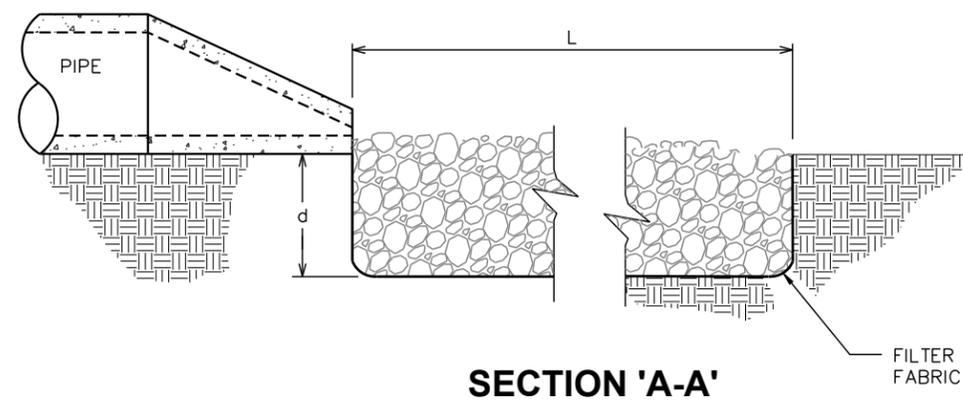
**CULVERT DETAIL**

SCALE: N.T.S.

**NOTES:**

- L = THE LENGTH OF THE RIPRAP APRON.
- d = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6" (INCHES).
- A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.

DISSIPATOR PAD SIZING					
RIP-RAP APRON NO.	CULVERT DIAMETER (IN)	WIDTH (FT)	LENGTH (FT)	DEPTH (IN)	D <sub>50</sub> (IN)
1	12	3	4	18	6



**DISSIPATOR PAD DETAILS**

SCALE: N.T.S.

## ELECTRICAL NOTES:

### SCOPE:

1. PROVIDE LABOR, MATERIALS, INSPECTION, AND TESTING TO PROVIDE CODE COMPLIANCE FOR ELECTRIC, TELEPHONE, AND GROUNDING/LIGHTNING SYSTEMS.

### CODES:

1. THE INSTALLATION SHALL COMPLY WITH APPLICABLE LAWS AND CODES. THESE INCLUDE BUT ARE NOT LIMITED TO THE LATEST ADOPTED EDITIONS OF:
 

A. THE NATIONAL ELECTRICAL SAFETY CODE	D. LOCAL AND STATE AMENDMENTS
B. THE NATIONAL ELECTRIC CODE – NFPA-70	E. THE INTERNATIONAL ELECTRIC CODE – IEC (WHERE APPLICABLE)
C. REGULATIONS OF THE SERVING UTILITY COMPANY	
2. PERMITS REQUIRED SHALL BE OBTAINED BY THE CONTRACTOR.
3. AFTER COMPLETION AND FINAL INSPECTION OF THE WORK, THE OWNER SHALL BE FURNISHED A CERTIFICATE OF COMPLETION AND APPROVAL.

### TESTING:

1. UPON COMPLETION OF THE INSTALLATION, OPERATE AND ADJUST THE EQUIPMENT AND SYSTEMS TO MEET SPECIFIED PERFORMANCE REQUIREMENTS. THE TESTING SHALL BE DONE BY QUALIFIED PERSONNEL.

### GUARANTEE:

1. IN ADDITION TO THE GUARANTEE OF THE EQUIPMENT BY THE MANUFACTURER, EACH PIECE OF EQUIPMENT SPECIFIED HEREIN SHALL ALSO BE GUARANTEED FOR DEFECTS OF MATERIAL OR WORKMANSHIP OCCURRING DURING A PERIOD OF ONE (1) YEAR FROM FINAL ACCEPTANCE OF THE WORK BY THE OWNER AND WITHOUT EXPENSE TO THE OWNER.
2. THE WARRANTY CERTIFICATES & GUARANTEES FURNISHED BY THE MANUFACTURERS SHALL BE TURNED OVER TO THE OWNER.

### UTILITY CO-ORDINATION:

1. CONTRACTOR SHALL COORDINATE WORK WITH THE POWER AND TELEPHONE COMPANIES AND SHALL COMPLY WITH THE SERVICE REQUIREMENTS OF EACH UTILITY COMPANY.

### EXAMINATION OF SITE:

1. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL VISIT THE SITE OF THE JOB AND SHALL FAMILIARIZE HIMSELF WITH THE CONDITIONS AFFECTING THE PROPOSED ELECTRICAL INSTALLATION AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. FAILURE TO COMPLY WITH THE INTENT OF THIS SECTION WILL IN NO WAY RELIEVE THE CONTRACTOR OF PERFORMING THE WORK NECESSARY FOR A COMPLETE AND WORKING SYSTEM OR SYSTEMS.

### CUTTING, PATCHING AND EXCAVATION:

1. COORDINATION OF SLEEVES, CHASES, ETC., BETWEEN SUBCONTRACTORS WILL BE REQUIRED PRIOR TO THE CONSTRUCTION OF ANY PORTION OF THE WORK. CUTTING AND PATCHING OF WALLS, PARTITIONS, FLOORS, AND CHASES IN CONCRETE, WOOD, STEEL OR MASONRY SHALL BE DONE AS PROVIDED ON THE DRAWINGS.
2. NECESSARY EXCAVATIONS AND BACKFILLING INCIDENTAL TO THE ELECTRICAL WORK SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWING.
3. SEAL PENETRATIONS THROUGH RATED WALLS, FLOORS, ETC., WITH APPROVED METHOD AS LISTED BY UL.

### RACEWAYS / CONDUITS GENERAL:

1. CONDUCTORS SHALL BE INSTALLED IN LISTED RACEWAYS. CONDUIT SHALL BE RIGID STEEL, EMT, SCH40 PVC, OR SCH80PVC AS INDICATED ON THE DRAWINGS. THE RACEWAY SYSTEM SHALL BE COMPLETE COMPLETE BEFORE INSTALLING CONDUCTORS.
2. EXTERIOR RACEWAYS AND GROUNDING SLEEVES SHALL BE SEALED AT POINTS OF ENTRANCE AND EXIT. THE RACEWAY SYSTEM SHALL BE BONDED PER NEC.

### EXTERIOR CONDUIT:

1. EXPOSED CONDUIT SHALL BE NEATLY INSTALLED AND RUN PARALLEL OR PERPENDICULAR TO STRUCTURAL ELEMENTS. SUPPORTS AND MOUNTING HARDWARE SHALL BE HOT DIPPED GALVANIZED STEEL.
2. THE CONDUIT SHALL BE RIGID STEEL AT GRADE TRANSITIONS OR WHERE EXPOSED TO DAMAGE.
3. UNDERGROUND CONDUITS SHALL BE RIGID STEEL, SCH40 PVC, OR SCH80 PVC AS INDICATED ON THE DRAWINGS.
4. BURIAL DEPTH OF CONDUITS SHALL BE AS REQUIRED BY CODE FOR EACH SPECIFIC CONDUIT TYPE AND APPLICATION, BUT SHALL NOT BE LESS THAN THE FROST DEPTH AT THE SITE.
5. CONDUIT ROUTES ARE SCHEMATIC. CONTRACTOR SHALL FIELD VERIFY ROUTES BEFORE BID. COORDINATE ROUTE WITH WIRELESS CARRIER AND/OR BUILDING OWNER.

### INTERIOR CONDUIT:

1. CONCEALED CONDUIT IN WALLS OR INTERIOR SPACES ABOVE GRADE MAY BE EMT OR PVC.
2. CONDUIT RUNS SHALL USE APPROVED COUPLINGS AND CONNECTORS. PROVIDE INSULATED BUSHING FOR ALL CONDUIT TERMINATIONS. CONDUIT RUNS IN A WET LOCATION SHALL HAVE WATERPROOF FITTINGS.
3. PROVIDE SUPPORTS FOR CONDUITS IN ACCORDANCE WITH NEC REQUIREMENTS. CONDUITS SHALL BE SIZED AS REQUIRED BY NEC.

### EQUIPMENT:

1. DISCONNECT SWITCHES SHALL BE SERVICE ENTRANCE RATED, HEAVY DUTY TYPE.
2. CONTRACTOR SHALL VERIFY MAXIMUM AVAILABLE FAULT CURRENT AND COORDINATE INSTALLATION WITH THE LOCAL UTILITY BEFORE STARTING WORK. CONTRACTOR WILL VERIFY THAT EXISTING CIRCUIT BREAKERS ARE RATED FOR MORE THAN AVAILABLE FAULT CURRENT AND REPLACE AS NECESSARY.
3. NEW CIRCUIT BREAKERS SHALL BE RATED TO WITHSTAND THE MAXIMUM AVAILABLE FAULT CURRENT AS DETERMINED BY THE LOCAL UTILITY.

### CONDUCTORS:

1. FURNISH AND INSTALL CONDUCTORS SPECIFIED IN THE DRAWINGS. CONDUCTORS SHALL BE COPPER AND SHALL HAVE TYPE THWN (MIN) (75° C) INSULATION, RATED FOR 600 VOLTS.
2. THE USE OF ALUMINUM CONDUCTORS SHALL BE LIMITED TO THE SERVICE FEEDERS INSTALLED BY THE UTILITY.
3. CONDUCTORS SHALL BE PROVIDED AND INSTALLED AS FOLLOWS:
  - A. MINIMUM WIRE SIZE SHALL BE #12 AWG.
  - B. CONDUCTORS SIZE #8 AND LARGER SHALL BE STRANDED. CONDUCTORS SIZED #10 AND #12 MAY BE SOLID OR STRANDED.
  - C. CONNECTION FOR #10 AWG #12 AWG SHALL BE BY TWISTING TIGHT AND INSTALLING INSULATED PRESSURE OR WIRE NUT CONNECTIONS.
  - D. CONNECTION FOR #8 AWG AND LARGER SHALL BE BY USE OF STEEL CRIMP-ON SLEEVES WITH NYLON INSULATOR.
3. CONDUCTORS SHALL BE COLOR CODED IN ACCORDANCE WITH NEC STANDARDS.

### UL COMPLIANCE:

1. ELECTRICAL MATERIALS, DEVICES, CONDUCTORS, APPLIANCES, AND EQUIPMENT SHALL BE LABELED/LISTED BY UL OR ACCEPTED BY JURISDICTION (I.E., LOCAL COUNTY OR STATE) APPROVED THIRD PARTY TESTING AGENCY.

### GROUNDING:

1. ELECTRICAL NEUTRALS, RACEWAYS AND NON-CURRENT CARRYING PARTS OF ELECTRICAL EQUIPMENT AND ASSOCIATED ENCLOSURES SHALL BE GROUNDED IN ACCORDANCE WITH NEC ARTICLE 250. THIS SHALL INCLUDE NEUTRAL CONDUCTORS, CONDUITS, SUPPORTS, CABINETS, BOXES, GROUND BUSSES, ETC. THE NEUTRAL CONDUCTOR FOR EACH SYSTEM SHALL BE GROUNDED AT A SINGLE POINT.
2. PROVIDE GROUND CONDUCTOR IN RACEWAYS PER NEC.
3. PROVIDE BONDING AND GROUND TO MEET NFPA 780 – "LIGHTNING PROTECTION" AS A MINIMUM.
4. PROVIDE GROUNDING SYSTEM AS INDICATED ON THE DRAWINGS, AS REQUIRED BY THE NATIONAL ELECTRIC CODE, RADIO EQUIPMENT MANUFACTURERS, AND MOTOROLA R56 (AS APPLICABLE).

## ABBREVIATIONS AND LEGEND

A	– AMPERE	PNLBD	– PANELBOARD
AFG	– ABOVE FINISHED GRADE	PVC	– RIGID NON-METALLIC CONDUIT
ATS	– AUTOMATIC TRANSFER SWITCH	RGS	– RIGID GALVANIZED STEEL CONDUIT
AWG	– AMERICAN WIRE GAUGE	SW	– SWITCH
BCW	– BARE COPPER WIRE	TGB	– TOWER GROUND BAR
BFG	– BELOW FINISHED GRADE	UL	– UNDERWRITERS LABORATORIES
BKR	– BREAKER	V	– VOLTAGE
C	– CONDUIT	W	– WATTS
CKT	– CIRCUIT	XFMR	– TRANSFORMER
DISC	– DISCONNECT	XMTR	– TRANSMITTER
EGR	– EXTERNAL GROUND RING		
EMT	– ELECTRIC METALLIC TUBING		
FSC	– FLEXIBLE STEEL CONDUIT		
GEN	– GENERATOR		
GPS	– GLOBAL POSITIONING SYSTEM		
GRD	– GROUND		
IGB	– ISOLATED GROUND BAR		
IGR	– INTERIOR GROUND RING (HALO)		
KW	– KILOWATTS		
NEC	– NATIONAL ELECTRIC CODE		
PCS	– PERSONAL COMMUNICATION SYSTEM		
PH	– PHASE		
PNL	– PANEL		

	UNDERGROUND ELECTRICAL CONDUIT
	UNDERGROUND TELEPHONE CONDUIT
	KILOWATT-HOUR METER
	UNDERGROUND BONDING AND GROUNDING CONDUCTOR.
	GROUND ROD
	CADWELD
	GROUND ROD WITH INSPECTION WELL

PLANS PREPARED FOR:



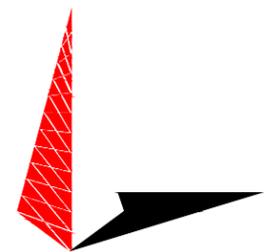
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

## CARSON SUBSTATION

28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:

**PRELIMINARY**  
DO NOT USE FOR  
CONSTRUCTION

0	09-27-23	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

## ELECTRICAL NOTES

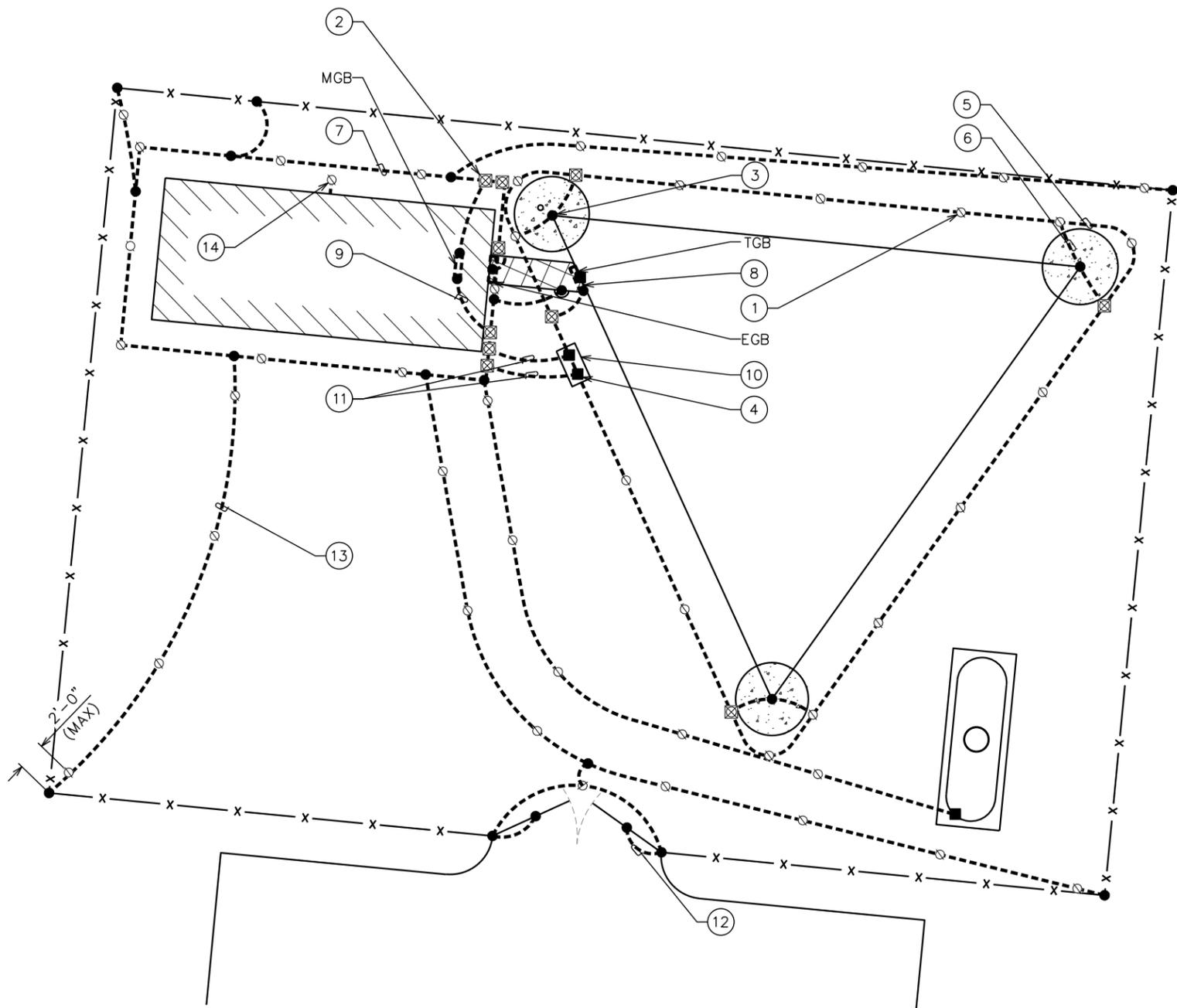
SHEET NUMBER: <b>E-1</b>	REVISION: <b>0</b>
TEP#: 132110.854246	

**DOMINION GROUNDING NOTES:**

1. ALL GROUND RODS TO BE 5/8"x10' COPPER CLAD GROUND ROD.
2. ALL BELOW GRADE CONNECTIONS SHALL BE EXOTHERMIC CONNECTIONS.
3. ALL BELOW GRADE EXOTHERMIC CADWELDS WILL HAVE 3M SCOTCHCOAT APPLIED OVER ALL EXPOSED BARE COPPER.
4. ALL GROUND WIRING TO BE 4/0, 19-STRAND TINNED COPPER WIRE.
5. ALL ABOVE GRADE CONNECTIONS TO A GROUND WIRE (LUGS) SHALL BE CRIMPED STYLE, (I.E...GROUND BARS).
6. ALL ABOVE GRADE MECHANICAL COMPRESSION CONNECTIONS SHALL BE TWO-BOLT HOLE STYLE AND HAVE A LIBERAL COATING OF DIOXIDE GREASE APPLIED.
7. IF GROUND RODS CANNOT BE DRIVEN VERTICALLY:
  - DRIVE GROUND RODS AT 45° ANGLE
  - IF GROUND RODS CANNOT BE DRIVEN AT A 45° ANGLE, LAY GROUND RODS DOWN HORIZONTALLY PERPENDICULAR TO THE GROUND RING
8. ALL GROUNDING CONDUCTORS TO BE BURIED AT A MINIMUM OF 18".
9. ALL GROUNDING SYSTEMS ARE TO BE MADE COMMON.
10. ALL BELOW GRADE GROUND WIRING TO BE 4/0, 19-STRAND TINNED COPPER WIRE.
11. ALL BARE 4/0, 19-STRAND TINNED COPPER GROUND WIRE ABOVE GRADE (I.E. GROUND RISERS) TO BE INSIDE NON-METALLIC LIQUIDTITE.
12. GROUNDING OF ALL COMMUNICATIONS EQUIPMENT (I.E. RACKS, CABINETS, ETC.) IS TO BE DESIGNED, FURNISHED AND INSTALLED BY OTHERS.
13. GROUNDING SYSTEM SHALL BE MEGGAR TESTED TO VERIFY SITE GROUND RESISTANCE AS FOLLOWS:
  - TOWER GROUND RING TO BE TESTED ISOLATED FROM TOWER. THIS TEST CAN ONLY BE DONE PRIOR TO CADWELDING TOWER LEGS AND TGB TO TOWER GROUND RING AND PRIOR TO CONNECTING TO SHELTER GROUND RING.
14. ALL TRENCHES MUST REMAIN OPEN FOR DOMINION VISUAL INSPECTIONS. TRENCHES CAN ONLY BE CLOSED AFTER INSPECTIONS HAVE BEEN COMPLETED AND APPROVED BY DOMINION.

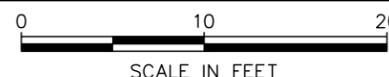
**DRAWING NOTES:**

- |   |   |   |
|---|---|---|
| ① GROUND ROD 5/8"x10' COPPER CLAD GROUND ROD (TYP)    | ⑩ PROPOSED 18"x30" PG HANDHOLE WITH LID. INSTALL 6" GRAVEL BASE AT BOTTOM OF BOX.   | ⑫ GATE POST GROUNDING (TYP)   |
| ② GROUND ROD WITH INSPECTION WELL (TYP)               | ⑪ PROPOSED (2) BARE 4/0 GROUND LEADS SPACED 12"-18" APART, EXOTHERMICALLY WELDED TO PROPOSED SHELTER GROUND RING AND MECHANICALLY CONNECTED TO TOWER GROUND RING USING (2) BURNDY VERSITAP TYPE QPX MECHANICAL CONNECTORS INSIDE PROPOSED HANDHOLE BOX. | ⑬ #2 GROUND LEAD FROM SHELTER GROUNDING RING TO FENCE POST (TYP)  |
| ③ CADWELD (TYP)                                       |   | ⑭ AC NEUTRAL GROUNDED TO GROUND BAR INSIDE SHELTER WITH A #2 THHN COPPER GROUND LEAD EXOTHERMICALLY WELDED TO A SINGLE GROUND ROD OUTSIDE THE SHELTER THAT IS ISOLATED FROM DOMINION SHELTER RING |
| ④ 2-HOLE LUG MECHANICAL CONNECTION (TYP)              |   |   |
| ⑤ PROPOSED TOWER GROUND RING                          |   |   |
| ⑥ GROUND LEAD FROM TOWER TO TOWER GROUND RING (TYP)   |   |   |
| ⑦ PROPOSED SHELTER GROUND RING                        |   |   |
| ⑧ PROPOSED TOWER GROUND BAR                           |   |   |
| ⑨ PROPOSED GROUND LEAD FROM GROUND BAR TO GROUND RING |   |   |



**TOWER GROUNDING PLAN**

SCALE: 1" = 10'



PLANS PREPARED FOR:



DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON SUBSTATION**

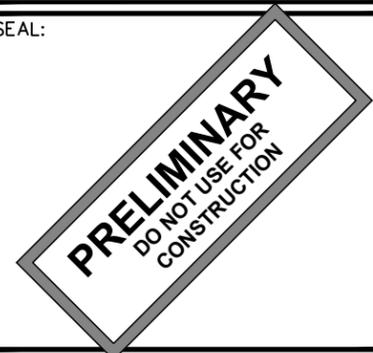
28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:

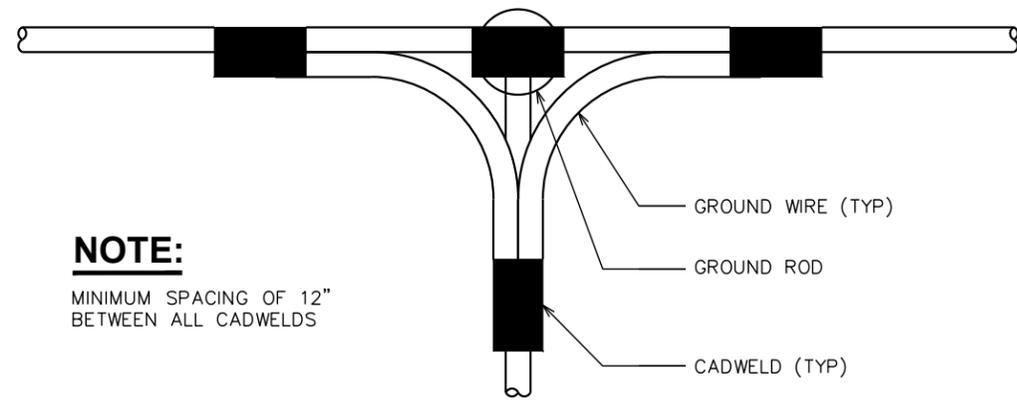


4	09-18-24	PRELIMINARY
3	04-16-24	PRELIMINARY
2	12-04-23	PRELIMINARY
1	10-13-23	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: TDS

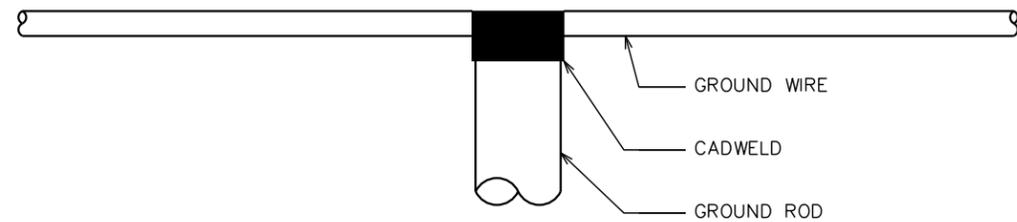
SHEET TITLE:  
**GROUNDING PLAN**

SHEET NUMBER: **E-2** REVISION: **4**  
TEP#: 132110.854246

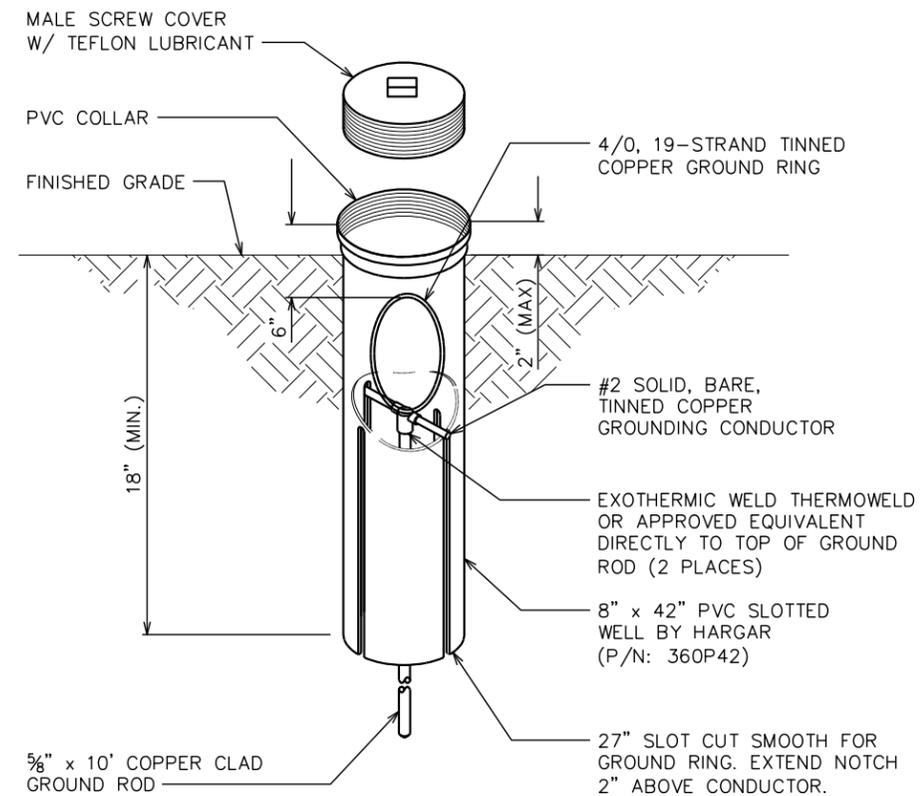


**NOTE:**  
MINIMUM SPACING OF 12"  
BETWEEN ALL CADWELDS

**TOP VIEW**



**SIDE VIEW**

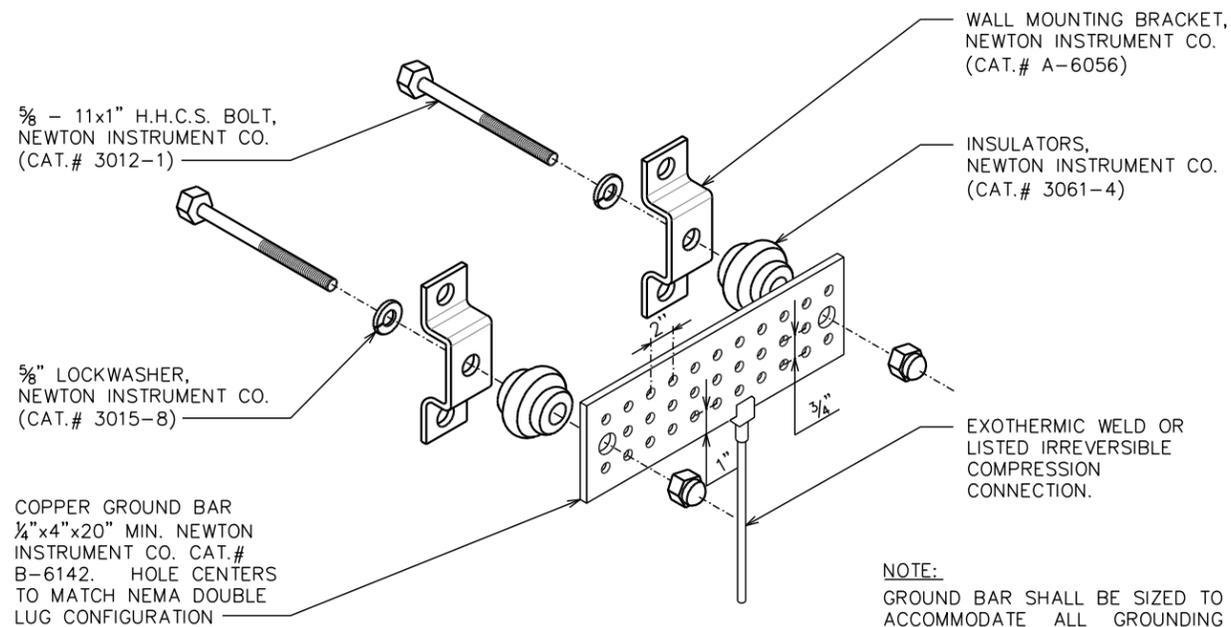


**GROUND ROD WITH INSPECTION WELL DETAIL**

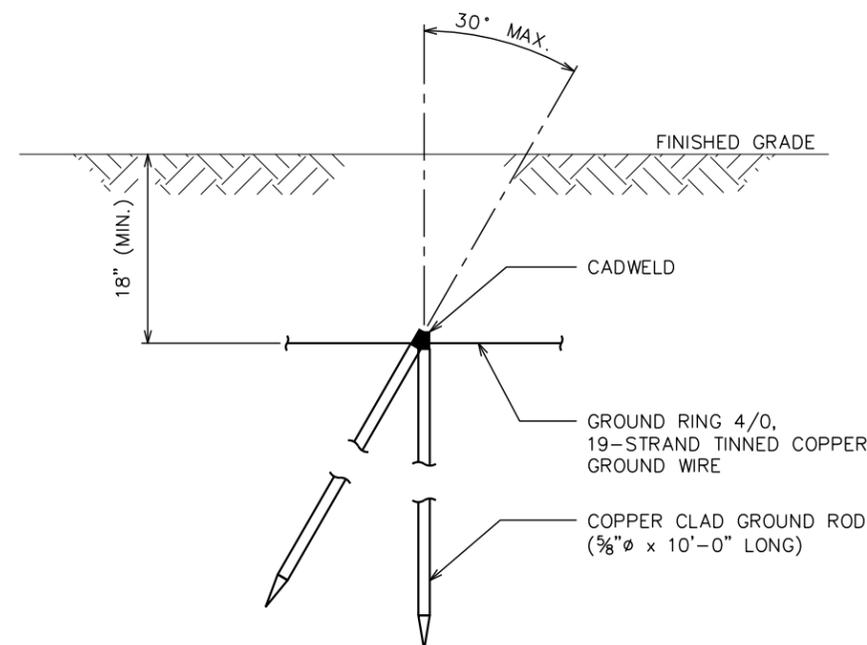
SCALE: N.T.S.

**CADWELD GROUNDING DETAIL**

SCALE: N.T.S.



**NOTE:**  
GROUND BAR SHALL BE SIZED TO  
ACCOMMODATE ALL GROUNDING  
CONNECTIONS REQUIRED PLUS  
PROVIDE 50% SPARE CAPACITY.



**COPPER-CLAD STEEL GROUND ROD DETAIL**

SCALE: N.T.S.

**STANDARD GROUND BAR DETAIL**

SCALE: N.T.S.

PLANS PREPARED FOR:



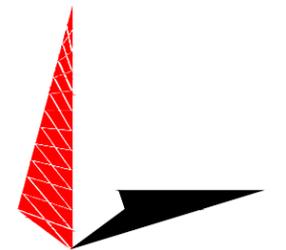
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON  
SUBSTATION**

28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

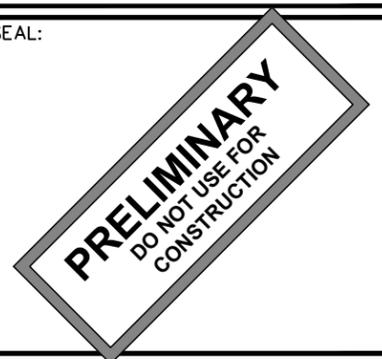
PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**

326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:



0	09-27-23	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

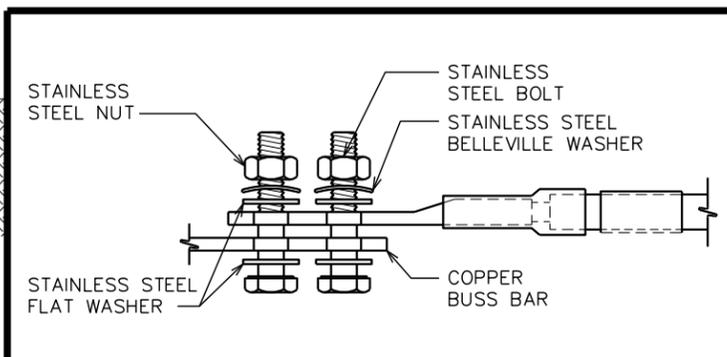
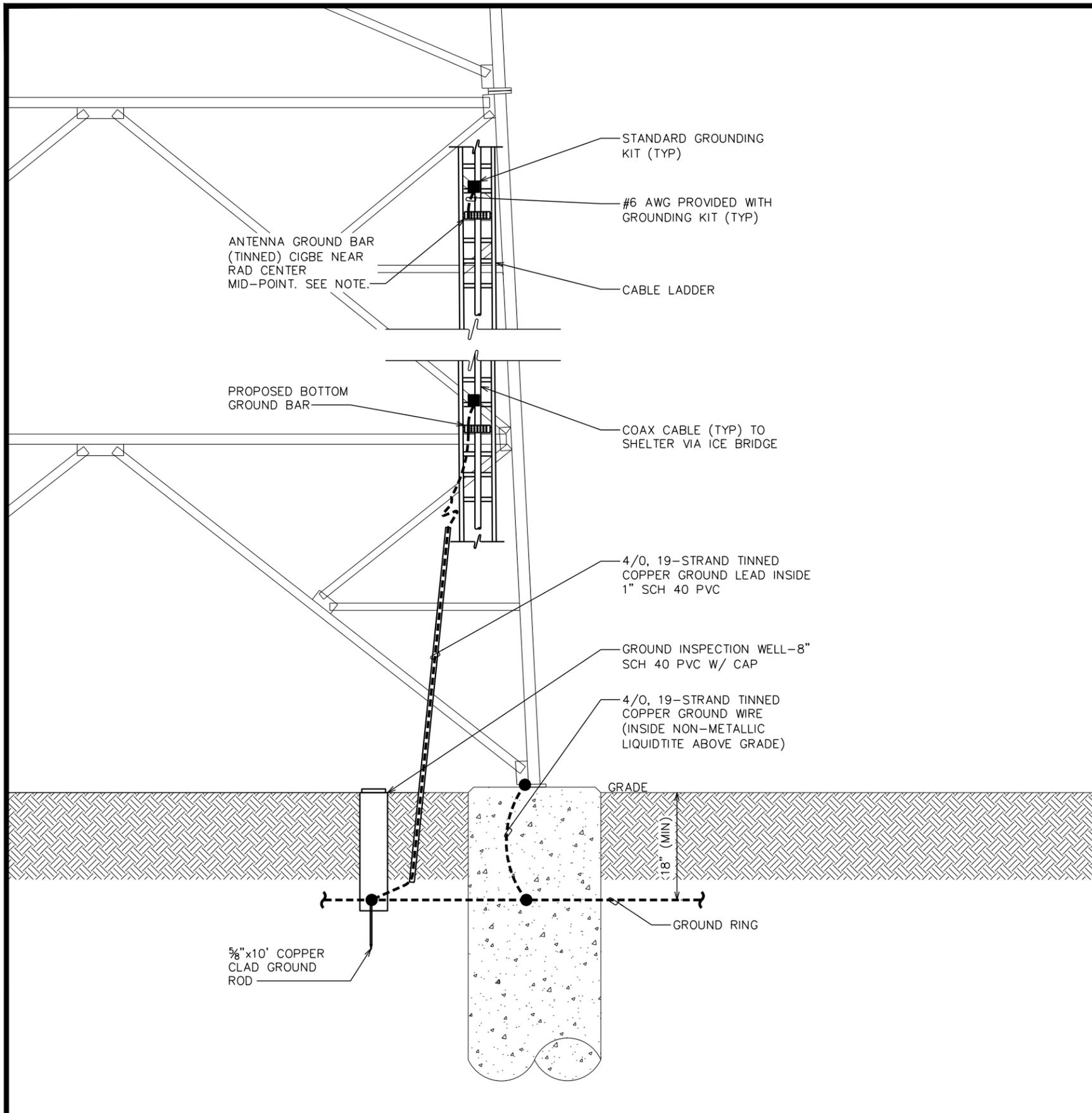
**GROUNDING  
DETAILS I**

SHEET NUMBER: REVISION:

**E-3**

**0**

TEP#: 132110.854246



**NOTES:**

1. ALL HARDWARE SHALL BE 18-8 STAINLESS STEEL, INCLUDING THE BELLEVILLE WASHERS. COAT ALL SURFACES WITH KOPR-SHIELD BEFORE MATING.
2. FOR GROUND BOND TO STEEL ONLY: INSERT A DRAGON TOOTH WASHER BETWEEN THE LUG AND STEEL. COAT ALL SURFACES WITH KOPR-SHIELD.

**LUG DETAILS**

SCALE: N.T.S.

**TOWER GROUNDING DETAIL**

SCALE: N.T.S.

PLANS PREPARED FOR:

DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON SUBSTATION**

28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:

**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:

**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION

REV	DATE	ISSUED FOR:
0	09-27-23	PRELIMINARY

DRAWN BY: SAB CHECKED BY: TDS

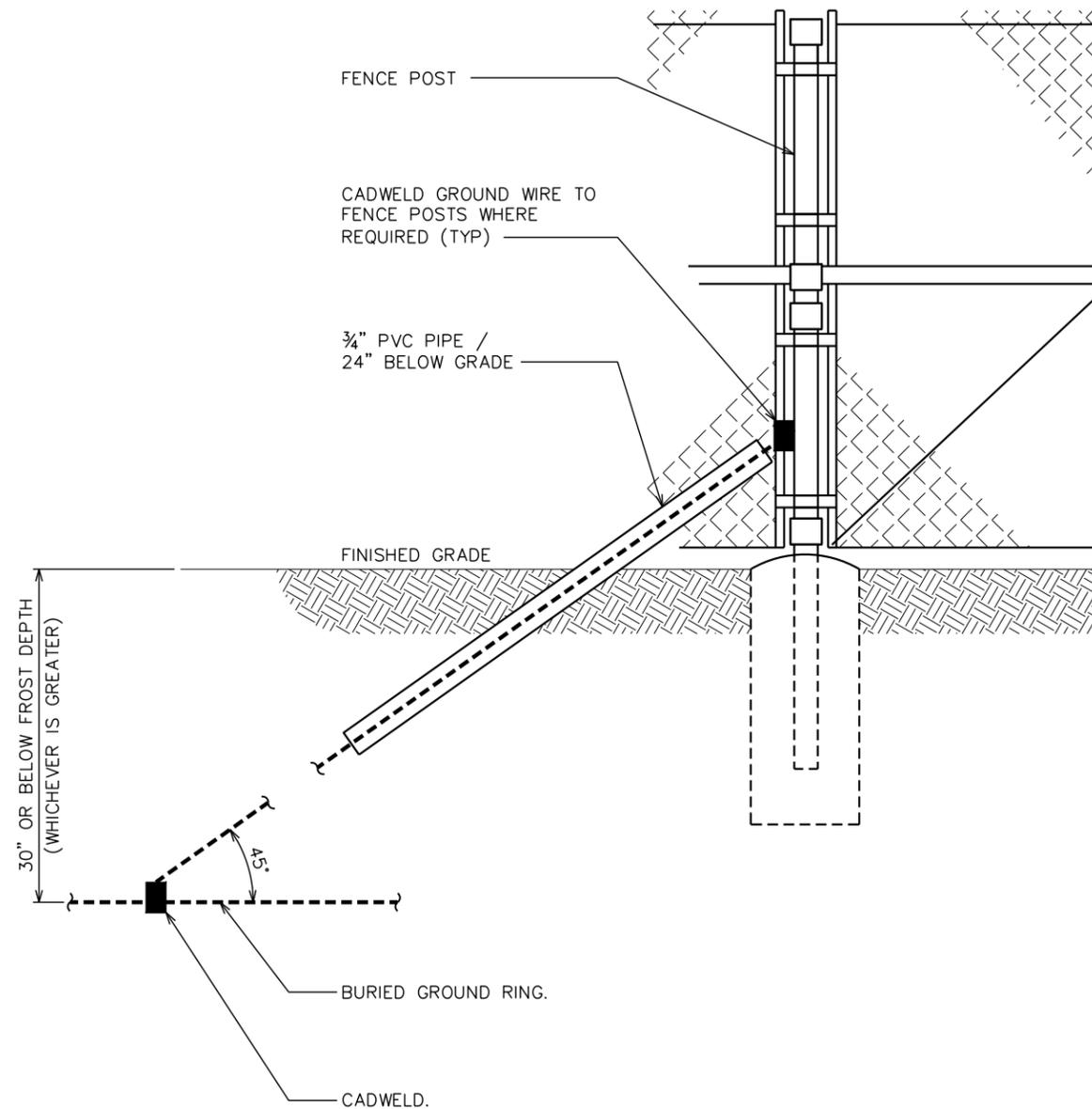
SHEET TITLE:

**GROUNDING DETAILS II**

SHEET NUMBER:	REVISION:
<b>E-4</b>	<b>0</b>
TEP#: 132110.854246	

**NOTE:**

FROST DEPTH FOR DINWIDDIE COUNTY IS 20 INCHES.

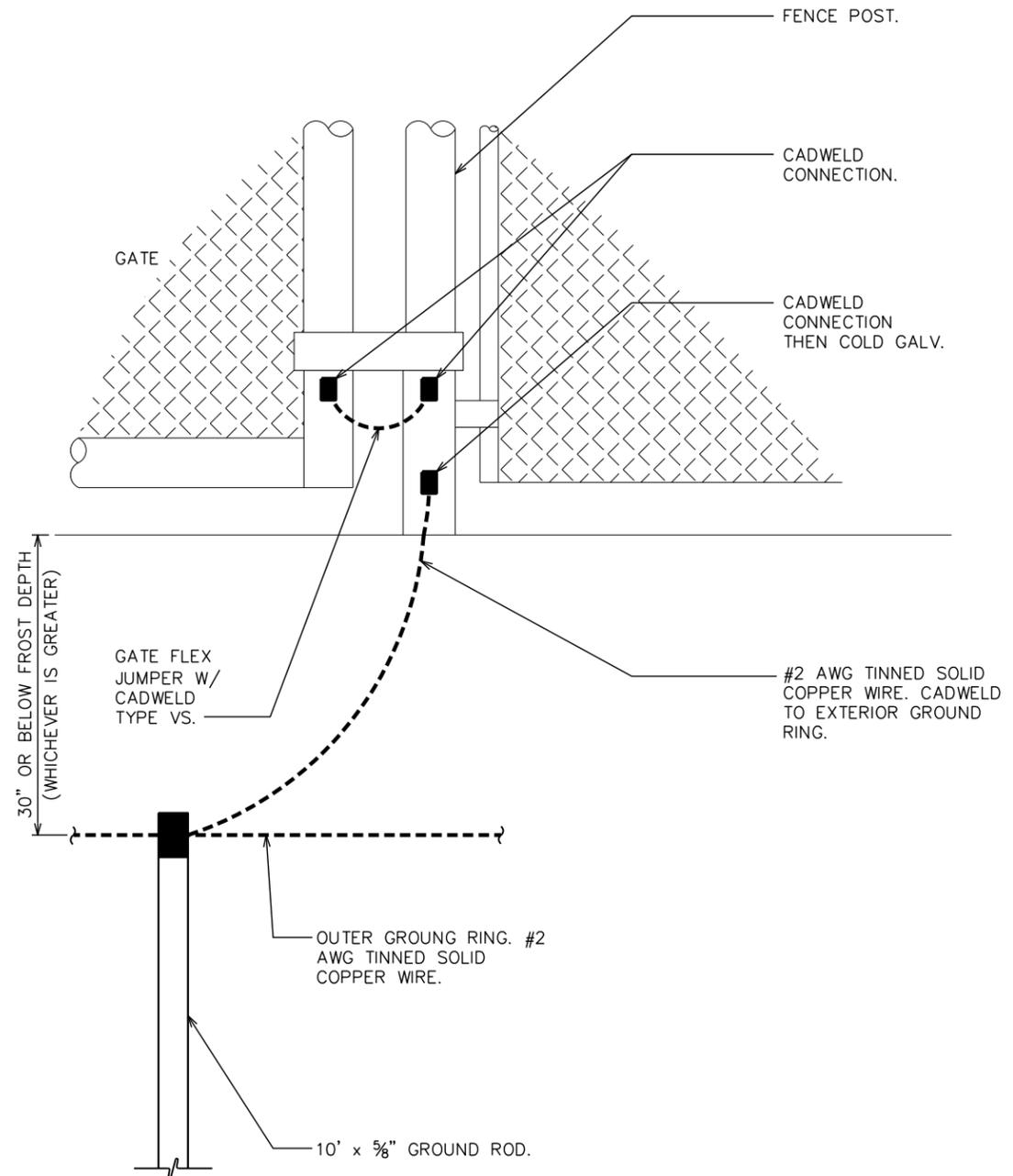


**GATE POST GROUNDING**

SCALE: N.T.S.

**NOTE:**

FROST DEPTH FOR DINWIDDIE COUNTY IS 20 INCHES.



**FENCE GROUNDING**

SCALE: N.T.S.

PLANS PREPARED FOR:



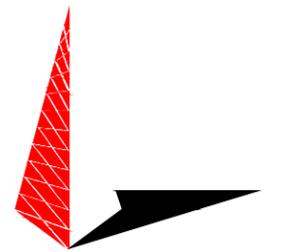
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON SUBSTATION**

28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

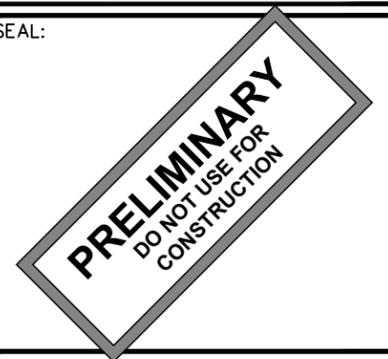
PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**

326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:



0	09-27-23	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:  
**GATE & FENCE GROUNDING DETAILS**

SHEET NUMBER: **E-5** REVISION: **0**  
TEP#: 132110.854246



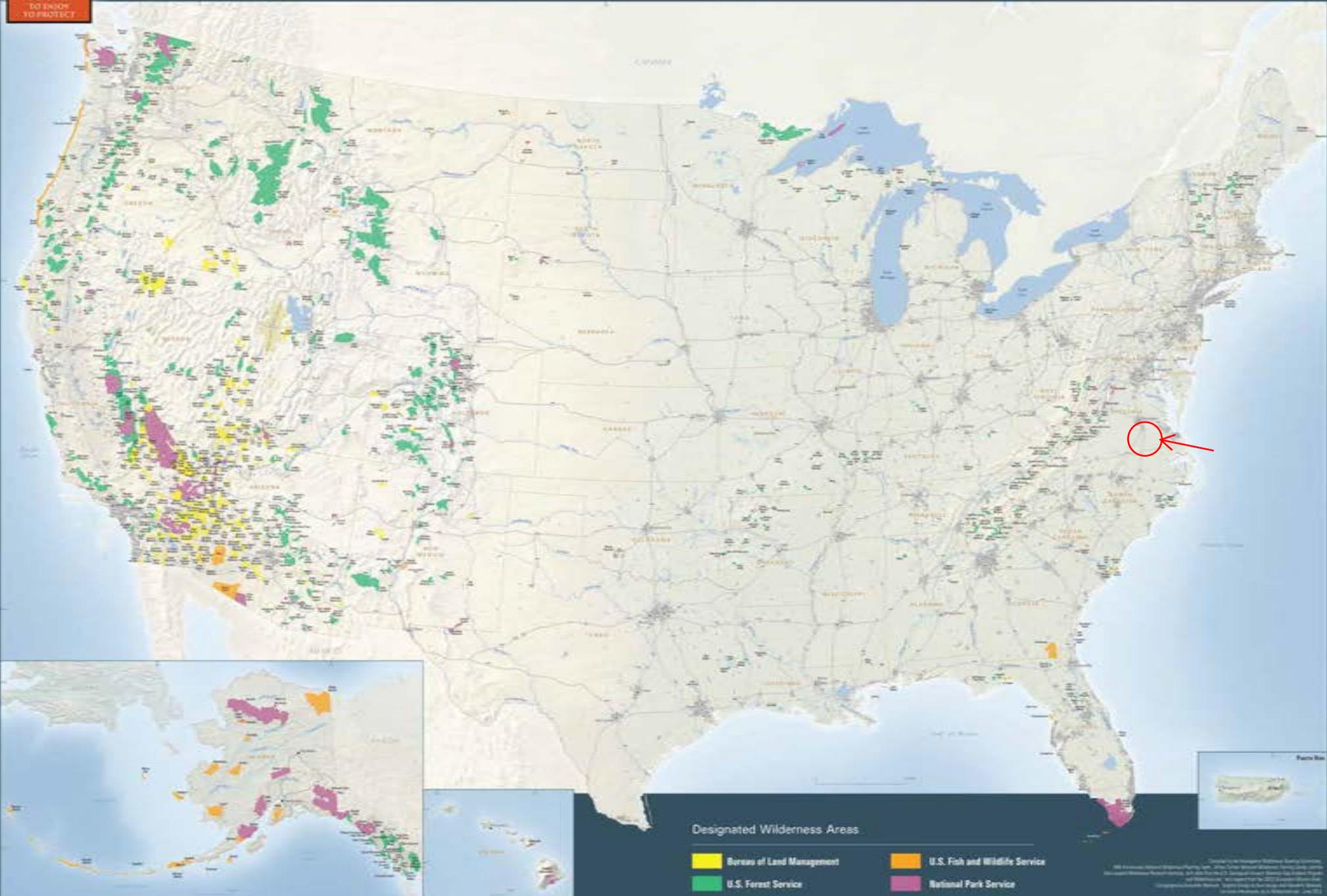
## **ATTACHMENT 1**

# **OFFICIALLY DESIGNATED WILDERNESS AREAS**



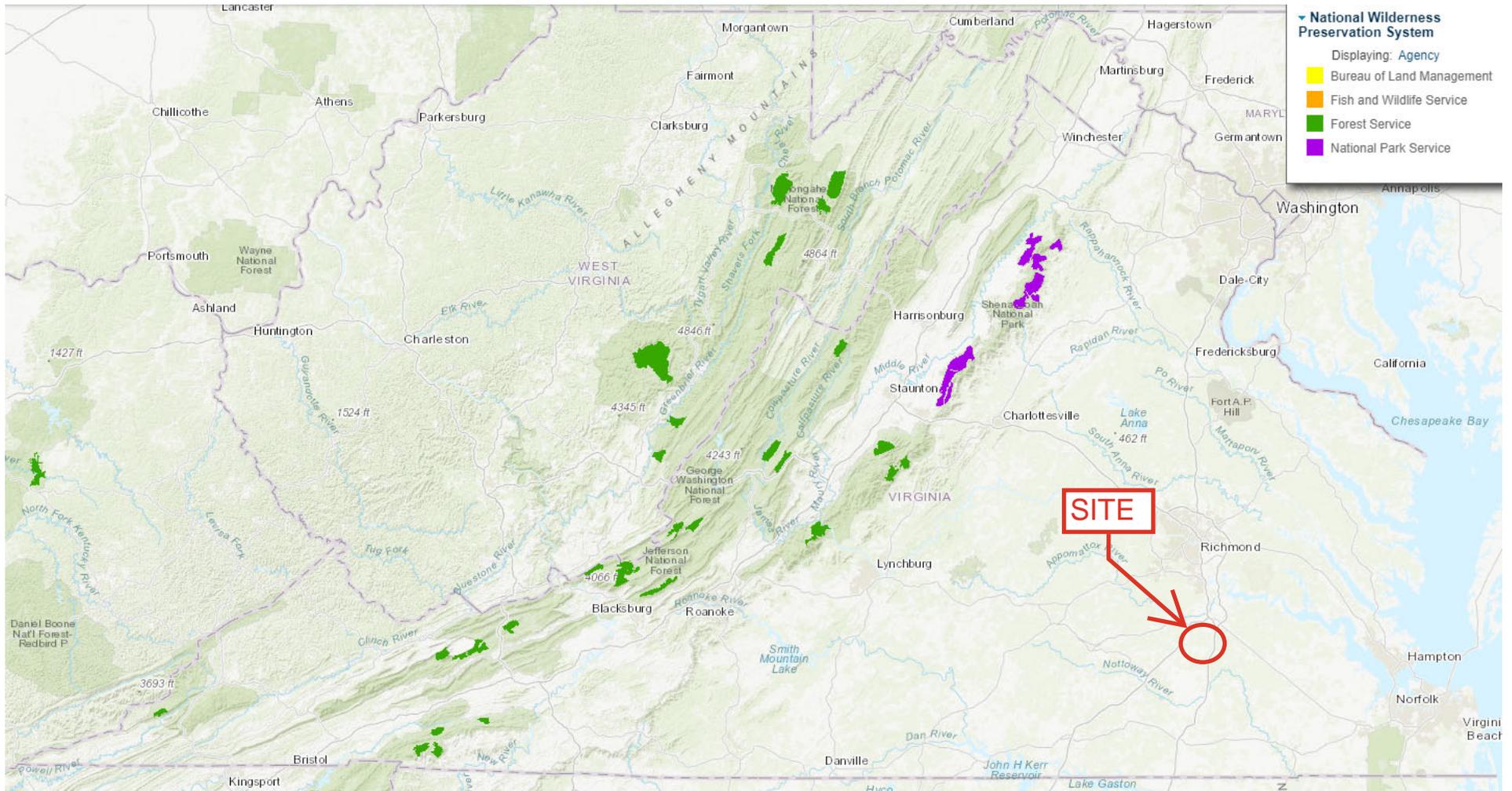
CELEBRATING AMERICA'S

# National Wilderness Preservation System



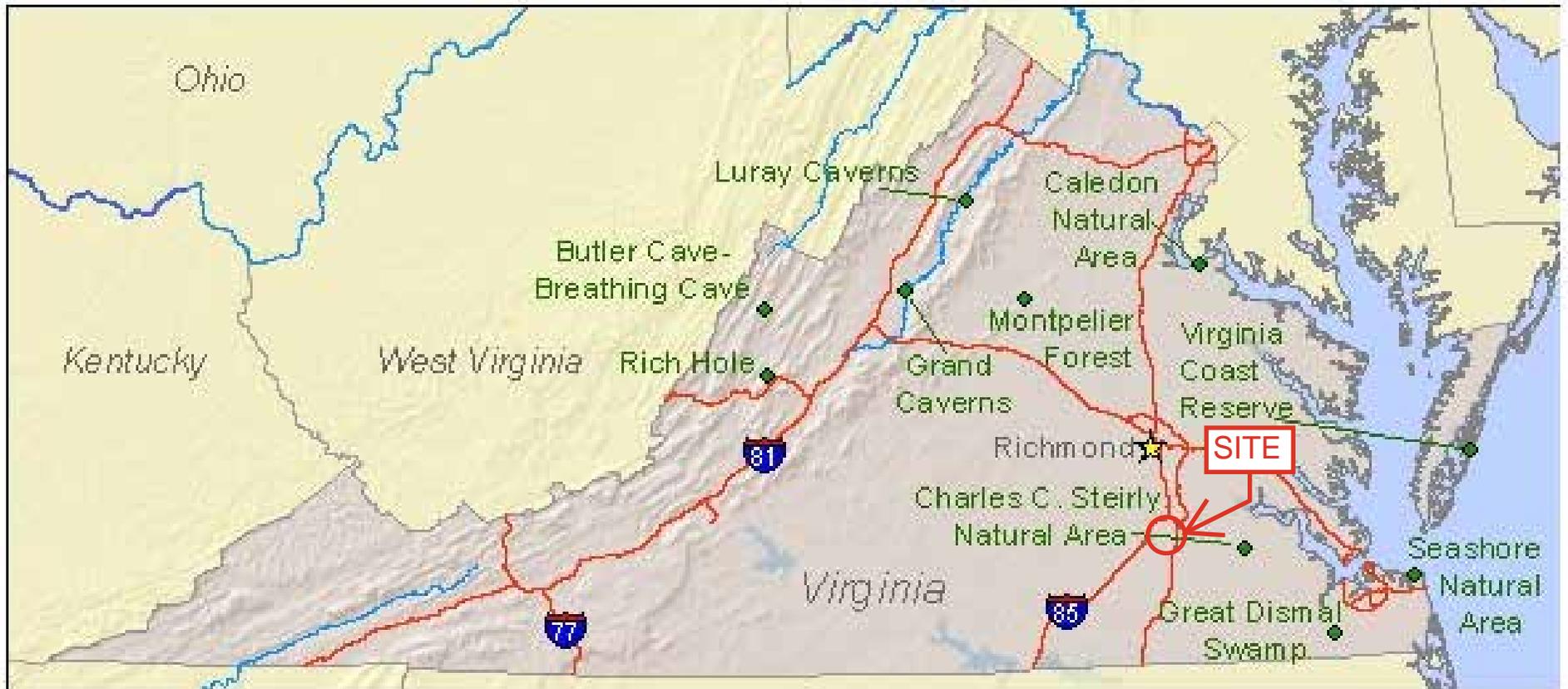
Source: U.S. Department of the Interior, Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. Forest Service, National Park Service, and U.S. Geological Survey. Data current as of 2012. © 2012 U.S. Department of the Interior. All rights reserved. U.S. Department of the Interior, Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. Forest Service, National Park Service, and U.S. Geological Survey.

# National Wilderness Preservation System- Virginia



<https://databasin.org/maps/b00f45a4f0b345589e3870df4b1520a3/active>

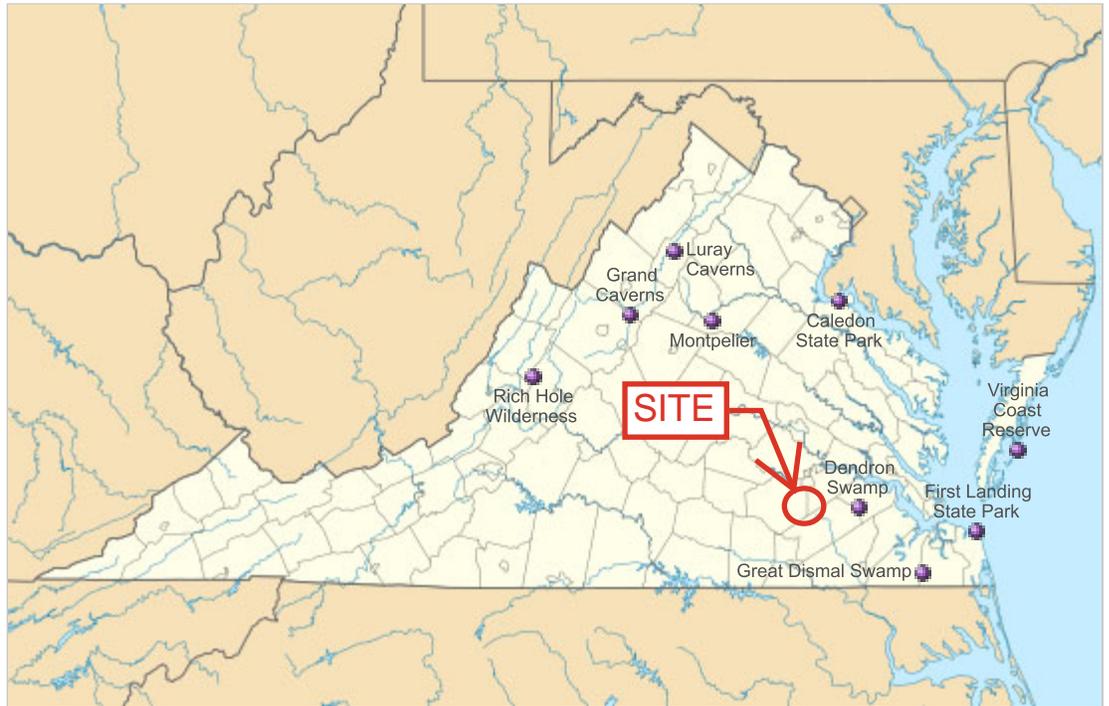
## National Natural Landmarks- Virginia



<https://www.nps.gov/subjects/nlandmarks/state.htm?State=VA>

# List of National Natural Landmarks in Virginia

The following table lists the 10 National Natural Landmarks within Virginia in the eastern United States. They are administered by the United States National Park Service.



Virginia National Natural Landmarks (clickable map)

	Name	Image	Date	Location	County	Ownership	Description
1	<u>Butler Cave-Breathing Cave</u>		1973		<u>Bath</u>	Private	Two major cave systems that contain a 40-foot (12 m) waterfall, a natural bridge, unusually fine crystalline formations, and an underground lake. Access is managed by the <u>Butler Cave Conservation Society</u> .
2	<u>Caledon Natural Area</u>		1974	<u>38.3525°N</u> <u>77.132778°W</u>	<u>King George</u>	State (state park)	One of the best examples of <u>oak-tulip poplar-dominated virgin upland forest</u> in the country.
3	<u>Charles C. Steirly Natural Area</u>		1974	<u>37.050833°N</u> <u>76.981111°W</u>	<u>Sussex</u>	State (Natural Area Preserve)	A small, essentially virgin stand of climax <u>bald cypress-water tupelo swamp forest</u> .
4	<u>Grand Caverns</u>		1973	<u>38.260278°N</u> <u>78.835278°W</u>	<u>Augusta</u>	Municipal	Contains unique shield formations as well as <u>draperies, flowstone, stalactites and stalagmites</u> .
5	<u>Great Dismal Swamp</u>		1972	<u>36.640876°N</u> <u>76.451797°W</u>	<u>Suffolk City</u>	Federal (National Wildlife Refuge)	A remnant of the original Great Dismal Swamp.
6	<u>Luray Caverns</u>		1973	<u>38.664306°N</u> <u>78.483806°W</u>	<u>Page</u>	Private	A cave ornately decorated with cascades, columns, stalactites, stalagmites and pools.
7	<u>Montpelier Forest</u>		1987	<u>38.219722°N</u> <u>78.169444°W</u>	<u>Orange</u>	Private	A mature forest dominated primarily by tulip poplar and <u>spicebush</u> , located on the grounds of President <u>James Madison's Montpelier estate</u> .
8	<u>Rich Hole</u>		1974	<u>37.871389°N</u> <u>79.638333°W</u>	<u>Rockbridge</u>	Federal (George Washington National Forest)	An outstanding example of a "cove" hardwood forest.

	Name	Image	Date	Location	County	Ownership	Description
9	<u>Seashore Natural Area</u>		1965	<u>36.906111°N</u> <u>76.015278°W</u>	<u>Virginia Beach</u>	State (state park)	Contains parallel dunes that are densely wooded with two distinct forest types of semitropical character.
10	<u>Virginia Coast Reserve</u>		1979	<u>37.4163°N</u> <u>75.689°W</u>	<u>Accomack, Northampton</u>	Private	Relatively undisturbed barrier island-lagoon complex. A refuge for migratory shorebirds, waterfowl and colonial nesting birds.

---

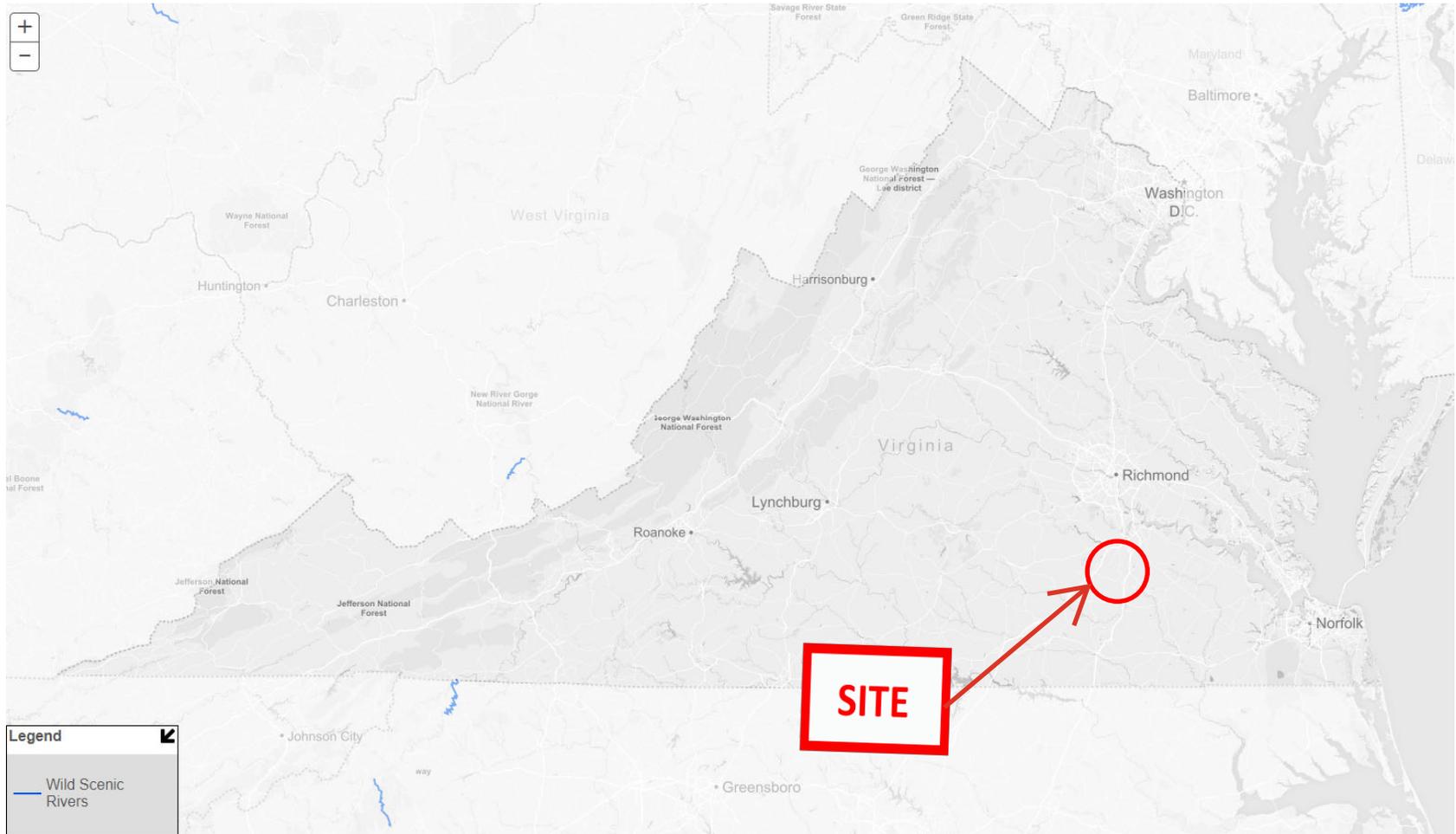
Retrieved from "[https://en.wikipedia.org/w/index.php?title=List\\_of\\_National\\_Natural\\_Landmarks\\_in\\_Virginia&oldid=892195253](https://en.wikipedia.org/w/index.php?title=List_of_National_Natural_Landmarks_in_Virginia&oldid=892195253)"

---

**This page was last edited on 12 April 2019, at 20:15 (UTC).**

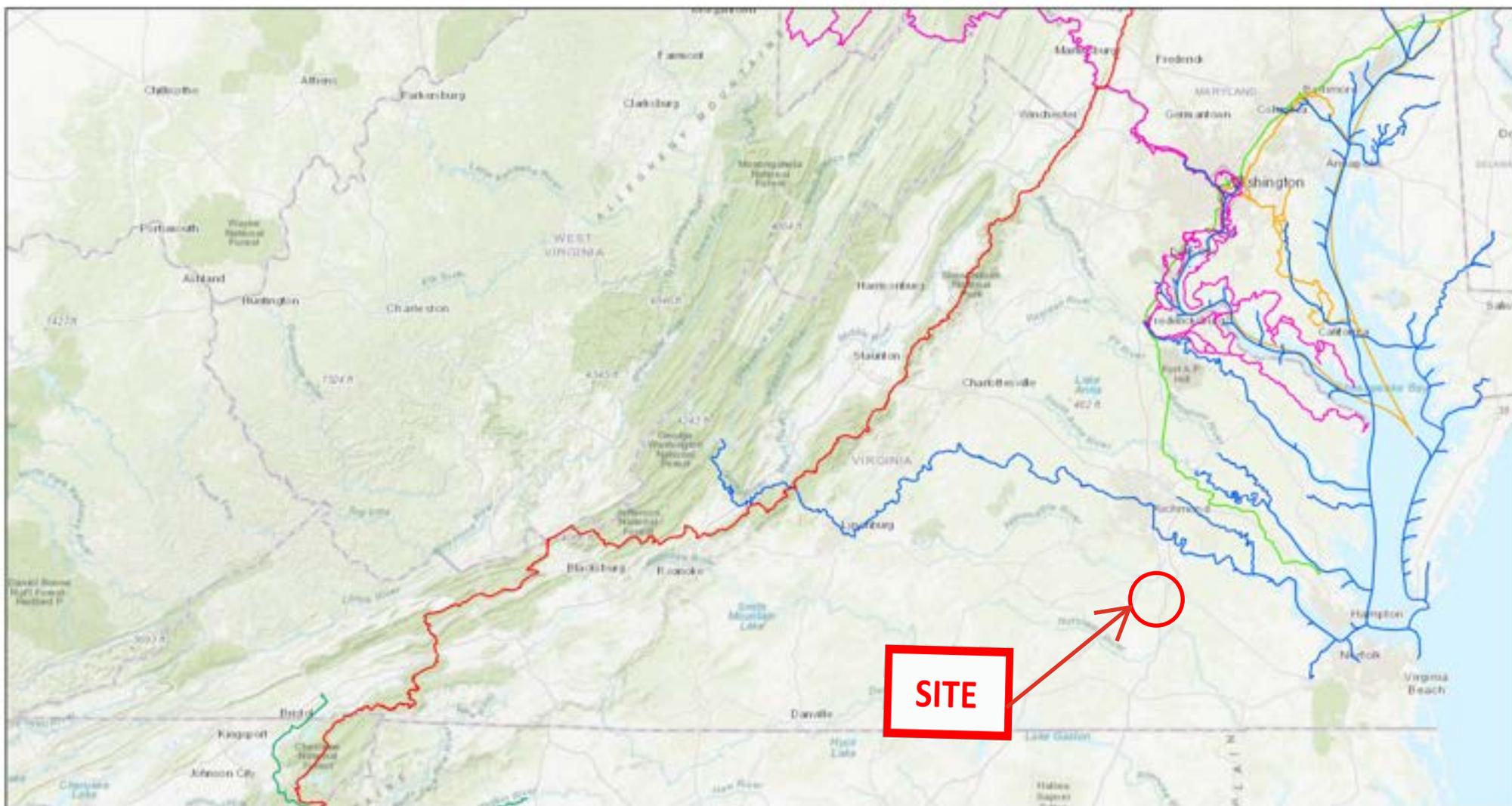
Text is available under the [Creative Commons Attribution-ShareAlike License](#); additional terms may apply. By using this site, you agree to the [Terms of Use](#) and [Privacy Policy](#). Wikipedia® is a registered trademark of the [Wikimedia Foundation, Inc.](#), a non-profit organization.

# National Wild and Scenic Rivers Map



<https://www.rivers.gov/river-app/index.html?state=VA>

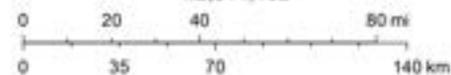
# ArcGIS Web Map



4/4/2019, 2:55:28 PM

- Appalachian NST
- Potomac Heritage NST
- Captain John Smith Chesapeake NHT
- Star-Spangled Banner NHT
- Overmountain Victory NHT
- Washington-Rochambeau NHT

1:2,311,162



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, © OpenStreetMap contributors, and the GIS User Community



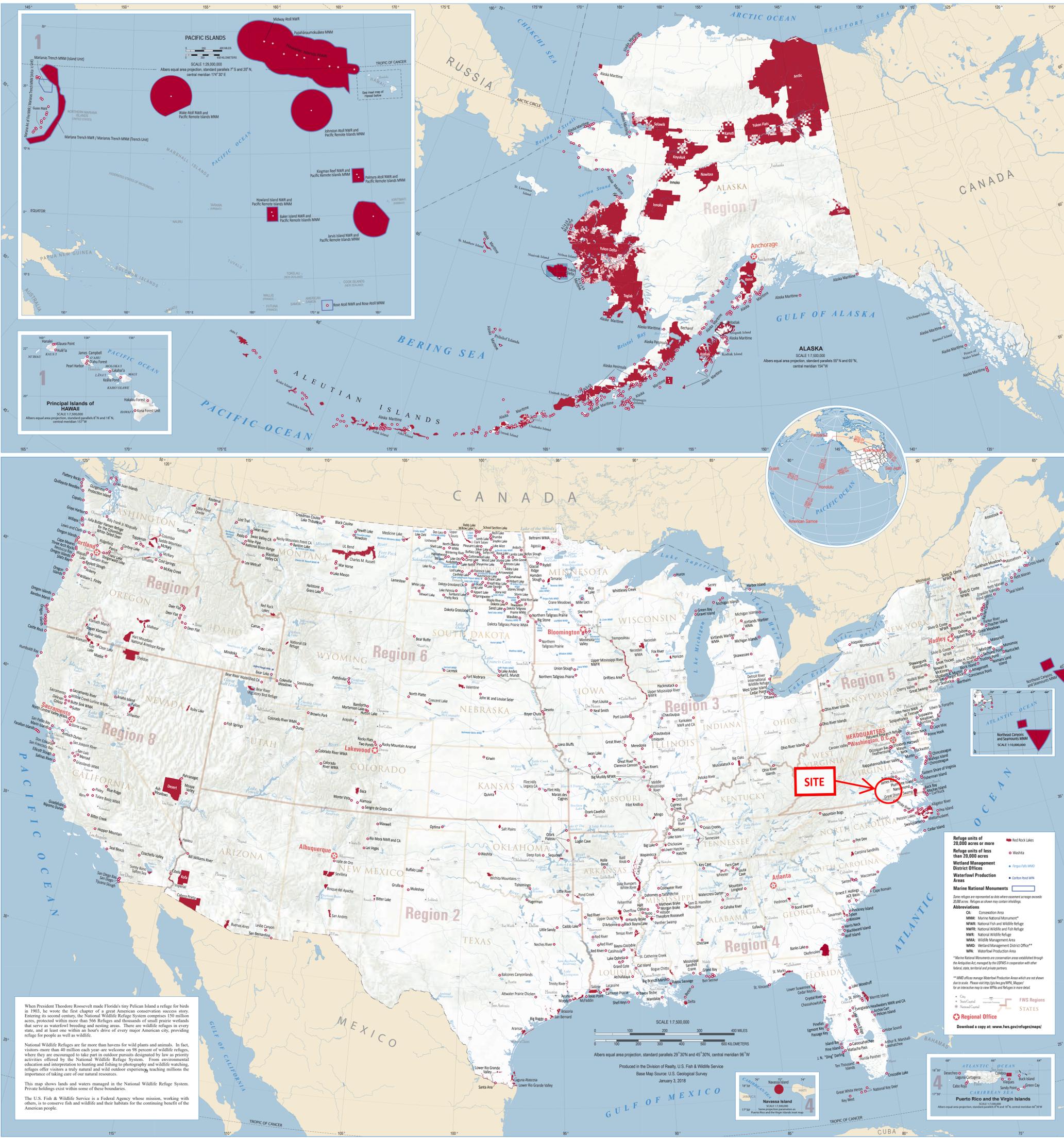
## **ATTACHMENT 2**

### **OFFICIALLY DESIGNATED WILDLIFE PRESERVES**



U.S. Fish & Wildlife Service

# National Wildlife Refuge System



# USFWS National Wildlife Refuges- Virginia

*Virginia*





## **ATTACHMENT 3**

### **LISTED/PROPOSED THREATENED AND ENDANGERED SPECIES**



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Virginia Field Office  
6669 Short Lane  
Gloucester, VA 23061



Date: 5/5/25

### **Self-Certification Letter**

Project Name: Carsons Substation

Dear Federal Action Agency:

Thank you for using the U.S. Fish and Wildlife Service (Service) Virginia Ecological Services online project review process. By submitting this letter, in conjunction with your project review package to our office for review, you are certifying that you have completed the online project review process for the project named above in accordance with all instructions provided, using the best available information to reach your determinations. From the date of receipt, our office has 60 days (50 CFR § 402.13(c)(2)) to review your project package. If we do not concur with the Section 7 determination(s) provided or if we have any questions/concerns regarding the information provided, you will be contacted. If you are not contacted during the 60-day review period, this letter and your project review package complete the review of your project in accordance with the Endangered Species Act (16 USC 1536), as amended (ESA). This letter also provides information for your project review under the National Environmental Policy Act of 1969 (P.L. 91-190, 42 USC 4321-4347, 83 Stat. 852), as amended. A copy of this letter and the project review package must be submitted to this office by the Federal action agency or their officially designated non-federal representative (per 50 CFR 402.08) for this self-certification letter to be valid. This letter and the project review package will be maintained in our records.

The ESA Section 7 Determination Table in the enclosed project review package summarizes your ESA analyses and determinations. These analyses resulted in a “no effect” and/or a “may affect, not likely to adversely affect” determination for proposed/listed species and/or proposed/designated critical habitat.

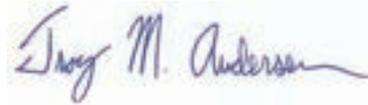
The use of the online project review process in strict accordance with the instructions provided as documented in the enclosed project review package resulted in reaching the appropriate determinations. Therefore, we concur with the not likely to adversely affect determination(s) for proposed/listed species and proposed/designated critical habitat provided in the ESA Section 7 Determination Table.

Should project plans change, surveys expire, or information on the distribution or status of proposed/listed species and/or proposed/designated critical habitat become available/change, this letter is no longer valid and you must submit an updated project package.

Note that under 50 CFR 402.12(e) of the regulations implementing Section 7 of the ESA, the accuracy of official species lists should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information.

Information about the online project review process including instructions and use, species information, and other information regarding project reviews within Virginia is available on our website (<https://www.fws.gov/office/virginia-ecological-services/virginia-field-office-online-review-process>). If you have any questions, please contact Troy Andersen of this office at (804) 728-0695.

Sincerely,

A handwritten signature in blue ink that reads "Troy M. Andersen". The signature is written in a cursive style with a long horizontal flourish at the end.

Troy Andersen  
Acting Field Supervisor  
Virginia Ecological Services

Enclosures - project review package

Stefanie K. Taillon  
*Secretary of Natural and Historic Resources*

Matthew S. Wells  
*Director*

Andrew W. Smith  
*Chief Deputy Director*



**COMMONWEALTH of VIRGINIA**  
**DEPARTMENT OF CONSERVATION AND RECREATION**

Frank N. Stovall  
*Deputy Director  
for Operations*

Darryl Glover  
*Deputy Director for  
Dam Safety,  
Floodplain Management and  
Soil and Water Conservation*

Laura Ellis  
*Deputy Director for  
Administration and Finance*

May 15, 2025

Brittany Hickman  
Tower Engineering Professionals  
326 Tryon Rd  
Raleigh, NC 27603

Re: Carsons Substation Cell Tower

Dear Ms. Hickman:

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

According to the information currently in Biotics, natural heritage resources have not been documented within the submitted project boundary including a 100 foot buffer. The absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources. In addition, the project boundary does not intersect any of the predictive models identifying potential habitat for natural heritage resources.

Furthermore, according to the United States Fish and Wildlife Service (USFWS) Guidance dated March 2021, "Given the height, structural engineering needs (i.e., guy wires), and obstruction lighting requirements, communication towers may cause direct and indirect bird mortality" (USFWS, 2021). Therefore, to reduce the risk of bird mortality at communication towers, DCR recommends comprehensive voluntary implementation of USFWS guidelines for Communication Tower Design, Siting, Construction, Operation, Maintenance and Decommissioning (<https://www.fws.gov/sites/default/files/documents/usfws-communication-tower-guidance.pdf>).

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

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

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

A fee of \$90.00 has been assessed for the service of providing this information. Please find attached an invoice for that amount. Please return one copy of the invoice along with your remittance made payable to the Treasurer of Virginia, DCR Finance, 600 East Main Street, 24<sup>th</sup> Floor, Richmond, VA 23219. Payment is due within thirty days of the invoice date. Please note late payment may result in the suspension of project review service for future projects.

The Virginia Department of Wildlife Resources (VDWR) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed at <https://svcgis.dwr.virginia.gov/fwis/> or contact Lee Brann at [Lee.Brann@dwr.virginia.gov](mailto:Lee.Brann@dwr.virginia.gov).

Should you have any questions or concerns, please contact me at 804-371-2672. Thank you for the opportunity to comment on this project.

Sincerely,

A handwritten signature in black ink, appearing to read "Olivia Etherton". The signature is fluid and cursive, with the first name "Olivia" being more prominent than the last name "Etherton".

Olivia Etherton  
Natural Heritage Project Review Assistant

#### Literature Cited

U.S. Fish and Wildlife Service (USFWS). 2021. Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning. Migratory Bird Program Guidance Document.

**COMMUNICATIONS TOWER SITE  
EVALUATION FORM**

1. Location (Provide maps if possible): 28908 Ellington Road Petersburg, VA 23805  
State: VA  
County: Dinwiddie County  
Latitude/Longitude/GPS Grid: N 37° 5' 4.54" W 77° 24' 25.17"
2. Elevation above mean sea level:  
Existing ground: 159.8-ft AMSL
3. Will the equipment be co-located on an existing FCC licensed tower or other existing structure (building, water tank, etc)? Y/N NO If yes, type of structure: N/A
4. If yes, will the compound be expanded: N/A  
If yes, will the tower be extended: N/A
5. If No, provide proposed specifications for the proposed tower:  
Height: 420-ft (424-ft AGL overall with appurtenances)  
Construction Type (lattice, monopole, etc.): Self-support, lattice  
Guyed-Wire? NO Bands: N/A Total No. Wires: 0  
Lightning (Security and Aviation): anticipated to be equipped with a dual-mode, medium intensity lighting system
6. Area of tower footprint in acres or square feet:  
Proposed lattice self-support tower within a proposed 75-ft x 50-ft fenced tower compound  
Proposed 50-ft x 20-ft access drive turnaround area  
Proposed 12-ft wide x ~200-ft long gravel access drive  
Proposed 4-ft x 3-ft stone pad  
Proposed class V 12-in diameter culvert  
Total area of disturbance: ~10,546-ft<sup>2</sup> (~0.24-acres)
7. Length and width of access road in feet:  
Length: ~200-ft      Width: 12-ft
8. General description of terrain (mountains, rolling hills, flat, flat to undulating, etc.). Photographs of the site and surrounding area are beneficial: Forested land
9. Meteorological conditions (incidence of fog, low ceilings, rain, etc.): September 23, 2024; cloudy
10. Soil Type(s): According to the USDA Web Soil Survey of Dinwiddie County, VA, the soils of the proposed action area were identified as Slagle sandy loam. Soils of the Cecil series are described as very deep, moderately well drained, and moderately slow or slowly permeable. They are found on marine terraces and uplands, and formed from marine deposits. A typical profile for Slagle sandy loam consists of sandy loam from 0 to 14-inches, sandy clay loam from 14 to 44-inches, and sandy loam from 44 to 72-inches below ground surface (BGS). According to the USDA List of Hydric Soils, Slagle sandy loam is not considered hydric within Dinwiddie County, VA.
11. Habitat types and land use on and adjacent to the site:

Habitat Type:	Acreage:	% of Total:
Forested land	0.24-acres	100%

Adjacent land use: forested, agricultural, and residential land

12. Dominant vegetative species in each habitat type:  
Forested land: muscadine (*Vitis rotundifolia*), poison ivy (*Toxicodendron radicans*), American sweetgum (*Liquidambar styraciflua*), loblolly pine (*Pinus taeda*), American holly (*Ilex opaca*), white oak (*Quercus alba*)
13. Average diameter breast height of dominant tree species in forested areas: 4 to 6-inches
14. Will construction at this site cause fragmentation of a larger block of habitat into two or more smaller blocks? Y/N NO If yes, describe: N/A
15. Is evidence of bird roosts or rookeries present? Y/N NO If yes, describe: N/A
16. Distance to nearest wetland area (forested swamp, marsh, riparian, marine, etc.), and coastline, if applicable: According to the USFWS National Wetland Inventory Mapper, the closest wetland area is a 0.53-acre freshwater emergent wetland located approximately 0.15-mi north-northeast of the proposed tower centerline.
17. Distance to nearest telecommunications tower: According to the FCC-ASR online registration search, the nearest registered tower is located approximately 0.24-miles north-northwest of the proposed tower centerline.
18. Potential for co-location of antennas on existing towers or other structures: Unknown
19. Have measures been incorporated for minimizing impacts to migratory birds? Y/N YES If yes, describe:  
The proposed tower is less than 450-ft AGL, is lattice in design, and does not utilize guy wires, minimizing the impact to migratory birds. The tower is not located on a mountaintop or in any other area known to exhibit frequent foggy conditions.

Has an evaluation been made to determine if the proposed facility may affect listed or proposed endangered or threatened species or their habitats as required by FCC regulations at 47 CFR 1.1307(a)(3)? Y/N YES If yes, present findings: During the on-site investigation, TEP observed no occurrences of state or federally listed threatened or endangered species for Dinwiddie County, VA or their preferred habitats. It is the opinion of TEP that the proposed action **will not jeopardize the continued existence of** and will have **no effect** on the monarch butterfly, and will have **no effect** on any additional protected species.

20. Additional information required:

Review of the USFWS – Dinwiddie County – Official Species List (Project Code: 2025-0086104) dated April 21, 2025, for the project identified the possible presence of one (1) federally proposed threatened species: monarch butterfly (*Danaus plexippus*). The site inspection on September 23, 2024 consisted of a pedestrian inspection of the proposed action area and immediate vicinity for indications of the presence of federally listed species and/or their critical habitats and preferred/suitable habitats, as described by the USFWS. According to the USFWS, there are no officially designated critical habitats on, or in the vicinity of the proposed action area.

**Summary of effects on federally proposed threatened species:**

Monarch butterfly (*Danaus plexippus*): Based on information obtained from the USFWS online database, monarch butterflies are long distance migrants in many regions. During the breeding season, monarchs lay their eggs on their obligate milkweed host plant (*Asclepias* spp.). Larvae develop through five instars feeding on milkweed. As adults, monarchs rely on native and non-native flowering plants, as forage during their migration, often feeding in open fields and meadows. In winter, this species can be found on the coast of southern California and in a small mountainous area in central Mexico. At the time of site inspection, no occurrences of federally listed species were observed, and the proposed project area was primarily occupied by forested land. Due to the lack of suitable habitat and milkweed observed within the proposed action area, it is the opinion of TEP that the proposed project action **will not jeopardize the continued existence of** and will have **no effect** on the monarch butterfly.

**Summary of effects on state listed species:**

TEP performed a search via the Virginia Fish and Wildlife Information Service (VAFWIS) for state-listed threatened and endangered species potentially occurring within 2-miles of the proposed project area. The results indicated six (6) state endangered terrestrial species and five (5) state threatened terrestrial species as being potentially located within 2-miles of the proposed project area. Additionally, VAFWIS identified two (2) state endangered aquatic species and two (2) state threatened aquatic species.

Suitable habitat for the northern long-eared bat (*Myotis septentrionalis*), the tricolored bat (*Perimyotis subflavus*), the little brown bat (*Myotis lucifugus*), and Rafinesque's eastern big-eared bat (*Corynorhinus rafinesquii macrotis*) was observed within the proposed action area. However, according to the Virginia Department of Wildlife Resources' Northern Long-eared Bat Regulatory Buffer Interactive Tool, the proposed action area is not located within any known occupied maternity roosts, roost tree buffers, hibernaculum buffers, or capture buffers associated with the northern long-eared bat. Therefore, based on the lack of proximity to known roost locations and lack of documented occurrences in the vicinity of the proposed action area, it is the opinion of TEP that the proposed action will have **no effect** on and **will not result in the incidental take of** the northern long-eared bat.

At the time of inspection, no occurrences of any state listed species were observed, and the proposed action area was primarily occupied by forested land. Due to the minimal amount of tree clearing associated with the proposed action and the proximity of the proposed action area to existing anthropogenic sources of disturbance, it is the opinion of TEP that the proposed action **will not result in the incidental take of** the tricolored bat, the little brown bat, and Rafinesque's eastern big-eared bat. Additionally, due to the lack of suitable habitat observed within the proposed action area, it is the opinion of TEP that the proposed action will have **no effect** on any of the additional identified state-listed species.

**Minimizing Impacts to Migratory Birds protected under the MBTA:**

The following siting and construction details were implemented in an attempt to comply with the recommendations of the Memorandum of Understanding, directed by the President of the U.S. under the Executive Order 13186, for minimizing impacts to migratory birds protected under the Migratory Bird Treaty Act and the USFWS Interim Guidelines for Recommendations on Communications Tower Siting, Construction, Operation, and Decommissioning. The proposed tower is less than 450-ft AGL, lattice in design, and will not utilize guy wires, minimizing the impacts to migratory birds. The tower is anticipated to be replacing an existing lit tower of similar height. The tower will also not be located on a mountaintop or in an area with a high incidence of fog. With regards to the Bald Eagle & Golden Eagle Protection Act, no occurrences were associated with the proposed action area and no active nests were observed in the vicinity of the proposed action area at the time of inspection.



## United States Department of the Interior



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

In Reply Refer To:  
Project Code: 2025-0086104  
Project Name: Carson Substation

12/03/2025 17:31:19 UTC

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

### To Whom It May Concern:

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

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

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

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

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

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

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

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

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

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

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

Attachment(s):

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

## **OFFICIAL SPECIES LIST**

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

This species list is provided by:

**Virginia Ecological Services Field Office**

6669 Short Lane

Gloucester, VA 23061-4410

(804) 693-6694

## PROJECT SUMMARY

Project Code: 2025-0086104

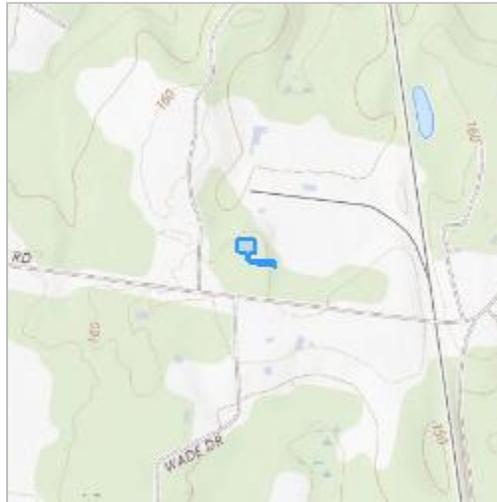
Project Name: Carson Substation

Project Type: Communication Tower New Construction

Project Description: Proposed construction of a 420-ft (424-ft AGL overall with appurtenances) self support communications tower within a proposed 75-ft x 50-ft fenced tower compound with an associated 50-ft x 20-ft access drive turnaround area, a 4-ft x 3-ft stone pad, a class V 12-in diameter culvert, and a proposed 12-ft wide x ~200-ft long gravel access drive.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@37.0844061,-77.40705306780248,14z>



Counties: Dinwiddie County, Virginia

## ENDANGERED SPECIES ACT SPECIES

There is a total of 1 threatened, endangered, or candidate species on this species list.

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

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

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

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

## INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is <b>proposed</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Proposed Threatened

## CRITICAL HABITATS

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

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

## USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

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

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

## BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act <sup>2</sup> and the Migratory Bird Treaty Act (MBTA) <sup>1</sup>. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

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

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act (MBTA). Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their nests, should follow appropriate regulations and implement required avoidance and minimization measures, as described in the various links on this page.

The data in this location indicates that no eagles have been observed in this area. This does not mean eagles are not present in your project area, especially if the area is difficult to survey. Please review the 'Steps to Take When No Results Are Returned' section of the Supplemental Information on Migratory Birds and Eagles document to determine if your project is in a poorly surveyed area. If it is, you may need to rely on other resources to determine if eagles may be present (e.g. your local FWS field office, state surveys, your own surveys).

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

## MIGRATORY BIRDS

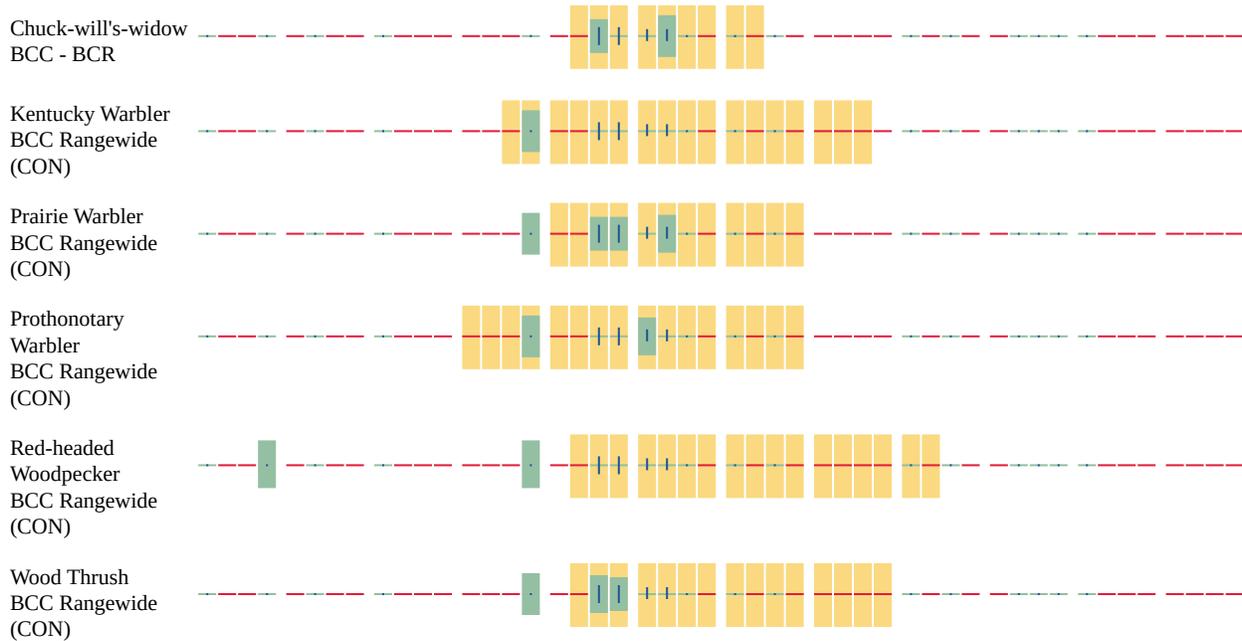
The Migratory Bird Treaty Act (MBTA) <sup>1</sup> prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

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

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9406">https://ecos.fws.gov/ecp/species/9406</a>	Breeds Mar 15 to Aug 25
Chuck-will's-widow <i>Antrostomus carolinensis</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/9604">https://ecos.fws.gov/ecp/species/9604</a>	Breeds May 10 to Jul 10
Kentucky Warbler <i>Geothlypis formosa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9443">https://ecos.fws.gov/ecp/species/9443</a>	Breeds Apr 20 to Aug 20
Prairie Warbler <i>Setophaga discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9513">https://ecos.fws.gov/ecp/species/9513</a>	Breeds May 1 to Jul 31



BCC Rangewide  
(CON)

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

## **IPAC USER CONTACT INFORMATION**

Agency: Private Entity  
Name: Brittany Hickman  
Address: 326 Tryon Rd  
City: Raleigh  
State: NC  
Zip: 27603  
Email: bhickman@tepgroup.net  
Phone: 6824593897

## **LEAD AGENCY CONTACT INFORMATION**

Lead Agency: Federal Communications Commission



# Virginia Department of Wildlife Resources

4/21/2025 4:07:00 PM

## Fish and Wildlife Information Service

VaFWIS Search Report Compiled on 4/21/2025, 4:07:00 PM

[Help](#)

Known or likely to occur within a 2 mile radius around point 37.0845940 -77.4069918 in 053 Dinwiddie County, 149 Prince George County, VA

[View Map of Site Location](#)

518 Known or Likely Species ordered by Status Concern for Conservation

<a href="#">BOVA Code</a>	<a href="#">Status*</a>	<a href="#">Tier**</a>	<a href="#">Common Name</a>	<a href="#">Scientific Name</a>	<a href="#">Confirmed</a>	<a href="#">Database(s)</a>
050022	FEST	Ia	<a href="#">Bat, northern long-eared</a>	Myotis septentrionalis		BOVA
010032	FESE	Ib	<a href="#">Sturgeon, Atlantic</a>	Acipenser oxyrinchus		BOVA
010214	FESE	IIa	<a href="#">Logperch, Roanoke</a>	Percina rex	<a href="#">Potential</a>	BOVA,Habitat
040110	FTSE	Ia	<a href="#">Rail, eastern black</a>	Laterallus jamaicensis jamaicensis		BOVA
040228	FTSE	Ia	<a href="#">Woodpecker, Red-cockaded</a>	Dryobates borealis		BOVA
060173	FTST	Ia	<a href="#">Pigtoe, Atlantic</a>	Fusconaia masoni		BOVA
060029	FTST	IIa	<a href="#">Lance, yellow</a>	Elliptio lanceolata		BOVA
010347	SE	Ia	<a href="#">Sunfish, blackbanded</a>	Enneacanthus chaetodon	<a href="#">Potential</a>	BOVA,Habitat
050020	SE	Ia	<a href="#">Bat, little brown</a>	Myotis lucifugus		BOVA
050034	SE	Ia	<a href="#">Bat, Rafinesque's eastern big-eared</a>	Corynorhinus rafinesquii macrotis		BOVA
050027	FPSE	Ia	<a href="#">Bat, tri-colored</a>	Perimyotis subflavus		BOVA
040096	ST	Ia	<a href="#">Falcon, peregrine</a>	Falco peregrinus		BOVA
040293	ST	Ia	<a href="#">Shrike, loggerhead</a>	Lanius ludovicianus		BOVA
040385	ST	Ia	<a href="#">Sparrow, Bachman's</a>	Peucaea aestivalis		BOVA
040292	ST		<a href="#">Shrike, migrant loggerhead</a>	Lanius ludovicianus migrans		BOVA
100079	FP	IIIa	<a href="#">Butterfly, Monarch</a>	Danaus plexippus		BOVA
030063	CC	IIIa	<a href="#">Turtle, spotted</a>	Clemmys guttata		BOVA
010174		Ia	<a href="#">Bass, Roanoke</a>	Ambloplites cavifrons		BOVA
010077		Ia	<a href="#">Shiner, bridle</a>	Notropis bifrenatus		BOVA
020002		IIa	<a href="#">Treefrog, barking</a>	Hyla gratiosa		BOVA
040052		IIa	<a href="#">Duck, American black</a>	Anas rubripes		BOVA



**VIA CERTIFIED MAIL, RETURN RECEIPT REQUESTED**

May 5, 2025

U.S. Fish and Wildlife Service  
Virginia Ecological Services Field Office  
6669 Short Lane  
Gloucester, VA 23061-4410

Re: Categorical exclusion regarding the construction of a 420-ft (424-ft overall with appurtenances) AGL lattice self-support communications tower  
28908 Ellington Road  
Petersburg, VA 23805  
(Dinwiddie County)  
Dominion Site: **Carsons Substation**

To Whom it May Concern,

Dominion Energy partnered with TEP OpCo, LLC (TEP) to provide environmental consultation services for the proposed Carsons Substation telecommunications facility. TEP is acting as the designated non-federal representative and submitting the project on behalf of the FCC. TEP personnel's investigation of the site has determined that the proposed action **will not jeopardize the continued existence of** and will have **no effect** on the monarch butterfly and will have **no effect** on any other federally listed, proposed, or candidate threatened or endangered species and their listed/proposed critical habitats. Concurrence from the Service for "no effect" determinations are not required under Section 7 of the Endangered Species Act; however, we are submitting the following information for your review and comments regarding impacts to protected species for the purpose of completing an FCC NEPA Environmental Compliance Checklist for the following telecommunications tower, and to comply with federal wildlife laws and regulations. The intent of the checklist is to establish the basis for a Categorical Exclusion of the construction of the proposed telecommunications tower. Please provide any comments within thirty days of receipt of this letter. If no comments are received within 30 days, we will proceed with the assumption that there are no objections to the proposed project. Correspondence was also sent to the Virginia Department of Conservation and Recreation's Natural Heritage Program in regard to state protected species.

The characteristics of the site and the vicinity are described as follows:

**Site Location and Specifics:**

The proposed tower compound is located at 28908 Ellington Road, south of the City of Petersburg, in Dinwiddie County, Virginia (Dinwiddie County Parcel #49-31A). The proposed project consists of the proposed construction of a 420-ft (424-ft AGL overall with appurtenances) self-support communications tower within a proposed 75-ft x 50-ft fenced tower compound with an associated 50-ft x 20-ft access drive turnaround area, a 4-ft x 3-ft stone pad, a class V 12-in diameter culvert, and a proposed 12-ft wide x ~200-ft long gravel access drive. The proposed action area is located in a portion of Dinwiddie County, VA that is primarily occupied by forested, agricultural, and residential land.

The 1-A coordinates of the tower location are as follows:

**Latitude:** 37° 5' 4.54" NAD 83 (37.084594°)  
**Longitude:** -77° 24' 25.17" NAD 83 (-77.406992°)

### **Action Area Description and Effects:**

The proposed action area is anticipated to include a proposed 420-ft (424-ft AGL overall with appurtenances) self-support communications tower within a proposed 75-ft x 50-ft fenced tower compound with an associated 50-ft x 20-ft access drive turnaround area, a 4-ft x 3-ft stone pad, a class V 12-in diameter culvert, and a proposed 12-ft wide x ~200-ft long gravel access drive. The total ground disturbance associated with the proposed action is anticipated to be ~10,546-ft<sup>2</sup> (~0.24-acres).

According to the USDA Web Soil Survey of Dinwiddie County, VA, the soils of the proposed action area were identified as Slagle sandy loam. Soils of the Cecil series are described as very deep, moderately well drained, and moderately slow or slowly permeable. They are found on marine terraces and uplands and formed from marine deposits. A typical profile for Slagle sandy loam consists of sandy loam from 0 to 14-inches, sandy clay loam from 14 to 44-inches, and sandy loam from 44 to 72-inches below ground surface (BGS). According to the USDA List of Hydric Soils, Slagle sandy loam is not considered hydric within Dinwiddie County, VA.

Review of the USFWS – Dinwiddie County – Official Species List (Project Code: 2025-0086104) dated April 21, 2025, for the project identified the possible presence of one (1) federally proposed threatened species: monarch butterfly (*Danaus plexippus*). The site inspection on September 23, 2024 consisted of a pedestrian inspection of the proposed action area and immediate vicinity for indications of the presence of federally listed species and/or their critical habitats and preferred/suitable habitats, as described by the USFWS. According to the USFWS, there are no officially designated critical habitats on, or in the vicinity of the proposed action area.

### **Summary of effects on federally proposed threatened species:**

Monarch butterfly (*Danaus plexippus*): Based on information obtained from the USFWS online database, monarch butterflies are long distance migrants in many regions. During the breeding season, monarchs lay their eggs on their obligate milkweed host plant (*Asclepias* spp.). Larvae develop through five instars feeding on milkweed. As adults, monarchs rely on native and non-native flowering plants, as forage during their migration, often feeding in open fields and meadows. In winter, this species can be found on the coast of southern California and in a small mountainous area in central Mexico. At the time of site inspection, no occurrences of federally listed species were observed, and the proposed project area was primarily occupied by forested land. Due to the lack of suitable habitat and milkweed observed within the proposed action area, it is the opinion of TEP that the proposed project action **will not jeopardize the continued existence of** and will have **no effect** on the monarch butterfly.

### **Minimizing Impacts to Migratory Birds protected under the MBTA:**

The following siting and construction details were implemented in an attempt to comply with the recommendations of the Memorandum of Understanding, directed by the President of the U.S. under the Executive Order 13186, for minimizing impacts to migratory birds protected under the Migratory Bird Treaty Act and the USFWS Interim Guidelines for Recommendations on Communications Tower Siting, Construction, Operation, and Decommissioning. The proposed tower is less than 450-ft AGL, lattice in design, and will not utilize guy wires, minimizing the impacts to migratory birds. The tower is anticipated to be replacing an existing lit tower of similar height. The tower will also not be located on a mountaintop or in an area with a high incidence of fog. With regards to the Bald Eagle & Golden Eagle Protection Act, no occurrences were associated with the proposed action area and no active nests were observed in the vicinity of the proposed action area at the time of inspection.

### **Conclusion**

We have enclosed a portion of the pertinent USGS 7.5-Minute Topographic Quadrangle, site plans, and site photographs. We request any comments you have regarding our determination that the proposed action **will not jeopardize the continued existence of** and will have **no effect** on the monarch butterfly and will have **no effect** on any federally or state-listed threatened and endangered species, for the purpose of completing an FCC NEPA Environmental Compliance Checklist for the aforementioned telecommunications tower. If no comments are

received within 30 days, we will proceed with the assumption that there are no objections to the proposed project. If there are any questions or if further information is needed for the processing of this request, please do not hesitate to call or email. Thank you for your cooperation and assistance.

Should there be any questions concerning this application, please contact Kayla Stanley at [kayla.stanley@dominionenergy.com](mailto:kayla.stanley@dominionenergy.com).

Sincerely,

A handwritten signature in black ink, appearing to read "Rachel W. Snead". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Rachel W Snead  
General Manager, Environmental

Enclosures:

USGS 7.5-Minute topographic quadrangle

Site plan

Site photographs



## CERTIFIED MAIL, RETURN RECEIPT REQUESTED

May 5, 2025

Virginia Department of Conservation and Recreation  
Natural Heritage Program  
600 E. Main St., 24<sup>th</sup> Floor  
Richmond, VA 23219

Re: Request for comments regarding the construction of a 420-ft (424-ft overall with appurtenances) AGL lattice self-support communications tower  
28908 Ellington Road  
Petersburg, VA 23805  
(Dinwiddie County)  
Dominion Site: **Carsons Substation**

To Whom it May Concern,

Dominion Energy partnered with TEP OpCo, LLC (TEP) to provide environmental consultation services for the proposed Carsons Substation telecommunications facility. TEP is acting as the designated non-federal representative and submitting the project on behalf of the FCC. TEP personnel's investigation of the site has determined that the proposed action **will not jeopardize the continued existence of** and will have **no effect** on the monarch butterfly, will have **no effect** on and **will not result in the incidental take of** the northern long-eared bat, the tricolored bat, the little brown bat, and Rafinesque's eastern big-eared bat, and will have **no effect** on any additional state or federally listed, proposed, or candidate threatened or endangered species and their listed/proposed critical habitats. We are submitting the following information for your review and comments regarding impacts to protected species for the purpose of completing an FCC NEPA Environmental Compliance Checklist for the aforementioned telecommunications tower and to comply with federal wildlife laws and regulations. The intent of the checklist is to establish the basis for a Categorical Exclusion of the construction of the proposed telecommunications tower. We request your concurrence with the aforementioned species determinations for the proposed construction project. Correspondence is also being sent to the USFWS Virginia Ecological Field Services Office in regard to federally protected species.

The characteristics of the site and the vicinity are described as follows:

### **Site Location and Specifics:**

The proposed tower compound is located at 28908 Ellington Road, south of the City of Petersburg, in Dinwiddie County, Virginia (Dinwiddie County Parcel #49-31A). The proposed project consists of the proposed construction of a 420-ft (424-ft AGL overall with appurtenances) self-support communications tower within a proposed 75-ft x 50-ft fenced tower compound with an associated 50-ft x 20-ft access drive turnaround area, a 4-ft x 3-ft stone pad, a class V 12-in diameter culvert, and a proposed 12-ft wide x ~200-ft long gravel access drive. The proposed action area is located in a portion of Dinwiddie County, VA that is primarily occupied by forested, agricultural, and residential land.

The 1-A coordinates of the tower location are as follows:

**Latitude:** 37° 5' 4.54" NAD 83 (37.084594°)

**Longitude:** -77° 24' 25.17" NAD 83 (-77.406992°)

#### **Action Area Description and Effects:**

The proposed action area is anticipated to include a proposed 420-ft (424-ft AGL overall with appurtenances) self-support communications tower within a proposed 75-ft x 50-ft fenced tower compound with an associated 50-ft x 20-ft access drive turnaround area, a 4-ft x 3-ft stone pad, a class V 12-in diameter culvert, and a proposed 12-ft wide x ~200-ft long gravel access drive. The total ground disturbance associated with the proposed action is anticipated to be ~10,546-ft<sup>2</sup> (~0.24-acres).

According to the USDA Web Soil Survey of Dinwiddie County, VA, the soils of the proposed action area were identified as Slagle sandy loam. Soils of the Cecil series are described as very deep, moderately well drained, and moderately slow or slowly permeable. They are found on marine terraces and uplands and formed from marine deposits. A typical profile for Slagle sandy loam consists of sandy loam from 0 to 14-inches, sandy clay loam from 14 to 44-inches, and sandy loam from 44 to 72-inches below ground surface (BGS). According to the USDA List of Hydric Soils, Slagle sandy loam is not considered hydric within Dinwiddie County, VA.

Review of the USFWS – Dinwiddie County – Official Species List (Project Code: 2025-0086104) dated April 21, 2025, for the project identified the possible presence of one (1) federally proposed threatened species: monarch butterfly (*Danaus plexippus*). The site inspection on September 23, 2024 consisted of a pedestrian inspection of the proposed action area and immediate vicinity for indications of the presence of federally listed species and/or their critical habitats and preferred/suitable habitats, as described by the USFWS. According to the USFWS, there are no officially designated critical habitats on, or in the vicinity of the proposed action area.

#### **Summary of effects on federally proposed threatened species:**

Monarch butterfly (*Danaus plexippus*): Based on information obtained from the USFWS online database, monarch butterflies are long distance migrants in many regions. During the breeding season, monarchs lay their eggs on their obligate milkweed host plant (*Asclepias* spp.). Larvae develop through five instars feeding on milkweed. As adults, monarchs rely on native and non-native flowering plants, as forage during their migration, often feeding in open fields and meadows. In winter, this species can be found on the coast of southern California and in a small mountainous area in central Mexico. At the time of site inspection, no occurrences of federally listed species were observed, and the proposed project area was primarily occupied by forested land. Due to the lack of suitable habitat and milkweed observed within the proposed action area, it is the opinion of TEP that the proposed project action **will not jeopardize the continued existence of** and will have **no effect** on the monarch butterfly.

#### **Summary of effects on state listed species:**

TEP performed a search via the Virginia Fish and Wildlife Information Service (VAFWIS) for state-listed threatened and endangered species potentially occurring within 2-miles of the proposed project area. The results indicated six (6) state endangered terrestrial species and five (5) state threatened terrestrial species as being potentially located within 2-miles of the proposed project area. Additionally, VAFWIS identified two (2) state endangered aquatic species and two (2) state threatened aquatic species.

Suitable habitat for the northern long-eared bat (*Myotis septentrionalis*), the tricolored bat (*Perimyotis subflavus*), the little brown bat (*Myotis lucifugus*), and Rafinesque's eastern big-eared bat (*Corynorhinus rafinesquii macrotis*) was observed within the proposed action area. However, according to the Virginia Department of Wildlife Resources' Northern Long-eared Bat Regulatory Buffer Interactive Tool, the proposed action area is not located within any known occupied maternity roosts, roost tree buffers, hibernaculum buffers, or capture buffers associated with the northern long-eared bat. Therefore, based on the lack of proximity to known roost locations

and lack of documented occurrences in the vicinity of the proposed action area, it is the opinion of TEP that the proposed action will have **no effect** on and **will not result in the incidental take of** the northern long-eared bat.

At the time of inspection, no occurrences of any state listed species were observed, and the proposed action area was primarily occupied by forested land. Due to the minimal amount of tree clearing associated with the proposed action and the proximity of the proposed action area to existing anthropogenic sources of disturbance, it is the opinion of TEP that the proposed action **will not result in the incidental take of** the tricolored bat, the little brown bat, and Rafinesque's eastern big-eared bat. Additionally, due to the lack of suitable habitat observed within the proposed action area, it is the opinion of TEP that the proposed action will have **no effect** on any of the additional identified state-listed species.

#### **Minimizing Impacts to Migratory Birds protected under the MBTA:**

The following siting and construction details were implemented in an attempt to comply with the recommendations of the Memorandum of Understanding, directed by the President of the U.S. under the Executive Order 13186, for minimizing impacts to migratory birds protected under the Migratory Bird Treaty Act and the USFWS Interim Guidelines for Recommendations on Communications Tower Siting, Construction, Operation, and Decommissioning. The proposed tower is less than 450-ft AGL, lattice in design, and will not utilize guy wires, minimizing the impacts to migratory birds. The tower is anticipated to be replacing an existing lit tower of similar height. The tower will also not be located on a mountaintop or in an area with a high incidence of fog. With regards to the Bald Eagle & Golden Eagle Protection Act, no occurrences were associated with the proposed action area and no active nests were observed in the vicinity of the proposed action area at the time of inspection.

#### **Conclusion**

We have enclosed a portion of the pertinent USGS 7.5-Minute Topographic Quadrangle, site plans, and site photographs. We request any comments you have regarding our determination that the proposed action **will not jeopardize the continued existence of** and will have **no effect** on the monarch butterfly, will have **no effect** on and **will not result in the incidental take of** the northern long-eared bat, the tricolored bat, the little brown bat, and Rafinesque's eastern big-eared bat, and will have **no effect** on any additional federally or state-listed threatened and endangered species, for the purpose of completing an FCC NEPA Environmental Compliance Checklist for the aforementioned telecommunications tower. If no comments are received within 30 days, we will proceed with the assumption that there are no objections to the proposed project. If there are any questions or if further information is needed for the processing of this request, please do not hesitate to call or email. Thank you for your cooperation and assistance.

Should there be any questions concerning this application, please contact Kayla Stanley at [kayla.stanley@dominionenergy.com](mailto:kayla.stanley@dominionenergy.com).

Sincerely,



Rachel W Snead  
General Manager, Environmental

Enclosures:

USGS 7.5-Minute topographic quadrangle

Site plan

Site photographs



## **ATTACHMENT 4**

### **SECTION 106 – SHPO**



TEP-TCNS inbox &lt;tcns@tepgroup.net&gt;

---

**Section 106 Notification of SHPO/THPO Concurrence- Email ID #11813886**

1 message

---

**towernotifyinfo@fcc.gov** <towernotifyinfo@fcc.gov>  
To: tcns@tepgroup.net

Thu, Nov 20, 2025 at 4:46 PM

---

**This Message Is From an External Sender**

This message came from outside your organization.

This is to notify you that the Lead SHPO/THPO has concurred with the following filing:

Date of Action: 11/20/2025

Direct Effect: No Adverse Effect on Historic Properties in APE

Visual Effect: No Adverse Effect on Historic Properties in APE

Comment Text: None

File Number: 0011556200

TCNS Number: 293757

Purpose: New Tower Submission Packet

Notification Date: 7AM EST 05/06/2025

Applicant: Dominion Energy

Consultant: TEP OPCO, LLC

Positive Train Control Filing Subject to Expedited Treatment Under Program Comment: No

Site Name: Carson Substation

Site Address: [28908 Ellington Road](#)

Detailed Description of Project: Proposed construction of a 420-ft AGL (424-ft AGL overall with appurtenances) self-support communications tower and its associated compound facility to be located in Dinwiddie County, VA.

Site Coordinates: 37-5-4.5 N, 77-24-25.2 W

City: Petersburg

County: DINWIDDIE

State: VA

Lead SHPO/THPO: Virginia Department of Historic Resources

**NOTICE OF FRAUDULENT USE OF SYSTEM, ABUSE OF PASSWORD AND RELATED MISUSE**

Use of the Section 106 system is intended to facilitate consultation under Section 106 of the National Historic Preservation Act and may contain information that is confidential, privileged or otherwise protected from disclosure under applicable laws. Any person having access to Section 106 information shall use it only for its intended purpose. Appropriate action will be taken with respect to any misuse of the system.

Notification Date: 7AM EST 05/06/2025

New Tower ("NT") Submission Packet

See instructions for  
public burden estimates

File Number: 0011556200

General Information

1) (Select only one) ( <b>NE</b> ) <b>NE</b> – New <b>UA</b> – Update of Application <b>WD</b> – Withdrawal of Application	
2) If this application is for an Update or Withdrawal, enter the file number of the pending application currently on file.	File Number:

Applicant Information

3) FCC Registration Number (FRN): <b>0002073492</b>
4) Name: <b>Dominion Energy</b>

Contact Name

5) First Name: <b>Kayla</b>	6) MI:	7) Last Name: <b>Stanley</b>	8) Suffix:
9) Title: <b>Environmental Specialist</b>			

Contact Information

10) P.O. Box:	<b>And /Or</b>	11) Street Address: <b>120 Tredegar Street</b>	
12) City: <b>Richmond</b>		13) State: <b>VA</b>	14) Zip Code: <b>23219</b>
15) Telephone Number: <b>(804)837-9194</b>		16) Fax Number:	
17) E-mail Address: <b>kayla.stanley@dominionenergy.com</b>			

Consultant Information

18) FCC Registration Number (FRN): <b>0018456921</b>
19) Name: <b>TEP OPCO, LLC</b>

Principal Investigator

20) First Name: <b>Garrett</b>	21) MI:	22) Last Name: <b>Johnson</b>	23) Suffix:
24) Title:			

Principal Investigator Contact Information

25) P.O. Box:	<b>And /Or</b>	26) Street Address: <b>326 Tryon Road</b>	
27) City: <b>Raleigh</b>		28) State: <b>NC</b>	29) Zip Code: <b>27603</b>
30) Telephone Number: <b>(919)661-6351</b>		31) Fax Number:	
32) E-mail Address: <b>tcns@tepgroup.net</b>			

**Professional Qualification**

33) Does the Principal Investigator satisfy the Secretary of the Interior's Professional Qualification Standards?	( <input checked="" type="checkbox"/> ) <u>Y</u> es ( <input type="checkbox"/> ) <u>N</u> o
34) Areas of Professional Qualification: ( <input checked="" type="checkbox"/> ) Archaeologist ( <input type="checkbox"/> ) Architectural Historian ( <input type="checkbox"/> ) Historian ( <input type="checkbox"/> ) Architect ( <input type="checkbox"/> ) Other (Specify) _____	

**Additional Staff**

35) Are there other staff involved who meet the Professional Qualification Standards of the Secretary of the Interior?	( <input type="checkbox"/> ) <u>Y</u> es ( <input checked="" type="checkbox"/> ) <u>N</u> o
--	---

If "YES," complete the following:

36) First Name:	37) MI:	38) Last Name:	39) Suffix:
40) Title:			
41) Areas of Professional Qualification: ( <input type="checkbox"/> ) Archaeologist ( <input type="checkbox"/> ) Architectural Historian ( <input type="checkbox"/> ) Historian ( <input type="checkbox"/> ) Architect ( <input type="checkbox"/> ) Other (Specify) _____			

## Site Information

### Tower Construction Notification System

1) TCNS Notification Number: **293757**

### Site Information

2) Positive Train Control Filing Subject to Expedited Treatment Under Program Comment: ( ) Yes ( **X** ) No

3) Site Name: **Carson Substation**

4) Site Address: **28908 Ellington Road**

5) Detailed Description of Project:

**Proposed construction of a 420-ft AGL (424-ft AGL overall with appurtenances) self-support communications tower and its associated compound facility to be located in Dinwiddie County, VA.**

6) City: **Petersburg**

7) State: **VA**

8) Zip Code: **23805**

9) County/Borough/Parish: **DINWIDDIE**

10) Nearest Crossroads: **Ellington Road and Wade Drive**

11) NAD 83 Latitude (DD-MM-SS.S): **37-05-04.5**

( **X** ) N or ( ) S

12) NAD 83 Longitude (DD-MM-SS.S): **077-24-25.2**

( ) E or ( **X** ) W

### Tower Information

13) Tower height above ground level (include top-mounted attachments such as lightning rods): **129.3** ( ) Feet ( **X** ) Meters

14) Tower Type (Select One):

( ) Guyed lattice tower

( **X** ) Self-supporting lattice

( ) Monopole

( ) Other (Describe):

### Project Status

15) Current Project Status (Select One):

( **X** ) Construction has not yet commenced

( ) Construction has commenced, but is not completed

Construction commenced on: \_\_\_\_\_

( ) Construction has been completed

Construction commenced on: \_\_\_\_\_

Construction completed on: \_\_\_\_\_

**Determination of Effect**

14) Direct Effects (Select One):

- No Historic Properties in Area of Potential Effects (APE)
- No Effect on Historic Properties in APE
- No Adverse Effect on Historic Properties in APE
- Adverse Effect on one or more Historic Properties in APE

15) Visual Effects (Select One):

- No Historic Properties in Area of Potential Effects (APE)
- No Effect on Historic Properties in APE
- No Adverse Effect on Historic Properties in APE
- Adverse Effect on one or more Historic Properties in APE

### Tribal/NHO Involvement

1) Have Indian Tribes or Native Hawaiian Organizations (NHOs) been identified that may attach religious and cultural significance to historic properties which may be affected by the undertaking within the APEs for direct and visual effects?	( <input checked="" type="checkbox"/> ) <u>Y</u> es (    ) <u>N</u> o
2a) Tribes/NHOs contacted through TCNS Notification Number: <u>293757</u> Number of Tribes/NHOs: <u>12</u>	
2b) Tribes/NHOs contacted through an alternate system:    Number of Tribes/NHOs: <u>0</u>	

#### Tribe/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Bad River Band of Lake Superior Tribe of Chippewa Indians</b>

#### Contact Name

5) First Name: <b>Lawrence</b>	6) MI:	7) Last Name: <b>Plucinski</b>	8) Suffix:
9) Title: <b>THPO</b>			

#### Dates & Response

10) Date Contacted <u>04/02/2025</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
(    ) Replied/No Interest	
(    ) Replied/Have Interest	
(    ) Replied/Other	

#### Tribe/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Catawba Indian Nation</b>

#### Contact Name

5) First Name: <b>Dr. Wenonah</b>	6) MI: <b>G</b>	7) Last Name: <b>Haire</b>	8) Suffix: <b>DMD</b>
9) Title: <b>THPO and Executive Director</b>			

#### Dates & Response

10) Date Contacted <u>04/03/2025</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
(    ) Replied/No Interest	
(    ) Replied/Have Interest	
(    ) Replied/Other	

### Tribal/NHO Involvement

1) Have Indian Tribes or Native Hawaiian Organizations (NHOs) been identified that may attach religious and cultural significance to historic properties which may be affected by the undertaking within the APEs for direct and visual effects?	( <input checked="" type="checkbox"/> ) <b>Yes</b> ( <input type="checkbox"/> ) <b>No</b>
2a) Tribes/NHOs contacted through TCNS Notification Number: <u>293757</u> Number of Tribes/NHOs: <u>12</u>	
2b) Tribes/NHOs contacted through an alternate system:      Number of Tribes/NHOs: <u>0</u>	

#### Tribal/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Chickahominy Indian Tribe</b>

#### Contact Name

5) First Name: <b>Stephen</b>	6) MI:	7) Last Name: <b>Adkins</b>	8) Suffix:
9) Title: <b>Chief</b>			

#### Dates & Response

10) Date Contacted <u>04/02/2025</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
( <input type="checkbox"/> ) Replied/No Interest	
( <input type="checkbox"/> ) Replied/Have Interest	
( <input type="checkbox"/> ) Replied/Other	

#### Tribal/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Cultural Heritage Partners</b>

#### Contact Name

5) First Name: <b>Ellen</b>	6) MI:	7) Last Name: <b>Chapman</b>	8) Suffix:
9) Title: <b>Program Manager</b>			

#### Dates & Response

10) Date Contacted <u>04/02/2025</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
( <input type="checkbox"/> ) Replied/No Interest	
( <input type="checkbox"/> ) Replied/Have Interest	
( <input type="checkbox"/> ) Replied/Other	

### Tribal/NHO Involvement

1) Have Indian Tribes or Native Hawaiian Organizations (NHOs) been identified that may attach religious and cultural significance to historic properties which may be affected by the undertaking within the APEs for direct and visual effects?	( <input checked="" type="checkbox"/> ) <u>Y</u> es (    ) <u>N</u> o
2a) Tribes/NHOs contacted through TCNS Notification Number: <u>293757</u>	Number of Tribes/NHOs: <u>12</u>
2b) Tribes/NHOs contacted through an alternate system:	Number of Tribes/NHOs: <u>0</u>

#### Tribal/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Delaware Nation</b>

#### Contact Name

5) First Name: <b>Tiffany</b>	6) MI:	7) Last Name: <b>Martinez</b>	8) Suffix:
9) Title: <b>TCNS Coordinator</b>			

#### Dates & Response

10) Date Contacted <u>04/02/2025</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply (    ) Replied/No Interest (    ) Replied/Have Interest (    ) Replied/Other	

#### Tribal/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Eastern Shawnee Tribe of Oklahoma</b>

#### Contact Name

5) First Name: <b>Lora</b>	6) MI:	7) Last Name: <b>Nuckolls</b>	8) Suffix:
9) Title: <b>Director</b>			

#### Dates & Response

10) Date Contacted <u>04/03/2025</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply (    ) Replied/No Interest (    ) Replied/Have Interest (    ) Replied/Other	

### Tribal/NHO Involvement

1) Have Indian Tribes or Native Hawaiian Organizations (NHOs) been identified that may attach religious and cultural significance to historic properties which may be affected by the undertaking within the APEs for direct and visual effects?	( <input checked="" type="checkbox"/> ) <u>Y</u> es (    ) <u>N</u> o
2a) Tribes/NHOs contacted through TCNS Notification Number: <u>293757</u>	Number of Tribes/NHOs: <u>12</u>
2b) Tribes/NHOs contacted through an alternate system:	Number of Tribes/NHOs: <u>0</u>

#### Tribe/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Nansemond Indian Tribe</b>

#### Contact Name

5) First Name: <b>Keith</b>	6) MI:	7) Last Name: <b>Anderson</b>	8) Suffix:
9) Title: <b>Chief</b>			

#### Dates & Response

10) Date Contacted <u>04/02/2025</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
(    ) Replied/No Interest	
(    ) Replied/Have Interest	
(    ) Replied/Other	

#### Tribe/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Pamunkey Indian Tribe</b>

#### Contact Name

5) First Name: <b>Kevin</b>	6) MI:	7) Last Name: <b>Brown</b>	8) Suffix:
9) Title: <b>Chief</b>			

#### Dates & Response

10) Date Contacted <u>04/02/2025</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
(    ) Replied/No Interest	
(    ) Replied/Have Interest	
(    ) Replied/Other	

### Tribal/NHO Involvement

1) Have Indian Tribes or Native Hawaiian Organizations (NHOs) been identified that may attach religious and cultural significance to historic properties which may be affected by the undertaking within the APEs for direct and visual effects?	( <input checked="" type="checkbox"/> ) <u>Y</u> es ( <input type="checkbox"/> ) <u>N</u> o
2a) Tribes/NHOs contacted through TCNS Notification Number: <u>293757</u> Number of Tribes/NHOs: <u>12</u>	
2b) Tribes/NHOs contacted through an alternate system:      Number of Tribes/NHOs: <u>0</u>	

#### Tribal/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Ponca Tribe of Indians of Oklahoma</b>

#### Contact Name

5) First Name: <b>Liana</b>	6) MI: <b>S</b>	7) Last Name: <b>Hesler</b>	8) Suffix:
9) Title: <b>THPO</b>			

#### Dates & Response

10) Date Contacted <u>04/02/2025</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
( <input type="checkbox"/> ) Replied/No Interest	
( <input type="checkbox"/> ) Replied/Have Interest	
( <input type="checkbox"/> ) Replied/Other	

#### Tribal/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Prairie Island Indian Community</b>

#### Contact Name

5) First Name: <b>Noah</b>	6) MI: <b>C</b>	7) Last Name: <b>White</b>	8) Suffix: <b>III</b>
9) Title: <b>THPO</b>			

#### Dates & Response

10) Date Contacted <u>04/02/2025</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
( <input type="checkbox"/> ) Replied/No Interest	
( <input type="checkbox"/> ) Replied/Have Interest	
( <input type="checkbox"/> ) Replied/Other	

### Tribal/NHO Involvement

1) Have Indian Tribes or Native Hawaiian Organizations (NHOs) been identified that may attach religious and cultural significance to historic properties which may be affected by the undertaking within the APEs for direct and visual effects?	<input checked="" type="checkbox"/> <b>Yes</b> (    ) <input type="checkbox"/> <b>No</b>
2a) Tribes/NHOs contacted through TCNS Notification Number: <u>293757</u> Number of Tribes/NHOs: <u>12</u>	
2b) Tribes/NHOs contacted through an alternate system:    Number of Tribes/NHOs: <u>0</u>	

**Tribe/NHO Contacted Through TCNS**

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>The Upper Mattaponi Indian Tribe</b>

**Contact Name**

5) First Name: <b>W. Frank</b>	6) MI:	7) Last Name: <b>Adams</b>	8) Suffix:
9) Title: <b>Chief</b>			

**Dates & Response**

10) Date Contacted <u>04/02/2025</u>	11) Date Replied _____
<input checked="" type="checkbox"/> No Reply <input type="checkbox"/> Replied/No Interest <input type="checkbox"/> Replied/Have Interest <input type="checkbox"/> Replied/Other	

**Tribe/NHO Contacted Through TCNS**

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Tuscarora Nation</b>

**Contact Name**

5) First Name: <b>Bryan</b>	6) MI:	7) Last Name: <b>Printup</b>	8) Suffix:
9) Title: <b>TCNS Rep</b>			

**Dates & Response**

10) Date Contacted <u>04/02/2025</u>	11) Date Replied _____
<input checked="" type="checkbox"/> No Reply <input type="checkbox"/> Replied/No Interest <input type="checkbox"/> Replied/Have Interest <input type="checkbox"/> Replied/Other	

## Other Tribes/NHOs Contacted

### Tribe/NHO Information

1) FCC Registration Number (FRN):
2) Name:

### Contact Name

3) First Name:	4) MI:	5) Last Name:	6) Suffix:
7) Title:			

### Contact Information

8) P.O. Box:	<b>And /Or</b>	9) Street Address:		
10) City:		11) State:	12) Zip Code:	
13) Telephone Number:		14) Fax Number:		
15) E-mail Address:				
16) Preferred means of communication:  <input type="checkbox"/> E-mail  <input type="checkbox"/> Letter  <input type="checkbox"/> Both				

### Dates & Response

17) Date Contacted _____	18) Date Replied _____
<input type="checkbox"/> No Reply  <input type="checkbox"/> Replied/No Interest  <input type="checkbox"/> Replied/Have Interest  <input type="checkbox"/> Replied/Other	

## Historic Properties

### Properties Identified

1) Have any historic properties been identified within the APEs for direct and visual effect?	( <input checked="" type="checkbox"/> ) <u>Y</u> es (   ) <u>N</u> o
2) Has the identification process located archaeological materials that would be directly affected, or sites that are of cultural or religious significance to Tribes/NHOs?	(   ) <u>Y</u> es ( <input checked="" type="checkbox"/> ) <u>N</u> o
3) Are there more than 10 historic properties within the APEs for direct and visual effect? If "Yes", you are required to attach a Cultural Resources Report in lieu of adding the Historic Property below.	(   ) <u>Y</u> es ( <input checked="" type="checkbox"/> ) <u>N</u> o

### Historic Property

4) Property Name: <b>Reams Station Battlefield</b>
5) SHPO Site Number: <b>026-0050</b>

### Property Address

6) Street Address: <b>Halifax Road</b>		
7) City: <b>Petersburg</b>	8) State: <b>VA</b>	9) Zip Code: <b>23805</b>
10) County/Borough/Parish: <b>DINWIDDIE</b>		

### Status & Eligibility

11) Is this property listed on the National Register?  Source: _____	(   ) <u>Y</u> es ( <input checked="" type="checkbox"/> ) <u>N</u> o
12) Is this property eligible for listing on the National Register?  Source: <b>Virginia Department of Historic Resources</b>	( <input checked="" type="checkbox"/> ) <u>Y</u> es (   ) <u>N</u> o
13) Is this property a National Historic Landmark?	(   ) <u>Y</u> es ( <input checked="" type="checkbox"/> ) <u>N</u> o

14) Direct Effects (Select One):  <input type="checkbox"/> No Effect on this Historic Property in APE <input checked="" type="checkbox"/> No Adverse Effect on this Historic Property in APE <input type="checkbox"/> Adverse Effect on this Historic Property in APE
15) Visual Effects (Select One):  <input type="checkbox"/> No Effect on this Historic Property in APE <input checked="" type="checkbox"/> No Adverse Effect on this Historic Property in APE <input type="checkbox"/> Adverse Effect on this Historic Property in APE

## Historic Properties

### Properties Identified

1) Have any historic properties been identified within the APEs for direct and visual effect?	( <input checked="" type="checkbox"/> ) <u>Y</u> es (    ) <u>N</u> o
2) Has the identification process located archaeological materials that would be directly affected, or sites that are of cultural or religious significance to Tribes/NHOs?	(    ) <u>Y</u> es ( <input checked="" type="checkbox"/> ) <u>N</u> o
3) Are there more than 10 historic properties within the APEs for direct and visual effect? If "Yes", you are required to attach a Cultural Resources Report in lieu of adding the Historic Property below.	(    ) <u>Y</u> es ( <input checked="" type="checkbox"/> ) <u>N</u> o

### Historic Property

4) Property Name: <b>Hatcher's Run Battlefield</b>
5) SHPO Site Number: <b>026-0132</b>

### Property Address

6) Street Address: <b>Dabney Mill Road</b>		
7) City: <b>Petersburg</b>	8) State: <b>VA</b>	9) Zip Code: <b>28908</b>
10) County/Borough/Parish: <b>DINWIDDIE</b>		

### Status & Eligibility

11) Is this property listed on the National Register?  Source: _____	(    ) <u>Y</u> es ( <input checked="" type="checkbox"/> ) <u>N</u> o
12) Is this property eligible for listing on the National Register?  Source: <u>Virginia Department of Historic Resources</u>	( <input checked="" type="checkbox"/> ) <u>Y</u> es (    ) <u>N</u> o
13) Is this property a National Historic Landmark?	(    ) <u>Y</u> es ( <input checked="" type="checkbox"/> ) <u>N</u> o

14) Direct Effects (Select One):  <input type="checkbox"/> No Effect on this Historic Property in APE <input checked="" type="checkbox"/> No Adverse Effect on this Historic Property in APE <input type="checkbox"/> Adverse Effect on this Historic Property in APE
15) Visual Effects (Select One):  <input type="checkbox"/> No Effect on this Historic Property in APE <input checked="" type="checkbox"/> No Adverse Effect on this Historic Property in APE <input type="checkbox"/> Adverse Effect on this Historic Property in APE

## Local Government Involvement

### Local Government Agency

1) FCC Registration Number (FRN):
2) Name: <b>Dinwiddie County Planning and Zoning Department</b>

### Contact Name

3) First Name: <b>Mark</b>	4) MI:	5) Last Name: <b>Bassett</b>	6) Suffix:
7) Title: <b>Director</b>			

### Contact Information

8) P.O. Box: <b>Drawer 70</b>	And /Or	9) Street Address:	
10) City: <b>Dinwiddie</b>	11) State: <b>VA</b>	12) Zip Code: <b>23841</b>	
13) Telephone Number: <b>(840)469-4500</b>		14) Fax Number:	
15) E-mail Address: <b>mbassett@dinwiddieva.us</b>			
16) Preferred means of communication: <input type="checkbox"/> E-mail <input type="checkbox"/> Letter <input checked="" type="checkbox"/> Both			

### Dates & Response

17) Date Contacted <b>05/05/2025</b>	18) Date Replied _____
<input checked="" type="checkbox"/> No Reply <input type="checkbox"/> Replied/No Interest <input type="checkbox"/> Replied/Have Interest <input type="checkbox"/> Replied/Other	

### Additional Information

19) Information on local government's role or interest (optional):
--

### Other Consulting Parties

#### Other Consulting Parties Contacted

1) Has any other agency been contacted and invited to become a consulting party?	( <input checked="" type="checkbox"/> ) <u>Yes</u> ( <input type="checkbox"/> ) <u>No</u>
--	---

#### Consulting Party

2) FCC Registration Number (FRN):
3) Name: <b>Dinwiddie Historical Society</b>

#### Contact Name

4) First Name: <b>None</b>	5) MI:	6) Last Name: <b>Listed</b>	7) Suffix:
8) Title:			

#### Contact Information

9) P.O. Box: <b>153</b>	<b>And /Or</b>	10) Street Address:	
11) City: <b>Dinwiddie</b>		12) State: <b>VA</b>	13) Zip Code: <b>23841</b>
14) Telephone Number: <b>(000)000-0000</b>		15) Fax Number:	
16) E-mail Address: <b>none@nonelisted.com</b>			
17) Preferred means of communication: ( <input type="checkbox"/> ) E-mail ( <input checked="" type="checkbox"/> ) Letter ( <input type="checkbox"/> ) Both			

#### Dates & Response

18) Date Contacted <b>05/05/2025</b>	19) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
( <input type="checkbox"/> ) Replied/No Interest	
( <input type="checkbox"/> ) Replied/Have Interest	
( <input type="checkbox"/> ) Replied/Other	

#### Additional Information

20) Information on other consulting parties' role or interest (optional):
---

## Designation of SHPO/THPO

1) Designate the Lead State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO) based on the location of the tower.

### SHPO/THPO

Name: Virginia Department of Historic Resources

2) You may also designate up to three additional SHPOs/THPOs if the APEs include multiple states. If the APEs include other countries, enter the name of the National Historic Preservation Agency and any state and provincial Historic Preservation Agency.

SHPO/THPO Name: \_\_\_\_\_

SHPO/THPO Name: \_\_\_\_\_

SHPO/THPO Name: \_\_\_\_\_

### Certification

I certify that all representations on this FCC Form 620 Submission Packet and the accompanying attachments are true, correct, and complete.

#### Party Authorized to Sign

First Name: **Ryan**

MI:

Last Name: **Malek**

Suffix:

Signature: **Ryan Malek**

Date: **05/05/2025**

**FAILURE TO SIGN THIS APPLICATION MAY RESULT IN DISMISSAL OF THE APPLICATION AND FORFEITURE OF ANY FEES PAID.**

**WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 18, Section 1001) AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).**

**Attachments :**

Type	Description	Date Entered
Resumes/Vitae	<a href="#">Garrett Johnson Resume</a>	05/05/2025
Map Documents	<a href="#">Aerial Photograph</a>	05/05/2025
Historic Properties for Visual Effects	<a href="#">SHPO Map</a>	05/05/2025
Tribal/NHO Involvement	<a href="#">FCC ASR Confirmation</a>	05/05/2025
Tribal/NHO Involvement	<a href="#">FCC Initial Email</a>	05/05/2025
Tribal/NHO Involvement	<a href="#">FCC Tribe List</a>	05/05/2025
Additional Site Information	<a href="#">Construction Drawings</a>	05/05/2025
Photographs	<a href="#">Site Photographs</a>	05/05/2025
Tribal/NHO Involvement	<a href="#">Tribal Letter</a>	05/05/2025
Public Involvement	<a href="#">Local Letter</a>	05/05/2025
Local Government Involvement	<a href="#">Local Letter</a>	05/05/2025
Historic Properties for Direct Effects	<a href="#">Cultural Resources Assessment Report by TEP</a>	05/05/2025
Other	<a href="#">FCC Form 620 Submission Packet Attachments</a>	05/05/2025
Public Involvement	<a href="#">Public Notice</a>	05/05/2025
Area of Potential Effects	<a href="#">Topographic Map with APE</a>	05/05/2025

## NT SUBMISSION PACKET – FCC FORM 620

### Attachments

#### **Attachment 1. Résumés/Vitae**

See attached resume of Secretary of the Interior qualified Archaeologist Garrett Johnson.

#### **Attachment 2. Additional Site Information**

TEP OpCo, LLC is assisting Dominion Energy to complete a NEPA Checklist (FCC Compliance Audit) for the aforementioned proposed construction of a 420-ft (424-ft AGL overall with appurtenances) monopole communications tower located at 28908 Ellington Road, south of the City of Petersburg, in Dinwiddie County, Virginia. The total limits of disturbance associated with the tower lease area is anticipated to total approximately 10,546-ft<sup>2</sup> (0.24 acres).

#### **Attachment 3. Tribal and NHO Involvement**

TEP OpCo, LLC filed the proposed facility with the FCC – Tower Construction Notification System (TCNS) on 3/31/2025 and was assigned TCNS #293757. In addition, TEP personnel sent correspondence to all the applicable tribes on 5/5/2025.

#### **Attachment 4. Local Government Involvement**

TEP contacted the Dinwiddie County Planning and Zoning Department on May 5, 2025, and invited them to be a consulting party regarding the proposed tower site.

#### **Attachment 5. Public Notice**

TEP placed a Public Notice in the “Petersburg-Progress Index” newspaper, which was published on 4/3/25.

#### **Attachment 6. Local Historical Societies**

TEP contacted the Dinwiddie Historical Society on May 5, 2025, requesting any comments they may have regarding the proposed undertaking within 30 days of receipt of the correspondence.

#### **Attachment 7. Analyses of the APEs**

- a. The geographic area, scale, and nature of the undertaking and subsequent effects of the proposed project were analyzed to determine the APE for direct effects. The area of potential disturbance associated with the proposed tower lease area is 10,546-ft<sup>2</sup> (0.24 acres). See attached Site Plan.
- b. The geographic area, scale, and nature of the undertaking and subsequent effects of the proposed project were analyzed to determine the APE for visual effects. Further, required background research and suggested standards in the FCC NEPA were reviewed to determine the APE for visual effects for the proposed project. The FCC designated APE for visual effects for towers over 400-ft AGL is a 1.5-mile radius from the tower centerline. The determined APE for visual effects is currently primarily occupied by agricultural, residential, and forested land.

**Attachment 8. Historic Properties Identified in the APE for Visual Effects**

- a. Two (2) historic properties listed in the National Register of Historic Places (NRHP) were identified within the determined FCC 1.5-mile APE for visual effects.
- b. As of 5/5/2025, TEP has not been made aware of any properties identified by comment in the determined APE for visual effects.
- c. N/A - No (0) listed or eligible properties that are no longer eligible were identified in the determined APE for visual effects during the research completed on the South Carolina Department of Archives and History's ArchSite GIS Service.

**Attachment 9. Historic Properties Identified in the APE for Direct Effects**

- a. Two (2) properties listed on or eligible for the National Register of Historic Places were located within the APE for direct effects.
- b. N/A
- c. TEP conducted an archaeological assessment of the project's direct effects on September 23, 2025. No (0) cultural materials were identified in the direct APE. The report has been included for your review.

**Attachment 10. Effects on Identified Properties**

- a. **No adverse effects of Historic Properties within the APE** – Two (2) historic properties were identified within the visual APE. See attached Cultural Resources Report for further information.
- b. None
- c. N/A

**Attachment 11. Photographs**

- a. See attached site photographs and attached Cultural Resources Report completed by TEP.
- b. N/A
- c. N/A
- d. See attached aerial photograph

**Attachment 12. Maps**

- a. See attached
- b. See attached
- c. See attached
- d. See attached

**CARSON SUBSTATION TOWER SITE  
DINWIDDIE COUNTY, VIRGINIA  
CULTURAL RESOURCE ASSESSMENT REPORT**



11/19/2024

---

Signature of Principal Investigator

---

Date

Prepared by: Garrett Johnson, MA, RA

TEP OpCo, LLC  
326 Tryon Road  
Raleigh, NC 27603-3530  
919-661-6351  
gjohnson@tepgroup.net

Prepared for: Dominion Resource Services, Inc  
707 East Main Street  
Richmond, VA 23219

Lead Agency: FCC

November 19, 2024

Final Report

# Table of Contents

MANAGEMENT SUMMARY.....	3
INTRODUCTION TO THE PROJECT .....	1
ENVIRONMENTAL SETTING .....	7
ARCHAEOLOGICAL AND CULTURAL BACKGROUND .....	13
V-CRIS GIS Search Results/Previous Research .....	13
Cultural Context.....	15
Battle of Reams Station .....	16
FIELD METHODS/SURVEY RESULTS.....	16
Evaluation of Direct Effects .....	16
Evaluation of Visual Effects .....	17
SUMMARY AND RECOMMENDATIONS.....	19
REFERENCES .....	20
Appendix .....	22

## MANAGEMENT SUMMARY

TEP OpCo, LLC is assisting Dominion Resource Services Inc. with the construction of a proposed 420-ft AGL (424-ft AGL overall with appurtenances) self-support communications replacement tower. The proposed tower will be located at 28908 Ellington Road, south of the City of Petersburg, in Dinwiddie County, Virginia. Installation of the tower and telecommunication facility is regulated by the Federal Communications Commission (FCC).

TEP conducted a cultural resources assessment of the project's direct and visual effects to meet the requirements of Section 106 of the National Historic Preservation Act (NHPA) and the Federal Communications Commission (FCC) Nationwide Programmatic Agreement (NPA) of October 4, 2004. This letter report summarizes the results of TEP's cultural resource assessment.

Based on background research conducted on October 22, 2024, the search resulted in the identification of two (2) historic properties within the Area of Potential Effect (APE). An archaeological investigation was conducted on September 23, 2024. No (0) cultural resources were discovered within the direct APE. No avoidance or further work is recommended for the proposed project.

## INTRODUCTION TO THE PROJECT

TEP OpCo, LLC is assisting Dominion Resource Services Inc. with the construction of a proposed 420-ft AGL (424-ft AGL overall with appurtenances) self-support communications replacement tower. The proposed tower will be located at 28908 Ellington Road on the southwest adjoining parcel of the Virginia Electric & Power Company, south of the City of Petersburg, in Dinwiddie County, Virginia (Parcel ID: 49-31A) (**Figures 1-2**). Installation of the tower and telecommunication facility is regulated by the Federal Communications Commission (FCC).

The proposed undertaking (**Figure 3**) consists of the proposed 420-ft (424-ft overall with appurtenances) AGL self-support communications tower within a 75-ft x 50-ft chain linked fence compound. The lease area will be accessed by a proposed 12-ft wide x ~180-ft access road that connects to an existing gravel parking lot. These areas are herein referred to as the direct area of potential effect (APE) and total approximately ~5,910-ft<sup>2</sup> (0.14-acres).

Also pursuant to the Nationwide PA (FCC 2004), the APE for visual effects is the geographic area in which the undertaking has the potential to introduce visual elements that diminish or alter the setting, including the landscape, where the setting is a character-defining feature of a historic property that makes it eligible for listing in the NRHP. For towers over 400-ft, the visual APE is a 1.5-mile radius from the proposed tower centerline.

TEP's Garrett Johnson, an SOI Qualified Archaeologist, conducted a file search on October 22, 2024, of the Virginia Office of State Archaeology online database V-CRIS GIS Service to determine if any historic properties are located within a 1.5-mi radius. Two (2) National Register of Historic Places (NRHP) eligible properties were identified within the direct APE.

An archaeological assessment of the project's direct effects was conducted on September 23, 2024, to meet the requirements of Section 106 of the National Historic Preservation Act (NHPA) and the Federal Communications Commission (FCC) Nationwide Programmatic Agreement (NPA) of October 4, 2004. This document is being submitted in compliance with the Federal Communications Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission (FCC 2004).

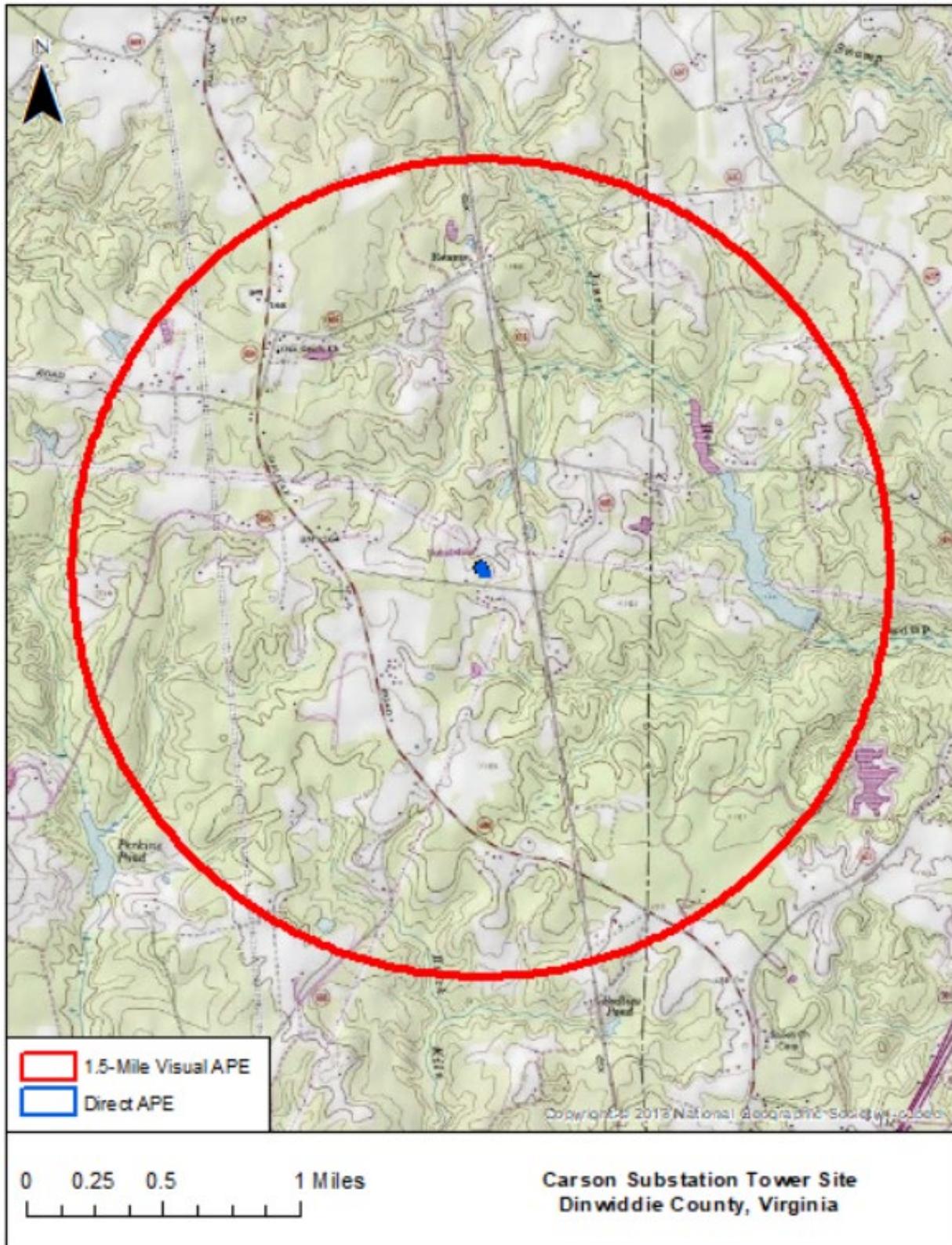


Figure 1: Project Location (Carson, VA USGS 7.5-Minute Topographic Quadrangles).



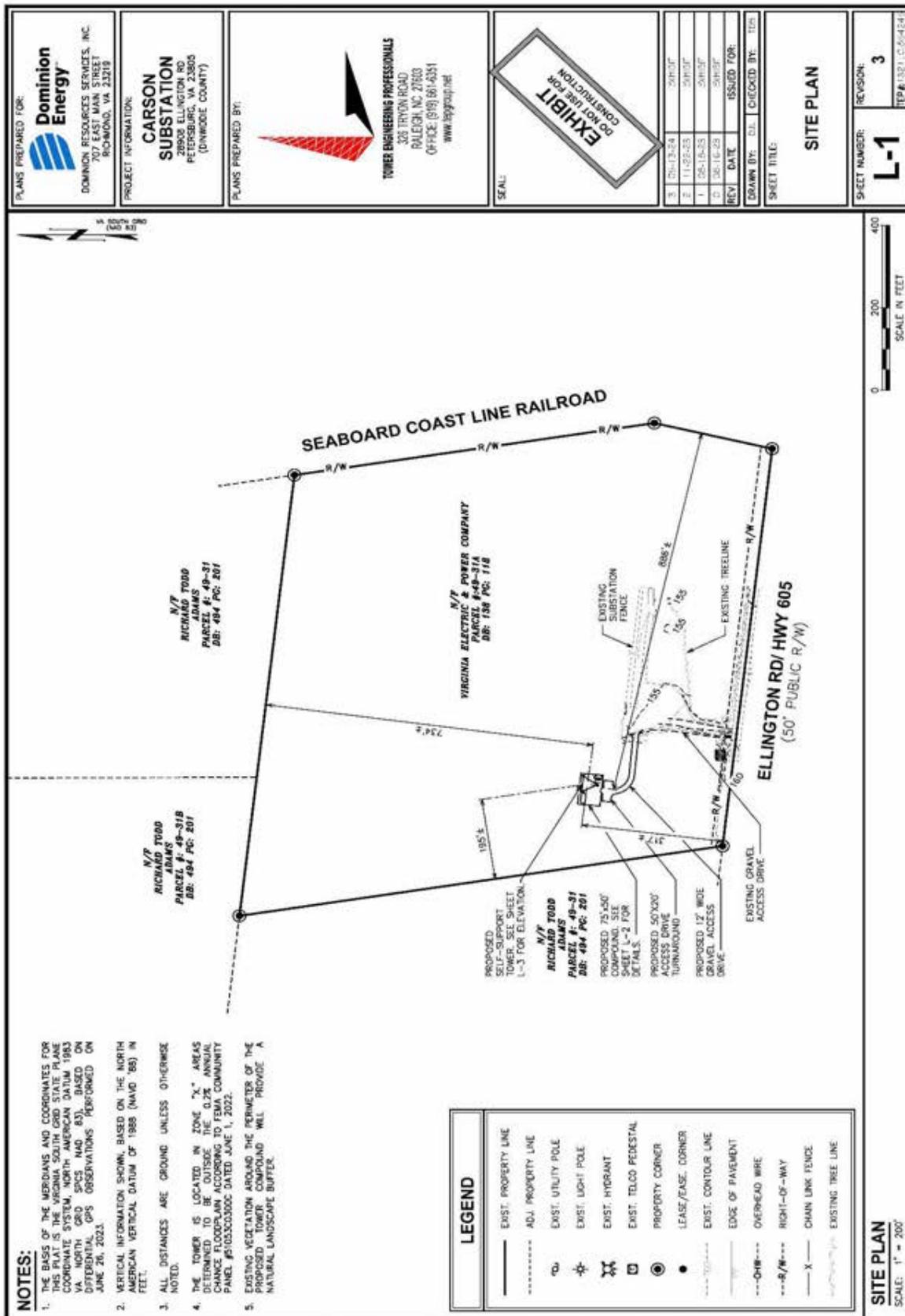


Figure 3: Overall Site Plan

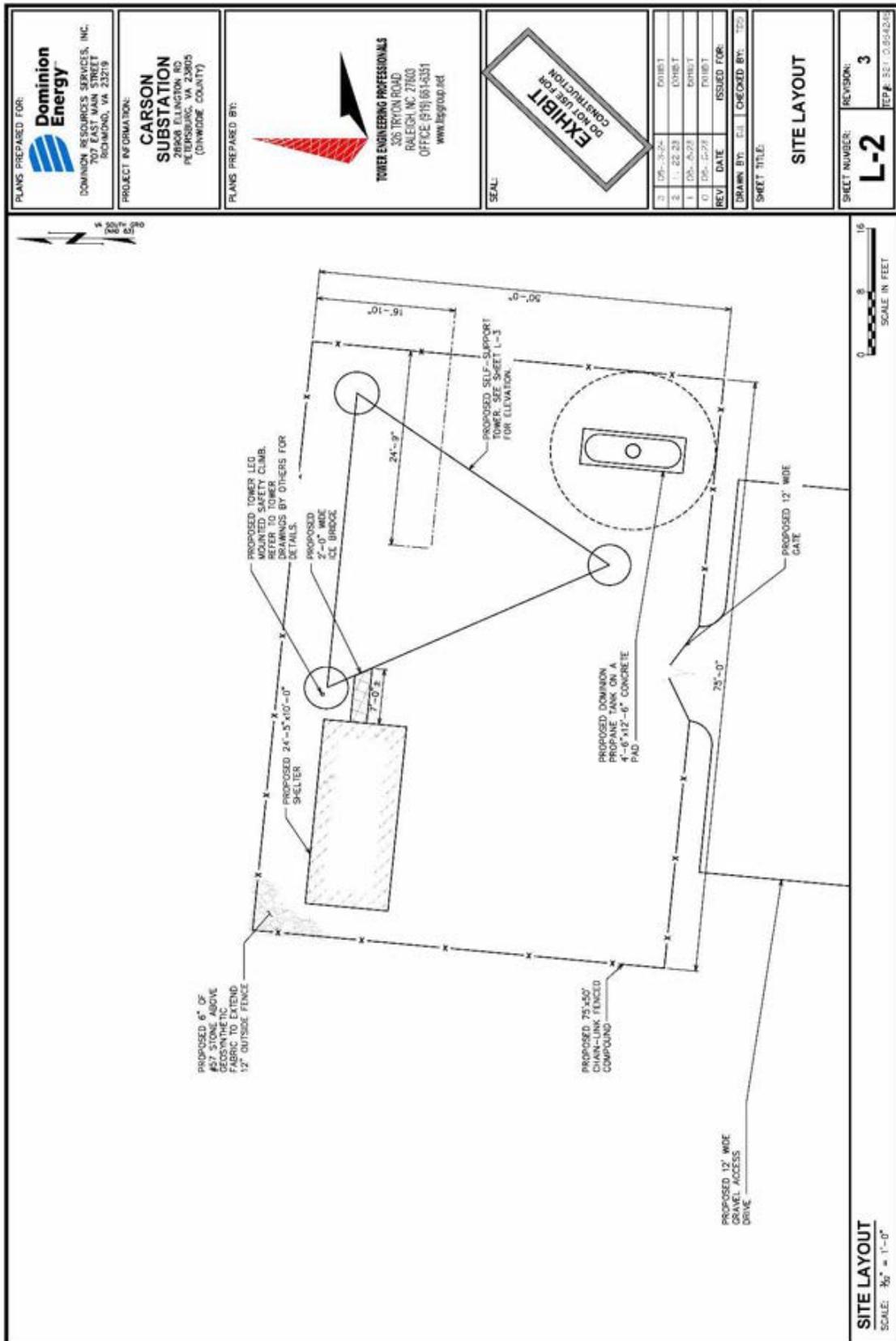


Figure 4: Overall Detailed Site Plan

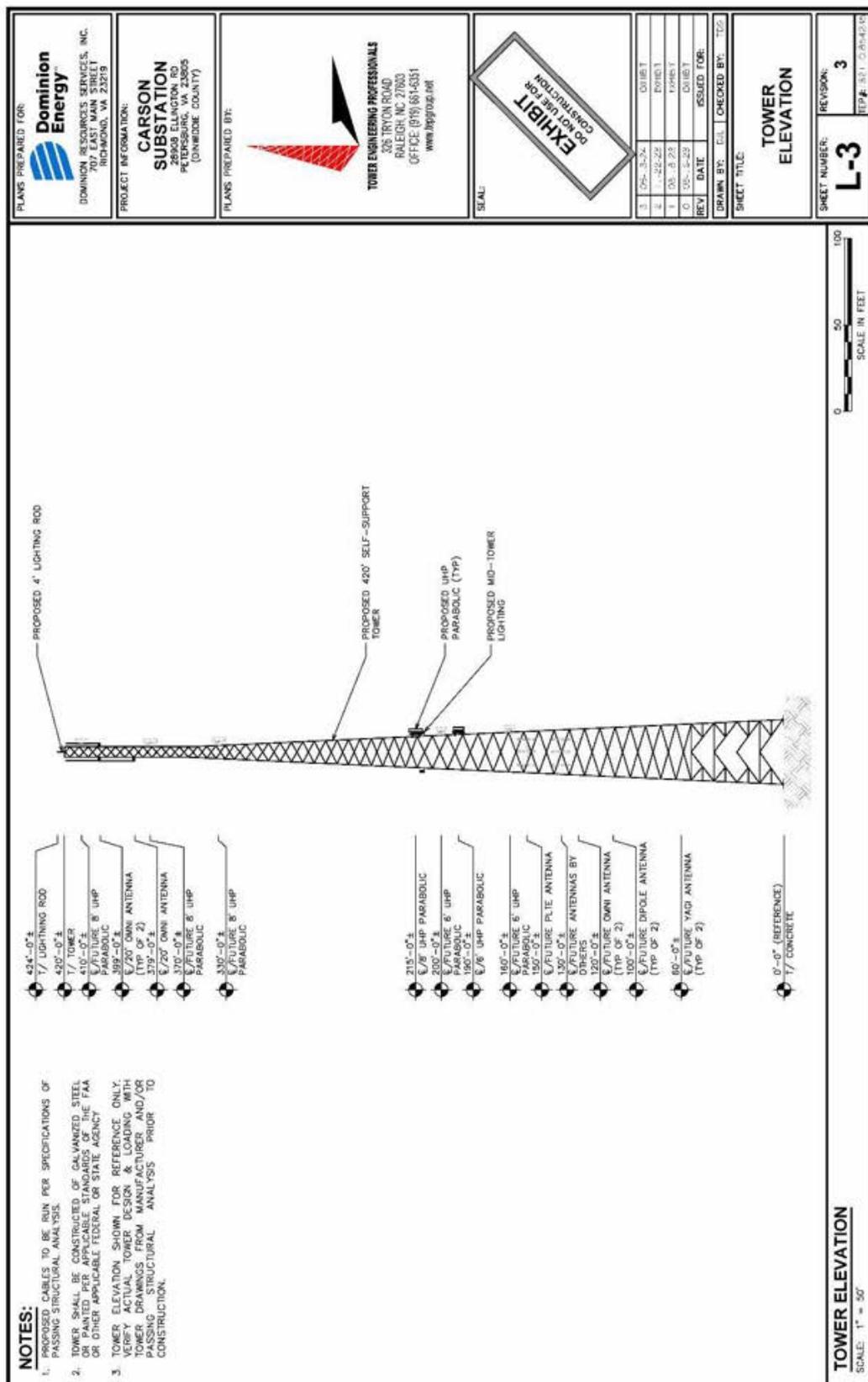


Figure 4: Tower Height Plan

## ENVIRONMENTAL SETTING

According to the U.S. EPA Level III and IV Ecoregions Map, the proposed project is located within the Rolling Coastal Plains (65m). is a rolling, hilly, dissected portion of the Inner Coastal Plain that is made up of sedimentary material. Lithology is distinct from the adjacent Northern Outer Piedmont (45f) that is composed of metamorphic rocks. The terrain is hillier than the Chesapeake-Albemarle Silty Lowlands and Tidal Marshes (63b). Elevations typically range from 30 to 250 feet and local relief is 25 to 175 feet (7.6-53 m). Relief, elevation, and channel gradients are generally greater than in the Middle Atlantic Coastal Plain (63); correspondingly, drainage also tends to be better. Stream margins can be swampy and stained water can occur. Parts of the Fall Zone are included in the westernmost portion of the Rolling Coastal Plain (65m); here aquatic habitats vary between the islands, pools, swampy streams, and cascades of the zone.

The Rolling Coastal Plain (65m) is mostly underlain by unconsolidated Tertiary sand, silt, clay, and gravels of the Bacons Castle Formation and the Chesapeake Group (Virginia Division of Mineral Resources, 1993); Holocene-age deposits and metamorphic rocks are typically absent. Ultisols are common and have a thermic temperature regime (Buol, 1974); they are better drained than the Aquults of the Middle Atlantic Coastal Plain (63) and are warmer than the soils of the Chesapeake Rolling Coastal Plain (65n). The soils support a potential natural vegetation of Oak-Hickory-Pine Forest (dominants: hickory, longleaf pine, shortleaf pine, loblolly pine, white oak and post oak) (Griffith et al. 2002).

Today, Ecoregion 65m is a mosaic of woodland and farmland (U.S. Soil Conservation Service, various dates). Common crops are corn, soybeans, and, in the south, peanuts (Bureau of the Census, 1995). Hardwoods are now more common than at the time of settlement because of frequent fires and the repeated preferential cutting of pine. Woodlands are more extensive than in the Northern Rolling Inner Coastal Plain (65n) to the north of the Potomac River (Griffith et al. 2002).

Ecoregion 65m's boundaries are shown on Figure 1. The Fall Line acts as the western border and separates Ecoregion 65m from the higher and lithologically distinct Northern Outer Piedmont (45f). Its eastern limit is the Suffolk and Harpersville scarps which separate it from the low, flat terraces of Ecoregion 63b. Its southeastern boundary is the Surry Scarp that divides it from the middle-elevation terraces of Ecoregion 63e. Ecoregion 65m's northern border with the Chesapeake Rolling Coastal Plain (65n) is the Potomac River where forest density and soil temperature regimes change (Griffith et al. 2002).

The Southeastern Plains (65) is composed of irregular plains that are covered by a mosaic of cropland, pasture, woodland, and forest. The Cretaceous or Cenozoic-age sands, silts, and clays of the region contrast geologically with the older igneous and metamorphic rocks of the Piedmont. Elevations range from sea level to about 300 feet (91 m); relief and maximum elevations are less than in the neighboring Piedmont. Stream channels are relatively low in gradient and are sandy-bottomed. The most common soils are Ultisols. They support a potential natural vegetation of mostly Oak-Hickory-Pine Forest (dominants: hickory, longleaf pine, shortleaf pine, loblolly pine,

white oak and post oak) and, in northeast, Appalachian Oak Forest (dominated by white and red oaks) (Griffith et al. 2002).

The boundary between the Southeastern Plains (65) and ecoregions 45 and 64 occurs at the Fall Line where the metamorphic rocks of the Piedmont and the sedimentary rocks of the Coastal Plain interfinger. Ecoregion 65's border with the Middle Atlantic Coastal Plain (63) is based on elevation, topography, and drainage; Ecoregion 65 is typically higher, not as level, better drained, and less marshy than Ecoregion 63. In addition, although both ecoregions 63 and 65 are underlain by unconsolidated sediments, Holocene-age deposits are restricted to the Middle Atlantic Coastal Plain (63) (Griffith et al. 2002).

On the ecoregion map (Figure 1), the Southeastern Plains (65) is composed of two level IV ecoregions: the Rolling Coastal Plain (65m) and Chesapeake Rolling Coastal Plain (65n). Descriptions of the individual characteristics of these two ecoregions follow. (Griffith et al. 2002).

The proposed project area is located in a forested area (**Figures 6-11**). The parent property is surrounded by forested, municipal, agricultural, and low-density residential land. According to the United States Fish and Wildlife Service National Wetland Inventory, the closest water source is an unnamed intermittent tributary of Jones Hole Swamp, approximately 0.15-mi south of the proposed tower site.

According to the USDA Web Soil Survey of Dinwiddie County, VA, the soil of the proposed action area is Mattaponi sandy loam, 0 to 2 percent slopes (12A) and Slagle sandy loam, 2 to 6 percent slopes (17B) (**Table 1**). Mattaponi sandy loam, 0 to 2 percent slopes is described as moderately well-drained, found on hillslopes, and made of Clayey fluviomarine deposits. The soil profile of Mattaponi sandy loam consist of sandy loam from 0 to 13 inches and clay 13 to 72 inches. Slagle sandy loam, 2 to 6 percent slopes is described as moderately well-drained, found on marine terraces, and made of loamy marine deposits. The soil profile of Slagle sandy loam consist of sandy loam from 0 to 14 inches, sandy clay loam 14 to 44 inches and sandy loam 44 to 72 inches.

**Table 1:** Project Area Soil

Soil Name	Code	Slope	Drainage	Location
Mattaponi sandy loam	12A	0-2%	Moderately well-drained	Hillslopes
Slagle sandy loam	17B	2-6%	Moderately well-drained	Marine terraces



Figure 5: USDA Soils Map of the Proposed Direct APE



**Figure 6:** View north towards compound center.



**Figure 7:** View west towards proposed compound center.



**Figure 8:** View south towards proposed compound center.



**Figure 9:** View east towards proposed compound center.



**Figure 10:** View east along proposed access road.



**Figure 11:** View west along proposed access road.

## ARCHAEOLOGICAL AND CULTURAL BACKGROUND

### V-CRIS GIS Search Results/Previous Research

TEP's Garrett Johnson, an SOI Qualified Archaeologist, conducted a file search on October 22, 2024, of the Virginia Office of State Archaeology online database V-CRIS GIS Service to determine if any historic properties are located within a 1.5-mi radius. Two (2) historic properties eligible for the NRHP were identified within the direct APE (**Table 4**). Eighteen (18) archaeological sites were identified within the visual APE, one (1) being potentially eligible for the NRHP. Thirty-five (35) architectural resources identified not eligible for the NRHP, were identified within the visual APE.

**Table 2:** Archaeological Sites within 1.5-mile direct APE

Site ID	Site/Resource Type	NRHP Eligibility	Cultural Context
44DW0011	null	Null	Early Woodland
44DW0012	null	Null	Prehistoric
44DW0127	Battlefield, Camp	Null	Pre-Contact, Civil War
44DW0259	Farmstead	Null	19th Century
44DW0260	Farmstead	Null	18 <sup>th</sup> Century
44DW0380	Dwelling, single	Null	18 <sup>th</sup> Century
44DW0472	Other	Not Eligible	Reconstruction and Growth
44DW0473	Cemetery	Null	Reconstruction and Growth
44DW0536	Artifact scatter	Not Eligible	Middle Woodland
44DW0543	Camp	Potentially Eligible	Middle Woodland
44DW0544	Dwelling, single	Not Eligible	World War I to World War II
44DW0545	Dwelling, single	Not Eligible	Reconstruction and Growth
44DW0546	Dwelling, single	Not Eligible	Reconstruction and Growth
44DW0548	Artifact scatter	Not Eligible	Antebellum Period
44DW0555	Artifact scatter	Not Eligible	Civil War
44DW0556	Farmstead	Not Eligible	World War I to World War II
44DW0557	Artifact scatter	Not Eligible	Antebellum Period
44DW0558	Artifact scatter	Not Eligible	Early Archaic
44DW0559	Artifact scatter	Not Eligible	Late Archaic

**Table 3:** Historic Resources/Properties within 1.5-mile direct APE

Site ID	Site/Resource Type	NRHP Eligibility
026-0050	Battle Site	Potentially Eligible
026-0132	Battle Site	Eligible
026-0151	Single Dwelling	Not Eligible
026-0152	Single Dwelling	Not Eligible
026-0153	Single Dwelling	Not Eligible

026-0154	Single Dwelling	Not Eligible
026-5067	Single Dwelling	Not Eligible
026-5068	Single Dwelling	Not Eligible
026-5148	Single Dwelling	Not Eligible
026-5149	Single Dwelling	null
026-5150	Store/Market	null
026-5152	Single Dwelling	null
026-5153	Church/Chapel	null
026-5154	Single Dwelling	null
026-5155	Single Dwelling	null
026-5156	School	Not Eligible
026-5227	Single Dwelling	Not Eligible
026-5228	Single Dwelling	Not Eligible
026-5229	Single Dwelling	Not Eligible
026-5263	Monument/Marker	null
026-5274	Single Dwelling	Not Eligible
026-5275	Single Dwelling	Not Eligible
026-5276	Single Dwelling	Not Eligible
026-5279	Clubhouse	Not Eligible
026-5280	Single Dwelling	Not Eligible
026-5281	Single Dwelling	Not Eligible
026-5282	Tobacco Barn	Not Eligible
026-5364	Single Dwelling	null
026-5384	Single Dwelling	null
026-5387	Single Dwelling	null
026-5388	Single Dwelling	null
026-5389	Single Dwelling	null
026-5390	Single Dwelling	null
026-5391	Single Dwelling	null
026-5392	Single Dwelling	null
026-5393	Barn	null
026-5394	Single Dwelling	null

**Table 4:** Historic Resources within 1.5-mile direct APE

<b>Site ID</b>	<b>Site/Resource Type</b>	<b>NRHP Eligibility</b>
026-0050	Reams Station Battlefield	Potentially Eligible
026-0132	Hatcher's Run Battlefield	Eligible

## Cultural Context

The region's prehistory is divided into four cultural periods: Pre-Clovis, Paleoindian, Archaic, and Woodland. Little is known about the Pre-Clovis Southeast. One well known site, Cactus Hill, is located in southeast Virginia and has documented evidence of Pre-Clovis occupation (McAvoy 1997). The Paleoindian period is characterized by high range mobility, low population density, and focal hunting economy. The transition to Archaic is reflected in the changes of technology and settlement organization. Groups during the Archaic period had more regional specific habitats and resource procurement (Smith 1986; Steponaitis 1986). The beginning of the Woodland period is typically marked by the introduction of ceramic technology (Gardner 1982). Steatite-tempered Marcey Creek is the earliest ceramic type in the state. A more sedentary lifestyle occurs during this time, with an increase in villages and more commitment to horticulture (Smith 1986).

A number of Indian tribes that spoke dialects of the Siouan language lived in the Piedmont of Virginia. The Manahoac settled on the waters of the Rappahannock River above Fredericksburg. Little is known about these people because few early traders and travelers kept records. These sketchy pieces of information from written records survive: Captain John Smith in 1608 met a group of Manahoac, who lived in at least seven villages to the west, above the falls of the Rappahannock River. The Manahoac were friends of the Monacans and enemies of the Powhatan (Egloff, 2006).

The first mention about the Monacan tribe also comes from Captain Smith. In 1608, he learned from a Powhatan informant about five Monacan towns west of the James River falls at present-day Richmond. In 1670, German traveler John Lederer was commissioned by the governor of Virginia to explore the territory. Approaching one of the villages along the James, he was welcomed with friendly volleys of firearms (Egloff, 2006).

After leaving Monacan Town, Lederer proceeded to Sapon, a town of the Saponi people located in Charlotte County along the Roanoke River. Lederer wrote, "This nation is governed by an absolute monarch; the people of a high stature, warlike and rich. I saw great store of pearl unbored in their little temples, or oratories, which they had won amongst other spoils from the Indians of Florida and hold in as great esteem as we do" (Egloff, 2006).

Lederer advised traders to carry with them cloth, axes, hoes, knives, and scissors to trade with the Indians. Though the Indians were eager to purchase arms and ammunition, such trade was outlawed by the colonial government. For remote tribes, he wrote, the best articles to carry were small trinkets, copper, toys, beads, and bracelets. A year after Lederer's expedition, Robert Fallam and Captain Thomas Batts, under the commission of General Abraham Wood, left the James River near Petersburg and traveled west. The men arrived at Saponi Town, welcomed by the firing of guns and plenty of supplies. Continuing beyond the Piedmont, they met with yet another warm greeting from the Totero people living in either the Roanoke or New River Valleys. The closely allied Saponi and Totero eventually left their villages, and many moved south, joining their friends the Occaneechi. According to John Lederer's report, the Occaneechi people lived on an island in the Roanoke River near Clarksville. From 500 miles away, other tribes came to the village to trade, making the island a great regional center (Egloff, 2006).

### Battle of Reams Station

After the Battle of Weldon Railroad from August 18<sup>th</sup> to 21<sup>st</sup> 1864, General Hancock of the Union Army ordered the infantry corps to move south along the rail lines and destroy the track. The track was a vital lifeline that connected the Confederate Capital city of Richmond VA to the last Confederate port, Wilmington NC. On August 24<sup>th</sup>, Hancock's troop reached Reams Station, at the same time Confederate Generals A.P. Hill and Wade Hampton moved their infantry and calvary out of Petersburg's defenses to intercept the threat. Around 2 pm on August 25<sup>th</sup>, the Confederate forces pushed the Union infantry into a series of trenches around the Oak Grove Church on Halifax Rd. Due to the lost of the element of surprise, Hill engaged in a frontal assault to drive the Union off the tracks. The Union was quickly overrun by calvary, heavy artillery, and the frontal assault. A large number of Union soldiers were captured and sent back as prisoners. By 6pm, the Confederate assault lost momentum, so Hancock regrouped his troops on the field across from Oak Grove Church and launched a counterattack. By 7pm, Hampton and Hill coordinated an attack and finished off the Union forces. In the aftermath of the battle, out of the 9,000 Union solders 2,747 became casualties. On the Confederate side, 9,500 troops went into battle and 814 became casualties. With the Confederate victory, the Weldon Railroad was fixed and the supply line continued to operate until the Confederate surrender a year later (National Park Service, 2023).

## FIELD METHODS/SURVEY RESULTS

### Evaluation of Direct Effects

On September 23, 2024, Autumn Saski of TEP, under the supervision of Garrett Johnson, who meet the Secretary of the Interior's Standards for archaeology, conducted a Phase I survey of the APE for direct effects, spending three hours in the field. Conditions were good for fieldwork, with clear skies and temperatures in the mid 70's. Ground surface visibility was ~0-10% within the proposed lease area. A pedestrian survey was conducted throughout the project area. Due to the project area being located on a known NRHP eligible battlefield, a Gordon High-Precision Metal Detector was used to find artifacts. Using the metal detector, 3-meter transverses were conducted throughout the project area and surrounding wooded area. A total of seven (7) shovel tests were conducted within the project area. No (0) artifacts were identified while conducting shovel tests and from metal detection.

The proposed telecommunication tower is located within the historic boundary of Reams Station Battlefield, part of the Siege of Petersburg conflict. That being said, the Virginia SHPO has classified the property as potentially eligible for listing in the NRHP under Criteria A. The aforementioned tower will also be located south of a Dominion Energy substation that includes an existing telecommunication tower. The substation and tower were approximately built in 1975. Additionally, the project area has been disturbed due to the construction of the substation and ongoing development in the area. Due to the presence of the exiting substation and tower within

the NRHP eligible historic property, the proposed tower will not adversely affect the historic landscape or integrity of the historic property.

#### Evaluation of Visual Effects

On November 6, 2024, TEP conducted a visual effects assessment of the Two (2) identified NRHP-eligible historic properties to determine if the proposed tower would be visible. The APE for visual effects is limited to 1.5-mile radius from the tower center point. The photo location was chosen from a publicly accessible location within the NRHP eligible historic property. Based on the photo reconnaissance, the proposed tower will be visible from a section of the historic property. Due to the presence of the existing substation and tower within the historic property, the proposed tower will not introduce any visual intrusions to the existing viewshed. Additionally, adversely affect the historic landscape or integrity of the historic property. Therefore, it is the opinion of TEP that the proposed tower will have **No Adverse Effect** on the NRHP eligible historic properties.

**Table 5: Shovel Test Results**

STP#	Location	Depth (cmbs)	Color	Texture	Comments
1	Tower Center	0-5 5-25 25-35	7.5 YR 3/2 10 YR 5/4 2.5 YR 5/4	Silty loam Sandy silt clay Clay	Negative
2	Northeast compound	0-5 5-25 25-35	7.5 YR 3/2 10 YR 5/4 2.5 YR 5/4	Silty loam Sandy silt clay Clay	Negative
3	Southeast compound	0-5 5-25 25-35	7.5 YR 3/2 10 YR 5/4 2.5 YR 5/4	Silty loam Sandy silt clay Clay	Negative
4	Northwest compound	0-5 5-25 25-35	7.5 YR 3/2 10 YR 5/4 2.5 YR 5/4	Silty loam Sandy silt clay Clay	Negative
5	Southwest compound	0-5 5-25 25-35	7.5 YR 3/2 10 YR 5/4 2.5 YR 5/4	Silty loam Sandy silt clay Clay	Negative
6	Access road	0-7 7-27 27-37	7.5 YR 3/2 10 YR 5/4 2.5 YR 5/4	Silty loam Sandy silt clay Clay	Negative
7	Access road	0-5 5-15 N/A	7.5 YR 3/2 10 YR 5/4 N/A	Silty loam Sandy silt clay N/A	Negative Roots throughout

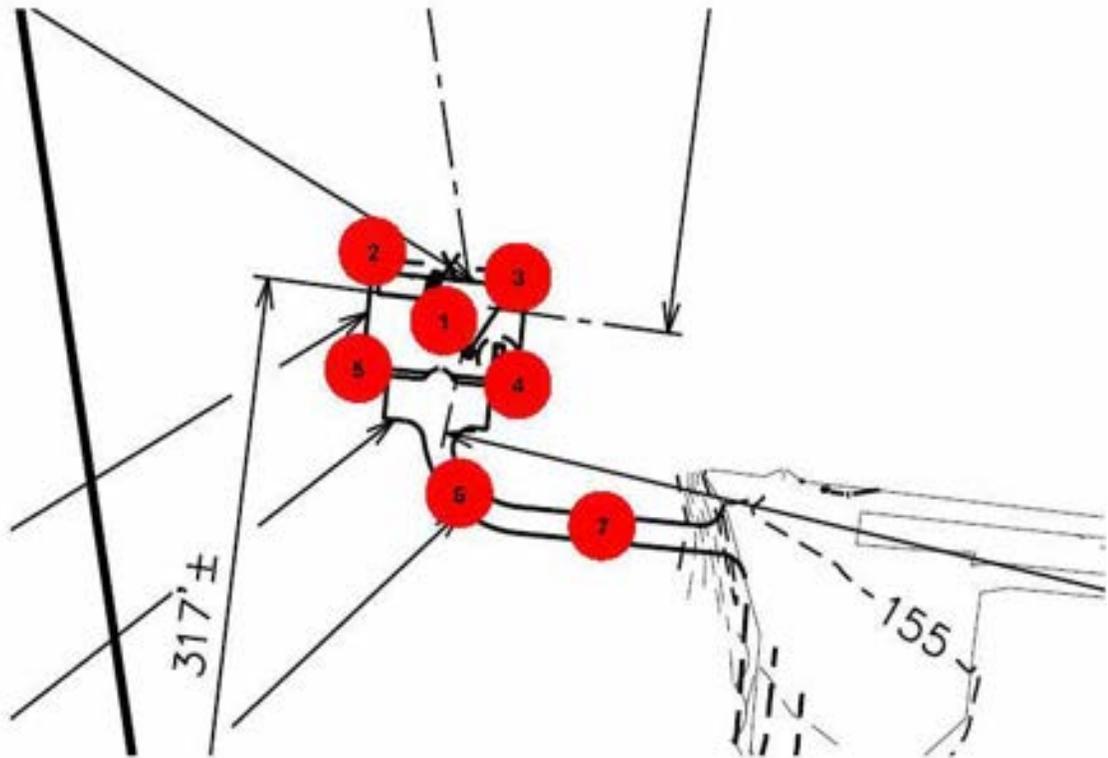


Figure 12: Shovel Test Plan

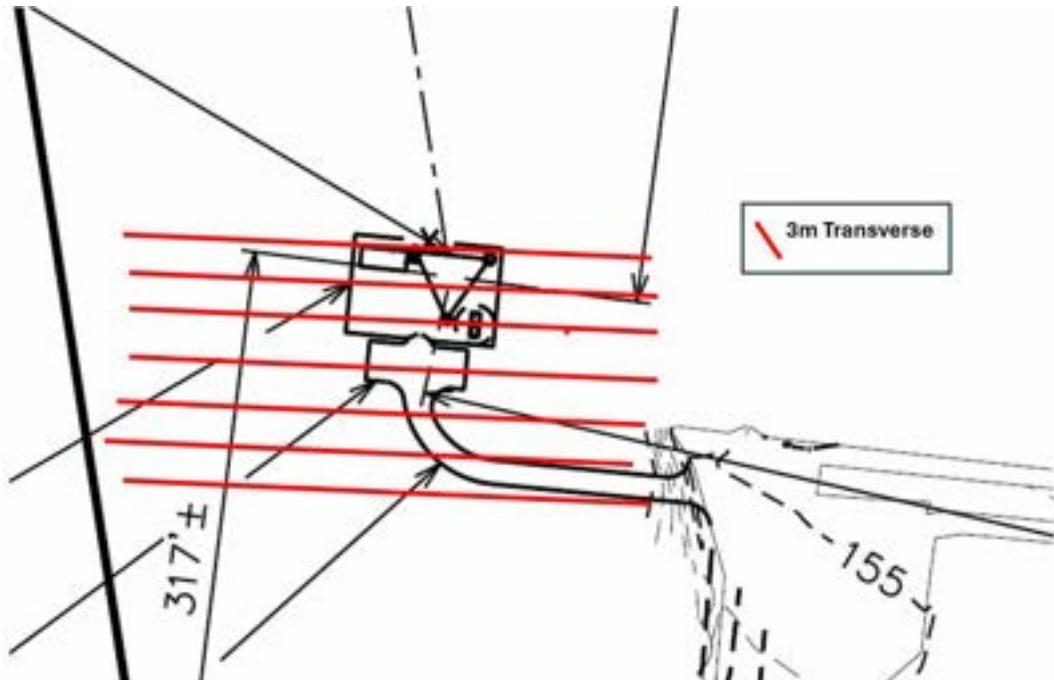


Figure 13: Transverse map



**Figure 14: Soil Profile (ST1)**

## SUMMARY AND RECOMMENDATIONS

TEP OpCo, LLC is assisting Dominion Energy with the construction of a proposed 420-ft (424-ft overall with appurtenances) AGL self- support communications tower. The proposed tower will be located at 28908 Ellington Road, south of the City of Petersburg, in Dinwiddie County, Virginia (Dinwiddie County Parcel #49-31A). It is the opinion of TEP that there will be **No Adverse Effect** on the NRHP eligible battlefield historic properties. If the boundary or location of the proposed tower site changes, additional archaeological investigations may be necessary, as determined in consultation with the SHPO per the FCC Nationwide Programmatic Agreement. All field notes and documentation will be stored at the Raleigh office of Tower Engineering Professionals, Inc.

### **SOI Qualified Archaeologist/PI**

Garrett Johnson, MA, RA  
TEP Opco, LLC  
326 Tryon Road  
Raleigh, NC 27603

### **Field Archaeologist**

Autumn Saski, MA  
TEP Opco, LLC  
326 Tryon Road  
Raleigh, NC 27603

## REFERENCES

- Egloff, K., Woodward, D.  
2006 *First People: The Early Indians of Virginia*. University of Virginia Press, Charlottesville, Virginia.
- Gardner, W.  
1982 *Early and Middle Woodland in the Middle Atlantic*. American Indian Archaeological Institute, Occasional Paper 3.
- Griffith, G.E., Omernik, J.M., Smith D.W., Cook, T.D., Tallyn, E., Moseley, K., and Johnson, C.B.  
2002 *Ecoregions of Virginia*, (color poster with map, descriptive text, summary tables, and photographs): U.S. Geological Survey Open-File Report 2016-1021, with map (map scale 1:1,100,000).
- Kuchler, A.W.  
1964 Potential natural vegetation of the conterminous United States (map and manual): American Geographic Society Special Publication 36, scale 1:3,168,000.
- McAvoy, Joseph M. and Lynn D. McAvoy. Archaeological Investigations of Site 44SX202  
1997 Cactus Hill, Sussex County, Virginia. Richmond: Virginia Department of Historic Resources Research Report Series No. 8.
- National Park Service  
2023 *Reams Station: The Last Hours*. <https://www.nps.gov/pete/learn/historyculture/reams-station-the-last-hours.htm>. Accessed September 27, 2024.
- Natural Resources Conservation Services (NRCS)  
2020 *Dinwiddie County Soil Survey*. <http://websoilsurvey.nrcs.usda.gov/app/> Accessed September 27, 2024.
- Smith, B.D.  
1986 The Archaeology of the Southeastern United States: From Dalton to deSoto (10,500 B.P.-500 B.P.). In *Advances in World Archaeology*, Volume 5 edited by Fred Wendorf and Angela E. Close. Academic Press, New York. pp 1-92.
- Steponaitis, V.P.  
1986 Prehistoric Archaeology in the Southeastern United States. *Annual Review of Anthropology* (15): 363-404.
- Trimble, S.W.,  
1974 Man induced soil erosion on the southern Piedmont: Ankeny, Iowa, Soil Conservation Society of America, 180 p.

Trudeau, Noah A.

1991 The Last Citadel: Petersburg, Virginia, June 1864-April 1865. Baton Rouge: Louisiana State University Press.

Virginia Division of Mineral Resources

1993 Geologic map of Virginia: Commonwealth of Virginia, Department of Mines, Minerals, and Energy, Virginia Division of Mineral Resources, scale 1:500,000

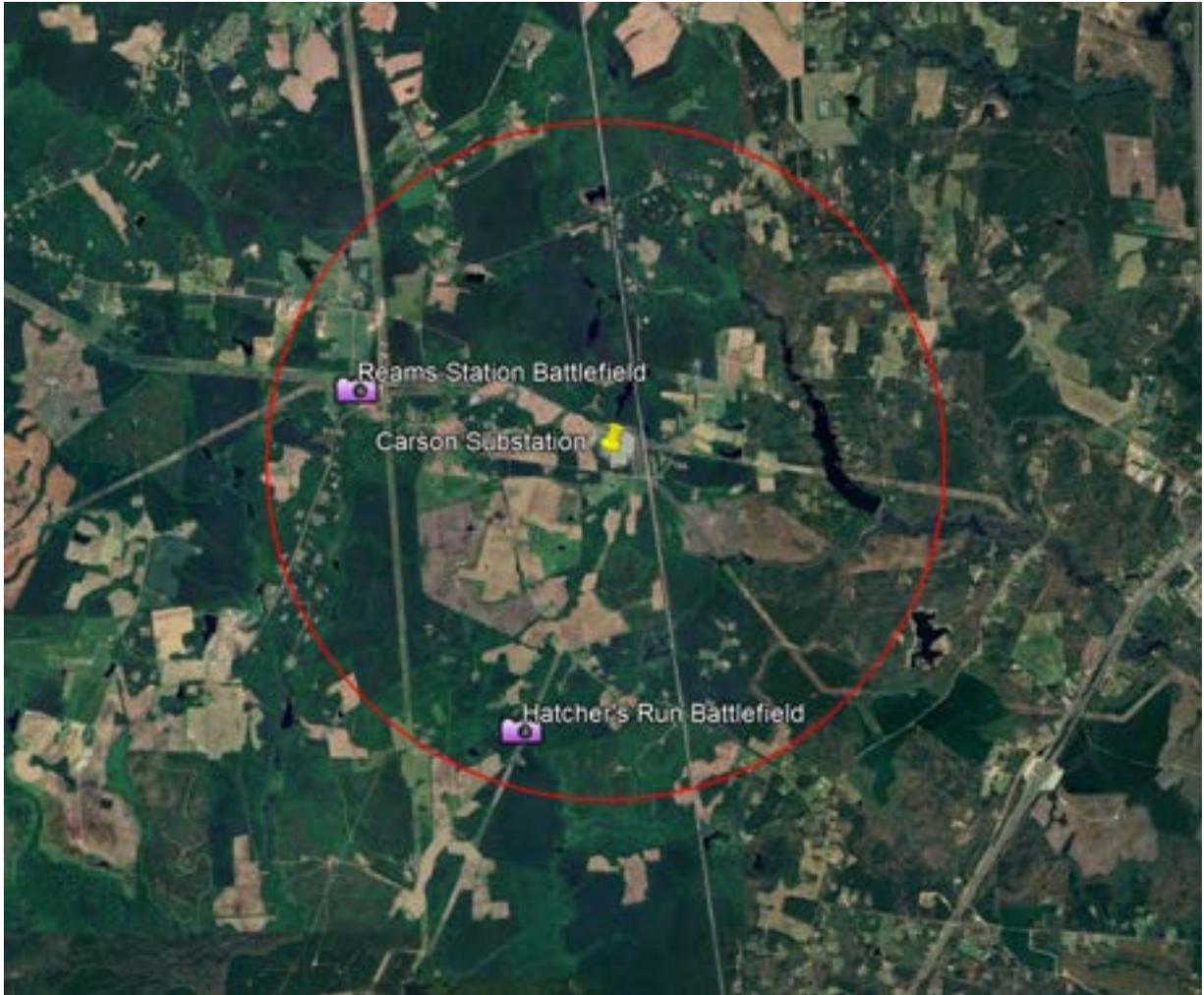
Appendix



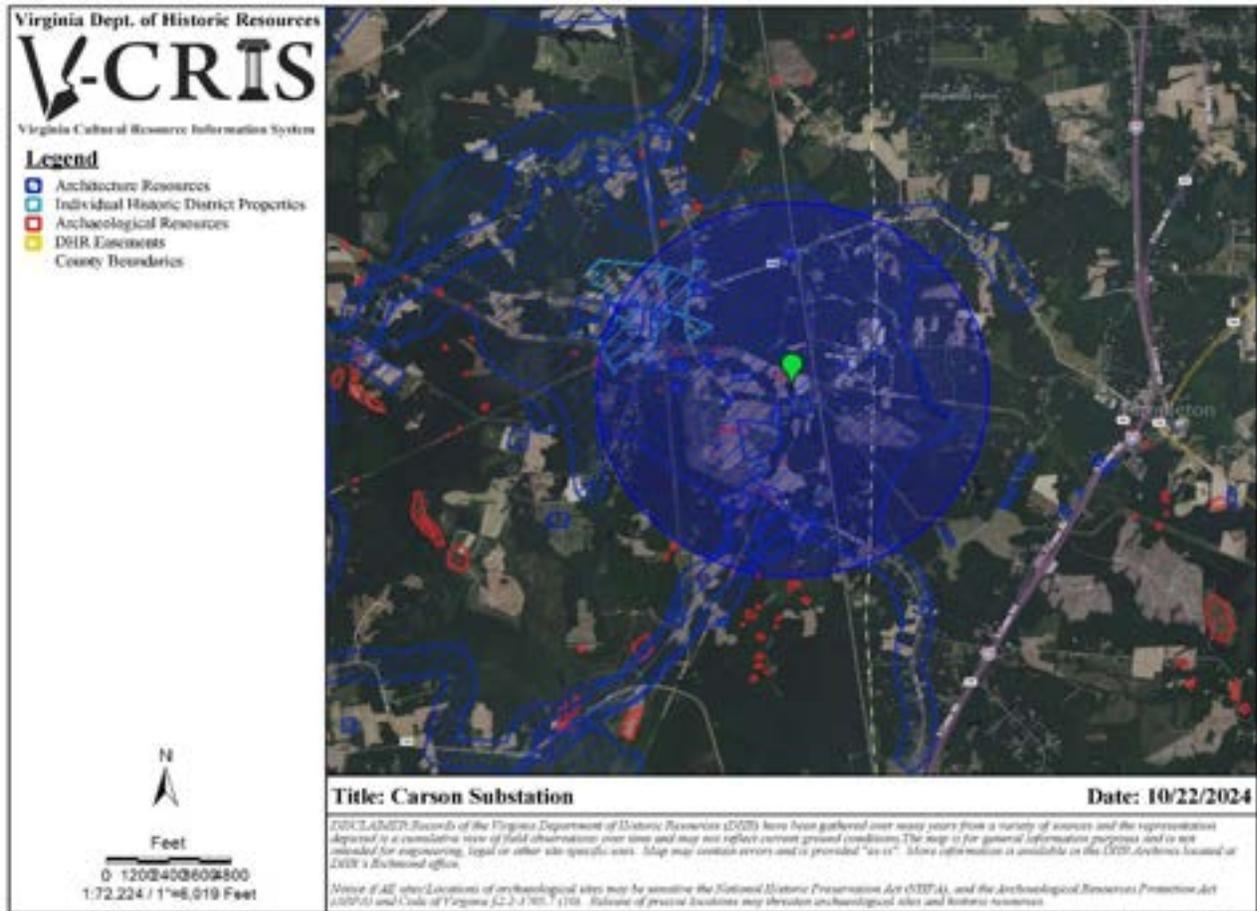
**View from Brick Road within Hatcher's Run Battlefield facing proposed communications tower.**



**View from Perkins Road within Reams Station Battlefield facing proposed communications tower.**



**Photo Map of Historic Properties within the visual APE**



SHPO Map



## **Garrett Johnson, MA**

### **Cultural Resources Staff Archaeologist**

#### **EDUCATION**

---

University of South Alabama  
Mobile, AL  
Degree: Master of Arts (2019)  
Major: Public History (CRM)

University of South Alabama  
Mobile, AL  
Degree: Bachelor of Arts (2014)  
Major: History

#### **WORK SUMMARY**

---

##### Tower Engineering Professionals, Inc. Raleigh, NC **(October 2018 – present)**

- Cultural Resources Staff Archaeologist
- Completed Section 106 Compliance Surveys, archaeology and visual assessments for Federal Communication Commission projects throughout the U.S.
- Conduct background research
- Conduct artifact analysis and curation
- Author cultural resources management reports
- Surveys conducted in: NC, VA, FL, GA, SC, AL, MS, AR, MO, TN, KY, OH, CO, OR, ID, NE, MN, WV, SD

##### Southern Research: Historic Preservation Consultants, Gray, GA **(February 2018-August 2018)**

- Archaeological Field Technician
- Conducted Phase I survey archaeology in compliance with National Forest Service
- Completed background research in survey area to accompany Phase I survey
- Mapped and detailed cemetery sites within the Phase I area survey

##### Tennessee Valley Archaeological Research Huntsville, AL **(February 2017-January 2018)**

- Crew Lead
- Worked with Tennessee Valley Authority in compliance to Section 106 guidelines
- Conduct Phase I, II, and III archaeology on transmission lines and access roads
- Worked with the National Forest Service, the states of Mississippi, Louisiana, Tennessee, and Alabama in compliance with Section 106 Guidelines.
- Processed and maintained a database for artifacts found during Phase I, II, and III.

##### University of South Alabama Center for Archaeological Study **(January 2016-July 2016)**

- Field and Laboratory Intern
- Conducted background research for academic projects
- Performed Phase I and II cultural resources surveys in National Forest and Old Mobile Archaeological project
- Processed artifacts for collections recovered from field work



## Tower Construction Notification

[FCC](#) > [WTB](#) > Tower Construction Notification

[FCC Site Map](#)

Logged In: ([Log Out](#)) [Section 106](#)

### Tower Construction Notification New Notification

[Notifications Home](#)

Your Notification has been successfully submitted to the FCC. The date for this Notification is 03/31/2025. Your Notification ID number is **293757**. Please make a note of this Notification ID — print out this page for your records. A confirmation of this submitted notification will also be emailed to the email address specified in your notification.

This system is intended to facilitate consultation under Section 106 of the National Historic Preservation Act by providing early notification of proposed construction to Tribes and State Historic Preservation officers. This system is not to be used in place of Section 106 consultation, and use of this notification system in itself does not satisfy parties' obligations with respect to historic preservation review under the Commission's rules.

**Please note: the submission of this notification is NOT to be considered a submission for Antenna Structure Registration.**

Tower Structures that require antenna structure registration based on FCC Rules 47 C.F.R. Part 17 must complete FCC Form 854 after FAA clearance is obtained.

**ASR Help**

[ASR License Glossary](#) - [FAQ](#) - [Online Help](#) - [Documentation](#) - [Technical Support](#)

**ASR Online Systems**

[TOWAIR](#)- [CORES/ASR Registration](#) - [ASR Online Filing](#) - [Application Search](#) - [Registration Search](#)

**About ASR**

[Privacy Statement](#) - [About ASR](#) - [ASR Home](#)

Federal Communications Commission  
45 L Street NE  
Washington, DC 20554  
[More FCC Contact Information...](#)

Phone: 1-877-480-3201  
ASL Videophone: 1-844-432-2275  
Fax: 1-866-418-0232  
[Submit Help Request](#)

- [Web Policies & Privacy Statement](#)  
- [Required Browser Plug-ins](#)  
- [Customer Service Standards](#)  
- [Freedom of Information Act](#)



---

## Proposed Tower Structure Info - Email ID #9166289

1 message

---

**towernotifyinfo@fcc.gov** <towernotifyinfo@fcc.gov>  
To: tcns@tepgroup.net

Mon, Mar 31, 2025 at 12:53 PM

---

### This Message Is From an External Sender

This message came from outside your organization.

Dear Ryan A Malek,

Thank you for submitting a notification regarding your proposed construction via the Tower Construction Notification System. Note that the system has assigned a unique Notification ID number for this proposed construction. You will need to reference this Notification ID number when you update your project's Status with us.

Below are the details you provided for the construction you have proposed:

Notification Received: 03/31/2025

Notification ID: 293757

Tower Owner Individual or Entity Name: TEP for Dominion Energy

Consultant Name: Ryan A Malek

Street Address: 326 Tryon Rd.

City: Raleigh

State: NORTH CAROLINA

Zip Code: 27603

Phone: 919-661-6351

Email: [tcns@tepgroup.net](mailto:tcns@tepgroup.net)

Structure Type: LTOWER - Lattice Tower

Latitude: 37 deg 5 min 4.5 sec N

Longitude: 77 deg 24 min 25.2 sec W

Location Description: 28908 Ellington Road

City: Petersburg

State: VIRGINIA

County: DINWIDDIE

Detailed Description of Project: Proposed construction of a 420-ft AGL (424-ft AGL overall with appurtenances) self-support communications tower and its associated compound facility to be located in Dinwiddie County, VA.

Ground Elevation: 48.8 meters

Support Structure: 128.1 meters above ground level

Overall Structure: 129.3 meters above ground level

Overall Height AMSL: 178.1 meters above mean sea level



TEP-TCNS inbox &lt;tcns@tepgroup.net&gt;

---

**NOTICE OF ORGANIZATION(S) WHICH WERE SENT PROPOSED TOWER  
CONSTRUCTION NOTIFICATION INFORMATION - Email ID #9168201**

1 message

---

**towernotifyinfo@fcc.gov** <towernotifyinfo@fcc.gov>  
To: tcns@tepgroup.net  
Cc: tcnsweekly@fcc.gov

Fri, Apr 4, 2025 at 3:01 AM

---

**This Message Is From an External Sender**

This message came from outside your organization.

Dear Applicant:

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this electronic mail message is to inform you that the following authorized persons were sent the notification that you provided through TCNS, which relates to your proposed antenna structure. The information was forwarded by the FCC to authorized TCNS users by electronic mail and/or regular mail (letter). We note that the review period for all parties begins upon receipt of the Submission Packet pursuant to Section VII.A of the NPA and notifications that do not provide this serve as information only.

Persons who have received the notification that you provided include leaders or their designees of federally-recognized American Indian Tribes, including Alaska Native Villages (collectively "Tribal Nations"), Native Hawaiian Organizations (NHOs), and State Historic Preservation Officers (SHPOs). For your convenience in identifying the referenced Tribal Nations and NHOs and in making further contacts, the City and State of the Seat of Government for each Tribal Nation and NHO, as well as the designated contact person, is included in the listing below. We note that Tribal Nations may have Section 106 cultural interests in ancestral homelands or other locations that are far removed from their current Seat of Government. Pursuant to the Commission's rules as set forth in the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission (NPA), all Tribal Nations and NHOs listed below must be afforded a reasonable opportunity to respond to this notification, consistent with the procedures set forth below, unless the proposed construction falls within an exclusion designated by the Tribal Nation or NHO. (NPA, Section IV.F.4).

The notification that you provided was forwarded to the following Tribal Nations and NHOs. A Tribal Nation or NHO may not respond until a full Submission Packet is provided. If, upon receipt, the Tribal Nation or NHO does not respond within a reasonable time, you should make a reasonable effort at follow-up contact, unless the Tribal Nation or NHO has agreed to different procedures (NPA, Section IV.F.5). In the event a Tribal Nation or NHO does not respond to a follow-up inquiry, or if a substantive or procedural disagreement arises between you and a Tribal Nation or NHO, you must seek guidance from the Commission (NPA, Section IV.G). These procedures are further set forth in the FCC's Second Report and Order released on March 30, 2018 (FCC 18-30).

1. TCNS Coordinator Tiffany Martinez - Delaware Nation - 31064 State Highway 281 (PO Box: 825) Anadarko, OK - [tmartinez@delawarenation-nsn.gov](mailto:tmartinez@delawarenation-nsn.gov) - 405-247-2448 (ext: 1403) - electronic mail  
Exclusions: The Delaware Nation of Oklahoma Historic Preservation Office has developed the following consultation procedures for all TCNS projects identified as undertakings by the Federal Communications Commission. In the email subject line, please specify whether the project is for a tower, small cell, or collocation. Our response can be given faster with this information.

2. THPO Liana S Hesler - Ponca Tribe of Indians of Oklahoma - [101 White Eagle Drive Ponca City, OK - 106notifications@ponca-nsn.gov](mailto:106notifications@ponca-nsn.gov) - 580-382-6633 - electronic mail

3. TCNS Rep Bryan Printup - Tuscarora Nation - [5226 Walmore Rd Via: Lewiston, NY](#) - [bprintup@hetf.org](mailto:bprintup@hetf.org) - 716-264-6011 (ext: 103) - electronic mail

If the applicant/tower builder receives no response from the Tuscarora Nation within 30 days after notification through TCNS, the Tuscarora Nation has no interest in participating in pre-construction review for the proposed site. The Applicant/tower builder,

however, must immediately notify the Tuscarora Nation in the event archaeological properties or human remains are discovered during construction, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

4. THPO Noah C White III - Prairie Island Indian Community - [5636 Sturgeon Lake Road Welch, MN](#) - [celltower@piic.org](mailto:celltower@piic.org) - 651-385-4175 - electronic mail

If the applicant/tower builder receives no response from the Prairie Island Indian Community within 30 days after notification through TCNS, the Prairie Island Indian Community has no interest in participating in pre-construction review for the proposed site. The Applicant/tower builder,

however, must immediately notify the Prairie Island Indian Community in the event archaeological properties or human remains are discovered during construction, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

5. THPO Lawrence Plucinski - Bad River Band of Lake Superior Tribe of Chippewa Indians - (PO Box: 39) Odanah, WI - [thpo@badriver-nsn.gov](mailto:thpo@badriver-nsn.gov); [deputyTHPO@badriver-nsn.gov](mailto:deputyTHPO@badriver-nsn.gov) - 715-682-7123 - electronic mail

If the applicant/tower builder receives no response from the Bad River Band of Lake Superior Tribe of Chippewa Indians within 30 days after notification through TCNS, the Bad River Band of Lake Superior Tribe of Chippewa Indians has no interest in participating in pre-construction review for the proposed site. The Applicant/tower builder,

however, must immediately notify the Bad River Band of Lake Superior Tribe of Chippewa Indians in the event archaeological properties or human remains are discovered during construction, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

6. Cell Tower Coordinator Kelly Nelson - Eastern Shawnee Tribe of [Oklahoma](#) - [70400 East HWY 60 Wyandotte, OK](#) - [celltower@estoo.net](mailto:celltower@estoo.net) - 918-238-5151 (ext: 1861) - regular mail

Exclusions: DO NOT EMAIL DOCUMENTATION; it will be deleted without being opened.

Submit one printed color copy by US postal mail or other parcel carrier of all documentation to:

Eastern Shawnee Tribe  
Attn: CellTower Program  
70500 E. 128 Rd.  
Wyandotte, OK 74370

Provide a 1-page cover letter with the following information:

- a. TCNS Number
- b. Company Name
- c. Project Name, City, County, State
- d. Project type
- e. Project coordinates
- f. Contact information

The Eastern Shawnee Procedures document is available and highly recommended for guidance; send an email to [celltower@estoo.net](mailto:celltower@estoo.net) requesting our most current copy.

7. THPO and Executive Director Dr. Wenonah G Haire DMD - Catawba Indian Nation - [1536 Tom Steven Road](#) Catawba Cultural Center Rock Hill, SC - [Wenonah.Haire@catawba.com](mailto:Wenonah.Haire@catawba.com); [Caitlin.Rogers@catawba.com](mailto:Caitlin.Rogers@catawba.com) - 803-417-9057 - regular mail

Exclusions: Please do not email documentation; it will be deleted without being opened. Mail one printed color copy of all documentation to address:

Dr. Wenonah G. Haire  
Tribal Historic Preservation Office  
1536 Tom Steven Road  
Rock Hill, SC 29730

Please submit by US Postal mail or other parcel carrier complete information for all telecommunication projects:

1. Please provide 1 page cover letter with following information

- a. TCNS Number
- b. Company Name
- c. Project Name, City, County, State
- d. Project Type
- e. Project coordinates
- f. Contact information

2. We also request photographs of project area, previous land use history and copy of SHPO Letter.

If you have any questions about our process or timeline of project notifications you can email Caitlin Rogers at [Caitlinh@ccppcrafts.com](mailto:Caitlinh@ccppcrafts.com)

8. Chief Kevin Brown - Pamunkey Indian Tribe - 1054 Pocahontas Trail King William, VA - [kevin.brown@pamunkey.org](mailto:kevin.brown@pamunkey.org); [pamunkeytribe@pamunkey.org](mailto:pamunkeytribe@pamunkey.org) - 804-843-2452 - electronic mail

If the applicant/tower builder receives no response from the Pamunkey Indian Tribe within 30 days after notification through TCNS, the Pamunkey Indian Tribe has no interest in participating in pre-construction review for the proposed site. The Applicant/tower builder,

however, must immediately notify the Pamunkey Indian Tribe in the event archaeological properties or human remains are discovered during construction, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

9. Program Manager Ellen Chapman - Cultural Heritage Partners - [1811 East Grace St Suite A Richmond, VA](#) - [ellen@culturalheritagepartners.com](mailto:ellen@culturalheritagepartners.com); [rapn8n@gmail.com](mailto:rapn8n@gmail.com) - 434-327-6663 - electronic mail

10. Chief Stephen Adkins - Chickahominy Indian Tribe - [7240 Adkins Road Charles City, VA](#) - [stephen.adkins@chickahominytribe.org](mailto:stephen.adkins@chickahominytribe.org) - 804-829-5548 - electronic mail

11. Chief W. Frank Adams - The Upper Mattaponi Indian Tribe - (PO Box: 184) King William, VA - [wfrankadams@verizon.net](mailto:wfrankadams@verizon.net) - 804-690-1694 - electronic mail

12. Chief Keith Anderson - Nansemond Indian Tribe - 1001 Pembroke Lane Suffolk, VA - [chief@nansemond.org](mailto:chief@nansemond.org); [marion@culturalheritagepartners.com](mailto:marion@culturalheritagepartners.com) - 757-619-0670 - electronic mail

The notification that you provided was also forwarded to the following SHPOs in the State in which you propose to construct and neighboring States. The information was provided to these SHPOs as a courtesy for their information and planning. You need make no effort at this time to follow up with any SHPO that does not respond to this notification. Prior to construction, you must provide the SHPO of the State in which you propose to construct (or the Tribal Historic Preservation Officer, if the project will be located on certain Tribal lands), with a Submission Packet pursuant to Section VII.A of the NPA unless the project is excluded from SHPO review under Section III D or E of the NPA.

13. Environmental Review Coordinator Renee GledhillEarley - NC State Historic Preservation Office - 4617 Mail Service Center Raleigh, NC - [renee.gledhill-earley@ncmail.net](mailto:renee.gledhill-earley@ncmail.net) - 919-733-4763 - electronic mail

14. Deputy SHPO David Brook - Historic Preservation Office - 4610 Mail Service Center Raleigh, NC - [david.brook@ncmail.net](mailto:david.brook@ncmail.net) - 919-807-7283 - electronic mail

15. Manager - Office of Review & Compliance Ethel R Eaton PhD - Department of Historic Resources - 2801 Kensington Avenue Richmond, VA - [ethel.eaton@dhr.virginia.gov](mailto:ethel.eaton@dhr.virginia.gov) - 804-367-2323 - electronic mail

16. Deputy SHPO Susan Pierce - West Virginia Division of Culture & History, Historic Preservation Office - 1901 Kanawha Boulevard East Charleston, WV - [susan.pierce@wvculture.org](mailto:susan.pierce@wvculture.org) - -- - electronic mail

17. Director Julie Langan - Virginia Department of Historic Resources - 2801 Kensington Avenue Richmond, VA - [VASHPO\\_FCC@dhr.virginia.gov](mailto:VASHPO_FCC@dhr.virginia.gov) - 804-367-2323 - electronic mail

TCNS automatically forwards all notifications to all Tribal Nations and SHPOs that have an expressed interest in the geographic area of a proposal. However, if a proposal for PTC wayside poles falls within a designated exclusion, you need not expect any response and need not pursue any additional process with that Tribal Nation or SHPO. In addition, a particular Tribal Nation or SHPO may also set forth policies or procedures within its details box that exclude from review certain facilities (for example, a statement that it does not review collocations with no ground disturbance; or that indicates that no response within 30 days indicates no interest in participating in pre-construction review).

Please be advised that the FCC cannot guarantee that the contact(s) listed above have opened and reviewed an electronic or regular mail notification. If you learn that any of the above contact information is no longer valid, please contact the FCC by emailing [tcnshelp@fcc.gov](mailto:tcnshelp@fcc.gov). The following information relating to the proposed tower was forwarded to the person(s) listed above:

Notification Received: 03/31/2025  
Notification ID: 293757  
Excluded from SHPO Review: No  
Tower Owner Individual or Entity Name: TEP for Dominion Energy  
Consultant Name: Ryan A Malek  
Street Address: 326 Tryon Rd.  
City: Raleigh  
State: NORTH CAROLINA  
Zip Code: 27603  
Phone: 919-661-6351  
Email: [tcns@tepgroup.net](mailto:tcns@tepgroup.net)

Structure Type: LTOWER - Lattice Tower

Latitude: 37 deg 5 min 4.5 sec N

Longitude: 77 deg 24 min 25.2 sec W

Location Description: 28908 Ellington Road

City: Petersburg

State: VIRGINIA

County: DINWIDDIE

Detailed Description of Project: Proposed construction of a 420-ft AGL (424-ft AGL overall with appurtenances) self-support communications tower and its associated compound facility to be located in Dinwiddie County, VA.

Ground Elevation: 48.8 meters

Support Structure: 128.1 meters above ground level

Overall Structure: 129.3 meters above ground level

Overall Height AMSL: 178.1 meters above mean sea level

If you have any questions or comments regarding this notice, please contact the FCC using the electronic Help Request form located on the FCC's website at:

[https://urldefense.com/v3/\\_\\_https://www.fcc.gov/wireless/available-support-services\\_\\_;!!JV-z9g!NmTFxA23Ku9Gdpv7OWcs5EAbf4SWKmHuyO54huLm-gnzjwEC-d-GV8oeg6Zco1tkbNxVCL5KJR8HkbgEC0L1Sp8SMg\\$](https://urldefense.com/v3/__https://www.fcc.gov/wireless/available-support-services__;!!JV-z9g!NmTFxA23Ku9Gdpv7OWcs5EAbf4SWKmHuyO54huLm-gnzjwEC-d-GV8oeg6Zco1tkbNxVCL5KJR8HkbgEC0L1Sp8SMg$)

You may also call the FCC Support Center at (877) 480-3201 (TTY 717-338-2824). Hours are from 8:00 a.m. to 6:00 p.m. Eastern Time, Monday through Friday (except Federal holidays). To provide quality service and ensure security, all telephone calls are recorded.

Thank you,  
Federal Communications Commission

**VIA CERTIFIED MAIL, RETURN RECEIPT REQUESTED**

May 5, 2025

Nansemond Indian Tribe  
1001 Pembroke Lane  
Suffolk, VA 23432

Eastern Shawnee Tribe of Oklahoma  
70500 East 128 Road  
Wyandotte, OK 74370

Chickahominy Indian Tribe  
7240 Adkins Road  
Charles City, VA 23030

Ponca Tribe of Indians of Oklahoma  
101 White Eagle Drive  
Ponca City, OK 74601

Delaware Nation  
31064 State Highway 281 (PO Box: 825)  
Anadarko, OK 73005

Cultural Heritage Partners  
811 East Grace St Suite A  
Richmond, VA 23223

Catawba Indian Nation  
1536 Tom Steven Road  
Rock Hill, SC 29730

The Upper Mattaponi Indian Tribe  
PO Box 184  
King William, VA 23086

**Subject: Proposed Construction of a 420-ft (424-ft AGL) replacement self-support communications tower  
Dominion Energy Site: Carson Substation  
FCC TCNS # 293757, Date Filed: 3/31/2025  
28908 Ellington Road, Petersburg, VA 23805 (Dinwiddie County)**

To Whom it May Concern,

Dominion Energy contracted with TEP OpCo, LLC (TEP) to provide consulting services for the proposed Carson Substation telecommunications facility. The project proposes to construct a 420-ft (424-ft overall with appurtenances) above ground level (AGL) replacement self-support communications tower. The proposed tower will be located at 28908 Ellington Road, south of the City of Petersburg, within Dinwiddie County, Virginia. The proposed communications tower facility will be located on a parcel identified as PID: 49 – 31A by the Dinwiddie County, VA, Tax Assessor. The total limits of disturbance associated with the tower lease area is approximately ~10,546-ft<sup>2</sup> (~0.24 acres). The topography of the proposed tower compound is generally flat. The proposed tower site is located within a forested area. The parent property is located within a portion of Dinwiddie County, VA, where the majority of the surrounding area is occupied by agricultural, residential, and forested land.

The 1-A coordinates of the proposed replacement self-support communications tower location are as follows:

Latitude: N 37.084594° (NAD 83)  
Longitude: W 77.406992° (NAD 83)

On September 23, 2024, TEP reviewed the location of the proposed construction of a 420-ft (424-ft overall with appurtenances) AGL replacement self-support telecommunications tower to assess the level of prior disturbance and to determine if the location has the potential to affect historic properties. The FCC designated APE for visual effects for towers above 400-ft tall is a 1.5-mile radius from the proposed tower centerline. TEP personnel completed background research for the associated project on October 22, 2024. Their assessment resulted in the identification of two (2) National Register of Historic Places (NRHP) listed historic properties were identified within the direct APE. The project area has already been disturbed due to the construction of the substation in 1975 and the existence of another tower within the NRHP eligible properties so the proposed tower will not adversely affect the historic landscape or integrity of the historic properties. Therefore, it is the opinion of TEP that the proposed tower will have **no adverse effect** on the two (2) NRHP listed historic properties, no avoidance or further work is recommended for the proposed project, and that the tower will have **no adverse effect** on historic properties.

On behalf of Dominion Energy, TEP believes the existing tower site does not appear to pose a threat to Native American sites of religious or cultural significance; however, we are requesting your thoughts on those findings. Please provide any comments within 30 days of the receipt of this letter. The FCC Form 620 and Cultural Resources Report have been included for your review.

Thank you in advance for your input. Should there be any questions or further information required, please contact Kayla Stanley at [kayla.stanley@dominionenergy.com](mailto:kayla.stanley@dominionenergy.com).

Sincerely,

A handwritten signature in black ink, appearing to read "Rachel W. Snead". The signature is fluid and cursive, with the first name "Rachel" being the most prominent.

Rachel W Snead  
General Manager, Environmental

# LOCALiQ

The Progress-Index

PO Box 631215 Cincinnati, OH 45263-1215

## AFFIDAVIT OF PUBLICATION

Tower Engineering Professional  
2800 Oshanter Pl  
Raleigh NC 27604

STATE OF VIRGINIA, COUNTY OF DINWIDDIE AND PRINCE  
GEORGE

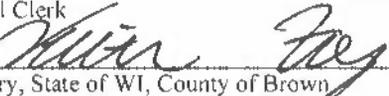
The Progress-Index, a daily newspaper of general circulation,  
printed and published in Petersburg, Dinwiddie and Prince George  
County, Virginia; that the publication, printed and published and  
personal knowledge of the facts herein state and that the notice  
hereto annexed was Published in said newspapers in the issues  
dated on:

04/03/2025

and that the fees charged are legal.  
Sworn to and subscribed before on 04/03/2025



Legal Clerk



Notary, State of WI, County of Brown

3.7.27

My commission expires

Publication Cost:	\$72.23	
Tax Amount:	\$0.00	
Payment Cost:	\$72.23	
Order No:	11185218	# of Copies:
Customer No:	1462477	0
PO #:	LPTR0269924	

**THIS IS NOT AN INVOICE!**

*Please do not use this form for payment remittance.*

KAITLYN FELTY  
Notary Public  
State of Wisconsin

Dominion Energy proposes to construct a 420-ft (424-ft overall with appurtenances) AGL self-support telecommunications tower. The proposed tower will be located at 28908 Ellington Road, south of the City of Petersburg, in Dinwiddie County, Virginia (Dinwiddie County Parcel #49-31A). Please submit any written comments 30 days after publication regarding the potential effects that the proposed tower may have on Historic Properties that are listed or eligible for inclusion on the National Register of Historic Places to: TEP OpCo, LLC (Attn: Ryan Malek) 326 Tryon Road, Raleigh, NC 27603 Telephone: (919) 661-6351 Fax: (919) 661-6350 April 3 2025 LPTR0269924



**VIA CERTIFIED MAIL, RETURN RECEIPT REQUESTED**

May 5, 2025

Dinwiddie County Planning and Zoning Department  
P.O. Drawer 70  
Dinwiddie, Virginia 23841

Attn: Dinwiddie County Planning and Zoning Department

**Subject: Proposed Construction of a 420-ft (424-ft AGL) replacement self-support communications tower  
Dominion Energy Site: Carson Substation  
FCC TCNS # 293757, Date Filed: 3/31/2025  
28908 Ellington Road, Petersburg, VA 23805 (Dinwiddie County)**

To Whom it May Concern:

PLEASE NOTE THAT THIS IS NOT A ZONING OR PERMIT APPLICATION. ANY SUCH REQUIRED PROCESSES WILL BE HANDLED AT ANOTHER TIME BY OTHERS, IF APPLICABLE.

Dominion Energy contracted with TEP OpCo, LLC (TEP) to provide consulting services for the proposed Carson Substation telecommunications facility. The project proposes to construct a 420-ft (424-ft overall with appurtenances) above ground level (AGL) replacement self-support communications tower. The proposed tower will be located at 28908 Ellington Road, south of the City of Petersburg, within Dinwiddie County, Virginia. The proposed communications tower facility will be located on a parcel identified as PID: 49 – 31A by the Dinwiddie County, VA, Tax Assessor. The total limits of disturbance associated with the tower lease area is approximately ~10,546-ft<sup>2</sup> (~0.24 acres). The topography of the proposed tower compound is generally flat. The proposed tower site is located within a forested area. The parent property is located within a portion of Dinwiddie County, VA, where the majority of the surrounding area is occupied by agricultural, residential, and forested land.

On September 23, 2024, TEP reviewed the location of the proposed construction of a 420-ft (424-ft overall with appurtenances) AGL replacement self-support telecommunications tower to assess the level of prior disturbance and to determine if the location has the potential to affect historic properties. The FCC designated APE for visual effects for towers above 400-ft tall is a 1.5-mile radius from the proposed tower centerline. TEP personnel completed background research for the associated project on October 22, 2024. Their assessment resulted in the identification of two (2) National Register of Historic Places (NRHP) listed historic properties were identified within the direct APE. The project area has already been disturbed due to the construction of the substation in 1975 and the existence of another tower within the NRHP-eligible properties so the proposed tower will not adversely affect the historic landscape or integrity of the historic properties. Therefore, it is the opinion of TEP that the proposed tower will have **no adverse effect** on the two (2) NRHP listed historic properties, no avoidance or further work is recommended for the proposed project, and that the tower will have **no adverse effect** on historic properties.

Dominion Energy is reaching out to provide notification of the proposed undertaking and to invite you to provide any comments in the federally mandated review of the potential effects the proposed facility could have on historic properties. This review being conducted by Dominion Energy under the oversight of the FCC and includes input from the State Historic Preservation Officer (“SHPO”), interested federally recognized Tribes, and the public. The focus of this review is twofold: (1) whether any historic properties may exist in the area of this project; and (2) if so, whether the project may cause any effects to such properties.

If you wish to participate in this historic review process, you are eligible to be a consulting party as envisioned by the National Historic Preservation Act. As a consulting party, you would be provided with copies of all documents and submissions made to the SHPO, notified of developments in historic review process, eligible to consult and comment on the identification of historic properties in the designated area of potential effects (“APE”), and able to provide input on any potential effects to historic properties and the resolution of any adverse effects. Your participation would bring an additional perspective to the process.

The Cultural Resources report for this project is included to provide additional information to the synopsis provided herein. Please let us know within 30 days of receipt of this letter if you wish to become a consulting party. If you choose not to become a consulting party, your comments are still welcome but should be provided within 30 days of receipt of this letter.

Should there be any questions or further information required, please contact Kayla Stanley at [kayla.stanley@dominionenergy.com](mailto:kayla.stanley@dominionenergy.com).

Sincerely,

A handwritten signature in black ink, appearing to read "Rachel W. Snead". The signature is fluid and cursive, with the first name "Rachel" being the most prominent.

Rachel W Snead  
General Manager, Environmental



**VIA CERTIFIED MAIL, RETURN RECEIPT REQUESTED**

May 5, 2025

Dinwiddie Historical Society  
P.O. Box 153  
Dinwiddie, Virginia 23841

Attn: Dinwiddie Historical Society

**Subject: Proposed Construction of a 420-ft (424-ft AGL) replacement self-support communications tower  
Dominion Energy Site: Carson Substation  
FCC TCNS # 293757, Date Filed: 3/31/2025  
28908 Ellington Road, Petersburg, VA 23805 (Dinwiddie County)**

To Whom it May Concern:

PLEASE NOTE THAT THIS IS NOT A ZONING OR PERMIT APPLICATION. ANY SUCH REQUIRED PROCESSES WILL BE HANDLED AT ANOTHER TIME BY OTHERS, IF APPLICABLE.

Dominion Energy contracted with TEP OpCo, LLC (TEP) to provide consulting services for the proposed Carson Substation telecommunications facility. The project proposes to construct a 420-ft (424-ft overall with appurtenances) above ground level (AGL) replacement self-support communications tower. The proposed tower will be located at 28908 Ellington Road, south of the City of Petersburg, within Dinwiddie County, Virginia. The proposed communications tower facility will be located on a parcel identified as PID: 49 – 31A by the Dinwiddie County, VA, Tax Assessor. The total limits of disturbance associated with the tower lease area is approximately ~10,546-ft<sup>2</sup> (~0.24 acres). The topography of the proposed tower compound is generally flat. The proposed tower site is located within a forested area. The parent property is located within a portion of Dinwiddie County, VA, where the majority of the surrounding area is occupied by agricultural, residential, and forested land.

On September 23, 2024, TEP reviewed the location of the proposed construction of a 420-ft (424-ft overall with appurtenances) AGL replacement self-support telecommunications tower to assess the level of prior disturbance and to determine if the location has the potential to affect historic properties. The FCC designated APE for visual effects for towers above 400-ft tall is a 1.5-mile radius from the proposed tower centerline. TEP personnel completed background research for the associated project on October 22, 2024. Their assessment resulted in the identification of two (2) National Register of Historic Places (NRHP) listed historic properties were identified within the direct APE. The project area has already been disturbed due to the construction of the substation in 1975 and the existence of another tower within the NRHP-eligible properties so the proposed tower will not adversely affect the historic landscape or integrity of the historic properties. Therefore, it is the opinion of TEP that the proposed tower will have **no adverse effect** on the two (2) NRHP listed historic properties, no avoidance or further work is recommended for the proposed project, and that the tower will have **no adverse effect** on historic properties.

Dominion Energy is reaching out to provide notification of the proposed undertaking and to invite you to provide any comments in the federally mandated review of the potential effects the proposed facility could have on historic properties. This review being conducted by Dominion Energy under the oversight of the FCC and includes input from the State Historic Preservation Officer (“SHPO”), interested federally recognized Tribes, and the public. The focus of this review is twofold: (1) whether any historic properties may exist in the area of this project; and (2) if so, whether the project may cause any effects to such properties.

If you wish to participate in this historic review process, you are eligible to be a consulting party as envisioned by the National Historic Preservation Act. As a consulting party, you would be provided with copies of all documents and submissions made to the SHPO, notified of developments in historic review process, eligible to consult and comment on the identification of historic properties in the designated area of potential effects (“APE”), and able to provide input on any potential effects to historic properties and the resolution of any adverse effects. Your participation would bring an additional perspective to the process.

The Cultural Resources report for this project is included to provide additional information to the synopsis provided herein. Please let us know within 30 days of receipt of this letter if you wish to become a consulting party. If you choose not to become a consulting party, your comments are still welcome but should be provided within 30 days of receipt of this letter.

Should there be any questions or further information required, please contact Kayla Stanley at [kayla.stanley@dominionenergy.com](mailto:kayla.stanley@dominionenergy.com).

Sincerely,

A handwritten signature in black ink, appearing to read "Rachel W. Snead". The signature is fluid and cursive, with the first name "Rachel" being the most prominent.

Rachel W Snead  
General Manager, Environmental



TEP-TCNS inbox &lt;tcns@tepgroup.net&gt;

---

**Section 106 Notification of SHPO/THPO Request for Information- Email ID #11125993**

---

towernotifyinfo@fcc.gov <towernotifyinfo@fcc.gov>  
To: tcns@tepgroup.net

Thu, May 8, 2025 at 4:46 PM

---

**This Message Is From an External Sender**

This message came from outside your organization.

This is to notify you that the Lead SHPO/THPO has requested additional information on the following filing:

Source: Virginia Department of Historic Resources

Date of Action: 05/08/2025

Comment Text: Please invite Petersburg National Battlefield and the Battlefield Trust to comment.

Thanks,

Chris Novelli

Virginia Dept. of Historic Resources

File Number: 0011556200

TCNS Number: 293757

Purpose: New Tower Submission Packet

Notification Date: 7AM EST 05/06/2025

Applicant: Dominion Energy

Consultant: TEP OPCO, LLC

Positive Train Control Filing Subject to Expedited Treatment Under Program Comment: No

Site Name: Carson Substation

Site Address: [28908 Ellington Road](#)

Detailed Description of Project: Proposed construction of a 420-ft AGL (424-ft AGL overall with appurtenances) self-support communications tower and its associated compound facility to be located in Dinwiddie County, VA.

Site Coordinates: 37-5-4.5 N, 77-24-25.2 W

City: Petersburg

County: DINWIDDIE

State:VA

Lead SHPO/THPO: Virginia Department of Historic Resources

Please note that you must respond to this request within 60 days or this filing will be at risk of closure. To ensure that your response to this request is accurately recorded, your response must be uploaded as a document of type 'Response to SHPO/THPO Request for Information'.

**NOTICE OF FRAUDULENT USE OF SYSTEM, ABUSE OF PASSWORD AND RELATED MISUSE**

Use of the Section 106 system is intended to facilitate consultation under Section 106 of the National Historic Preservation Act and may contain information that is confidential, privileged or otherwise protected from disclosure under applicable laws. Any person having access to Section 106 information shall use it only for its intended purpose. Appropriate action will be taken with respect to any misuse of the system.



**VIA CERTIFIED MAIL, RETURN RECEIPT REQUESTED**

May 28, 2025

Petersburg National Battlefield Administration Office  
1539 Hickory Hill Road  
Petersburg, VA 23803

Attn: Petersburg National Battlefield Administration Office

**Subject: Proposed Construction of a 420-ft (424-ft AGL) replacement self-support communications tower  
Dominion Energy Site: Carson Substation  
FCC TCNS # 293757, Date Filed: 3/31/2025  
28908 Ellington Road, Petersburg, VA 23805 (Dinwiddie County)**

To Whom it May Concern:

PLEASE NOTE THAT THIS IS NOT A ZONING OR PERMIT APPLICATION. ANY SUCH REQUIRED PROCESSES WILL BE HANDLED AT ANOTHER TIME BY OTHERS, IF APPLICABLE.

Dominion Energy contracted with TEP OpCo, LLC (TEP) to provide consulting services for the proposed Carson Substation telecommunications facility. The project proposes to construct a 420-ft (424-ft overall with appurtenances) above ground level (AGL) replacement self-support communications tower. The proposed tower will be located at 28908 Ellington Road, south of the City of Petersburg, within Dinwiddie County, Virginia. The proposed communications tower facility will be located on a parcel identified as PID: 49 – 31A by the Dinwiddie County, VA, Tax Assessor. The total limits of disturbance associated with the tower lease area is approximately ~10,546-ft<sup>2</sup> (~0.24 acres). The topography of the proposed tower compound is generally flat. The proposed tower site is located within a forested area. The parent property is located within a portion of Dinwiddie County, VA, where the majority of the surrounding area is occupied by agricultural, residential, and forested land.

On September 23, 2024, TEP reviewed the location of the proposed construction of a 420-ft (424-ft overall with appurtenances) AGL replacement self-support telecommunications tower to assess the level of prior disturbance and to determine if the location has the potential to affect historic properties. The FCC designated APE for visual effects for towers above 400-ft tall is a 1.5-mile radius from the proposed tower centerline. TEP personnel completed background research for the associated project on October 22, 2024. Their assessment resulted in the identification of two (2) National Register of Historic Places (NRHP) listed historic properties were identified within the direct APE. The project area has already been disturbed due to the construction of the substation in 1975 and the existence of another tower within the NRHP-eligible properties so the proposed tower will not adversely affect the historic landscape or integrity of the historic properties. Therefore, it is the opinion of TEP that the proposed tower will have **no adverse effect** on the two (2) NRHP listed historic properties, no avoidance or further work is recommended for the proposed project, and that the tower will have **no adverse effect** on historic properties.

Dominion Energy is reaching out to provide notification of the proposed undertaking and to invite you to provide any comments in the federally mandated review of the potential effects the proposed facility could have on historic properties. This review being conducted by Dominion Energy under the oversight of the FCC and includes input from the State Historic Preservation Officer (“SHPO”), interested federally recognized Tribes, and the public. The focus of this review is twofold: (1) whether any historic properties may exist in the area of this project; and (2) if so, whether the project may cause any effects to such properties.

If you wish to participate in this historic review process, you are eligible to be a consulting party as envisioned by the National Historic Preservation Act. As a consulting party, you would be provided with copies of all documents and submissions made to the SHPO, notified of developments in historic review process, eligible to consult and comment on the identification of historic properties in the designated area of potential effects (“APE”), and able to provide input on any potential effects to historic properties and the resolution of any adverse effects. Your participation would bring an additional perspective to the process.

The Cultural Resources report for this project is included to provide additional information to the synopsis provided herein. Please let us know within 30 days of receipt of this letter if you wish to become a consulting party. If you choose not to become a consulting party, your comments are still welcome but should be provided within 30 days of receipt of this letter.

Should there be any questions or further information required, please contact Kayla Stanley at [kayla.stanley@dominionenergy.com](mailto:kayla.stanley@dominionenergy.com).

Sincerely,

Rachel Snead  
General Manager, Environmental Services



AMERICAN  
BATTLEFIELD  
TRUST ★ ★ ★  
PRESERVE. EDUCATE. INSPIRE.

June 26, 2025

Kayla Stanley  
Dominion Energy  
120 Tredegar St.  
Richmond, VA 23219  
kayla.stanley@dominionenergy.com

Dear Ms. Stanley,

Thank you for Dominion Energy's recent letter inviting the American Battlefield Trust ("Trust") as a Section 106 of the National Historic Preservation Act consultation party for the Dominion Energy Site: Carson Substation (FCC TCNS # 293757) located at 28908 Ellington Road, Petersburg, VA 23805. Due to our organization's mission to protect our nation's historic battlefields, we appreciate the opportunity to comment on the proposed project. The Trust accepts your invitation to consult on this undertaking.

At this point in the consultation process, the Trust asks that we be kept informed of project progress, including receiving a copy of the cultural resources report mentioned in your invitation letter. We may have additional comments or requests as the Section 106 process continues and more project information becomes available.

Thank you again for your invitation to be a consulting party on this undertaking. If you have any questions please do not hesitate to reach out via email to myself (Dylan Person, [dperson@battlefields.org](mailto:dperson@battlefields.org)) or Max Hokit ([mhokit@battlefields.org](mailto:mhokit@battlefields.org)).

Regards,

*Dylan Person*

Dylan Person, PhD, RPA  
American Battlefield Trust  
[dperson@battlefields.org](mailto:dperson@battlefields.org)



TEP-TCNS inbox &lt;tcns@tepgroup.net&gt;

---

**Section 106 Consulting Party Request - TCNS #293757**

5 messages

---

**TEP-TCNS inbox** <tcns@tepgroup.net>

Tue, Jul 1, 2025 at 12:42 PM

To: TEP-TCNS inbox &lt;tcns@tepgroup.net&gt;

Cc: dperson@battlefields.org, "mhokit@battlefields.org" &lt;mhokit@battlefields.org&gt;

Good afternoon,

TEP has received your response to the invitation to comment letter that was sent to your office on May 28, 2025, requesting to become a consulting party for the proposed communications tower project identified as Carsons Substation, TCNS #293757. I have attached the FCC Form 620 and the requested Cultural Resources Report completed by TEP. Please let me know if you have any questions, or any comments regarding any potential effects the proposed tower may have on historic properties within the visual or direct APE.

I also wanted to let you know that the Virginia Department of Historic Resources has requested that a balloon test be completed at the proposed tower site to assess the visual effects of the proposed tower on the historic properties within the APE, and has specifically requested that we coordinate with Petersburg National Battlefield Park to determine the most favorable sites to photograph during the balloon test. We are currently still in the early stages of planning the balloon test with Dominion Energy and Petersburg National Battlefield Park, but please let me know if you would like more information on the balloon test as it becomes available and I can let you know as soon as we have a date and time set for the balloon test.

Please let me know if you have any questions about any of the above. You may also view the proposed project in the FCC's Tower Construction Notification System (TCNS) using the E106 File Number #001156200.

--

Best,

TEP: Environmental Division

**TEP OPCO LLC** ([www.tepgroup.net](http://www.tepgroup.net))

---

**2 attachments****FCC Form 620 - Carsons Substation.pdf**

90K

**Dominion Energy\_Carson Substation\_Cultural Resources Report\_11.19.2024.pdf**

7181K

---

**TEP-TCNS inbox** <tcns@tepgroup.net>

Thu, Sep 4, 2025 at 2:08 PM

To: TEP-TCNS inbox &lt;tcns@tepgroup.net&gt;

Cc: dperson@battlefields.org, "mhokit@battlefields.org" &lt;mhokit@battlefields.org&gt;

Good afternoon,

I am reaching out to let you know that the aforementioned balloon test has been tentatively scheduled for Monday, September 8th at 10:00 AM EST, weather permitting. The balloon is anticipated to be flown for less than an hour and for only as long as it takes to take photos at the three locations requested by the Petersburg National Battlefield Park. I will let you know if we need to change the date and time of the balloon test due to weather.

[Quoted text hidden]

---

**TEP-TCNS inbox** <tcns@tepgroup.net>

Fri, Sep 5, 2025 at 2:49 PM

To: TEP-TCNS inbox <tcns@tepgroup.net>  
Cc: dperson@battlefields.org, "mhokit@battlefields.org" <mhokit@battlefields.org>

Good afternoon,

The balloon test associated with the proposed replacement communications tower identified as Carsons Substation (TCNS #293757) has been rescheduled to Thursday, 9/11, at 10:00 AM EST in favor of lower wind speeds. I will let you know if there are any other changes.

[Quoted text hidden]

---

**TEP-TCNS inbox** <tcns@tepgroup.net>  
To: TEP-TCNS inbox <tcns@tepgroup.net>  
Cc: dperson@battlefields.org, "mhokit@battlefields.org" <mhokit@battlefields.org>

Tue, Sep 16, 2025 at 8:19 AM

Good morning,

I have attached the balloon test report that was submitted to the Virginia Department of Historic Resources this morning. You can also view this report in the FCC's Tower Construction Notification System (TCNS) using the E106 File Number #0011556200 or TCNS #293757. Please let me know if you have any additional comments or questions regarding this project.

Thank you,  
[Quoted text hidden]

---

 **Dominion Energy - Carsons Substation - Balloon Test - 9.16.2025.pdf**  
2947K

---

**TEP-TCNS inbox** <tcns@tepgroup.net>  
To: TEP-TCNS inbox <tcns@tepgroup.net>  
Cc: dperson@battlefields.org, "mhokit@battlefields.org" <mhokit@battlefields.org>

Wed, Dec 3, 2025 at 1:50 PM

Good afternoon,

I have attached the notification received from the Virginia Department of Historic Resources via the FCC's Tower Construction Notification System (TCNS) on November 20, 2025, stating that the proposed communications tower will have no adverse effect on historic properties in the area of potential effect.

I am reaching out to request that any final comments your office may have regarding any potential effects that the proposed communications tower may have on historic properties within the area of potential effects be provided to TEP at your earliest convenience. You may also view the proposed project in the FCC's TCNS using the E106 File Number #0011556200 or TCNS #293757. Please let me know if you have any questions.

Thank you,  
[Quoted text hidden]

---

 **Carsons Substation - VA DHR Response 11.20.2025.pdf**  
118K



TEP-TCNS inbox &lt;tcns@tepgroup.net&gt;

---

**Section 106 Notification of SHPO/THPO Request for Information- Email ID #11323890**

---

towernotifyinfo@fcc.gov <towernotifyinfo@fcc.gov>  
To: tcns@tepgroup.net

Mon, Jun 30, 2025 at 11:16 AM

---

**This Message Is From an External Sender**

This message came from outside your organization.

This is to notify you that the Lead SHPO/THPO has requested additional information on the following filing:

Source: Virginia Department of Historic Resources

Date of Action: 06/30/2025

Comment Text: Since the site of the proposed tower is located within one of the core areas of the Reams Station Battlefield and not far from the Reams Station Battlefield Park, which is part of Petersburg National Battlefield Park, we need to request a balloon test to better assess visual effects. Please coordinate with Petersburg National Battlefield Park in determining sites for photographing the balloon test.

Thanks,

Chris Novelli

Virginia Dept. of Historic Resources

File Number: 0011556200

TCNS Number: 293757

Purpose: New Tower Submission Packet

Notification Date: 7AM EST 05/06/2025

Applicant: Dominion Energy

Consultant: TEP OPCO, LLC

Positive Train Control Filing Subject to Expedited Treatment Under Program Comment: No

Site Name: Carson Substation

Site Address: [28908 Ellington Road](#)

Detailed Description of Project: Proposed construction of a 420-ft AGL (424-ft AGL overall with appurtenances) self-support communications tower and its associated compound facility to be located in Dinwiddie County, VA.

Site Coordinates: 37-5-4.5 N, 77-24-25.2 W

City: Petersburg

County: DINWIDDIE

State: VA

Lead SHPO/THPO: Virginia Department of Historic Resources

Please note that you must respond to this request within 60 days or this filing will be at risk of closure. To ensure that your response to this request is accurately recorded, your response must be uploaded as a document of type 'Response to SHPO/THPO Request for Information'.

**NOTICE OF FRAUDULENT USE OF SYSTEM, ABUSE OF PASSWORD AND RELATED MISUSE**

Use of the Section 106 system is intended to facilitate consultation under Section 106 of the National Historic Preservation Act and may contain information that is confidential, privileged or otherwise protected from disclosure under applicable laws. Any person having access to Section 106 information shall use it only for its intended purpose. Appropriate action will be taken with respect to any misuse of the system.



TEP-TCNS inbox &lt;tcns@tepgroup.net&gt;

---

## Proposed Balloon Test - TCNS #293757 - Carsons Substation

8 messages

---

TEP-TCNS inbox <tcns@tepgroup.net>  
To: "Novelli, Christopher" <chris.novelli@dhr.virginia.gov>

Wed, Jul 9, 2025 at 11:26 AM

Good morning Chris,

We are currently in the process of planning and scheduling the balloon test for the proposed Carsons Substation communications tower, TCNS #293757. However, due to the electric transmission lines and substation being located in such close proximity to the proposed tower centerline and the height of the proposed tower, it does not look like we can safely perform the balloon test at the proposed tower centerline, or anywhere on the same parcel as the existing Carsons substation. After examining other options to get us as close to the proposed tower location as possible while avoiding the substation and transmission lines, I noticed that the adjacent parcel to the west is relatively clear of potential obstructions, and the access drive for the existing Dominion-owned guyed tower northwest of the substation cuts through this adjacent parcel as well.

I am reaching out to see if you would permit us to conduct the balloon test on the adjacent parcel to the west at the center of the yellow circle shown on the snipped aerial below:



The yellow pin shown on the aerial displays the location of the proposed tower centerline for your reference. Please let me know if you have any questions, or any additional insight on other potential alternatives for this balloon test.

--

Best,

TEP: Environmental Division

TEP OPCO LLC ([www.tepgroup.net](http://www.tepgroup.net))

---

Novelli, Chris (DHR) <chris.novelli@dhr.virginia.gov>  
To: TEP-TCNS inbox <tcns@tepgroup.net>

Wed, Jul 9, 2025 at 1:31 PM

---

**This Message Is From an External Sender**

This message came from outside your organization.

How far would this be from the proposed tower site?

Thanks,



**Chris Novelli**

Tax Credit Specialist/Cell Tower Reviewer

*Department of Historic Resources*



**Email** [chris.novelli@dhr.virginia.gov](mailto:chris.novelli@dhr.virginia.gov)

**Phone** 804-482-6097

---

2801 Kensington Ave, Richmond, VA 23221

[www.dhr.virginia.gov](http://www.dhr.virginia.gov)

---

**From:** TEP-TCNS inbox <[tcns@tepgroup.net](mailto:tcns@tepgroup.net)>

**Sent:** Wednesday, July 9, 2025 11:26 AM

**To:** Novelli, Chris (DHR) <[chris.novelli@dhr.virginia.gov](mailto:chris.novelli@dhr.virginia.gov)>

**Subject:** Proposed Balloon Test - TCNS #293757 - Carsons Substation

Good morning Chris,

We are currently in the process of planning and scheduling the balloon test for the proposed Carsons Substation communications tower, TCNS #293757. However, due to the electric transmission lines and substation being located in such close proximity to the proposed tower centerline and the height of the proposed tower, it does not look like we can safely perform the balloon test at the proposed tower centerline, or anywhere on the same parcel as the existing Carsons substation. After examining other options to get us as close to the proposed tower location as possible while avoiding the substation and transmission lines, I noticed that the adjacent parcel to the west is relatively clear of potential obstructions, and the access drive for the existing Dominion-owned guyed tower northwest of the substation cuts through this adjacent parcel as well.

I am reaching out to see if you would permit us to conduct the balloon test on the adjacent parcel to the west at the center of the yellow circle shown on the snipped aerial below:



The yellow pin shown on the aerial displays the location of the proposed tower centerline for your reference. Please let me know if you have any questions, or any additional insight on other potential alternatives for this balloon test.

[Quoted text hidden]

---

**TEP-TCNS inbox** <tcns@tepgroup.net>  
To: "Novelli, Chris (DHR)" <chris.novelli@dhr.virginia.gov>

Wed, Jul 9, 2025 at 2:36 PM

Hello Chris,

The proposed balloon test location would be approximately 520-ft from the proposed tower centerline, or approximately 0.1 miles. Please let me know if this is acceptable for you or if you have any other questions regarding the proposed balloon test.

Thank you,  
[Quoted text hidden]  
--  
[Quoted text hidden]

---

**TEP-TCNS inbox** <tcns@tepgroup.net>  
To: "Novelli, Chris (DHR)" <chris.novelli@dhr.virginia.gov>

Mon, Jul 21, 2025 at 12:04 PM

Hello Chris,

I wanted to follow up to see what your thoughts are regarding the proposed alternate location for the balloon test. Please let me know if you have any questions or need any additional information.

[Quoted text hidden]

---

**TEP-TCNS inbox** <tcns@tepgroup.net>  
To: "Novelli, Chris (DHR)" <chris.novelli@dhr.virginia.gov>

Tue, Jul 29, 2025 at 11:32 AM

Hello Chris,

We received your out of office message last week, so I am following up to see if the requested balloon test can proceed at the proposed alternate location. Please let me know if you have any questions or need any additional information.

[Quoted text hidden]

---

**Novelli, Chris (DHR)** <chris.novelli@dhr.virginia.gov>  
To: TEP-TCNS inbox <tcns@tepgroup.net>

Thu, Jul 31, 2025 at 9:29 AM

---

**This Message Is From an External Sender**

This message came from outside your organization.

I'm fine with it.

Thanks,



**Chris Novelli**

Tax Credit Specialist/Cell Tower Reviewer

*Department of Historic Resources*



**Email** [chris.novelli@dhr.virginia.gov](mailto:chris.novelli@dhr.virginia.gov)

**Phone** 804-482-6097

---

2801 Kensington Ave, Richmond, VA 23221

[www.dhr.virginia.gov](http://www.dhr.virginia.gov)

---

**From:** TEP-TCNS inbox <[tcns@tepgroup.net](mailto:tcns@tepgroup.net)>

**Sent:** Monday, July 21, 2025 12:04 PM

**To:** Novelli, Chris (DHR) <[chris.novelli@dhr.virginia.gov](mailto:chris.novelli@dhr.virginia.gov)>

**Subject:** Re: Proposed Balloon Test - TCNS #293757 - Carsons Substation

Hello Chris,

I wanted to follow up to see what your thoughts are regarding the proposed alternate location for the balloon test. Please let me know if you have any questions or need any additional information.

On Wed, Jul 9, 2025 at 2:36 PM TEP-TCNS inbox <[tcns@tepgroup.net](mailto:tcns@tepgroup.net)> wrote:

Hello Chris,

The proposed balloon test location would be approximately 520-ft from the proposed tower centerline, or approximately 0.1 miles. Please let me know if this is acceptable for you or if you have any other questions regarding the proposed balloon test.

Thank you,

On Wed, Jul 9, 2025 at 1:31 PM Novelli, Chris (DHR) <chris.novelli@dhr.virginia.gov> wrote:

How far would this be from the proposed tower site?

[Quoted text hidden]

[Quoted text hidden]

[Quoted text hidden]

---

**TEP-TCNS inbox** <tcns@tepgroup.net>  
To: "Novelli, Chris (DHR)" <chris.novelli@dhr.virginia.gov>

Fri, Sep 5, 2025 at 2:43 PM

Good afternoon Chris,

I am reaching out to let you know that the requested balloon test for the proposed replacement communications tower identified as Carsons Substation (TCNS #293757), has been scheduled for next Thursday, 9/11/2025 at 10:00 AM EST. Petersburg National Battlefield has requested that the balloon be photographed from three (3) different locations on Dinwiddie Tax Parcel ID# 49-23 during the test. Correspondence from Petersburg National Battlefield provided to TEP on behalf of Dominion Energy documenting the requested photo locations is attached.

Please let me know if you have any questions or need any additional information regarding the test.

[Quoted text hidden]

---

 **Carsons Substation - Petersburg National Battlefield Photo Locations 8.20.2025.pdf**  
577K

---

**Novelli, Chris (DHR)** <chris.novelli@dhr.virginia.gov>  
To: TEP-TCNS inbox <tcns@tepgroup.net>

Mon, Sep 8, 2025 at 9:00 AM

---

### This Message Is From an External Sender

This message came from outside your organization.

This is fine. Please use the E-106 # (0011556200) when referring to this project in the future.

Thanks,



**Chris Novelli**

Tax Credit Specialist/Cell Tower Reviewer

*Department of Historic Resources*



Email [chris.novelli@dhr.virginia.gov](mailto:chris.novelli@dhr.virginia.gov)

Phone 804-482-6097

---

2801 Kensington Ave, Richmond, VA 23221

[www.dhr.virginia.gov](http://www.dhr.virginia.gov)

---

**From:** TEP-TCNS inbox <[tcns@tepgroup.net](mailto:tcns@tepgroup.net)>  
**Sent:** Friday, September 5, 2025 2:43 PM  
**To:** Novelli, Chris (DHR) <[chris.novelli@dhr.virginia.gov](mailto:chris.novelli@dhr.virginia.gov)>  
**Subject:** Re: Proposed Balloon Test - TCNS #293757 - Carsons Substation

Good afternoon Chris,

I am reaching out to let you know that the requested balloon test for the proposed replacement communications tower identified as Carsons Substation (TCNS #293757), has been scheduled for next Thursday, 9/11/2025 at 10:00 AM EST. Petersburg National Battlefield has requested that the balloon be photographed from three (3) different locations on Dinwiddie Tax Parcel ID# 49-23 during the test. Correspondence from Petersburg National Battlefield provided to TEP on behalf of Dominion Energy documenting the requested photo locations is attached.

Please let me know if you have any questions or need any additional information regarding the test.

On Thu, Jul 31, 2025 at 9:29 AM Novelli, Chris (DHR) <[chris.novelli@dhr.virginia.gov](mailto:chris.novelli@dhr.virginia.gov)> wrote:

I'm fine with it.

[Quoted text hidden]

[Quoted text hidden]



TEP-TCNS inbox &lt;tcns@tepgroup.net&gt;

## Proposed Balloon Test for the Construction of a Proposed Replacement Communications Tower - TCNS #293757 - Carsons Substation

12 messages

TEP-TCNS inbox <tcns@tepgroup.net>  
To: emmanuel\_dabney@nps.gov

Fri, Aug 15, 2025 at 2:35 PM

Good afternoon Emmanuel,

I am reaching out to coordinate a balloon test for a proposed replacement communications tower identified as Carsons Substation, TCNS #293757. The Virginia Department of Historic Resources (VA DHR) has requested that a balloon test be completed at the proposed tower site to assess the visual effects of the proposed tower on the historic properties within the APE, specifically because the proposed tower is located within one of the core areas of the Reams Station Battlefield and not far from the Reams Station Battlefield Park within Petersburg National Battlefield Park. The VA DHR has specifically requested that we coordinate with Petersburg National Battlefield Park to determine which areas would be beneficial to photograph during the balloon test to better assess any potential visual effects on historic properties.

The 1-A coordinates of the proposed replacement self-support communications tower location are as follows:

Latitude: N 37.084594° (NAD 83)  
Longitude: W 77.406992° (NAD 83)

Due to electric transmission lines and the existing substation being located in such close proximity to the proposed tower centerline and the height of the proposed tower, it does not look like we can safely perform the balloon test at the proposed tower centerline, or anywhere on the same parcel as the existing Carsons Substation. After examining other options to get us as close to the proposed tower location as possible while avoiding the substation and transmission lines, the VA DHR has approved the alternative balloon test location pictured at the center of the circle below:



The yellow pin on the aerial displays the location of the proposed tower centerline for your reference.

I have attached the initial packet of project information that was sent to the Petersburg National Battlefield Administration Office via U.S. mail on May 28, 2025, as well as the FCC Form 620 below. Please let me know which photo locations we should include during the balloon test and please feel free to reach out with any questions regarding the balloon test or the scope of the proposed project.

--

Best,

TEP: Environmental Division

**TEP OPCO LLC** ([www.tepgroup.net](http://www.tepgroup.net))

---

**2 attachments**



**Dominon\_CarsonSubstation\_PetersburgNationalBattlefield\_TCNS#293757\_LocalPacket\_5.28.25.pdf**  
4972K



**FCC Form 620 - Carsons Substation.pdf**  
90K

---

**Dabney, Emmanuel K** <Emmanuel\_Dabney@nps.gov>  
To: TEP-TCNS inbox <tcns@tepgroup.net>

Wed, Aug 20, 2025 at 11:45 AM

---

**This Message Is From an Untrusted Sender**

You have not previously corresponded with this sender.

Good morning,

Can you please let me know how the photographs of the balloon test will be taken? From the ground? Using a drone?

Thank you.

Sincerely,

Emmanuel Dabney (he/him/his)

Chief of Resource Management

Petersburg National Battlefield

804-602-7509

<http://www.nps.gov/pete>

---

**From:** TEP-TCNS inbox <[tcns@tepgroup.net](mailto:tcns@tepgroup.net)>**Sent:** Friday, August 15, 2025 2:35 PM**To:** Dabney, Emmanuel K <[Emmanuel\\_Dabney@nps.gov](mailto:Emmanuel_Dabney@nps.gov)>**Subject:** [EXTERNAL] Proposed Balloon Test for the Construction of a Proposed Replacement Communications Tower - TCNS #293757 - Carsons Substation

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

[Quoted text hidden]

---

**TEP-TCNS inbox** <[tcns@tepgroup.net](mailto:tcns@tepgroup.net)>**To:** "Dabney, Emmanuel K" <[Emmanuel\\_Dabney@nps.gov](mailto:Emmanuel_Dabney@nps.gov)>

Wed, Aug 20, 2025 at 1:16 PM

Good afternoon Emmanuel,

We will be taking the photos from ground level facing towards the balloon. Please let me know if you have any additional questions.

[Quoted text hidden]

---

**Dabney, Emmanuel K** <[Emmanuel\\_Dabney@nps.gov](mailto:Emmanuel_Dabney@nps.gov)>**To:** TEP-TCNS inbox <[tcns@tepgroup.net](mailto:tcns@tepgroup.net)>, "kayla.stanley@dominionenergy.com" <[kayla.stanley@dominionenergy.com](mailto:kayla.stanley@dominionenergy.com)>

Wed, Aug 20, 2025 at 2:04 PM

---

**This Message Is From an Untrusted Sender**

You have not previously corresponded with this sender.

Good afternoon,

Please find attached the park's response to the proposed balloon test.

Please reach out for any further questions or concerns.

Sincerely,  
Emmanuel Dabney (he/him/his)  
Chief of Resource Management  
Petersburg National Battlefield  
804-602-7509  
<http://www.nps.gov/pete>

---

**From:** TEP-TCNS inbox <[tcns@tepgroup.net](mailto:tcns@tepgroup.net)>

**Sent:** Wednesday, August 20, 2025 1:16 PM

**To:** Dabney, Emmanuel K <[Emmanuel\\_Dabney@nps.gov](mailto:Emmanuel_Dabney@nps.gov)>

**Subject:** Re: [EXTERNAL] Proposed Balloon Test for the Construction of a Proposed Replacement Communications Tower - TCNS #293757 - Carsons Substation

Good afternoon Emmanuel,

We will be taking the photos from ground level facing towards the balloon. Please let me know if you have any additional questions.

On Wed, Aug 20, 2025 at 11:47 AM Dabney, Emmanuel K <[Emmanuel\\_Dabney@nps.gov](mailto:Emmanuel_Dabney@nps.gov)> wrote:

[Quoted text hidden]  
[Quoted text hidden]



**TCNS #293757 Letter August 2025 on balloon testing for Carson substation replacement communication tower.docx**  
58K

---

**Dabney, Emmanuel K** <[Emmanuel\\_Dabney@nps.gov](mailto:Emmanuel_Dabney@nps.gov)>

Wed, Aug 20, 2025 at 2:05 PM

To: TEP-TCNS inbox <[tcns@tepgroup.net](mailto:tcns@tepgroup.net)>, "kayla.stanley@dominionenergy.com" <[kayla.stanley@dominionenergy.com](mailto:kayla.stanley@dominionenergy.com)>

---

**This Message Is From an Untrusted Sender**

You have not previously corresponded with this sender.

I apologize. The document did and then did not attach once sent.

Sincerely,  
Emmanuel Dabney (he/him/his)  
Chief of Resource Management  
Petersburg National Battlefield  
804-602-7509  
<http://www.nps.gov/pete>

---

**From:** Dabney, Emmanuel K <Emmanuel\_Dabney@nps.gov>  
**Sent:** Wednesday, August 20, 2025 2:04 PM  
**To:** TEP-TCNS inbox <tcns@tepgroup.net>; kayla.stanley@dominionenergy.com  
 <kayla.stanley@dominionenergy.com>

[Quoted text hidden]

[Quoted text hidden]

---

 **TCNS #293757 Letter August 2025 on balloon testing for Carson substation replacement communication tower.docx**  
 58K

---

**Dabney, Emmanuel K** <Emmanuel\_Dabney@nps.gov> Wed, Aug 20, 2025 at 2:18 PM  
 To: TEP-TCNS inbox <tcns@tepgroup.net>, "kayla.stanley@dominionenergy.com" <kayla.stanley@dominionenergy.com>

**This Message Is From an Untrusted Sender**

You have not previously corresponded with this sender.

I see the map still did not attach so round three for that.

Sincerely,  
Emmanuel Dabney (he/him/his)  
Chief of Resource Management  
Petersburg National Battlefield  
804-602-7509  
<http://www.nps.gov/pete>

---

**From:** Dabney, Emmanuel K <Emmanuel\_Dabney@nps.gov>  
**Sent:** Wednesday, August 20, 2025 2:05 PM

[Quoted text hidden]

[Quoted text hidden]



**Reams Station Balloon photo points map.jpg**  
351K

---

**TEP-TCNS inbox** <tcns@tepgroup.net>  
 To: "Dabney, Emmanuel K" <Emmanuel\_Dabney@nps.gov>  
 Cc: "kayla.stanley@dominionenergy.com" <kayla.stanley@dominionenergy.com>

Wed, Aug 20, 2025 at 3:14 PM

Hello Emmanuel,

Thank you for your response and the attached map of the requested photo locations. We will let you know once we have a tentative date and time for the proposed balloon test.

[Quoted text hidden]

---

**TEP-TCNS inbox** <tcns@tepgroup.net>  
To: "Dabney, Emmanuel K" <Emmanuel\_Dabney@nps.gov>  
Cc: "kayla.stanley@dominionenergy.com" <kayla.stanley@dominionenergy.com>

Mon, Sep 8, 2025 at 1:00 PM

Good afternoon Emmanuel,

I am reaching out to let you know that the aforementioned balloon test has been tentatively scheduled for Thursday, September 11th at 10:00 AM EST, weather permitting. The balloon is anticipated to be flown for less than an hour and for only as long as it takes to take photos at the three requested locations. I will let you know if we need to change the date and time of the balloon test due to weather.

[Quoted text hidden]

---

**TEP-TCNS inbox** <tcns@tepgroup.net>  
To: "Dabney, Emmanuel K" <Emmanuel\_Dabney@nps.gov>  
Cc: "kayla.stanley@dominionenergy.com" <kayla.stanley@dominionenergy.com>

Tue, Sep 16, 2025 at 8:18 AM

Good morning Emmanuel,

I have attached the balloon test report that was submitted to the Virginia Department of Historic Resources this morning. You can also view this report in the FCC's Tower Construction Notification System (TCNS) using the E106 File Number #0011556200 or TCNS #293757. Please let me know if you have any additional comments or questions regarding this project.

Thank you,

[Quoted text hidden]

---

 **Dominion Energy - Carsons Substation - Balloon Test - 9.16.2025.pdf**  
2947K

---

**Dabney, Emmanuel K** <Emmanuel\_Dabney@nps.gov>  
To: TEP-TCNS inbox <tcns@tepgroup.net>  
Cc: "kayla.stanley@dominionenergy.com" <kayla.stanley@dominionenergy.com>

Tue, Sep 16, 2025 at 8:26 AM

---

**This Message Is From an External Sender**

This message came from outside your organization.

Thank you for sharing the results of the balloon test.

Sincerely,  
Emmanuel Dabney (he/him/his)  
Chief of Resource Management  
Petersburg National Battlefield  
804-602-7509  
<http://www.nps.gov/pete>

---

**From:** TEP-TCNS inbox <tcns@tepgroup.net>  
**Sent:** Tuesday, September 16, 2025 8:18 AM  
**To:** Dabney, Emmanuel K <Emmanuel\_Dabney@nps.gov>  
**Cc:** kayla.stanley@dominionenergy.com <kayla.stanley@dominionenergy.com>  
**Subject:** Re: [EXTERNAL] Proposed Balloon Test for the Construction of a Proposed Replacement Communications Tower - TCNS #293757 - Carsons Substation

Good morning Emmanuel,

I have attached the balloon test report that was submitted to the Virginia Department of Historic Resources this morning. You can also view this report in the FCC's Tower Construction Notification System (TCNS) using the E106 File Number #0011556200 or TCNS #293757. Please let me know if you have any additional comments or questions regarding this project.

Thank you,

On Mon, Sep 8, 2025 at 1:00 PM TEP-TCNS inbox <tcns@tepgroup.net> wrote:

Good afternoon Emmanuel,

I am reaching out to let you know that the aforementioned balloon test has been tentatively scheduled for Thursday, September 11th at 10:00 AM EST, weather permitting. The balloon is anticipated to be flown for less than an hour and for only as long as it takes to take photos at the three requested locations. I will let you know if we need to change the date and time of the balloon test due to weather.

On Wed, Aug 20, 2025 at 3:14 PM TEP-TCNS inbox <tcns@tepgroup.net> wrote:

Hello Emmanuel,

Thank you for your response and the attached map of the requested photo locations. We will let you know once we have a tentative date and time for the proposed balloon test.

On Wed, Aug 20, 2025 at 2:21 PM Dabney, Emmanuel K <Emmanuel\_Dabney@nps.gov> wrote:

[Quoted text hidden]

[Quoted text hidden]

[Quoted text hidden]

[Quoted text hidden]

---

**TEP-TCNS inbox** <tcns@tepgroup.net>  
To: "Dabney, Emmanuel K" <Emmanuel\_Dabney@nps.gov>

Wed, Dec 3, 2025 at 1:52 PM

Good afternoon Emmanuel,

I have attached the notification received from the Virginia Department of Historic Resources via the FCC's Tower Construction Notification System (TCNS) on November 20, 2025, stating that the proposed communications tower will have no adverse effect on historic properties in the area of potential effect.

I am reaching out to request that any final comments your office may have regarding any potential effects that the proposed communications tower may have on historic properties within the area of potential effects be provided to TEP at your earliest convenience. You may also view the proposed project in the FCC's TCNS using the E106 File Number #0011556200 or TCNS #293757. Please let me know if you have any questions.

Thank you,

[Quoted text hidden]

 **Carsons Substation - VA DHR Response 11.20.2025.pdf**  
118K

**Dabney, Emmanuel K** <Emmanuel\_Dabney@nps.gov>  
To: TEP-TCNS inbox <tcns@tepgroup.net>

Wed, Dec 3, 2025 at 1:56 PM

---

**This Message Is From an External Sender**

This message came from outside your organization.

Hello there,

We are in agreement that the project as proposed will have no adverse effect on the Reams Station battlefield of which Petersburg National Battlefield has an interest due to Civil War battles in June and August 1864.

Thank you for coordinating your efforts with the NPS.

Sincerely,  
Emmanuel Dabney (he/him/his)  
Chief of Resource Management  
Petersburg National Battlefield  
804-602-7509  
<http://www.nps.gov/pete>

---

**From:** TEP-TCNS inbox <tcns@tepgroup.net>

**Sent:** Wednesday, December 3, 2025 1:52 PM

**To:** Dabney, Emmanuel K <Emmanuel\_Dabney@nps.gov>

**Subject:** Re: [EXTERNAL] Proposed Balloon Test for the Construction of a Proposed Replacement Communications Tower - TCNS #293757 - Carsons Substation

Good afternoon Emmanuel,

I have attached the notification received from the Virginia Department of Historic Resources via the FCC's Tower Construction Notification System (TCNS) on November 20, 2025, stating that the proposed communications tower will have no adverse effect on historic properties in the area of potential effect.

I am reaching out to request that any final comments your office may have regarding any potential effects that the proposed communications tower may have on historic properties within the area of potential effects be provided to TEP at your earliest convenience. You may also view the proposed project in the FCC's TCNS using the E106 File Number #0011556200 or TCNS #293757. Please let me know if you have any questions.

Thank you,

On Tue, Sep 16, 2025 at 8:26 AM Dabney, Emmanuel K <Emmanuel\_Dabney@nps.gov> wrote:

| [Quoted text hidden]

[Quoted text hidden]



# United States Department of the Interior



NATIONAL PARK SERVICE

PETERSBURG NATIONAL BATTLEFIELD

1539 Hickory Hill Rd

Petersburg, VA 23803

August 20, 2025

1.B

Kayla Stanley  
120 Tredegar Street  
Richmond, VA 23219

Dear Ms. Stanley,

We received your communication for a proposed balloon test for the construction of a proposed replacement communications tower - TCNS #293757. This communication follows up from the Virginia Department of Historic Resources (VA DHR) request that a balloon test be completed at the proposed tower site to assess the visual effects of the proposed tower on the historic properties within the APE, specifically because the proposed tower is located within one of the core areas of the Reams Station Battlefield (VA DHR # 026-0050), portions of which are a unit within Petersburg National Battlefield. Reams Station Battlefield is potentially eligible for the National Register of Historic Places (NRHP). The VA DHR has specifically requested that you coordinate with Petersburg National Battlefield to determine which areas would be beneficial to photograph during the balloon test to better assess any potential visual effects on historic properties.

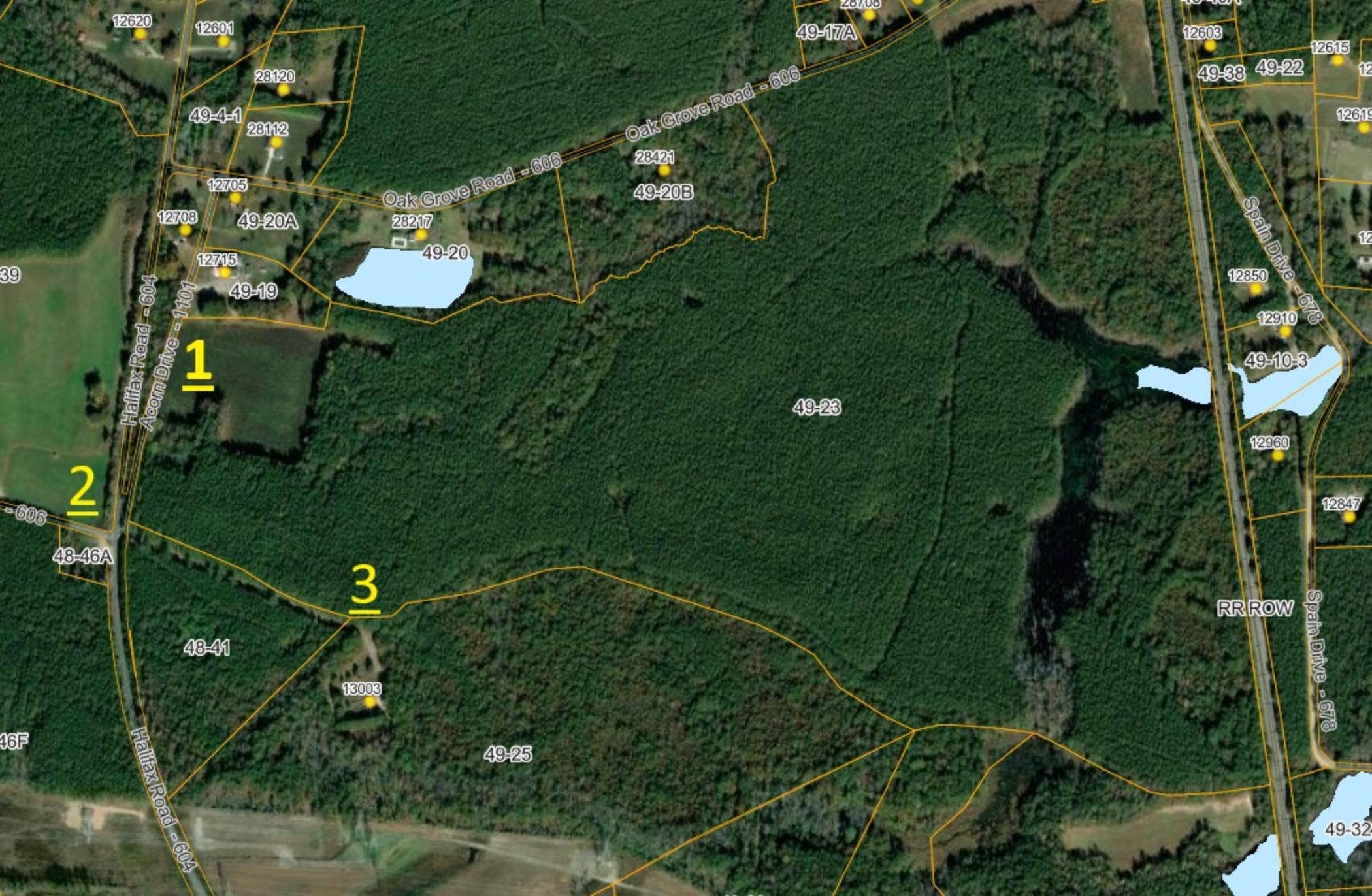
Petersburg National Battlefield is requesting that photography of the balloon test be taken from three points on Dinwiddie Tax Parcel ID# 49-23. Included as an attachment to this electronic communication is a map of the parcel and points labeled 1, 2, and 3 from where we would request images be taken and shot in the viewpoint facing toward the proposed replacement communication tower. Point 1 is in an open area next to Acorn Drive in Dinwiddie County,

Virginia adjacent to Oak Grove Methodist Church. Point 2 is in an open field adjacent to a historic 1 ½ story frame house with brick end chimneys near the intersection of Halifax Road and Reams Drive in Dinwiddie County, Virginia. Point 3 is along a gravel drive/old road bed on Dinwiddie Tax Parcel ID# 49-23 which is adjacent to woods on the aforementioned tax parcel and providing access to Dinwiddie Tax Parcel ID# 49-25. The park's understanding of this is that photographs will be taken on ground level facing towards the balloon. Please note that the park's Superintendent's Compendium prohibits launching, landing, or operating an unmanned aircraft from or on lands and waters administered by the National Park Service within the boundaries of Petersburg National Battlefield is prohibited except as approved in writing by the superintendent. The proponent does not propose using a drone or other unmanned aircraft and thus cannot launch such a device from Dinwiddie Tax Parcel ID # 49-23.

If you have any questions, please contact me via email at [Emmanuel\\_Dabney@nps.gov](mailto:Emmanuel_Dabney@nps.gov) or Alexis Morris, Section 106 coordinator for Petersburg National Battlefield at [Alexis\\_Morris@nps.gov](mailto:Alexis_Morris@nps.gov).

Attachment:

Reams Station Balloon photo points map.jpg



1

2

3

12620

12601

28120

49-4-1

28112

12705

12703

49-20A

12715

49-19

Oak Grove Road - 606

28217

49-20

28421

49-20B

49-17A

Oak Grove Road - 606

12603

49-33

49-22

12615

12619

Spain Drive - 678

12850

12910

49-10-3

12960

12847

49-23

RR ROW

Spain Drive - 678

48-41

13003

49-25

49-32

Halifax Road - 604

Acorn Drive - 1101

- 606

48-46A

46F

Halifax Road - 604



September 16, 2025

Virginia Department of Historic Resources  
2801 Kensington Avenue  
Richmond, VA 23221

Subject: Carsons Substation Replacement Tower Balloon Test

To Whom It May Concern,

On September 11, 2025, TEP OpCo, LLC (TEP), on behalf of Dominion Energy, completed a Balloon Test for a proposed 420-ft AGL (424-ft overall with appurtenances/lightning rod) self-support communications tower at the request of the Virginia Department of Historic Resources (VA DHR) to aid their assessment of any potential effects the proposed replacement communications tower may have on the Reams Station Battlefield. The proposed replacement tower will be located at 28908 Ellington Road, south of the City of Petersburg, VA at latitude: N 37° 5' 4.54", longitude: W 77° 24' 25.17" (NAD 83).

Pursuant to the request from the VA DHR, TEP coordinated with the Petersburg National Battlefield Park to determine which sites the balloon should be photographed from to assess potential effects on Reams Station Battlefield. Emmanuel Dabney, Chief of Resource Management at the Petersburg National Battlefield Park, provided three (3) potential sites for the balloon to be photographed from during the test. Photo Location 1 is located within an open area east of Acorn Drive and south of Oak Grove Methodist Church. Photo Location 2 is located within an open field adjacent to a historic 1 ½ story frame house with brick end chimneys northwest of the intersection of Halifax Road and Reams Drive in Dinwiddie County, Virginia. Photo Location 3 is located along a gravel drive on Dinwiddie Tax Parcel ID# 49-23 which is adjacent to woods on the aforementioned tax parcel and providing access to Dinwiddie Tax Parcel ID# 49-25. Please see the attached map of the requested photo locations and correspondence received from the Petersburg National Battlefield Park.

Due to the close proximity of electric transmission lines and an existing substation to the proposed replacement tower location, TEP requested that the balloon test be conducted on the adjacent parcel (Dinwiddie County, VA Parcel ID: 49-31) due to safety concerns on July 9, 2025. Chris Novelli from the VA DHR approved the alternate balloon test location on July 31, 2025. The balloon test was completed approximately 320-ft southwest of the proposed replacement tower centerline.

On Thursday, September 11<sup>th</sup>, 2025, TEP deployed an approximately 5-ft diameter orange balloon at 424-ft above ground level (to top of balloon) from 10:00 a.m. to 1:30 p.m. EDT. The weather at the time of the balloon flight was cloudy with good visibility, and approximately 68 to 74 degrees Fahrenheit with steady approximately 4 to 6 mph northern wind. Photographs were taken by Autumn Saski of TEP from two (2) of the three (3) photo locations requested by the Petersburg National Battlefield Park. Photo Location 3 was unable to be accessed due to the presence of a locked gate with posted "no trespassing" signs, so TEP was unable to photograph the balloon from Photo Location 3. However, TEP photographed the balloon from the nearest public right-of-way to Photo Location 3 (Alternate Photo Location 1) and from the intersection of Halifax Road and Ellington Road, approximately 2,745-ft south of Photo Location 3 (Alternate Photo Location 2).



The visual impact assessment indicated that the balloon was not visible from any of the requested photo locations during the balloon test. An existing 400-ft (420-ft AGL overall with appurtenances) guyed communications tower located approximately 1,250-ft north-northwest of the proposed replacement tower centerline was observed from Alternate Photo Location 2. However, the balloon was not visible from Alternate Photo Location 2, and the aforementioned guyed tower was not visible from any other photo locations. Due to the presence of mature vegetation surrounding the proposed tower site and the presence of mature vegetation along the public rights-of-way and throughout the majority of the portion of the visual area of potential effect assessed during the balloon test, it is the opinion of TEP that the proposed tower will have no significant visual impact on the Reams Station Battlefield.

Attached are the photos taken from the aforementioned requested locations, correspondence received from the Petersburg National Battlefield Park, and the aerial map showing the aforementioned photo locations. Please don't hesitate to contact me with any questions or concerns regarding this report.

Sincerely,

A handwritten signature in black ink that reads "Brittany Hickman". The signature is written in a cursive, flowing style.

Brittany Hickman  
Environmental Project Manager  
TEP OpCo, LLC

# Carsons Substation

Balloon Test Map

### Legend

- 📍 Alternate Photo Location 1 (balloon not visible)
- 📍 Alternate Photo Location 2 (balloon not visible)
- 📍 Balloon Test Location
- 📍 Photo Location 1 (balloon not visible)
- 📍 Photo Location 2 (balloon not visible)
- 📍 Photo Location 3 (inaccessible)
- 📍 Proposed Tower Centerline





1. Photo facing southeast towards the proposed tower location from Photo Location 1  
(balloon not visible)



2. Photo facing southeast towards the proposed tower location from Photo Location 2  
(balloon not visible)



3. Photo facing southeast towards the locked gate preventing access to Photo Location 3



4. Photo facing northeast towards the “no trespassing” signs posted on the locked gate preventing access to Photo Location 3.



5. Photo facing southeast towards the proposed tower location from Alternate Photo Location 1 (balloon not visible)



6. Photo facing east-northeast towards the proposed tower location from Alternate Photo Location 2 (existing guyed tower visible, balloon not visible)

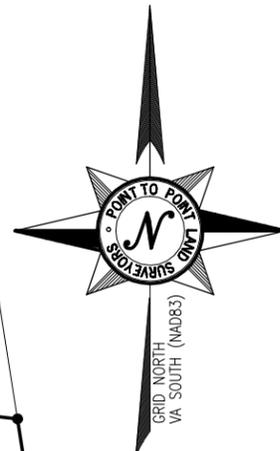


**PARENT PARCEL**

OWNER: VIRGINIA ELECTRIC AND POWER COMPANY  
 SITE ADDRESS: 28908 ELLINGTON RD, PETERSBURG, VA 23805  
 PARCEL ID: 49-31A  
 AREA: 22.19189 ACRES  
 ALL ZONING INFORMATION SHOULD BE VERIFIED WITH THE PROPER ZONING OFFICIALS  
 REFERENCE: DEED BOOK 138 PAGE 118

**GPS NOTES**

THE FOLLOWING GPS STATISTICS UPON WHICH THIS SURVEY IS BASED HAVE BEEN PRODUCED AT THE 95% CONFIDENCE LEVEL:  
 POSITIONAL ACCURACY: 0.06 FEET (HORZ) 0.14 FEET (VERT)  
 TYPE OF EQUIPMENT: GEOMAX ZENITH35 PRO BASE AND ROVER, DUAL FREQUENCY  
 TYPE OF GPS FIELD PROCEDURE: REAL-TIME KINEMATIC NETWORKS  
 DATE OF SURVEY: 06/26/2023  
 DATUM / EPOCH: NAD\_83(2011)(EPOCH:2010.0000)  
 PUBLISHED / FIXED CONTROL USE: N/A  
 GEOID MODEL: 18  
 COMBINED GRID FACTOR(S): 0.99995591 CENTERED ON THE GPS BASE POINT AS SHOWN HEREON.  
 CONVERGENCE ANGLE: 00°39'49.10"  
 BENCHMARKS USED: ADJUSTED NETWORK SOLUTION USING LEICA SMARTNET REFERENCE STATION NETWORK.



VICINITY MAP  
NOT TO SCALE

**GENERAL NOTES**

\* THIS SPECIFIC PURPOSE SURVEY IS FOR THE LEASED PREMISES AND EASEMENTS ONLY. THIS SPECIFIC PURPOSE SURVEY WAS PREPARED FOR THE EXCLUSIVE USE OF DOMINION ENERGY AND EXCLUSIVELY FOR THE TRANSFERRAL OF THE LEASED PREMISES AND THE RIGHTS OF EASEMENT SHOWN HEREON AND SHALL NOT BE USED AS AN EXHIBIT OR EVIDENCE IN THE FEE SIMPLE TRANSFERRAL OF THE PARENT PARCEL NOR ANY PORTION OR PORTIONS THEREOF. BOUNDARY INFORMATION SHOWN HEREON HAS BEEN COMPILED FROM TAX MAPS AND DEED DESCRIPTIONS ONLY. NO BOUNDARY SURVEY OF THE PARENT PARCEL WAS PERFORMED.

THIS DRAWING DOES NOT REPRESENT A BOUNDARY SURVEY.

THIS SPECIFIC PURPOSE SURVEY WAS PREPARED WITHOUT BENEFIT OF A TITLE REPORT WHICH MAY REVEAL ADDITIONAL CONVEYANCES, EASEMENTS, OR RIGHTS-OF-WAY NOT SHOWN HEREON.

EQUIPMENT USED FOR ANGULAR & LINEAR MEASUREMENTS: GEOMAX ZOOM ROBOTIC AND/OR LEICA TS12 [DATE OF LAST FIELD VISIT: 08/29/2024]. SEE GPS NOTES FOR GPS EQUIPMENT.

THE 1' CONTOURS AND SPOT ELEVATIONS SHOWN ON THIS SPECIFIC PURPOSE SURVEY ARE ADJUSTED TO NAVD 88 DATUM (COMPUTED USING GEOID18) AND HAVE A VERTICAL ACCURACY OF ± 0.5'. CONTOURS OUTSIDE THE IMMEDIATE SITE AREA ARE APPROXIMATE.

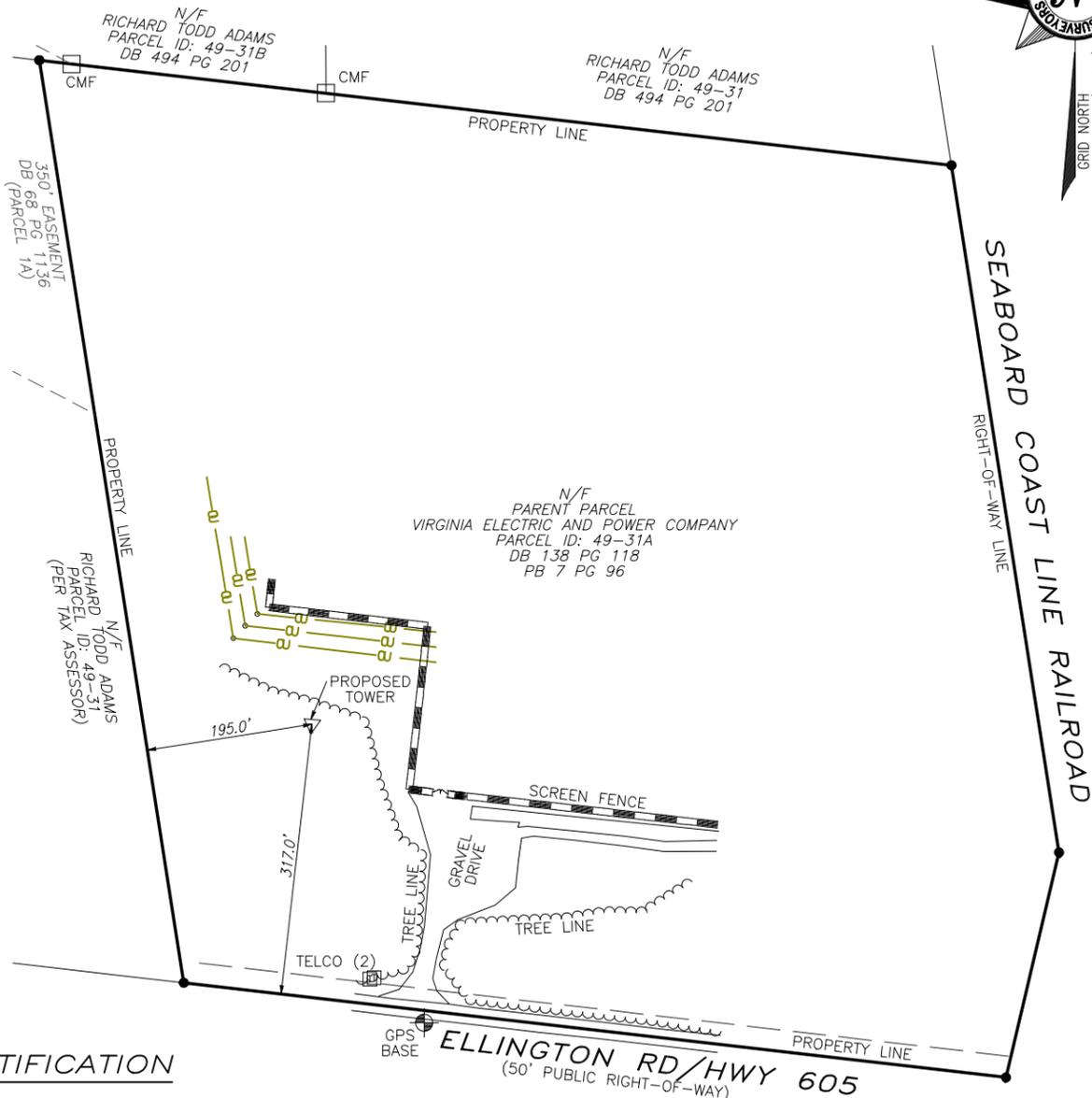
BEARINGS SHOWN ON THIS SPECIFIC PURPOSE SURVEY ARE BASED ON VIRGINIA GRID NORTH (NAD 83) SOUTH ZONE.

PER THE FEMA FLOODPLAIN MAPS, THE SITE IS LOCATED IN AN AREA DESIGNATED AS ZONE X (AREA OF MINIMAL FLOOD HAZARD). COMMUNITY PANEL NO. : 51053C0300C DATED: 06/01/2022

NO WETLAND AREAS HAVE BEEN INVESTIGATED BY THIS SPECIFIC PURPOSE SURVEY.

ALL ZONING INFORMATION SHOULD BE VERIFIED WITH THE PROPER ZONING OFFICIALS.

ANY UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM ABOVE GROUND FIELD SURVEY INFORMATION. THE SURVEYOR MAKES NO GUARANTEES THAT ANY UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT ANY UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED ANY UNDERGROUND UTILITIES.



**SURVEYOR'S NOTES**

ALL PRIVATE UTILITY INFORMATION WAS PROVIDED BY GPS (WORK ORDER # 562857-67878 DATED 06/26/2023 AND WORK ORDER # 691522 DATED AUGUST 12, 2024) AND ARE APPROXIMATE BASED ON FIELD LOCATED PAINT MARKS.

**LEGEND**

POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
IPS	IRON PIN SET
IPF	IRON PIN FOUND
CMF	CONCRETE MONUMENT FOUND
CRB	CAPPED REBAR
RB	REBAR
OTP	OPEN TOP PIPE
UP	UTILITY POLE
LP	LIGHT POLE
SSMH	SANITARY SEWER MANHOLE
SDMH	STORM DRAIN MANHOLE
INV	INVERT
FH	FIRE HYDRANT
EP	EDGE OF PAVEMENT
BC	BACK OF CURB
OU	OVERHEAD UTILITY
CMP	CORRUGATED METAL PIPE
RCP	REINFORCED CONCRETE PIPE
PVC	POLYVINYL CHLORIDE PIPE
GW	GUY WIRE ANCHOR
TR	TRANSFORMER
CLF	CHAIN LINK FENCE
BWF	BARBED WIRE FENCE
WV	WATER VALVE
WM	WATER METER
CO	SEWER CLEAN-OUT
GV	GAS VALVE
HH	HANDHOLE
CP	CONCRETE PAD
BFO	BURIED FIBER OPTIC
N/F	NOW OR FORMERLY
R/W	RIGHT-OF-WAY

**SURVEYOR'S CERTIFICATION**

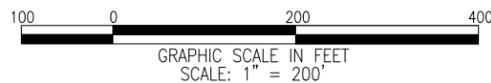
I HEREBY CERTIFY THAT THIS MAP IS CORRECT AND THAT ANY VISIBLE ENCROACHMENTS ARE SHOWN HEREON.

*G. Darrell Taylor* 08/31/2024  
 G. DARRELL TAYLOR, PLS DATE

THIS MAP IS NOT A CERTIFIED SURVEY AND HAS NOT BEEN REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS. THIS MAP IS ONLY INTENDED FOR THE PARTIES AND PURPOSES SHOWN. THIS MAP IS NOT FOR RECORDATION.

**UTILITY LEGEND**

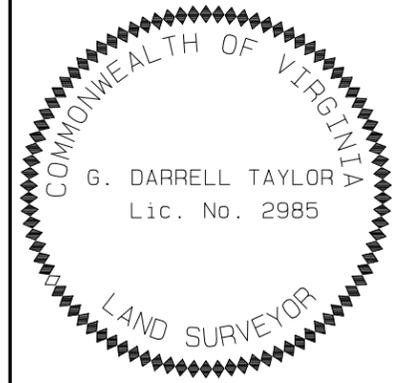
OU	OVERHEAD UTILITY LINE
FO	UNDERGROUND FIBEROPTIC LINE
G	UNDERGROUND GAS LINE
S	UNDERGROUND SEWER LINE
E	UNDERGROUND ELECTRIC LINE
W	UNDERGROUND WATER LINE
ULG	UNKNOWN UNDERGROUND UTILITY LINE



SURVEY NOT VALID WITHOUT SHEET 2 OF 2



Know what's below.  
Call before you dig.



NO.	DATE	REVISION
1	08/20/24	MOVED PROPOSED TOWER-NRW
2	08/31/24	ADDITIONAL TOPO - NRW

\* SPECIFIC PURPOSE SURVEY PREPARED BY:

**POINT TO POINT LAND SURVEYORS**  
 100 Governors Trace, Ste. 103  
 Peachtree City, GA 30269  
 (p) 678.565.4440  
 (f) 678.565.4497  
 (w) pointpointsurvey.com



SPECIFIC PURPOSE SURVEY PREPARED FOR:



CARSON

ROWANTY MAGISTERIAL DISTRICT  
 DINWIDDIE COUNTY, VIRGINIA

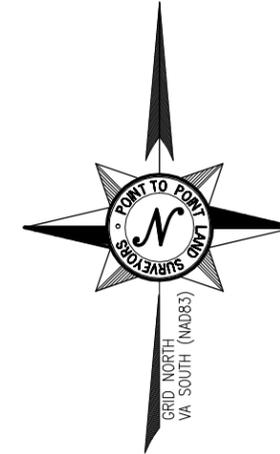
DRAWN BY: MK	SHEET: 1 OF 2
CHECKED BY: JKL	
APPROVED: D. MILLER	
DATE: 09/22/2023	
P2P JOB #: 230767VA	

**SITE INFORMATION**

LATITUDE = 37°05'04.54" (NAD 83) (37.084594°)  
 LONGITUDE = -77°24'25.17" (NAD 83) (-77.406992°)  
 AT CENTER OF PROPOSED TOWER  
 ELEVATION AT CENTER OF PROPOSED TOWER = 159.8' A.M.S.L.



NO.	DATE	REVISION
1	08/20/24	MOVED PROPOSED TOWER-NRW
2	08/31/24	ADDITIONAL TOPO - NRW



\* SPECIFIC PURPOSE SURVEY PREPARED BY:

**POINT TO POINT LAND SURVEYORS**  
 100 Governors Trace, Ste. 103  
 Peachtree City, GA 30269  
 (p) 678.565.4440  
 (f) 678.565.4497  
 (w) pointtopointsurvey.com



SPECIFIC PURPOSE SURVEY PREPARED FOR:



CARSON

ROWANTY MAGISTERIAL DISTRICT  
 DINWIDDIE COUNTY, VIRGINIA

DRAWN BY: MK

CHECKED BY: JKL

APPROVED: D. MILLER

DATE: 09/22/2023

P2P JOB #: 230767VA

SHEET:

**2**

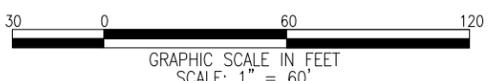
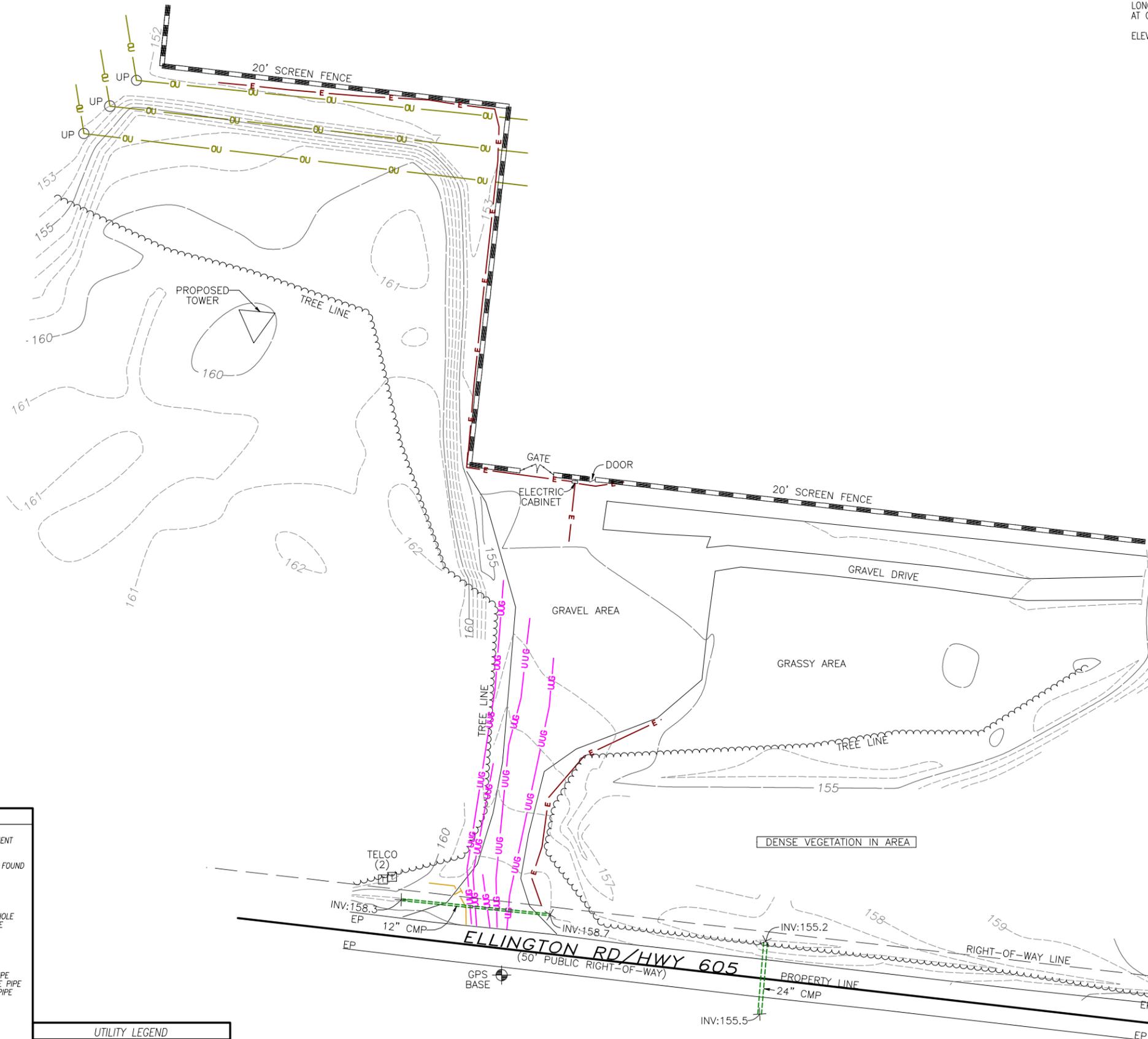
OF 2

**LEGEND**

POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
IPS	IRON PIN SET
IPF	IRON PIN FOUND
CMF	CONCRETE MONUMENT FOUND
CRB	CAPPED REBAR
RB	REBAR
OTP	OPEN TOP PIPE
UP	UTILITY POLE
LP	LIGHT POLE
SSMH	SANITARY SEWER MANHOLE
SDMH	STORM DRAIN MANHOLE
INV	INVERT
FH	FIRE HYDRANT
EP	EDGE OF PAVEMENT
BC	BACK OF CURB
OU	OVERHEAD UTILITY
CMP	CORRUGATED METAL PIPE
RCP	REINFORCED CONCRETE PIPE
PVC	POLYVINYL CHLORIDE PIPE
GW	GUY WIRE ANCHOR
TR	TRANSFORMER
CLF	CHAIN LINK FENCE
BWF	BARBED WIRE FENCE
WV	WATER VALVE
WM	WATER METER
CO	SEWER CLEAN-OUT
GV	GAS VALVE
HH	HANDHOLE
CP	CONCRETE PAD
BFO	BURIED FIBER OPTIC
N/F	NOW OR FORMERLY
R/W	RIGHT-OF-WAY

**UTILITY LEGEND**

	OVERHEAD UTILITY LINE
	UNDERGROUND TELECOMMUNICATIONS LINE
	UNDERGROUND FIBEROPTIC LINE
	UNDERGROUND GAS LINE
	UNDERGROUND SEWER LINE
	UNDERGROUND ELECTRIC LINE
	UNDERGROUND WATER LINE
	UNKNOWN UNDERGROUND UTILITY LINE

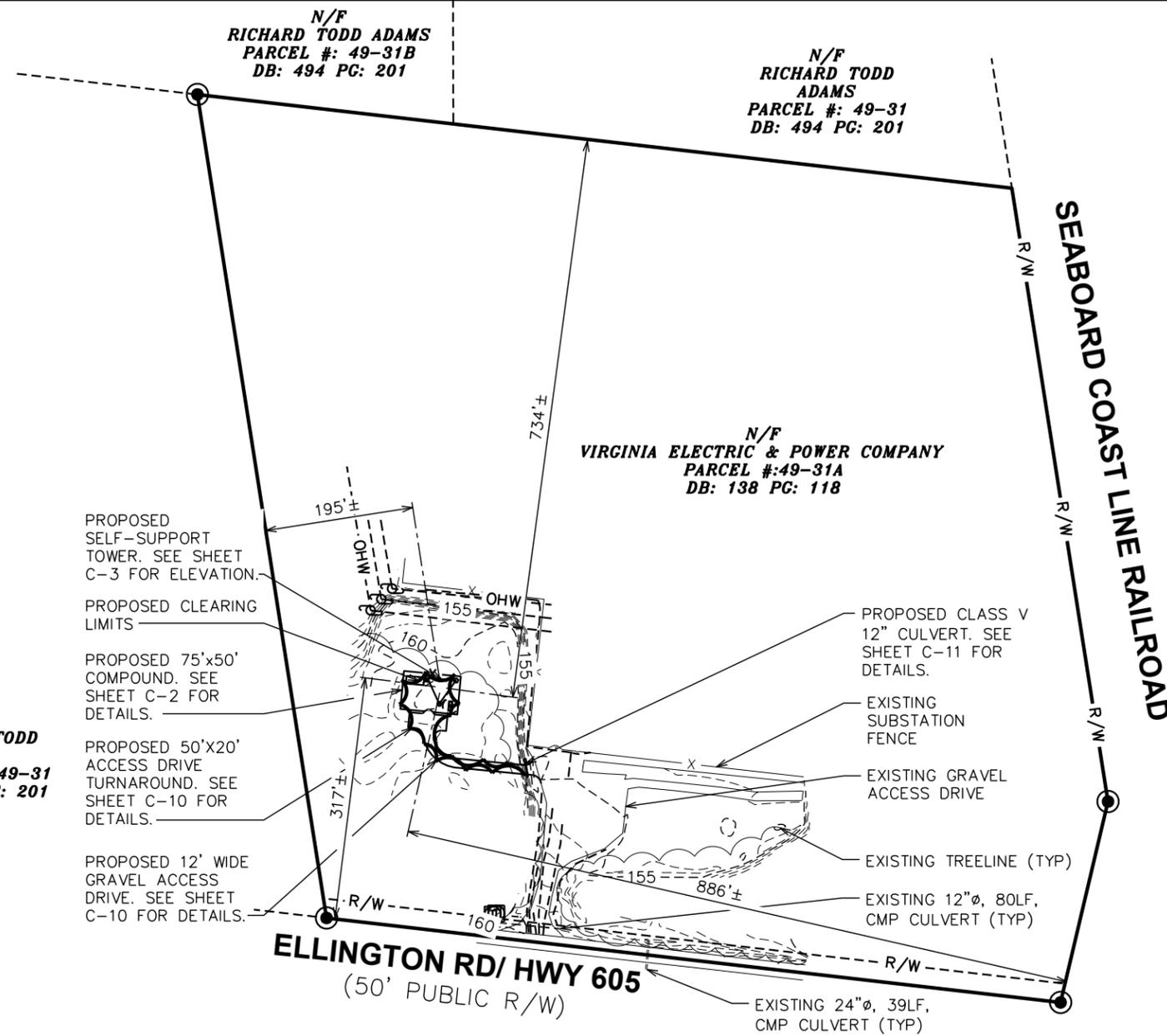


SURVEY NOT VALID WITHOUT SHEET 1 OF 2

E:\Point To Point\Dropbox\2P2P Current Jobs\2023\230767VA-Carson\230767VA.dwg

**NOTES:**

1. THE BASIS OF THE MERIDIANS AND COORDINATES FOR THIS PLAT IS THE VIRGINIA SOUTH GRID STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983 VA NORTH GRID SPCS NAD 83), BASED ON DIFFERENTIAL GPS OBSERVATIONS PERFORMED ON JUNE 26, 2023.
2. VERTICAL INFORMATION SHOWN, BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88) IN FEET.
3. ALL DISTANCES ARE GROUND UNLESS OTHERWISE NOTED.
4. THE TOWER IS LOCATED IN ZONE "X." AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN ACCORDING TO FEMA COMMUNITY PANEL #51053C0300C DATED JUNE 1, 2022.
5. EXISTING VEGETATION AROUND THE PERIMETER OF THE PROPOSED TOWER COMPOUND WILL PROVIDE A NATURAL LANDSCAPE BUFFER.



PLANS PREPARED FOR:  
  
 DOMINION RESOURCES SERVICES, INC.  
 707 EAST MAIN STREET  
 RICHMOND, VA 23219

PROJECT INFORMATION:  
**CARSON SUBSTATION**  
 28908 ELLINGTON RD  
 PETERSBURG, VA 23805  
 (DINWIDDIE COUNTY)

PLANS PREPARED BY:  
  
**TOWER ENGINEERING PROFESSIONALS**  
 326 TRYON ROAD  
 RALEIGH, NC 27603  
 OFFICE: (919) 661-6351  
 www.tepgroup.net

SEAL:

5	10-17-24	PRELIMINARY
4	09-18-24	PRELIMINARY
3	04-16-24	PRELIMINARY
2	12-04-23	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB | CHECKED BY: TDS

SHEET TITLE:  
**SITE PLAN**

SHEET NUMBER: **C-1** | REVISION: **5**  
 TEP#: 132110.854246

**LEGEND**

- EXIST. PROPERTY LINE
- - - ADJ. PROPERTY LINE
- ⊙ EXIST. UTILITY POLE
- ⊙ EXIST. LIGHT POLE
- ⊙ EXIST. HYDRANT
- ⊙ EXIST. TELCO PEDESTAL
- ⊙ PROPERTY CORNER
- LEASE/EASE. CORNER
- - -200- - - EXIST. CONTOUR LINE
- /// EDGE OF PAVEMENT
- - -OHW- - - OVERHEAD WIRE
- - -R/W- - - RIGHT-OF-WAY
- X - CHAIN LINK FENCE
- ~ ~ ~ EXISTING TREE LINE

**SETBACK TABLE**

TOWER HEIGHT	RESIDENTIAL SETBACK	REQUIRED	ACTUAL	DIFFERENCE	PROPERTY SETBACK	REQUIRED	ACTUAL	DIFFERENCE
420'	200%	840'			110%	462'		
	FRONT	840'	577'	263'	FRONT	462'	317'	145'
	BACK	840'	2,483'	-1,643'	BACK	462'	734'	-272'
	EAST	840'	1,102'	-262'	EAST	462'	886'	-424'
	WEST	840'	675'	165'	WEST	462'	195'	267'

**SITE PLAN**

SCALE: 1" = 200'



**NOTES:**

1. SITE PLAN SHOWN TAKEN FROM INFORMATION PROVIDED BY DINWIDDIE COUNTY GIS & GOOGLE MAPS
2. TEP DOES NOT GUARANTEE OR ENSURE THE PRECISION ACCURACY, OR CORRECTNESS AND ASSUMES NO RESPONSIBILITY OR LIABILITY FOR DAMAGES, LOSS OF REVENUE, OR INJURY THAT MIGHT OCCUR. THE INFORMATION SHOWN IS INCORPORATED FOR REFERENCE ONLY.



EXISTING 400-FT± TALL GUYED TOWER TO BE REMOVED. TOWER REMOVAL WILL BE PERMITTED SEPARATELY AS NEEDED. TOWER COORDINATES:  
37° 05' 16.8" N, 77° 24' 28.4" W  
ASR 1016966

EXISTING 200-FT ± TALL SELF-SUPPORT TOWER TO BE REMOVED. TOWER REMOVAL WILL BE PERMITTED SEPARATELY AS NEEDED. TOWER COORDINATES:  
37° 05' 7.5" N, 77° 24' 22.1" W  
ASR 1016965

PROPOSED SELF-SUPPORT TOWER. SEE SHEET C-3 FOR ELEVATION.

PLANS PREPARED FOR:



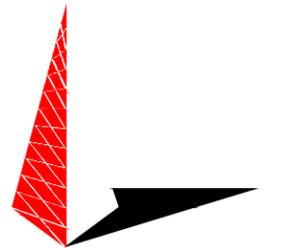
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON  
SUBSTATION**

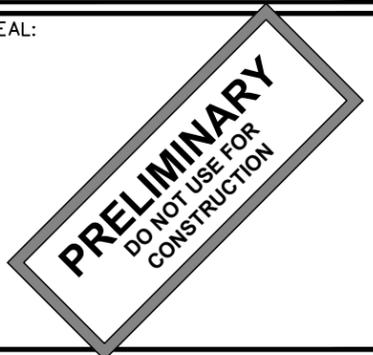
28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:



5	10-17-24	PRELIMINARY
4	09-18-24	PRELIMINARY
3	04-16-24	PRELIMINARY
2	12-04-23	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

**AERIAL SITE  
PLAN**

SHEET NUMBER: REVISION:

**C-1A**

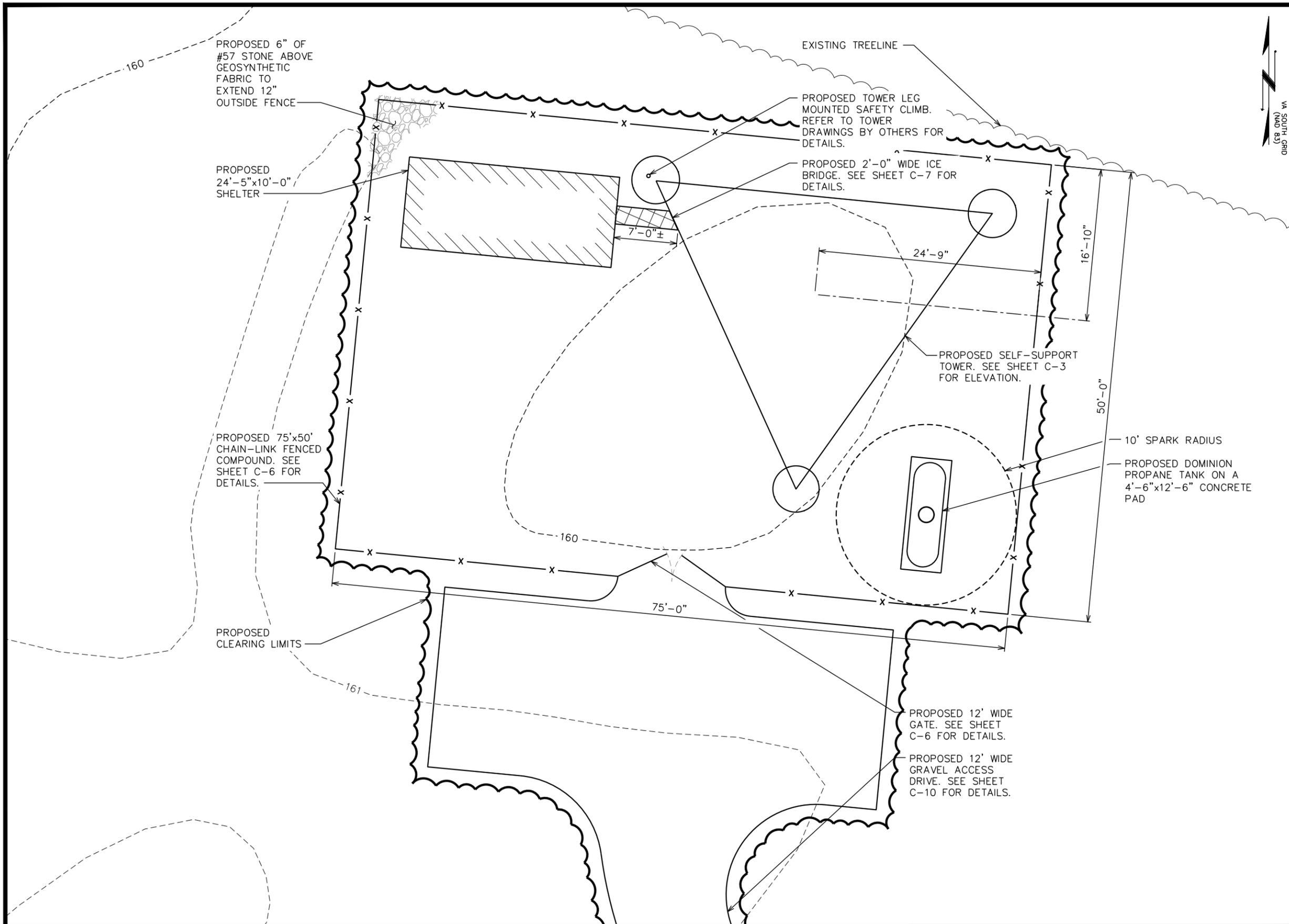
**5**

TEP#: 132110.854246

**AERIAL SITE PLAN**

SCALE: 1" = 200'





PLANS PREPARED FOR:



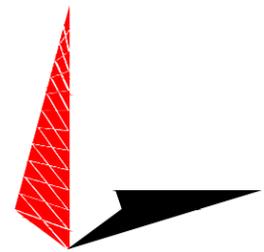
**Dominion Energy**  
 DOMINION RESOURCES SERVICES, INC.  
 707 EAST MAIN STREET  
 RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON SUBSTATION**

28908 ELLINGTON RD  
 PETERSBURG, VA 23805  
 (DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
 326 TRYON ROAD  
 RALEIGH, NC 27603  
 OFFICE: (919) 661-6351  
 www.tepgroup.net

SEAL:



REV	DATE	ISSUED FOR:
4	09-18-24	PRELIMINARY
3	04-16-24	PRELIMINARY
2	12-04-23	PRELIMINARY
1	10-13-23	PRELIMINARY

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

**SITE LAYOUT**

SHEET NUMBER: **C-2** REVISION: **4**

TEP#: 132110.854246

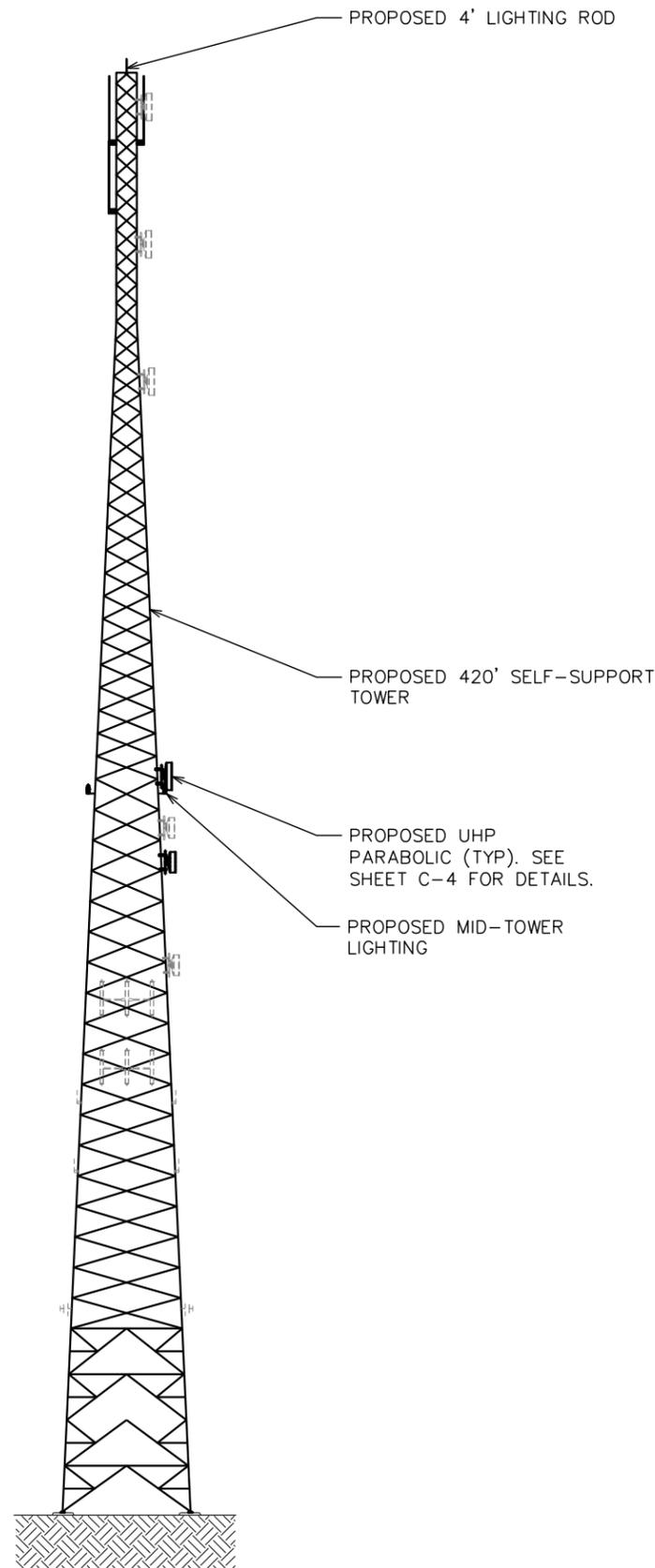
**SITE LAYOUT**  
 SCALE: 3/32" = 1'-0"



**NOTES:**

1. PROPOSED CABLES TO BE RUN PER SPECIFICATIONS OF PASSING STRUCTURAL ANALYSIS.
2. TOWER SHALL BE CONSTRUCTED OF GALVANIZED STEEL OR PAINTED PER APPLICABLE STANDARDS OF THE FAA OR OTHER APPLICABLE FEDERAL OR STATE AGENCY
3. TOWER ELEVATION SHOWN FOR REFERENCE ONLY. VERIFY ACTUAL TOWER DESIGN & LOADING WITH TOWER DRAWINGS FROM MANUFACTURER AND/OR PASSING STRUCTURAL ANALYSIS PRIOR TO CONSTRUCTION.

- 424'-0"±  
T/ LIGHTNING ROD
- 420'-0"±  
T/ TOWER
- 410'-0"±  
Q/FUTURE 8' UHP PARABOLIC
- 399'-0"±  
Q/20' OMNI ANTENNA (TYP OF 2)
- 379'-0"±  
Q/20' OMNI ANTENNA
- 370'-0"±  
Q/FUTURE 8' UHP PARABOLIC
- 330'-0"±  
Q/FUTURE 8' UHP PARABOLIC
  
- 215'-0"±  
Q/8' UHP PARABOLIC
- 200'-0"±  
Q/FUTURE 6' UHP PARABOLIC
- 190'-0"±  
Q/6' UHP PARABOLIC
  
- 160'-0"±  
Q/FUTURE 6' UHP PARABOLIC
- 150'-0"±  
Q/FUTURE PLTE ANTENNA
- 130'-0"±  
Q/FUTURE ANTENNAS BY OTHERS
- 120'-0"±  
Q/FUTURE OMNI ANTENNA (TYP OF 2)
- 100'-0"±  
Q/FUTURE DIPOLE ANTENNA (TYP OF 2)
  
- 60'-0"±  
Q/FUTURE YAGI ANTENNA (TYP OF 2)
  
- 0'-0" (REFERENCE)  
T/ CONCRETE



PLANS PREPARED FOR:



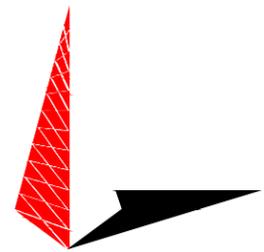
DOMINION RESOURCES SERVICES, INC.  
707 EAST MAIN STREET  
RICHMOND, VA 23219

PROJECT INFORMATION:

**CARSON SUBSTATION**

28908 ELLINGTON RD  
PETERSBURG, VA 23805  
(DINWIDDIE COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
326 TRYON ROAD  
RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
www.tepgroup.net

SEAL:



REV	DATE	ISSUED FOR:
2	12-04-23	PRELIMINARY
1	10-13-23	PRELIMINARY
0	09-27-23	PRELIMINARY

DRAWN BY: SAB CHECKED BY: TDS

SHEET TITLE:

**TOWER ELEVATION**

SHEET NUMBER: **C-3** REVISION: **2**

TEP#: 132110.854246

**TOWER ELEVATION**

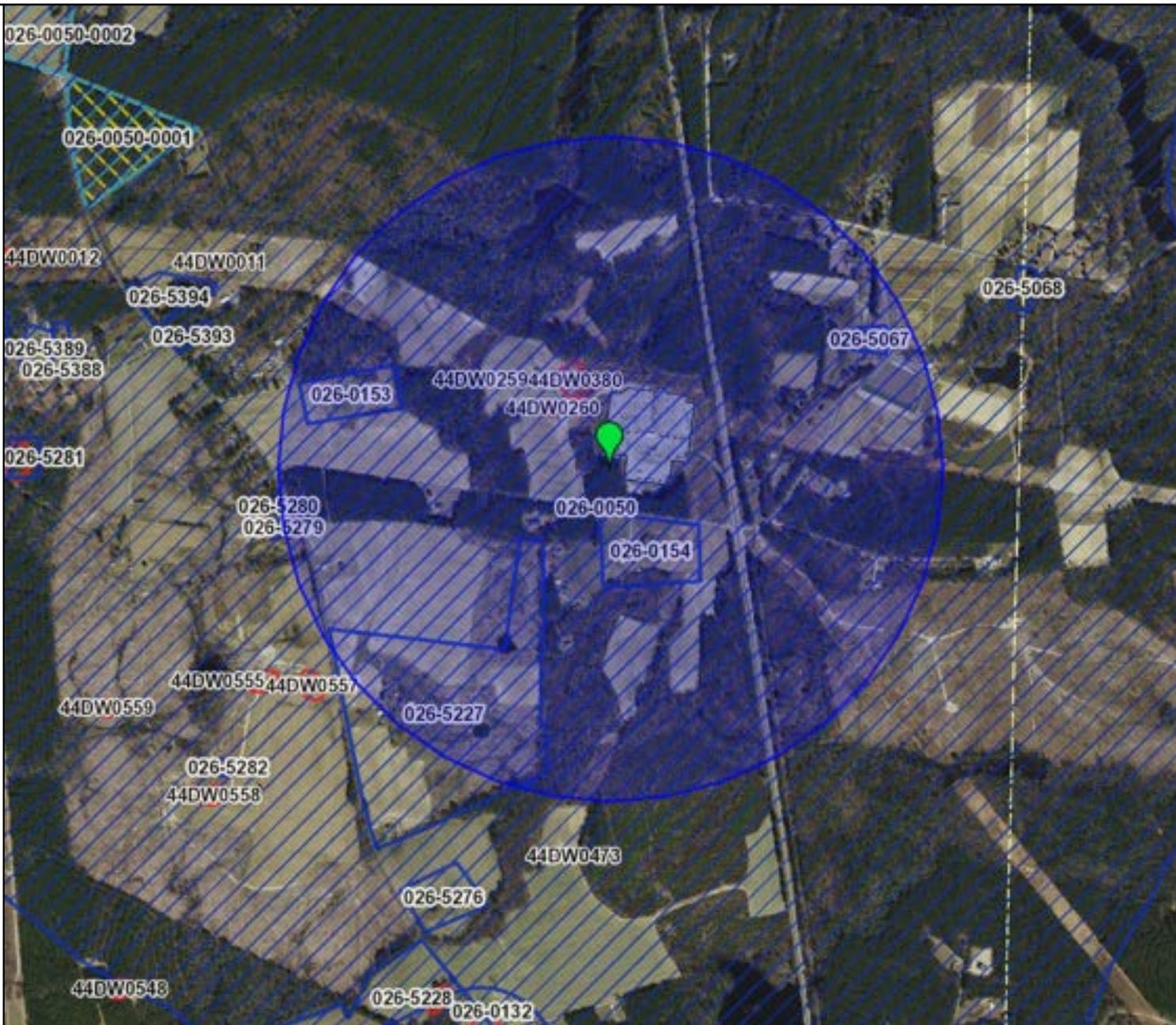
SCALE: 1" = 50'



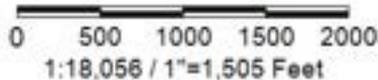


**Legend**

- Architecture Resources
- Architecture Labels
- Individual Historic District Properties
- Archaeological Resources
- Archaeology Labels
- DHR Easements
- County Boundaries



Feet



**Title: Carson Substation**

**Date: 9/17/2024**

*DISCLAIMER: Records of the Virginia Department of Historic Resources (DHR) have been gathered over many years from a variety of sources and the representation depicted is a cumulative view of field observations over time and may not reflect current ground conditions. The map is for general information purposes and is not intended for engineering, legal or other site-specific uses. Map may contain errors and is provided "as-is". More information is available in the DHR Archives located at DHR's Richmond office.*

*Notice if AE sites: Locations of archaeological sites may be sensitive the National Historic Preservation Act (NHPA), and the Archaeological Resources Protection Act (ARPA) and Code of Virginia §2.2-3705.7 (10). Release of precise locations may threaten archaeological sites and historic resources.*



15-Mile Visual APE

Direct APE

0 0.25 0.5 1 Miles

Carson Substation Tower Site  
Dinwiddie County, Virginia

## SITE PHOTOGRAPHS



**Figure 1:** View north towards compound center.



**Figure 2:** View west towards proposed compound center.



**Figure 3:** View south towards proposed compound center.



**Figure 4:** View east towards proposed compound center.



**Figure 5:** View east along proposed access road.

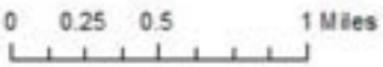


**Figure 6:** View west along proposed access road.



 1.5-Mile Visual APE  
 Direct APE

© 2013 ESRI, All rights reserved. Microsoft, Google, and the ESRI logo are trademarks of their respective owners. All other marks are the property of their respective owners.



Carson Substation Tower Site  
Dinwiddie County, Virginia



## **ATTACHMENT 5**

### **SECTION 106 – INDIAN RELIGIOUS SITES**

Tribe/Nation	Date Tribes Notified by TCNS	Response	Date FCC Form 620 Sent	Date Response/Concurrence Received	FCC Referral Date	Comments
Delaware Nation	3/31/2025	N/A	5/5/2025	N/A	6/12/2025	No response received within 15 calendar days of FCC referral (by 6/27/2025), obligations under Section IV of the NPA are complete.
Ponca Tribe of Indians of Oklahoma	3/31/2025	N/A	5/5/2025	N/A	6/12/2025	No response received within 15 calendar days of FCC referral (by 6/27/2025), obligations under Section IV of the NPA are complete.
Tuscarora Nation	3/31/2025	This tribe has indicated that if no response is received within 30 days of notice through TCNS, they have no interest.	N/A	N/A	N/A	No response received within 30 calendar days of TCNS notification (4/30/2025); assumed no interest in pre-construction review.
Prairie Island Indian Community	3/31/2025	This tribe has indicated that if no response is received within 30 days of notice through TCNS, they have no interest.	N/A	N/A	N/A	No response received within 30 calendar days of TCNS notification (4/30/2025); assumed no interest in pre-construction review.
Bad River Band of Lake Superior Tribe of Chippewa Indians	3/31/2025	This tribe has indicated that if no response is received within 30 days of notice through TCNS, they have no interest.	N/A	N/A	N/A	No response received within 30 calendar days of TCNS notification (4/30/2025); assumed no interest in pre-construction review.
Eastern Shawnee Tribe of Oklahoma	3/31/2025	N/A	N/A	5/29/2025	N/A	"No interest" response received 5/29/2025.
Catawba Indian Nation	3/31/2025	N/A	5/5/2025	6/9/2025	N/A	"No adverse effect" response received 6/9/2025.

Pamunkey Indian Tribe	3/31/2025	This tribe has indicated that if no response is received within 30 days of notice through TCNS, they have no interest.	N/A	N/A	N/A	No response received within 30 calendar days of TCNS notification (4/30/2025); assumed no interest in pre-construction review.
Cultural Heritage Partners	3/31/2025	N/A	5/21/2025	N/A	6/26/2025	No response received within 15 calendar days of FCC referral (by 7/11/2025), obligations under Section IV of the NPA are complete.
Chickahominy Indian Tribe	3/31/2025	N/A	5/21/2025	N/A	6/26/2025	No response received within 15 calendar days of FCC referral (by 7/11/2025), obligations under Section IV of the NPA are complete.
The Upper Mattaponi Indian Tribe	3/31/2025	N/A	5/21/2025	N/A	6/26/2025	No response received within 15 calendar days of FCC referral (by 7/11/2025), obligations under Section IV of the NPA are complete.
Nansemond Indian Tribe	3/31/2025	N/A	5/21/2025	N/A	6/26/2025	No response received within 15 calendar days of FCC referral (by 7/11/2025), obligations under Section IV of the NPA are complete.
<b>Local Gov't/Historic Entities</b>						
Dinwiddie County Planning and Zoning Department	N/A	N/A	5/5/2025	N/A	N/A	No comments to date
Dinwiddie Historical Society	N/A	N/A	5/5/2025	N/A	N/A	No comments to date

Petersburg National Battlefield	N/A	N/A	5/28/2025	12/3/2025	N/A	Emmanuel Dabney, Chief of Resource Management for the Petersburg National Battlefield, responded to TEP stating that the proposed project will have no adverse effect on the Reams Station Battlefield based on the results of a balloon test completed by TEP on 9/11/2025. See Attachment 4 - Section 106 - SHPO for a copy of the correspondence between TEP and the Petersburg National Battlefield, and for the aforementioned balloon test report.
American Battlefield Trust	N/A	N/A	5/28/2025	N/A	N/A	The American Battlefield Trust requested to be a consulting party for the proposed project on 6/26/2025. TEP has sent multiple follow-ups with project updates to the American Battlefield Trust requesting their comments regarding the proposed project. As of 12/4/2025, no comments have been received. See Attachment 4 - Section 106 - SHPO for a copy of the correspondence between TEP and the American Battlefield Trust.



## Tower Construction Notification

[FCC](#) > [WTB](#) > Tower Construction Notification

[FCC Site Map](#)

Logged In: ([Log Out](#)) [Section 106](#)

### Tower Construction Notification New Notification

[Notifications Home](#)

Your Notification has been successfully submitted to the FCC. The date for this Notification is 03/31/2025. Your Notification ID number is **293757**. Please make a note of this Notification ID — print out this page for your records. A confirmation of this submitted notification will also be emailed to the email address specified in your notification.

This system is intended to facilitate consultation under Section 106 of the National Historic Preservation Act by providing early notification of proposed construction to Tribes and State Historic Preservation officers. This system is not to be used in place of Section 106 consultation, and use of this notification system in itself does not satisfy parties' obligations with respect to historic preservation review under the Commission's rules.

**Please note: the submission of this notification is NOT to be considered a submission for Antenna Structure Registration.**

Tower Structures that require antenna structure registration based on FCC Rules 47 C.F.R. Part 17 must complete FCC Form 854 after FAA clearance is obtained.

**ASR Help**

[ASR License Glossary](#) - [FAQ](#) - [Online Help](#) - [Documentation](#) - [Technical Support](#)

**ASR Online Systems**

[TOWAIR](#)- [CORES/ASR Registration](#) - [ASR Online Filing](#) - [Application Search](#) - [Registration Search](#)

**About ASR**

[Privacy Statement](#) - [About ASR](#) - [ASR Home](#)

Federal Communications Commission  
45 L Street NE  
Washington, DC 20554  
[More FCC Contact Information...](#)

Phone: 1-877-480-3201  
ASL Videophone: 1-844-432-2275  
Fax: 1-866-418-0232  
[Submit Help Request](#)

- [Web Policies & Privacy Statement](#)  
- [Required Browser Plug-ins](#)  
- [Customer Service Standards](#)  
- [Freedom of Information Act](#)



---

## Proposed Tower Structure Info - Email ID #9166289

1 message

---

**towernotifyinfo@fcc.gov** <towernotifyinfo@fcc.gov>  
To: tcns@tepgroup.net

Mon, Mar 31, 2025 at 12:53 PM

---

### This Message Is From an External Sender

This message came from outside your organization.

Dear Ryan A Malek,

Thank you for submitting a notification regarding your proposed construction via the Tower Construction Notification System. Note that the system has assigned a unique Notification ID number for this proposed construction. You will need to reference this Notification ID number when you update your project's Status with us.

Below are the details you provided for the construction you have proposed:

Notification Received: 03/31/2025

Notification ID: 293757

Tower Owner Individual or Entity Name: TEP for Dominion Energy

Consultant Name: Ryan A Malek

Street Address: 326 Tryon Rd.

City: Raleigh

State: NORTH CAROLINA

Zip Code: 27603

Phone: 919-661-6351

Email: [tcns@tepgroup.net](mailto:tcns@tepgroup.net)

Structure Type: LTOWER - Lattice Tower

Latitude: 37 deg 5 min 4.5 sec N

Longitude: 77 deg 24 min 25.2 sec W

Location Description: 28908 Ellington Road

City: Petersburg

State: VIRGINIA

County: DINWIDDIE

Detailed Description of Project: Proposed construction of a 420-ft AGL (424-ft AGL overall with appurtenances) self-support communications tower and its associated compound facility to be located in Dinwiddie County, VA.

Ground Elevation: 48.8 meters

Support Structure: 128.1 meters above ground level

Overall Structure: 129.3 meters above ground level

Overall Height AMSL: 178.1 meters above mean sea level



TEP-TCNS inbox &lt;tcns@tepgroup.net&gt;

---

**NOTICE OF ORGANIZATION(S) WHICH WERE SENT PROPOSED TOWER CONSTRUCTION NOTIFICATION INFORMATION - Email ID #9168201**

1 message

---

**towernotifyinfo@fcc.gov** <towernotifyinfo@fcc.gov>  
To: tcns@tepgroup.net  
Cc: tcnsweekly@fcc.gov

Fri, Apr 4, 2025 at 3:01 AM

---

**This Message Is From an External Sender**

This message came from outside your organization.

Dear Applicant:

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this electronic mail message is to inform you that the following authorized persons were sent the notification that you provided through TCNS, which relates to your proposed antenna structure. The information was forwarded by the FCC to authorized TCNS users by electronic mail and/or regular mail (letter). We note that the review period for all parties begins upon receipt of the Submission Packet pursuant to Section VII.A of the NPA and notifications that do not provide this serve as information only.

Persons who have received the notification that you provided include leaders or their designees of federally-recognized American Indian Tribes, including Alaska Native Villages (collectively "Tribal Nations"), Native Hawaiian Organizations (NHOs), and State Historic Preservation Officers (SHPOs). For your convenience in identifying the referenced Tribal Nations and NHOs and in making further contacts, the City and State of the Seat of Government for each Tribal Nation and NHO, as well as the designated contact person, is included in the listing below. We note that Tribal Nations may have Section 106 cultural interests in ancestral homelands or other locations that are far removed from their current Seat of Government. Pursuant to the Commission's rules as set forth in the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission (NPA), all Tribal Nations and NHOs listed below must be afforded a reasonable opportunity to respond to this notification, consistent with the procedures set forth below, unless the proposed construction falls within an exclusion designated by the Tribal Nation or NHO. (NPA, Section IV.F.4).

The notification that you provided was forwarded to the following Tribal Nations and NHOs. A Tribal Nation or NHO may not respond until a full Submission Packet is provided. If, upon receipt, the Tribal Nation or NHO does not respond within a reasonable time, you should make a reasonable effort at follow-up contact, unless the Tribal Nation or NHO has agreed to different procedures (NPA, Section IV.F.5). In the event a Tribal Nation or NHO does not respond to a follow-up inquiry, or if a substantive or procedural disagreement arises between you and a Tribal Nation or NHO, you must seek guidance from the Commission (NPA, Section IV.G). These procedures are further set forth in the FCC's Second Report and Order released on March 30, 2018 (FCC 18-30).

1. TCNS Coordinator Tiffany Martinez - Delaware Nation - 31064 State Highway 281 (PO Box: 825) Anadarko, OK - [tmartinez@delawarenation-nsn.gov](mailto:tmartinez@delawarenation-nsn.gov) - 405-247-2448 (ext: 1403) - electronic mail  
Exclusions: The Delaware Nation of Oklahoma Historic Preservation Office has developed the following consultation procedures for all TCNS projects identified as undertakings by the Federal Communications Commission. In the email subject line, please specify whether the project is for a tower, small cell, or collocation. Our response can be given faster with this information.

2. THPO Liana S Hesler - Ponca Tribe of Indians of Oklahoma - [101 White Eagle Drive Ponca City, OK - 106notifications@ponca-nsn.gov](mailto:106notifications@ponca-nsn.gov) - 580-382-6633 - electronic mail

3. TCNS Rep Bryan Printup - Tuscarora Nation - [5226 Walmore Rd Via: Lewiston, NY](#) - [bprintup@hetf.org](mailto:bprintup@hetf.org) - 716-264-6011 (ext: 103) - electronic mail

If the applicant/tower builder receives no response from the Tuscarora Nation within 30 days after notification through TCNS, the Tuscarora Nation has no interest in participating in pre-construction review for the proposed site. The Applicant/tower builder,

however, must immediately notify the Tuscarora Nation in the event archaeological properties or human remains are discovered during construction, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

4. THPO Noah C White III - Prairie Island Indian Community - [5636 Sturgeon Lake Road Welch, MN](#) - [celltower@piic.org](mailto:celltower@piic.org) - 651-385-4175 - electronic mail

If the applicant/tower builder receives no response from the Prairie Island Indian Community within 30 days after notification through TCNS, the Prairie Island Indian Community has no interest in participating in pre-construction review for the proposed site. The Applicant/tower builder,

however, must immediately notify the Prairie Island Indian Community in the event archaeological properties or human remains are discovered during construction, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

5. THPO Lawrence Plucinski - Bad River Band of Lake Superior Tribe of Chippewa Indians - (PO Box: 39) Odanah, WI - [thpo@badriver-nsn.gov](mailto:thpo@badriver-nsn.gov); [deputyTHPO@badriver-nsn.gov](mailto:deputyTHPO@badriver-nsn.gov) - 715-682-7123 - electronic mail

If the applicant/tower builder receives no response from the Bad River Band of Lake Superior Tribe of Chippewa Indians within 30 days after notification through TCNS, the Bad River Band of Lake Superior Tribe of Chippewa Indians has no interest in participating in pre-construction review for the proposed site. The Applicant/tower builder,

however, must immediately notify the Bad River Band of Lake Superior Tribe of Chippewa Indians in the event archaeological properties or human remains are discovered during construction, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

6. Cell Tower Coordinator Kelly Nelson - Eastern Shawnee Tribe of [Oklahoma](#) - [70400 East HWY 60 Wyandotte, OK](#) - [celltower@estoo.net](mailto:celltower@estoo.net) - 918-238-5151 (ext: 1861) - regular mail

Exclusions: DO NOT EMAIL DOCUMENTATION; it will be deleted without being opened.

Submit one printed color copy by US postal mail or other parcel carrier of all documentation to:

Eastern Shawnee Tribe  
Attn: CellTower Program  
70500 E. 128 Rd.  
Wyandotte, OK 74370

Provide a 1-page cover letter with the following information:

- a. TCNS Number
- b. Company Name
- c. Project Name, City, County, State
- d. Project type
- e. Project coordinates
- f. Contact information

The Eastern Shawnee Procedures document is available and highly recommended for guidance; send an email to [celltower@estoo.net](mailto:celltower@estoo.net) requesting our most current copy.

7. THPO and Executive Director Dr. Wenonah G Haire DMD - Catawba Indian Nation - [1536 Tom Steven Road](#) Catawba Cultural Center Rock Hill, SC - [Wenonah.Haire@catawba.com](mailto:Wenonah.Haire@catawba.com); [Caitlin.Rogers@catawba.com](mailto:Caitlin.Rogers@catawba.com) - 803-417-9057 - regular mail

Exclusions: Please do not email documentation; it will be deleted without being opened. Mail one printed color copy of all documentation to address:

Dr. Wenonah G. Haire  
Tribal Historic Preservation Office  
1536 Tom Steven Road  
Rock Hill, SC 29730

Please submit by US Postal mail or other parcel carrier complete information for all telecommunication projects:

1. Please provide 1 page cover letter with following information

- a. TCNS Number
- b. Company Name
- c. Project Name, City, County, State
- d. Project Type
- e. Project coordinates
- f. Contact information

2. We also request photographs of project area, previous land use history and copy of SHPO Letter.

If you have any questions about our process or timeline of project notifications you can email Caitlin Rogers at [Caitlinh@ccppcrafts.com](mailto:Caitlinh@ccppcrafts.com)

8. Chief Kevin Brown - Pamunkey Indian Tribe - 1054 Pocahontas Trail King William, VA - [kevin.brown@pamunkey.org](mailto:kevin.brown@pamunkey.org); [pamunkeytribe@pamunkey.org](mailto:pamunkeytribe@pamunkey.org) - 804-843-2452 - electronic mail

If the applicant/tower builder receives no response from the Pamunkey Indian Tribe within 30 days after notification through TCNS, the Pamunkey Indian Tribe has no interest in participating in pre-construction review for the proposed site. The Applicant/tower builder,

however, must immediately notify the Pamunkey Indian Tribe in the event archaeological properties or human remains are discovered during construction, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

9. Program Manager Ellen Chapman - Cultural Heritage Partners - [1811 East Grace St Suite A Richmond, VA](#) - [ellen@culturalheritagepartners.com](mailto:ellen@culturalheritagepartners.com); [rapn8n@gmail.com](mailto:rapn8n@gmail.com) - 434-327-6663 - electronic mail

10. Chief Stephen Adkins - Chickahominy Indian Tribe - [7240 Adkins Road Charles City, VA](#) - [stephen.adkins@chickahominytribe.org](mailto:stephen.adkins@chickahominytribe.org) - 804-829-5548 - electronic mail

11. Chief W. Frank Adams - The Upper Mattaponi Indian Tribe - (PO Box: 184) King William, VA - [wfrankadams@verizon.net](mailto:wfrankadams@verizon.net) - 804-690-1694 - electronic mail

12. Chief Keith Anderson - Nansemond Indian Tribe - 1001 Pembroke Lane Suffolk, VA - [chief@nansemond.org](mailto:chief@nansemond.org); [marion@culturalheritagepartners.com](mailto:marion@culturalheritagepartners.com) - 757-619-0670 - electronic mail

The notification that you provided was also forwarded to the following SHPOs in the State in which you propose to construct and neighboring States. The information was provided to these SHPOs as a courtesy for their information and planning. You need make no effort at this time to follow up with any SHPO that does not respond to this notification. Prior to construction, you must provide the SHPO of the State in which you propose to construct (or the Tribal Historic Preservation Officer, if the project will be located on certain Tribal lands), with a Submission Packet pursuant to Section VII.A of the NPA unless the project is excluded from SHPO review under Section III D or E of the NPA.

13. Environmental Review Coordinator Renee GledhillEarley - NC State Historic Preservation Office - 4617 Mail Service Center Raleigh, NC - [renee.gledhill-earley@ncmail.net](mailto:renee.gledhill-earley@ncmail.net) - 919-733-4763 - electronic mail

14. Deputy SHPO David Brook - Historic Preservation Office - 4610 Mail Service Center Raleigh, NC - [david.brook@ncmail.net](mailto:david.brook@ncmail.net) - 919-807-7283 - electronic mail

15. Manager - Office of Review & Compliance Ethel R Eaton PhD - Department of Historic Resources - 2801 Kensington Avenue Richmond, VA - [ethel.eaton@dhr.virginia.gov](mailto:ethel.eaton@dhr.virginia.gov) - 804-367-2323 - electronic mail

16. Deputy SHPO Susan Pierce - West Virginia Division of Culture & History, Historic Preservation Office - 1901 Kanawha Boulevard East Charleston, WV - [susan.pierce@wvculture.org](mailto:susan.pierce@wvculture.org) - -- - electronic mail

17. Director Julie Langan - Virginia Department of Historic Resources - 2801 Kensington Avenue Richmond, VA - [VASHPO\\_FCC@dhr.virginia.gov](mailto:VASHPO_FCC@dhr.virginia.gov) - 804-367-2323 - electronic mail

TCNS automatically forwards all notifications to all Tribal Nations and SHPOs that have an expressed interest in the geographic area of a proposal. However, if a proposal for PTC wayside poles falls within a designated exclusion, you need not expect any response and need not pursue any additional process with that Tribal Nation or SHPO. In addition, a particular Tribal Nation or SHPO may also set forth policies or procedures within its details box that exclude from review certain facilities (for example, a statement that it does not review collocations with no ground disturbance; or that indicates that no response within 30 days indicates no interest in participating in pre-construction review).

Please be advised that the FCC cannot guarantee that the contact(s) listed above have opened and reviewed an electronic or regular mail notification. If you learn that any of the above contact information is no longer valid, please contact the FCC by emailing [tcnshelp@fcc.gov](mailto:tcnshelp@fcc.gov). The following information relating to the proposed tower was forwarded to the person(s) listed above:

Notification Received: 03/31/2025  
Notification ID: 293757  
Excluded from SHPO Review: No  
Tower Owner Individual or Entity Name: TEP for Dominion Energy  
Consultant Name: Ryan A Malek  
Street Address: 326 Tryon Rd.  
City: Raleigh  
State: NORTH CAROLINA  
Zip Code: 27603  
Phone: 919-661-6351  
Email: [tcns@tepgroup.net](mailto:tcns@tepgroup.net)

Structure Type: LTOWER - Lattice Tower

Latitude: 37 deg 5 min 4.5 sec N

Longitude: 77 deg 24 min 25.2 sec W

Location Description: 28908 Ellington Road

City: Petersburg

State: VIRGINIA

County: DINWIDDIE

Detailed Description of Project: Proposed construction of a 420-ft AGL (424-ft AGL overall with appurtenances) self-support communications tower and its associated compound facility to be located in Dinwiddie County, VA.

Ground Elevation: 48.8 meters

Support Structure: 128.1 meters above ground level

Overall Structure: 129.3 meters above ground level

Overall Height AMSL: 178.1 meters above mean sea level

If you have any questions or comments regarding this notice, please contact the FCC using the electronic Help Request form located on the FCC's website at:

[https://urldefense.com/v3/\\_\\_https://www.fcc.gov/wireless/available-support-services\\_\\_;!!JV-z9g!NmTFxA23Ku9Gdpv7OWcs5EAbf4SWKmHuyO54huLm-gnzjwEC-d-GV8oeg6Zco1tkbNxVCL5KJR8HkbgEC0L1Sp8SMg\\$](https://urldefense.com/v3/__https://www.fcc.gov/wireless/available-support-services__;!!JV-z9g!NmTFxA23Ku9Gdpv7OWcs5EAbf4SWKmHuyO54huLm-gnzjwEC-d-GV8oeg6Zco1tkbNxVCL5KJR8HkbgEC0L1Sp8SMg$)

You may also call the FCC Support Center at (877) 480-3201 (TTY 717-338-2824). Hours are from 8:00 a.m. to 6:00 p.m. Eastern Time, Monday through Friday (except Federal holidays). To provide quality service and ensure security, all telephone calls are recorded.

Thank you,  
Federal Communications Commission



TEP-TCNS inbox &lt;tcns@tepgroup.net&gt;

---

**Section 106 New Filing Submitted- Email ID #11111059**

1 message

---

**towernotifyinfo@fcc.gov** <towernotifyinfo@fcc.gov>  
To: tcns@tepgroup.net

Mon, May 5, 2025 at 1:51 PM

---

**This Message Is From an External Sender**

This message came from outside your organization.

The following new Section 106 filing has been submitted:

File Number: 0011556200  
TCNS Number: 293757  
Purpose: New Tower Submission Packet

Notification Date: 7AM EST 05/06/2025

Applicant: Dominion Energy  
Consultant: TEP OPCO, LLC  
Positive Train Control Filing Subject to Expedited Treatment Under Program Comment: No  
Site Name: Carson Substation  
Site Address: [28908 Ellington Road](#)  
Detailed Description of Project: Proposed construction of a 420-ft AGL (424-ft AGL overall with appurtenances) self-support communications tower and its associated compound facility to be located in Dinwiddie County, VA.  
Site Coordinates: 37-5-4.5 N, 77-24-25.2 W  
City: Petersburg  
County: DINWIDDIE  
State: VA  
Lead SHPO/THPO: Virginia Department of Historic Resources

## Consultant Contact Information:

Name: TEP OPCO, LLC  
Title:  
PO Box:  
Address: [326 Tryon Road](#)  
[City: Raleigh](#)  
[State: NC](#)  
[Zip: 27603](#)  
Phone: 919-661-6351  
Fax:  
Email: [tcns@tepgroup.net](mailto:tcns@tepgroup.net)

## NOTICE OF FRAUDULENT USE OF SYSTEM, ABUSE OF PASSWORD AND RELATED MISUSE

Use of the Section 106 system is intended to facilitate consultation under Section 106 of the National Historic Preservation Act and may contain information that is confidential, privileged or otherwise protected from disclosure under applicable laws. Any person having access to Section 106 information shall use it only for its intended purpose. Appropriate action will be taken with respect to any misuse of the system.



TEP-TCNS inbox &lt;tcns@tepgroup.net&gt;

## Proposed Construction of Communications Facilities Notification of Final Contacts - Email ID #38215

1 message

**towernotifyinfo@fcc.gov** <towernotifyinfo@fcc.gov>  
To: tcns@tepgroup.net  
Cc: tcnsweekly@fcc.gov

Thu, Jun 12, 2025 at 9:02 AM

### This Message Is From an External Sender

This message came from outside your organization.

TEP for Dominion Energy  
Ryan A Malek  
326 Tryon Rd.  
Raleigh, NC 27603

Dear Applicant:

This letter addresses the proposed communications facilities listed below that you have referred to the Federal Communications Commission (Commission) for purposes of contacting federally recognized Indian Tribes, including Alaska Native Villages (collectively Indian Tribes), and Native Hawaiian Organizations (NHOs), as specified by Section IV.G of the Nationwide Programmatic Agreement (NPA). Consistent with the procedures outlined in the Commission's Wireless Infrastructure Second Report and Order (1), we have contacted the Indian Tribes or NHOs identified in the attached Table for the projects listed in the attached Table. You referred these projects to us between 06/05/2025 and 06/12/2025. Our contact with these Tribal Nations or NHOs was sent on 06/12/2025.

Thus, as described in the Wireless Infrastructure Second Report and Order (2), if you or Commission staff do not receive a statement of interest regarding a particular project from any Tribe or NHO within 15 calendar days of 06/12/2025, your obligations under Section IV of the NPA with respect to these Tribal Nations or NHOs are complete. If a Tribal Nation or NHO responds that it has concerns about a historic property of traditional religious and cultural significance that may be affected by the proposed construction within the 15 calendar day period, the Applicant must involve it in the review as set forth in the NPA, and may not begin construction until the process set forth in the NPA is completed.

You are reminded that Section IX of the NPA imposes independent obligations on an Applicant when a previously unidentified site that may be a historic property, including an archeological property, is discovered during construction or after the completion of review. In such instances, the Applicant must cease construction and promptly notify, among others, any potentially affected Tribal Nation or NHO. A Tribal Nation's or NHO's failure to express interest in participating in pre-construction review of an undertaking does not necessarily mean it is not interested in archeological properties or human remains that may inadvertently be discovered during construction. Hence, an Applicant is still required to notify any potentially affected Tribal Nation or NHO of any such finds pursuant to Section IX or other applicable law.

Sincerely,  
Ellen Saint Onge  
Federal Preservation Officer  
Federal Communications Commission  
[ellen.saintonge@fcc.gov](mailto:ellen.saintonge@fcc.gov)

1) See Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Deployment, Second Report and Order, FCC 18-30 (Mar. 30, 2018) (Wireless Infrastructure Second Report and Order).

2) See id. at paras. 111-112.

### LIST OF PROPOSED COMMUNICATIONS TOWERS

TCNS# 293757 Referred Date: 06/10/2025 Location: [28908 Ellington Road, Petersburg, VA](#)

Detailed Description of Project: Proposed construction of a 420-ft AGL (424-ft AGL overall with appurtenances) self-support communications tower and its associated compound facility to be located in Dinwiddie County, VA.

Tribe Name: Delaware Nation

Tribe Name: Ponca Tribe of Indians of Oklahoma

**LEGEND:**

\* - Notification numbers are assigned by the Commission staff for sites where initial contact was not made through TCNS.



TEP-TCNS inbox &lt;tcns@tepgroup.net&gt;

## Proposed Construction of Communications Facilities Notification of Final Contacts - Email ID #38290

1 message

**towernotifyinfo@fcc.gov** <towernotifyinfo@fcc.gov>  
To: tcns@tepgroup.net  
Cc: tcnsweekly@fcc.gov

Thu, Jun 26, 2025 at 9:01 AM

### This Message Is From an External Sender

This message came from outside your organization.

TEP for Duke Energy  
Ryan A Malek  
326 Tryon Rd.  
Raleigh, NC 27603

Dear Applicant:

This letter addresses the proposed communications facilities listed below that you have referred to the Federal Communications Commission (Commission) for purposes of contacting federally recognized Indian Tribes, including Alaska Native Villages (collectively Indian Tribes), and Native Hawaiian Organizations (NHOs), as specified by Section IV.G of the Nationwide Programmatic Agreement (NPA). Consistent with the procedures outlined in the Commission's Wireless Infrastructure Second Report and Order (1), we have contacted the Indian Tribes or NHOs identified in the attached Table for the projects listed in the attached Table. You referred these projects to us between 06/19/2025 and 06/26/2025. Our contact with these Tribal Nations or NHOs was sent on 06/26/2025.

Thus, as described in the Wireless Infrastructure Second Report and Order (2), if you or Commission staff do not receive a statement of interest regarding a particular project from any Tribe or NHO within 15 calendar days of 06/26/2025, your obligations under Section IV of the NPA with respect to these Tribal Nations or NHOs are complete. If a Tribal Nation or NHO responds that it has concerns about a historic property of traditional religious and cultural significance that may be affected by the proposed construction within the 15 calendar day period, the Applicant must involve it in the review as set forth in the NPA, and may not begin construction until the process set forth in the NPA is completed.

You are reminded that Section IX of the NPA imposes independent obligations on an Applicant when a previously unidentified site that may be a historic property, including an archeological property, is discovered during construction or after the completion of review. In such instances, the Applicant must cease construction and promptly notify, among others, any potentially affected Tribal Nation or NHO. A Tribal Nation's or NHO's failure to express interest in participating in pre-construction review of an undertaking does not necessarily mean it is not interested in archeological properties or human remains that may inadvertently be discovered during construction. Hence, an Applicant is still required to notify any potentially affected Tribal Nation or NHO of any such finds pursuant to Section IX or other applicable law.

Sincerely,  
Ellen Saint Onge  
Federal Preservation Officer  
Federal Communications Commission  
[ellen.saintonge@fcc.gov](mailto:ellen.saintonge@fcc.gov)

1) See Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Deployment, Second Report and Order, FCC 18-30 (Mar. 30, 2018) (Wireless Infrastructure Second Report and Order).

2) See id. at paras. 111-112.

### LIST OF PROPOSED COMMUNICATIONS TOWERS

TCNS# 293757 Referred Date: 06/23/2025 Location: [28908 Ellington Road, Petersburg, VA](#)

Detailed Description of Project: Proposed construction of a 420-ft AGL (424-ft AGL overall with appurtenances) self-support communications tower and its associated compound facility to be located in Dinwiddie County, VA.

Tribe Name: Chickahominy Indian Tribe

Tribe Name: Nansemond Indian Tribe

Tribe Name: Rappahannock Tribe / HK Law

Tribe Name: The Upper Mattaponi Indian Tribe

TCNS# 295637 Referred Date: 06/23/2025 Location: [1805 US-521, Sumter, SC](#)

Detailed Description of Project: Proposed 120-ft (124-ft AGL overall with appurtenances) monopole communications tower located within an existing substation in Sumter County, South Carolina

Tribe Name: Thlopthlocco Tribal Town

TCNS# 294826 Referred Date: 06/23/2025 Location: [2234 Highway 300 South, Cordele, GA](#)

Detailed Description of Project: Proposed collocation of antennas at 278-ft AGL on an existing 301.8-ft (309.4-ft AGL overall with appurtenances) guyed communications tower in Crisp County, GA.

Tribe Name: Coushatta Indian Tribe

Tribe Name: Kialegee Tribal Town

Tribe Name: Seminole Tribe of Florida

Tribe Name: Thlopthlocco Tribal Town

#### LEGEND:

\* - Notification numbers are assigned by the Commission staff for sites where initial contact was not made through TCNS.



TEP-TCNS inbox <tcns@tepgroup.net>

---

**Reply to Proposed Tower Structure (Notification ID: 293757) - Email ID #9222237**

1 message

---

**towernotifyinfo@fcc.gov** <towernotifyinfo@fcc.gov>

Thu, May 29, 2025 at 5:10 PM

To: tcns@tepgroup.net

Cc: tcns.fccarchive@fcc.gov, celltower@estoo.net

---

**This Message Is From an External Sender**

This message came from outside your organization.

Dear Ryan A Malek,

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this email is to inform you that an authorized user of the TCNS has replied to a proposed tower construction notification that you had submitted through the TCNS.

The following message has been sent to you from Director Lora Nuckolls of the Eastern Shawnee Tribe of Oklahoma in reference to Notification ID #293757:

We have no interest in this site. However, if the Applicant discovers archaeological remains or resources during construction, the Applicant should immediately stop construction and notify the appropriate Federal Agency and the Tribe.

For your convenience, the information you submitted for this notification is detailed below.

Notification Received: 03/31/2025  
Notification ID: 293757  
Tower Owner Individual or Entity Name: TEP for Dominion Energy  
Consultant Name: Ryan A Malek  
Street Address: 326 Tryon Rd.  
City: Raleigh  
State: NORTH CAROLINA  
Zip Code: 27603  
Phone: 919-661-6351  
Email: [tcns@tepgroup.net](mailto:tcns@tepgroup.net)

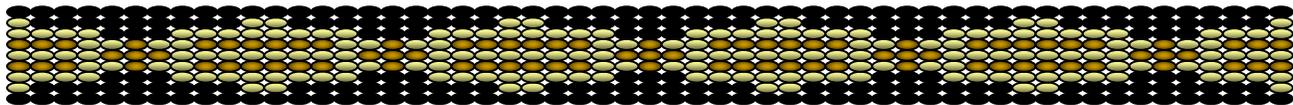
Structure Type: LTOWER - Lattice Tower  
Latitude: 37 deg 5 min 4.5 sec N  
Longitude: 77 deg 24 min 25.2 sec W  
Location Description: 28908 Ellington Road  
City: Petersburg  
State: VIRGINIA  
County: DINWIDDIE

Detailed Description of Project: Proposed construction of a 420-ft AGL (424-ft AGL overall with appurtenances) self-support communications tower and its associated compound facility to be located in Dinwiddie County, VA.

Ground Elevation: 48.8 meters  
Support Structure: 128.1 meters above ground level  
Overall Structure: 129.3 meters above ground level  
Overall Height AMSL: 178.1 meters above mean sea level

Catawba Indian Nation  
Tribal Historic Preservation Office  
1536 Tom Steven Road  
Rock Hill, South Carolina 29730

Office 803-328-2427



June 9, 2025

Attention: Rachel Sneed  
Dominion Energy  
120 Tredegar Street  
Richmond, VA 23219

Re. THPO #	TCNS #	Project Description
2025-1108-10	293757	28908 Ellington Road, Petersburg, VA

Dear Ms. Sneed,

The Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. **However, the Catawba are to be notified if Native American artifacts and / or human remains are located during the ground disturbance phase of this project.**

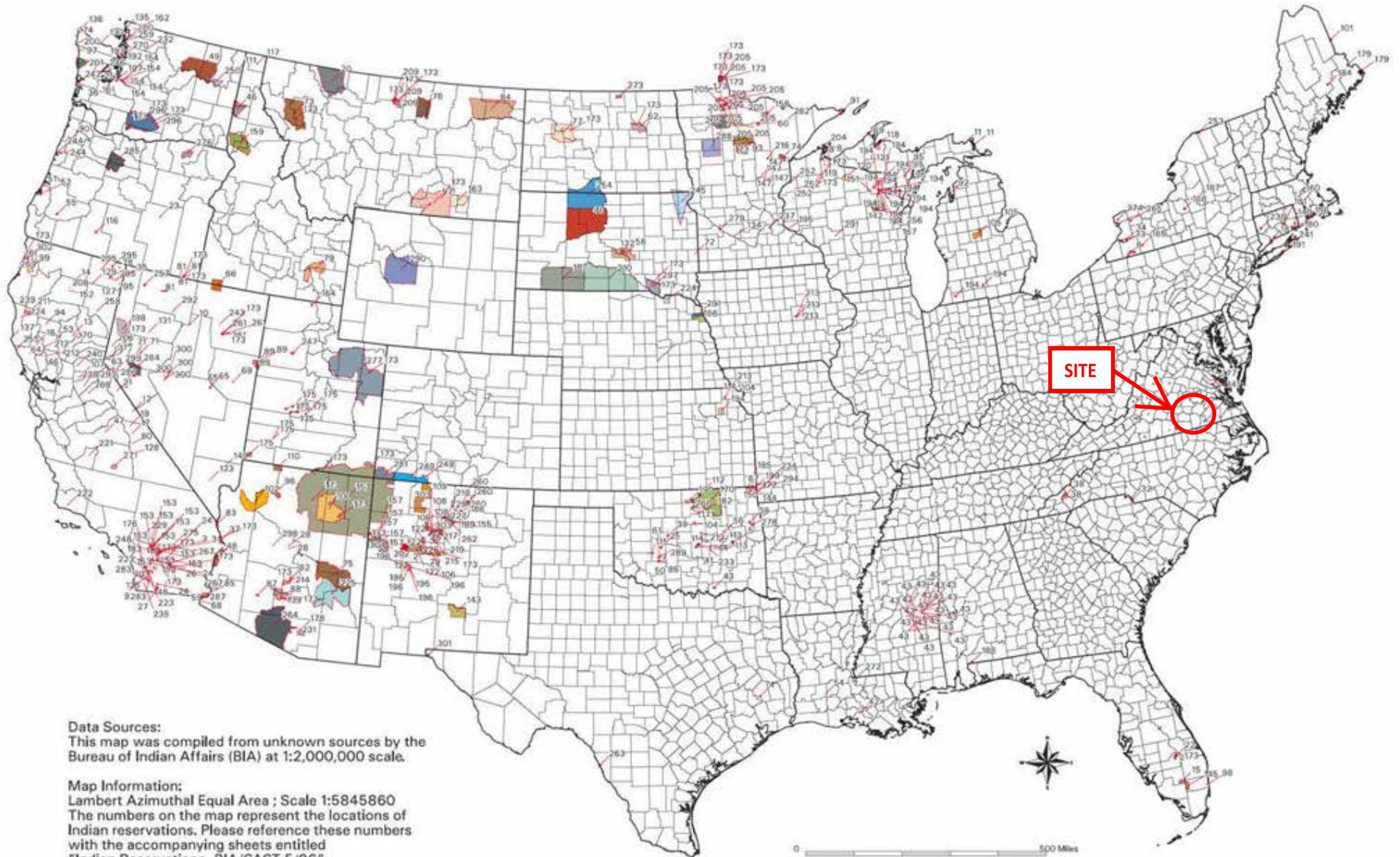
If you have questions, please contact Caitlin Rogers at 803-328-2427 ext. 226, or e-mail [Caitlin.Rogers@catawba.com](mailto:Caitlin.Rogers@catawba.com).

Sincerely,

A handwritten signature in cursive script that reads "Caitlin Rogers for".

Wenonah G. Haire  
Tribal Historic Preservation Officer

# Indian Reservations in the Continental United States



**Data Sources:**  
This map was compiled from unknown sources by the Bureau of Indian Affairs (BIA) at 1:2,000,000 scale.

**Map Information:**  
Lambert Azimuthal Equal Area ; Scale 1:5845860  
The numbers on the map represent the locations of Indian reservations. Please reference these numbers with the accompanying sheets entitled "Indian Reservations- BIA/CAST 5/96".



# National NAGPRA



Resources for [Tribes](#) | [Museums](#) | [Agencies](#) | [Public](#) | [Press](#)

## Indian Reservations in the Continental United States MAP INDEX

[Full Size Map \(PDF\)](#)

0 No Data	102. HUALAPAI	204. RED CLIFF
1. ABSENTEE SHAWNEE *	103. INAJA	205. RED LAKE
2. ACOMA	104. IOWA *	206. RENO-SPARKS
3. AGUA CALIENTE	105. ISABELLA	207. RINCON
4. ALABAMA-COUSHATTA	106. ISLETA	208. ROARING CREEK
5. ALABAMA-QUASSARTE CREEKS *	107. JACKSON	209. ROCKY BOYS
6. ALLEGANY	108. JEMEZ	210. ROSEBUD
7. APACHE *	109. JICARILLA	211. ROUND VALLEY
8. BAD RIVER	110. KAIBAB	212. RUMSEY
9. BARONA RANCH	111. KALISPEL	213. SAC AND FOX #
10. BATTLE MOUNTAIN	112. KAW *	214. SALT RIVER
11. BAY MILLS	113. KIALEGEE CREEK *	215. SANDIA
12. BENTON PAIUTE	114. KICKAPOO *	216. SANDY LAKE
13. BERRY CREEK	115. KIOWA *	217. SANTA ANA
14. BIG BEND	116. KLAMATH *	218. SANTA CLARA
15. BIG CYPRESS	117. KOOTENAI	219. SANTA DOMINGO
16. BIG LAGOON	118. L'ANSE	220. SANTA ROSA
17. BIG PINE	119. LAC COURTE OREILLES	221. SANTA ROSA (NORTH)
18. BIG VALLEY	120. LAC DU FLAMBEAU	222. SANTA YNEZ

[Home](#)

[Frequently Asked Questions](#)

[Law and Regulations](#)

[Online Databases](#)

[Grants](#)

[Training](#)

[Notices](#)

[Documents and Publications](#)

[Review Committee](#)

[Special Topics](#)

[Contact National NAGPRA](#)

19. BISHOP	121. LAC VIEUX DESERT	223. SANTA YSABEL
20. BLACKFEET	122. LAGUNA	224. SANTEE
21. BRIDGEPORT	123. LAS VEGAS	225. SAN CARLOS
22. BRIGHTON	124. LAYTONVILLE	226. SAN FELIPE
23. BURNS PAIUTE COLONY	125. LA JOLLA	227. SAN ILDEFONSO
24. CABEZON	126. LA POSTA	228. SAN JUAN
25. CADDO *	127. LIKELY	229. SAN MANUAL
26. CAHUILLA	128. LONE PINE	230. SAN PASQUAL
27. CAMPO	129. LOOKOUT	231. SAN XAVIER
28. CAMP VERDE	130. LOS COYOTES	232. SAUK SUIATTLE
29. CANONCITO	131. LOVELOCK COLONY	233. SEMINOLE *
30. CAPITAN GRANDE	132. LOWER BRULE	234. SENECA-CAYUGA *
31. CARSON	133. LOWER ELWAH	235. SEQUAN
32. CATAWBA	134. LOWER SIOUX	236. SHAGTICOKE +
33. CATTARAUGUS	135. LUMMI	237. SHAKOPEE
34. CAYUGA *	136. MAKAH	238. SHEEP RANCH
35. CEDARVILLE	137. MANCHESTER	239. SHERWOOD VALLEY
36. CHEHALIS	138. MANZANITA	240. SHINGLE SPRING
37. CHEMEHUEVI	139. MARICOPA	241. SHINNECOCK +
38. CHEROKEE * #	140. MASHANTUCKET PEQUOT	242. SHOALWATER
39. CHEYENNE-ARAPAHOE*	141. MATTAPONI +	243. SHOSHONE
40. CHEYENNE RIVER	142. MENOMINEE	244. SILETZ
41. CHICKASAW *	143. MESCALERO	245. SISSETON
42. CHITIMACHA	144. MIAMI *	246. SKOKOMISH
43. CHOCTAW * #	145. MICCOSUKEE	247. SKULL VALLEY
44. CITIZEN BAND OF POTAWATOMI *	146. MIDDLETOWN	248. SOBOBA
45. COCHITI	147. MILLE LACS	249. SOUTHERN UTE
46. COEUR D'ALENE	148. MISSION	250. SPOKANE
47. COLD SPRINGS	149. MOAPA	251. SQUAXON ISLAND
		252. ST. CROIX

48. COLORADO RIVER  
49. COLVILLE  
50. COMANCHE \*  
51. COOS, LOWER UMPQUA  
& SIUSLAW  
52. COQUILLE \*  
53. CORTINA  
54. COUSHATTA  
55. COW CREEK  
56. CREEK \*  
57. CROW  
58. CROW CREEK  
59. CUYAPAIPE  
60. DEER CREEK  
61. DELAWARE \*  
62. DEVILS LAKE  
63. DRESSLERVILLE  
COLONY  
64. DRY CREEK  
65. DUCKWATER  
66. DUCK VALLEY  
67. EASTERN SHAWNEE \*  
68. EAST COCOPAH  
69. ELY COLONY  
70. ENTERPRISE  
71. FALLON  
72. FLANDREAU INDIAN  
SCHOOL  
73. FLATHEAD  
74. FOND DU LAC  
75. FORT APACHE

150. MODOC \*  
151. MOLE LAKE  
152. MONTGOMERY CREEK  
153. MORONGO  
154. MUCKLESHOOT  
155. NAMBE  
156. NARRAGANSETT  
157. NAVAJO  
158. NETT LAKE  
159. NEZ PERCE  
160. NIPMOC-  
HASSANAMISCO +  
161. NISQUALLY  
162. NOOKSACK  
163. NORTHERN CHEYENNE  
164. NORTHWESTERN  
SHOSHONE  
165. OIL SPRINGS  
166. OMAHA  
167. ONEIDA #  
168. ONONDAGA  
169. ONTONAGON  
170. OSAGE  
171. OTOE-MISSOURI \*  
172. OTTAWA \*  
173. OUT  
174. OZETTE  
175. PAIUTE  
176. PALA  
177. PAMUNKEY +  
178. PASCUA YAQUI

253. ST. REGIS  
254. STANDING ROCK  
255. STEWARTS POINT  
256. STOCKBRIDGE  
MUNSEE  
257. SUMMIT LAKE  
258. SUSANVILLE  
259. SWINOMISH  
260. TAOS  
261. TE-MOAK  
262. TESUQUE  
263. TEXAS KICKAPOO  
264. TOHONO O'ODHAM  
265. TONAWANDA  
266. TONIKAWA \*  
267. TORRES MARTINEZ  
268. TOULUMNE  
269. TRINDAD  
270. TULALIP  
271. TULE RIVER  
272. TUNICA-BILOXI  
273. TURTLE MOUNTAINS  
274. TUSCARORA  
275. TWENTYNINE PALMS  
276. UMATILLA  
277. UNITAH AND OURAY  
278. UNITED KEETOOWAH  
BAND OF CHEROKEE \*  
279. UPPER SIOUX  
280. UPPER SKAGIT  
281. UTE MOUNTAIN

76. FORT BELKNAP	179. PASSAMAQUODDY	282. VERMILION LAKE
77. FORT BERTHOLD	180. PAUCATAUK PEQUOT +	283. VIEJAS
78. FORT BIDWELL	181. PAUGUSETT +	284. WALKER RIVER
79. FORT HALL	182. PAWNEE *	285. WARM SPRINGS
80. FORT INDEPENDENCE	183. PECHANGA	286. WASHOE
81. FORT MCDERMITT	184. PENOBSCOT	287. WEST COCOPAH
82. FORT MCDOWELL	185. PEORIA *	288. WHITE EARTH
83. FORT MOHAVE	186. PICURIS	289. WICHITA *
84. FORT PECK	187. PINE RIDGE	290. WIND RIVER
85. FORT YUMA	188. POARCH CREEK	291. WINNEBAGO #
86. FT. SILL APACHE *	189. POJOAQUE	292. WINNEMUCCA
87. GILA BEND	190. PONCA *	293. WOODFORD INDIAN COMMUNITY
88. GILA RIVER	191. POOSEPATUCK +	294. WYANDOTTE *
89. GOSHUTE	192. PORT GAMBLE	295. XL RANCH
90. GRANDE RONDE	193. PORT MADISON	296. YAKAMA
91. GRAND PORTAGE	194. POTAWATOMI #	297. YANKTON
92. GRAND TRAVERSE	195. PRAIRIE ISLE	298. YAVAPAI
93. GREATER LEECH LAKE	196. PUERTOCITO	299. YERINGTON
94. GRINDSTONE	197. PUYALLUP	300. YOMBA
95. HANNAHVILLE	198. PYRAMID LAKE	301. YSLETA DEL SUR
96. HAVASUPAI	199. QUAPAW *	302. YUROK
97. HOH	200. QUILLAYUTE	303. ZIA
98. HOLLYWOOD	201. QUINAULT	304. ZUNI
99. HOOPA VALLEY	202. RAMAH	
100. HOPI	203. RAMONA	
101. HOULTON MALISEETS		



**ATTACHMENT 6**  
**FLOODPLAIN MAP**

# National Flood Hazard Layer FIRMMette



77°24'44"W 37°5'19"N



1:6,000

77°24'6"W 37°4'50"N

Basemap Imagery Source: USGS National Map 2023

## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard <i>Zone D</i>
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **12/3/2025 at 8:04 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



## **ATTACHMENT 7**

**SURFACE FEATURES (WETLANDS,  
DEFORESTATION, WATER DIVERSION)**



April 21, 2025

**Wetlands**

-  Estuarine and Marine Deepwater
-  Estuarine and Marine Wetland

-  Freshwater Emergent Wetland
-  Freshwater Forested/Shrub Wetland
-  Freshwater Pond

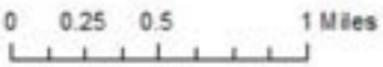
-  Lake
-  Other
-  Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



 1.5-Mile Visual APE  
 Direct APE

© 2013 ESRI, All rights reserved. Microsoft, Google, and the ESRI logo are trademarks of their respective owners. All other marks are the property of their respective owners.



Carson Substation Tower Site  
Dinwiddie County, Virginia



15-Mile Visual APE

Direct APE

0 0.25 0.5 1 Miles

Carson Substation Tower Site  
Dinwiddie County, Virginia



**UNITED STATES OF AMERICA  
FEDERAL COMMUNICATIONS COMMISSION  
ANTENNA STRUCTURE REGISTRATION**



OWNER: Virginia Electric and Power Company

FCC Registration Number (FRN): 0002073492

<b>ATTN: John Jenkins</b> <b>Virginia Electric and Power Company</b> <b>PO BOX 27007</b> <b>8th and Main - 5th Floor</b> <b>Richmond, VA 23261</b>	<b>Antenna Structure Registration Number</b> <p align="center">1016965</p>						
	<b>Issue Date</b> <p align="center">04/11/2018</p>						
<b>Location of Antenna Structure</b> <b>ON SR 605 1.2 MI S</b> <b>REAMS, VA 23805</b> <b>County: DINWIDDIE</b>	<b>Ground Elevation (AMSL)</b> <p align="right">45.7 meters</p>						
	<b>Overall Height Above Ground (AGL)</b> <p align="right">73.1 meters</p>						
<table border="0"> <tr> <td><b>Latitude</b></td> <td><b>Longitude</b></td> <td><b>NAD83</b></td> </tr> <tr> <td align="center">37- 05- 07.5 N</td> <td align="center">077- 24- 22.1 W</td> <td></td> </tr> </table>	<b>Latitude</b>	<b>Longitude</b>	<b>NAD83</b>	37- 05- 07.5 N	077- 24- 22.1 W		<b>Overall Height Above Mean Sea Level (AMSL)</b> <p align="right">118.8 meters</p>
<b>Latitude</b>	<b>Longitude</b>	<b>NAD83</b>					
37- 05- 07.5 N	077- 24- 22.1 W						
<b>Center of Array Coordinates</b> <p align="center">N/A</p>	<b>Type of Structure</b>						
<b>Painting and Lighting Requirements:</b> <b>FAA Chapters 4, 6, 13</b> <b>Paint and Light in Accordance with FAA Circular Number 70/7460-1H</b>  <b>Conditions:</b>							

This registration is effective upon completion of the described antenna structure and notification to the Commission. **YOU MUST NOTIFY THE COMMISSION WITHIN 5 DAYS OF COMPLETION OF CONSTRUCTION OR CANCELLATION OF YOUR PROJECT, please file FCC Form 854.** To file electronically, connect to the antenna structure registration system by pointing your web browser to <http://wireless.fcc.gov/antenna>. Electronic filing is recommended. You may also file manually by submitting a paper copy of FCC Form 854. Use purpose code "NT" for notification of completion of construction; use purpose code "CA" to cancel your registration.

The Antenna Structure Registration is not an authorization to construct radio facilities or transmit radio signals. It is necessary that all radio equipment on this structure be covered by a valid FCC license or construction permit.

**You must immediately provide a copy of this Registration to all tenant licensees and permittees sited on the structure described on this Registration (although not required, you may want to use Certified Mail to obtain proof of receipt), and display your Registration Number at the site. See reverse for important information about the Commission's Antenna Structure Registration rules.**

You must comply with all applicable FCC obstruction marking and lighting requirements, as set forth in Part 17 of the Commission's Rules (47 C.F.R. Part 17). These rules include, but are not limited to:

**Posting the Registration Number:** The Antenna Structure Registration Number must be displayed in a conspicuous place so that it is readily visible near the base of the antenna structure. Materials used to display the Registration Number must be weather-resistant and of sufficient size to be easily seen at the base of the antenna structure. Exceptions exist for certain historic structures. See 47 C.F.R. 17.4(g)-(h).

**Inspecting lights and equipment:** The obstruction lighting must be observed at least every 24 hours in order to detect any outages or malfunctions. Lighting equipment, indicators, and associated devices must be inspected at least once every three months.

**Reporting outages and malfunctions:** When any top steady-burning light or a flashing light (in any position) burns out or malfunctions, the outage must be reported to the nearest FAA Flight Service Station, unless corrected within 30 minutes. The FAA must again be notified when the light is restored. The owner must also maintain a log of these outages and malfunctions.

**Maintaining assigned painting:** The antenna structure must be repainted as often as necessary to maintain good visibility.

**Complying with environmental rules:** If you certified that grant of this registration would not have a significant environmental impact, you must nevertheless maintain all pertinent records and be ready to provide documentation supporting this certification and compliance with the rules, in the event that such information is requested by the Commission pursuant to 47 C.F.R. 1.1307(d).

**Updating information:** The owner must notify the FCC of proposed modifications to this structure; of any change in ownership; or, within 30 days of dismantlement of the structure.

You can find additional information at [\[insert link\]](#) or by calling (877) 480-3201 (TTY 717-338-2824).

REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.



Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: VIRGINIA ELECTRIC & POWER COMPANY

VIRGINIA ELECTRIC & POWER COMPANY
600 EAST CANAL ST
PO BOX 27007
RICHMOND, VA 23219

Table with 2 columns: Call Sign (KKW648), File Number (0010910401), Radio Service (IG - Industrial/Business Pool, Conventional), Regulatory Status (PMRS), Frequency Coordination Number.

FCC Registration Number (FRN): 0002073492

Table with 4 columns: Grant Date (02-07-2024), Effective Date (02-07-2024), Expiration Date (02-15-2034), Print Date (02-07-2024).

STATION TECHNICAL SPECIFICATIONS

Fixed Location Address or Mobile Area of Operation

- Loc. 2 Address: 1268 BREMO RD, City: BREMO BLUFF, County: FLUVANNA, State: VA, Lat (NAD83): 37-42-41.7 N, Long (NAD83): 078-16-38.2 W, ASR No.: 1300013, Ground Elev: 105.8
Loc. 3 Address: 600 EAST CANAL STREET, City: RICHMOND, County: , State: VA, Lat (NAD83): 37-32-16.1 N, Long (NAD83): 077-26-23.6 W, ASR No.: , Ground Elev: 31.0
Loc. 4 Address: 1.1 MI S OF REAMS ON VA SR 605, City: CARSON, County: DINWIDDIE, State: VA, Lat (NAD83): 37-05-16.8 N, Long (NAD83): 077-24-28.4 W, ASR No.: 1016966, Ground Elev: 40.2
Loc. 5 Address: 5000 DOMINION BLVD, City: GLEN ALLEN, County: HENRICO, State: VA, Lat (NAD83): 37-39-22.5 N, Long (NAD83): 077-34-57.0 W, ASR No.: , Ground Elev: 82.0
Loc. 6 Area of operation, Operating within a 24.0 km radius around fixed location 3
Loc. 7 Area of operation, Operating within a 10.0 km radius around fixed location 2

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

Licensee Name: VIRGINIA ELECTRIC & POWER COMPANY

Call Sign: KKW648

File Number: 0010910401

Print Date: 02-07-2024

Antennas

Loc No.	Ant No.	Frequencies (MHz)	Sta. Cls.	No. Units	No. Pagers	Emission Designator	Output Power (watts)	ERP (watts)	Ant. Ht./Tp meters	Ant. AAT meters	Construct Deadline Date
2	1	000153.48500000	FBC	1	1000	11K0F1D 11K0F3E	350.000	500.000	97.5	0.0	
3	1	000153.48500000	FBC	1	1000	11K0F1D 11K0F3E	300.000	500.000	154.0	0.0	
3	1	000451.12500000	FB	1	1000	11K0F3E	100.000	500.000	154.0	0.0	
4	1	000153.48500000	FBC	1	1000	11K0F1D 11K0F3E	300.000	500.000	122.0	0.0	
5	1	000153.48500000	FBC	1	1000	11K0F1D 11K0F3E	65.000	65.000	57.0	0.0	
5	2	000153.48500000	FBC	1	1000	11K0F1D 11K0F3E	350.000	500.000	52.0	0.0	
6	1	000451.12500000	MO	125	1000	11K0F3E	100.000	100.000			
6	1	000456.12500000	MO	125	1000	11K0F3E	100.000	100.000			
7	1	000153.48500000	MO	125	1000	11K0F1D 11K0F3E	100.000	100.000			02-13-2018

Control Points

Control Pt. No. 1

Address: 5000 DOMINION BLVD

City: GLEN ALLEN County: HENRICO State: VA Telephone Number: (804)771-4191

Associated Call Signs

<NA>

Waivers/Conditions:

Grant of the request to update licensee name is conditioned on it not reflecting an assignment or transfer of control (see Rule 1.948); if an assignment or transfer occurred without proper notification or FCC approval, the grant is void and the station is licensed under the prior name.

**REFERENCE COPY**

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.



**Federal Communications Commission**  
Wireless Telecommunications Bureau

**RADIO STATION AUTHORIZATION**

LICENSEE: Virginia Electric & Power Company

VIRGINIA ELECTRIC & POWER COMPANY  
600 EAST CANAL ST  
PO BOX 27007  
RICHMOND, VA 23219

<b>Call Sign</b> WKU46	
<b>File Number</b> 0011398359	
<b>Radio Service</b> MG - Microwave Industrial/Business Pool	
<b>SMSA</b>	<b>Station Class</b> FXO

FCC Registration Number (FRN): 0002073492

<b>Grant Date</b> 08-16-2018	<b>Effective Date</b> 01-30-2025	<b>Expiration Date</b> 08-27-2028	<b>Print Date</b> 01-31-2025
---------------------------------	-------------------------------------	--------------------------------------	---------------------------------

**LOCATION**

**Fixed Location Address or Area of Operation:**

ON SR 605 1.2 MI S  
City: REAMS County: DINWIDDIE State: VA

Loc No.	Location Name	Latitude	Longitude	Elevation	Antenna Structure Registration No.
001	CARSON SUB	37-05-07.5 N	077-24-22.1 W	45.7	1016965
004	RAWLINGS SUB	36-56-11.5 N	077-45-26.9 W	90.9	

**FREQUENCY PATHS**

Frequency (MHz)	Tol (%)	Emission Desig	EIRP (dBm)	Constr Date	Path No	Seg	Emit Loc No	Ant Hgt (m)	Gain (dBi)	Beam (deg)	POL	AZIM (deg)	Rec Loc No	Rec Call Sign
6093.45	0.00050	30M0D7W	64.600	08-02-2016	004	1	001	65.8	40.4	1.5	S	242.3	004	WQVG308
6004.5	0.00050	30M0D7W	64.600	08-02-2016	005	1	001	65.8	40.4	1.5	V	242.3	004	WQVG308
6152.75	0.00050	30M0D7W	64.600	08-02-2016	005	1	001	65.8	40.4	1.5	V	242.3	004	WQVG308
6093.45	0.00050	30M0D7W	65.600	06-18-2017	004	1	001	65.8	40.4	1.5	S	242.3	004	WQVG308
6093.45	0.00050	30M0D7W	62.600	06-18-2017	004	1	001	65.8	40.4	1.5	S	242.3	004	WQVG308
6093.45	0.00050	30M0D7W	60.600	06-18-2017	004	1	001	65.8	40.4	1.5	S	242.3	004	WQVG308
6004.5	0.00050	30M0D7W	65.600	06-18-2017	005	1	001	65.8	40.4	1.5	V	242.3	004	WQVG308

**Conditions:**

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

Licensee Name: VIRGINIA ELECTRIC & POWER COMPANY

Call Sign: WKU46

File Number: 0011398359

Print Date: 01-31-2025

Frequency (MHz)	Tol (%)	Emission Desig	EIRP (dBm)	Constr Date	Path No	Seg	Emit Loc No	Ant Hgt (m)	Gain (dBi)	Beam (deg)	POL	AZIM (deg)	Rec Loc No	Rec Call Sign
6004.5	0.00050	30M0D7W	62.600	06-18-2017	005	1	001	65.8	40.4	1.5	V	242.3	004	WQVG308
6004.5	0.00050	30M0D7W	60.600	06-18-2017	005	1	001	65.8	40.4	1.5	V	242.3	004	WQVG308
6152.75	0.00050	30M0D7W	65.600	06-18-2017	005	1	001	65.8	40.4	1.5	V	242.3	004	WQVG308
6152.75	0.00050	30M0D7W	62.600	06-18-2017	005	1	001	65.8	40.4	1.5	V	242.3	004	WQVG308
6152.75	0.00050	30M0D7W	60.600	06-18-2017	005	1	001	65.8	40.4	1.5	V	242.3	004	WQVG308
5945.2	0.00050	30M0D7W	65.600	10-06-2017	005	1	001	65.8	40.4	1.5	V	242.3	004	WQVG308
5945.2	0.00050	30M0D7W	64.600	10-06-2017	005	1	001	65.8	40.4	1.5	V	242.3	004	WQVG308
5945.2	0.00050	30M0D7W	62.600	10-06-2017	005	1	001	65.8	40.4	1.5	V	242.3	004	WQVG308
5945.2	0.00050	30M0D7W	60.600	10-06-2017	005	1	001	65.8	40.4	1.5	V	242.3	004	WQVG308

**Waivers/Conditions:**

Grant of the request to update licensee name is conditioned on it not reflecting an assignment or transfer of control (see Rule 1.948); if an assignment or transfer occurred without proper notification or FCC approval, the grant is void and the station is licensed under the prior name.

**REFERENCE COPY**

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.



**Federal Communications Commission  
Wireless Telecommunications Bureau**

**RADIO STATION AUTHORIZATION**

LICENSEE: VIRGINIA ELECTRIC & POWER COMPANY

ATTN: JOHN JENKINS III  
VIRGINIA ELECTRIC & POWER COMPANY  
600 EAST CANAL ST  
PO BOX 27007  
RICHMOND, VA 23219

<b>Call Sign</b> KEE486	<b>File Number</b> 0010318933
<b>Radio Service</b> IG - Industrial/Business Pool, Conventional	
<b>Regulatory Status</b> PMRS	
<b>Frequency Coordination Number</b>	

FCC Registration Number (FRN): 0002073492

<b>Grant Date</b> 10-29-2015	<b>Effective Date</b> 12-21-2022	<b>Expiration Date</b> 12-26-2025	<b>Print Date</b> 12-21-2022
---------------------------------	-------------------------------------	--------------------------------------	---------------------------------

**STATION TECHNICAL SPECIFICATIONS**

**Fixed Location Address or Mobile Area of Operation**

- Loc. 1** Address: INT SR 605 & SEABOARD COASTLINE RR CROSSING APPROX 1.2 MI S OF REAMS  
City: CARSON County: DINWIDDIE State: VA  
Lat (NAD83): 37-05-16.5 N Long (NAD83): 077-24-20.9 W ASR No.: Ground Elev: 46.0
- Loc. 2** Address: 1200 W OF SR 155 0.5 MI S OF INT RT 155 & RT 612  
City: ROACHES CORNER County: CHARLES CITY State: VA  
Lat (NAD83): 37-23-14.5 N Long (NAD83): 077-03-42.9 W ASR No.: Ground Elev: 34.0
- Loc. 4** Address: CHESTERFIELD POWER STA END OF RT 615  
City: CHESTER County: CHESTERFIELD State: VA  
Lat (NAD83): 37-23-02.0 N Long (NAD83): 077-23-22.0 W ASR No.: 1016977 Ground Elev: 21.3

**Antennas**

Loc No.	Ant No.	Frequencies (MHz)	Sta. Cls.	No. Units	No. Pagers	Emission Designator	Output Power (watts)	ERP (watts)	Ant. Ht./Tp (meters)	Ant. AAT (meters)	Construct Deadline
1	1	000451.02500000	FB	1		11K0F3E	180.000	900.000	128.0	0.0	
1	1	000451.02500000	FB2	1		11K0F3E	180.000	900.000	128.0	0.0	

**Conditions:**

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

Licensee Name: VIRGINIA ELECTRIC & POWER COMPANY

Call Sign: KEE486

File Number: 0010318933

Print Date: 12-21-2022

**Antennas**

Loc No.	Ant No.	Frequencies (MHz)	Sta. Cls.	No. Units	No. Pagers	Emission Designator	Output Power (watts)	ERP (watts)	Ant. Ht./Tp meters	Ant. AAT meters	Construct Deadline Date
1	1	000451.37500000	FB	1		11K0F3E	180.000	900.000	128.0	0.0	
1	1	000451.37500000	FB2	1		11K0F3E	180.000	900.000	128.0	0.0	
2	1	000451.02500000	FB	1		11K0F3E	100.000	1000.000	128.0	0.0	
2	1	000451.02500000	FB2	1		11K0F3E	100.000	1000.000	128.0	0.0	
4	1	000451.02500000	FB	1		11K0F3E	100.000	900.000	97.5	85.7	07-11-2002
4	1	000451.02500000	FB2	1		11K0F3E	100.000	900.000	97.5	85.7	07-11-2002

**Control Points**

**Control Pt. No. 1**

Address: 1340 E WASHINGTON ST

City: PETERSBURG County: State: VA Telephone Number: (804)771-4191

**Associated Call Signs**

KZ2782, WN WV534, KZ2785, WZU484

<NA>

**Waivers/Conditions:**

Grant of the request to update licensee name is conditioned on it not reflecting an assignment or transfer of control (see Rule 1.948); if an assignment or transfer occurred without proper notification or FCC approval, the grant is void and the station is licensed under the prior name.



**UNITED STATES OF AMERICA  
FEDERAL COMMUNICATIONS COMMISSION  
ANTENNA STRUCTURE REGISTRATION**



OWNER: Virginia Electric and Power Company

FCC Registration Number (FRN): 0002073492

<b>ATTN: John Jenkins</b> <b>Virginia Electric and Power Company</b> <b>PO BOX 27007</b> <b>8th and Main - 5th Floor</b> <b>Richmond, VA 23261</b>	<b>Antenna Structure Registration Number</b>  <b>1016965</b>						
	<b>Issue Date</b> <b>04/11/2018</b>						
<b>Location of Antenna Structure</b> <b>ON SR 605 1.2 MI S</b> <b>REAMS, VA 23805</b>  <b>County: DINWIDDIE</b>	<b>Ground Elevation (AMSL)</b>  <b>45.7 meters</b>						
	<b>Overall Height Above Ground (AGL)</b>  <b>73.1 meters</b>						
<table border="0"> <tr> <td align="center"><b>Latitude</b></td> <td align="center"><b>Longitude</b></td> <td align="center"><b>NAD83</b></td> </tr> <tr> <td align="center"><b>37- 05- 07.5 N</b></td> <td align="center"><b>077- 24- 22.1 W</b></td> <td></td> </tr> </table>	<b>Latitude</b>	<b>Longitude</b>	<b>NAD83</b>	<b>37- 05- 07.5 N</b>	<b>077- 24- 22.1 W</b>		<b>Overall Height Above Mean Sea Level (AMSL)</b>  <b>118.8 meters</b>
<b>Latitude</b>	<b>Longitude</b>	<b>NAD83</b>					
<b>37- 05- 07.5 N</b>	<b>077- 24- 22.1 W</b>						
<b>Center of Array Coordinates</b>  <b>N/A</b>	<b>Type of Structure</b>						
<b>Painting and Lighting Requirements:</b>  <b>FAA Chapters 4, 6, 13</b>  <b>Paint and Light in Accordance with FAA Circular Number 70/7460-1H</b>  <b>Conditions:</b>							

This registration is effective upon completion of the described antenna structure and notification to the Commission. **YOU MUST NOTIFY THE COMMISSION WITHIN 5 DAYS OF COMPLETION OF CONSTRUCTION OR CANCELLATION OF YOUR PROJECT, please file FCC Form 854.** To file electronically, connect to the antenna structure registration system by pointing your web browser to <http://wireless.fcc.gov/antenna>. Electronic filing is recommended. You may also file manually by submitting a paper copy of FCC Form 854. Use purpose code "NT" for notification of completion of construction; use purpose code "CA" to cancel your registration.

The Antenna Structure Registration is not an authorization to construct radio facilities or transmit radio signals. It is necessary that all radio equipment on this structure be covered by a valid FCC license or construction permit.

**You must immediately provide a copy of this Registration to all tenant licensees and permittees sited on the structure described on this Registration (although not required, you may want to use Certified Mail to obtain proof of receipt), and display your Registration Number at the site. See reverse for important information about the Commission's Antenna Structure Registration rules.**

You must comply with all applicable FCC obstruction marking and lighting requirements, as set forth in Part 17 of the Commission's Rules (47 C.F.R. Part 17). These rules include, but are not limited to:

**Posting the Registration Number:** The Antenna Structure Registration Number must be displayed in a conspicuous place so that it is readily visible near the base of the antenna structure. Materials used to display the Registration Number must be weather-resistant and of sufficient size to be easily seen at the base of the antenna structure. Exceptions exist for certain historic structures. See 47 C.F.R. 17.4(g)-(h).

**Inspecting lights and equipment:** The obstruction lighting must be observed at least every 24 hours in order to detect any outages or malfunctions. Lighting equipment, indicators, and associated devices must be inspected at least once every three months.

**Reporting outages and malfunctions:** When any top steady-burning light or a flashing light (in any position) burns out or malfunctions, the outage must be reported to the nearest FAA Flight Service Station, unless corrected within 30 minutes. The FAA must again be notified when the light is restored. The owner must also maintain a log of these outages and malfunctions.

**Maintaining assigned painting:** The antenna structure must be repainted as often as necessary to maintain good visibility.

**Complying with environmental rules:** If you certified that grant of this registration would not have a significant environmental impact, you must nevertheless maintain all pertinent records and be ready to provide documentation supporting this certification and compliance with the rules, in the event that such information is requested by the Commission pursuant to 47 C.F.R. 1.1307(d).

**Updating information:** The owner must notify the FCC of proposed modifications to this structure; of any change in ownership; or, within 30 days of dismantlement of the structure.

You can find additional information at [\[insert link\]](#) or by calling (877) 480-3201 (TTY 717-338-2824).



**UNITED STATES OF AMERICA  
FEDERAL COMMUNICATIONS COMMISSION  
ANTENNA STRUCTURE REGISTRATION**



OWNER: Virginia Electric and Power Company

FCC Registration Number (FRN): 0002073492

<b>ATTN: John Jenkins</b> <b>Virginia Electric and Power Company</b> <b>PO BOX 27007</b> <b>8th and Main - 5th Floor</b> <b>Richmond, VA 23261</b>	<b>Antenna Structure Registration Number</b> <p align="center"><b>1016966</b></p>						
	<b>Issue Date</b> <p align="center"><b>04/11/2018</b></p>						
<b>Location of Antenna Structure</b> <b>ON VA ST RT 605 1.1 MI S OF REAMS</b> <b>CARSON, VA 23805</b>  <b>County: DINWIDDIE</b>	<b>Ground Elevation (AMSL)</b> <p align="right"><b>40.2 meters</b></p>						
	<b>Overall Height Above Ground (AGL)</b> <p align="right"><b>128.0 meters</b></p>						
<table border="0"> <tr> <td><b>Latitude</b></td> <td><b>Longitude</b></td> <td><b>NAD83</b></td> </tr> <tr> <td align="center"><b>37- 05- 16.8 N</b></td> <td align="center"><b>077- 24- 28.4 W</b></td> <td></td> </tr> </table>	<b>Latitude</b>	<b>Longitude</b>	<b>NAD83</b>	<b>37- 05- 16.8 N</b>	<b>077- 24- 28.4 W</b>		<b>Overall Height Above Mean Sea Level (AMSL)</b> <p align="right"><b>168.2 meters</b></p>
<b>Latitude</b>	<b>Longitude</b>	<b>NAD83</b>					
<b>37- 05- 16.8 N</b>	<b>077- 24- 28.4 W</b>						
<b>Center of Array Coordinates</b> <p align="center"><b>N/A</b></p>	<b>Type of Structure</b>						
<b>Painting and Lighting Requirements:</b>  <b>FAA Chapters 4, 6, 12</b>  <b>Paint and Light in Accordance with FAA Circular Number 70/7460-1K</b>   <b>Conditions:</b>							

This registration is effective upon completion of the described antenna structure and notification to the Commission. **YOU MUST NOTIFY THE COMMISSION WITHIN 5 DAYS OF COMPLETION OF CONSTRUCTION OR CANCELLATION OF YOUR PROJECT, please file FCC Form 854.** To file electronically, connect to the antenna structure registration system by pointing your web browser to <http://wireless.fcc.gov/antenna>. Electronic filing is recommended. You may also file manually by submitting a paper copy of FCC Form 854. Use purpose code "NT" for notification of completion of construction; use purpose code "CA" to cancel your registration.

The Antenna Structure Registration is not an authorization to construct radio facilities or transmit radio signals. It is necessary that all radio equipment on this structure be covered by a valid FCC license or construction permit.

**You must immediately provide a copy of this Registration to all tenant licensees and permittees sited on the structure described on this Registration (although not required, you may want to use Certified Mail to obtain proof of receipt), and display your Registration Number at the site. See reverse for important information about the Commission's Antenna Structure Registration rules.**

You must comply with all applicable FCC obstruction marking and lighting requirements, as set forth in Part 17 of the Commission's Rules (47 C.F.R. Part 17). These rules include, but are not limited to:

**Posting the Registration Number:** The Antenna Structure Registration Number must be displayed in a conspicuous place so that it is readily visible near the base of the antenna structure. Materials used to display the Registration Number must be weather-resistant and of sufficient size to be easily seen at the base of the antenna structure. Exceptions exist for certain historic structures. See 47 C.F.R. 17.4(g)-(h).

**Inspecting lights and equipment:** The obstruction lighting must be observed at least every 24 hours in order to detect any outages or malfunctions. Lighting equipment, indicators, and associated devices must be inspected at least once every three months.

**Reporting outages and malfunctions:** When any top steady-burning light or a flashing light (in any position) burns out or malfunctions, the outage must be reported to the nearest FAA Flight Service Station, unless corrected within 30 minutes. The FAA must again be notified when the light is restored. The owner must also maintain a log of these outages and malfunctions.

**Maintaining assigned painting:** The antenna structure must be repainted as often as necessary to maintain good visibility.

**Complying with environmental rules:** If you certified that grant of this registration would not have a significant environmental impact, you must nevertheless maintain all pertinent records and be ready to provide documentation supporting this certification and compliance with the rules, in the event that such information is requested by the Commission pursuant to 47 C.F.R. 1.1307(d).

**Updating information:** The owner must notify the FCC of proposed modifications to this structure; of any change in ownership; or, within 30 days of dismantlement of the structure.

You can find additional information at [\[insert link\]](#) or by calling (877) 480-3201 (TTY 717-338-2824).

