



# FAIRFAX COUNTY PLANNING COMMISSION

April 26, 2011

**PUBLIC HEARING  
FOR  
PLANNING DETERMINATION**  
Pursuant to  
Va. Code Sec. 15.2 - 2232

Public Hearing Date: May 11, 2011 at 8:15 p.m.

Application Number: **2232-H11-4**  
Applicant: **Dominion Virginia Power**

Proposed Use: Electric substation

Supervisor District: Hunter Mill District

Subject Property: Tax Map 18-3 ((1)) 13B  
Area of Subject Property: Approximately 1.2 Acres

Application Accepted: February 1, 2011

Recommendation: In accordance with Va. Code Sec. 15.2-2232, as amended, staff recommends that the Planning Commission find the proposal by Dominion Virginia Power to construct and operate an electric substation on property located approximately 400-feet northwest from the intersection of Clay Lane and Sunset Hills Road, Reston, substantially in accord with provisions of the adopted Comprehensive Plan.

# PLANNING DETERMINATION

Section 15.2 -2232 of the Code of Virginia



**Number:** 2232-H11-4

**District:** Hunter Mill

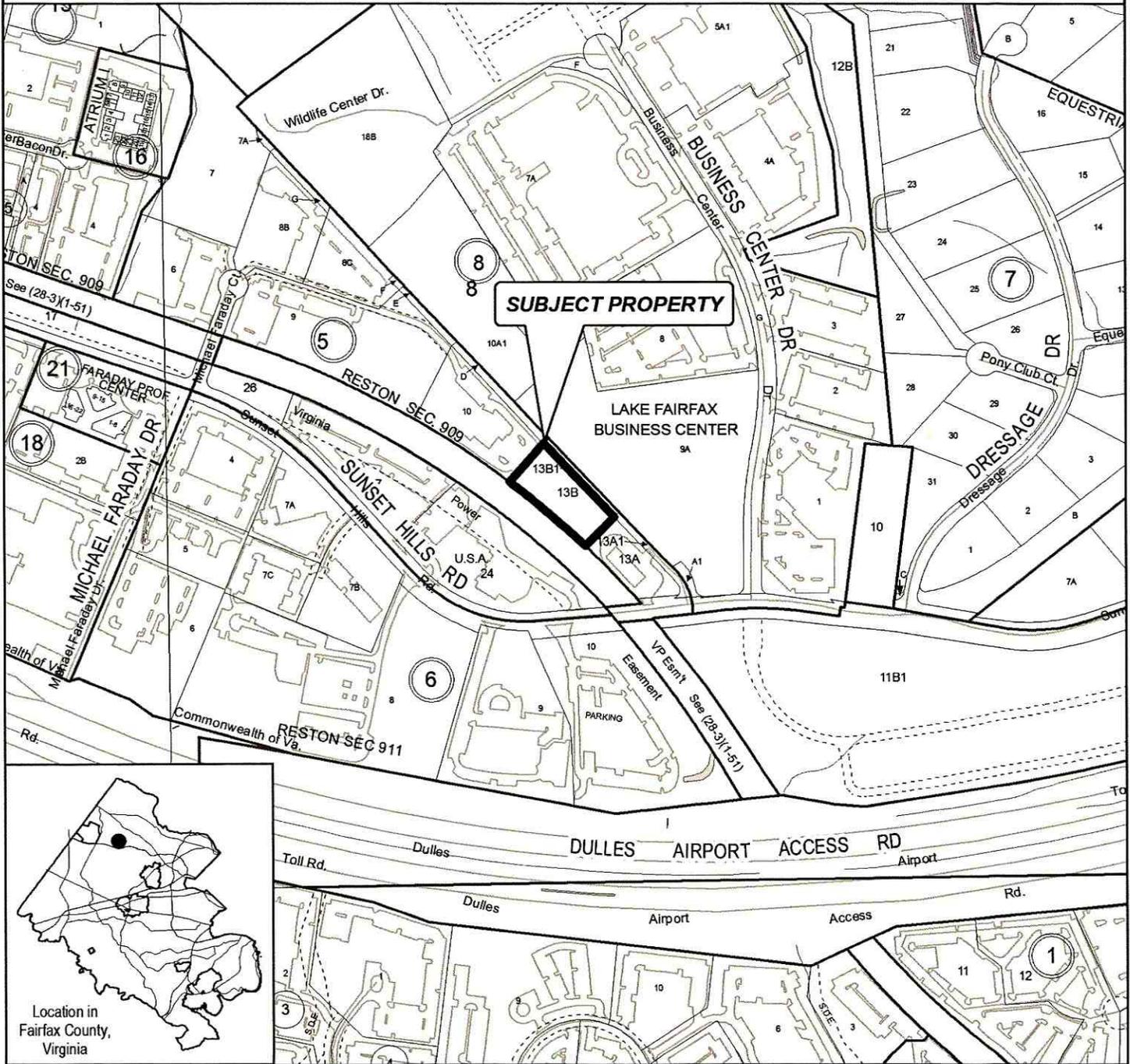
**Acreage:** 1.265 Ac.

**Subject Property:** 18-3 ((1)) 13B

**Planned Use:** Mixed Use

**Applicant:** Dominion Virginia Power

**Proposed Use:** Electric Substation



500 FEET

PREPARED BY THE DEPARTMENT OF PLANNING AND ZONING  
USING FAIRFAX COUNTY GIS



**APPLICATION***Attachment A***PROPOSAL:** electric substation**APPLICANT:** Dominion Virginia Power ("DVP" or Dominion)**EXISTING SITE:****Subject property:** Tax map 18-3 ((1)) 13B; about 1.265 acres total.**Location:** approximately 400-feet northwest of the intersection of Clay Lane and Sunset Hills Road**Owner:** Lemur Properties, L.L.C (d/b/a DuPont Fabros)**Existing conditions:**

- **Site** – currently developed with gravel lot and 6-foot high chain link fence with privacy slats
- **Vegetation** – approximately 10-foot wide area of 20-25-foot tall cedar trees closely planted on the outside of the fence on all sides of the property except at the existing gate location on the eastern corner of the property; other deciduous trees are interspersed with the cedars

**PROJECT JUSTIFICATION:**

The new substation facility is needed to provide power to the Metrorail Silver Line currently under construction in Tysons Corner and projected through to the Dulles Airport. In addition to the need to power the Silver Line, the proposed electric substation is necessary to continue to provide reliable electric service for Fairfax County. Electrical load in this area of Reston has greatly increased. Dominion's future load growth projections in the Reston area have indicated the need for additional electric capacity by 2012 to support the existing Reston and Hunter Mill substations.

**PROPOSED USE:**

The Virginia Electric and Power Company, d/b/a Dominion Virginia Power proposes to construct and operate an electric substation to provide power to the Metro Silver Line and to continue to provide reliable electrical service for Fairfax County.

**Facility structures:****Site:** northwest quadrant of County**Traffic:** There is no pedestrian traffic associated with this use. Vehicular traffic will be minimal. The proposed substation will be unmanned, but the site is expected to be visited by DVP employees one to two times per month for maintenance purposes.**Access** Vehicle access will be from the privately owned and abandoned Clay Lane, off of Sunset Hills Road. Vehicular access agreements have been negotiated and recorded with DuPont Fabros across its abandoned Clay Lane parcels.**Landscaping:** transitional screening, buffer, and other landscaping**Operations:** unmanned; 24-hours per day**Facility:** the substation equipment will consist of the following: a 20'x28'x15' high control enclosure (shed type building), a 95" high backbone pole structure, two (2) 70' high static poles, two (2) 25' x 25' x 25' high transformers, a distribution bay for 6 circuits using an area of 110' x 30' x 15' high, and (2) 30' x 6' x 15' high capacitor bays.**Material, color, or finish of buildings or structure:** The enclosure is a galvanized aluminum colored metal building, the backbone and static poles are galvanized aluminum and the transformers, distribution bays and capacitor bays are light gray metal structures.**Maintenance:** the facility will be visited approximately 1 to 2 times per month by DVP personnel for site inspection purposes, and for any needed repairs or alterations.**Noise and lighting:** only the transformer fans will emit sound which is equivalent to a typical home,

outside mounted, air conditioning air flow unit. The proposed substation's sound will be well below the Fairfax County Noise Ordinance regulations at the property line. There will two porch light-type fixtures attached to the front and back of the control enclosure. These lights will be shielded and reflected downward creating a dark sky site.

**Alternative Sites:** the applicant reviewed available vacant commercial or industrial properties within one mile of the proposed site. The owners were not willing to sell one of these properties and the other property did not meet the development criteria.

## **DESCRIPTION OF SURROUNDING AREA**

**LOCATION:** Approximately 400-foot northwest of the intersection of Clay Lane and Sunset Hills Road; approximately ½ mile north of the Washington Dulles Access and Toll Road

**CHARACTER:** Industrial, office, and trail uses

### **Existing Land Uses Adjacent to Subject Property:**

- North and East – Lake Fairfax Business Data Center ; mult-story office and warehouses
- Southeast – automobile repair shop
- South and West – 100-foot wide Dominion transmission line easement which coexists with the Washington and Old Dominion (W&OD) Trail
- Northwest – mult-story office and warehouse

### **Existing Land Uses in Vicinity of Subject Property:**

- Further north – residential, office, public park, and industrial uses
- Further east – residential uses
- Further south – Reston United States Post Office and Dulles Airport Access Road
- Further west – industrial mixed uses

**Nearby Vegetation:** medium to heavy to the east and northeast; moderate to light in office warehouse areas to east and south; medium to heavy along W&OD Trail to west and south.

## **COMPREHENSIVE PLAN PROVISIONS**

### **COMPREHENSIVE PLAN MAP:**

**Planning Area, District, and Land Unit:** Area III, Upper Potomac Planning District, UP5-Reston Community Planning Sector and the Reston-Herndon Suburban Center and Transit Station Area, Land Unit G7

### **Land use recommendations around subject property:**

- Subject property – medium intensity industrial research and development (“R&D”) and similar uses
- North – medium intensity industrial and public park uses
- East – medium intensity industrial uses
- South – public park, public facilities, office, and industrial mixed uses
- West – public park, public facilities and industrial mixed uses

**COMPREHENSIVE PLAN CITATIONS:** An assessment of this proposal for substantial conformance with current land use and design recommendations of the Comprehensive Plan (“the Plan”) is guided by the following citations from the Plan.

### **Area Plan:**

Fairfax County Comprehensive Plan, Area III, 2007 Edition; Upper Potomac Planning District, as amended through July 10, 2006; Reston-Herndon Suburban Center and Transit Station Area; **LAND**

**UNIT RECOMMENDATIONS**, Land Unit G7, page 58:

Sub-unit G-7 is located along Sunset Hills Road, east of Wiehle Avenue TSA. Development in the sub-unit includes office uses and a US Post Office facility. This sub-unit is planned for a mix of office, R&D, and industrial “flex space” uses up to .50 FAR.

The westerly portion of the approximately 120-acre tract of land north of Sunset Hills Road immediately east of the Reston boundary is considered appropriate for industrial uses provided that:

- a. The industrial portion of the 120-acre tract, which is approximately 55 acres in area and located on the western portion of the tract, is planned for medium intensity industrial research and development and similar uses.

**Policy Plan:**

Fairfax County Comprehensive Plan, Policy Plan, 2007 Edition; Public Facilities as amended through January 10, 2005; **COUNTYWIDE OBJECTIVES AND POLICIES**, pages 2 – 4:

**“Objective 1: Locate new facilities to provide convenient service to the greatest number of people or service consumers and users.**

Policy a. Site facilities appropriately to the area they are intended to serve. . . .

**“Objective 3: Balance the provision of public facilities with growth and development.**

Policy a. Construct new facilities in size and quantity which is consistent with projected population needs. . . .”

**Objective 4: Mitigate the impact of public facilities on adjacent planned and existing land uses. . . .**

Policy a. Locate public facilities in areas of compatible land use, if service efficiency and cost effectiveness can be achieved. . . .

Policy d. Ensure that public facilities are properly screened and buffered in order to mitigate visual impact on adjacent planned development of a different use or nature.”

**STAFF ANALYSIS:** See *Attachments B - H* for detailed discussion.

**Fairfax County Department of Planning and Zoning**

- Zoning Administration Division – Ordinance Administration Branch *Attachment B*
  - Zoned I-5. The proposed electric substation is a light public utility use that is permitted by right in the I-5 District. The proposal meets the requirements of the I-5 District and would be permitted subject to all other applicable regulations.
- Planning Division – Historic Preservation/Heritage Resources *Attachment C*
  - No action is required.
  - Planning Division – Environment and Development Review Branch *Attachment D*

- No action is required

**Fairfax County Department of Public Works and Environmental Services**

- Environmental and Site Review Division *Attachment E*
  - Stormwater Planning Division – the stormwater management (“SWM”) plan will address requirements of PFM 6-0401.2B and PFM 6-0400 at the time of site plan submission. Adequate outfall and the size, type and configuration of the underground detention facility will be demonstrated at the time of the site plan.
- Urban Forest Management Division *Attachment F*
  - Existing and proposed tree canopy calculation for the site: site area = 55,112 square feet, existing trees to remain on site = 6,901 square feet. All proposed plantings will be shrubs and will not count towards tree canopy, but by Code, 10% is required, or 5,511 square feet, and 12.5% is provided or 6,901 square feet. Tree preservation requirements of PFM 12-0509.3J will be addressed at the time of site plan submission.

**Fairfax County Water Authority***Attachment G*

- Planning and Engineering Division
  - No action is required.

**Northern Virginia Regional Park Authority (“NVRPA”)***Attachment H*

- Planning and Development Division
  - Dominion will work with the NVRPA Trail Staff to provide additional buffer on park property between the gravel and paved paths where height limitations and underground utility constraints can be avoided.
  - Due to site constraints, Dominion is unable to provide a wider buffer, but will work NVRPA Trail Staff to enhance the existing buffer between the substation and the gravel and paved trails.
  - All access to the substation will be from Clay Lane. Construction fencing will be placed along the property line during construction. Dominion will work with NVRPA to implement an access plan for continuous use of the trails.

**Reston Planning and Zoning Committee***Attachment I*

- Committee unanimously approved Dominion’s application on January 17, 2011

**CONFORMANCE WITH THE COMPREHENSIVE PLAN***Attachment J*

Va. Code Sec. 15.2-2232, as amended, requires that the Planning Commission determine whether the general location or approximate location, character, and extent of the proposed facility are substantially in accord with the adopted Comprehensive Plan:

**Location:** The proposed electric substation facility will be located in Land Unit G7 of the Reston-Herndon Suburban Center and Transit Station Area, along with several warehouse, office and industrial-type uses. The mix of office, R&D, and industrial “flex space” uses are recommended to retain an overall industrial orientation for future development.

According to the applicant, the substation facility is needed to provide power to the Metrorail Silver Line currently under construction in Tysons Corner and projected through to Dulles Airport. From the proposed location, the substation will provide power to the Metro Silver Line for the Tysons

West and Wiehle Avenue Passenger Metro Stations, as well as power to metro traction stations #6-#11. The Washington Metropolitan Area Transit Authority has advised Dominion that this station must provide power by December 2011. This proposal to provide electricity to the Metrorail Silver Line conforms with Plan guidelines to site facilities appropriate to the area they are intended to serve, with Plan guidelines to support the extension of the Metrorail system in the Dulles Corridor to Dulles Airport and Loudoun County, and to provide supporting facilities for the transit system.

**Character:** The proposed substation will be located on land that is vacant and planned for industrial uses. Adjacent development includes an automobile repair shop, a 100-foot DVP easement including the W&OD Trail, and the Lake Fairfax Business Center. Dominion has stated their commitment to work with NVRPA Trails Staff to enhance the buffer and transitional screening between the substation and the W&OD Trail. In addition, Dominion is also proposing a variable width landscape buffer ranging from 10-18 feet along the property lines. Staff believes the proposal supports Plan guidelines to locate public facilities in areas of compatible land use, if service efficiency and cost effectiveness can be achieved. Staff also believes that the substation's character is consistent with the Plan recommendation for industrial uses in Land Unit G7. There are no significant environmental issues associated with the proposed use at this location which conforms to Plan guidelines to avoid areas of environmental sensitivity.

Due to the height and density of the existing tree canopy and proposed landscaping, the applicant believes that the proposed location for the electric substation is the most compatible with the character of the area. The two transformers that are 25-feet in height are located such that the existing tree canopy will buffer the views from the W&OD trail to the southwest and the Lake Fairfax Business Data Center to the northeast. The most visible part of the substation will be the 95-foot backbone structure; however it will blend with the existing transmission tie-in thereby minimizing the visual impact. The closest residential use is located more than 700-feet east of the site. Staff believes that given the existing and proposed screening, the facility conforms to Plan guidelines to mitigate the visual impact of public facilities on adjacent properties.

**Extent:** The proposed Facility will enable DVP to more efficiently serve businesses and households specifically within a 1 to 2 mile radius of the site (bounded by Baron Cameron Avenue, Hunter Mill Road, Washing Dulles Access and Toll Road and Wiehle Avenue). In Staff's opinion, the proposed substation supports Plan objectives to balance the provision of public facilities with growth and development. The substation will provide energy to the Silver Line which will accommodate system-wide inter-county travel between Fairfax County, the District of Columbia, Montgomery County, Prince Georges County, Arlington County, and other parts of the Metropolitan region via the entire Metrorail network. Staff believes the proposal sustains Plan guidelines to provide the necessary supporting facilities for the transit system. Staff also believes the proposal supports Plan objectives to locate new facilities to provide convenient service to the greatest number of people or service consumers and users.

## **CONCLUSIONS AND RECOMMENDATIONS**

## ***Attachment J***

Staff concludes that the subject proposal by Dominion Virginia Power, to construct and operate an electric substation on property located approximately 400-feet northwest from the intersection of Clay Lane and Sunset Hills Road, Reston, satisfies the criteria of location, character, and extent as specified in Va. Code Sec. 15.2-2232, as amended. Staff therefore recommends that the Planning Commission find the subject Application 2232-H11-4, substantially in accord with provisions of the adopted Comprehensive Plan.

**COUNTY OF FAIRFAX, VIRGINIA**

**APPLICATION FOR DETERMINATION  
PURSUANT TO  
SECTION 15.2-2232 OF THE CODE OF VIRGINIA**

Application Number: 2232-H11-4  
(assigned by staff)

*The application contains three parts: I. Application Summary; II. Statement of Justification; and I Telecommunication Proposal Details. Please do not staple, bind or hole-punch this application. Please provide at least one copy of all pages, including maps and drawings, on 8.5 x 11 inch paper.*

*(Please Type or Print All Requested Information)*

**PART I: APPLICATION SUMMARY**

**ADDRESS OF PROPOSED USE**

No street address - Tax Map 18-3-((1))-13B approximately 400 feet northwest of intersection of  
Street Address abandoned Clay Lane and Sunset Hills Road

City/Town Reston, VA Zip Code 20190

**APPLICANT(S)**

Name of Applicant Dominion Virginia Power

Street Address 2400 Grayland Avenue

City/Town Richmond State VA Zip Code 23220

Telephone Number: Work (804) 257-4806 Fax ( ) N/A

E-mail Address cfifer@mcguirewoods.com; sakin@mcguirewoods.com

Name of Applicant's Agent/Contact (if applicable) Carson Lee Fifer, Jr., Esquire  
Sheri L. Akin, Land Use Planner

Agent's Street Address McGuireWoods LLP, 1750 Tysons Boulevard, Suite 1800

City/Town McLean State VA Zip Code 22102

(703) 712-5343 (CLF)  
Telephone: Work (703) 712-5483 (SLA) Fax (703) 712-5050

**PROPOSED USE**

Located off of abandoned Clay Lane, approximately 400 feet northwest of Clay Lane and  
Street Address Sunset Hills Road intersection

Fairfax Co. Tax Map and Parcel Number(s) 18-3-((1))-13B

Brief Description of Proposed Use Electric Substation

See attached Statement of Justification

Total Area of Subject Parcel(s) 1.265 acres (acres or square feet)

Portion of Site Occupied by Proposed Use 1.265 (acres or square feet)

Fairfax County Supervisor District Hunter Mill

Planned Use of Subject Property (according to Fairfax County Comprehensive Plan)

Mix of office, R&D, and industrial "flex space" up to 0.50 FAR.

Zoning of Subject Property I-5, General Industrial District

List all applicable Proffer Conditions, Development Plans, Special Exceptions,  
Special Permits or Variances previously approved and related to this site

N/A

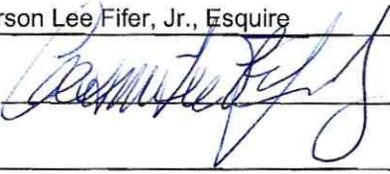
**PROPERTY OWNER(S) OF RECORD**

Owner Lemur Properties LLC

Street Address c/o Dupont Properties, 1212 New York Avenue, N.W., Suite 900

City/Town Washington State DC Zip Code 20005

**PART II**, entitled "Statement of Justification," pages 4 through 6, shall be completed by all applicants and included as part of the application. **PART III**, entitled "Telecommunication Proposal Details," pages 7 through 9, also shall be completed and included for all proposed telecommunication uses.

Name of Applicant or Agent Carson Lee Fifer, Jr., Esquire  
Signature of Applicant or Agent   
Date 1-20-11

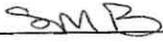
\*\*\*\*\*

*Please do not staple, bind or hole-punch this application. Please provide at least one copy of all pages, including maps and drawings, on 8.5 x 11 inch paper.*

**Submit completed application to:**

**Fairfax County  
Department of Planning and Zoning, Planning Division  
Herrity Building  
12055 Government Center Parkway, Suite 730  
Fairfax, Virginia 22035**

\*\*\*\*\*

<p><b>FOR STAFF USE ONLY</b></p> <p>Date application received: <u>1/21/11</u></p> <p>By: <u></u></p> <p>Additional information requested to complete application:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Date application accepted: <u>2/1/11</u></p> <p>By: <u></u></p>
---

**DOMINION VIRGINIA POWER  
SUNSET HILLS UTILITY SUBSTATION**

**STATEMENT OF JUSTIFICATION  
Section 15.2-2232 Requirements**

January 20, 2011

**INTRODUCTION:**

Pursuant to Section 15.2-2232 of the Code of Virginia, the Virginia Electric and Power Company, d/b/a Dominion Virginia Power (the "Applicant" or "Dominion"), as the contract easement purchaser of the subject property, hereby requests Section 15.2-2232 approval to permit the development and operation of an electric substation on property owned by Lemur Properties, L.L.C. (d/b/a DuPont Fabros). The property is a 1.265 acre parcel identified as Tax Map Reference Number 18-3-((1))-13B which is located approximately 400-feet northwest from the intersection of abandoned Clay Lane (formally Route 970) and Sunset Hills Road (Route 675). The subject property does not have a street address, but is located off of abandoned Clay Lane, behind or adjacent to 11014 Sunset Hills Road in Reston, Virginia. The property is located in the Hunter Mill District within the Upper Potomac Planning District, Reston Community Planning Sector (UP5) and the Reston-Herndon Suburban Center (Land Unit G). The property is zoned I-5, General Industrial District, and development of an electric substation is permitted by-right as a Category 1, Light Public Utility use. A Section 15.2-2232 review is required to determine the substation's conformance with the Comprehensive Plan as it relates to its location, character, and extent.

**BACKGROUND OF NEED FOR THE PROPOSED SUBSTATION:**

Metro Need:

This substation facility is needed to provide power to the rapid rail transit system known as the Metro Silver Line currently under construction in Tyson Corner and projected through to the Dulles Airport. From the proposed location, the substation will provide power to the Metro Silver Line for the Tyson West and Wiehle Avenue Passenger Metro Stations, as well as provide power to metro traction stations #6, #7, #8, #9, #10 and #11. WMATA has advised Dominion that this station must provide electric power by December 2011.

Local Need:

In addition to the need to power the Silver Line, the proposed electric substation is necessary to continue to provide reliable electrical service for Fairfax County. Electrical load in this area of Reston has greatly increased due to the area's growth of electric demand from per house usage growth, commercial, office, data center demand, and the overall area's new construction growth. Dominion's future load growth projections in the Reston area have indicated the need for additional electric capacity by 2012 to support the existing Reston and Hunter Mill substations.

The area has seen a dramatic increase in annual electrical demand in recent years, and significant increases are expected for future years. The proposed Sunset Hills Substation will provide an electrical service area bounded by Baron Cameron Avenue, Hunter Mill Road, Washington Dulles Access and Toll Road, and Wiehle Avenue. Further, the addition of this Sunset Hills Substation will relieve the load demand and provide emergency support for the two existing Dominion substations, known as the Reston and Hunter Mill Substations.

If proposed substation is not constructed:

If the Sunset Hills Substation is not constructed, power for the Silver Line will be delayed. In addition, reliable electrical service for this portion of Fairfax County will be threatened. In the future, without a new substation in this area, Dominion will be unable to provide adequate back-up electrical feeds to areas where outages occur, resulting in more frequent and longer outages to customers.

#### **IV. THE 2232 REVIEW APPLICATION INFORMATION**

The following information is provided as part of this Section 15.2-2232 application:

##### **1. DESCRIPTION OF PROPOSED SITE AND USE:**

Nature of Use:

The proposed Sunset Hills Substation's function will be to convert electric power from an existing 230kV transmission line to a 34.5 kV that is usable by the Silver Line, individual homes, businesses, institutions, and data centers. The source of power to this substation will be supplied by the existing transmission line immediately adjacent to the proposed substation. In addition, the Sunset Hills Substation will be an important alternate/back-up feed within the Dominion utility system providing emergency or back-up support for the area's other substations.

The substation will consist of two (2) 84 megavolt ampere (MVA) distribution transformers and related distribution circuits. Each transformer will provide for three electric circuits. The Applicant proposes to construct the first transformer in the immediate future which will provide power for the Silver Line and local area demand. One circuit on the first transformer will supply power for the Silver Line, and the two remaining circuits will serve the local area. The second transformer will be constructed in the future as electrical demand dictates the need. The layout, subject to final engineering, is shown generally on the 2232 Review Plan.

As stated, the proposed substation use is permitted by-right in the I-5 District. Its development will meet or exceed Zoning Ordinance requirements and performance standards

as described below. Further, development will be subject to site plan approval to ensure that these requirements will be met.

Site Description:

The proposed site is zoned I-5 and currently developed with a gravel lot. Adjacent properties include a multi-story data center building to the north, a 2-story office/warehouse style building to northwest, and an automobile repair shop to the southeast side of the property. The southwestern side of the property is adjacent to an existing 100-foot wide Dominion Power transmission line easement which coexists with the Washington & Old Dominion (W&OD) Trail. The adjacent power lines allow the applicant immediate access to its power source. Across the existing 100-foot wide transmission line easement and trail to the south is another public utility property occupied by the Reston United States Post Office. The closest single family residential home is located to the east, approximately seven hundred ninety six (796) feet away and will not have views of the substation.

The site is currently a compacted graded gravel lot surrounded by a 6-foot high chain link fence, with privacy slats weaved in the webbing. This fence is currently located inside the property line by approximately 10-feet on the southwest and northwest sides, and varies from approximately 10 to 20-feet on the southeast side and 30-feet on the northeast side of the property. There is approximately a 10-foot wide area of 20 to 25-foot tall cedar trees closely planted on the outside of the fence on all sides of the property except at the existing gate location on the eastern corner of the property. Other varieties of deciduous trees are interspersed with the cedars.

The Applicant proposed to construct the substation facility central to the property with fencing and a variable width landscaped buffer along the property boundaries. A barrier consisting of a chain link fence or wall is the only screening required by the Zoning Ordinance based upon surrounding uses. However, in order to provide additional screening, the Applicant is also proposing a variable width landscape buffer ranging from 10 to 18 feet along the property lines

Description of Use:

- A. Type of operation: Electric Substation
- B. Dimensions of all buildings and structures and heights: The substation equipment will consist of the following: a 20' x 28' x 15' high control enclosure (shed type building), a 95" high backbone pole structure, two (2) 70 static poles, two (2) 25' x 25' x 25' high transformers, a distribution bay for 6 circuits using an area of 110' x 30' x 15' high, and (2) 30' x 6' x 15' high capacitor bays.

- C. Material, color, or finish of buildings or structure: The enclosure is a galvanized aluminum colored metal building, the backbone and static poles are galvanized aluminum and the transformers, distribution bays and capacitor bays are light gray metal structures.
- D. Hours of operation: 24 hours/day
- E. Estimated number of daily employees/patrons: None
- F. Proposed number of employees: No permanent employees are proposed. The facility will be visited approximately 1 to 2 times per month by Dominion personnel for site inspection purposes, and for any needed repairs or alterations.
- G. Service area of the proposed use: The use will serve a specific service area within approximately 1 to 2 miles, bounded by Baron Cameron Avenue, Hunter Mill Road, Washington Dulles Access and Toll Road and Wiehle Avenue.
- H. Maintenance requirements and frequency: The facility will be visited approximately 1 to 2 times per month by Dominion personnel for site inspection purposes, and for any needed repairs or alterations.

## 2. REQUIREMENTS FOR PROPOSED USE:

- A. Why the new facility is needed: The new substation facility is needed due to the immediate need of the Silver Line and to the area's growth of electric demand - per house usage growth, commercial, data center, and office demand. The proposed utility substation is necessary to continue to provide reliable electrical service for this area in Fairfax County.
- B. Why the proposed location is the best location for the proposed use: Future load growth projections in the Reston area have indicated the need for additional capacity to serve the demand. The new substation would be centrally located for demand growth, and it is in close proximity to the Silver Line. Further, it is surrounded by industrial/office uses, and there will be minimal impacts on residential properties or public right-of-ways. The subject site is the best location for the proposed use because it is surrounded by compatible industrial and office uses which, because of building orientation, will have minimal views of the substation. Further, the proposed substation will not be located off a roadway, but instead surrounding by properties with existing buildings and tree coverage. As such, the site has natural and physical barriers shielding its views.

- C. Why the proposed location and type of facility is the least disruptive alternative: This location is adjacent to the need for the Metro Silver Line extension within the Dulles Connector Road. Extension of power from either of the two existing substations, Hunter Mill or Reston, would add major construction costs to the Metro Silver Line project because it would require the extension of circuits for approximately 1.8 miles in an area with limited circuit paths available. Further, construction of extension circuits would be lengthy and disruptive to major roadway throughout Reston.
- D. Relevant standards/criteria supporting the facility and location: A critical requirement for rail service power feeds supplied by Dominion to WMATA is that electrical feeds must be from separate (or non-common) electrical sources. The existing Hunter Mill or Reston substations would not satisfy WMATA's requirement for no commonality in power supply, and the proposed substation would create such a non-common electrical source. WMATA's standard is stated as follows:

“WMATA's traction power stations TPS shall be from both a normal and alternate source and these electrical feeds cannot be from a common source such that a single failure or outage would result in the loss of both the normal and alternate sources of power.”

Also a substation must be in close proximity to the transmission lines that supply the power itself. A site that is not adjacent to a transmission line could require an extension of a transmission line. An extension of a transmission line at or above 138KV requires approval from the State Corporation Commission (SCC), which would cause extensive delay, and possibly the procurement, clearing and construction of additional right of way for the new towers and transmission line.

- E. Vicinity to be served by the proposed use: The specific service area is bound by Baron Cameron Avenue, Hunter Mill Road, Washington Dulles Access and Toll Road and Wiehle Avenue in the Hunter Mill District. (See Exhibit.)

### **3. ANTICIPATED IMPACTS ON ADJOINING PROPERTIES AND ON- AND OFF-SITE ENVIRONMENTAL FEATURES**

- A. Traffic Impacts: There is no pedestrian traffic associated with this use. Vehicular traffic will be minimal. The proposed substation will be unmanned, but the site is expected to be visited by Dominion employees one to two times per month for maintenance purposes. Vehicle access will be from the abandoned Clay Lane, off of Sunset Hills Road. Vehicular access agreements have been negotiated and recorded with DuPont Fabros across its abandoned Clay Lane parcels identified as Tax Map Nos. 18-3-((1))-13B1 (Outlot C) (DB 10932, Page 1647), 18-3-((8))-9A (known as the Lake Fairfax Business Data Center) (DB 14193, Page 1861), and 18-3-((8))-A1

(Outlot A) (DB 14193, Page 1861). Public Access across parcel 18-3-((1))-13A1 (Outlot B) is recorded on DB 10932, Page 1671.

- B. Noise and Light Impacts: The only pieces of equipment within the substation that emits sound are the fans on the transformers. That sound is equivalent to a typical home, outside mounted, air conditioning air flow unit. The proposed substation's sound will be well below the Fairfax County Noise Ordinance regulations at the property line. The only proposed light at the substation will be two porch light-type fixtures attached to the front and back of the control enclosure. These lights will be shielded and reflected downward creating a dark sky site.
- C. Impacts on environmental features of site: There was an Environmental Site Assessment Report prepared on the site by Dewberry, dated October 27, 2010. This report concluded that during the investigation no recognized environmental conditions (RECs) were identified for the subject property. (Copy attached.)
- D. Impacts on air and water quality: Air quality will not be affected by the development of this substation because it emits no air pollutants. Water quality will be improved by the development of this site, for the proposed site is required to treat all additional impervious areas and reduce the existing pollutant off of the existing impervious areas by 10%. In addition, adequate outfall and stormwater management will be provided at the site.
- E. Visual impacts: The site will have minimal visual impact to the surrounding area due to the height and density of the existing tree canopy, proposed landscaping, slatted chain link fence, and existing industrial and data center buildings. The two transformers that are 25-feet in height are located such that the existing tree canopy will buffer the views from the W&OD trail to the southwest and the Lake Fairfax Business Data Center building located to the northeast. Views from the Post Office and autobody shop to the south and southeast will be minimal because of their respective building orientations. The most visible part of the development of this site will be the 95-foot high backbone structure. However, due to its close proximity to the existing transmission tie-in structure within the adjacent transmission line easement, that view is minimized. In addition, because the site is located interior to other industrially zoned properties, the site has natural and physical barriers to shield views from roadways and properties further away.

#### **4. ALTERNATIVE SITES CONSIDERED FOR THE PROPOSAL**

The Applicant has reviewed available vacant commercial or industrial properties within one (1) mile of the proposed site.

- A. BP Reston Eastgate, LLC Site - Tax Map 18-3-((1))-11B1 - Owners were not willing to sell a portion of this property.
- B. Above Net Site - Tax Map 18-3-((5))-10 - The site is in close proximity to the Lemur (DuPont Fabros) site; however, it did not meet development criteria.

**5. IDENTIFYING THE PROPOSED SITE AT A SCALE OF 1"=500'**

An 8 ½ x 11 illustration with the proposed site shaded on a tax map base at a scale of 1" = 500' is included in this submission package.

**6. PROPOSED FACILITY PLAN**

A proposed facility plan set is included in the submission package for the review.

**7. REDUCED COPY OF PLANS**

Reduced copies of the plans are included in the submission package.

**8. OTHER INFORMATION DEEMED APPROPRIATE BY 2232 REVIEWERS**

Photos of the site are included in the submission package.

**V. THE SECTION 15.2-2232 POLICY PLAN ARE MET AS FOLLOWS:**

The proposed use meets the objectives for Public Facilities outlined in the Comprehensive Plan, even though substations are rarely recommended in the Comprehensive Plan for site-specific properties. The property is planned for a mix of office, R&D, and industrial "flex space" up to a .50 FAR. A substation at this location will serve not only a specific user – in this case, the new Metro Silver Line by December 2011 – but it will also provide electric service to an area of need. Further, it will reduce electric load on the existing Reston and Hunter Mill substations and provide emergency support when adjacent service areas experience outages or need backup. If approved, the proposed substation will provide needed and convenient service to the greatest number of consumers, it will serve to maintain acceptable levels of service, and addresses future growth expected in the Reston area. (Public Facilities - Objectives 1, 2, and 3).

This substation will be in a strategic location within the overall utility system that provides an improved level of service to current and future electrical needs, yet at the same time, it will provide service with minimum effect on adjacent properties. Its location is surrounded by compatible industrial uses which are removed from residential neighbors and highly traveled road corridors. It will be properly screened and buffered on-site to reduce visual impact and will meet the requirements of the Zoning Ordinance. A substation at this strategic location will provide valuable infrastructure

critical to the public interest - not only for the Silver Line, but the community as a whole – yet its impacts will be property mitigated to protect adjacent properties. (Public Facilities – Objective 4)

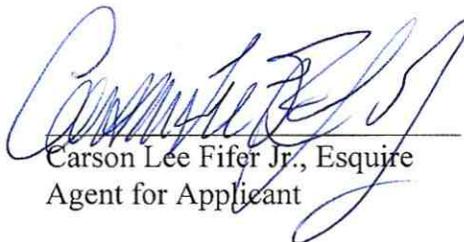
The proposed facility will have adequate acreage for short-term needs, but will also accommodate future expansion. There are no environmentally sensitive issues at the property, and the site has mature vegetation on and off site to shield views. It will allow for preservation of the largest amount of existing trees in the area, and will allow for additional on and off-site landscaping in effective locations. An added benefit is that the existing site is a current gravel lot with surrounding chain link fence which will reduce the size of any new stormwater management facility. Site access to the substation will be from abandoned, but still functioning, Clay Lane. Thus, Dominion will be able to construct a substation facility at the smallest size necessary, yet provide the adequate level of service. No other alternate site in the surrounding area would have the benefit of reducing impacts on the community. The site is not only appropriate for the facility's specific purpose, but also meets or exceeds development criteria. (Public Facilities – Objective 5).

The Applicant initially reviewed various alternate sites in determining a feasible location for a substation. Based upon these findings, there is no other location that will meet the needs for providing this necessary County infrastructure, while at the same time having the minimal impact on adjacent properties. As such, the development and operation of an electric substation at this site is appropriate in terms of location, character, and extent.

## VII. CONCLUSION

The above-described application proposes a necessary public utility facility that will provide needed electrical service in Fairfax County and meets the standards for approval. The site proposed is uniquely situated in an industrial zone, adjacent to an auto service use and existing office/data center buildings. The lot has been graded, and existing landscape buffer is mature. With approval of the requested Section 15.2-2232 application, the proposal will conform to the provisions of all applicable ordinances, regulations, standards, and conditions. Furthermore, the proposed use conforms to the Zoning Ordinance and the recommendations of the Comprehensive Plan. Therefore, for the reasons set forth herein, the Applicant respectfully requests the approval of this Section 15.2-2232 application.

Respectfully submitted,



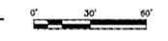
Carson Lee Fifer Jr., Esquire  
Agent for Applicant



SCALE

KEY PLAN

SCALE



No.	DATE	BY	Description

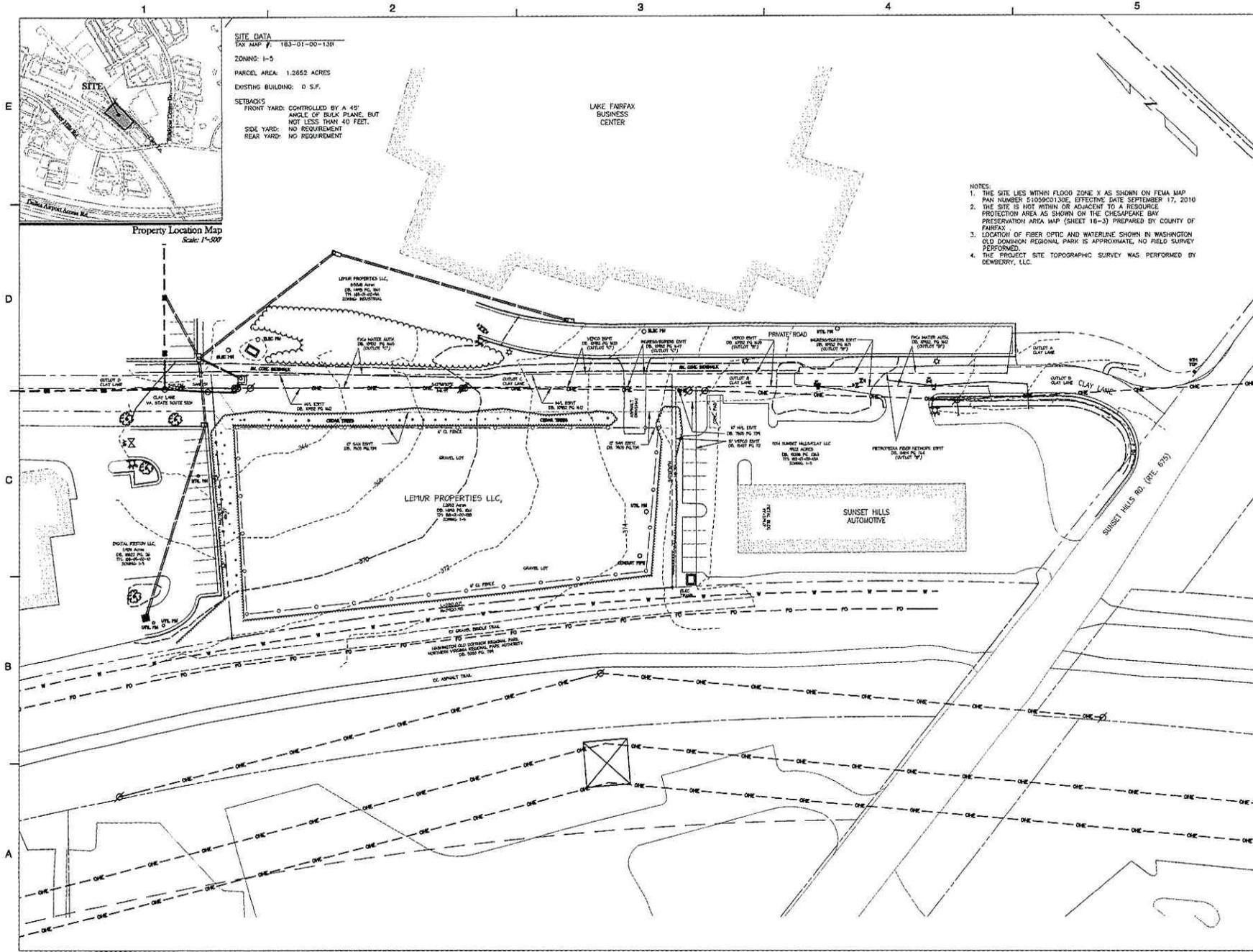
DRAWN BY: DAB  
 APPROVED BY: KJW  
 CHECKED BY: KJW  
 DATE: JANUARY 12, 2011

**EXISTING CONDITIONS**

PROJECT NO. 50038651

**2**

SHEET NO. OF



**SITE DATA**  
 TAX MAP # 183-01-00-138  
 ZONING: I-5  
 PARCEL AREA: 1.2652 ACRES  
 EXISTING BUILDING: 0 S.F.  
 SETBACKS:  
 FRONT YARD: CONTROLLED BY A 45° ANGLE OF BULK PLANE, BUT NOT LESS THAN 40 FEET.  
 SIDE YARD: NO REQUIREMENT  
 REAR YARD: NO REQUIREMENT

LAKE FARFAX  
 BUSINESS  
 CENTER

- NOTES:**
1. THE SITE LIES WITHIN FLOOD ZONE X AS SHOWN ON FEMA MAP PAN NUMBER 5105900130E, EFFECTIVE DATE SEPTEMBER 17, 2010
  2. THE SITE IS NOT WITHIN OR ADJACENT TO A RESIDUAL PROTECTION AREA AS SHOWN ON THE CHESAPEAKE BAY PRESERVATION AREA MAP (SHEET 18-3) PREPARED BY COUNTY OF FAIRFAX.
  3. LOCATION OF FIBER OPTIC AND WATERLINE SHOWN IN WASHINGTON OLD DOMINION REGIONAL PARK IS APPROXIMATE, NO FIELD SURVEY PERFORMED.
  4. THE PROJECT SITE TOPOGRAPHIC SURVEY WAS PERFORMED BY DEWBERRY, LLC.

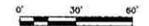
Property Location Map  
 Scale: 1"=500'

1/12/2011 10:07:30 AM, 1181 Towson Drive, Glen Allen, VA 22060, Phone: 804.285.7677, Fax: 804.285.7598, www.dewberry.com

SEALED

KEY PLAN

SCALE



NO. DATE BY DESCRIPTION

REVISIONS

DRAWN BY CAD

APPROVED BY RW

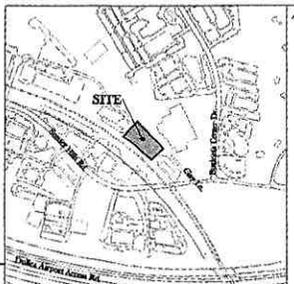
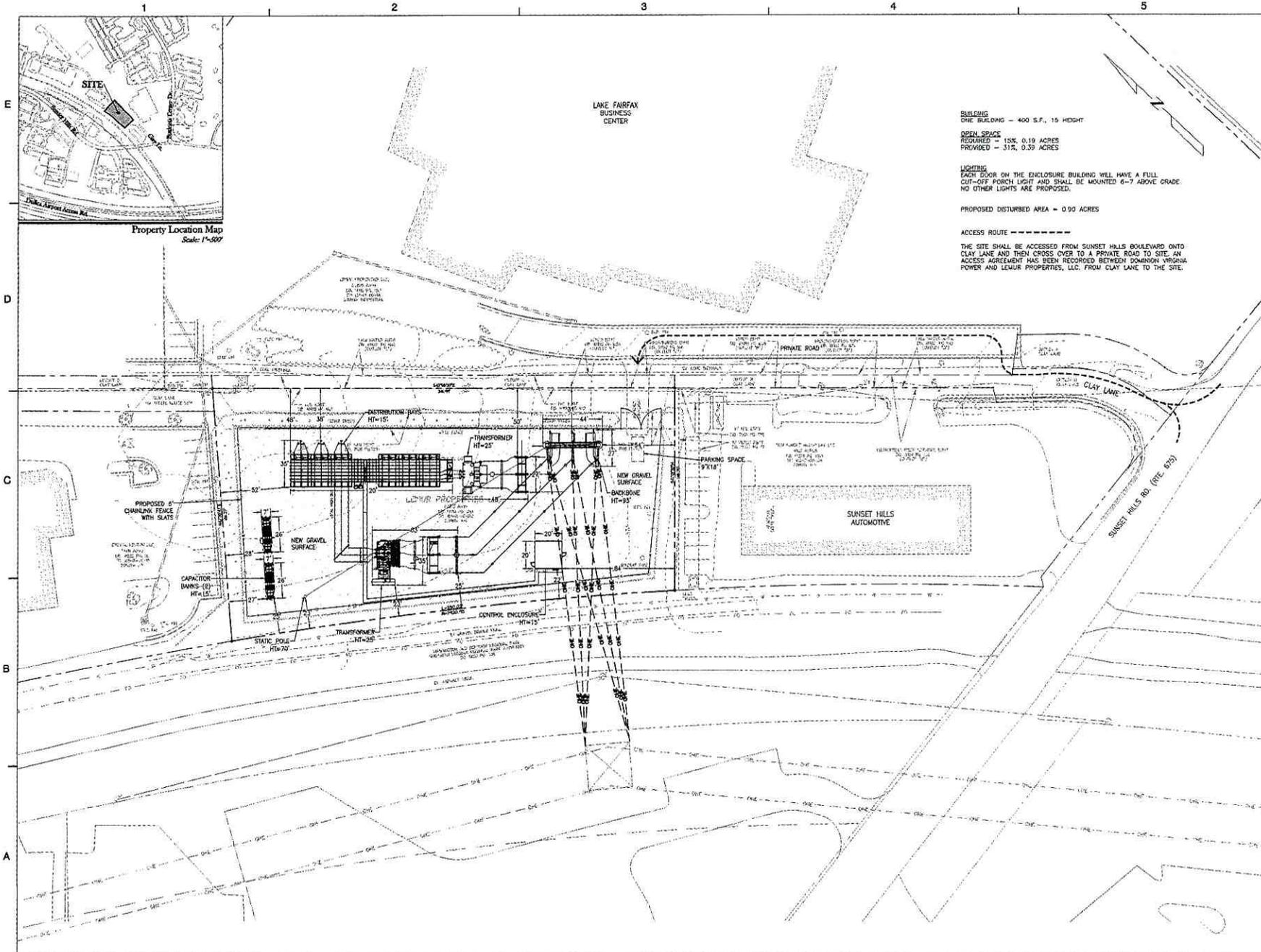
CHECKED BY XRW

DATE JANUARY 12, 2011

TITLE

**PROPOSED FACILITY PLAN**

PROJECT NO. 50038651



Property Location Map  
 Scale: 1/4\"/>

**BUILDING**   
 ONE BUILDING - 400 S.F., 15 HEIGHT

**OPEN SPACE**   
 REQUIRED - 15%, 0.19 ACRES  
 PROVIDED - 31%, 0.39 ACRES

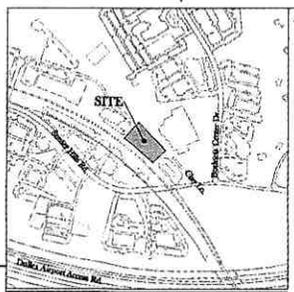
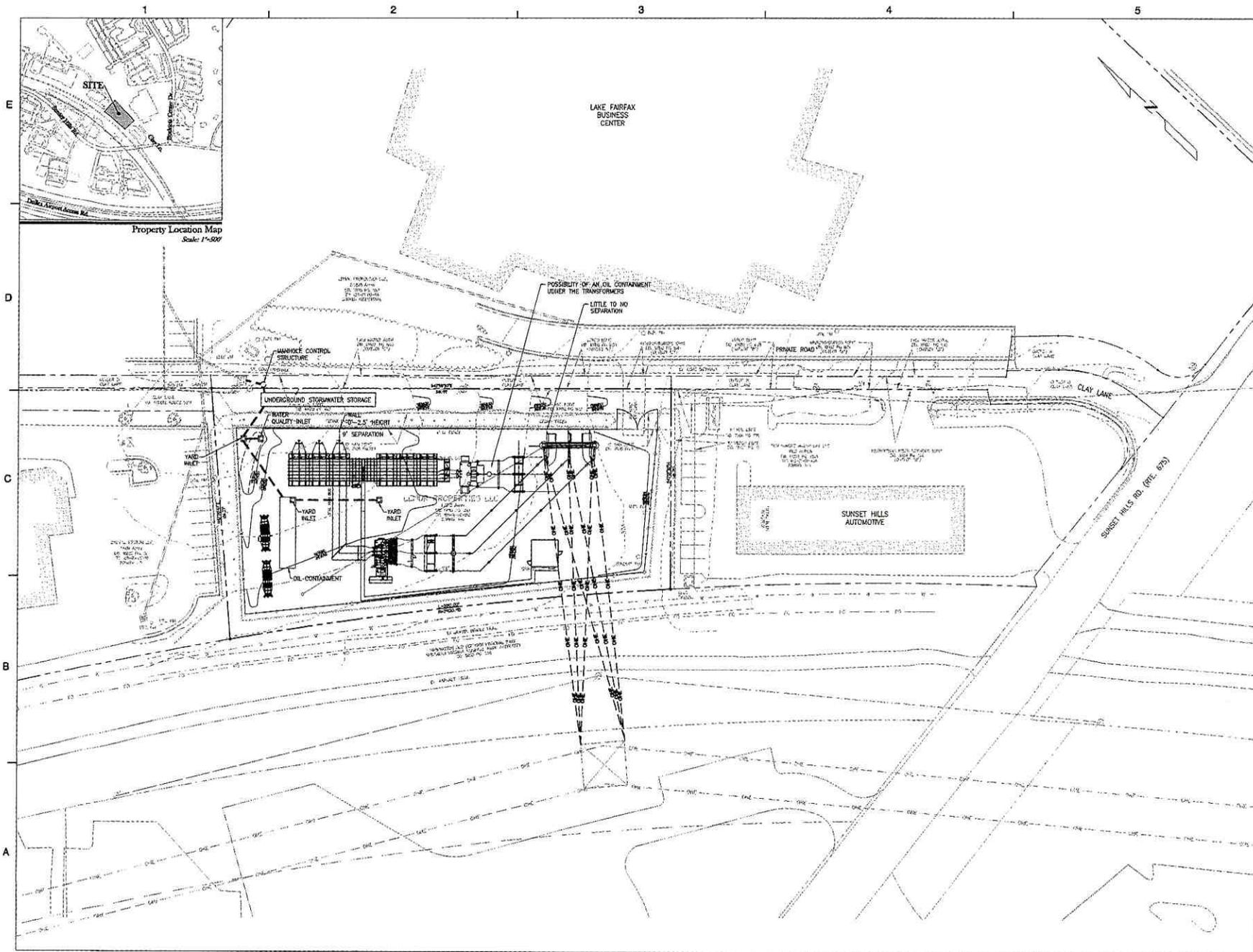
**LIGHTING**   
 EACH DOOR ON THE ENCLOSURE BUILDING WILL HAVE A FULL CUT-OFF PORCH LIGHT AND SHALL BE MOUNTED 6-7 ABOVE GRADE. NO OTHER LIGHTS ARE PROPOSED.

PROPOSED DISTURBED AREA - 0.90 ACRES

ACCESS ROUTE - - - - -

THE SITE SHALL BE ACCESSED FROM SUNSET HILLS BOULEVARD ONTO CLAY LANE AND THEN CROSS OVER TO A PRIVATE ROAD TO SITE. AN ACCESS AGREEMENT HAS BEEN RECORDED BETWEEN COMMONWEALTH POWER AND LEAVER PROPERTIES, LLC. FROM CLAY LANE TO THE SITE.

11/10/2011 10:24:00 AM C:\Users\jrdavis\Documents\2011\50038651\50038651.dwg Plot by: jrdavis, 11/10/2011 10:24:00 AM



Dewberry & Davis, Inc.  
 4100 Inglewood Drive  
 Glen Allen, VA 22080  
 Phone: 703.288.7800  
 www.dewberry.com

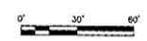


DOMINION  
 VIRGINIA POWER  
 Sunset Hills Substation  
 2232 REVIEW PLAN  
 FAIRFAX COUNTY  
 VIRGINIA

SEAL

KEY PLAN

SCALE



NO.	DATE	BY	DESCRIPTION
REVISIONS			

DRAWN BY: DAB  
 APPROVED BY: KWK  
 CHECKED BY: KWK  
 DATE: JANUARY 12, 2011

TITLE:  
**PROPOSED  
 GRADING  
 AND UTILITY  
 PLAN**

PROJECT NO. 50038651

**4**

SHEET NO. OF

P:\Projects\110210\110210.dwg (11/12/11) 11:02:10 AM 11/12/11 11:02:10 AM 11/12/11 11:02:10 AM



**DOMINION  
 VIRGINIA POWER  
 Sunset Hills Substation  
 2282 REVIEW PLAN**  
 FAIRFAX COUNTY  
 VIRGINIA

SCALE

KEY PLAN

SCALE



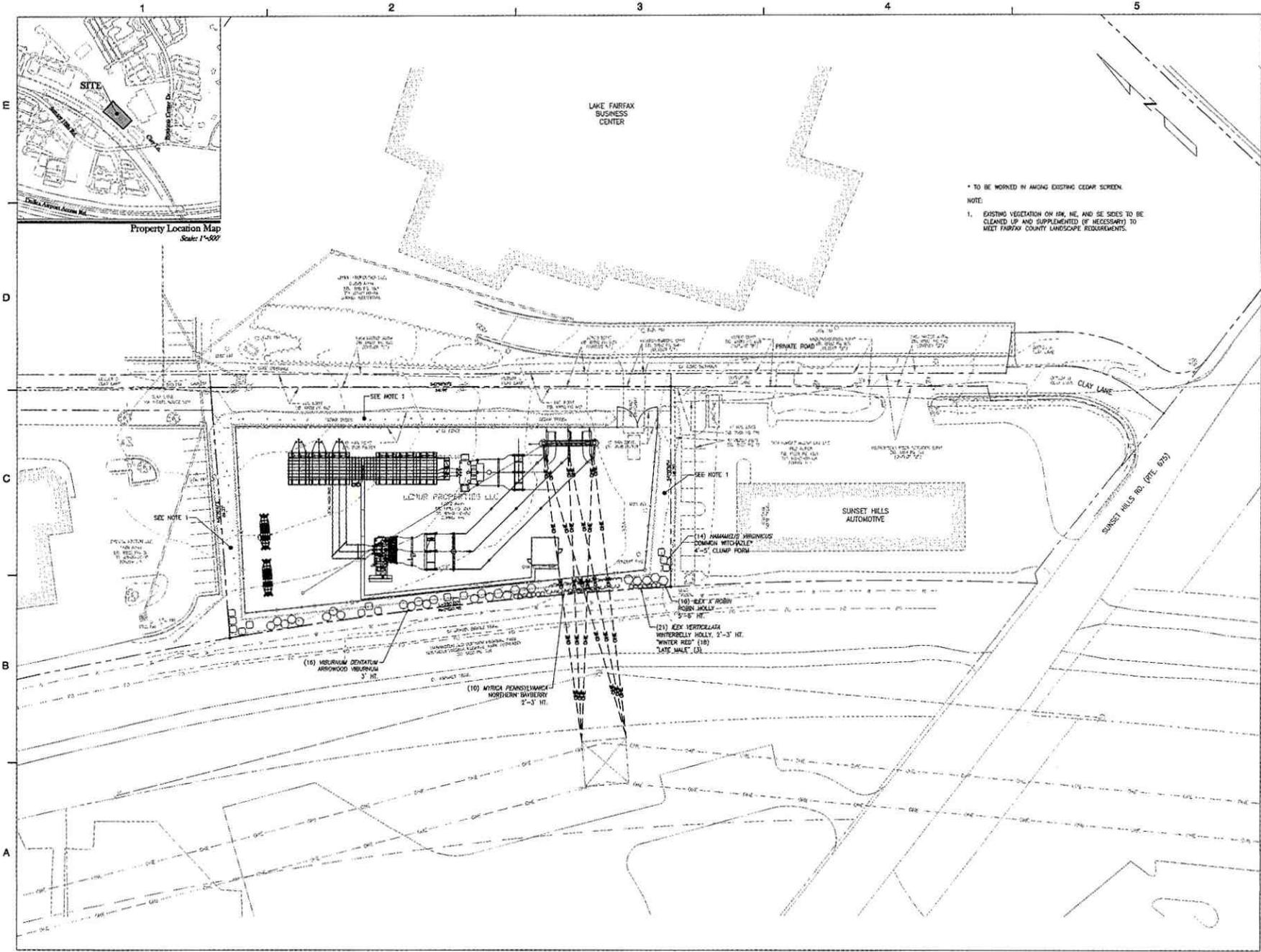
No.	DATE	BY	Description
REVISIONS			

DRAWN BY: DAB  
 APPROVED BY: KFW  
 CHECKED BY: KFW  
 DATE: JANUARY 12, 2011  
 TITLE

**LANDSCAPE  
 PLAN**

PROJECT NO. 50038651

SHEET NO. OF

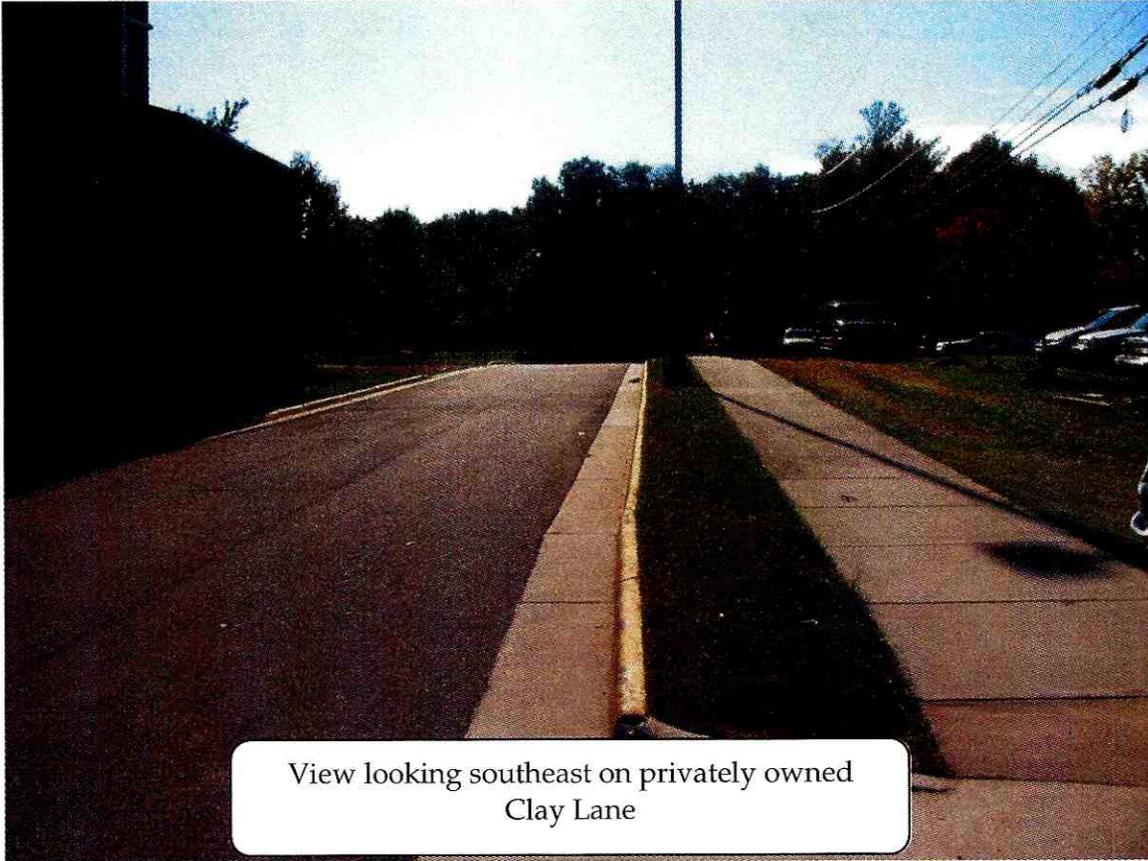


\* TO BE WORKED IN AMONG EXISTING CEDAR SCREEN.  
 NOTE:  
 1. EXISTING VEGETATION ON HW, HE, AND SE SIDES TO BE CLEANED UP AND SUPPLEMENTED (IF NECESSARY) TO MEET FAIRFAX COUNTY LANDSCAPE REQUIREMENTS.

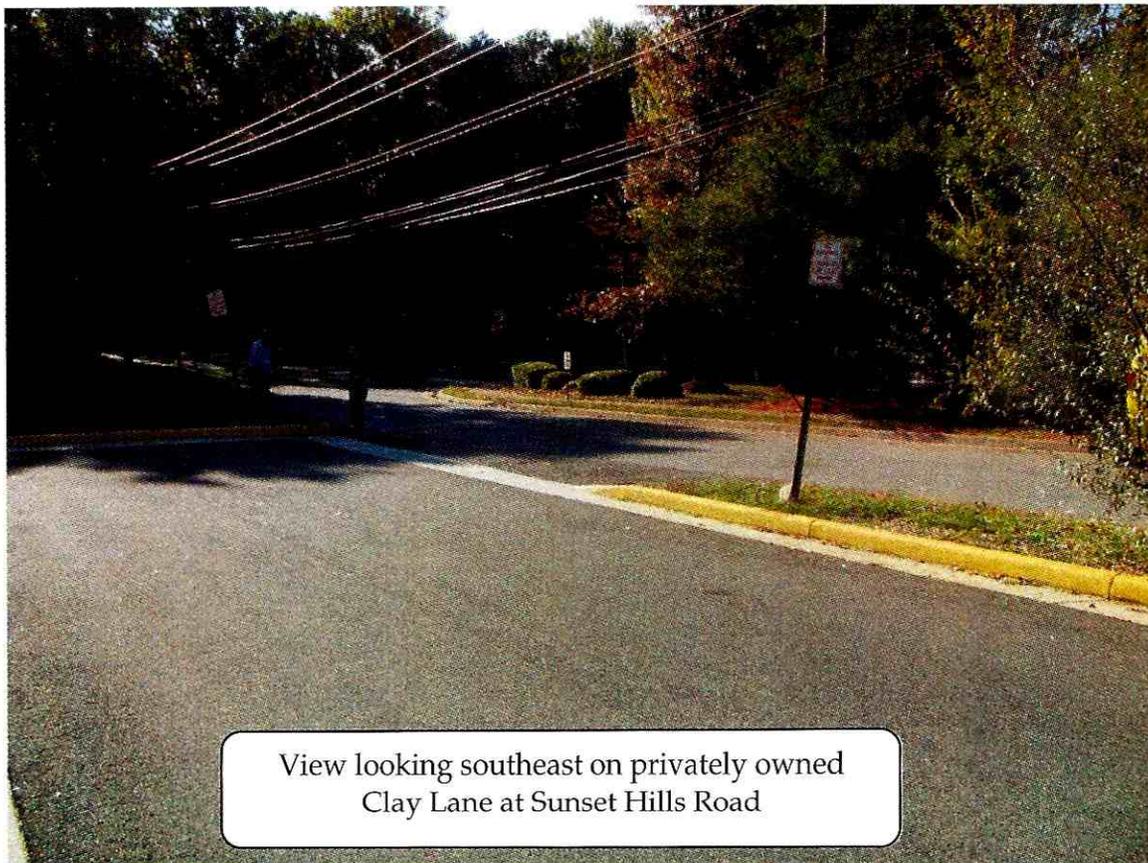
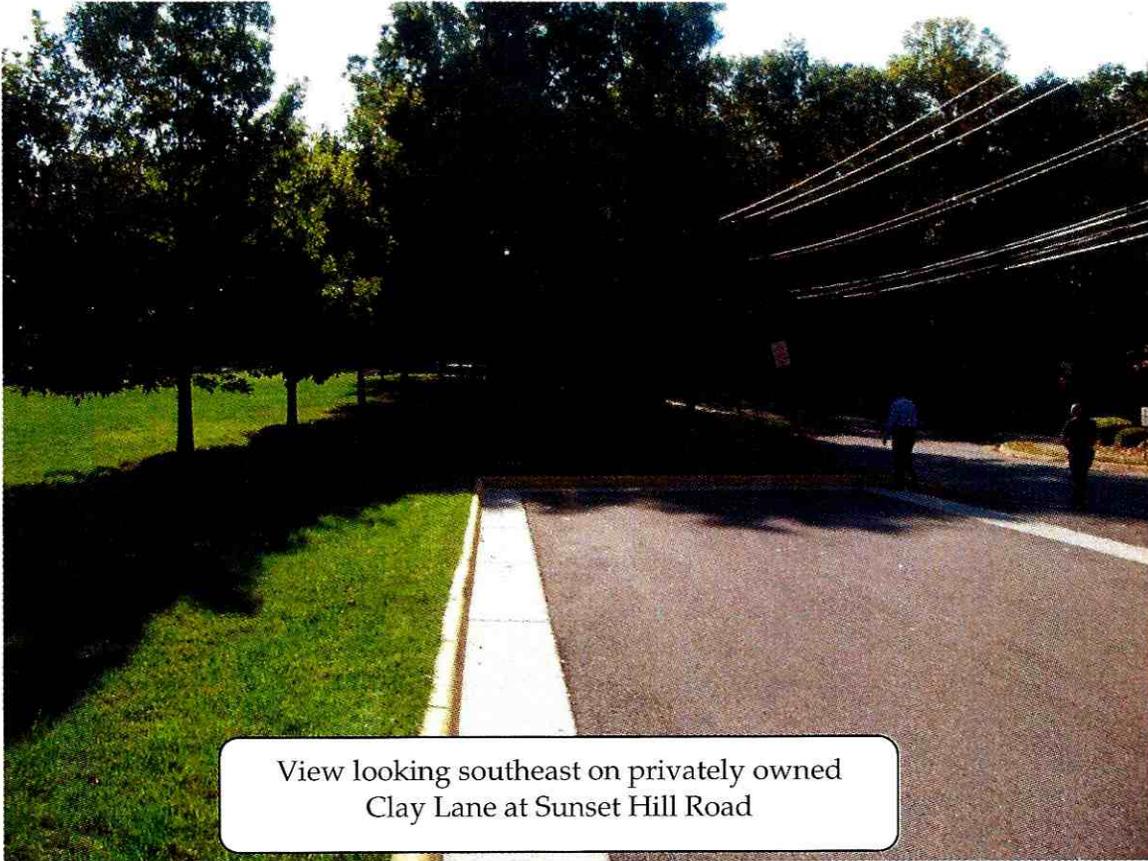
Property Location Map  
 Scale: 1"=500'

11/20/2010 11:02:28 AM C:\Users\jgibson\Documents\2010\2010012210 Review Site\2010\2010012210 Landscape Plan.dwg User: jgibson

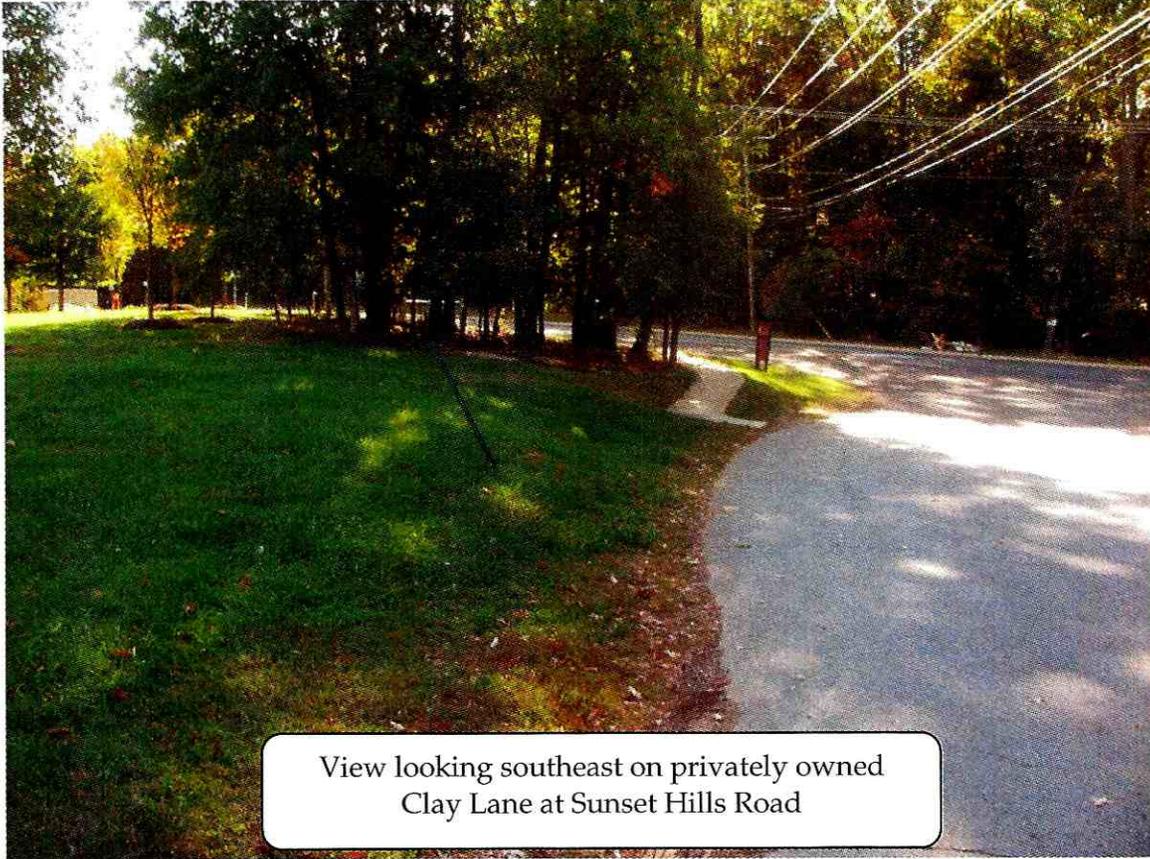
## Sunset Hills Substation Photos



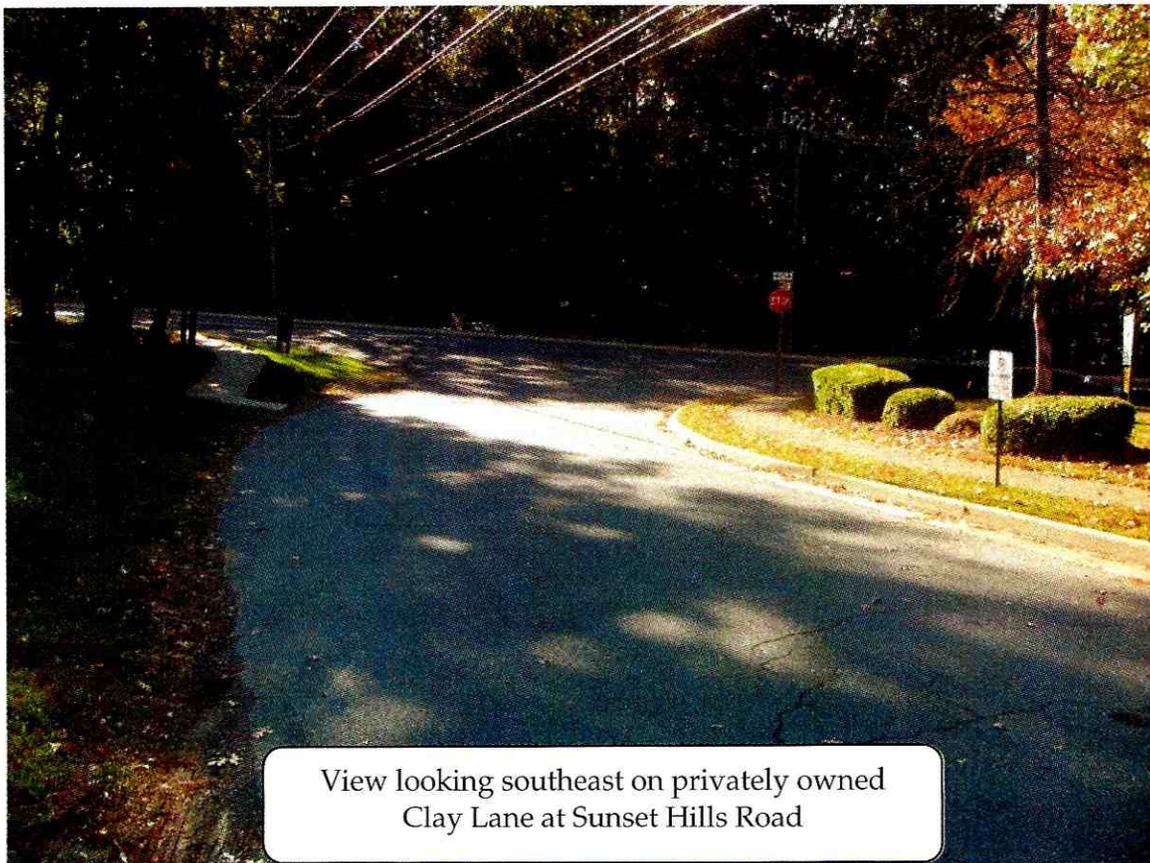
## Sunset Hills Substation Photos



## Sunset Hills Substation Photos

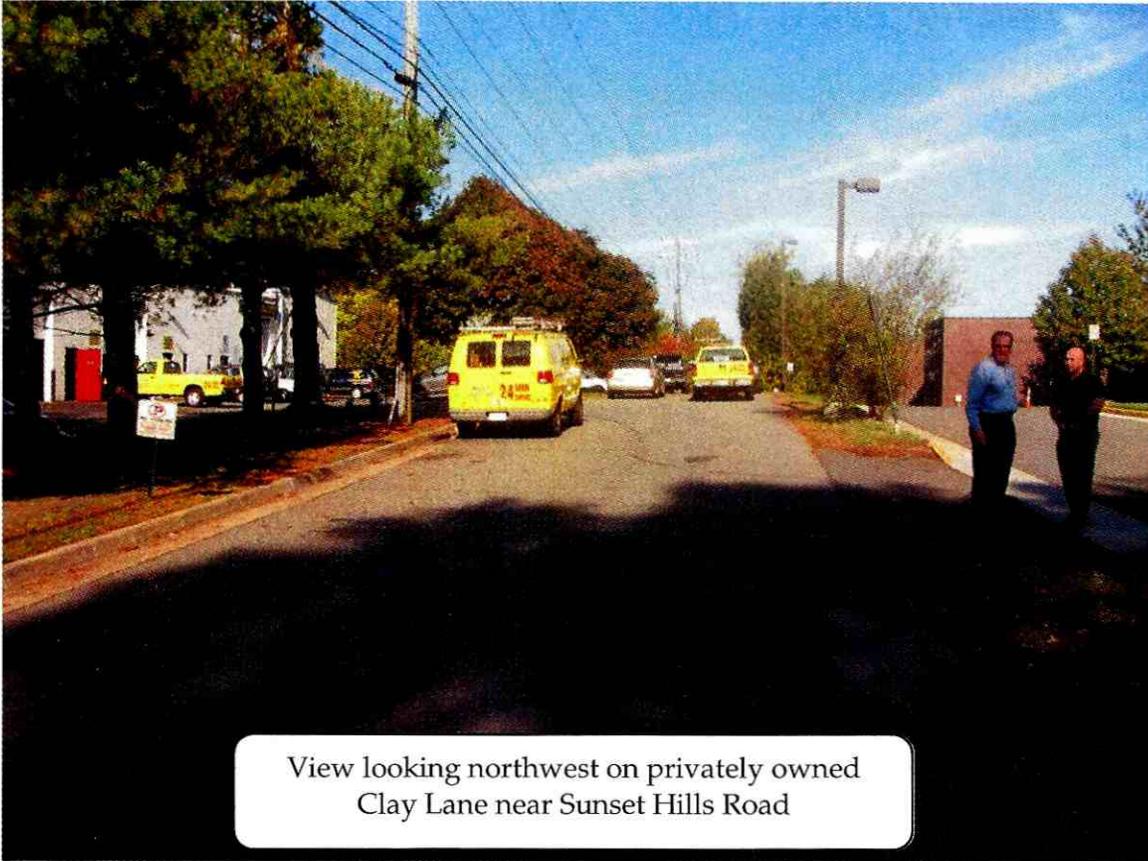


5



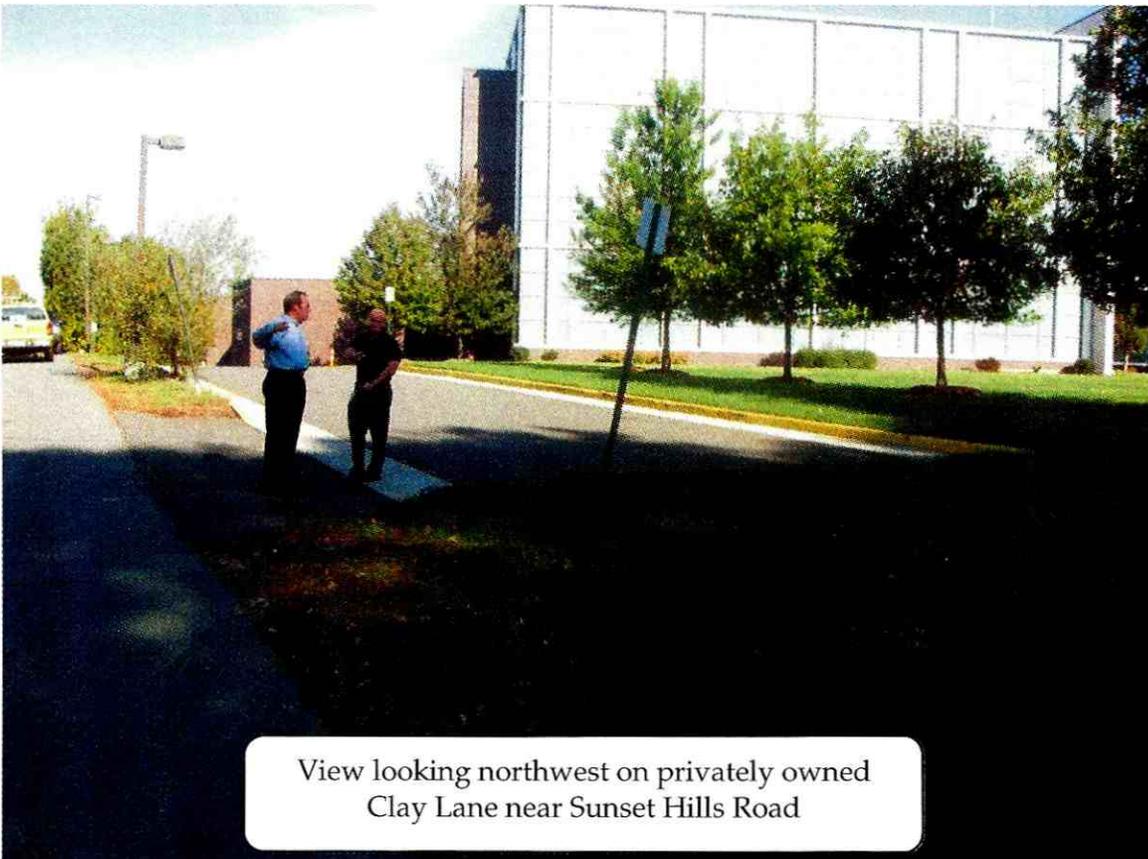
6

## Sunset Hills Substation Photos



7

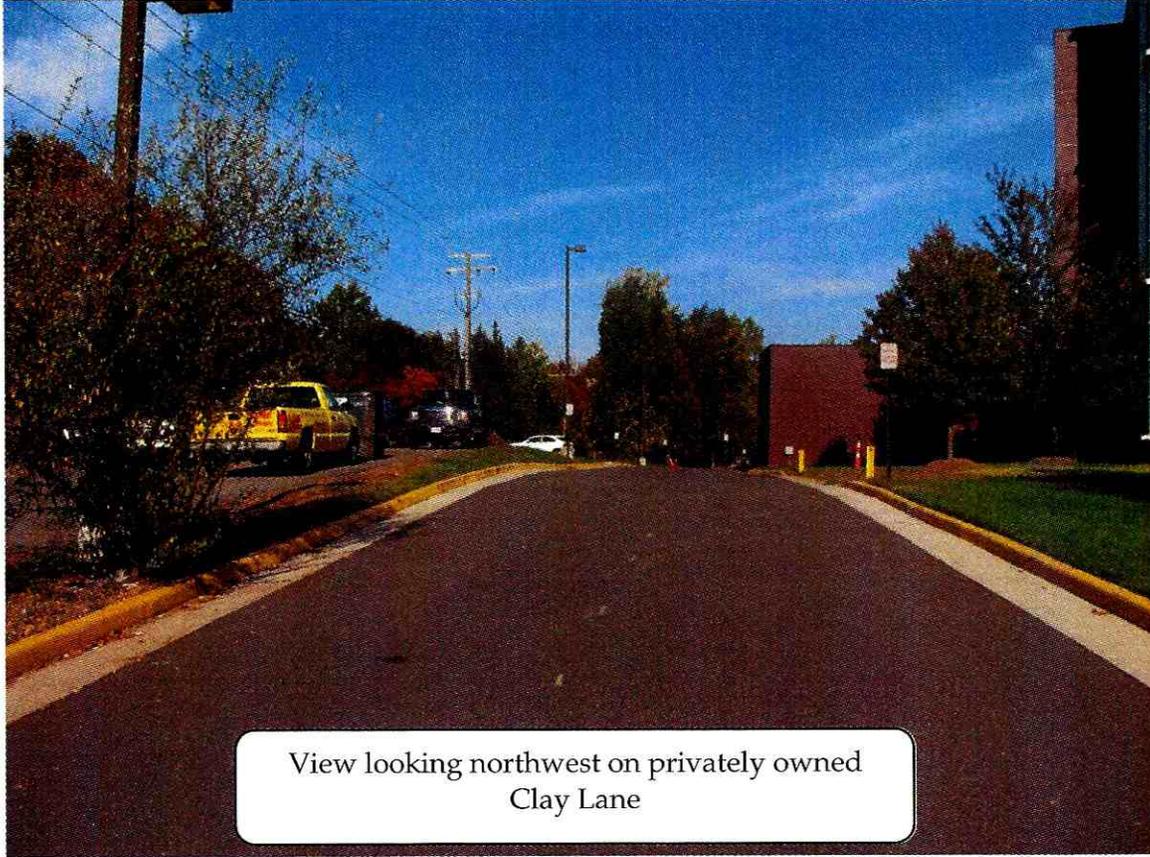
View looking northwest on privately owned  
Clay Lane near Sunset Hills Road



8

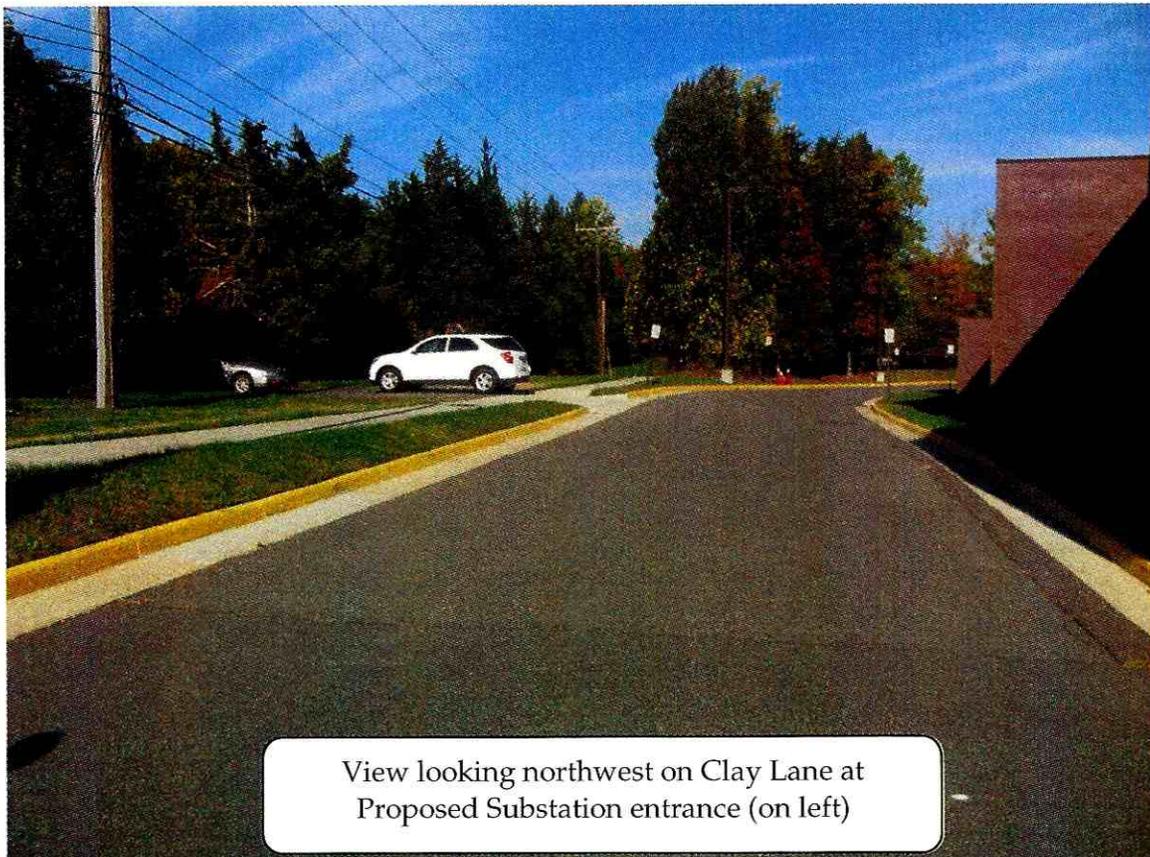
View looking northwest on privately owned  
Clay Lane near Sunset Hills Road

## Sunset Hills Substation Photos



9

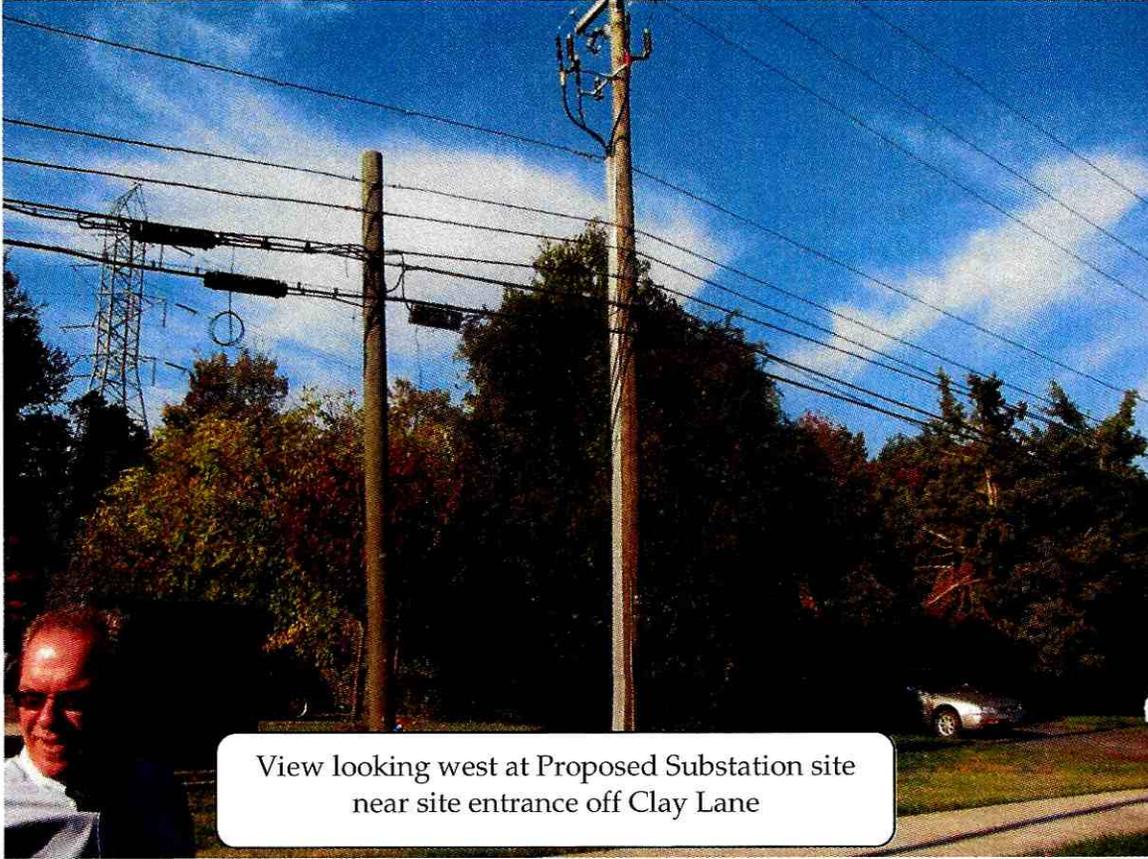
View looking northwest on privately owned  
Clay Lane



10

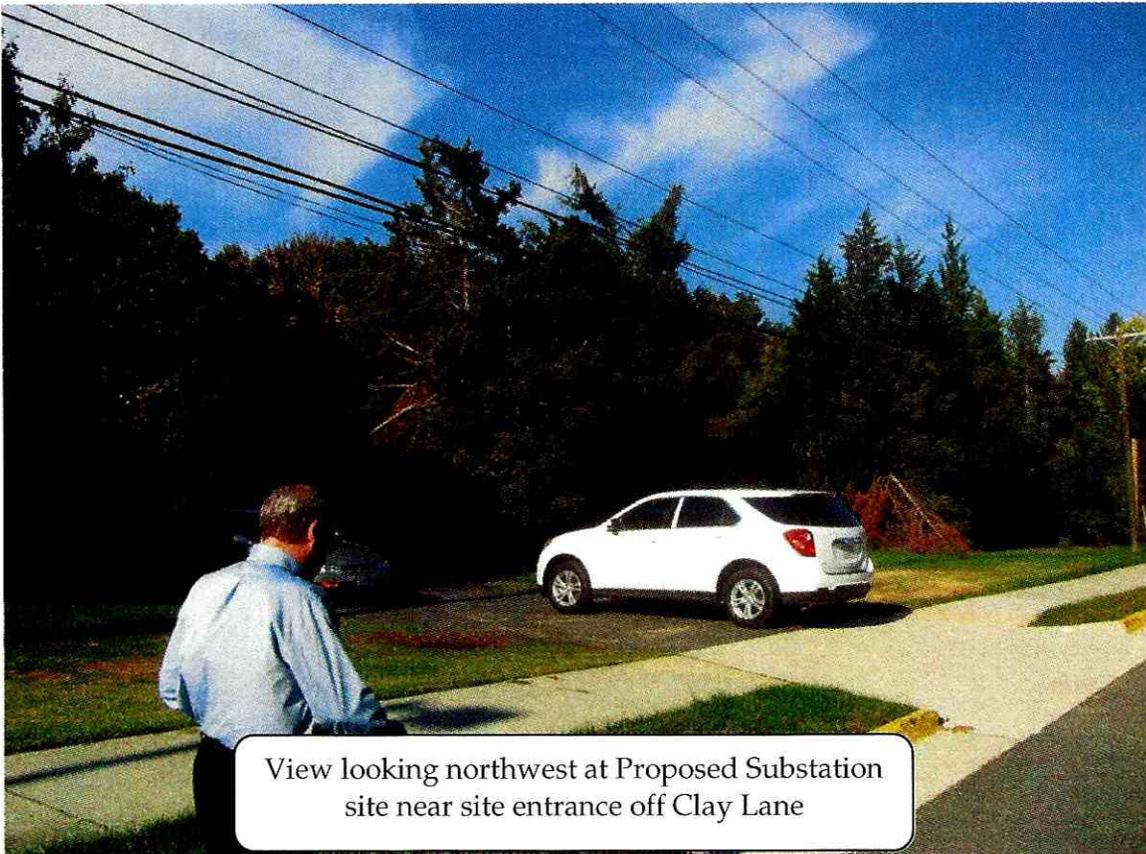
View looking northwest on Clay Lane at  
Proposed Substation entrance (on left)

## Sunset Hills Substation Photos



View looking west at Proposed Substation site near site entrance off Clay Lane

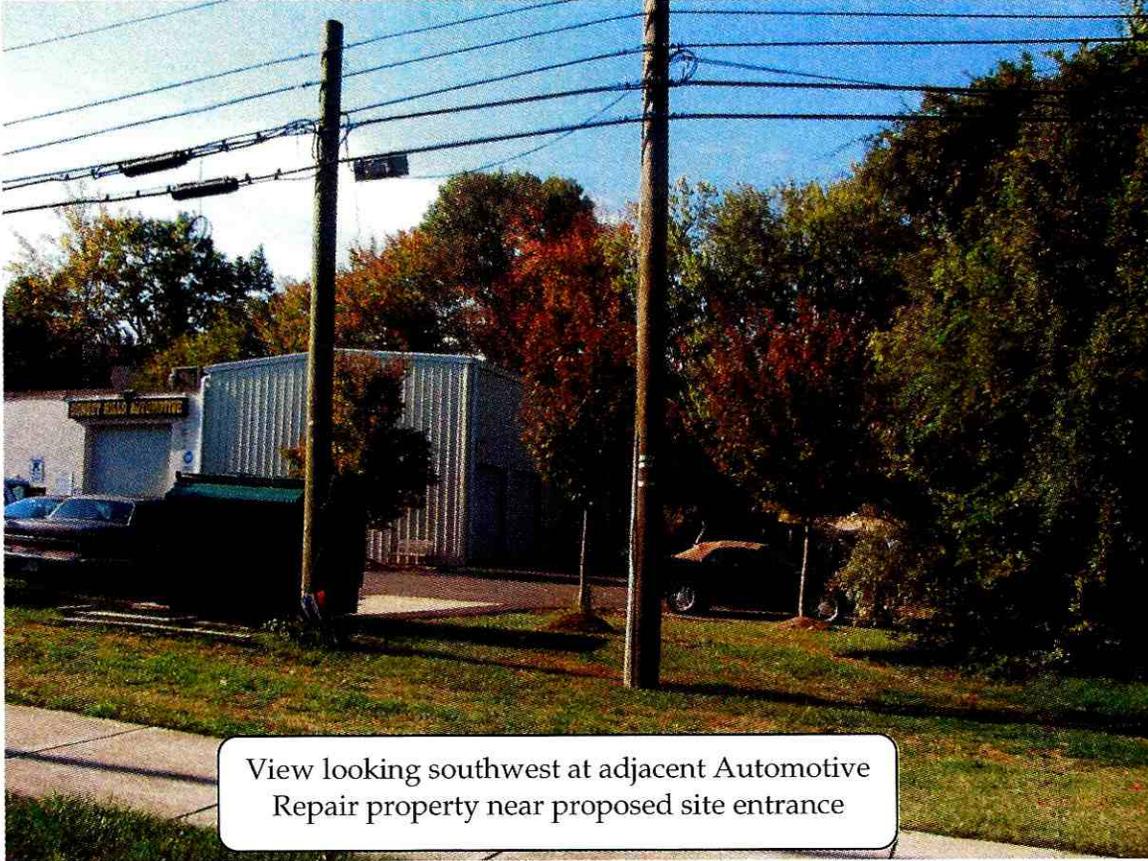
11



View looking northwest at Proposed Substation site near site entrance off Clay Lane

12

## Sunset Hills Substation Photos



View looking southwest at adjacent Automotive Repair property near proposed site entrance

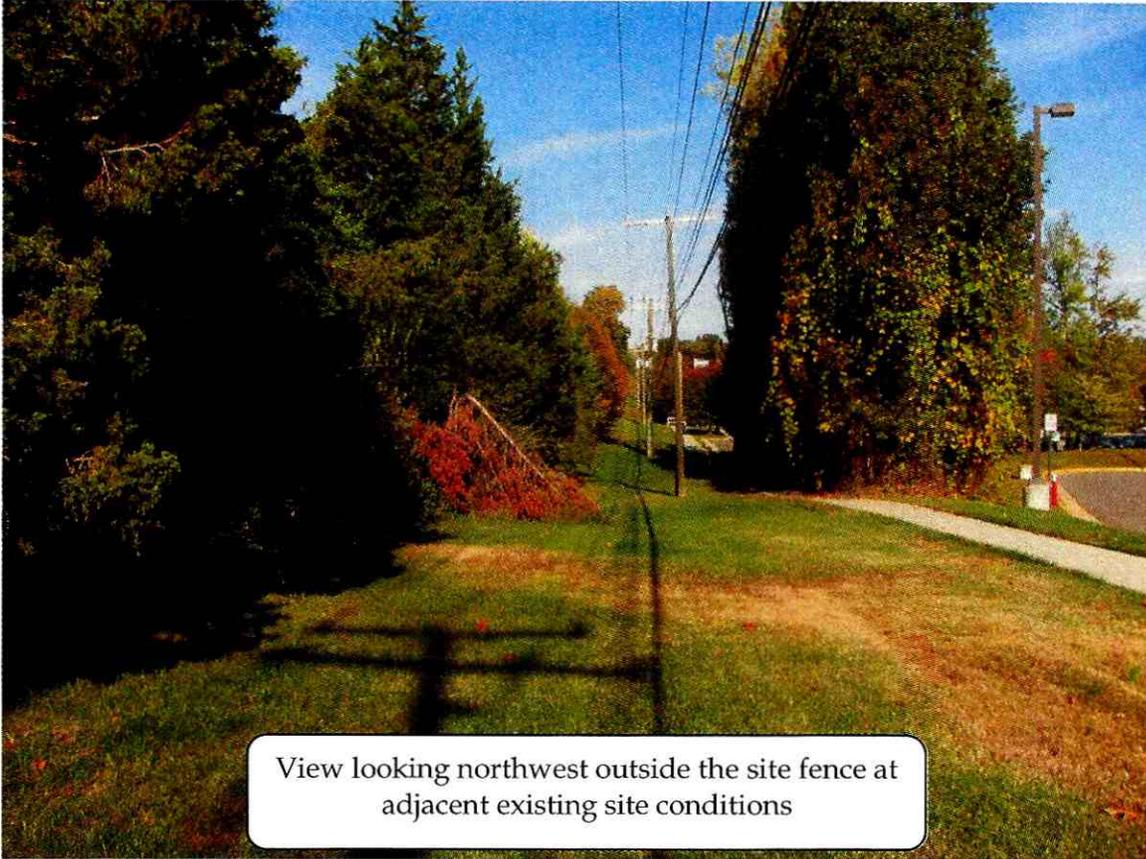
13



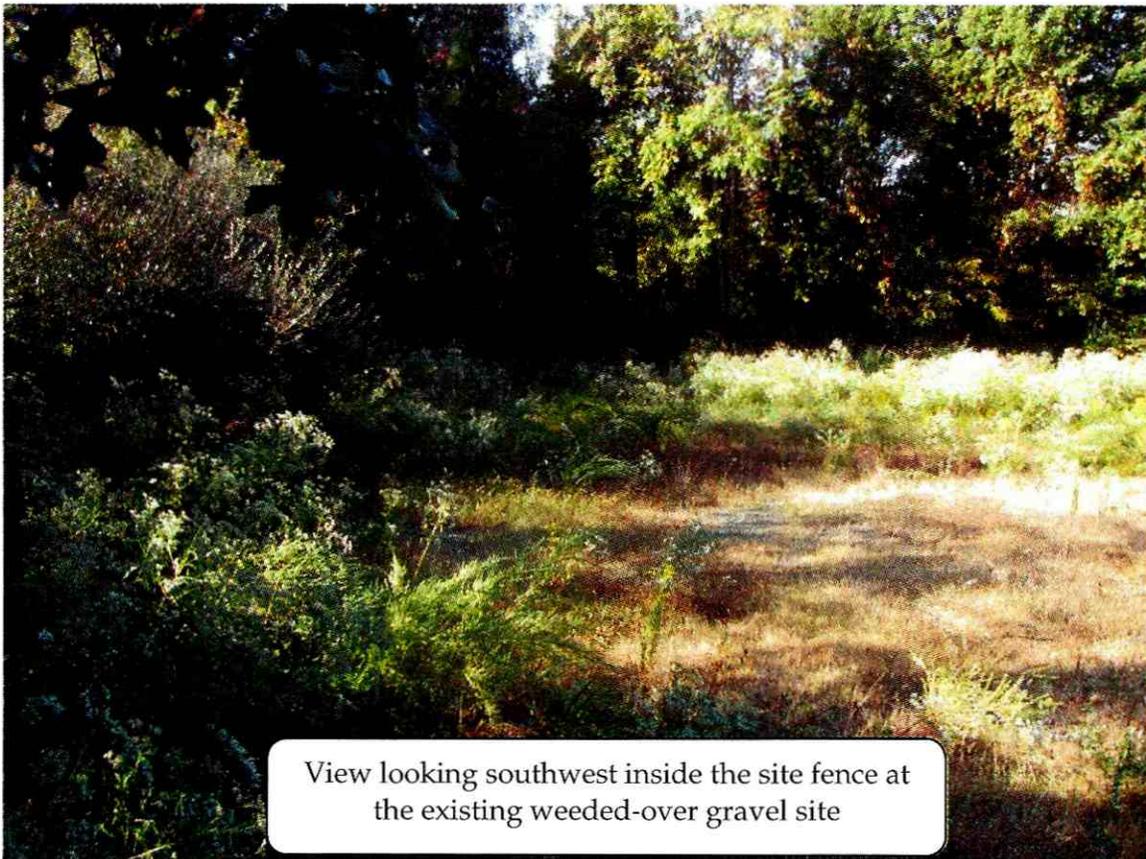
View looking southwest at the proposed Sunset Hills Substation site entrance

14

## Sunset Hills Substation Photos

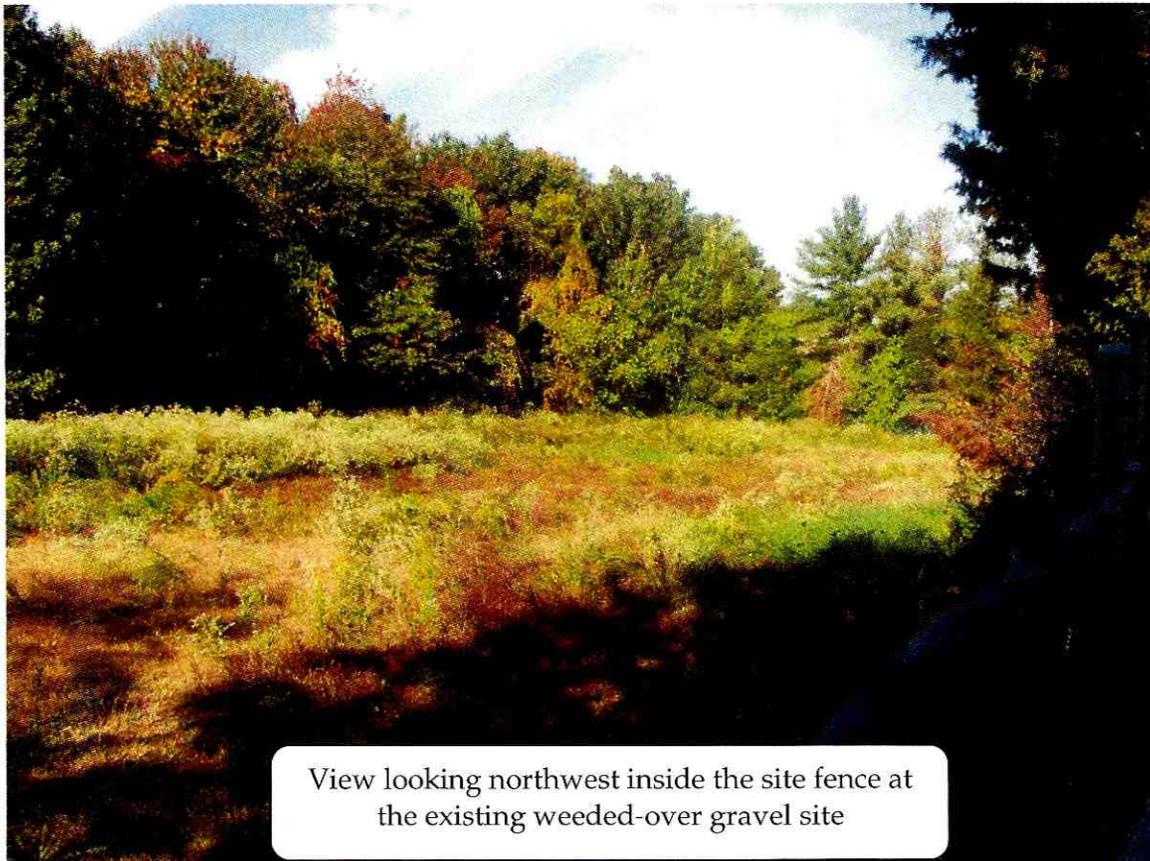
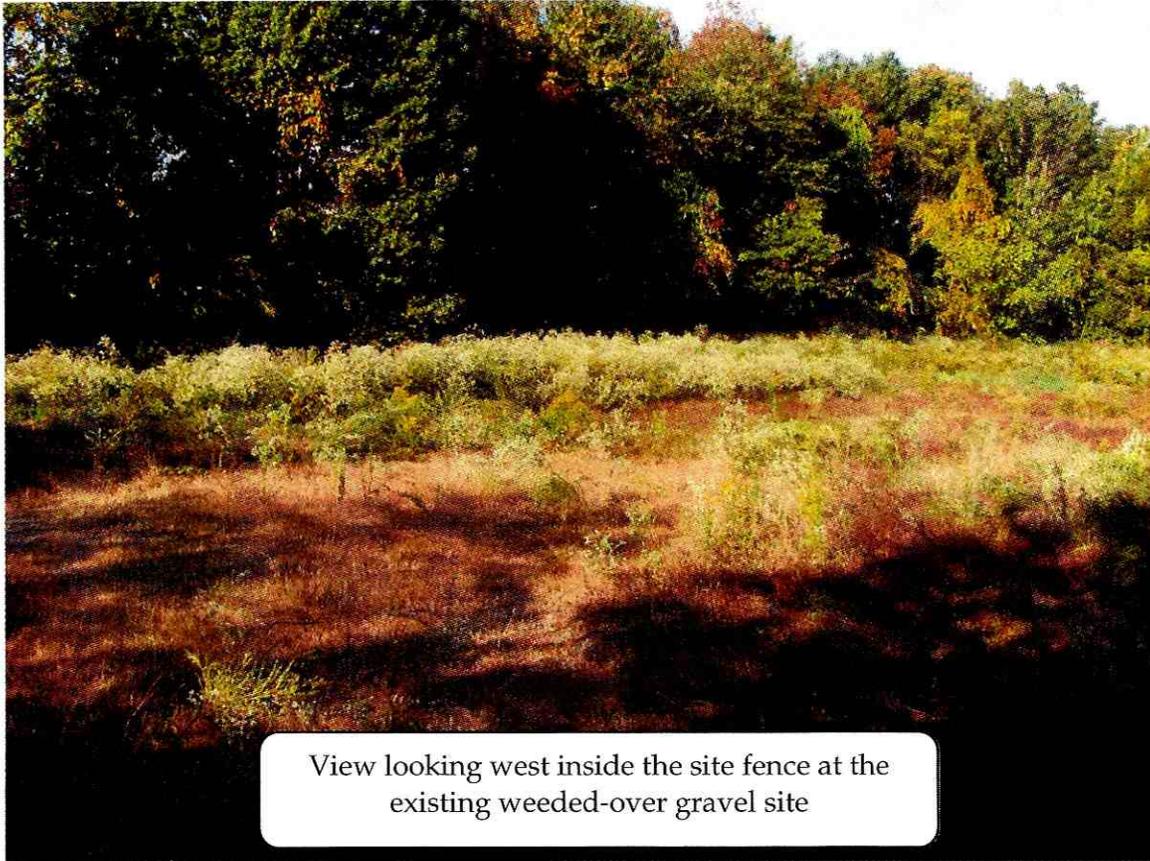


15

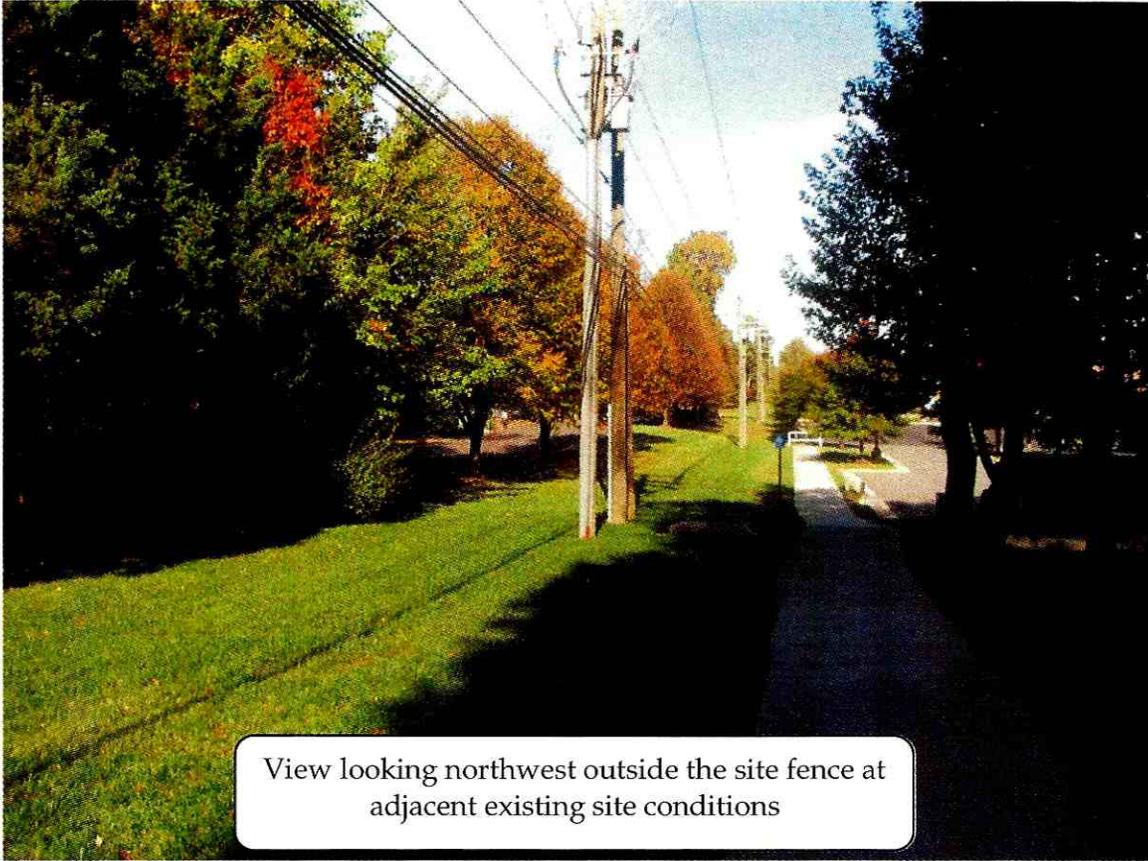


16

## Sunset Hills Substation Photos

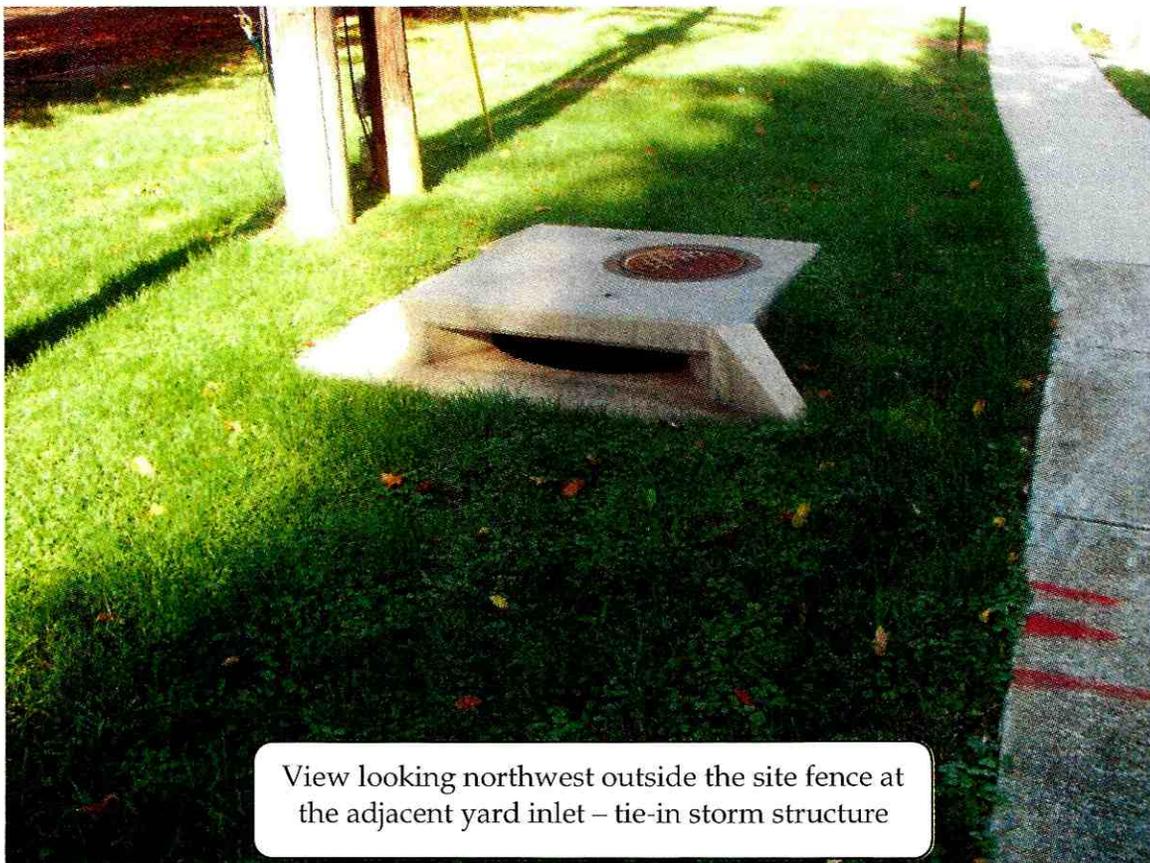


## Sunset Hills Substation Photos



19

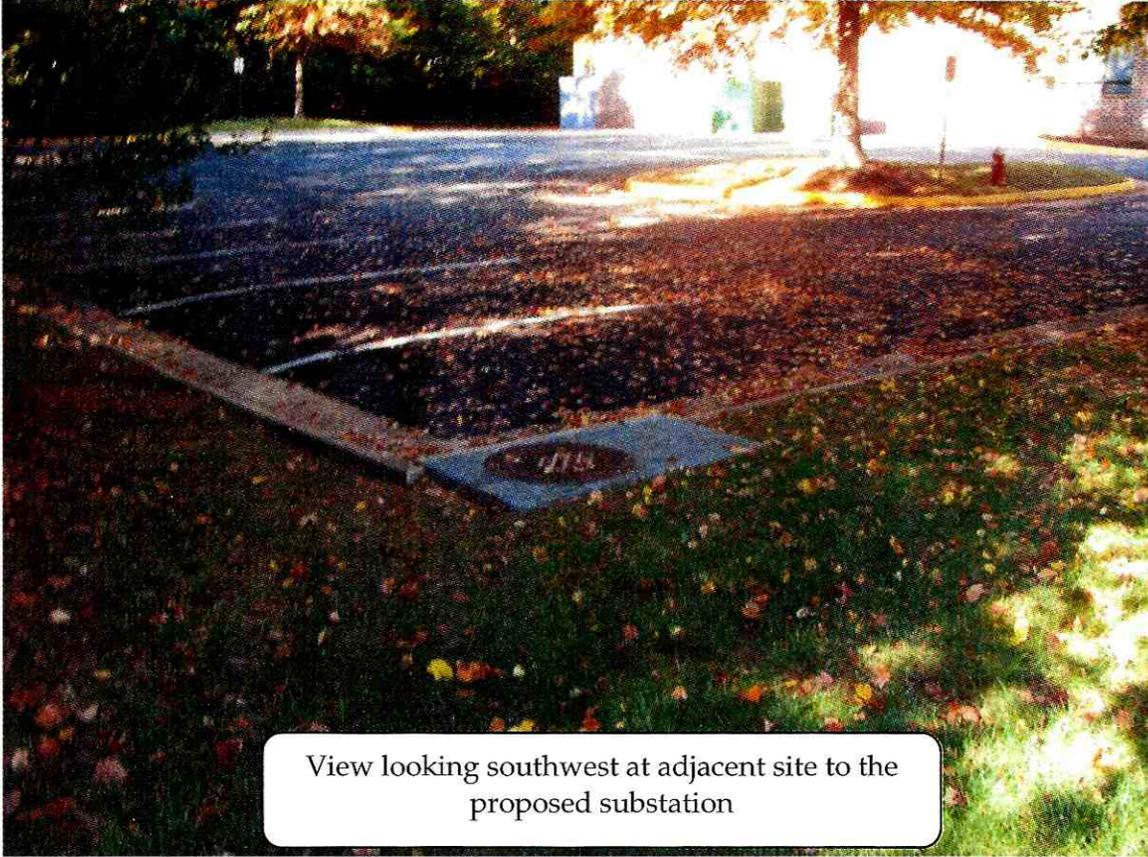
View looking northwest outside the site fence at adjacent existing site conditions



20

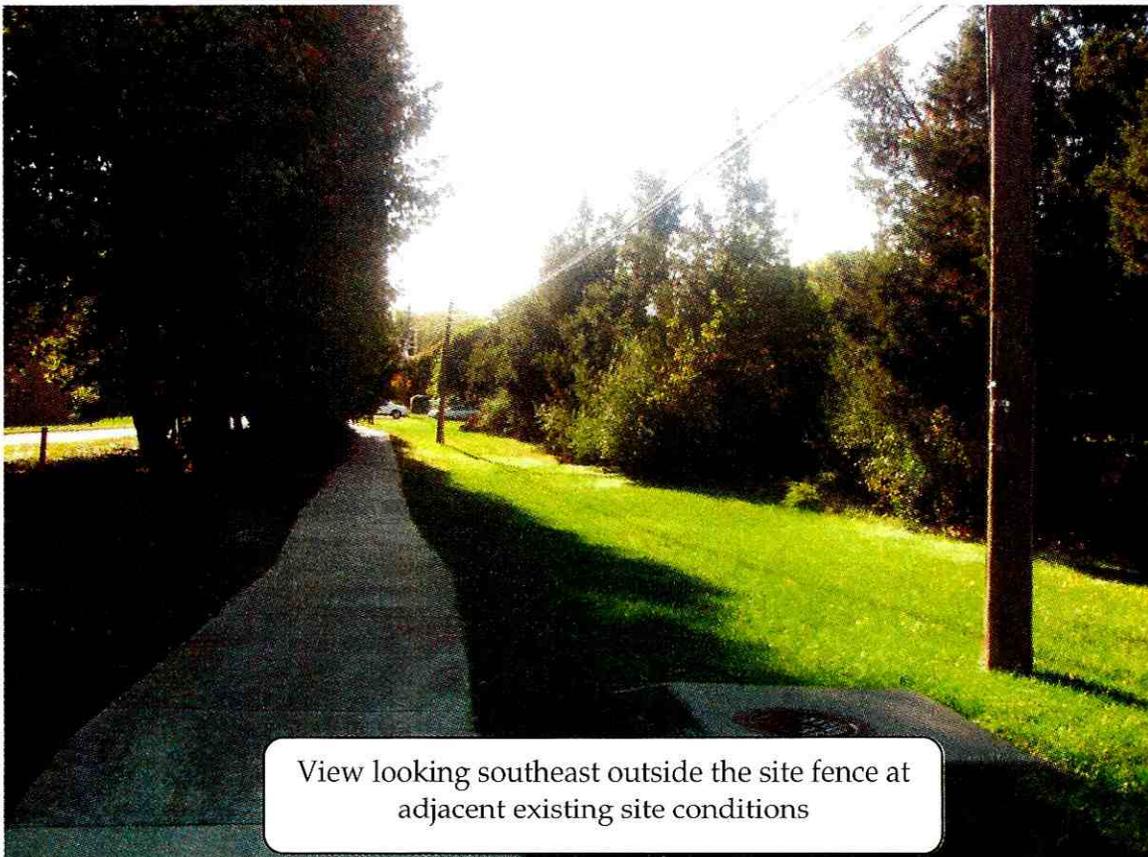
View looking northwest outside the site fence at the adjacent yard inlet – tie-in storm structure

## Sunset Hills Substation Photos



View looking southwest at adjacent site to the proposed substation

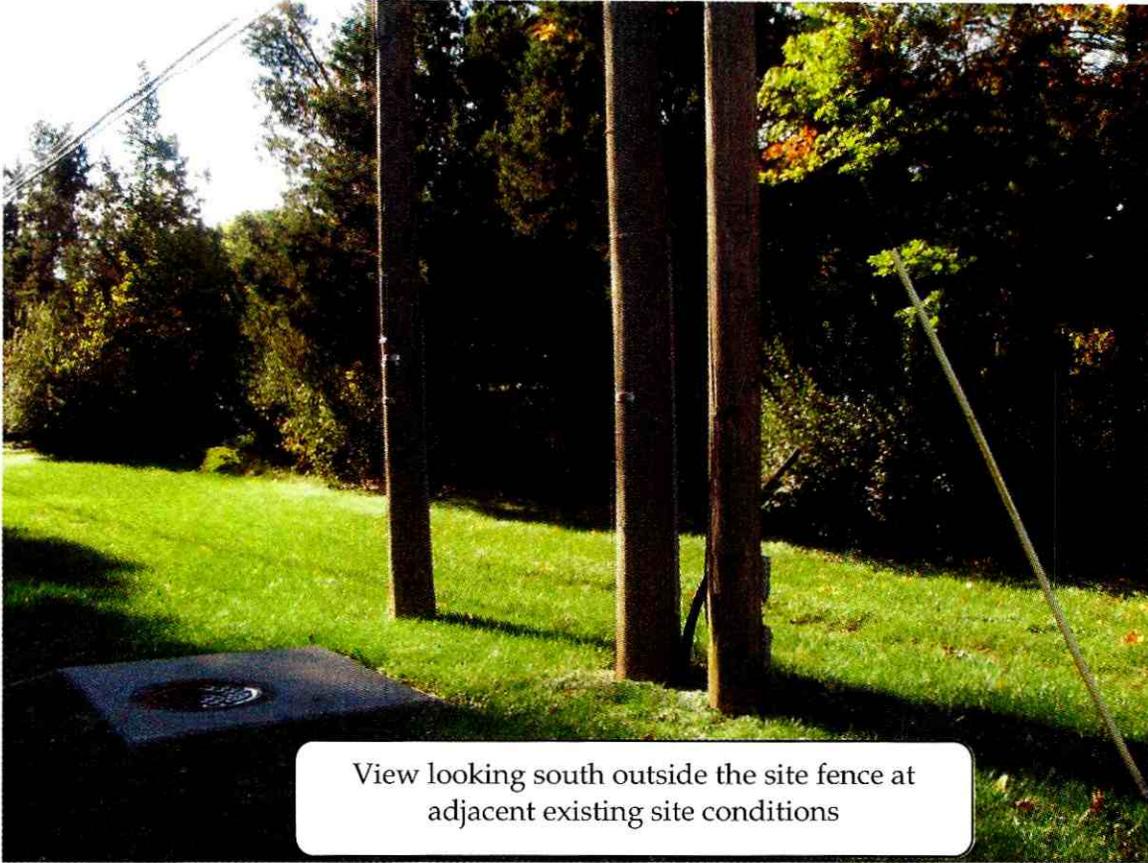
21



View looking southeast outside the site fence at adjacent existing site conditions

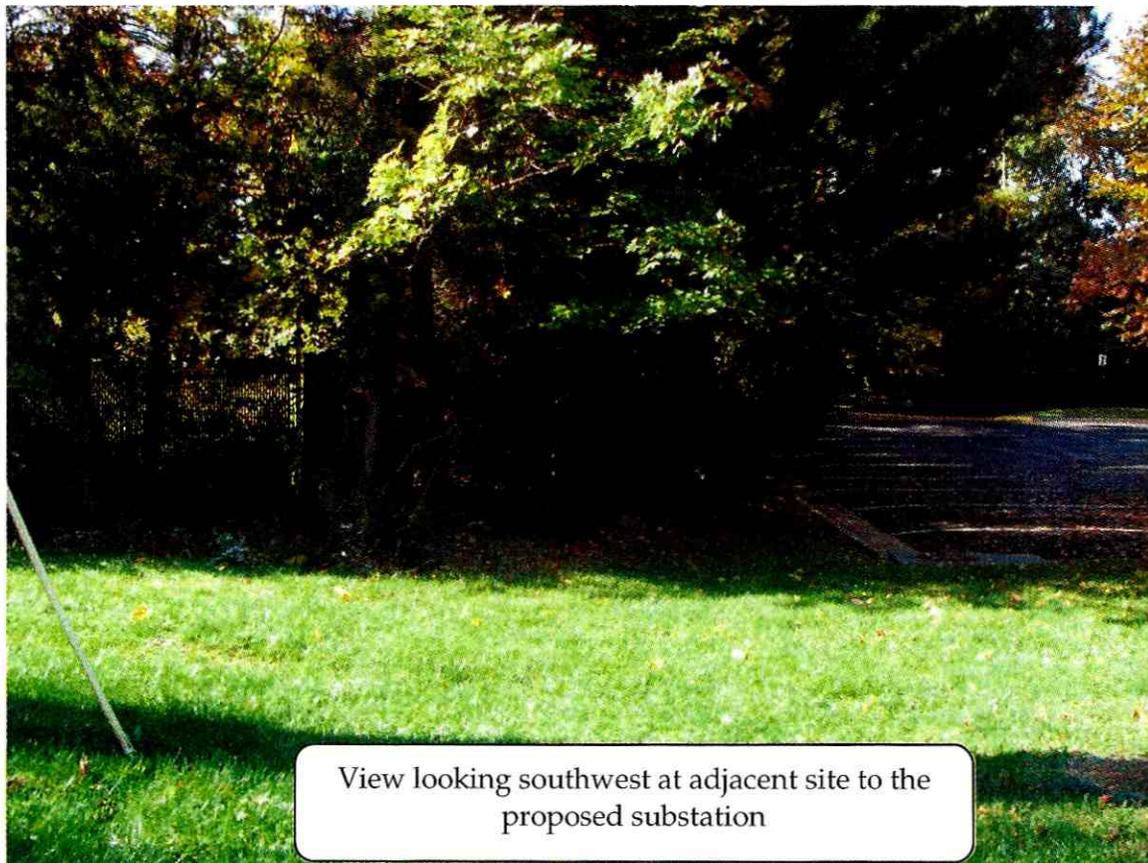
22

## Sunset Hills Substation Photos



23

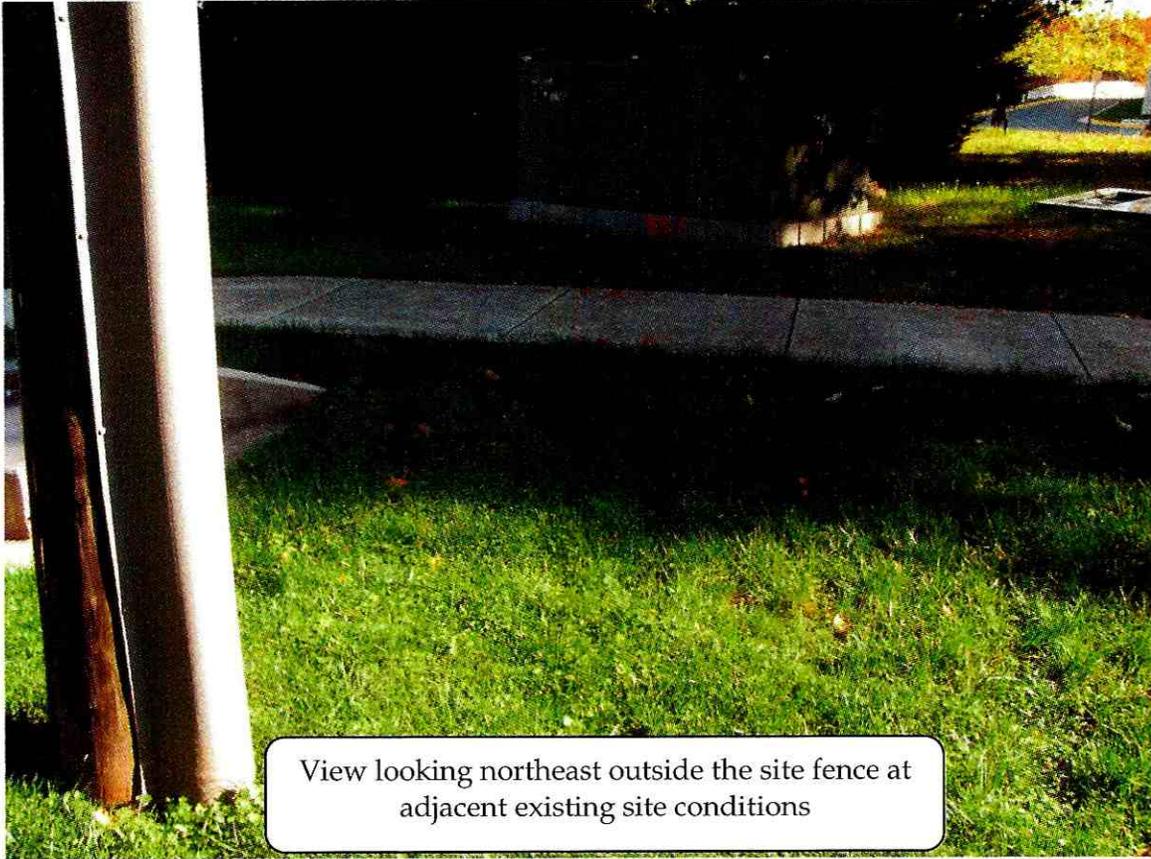
View looking south outside the site fence at adjacent existing site conditions



24

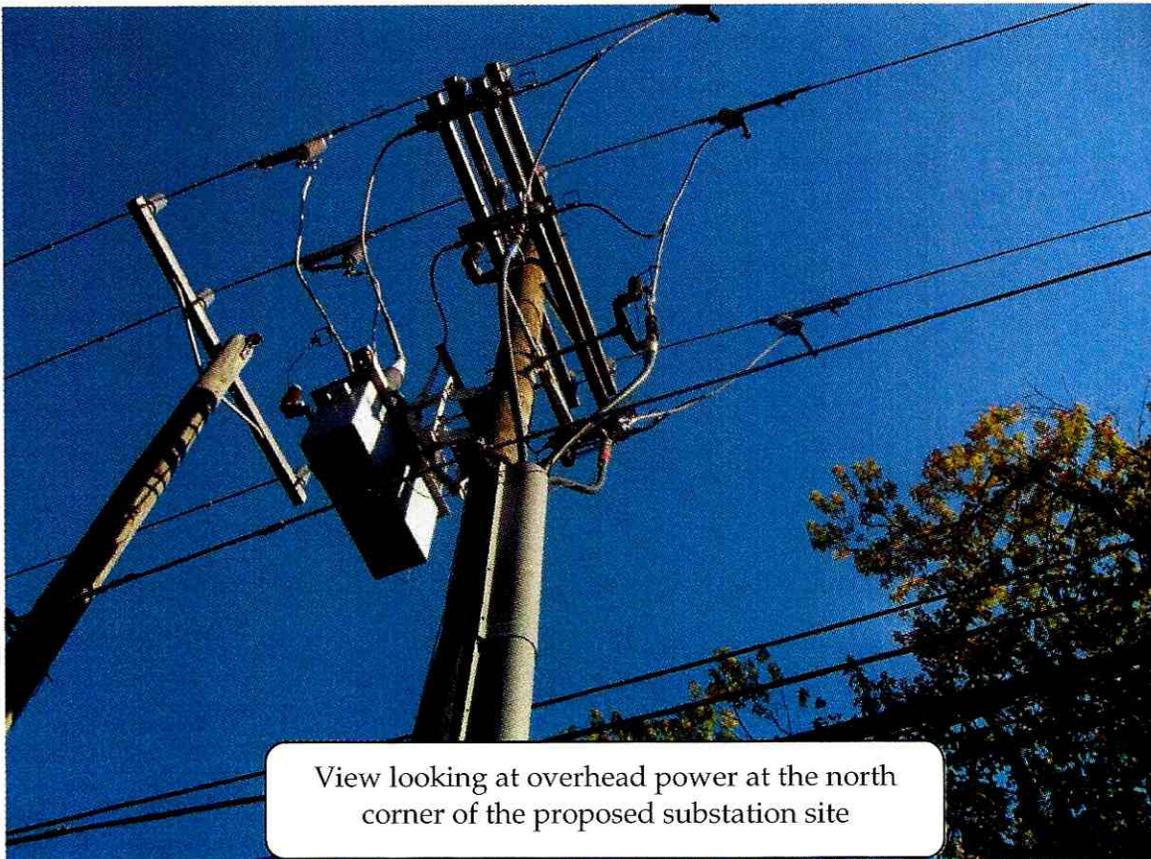
View looking southwest at adjacent site to the proposed substation

## Sunset Hills Substation Photos



View looking northeast outside the site fence at adjacent existing site conditions

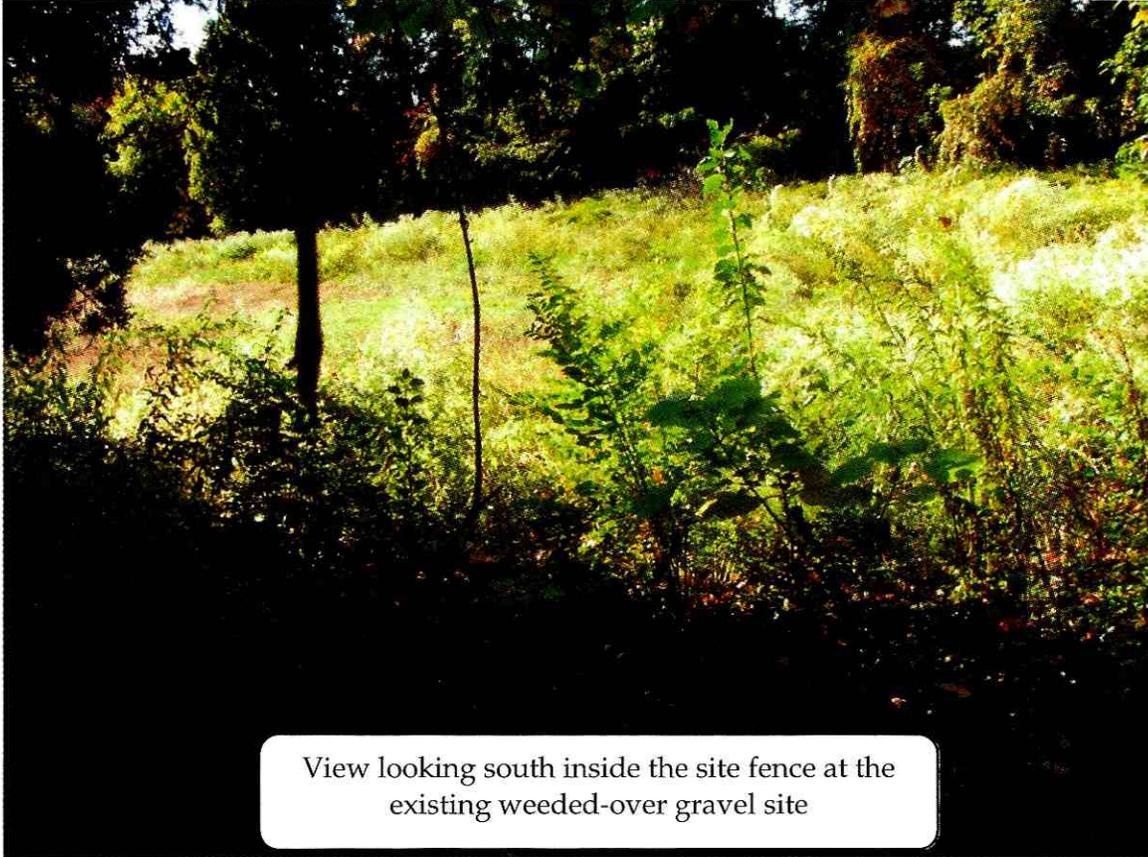
25



View looking at overhead power at the north corner of the proposed substation site

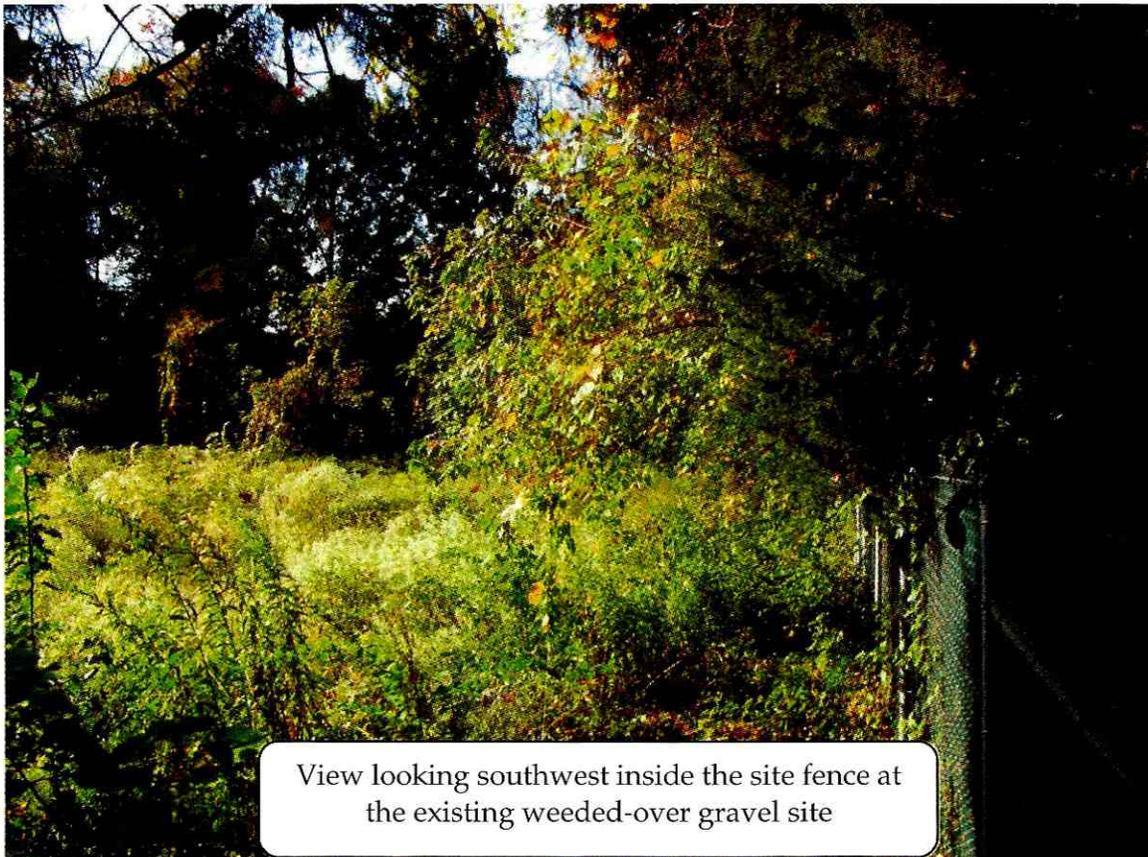
26

## Sunset Hills Substation Photos



27

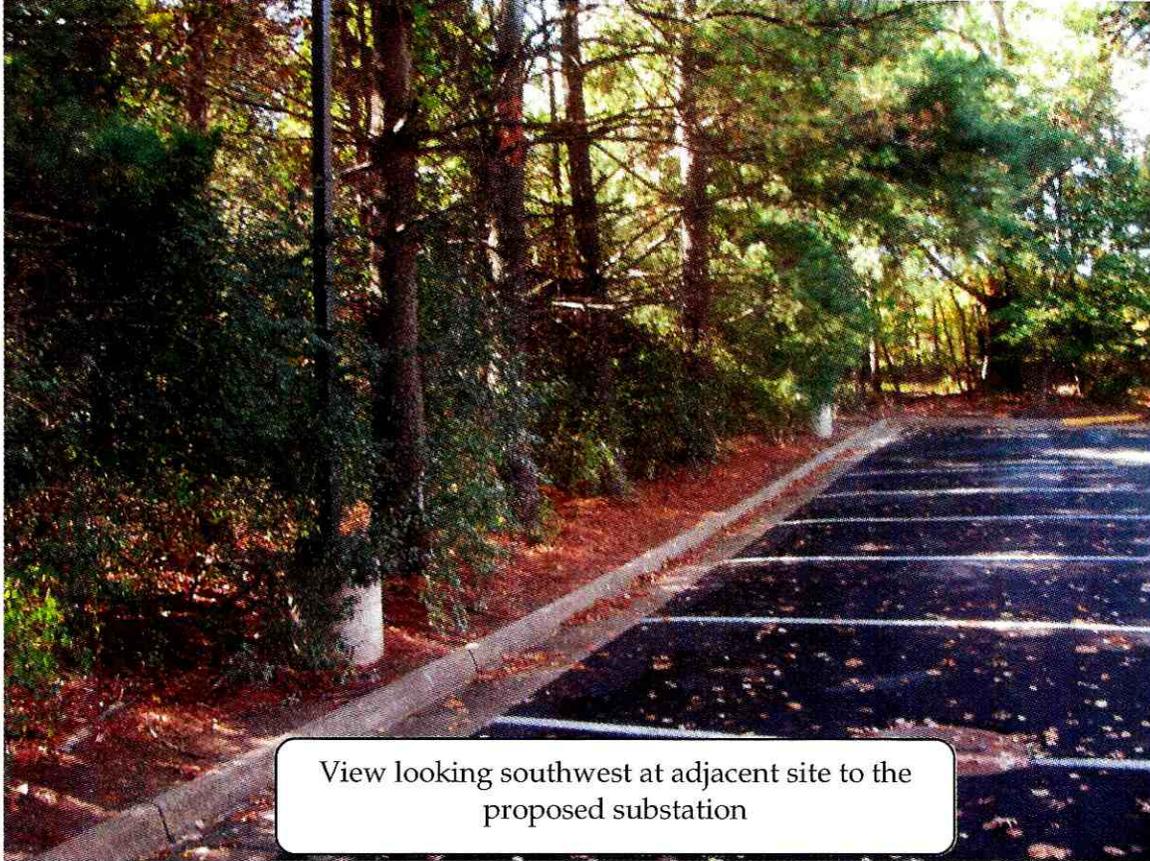
View looking south inside the site fence at the existing weeded-over gravel site



28

View looking southwest inside the site fence at the existing weeded-over gravel site

## Sunset Hills Substation Photos



29

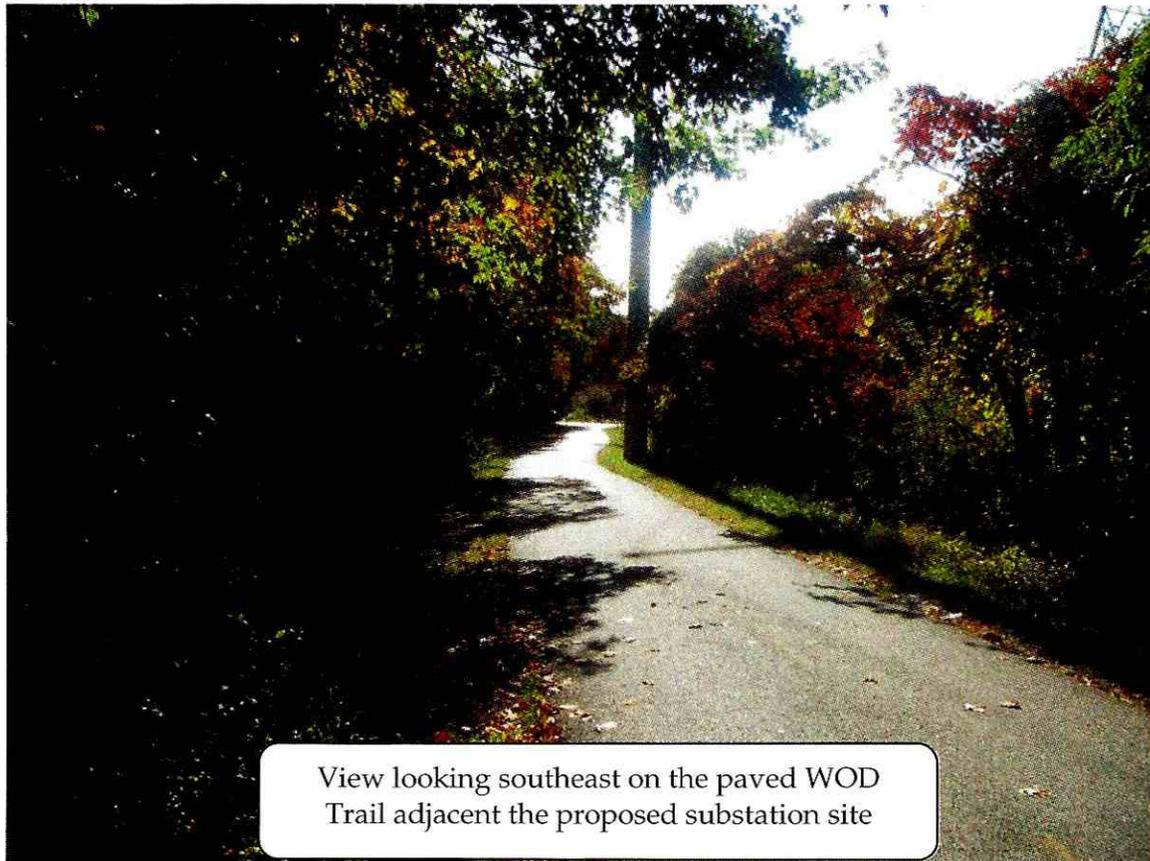
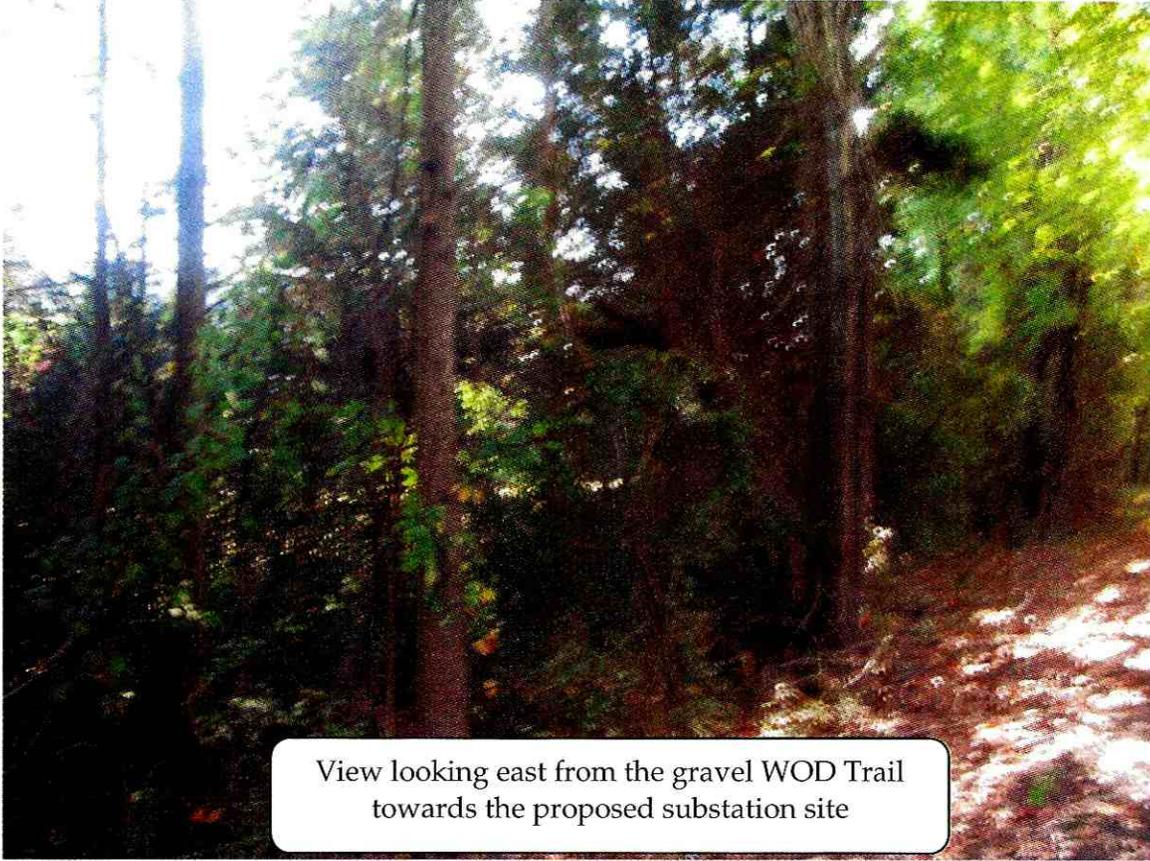
View looking southwest at adjacent site to the proposed substation



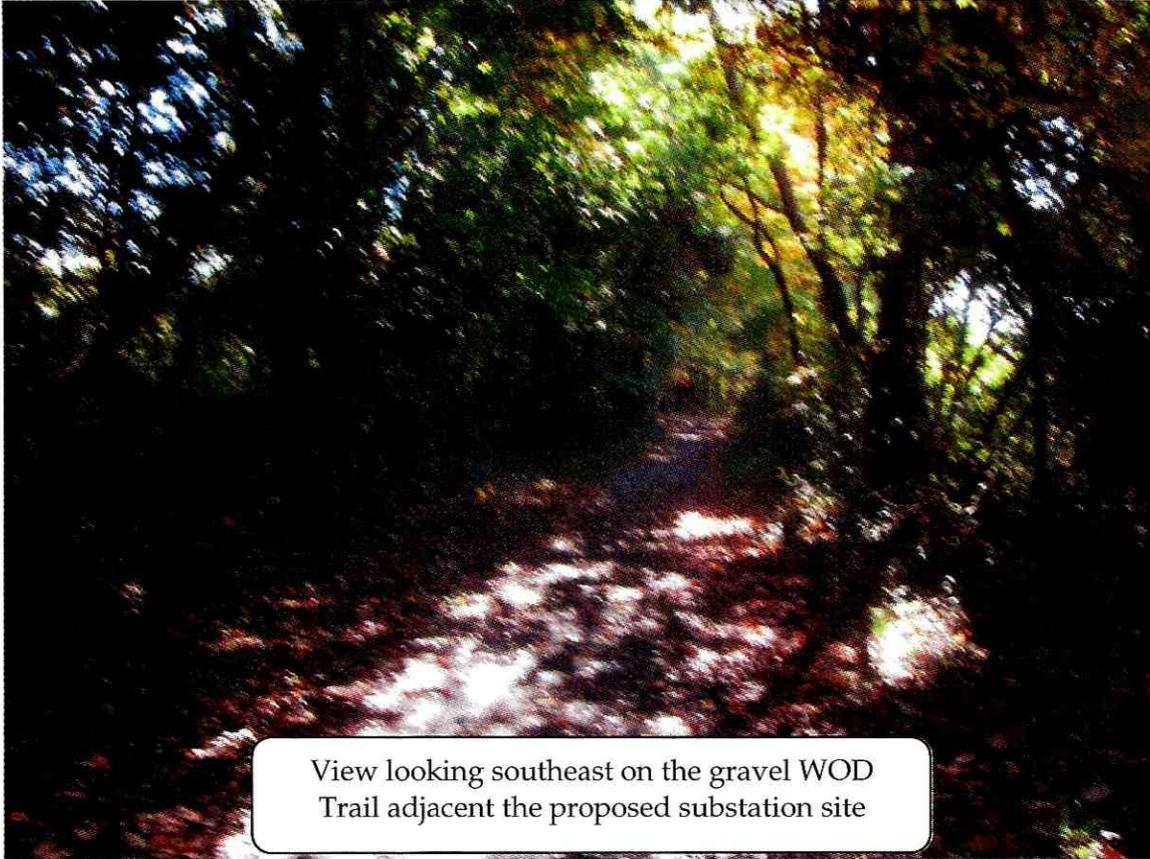
30

View looking southeast on the gravel WOD Trail adjacent the proposed substation site

## Sunset Hills Substation Photos

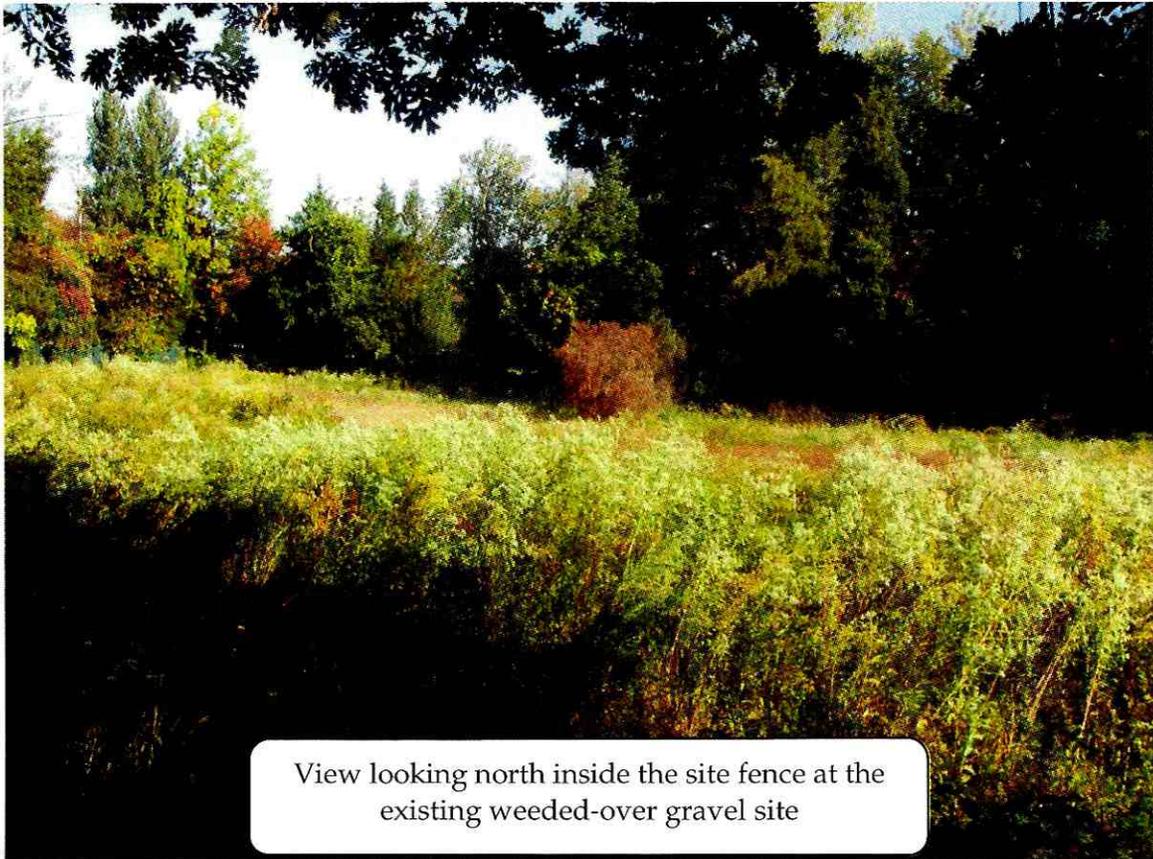


## Sunset Hills Substation Photos



33

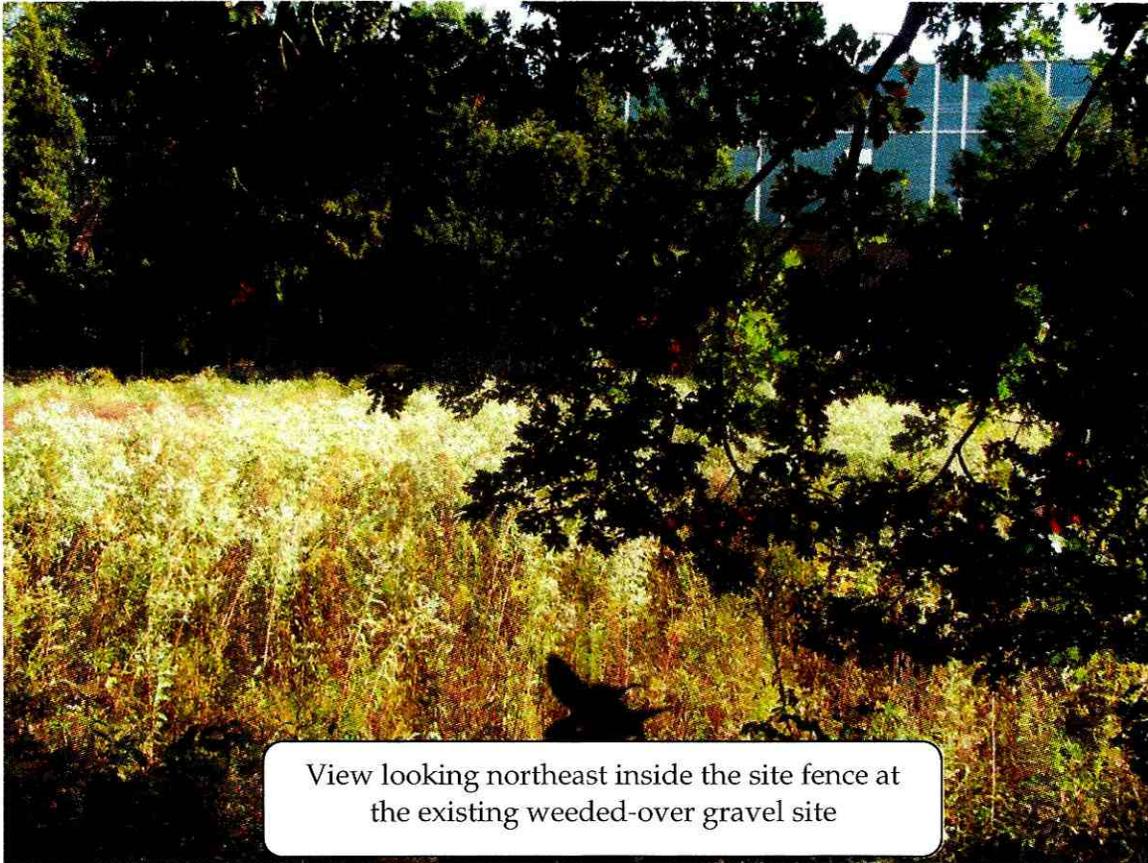
View looking southeast on the gravel WOD Trail adjacent the proposed substation site



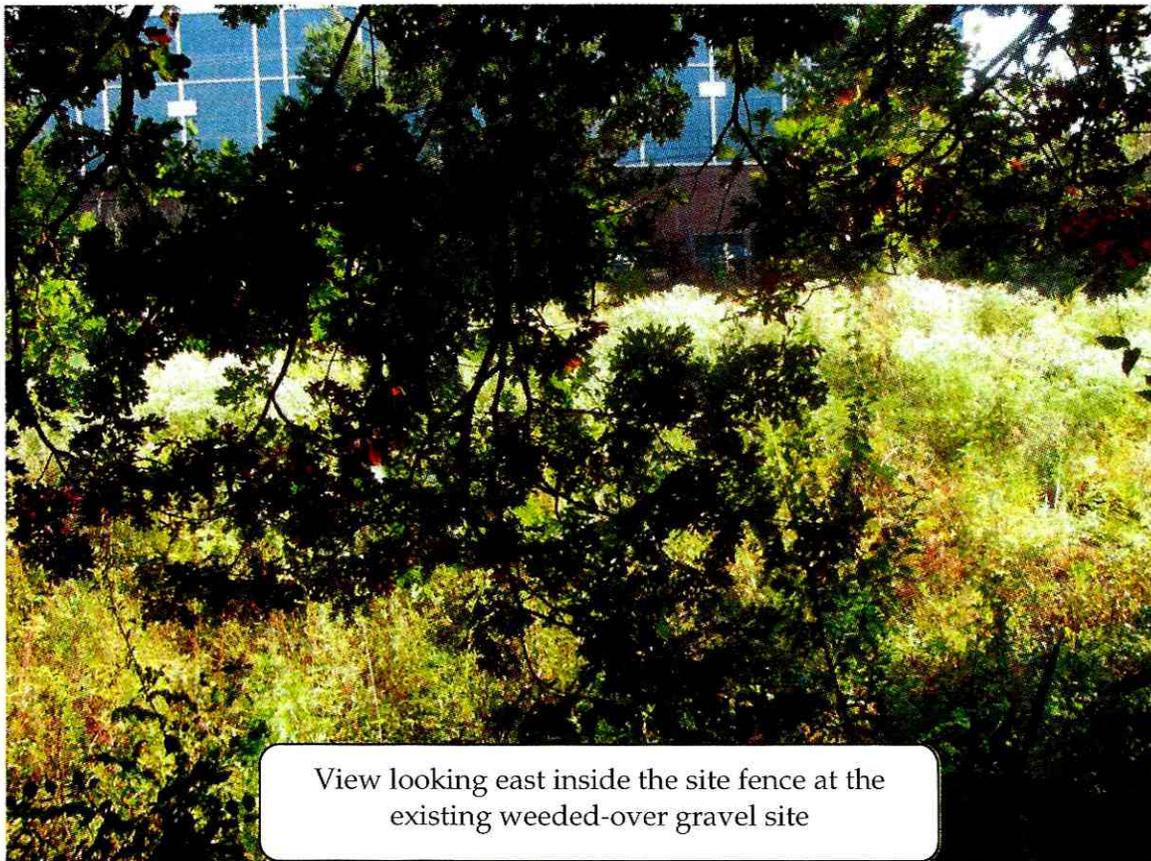
34

View looking north inside the site fence at the existing weeded-over gravel site

## Sunset Hills Substation Photos

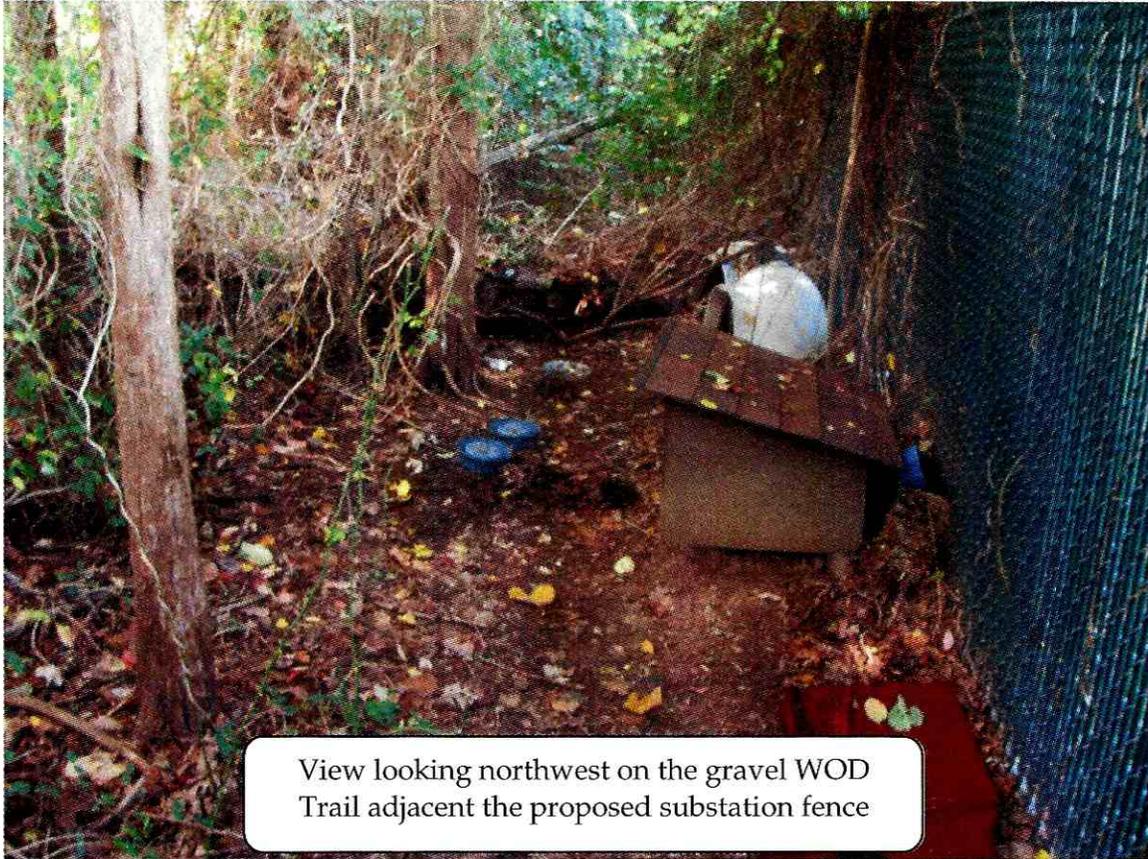


35



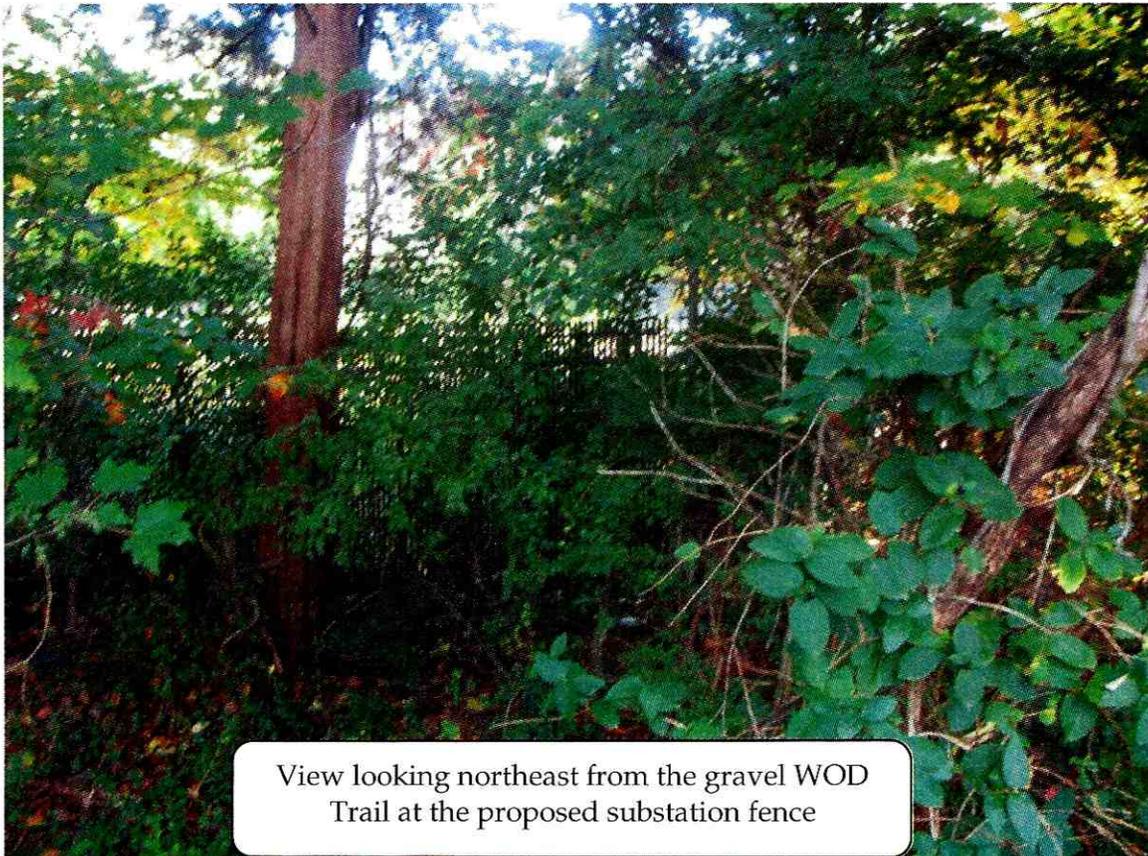
36

## Sunset Hills Substation Photos



View looking northwest on the gravel WOD Trail adjacent the proposed substation fence

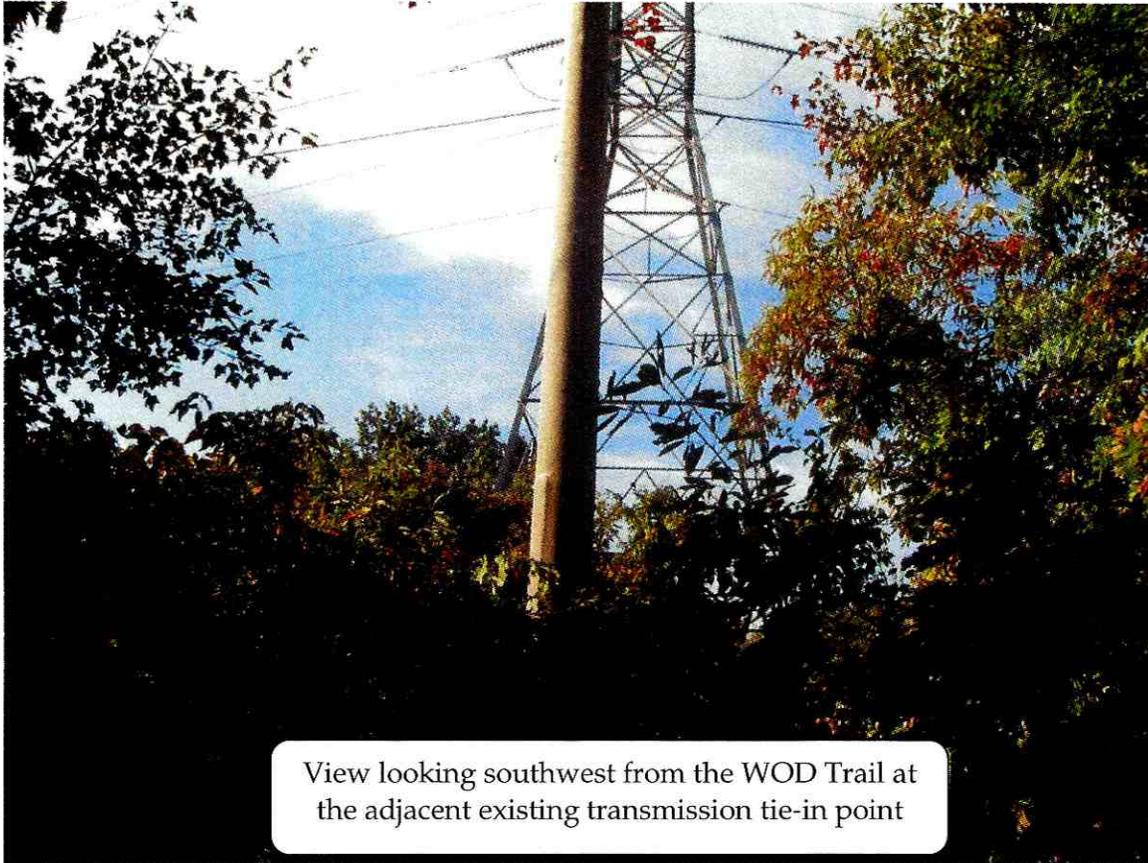
37



View looking northeast from the gravel WOD Trail at the proposed substation fence

38

## Sunset Hills Substation Photos



39

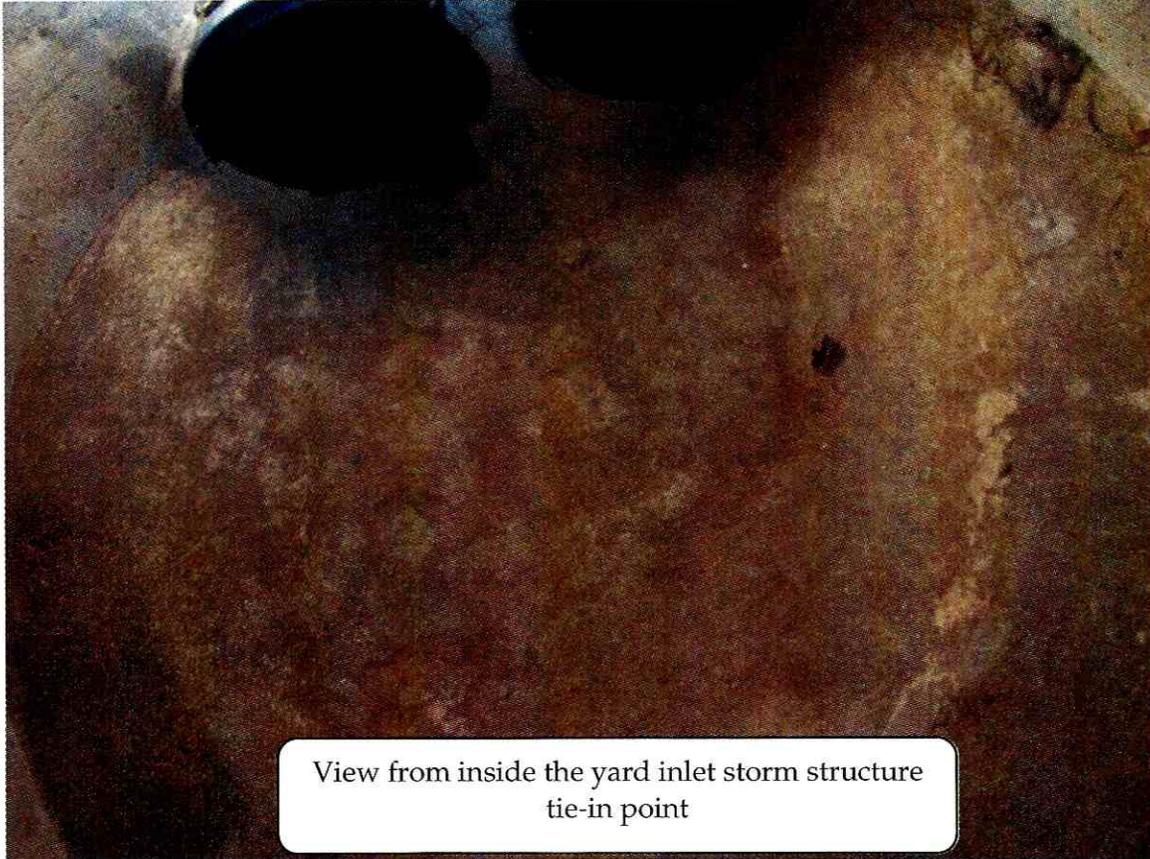
View looking southwest from the WOD Trail at the adjacent existing transmission tie-in point



40

View looking northwest from the gravel WOD Trail at the existing underground utility marker

## Sunset Hills Substation Photos



41

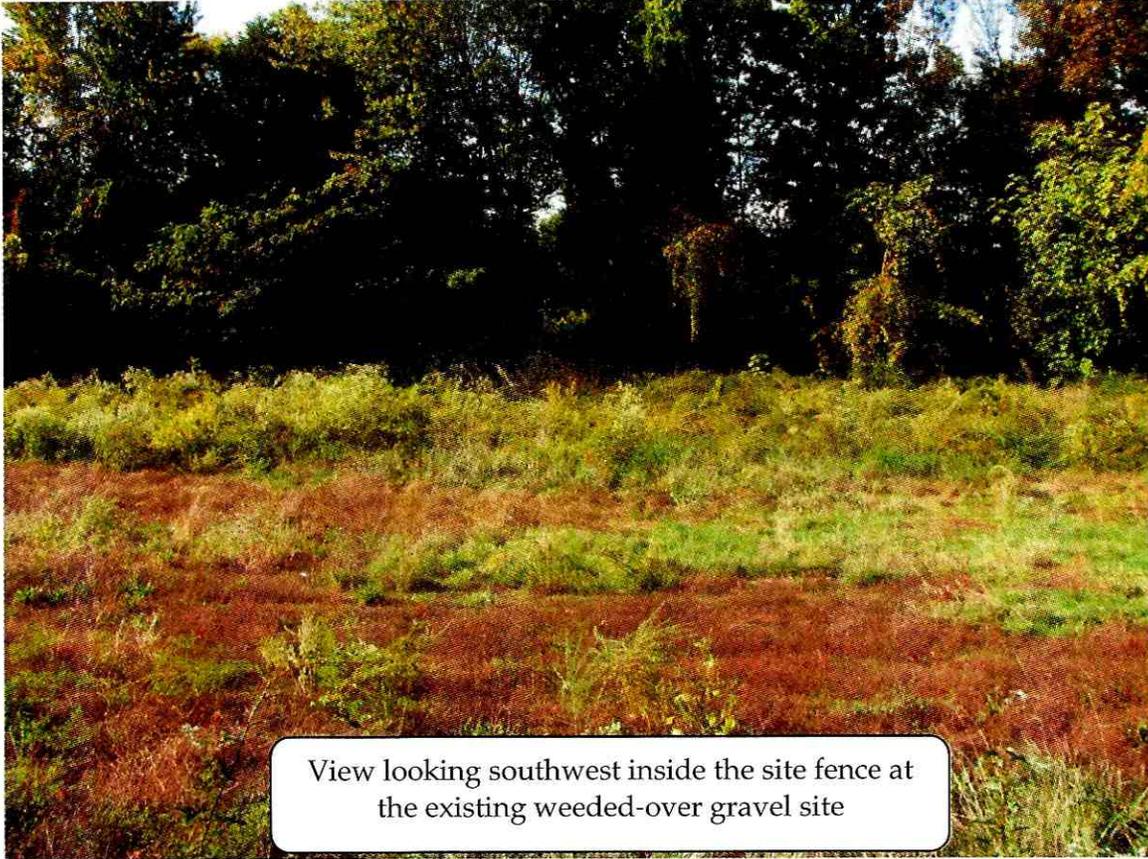
View from inside the yard inlet storm structure tie-in point



42

View looking south inside the site fence at the existing weeded-over gravel site

## Sunset Hills Substation Photos



43

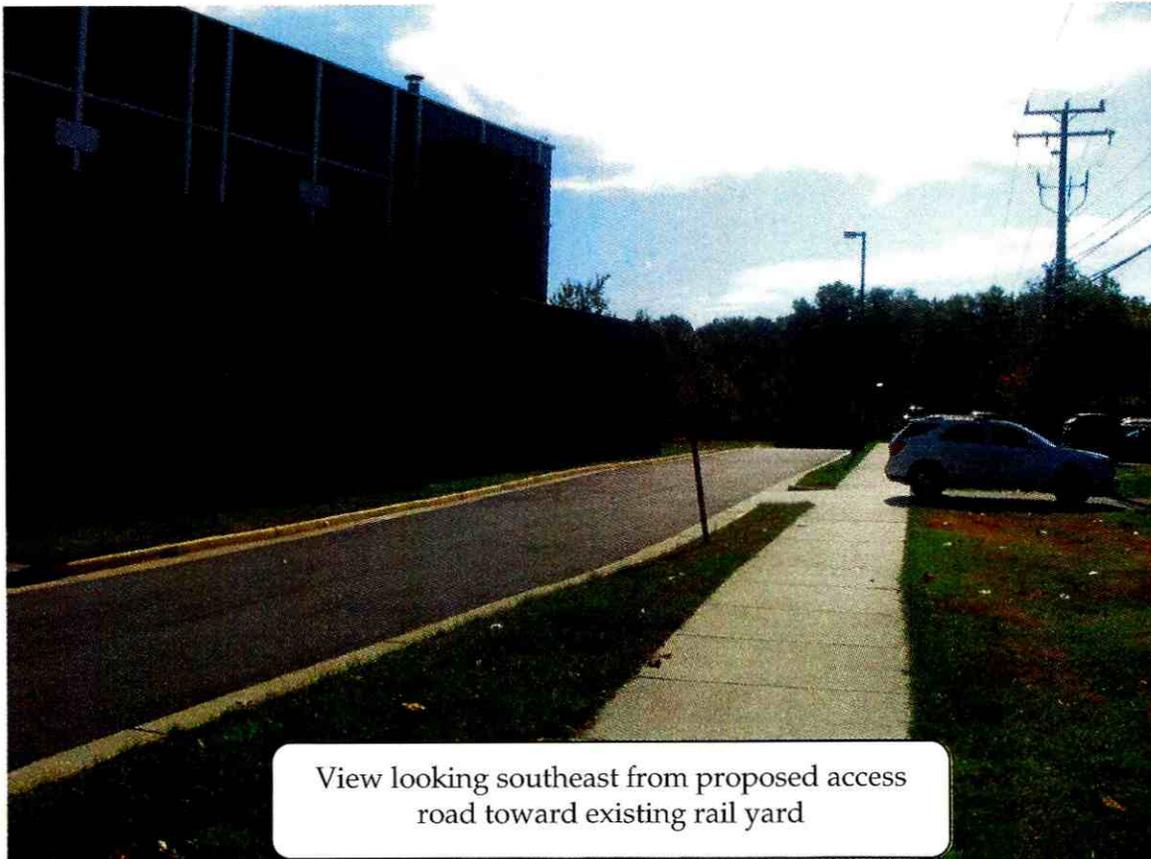
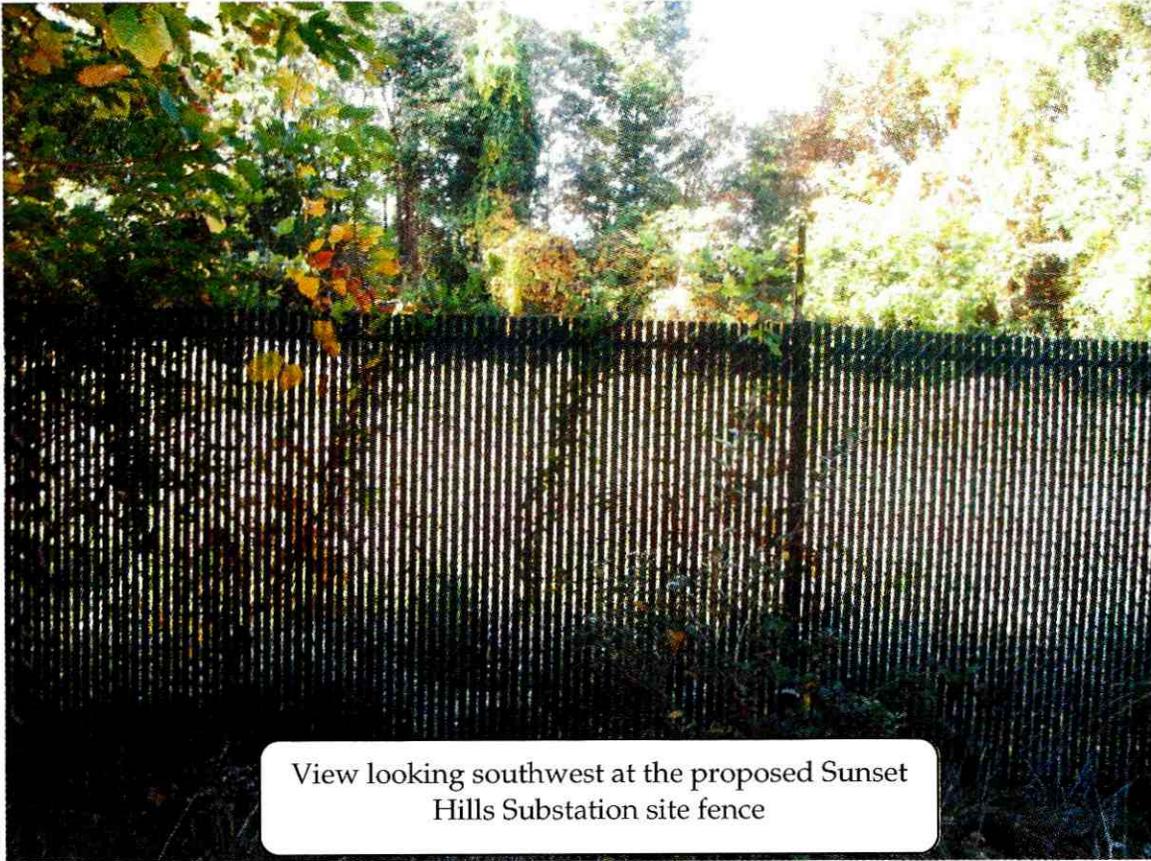
View looking southwest inside the site fence at the existing weeded-over gravel site



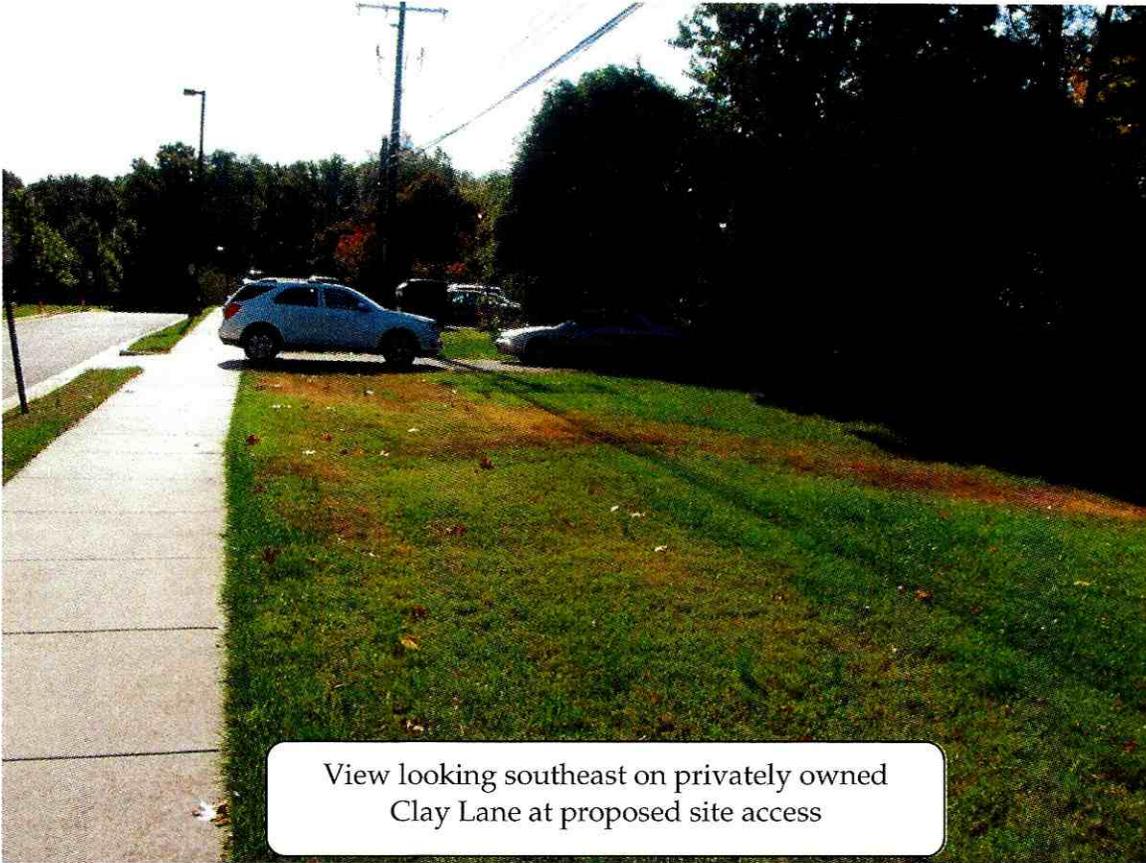
44

View looking south from proposed access road toward existing rail yard

## Sunset Hills Substation Photos

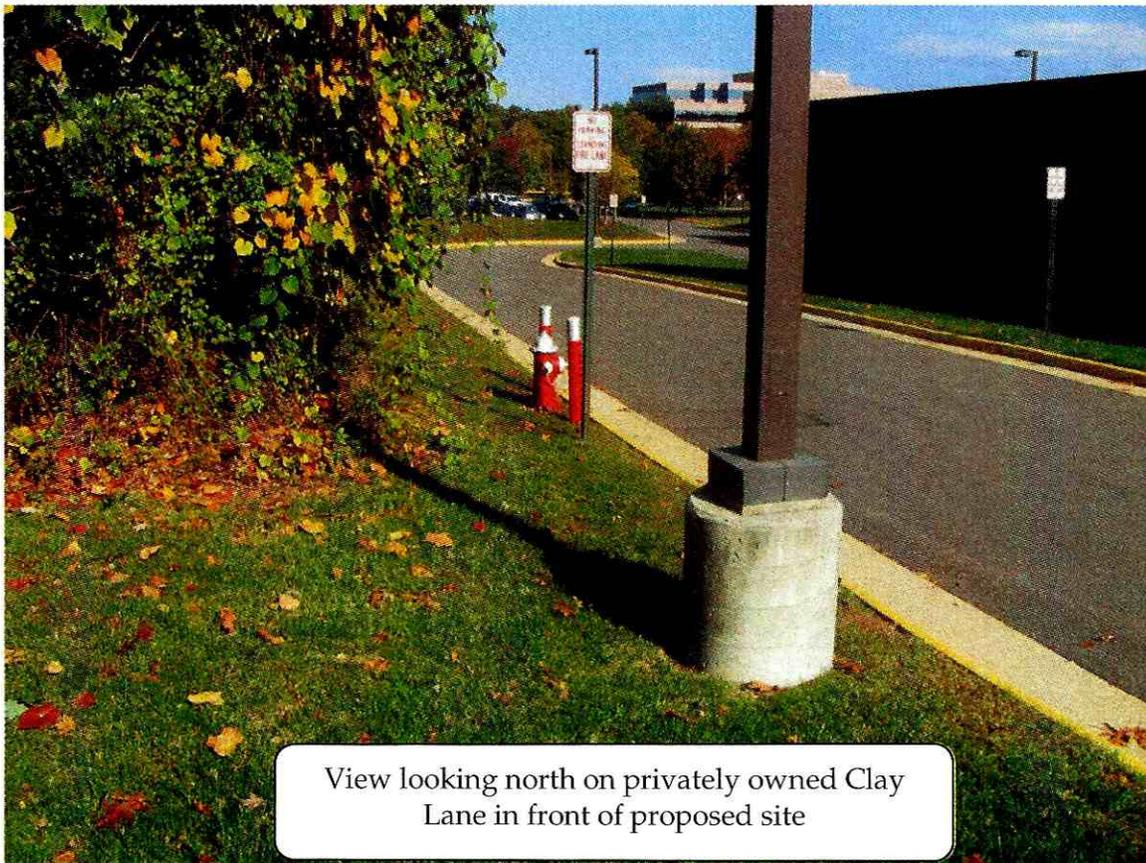


## Sunset Hills Substation Photos



47

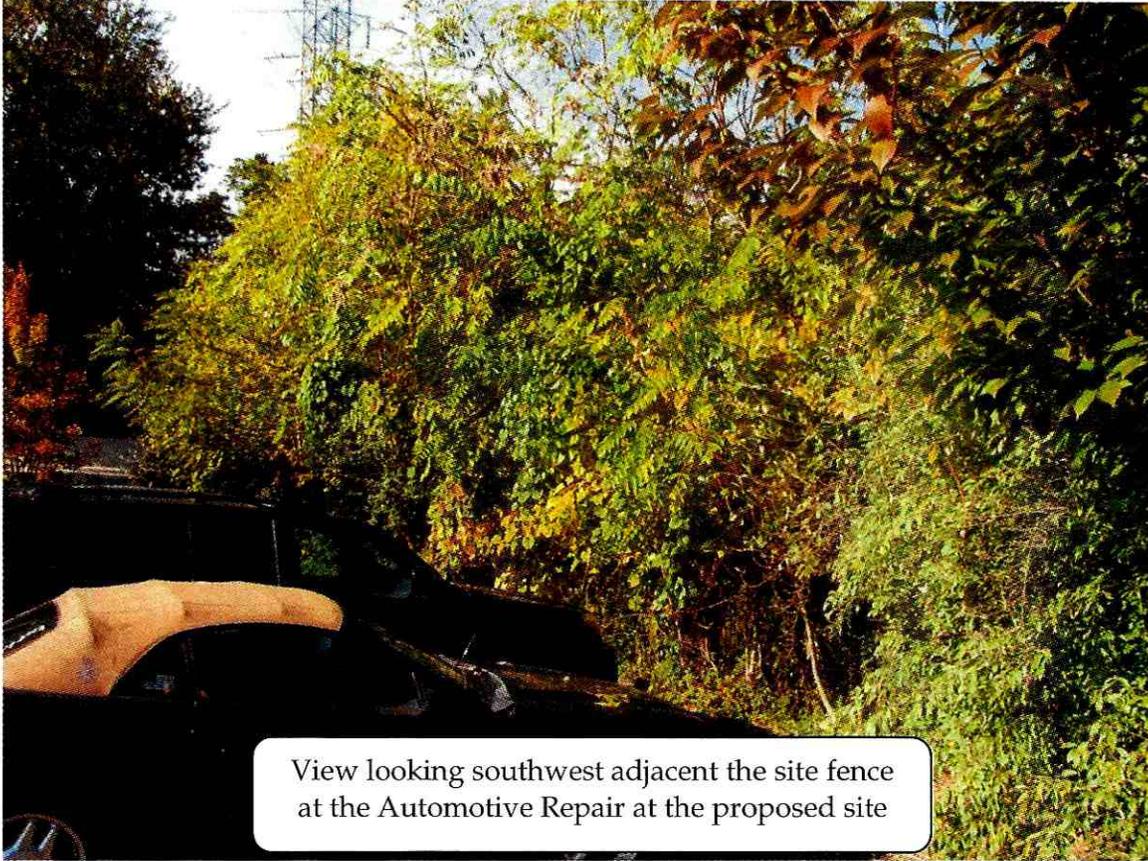
View looking southeast on privately owned Clay Lane at proposed site access



48

View looking north on privately owned Clay Lane in front of proposed site

## Sunset Hills Substation Photos



49



## County of Fairfax, Virginia

**MEMORANDUM**

**DATE:** February 1, 2011

**TO:** Leanna O'Donnell  
Planning Division

**FROM:** Lorrie Kirst, Deputy Zoning Administrator  
for Ordinance Administration Branch

**SUBJECT:** 2232-H11-4  
Proposed Dominion Virginia Power Electric Substation  
Tax Map 18-3 ((1)) 13B  
Zoning District: I-5

The proposed electric substation is a light public utility use that is permitted by right in the I-5 District. The proposal meets the requirements of the I-5 District and would be permitted subject to all other applicable regulations.



# County of Fairfax, Virginia

ATTACHMENT C

## MEMORANDUM

DATE: 21 March 2011

**TO:** Sandi Beaulieu, Planner, Facilities Planning Branch

**FROM:** Linda Cornish Blank  
Historic Preservation Planner *LCB*

**SUBJECT:** 2232-H11-4, near the intersection of Clay Lane and Sunset Hills Road, Tax Map 18-3 ((1)) 13B; develop and operate an electric substation to provide power to Metro and surrounding community.

Finding: The subject property is not included within the boundaries of a Fairfax County Historic Overlay District, is not listed on the Fairfax County Inventory of Historic Sites or the National Register of Historic Places or documented in the historic structures survey file. There are no properties in the immediate vicinity of the property which is the subject of this application that are within the boundaries of a Fairfax County Historic Overlay District, listed on the Fairfax County Inventory of Historic Sites or documented in the historic structures survey file that would be negatively impacted by the proposed location of the electric substation.

As indicated in the application, the site is adjacent to the W&OD Trail. For the most part, the trail alignment follows the original path of the W&OD Railroad. That portion of the W&OD that is contained within the Washington and Old Dominion Railroad Regional Park along with surviving associated depots are eligible for listing in the National Register of Historic Places (NR). A draft NR nomination was prepared for the Washington & Old Dominion Railroad Historic District in 2000. At that time, the overhead transmission lines and its towers stood adjacent to or on the railroad bed/trail alignment. The nomination indicates that "The Reston area is heavily developed with high-rise office and apartments towering over the trail". Given that the Washington & Old Dominion Railroad Historic District was determined eligible for the NR with the existing development in place, the proposed electric substation is not found to negatively impact the eligible historic district.

Recommendation: No action concerning heritage resources is required.

**Beaulieu, Sandi**

---

**From:** Bell, John  
**Sent:** Wednesday, March 09, 2011 2:16 PM  
**To:** Beaulieu, Sandi  
**Subject:** 2232-H11-4 Dominion Virginia Power electrical substation

Sandi,

I've reviewed the above-noted 2232 application and have determined that there do not appear to be any significant environmental issues associated with the proposed use at this location.

Please feel free to contact me should any questions, comments or concerns arise regarding the proposed use.

*John R. Bell, Planner III  
Fairfax County  
Department of Planning & Zoning  
(703) 324-1278*



# County of Fairfax, Virginia

## MEMORANDUM

**DATE:** March 14, 2011

**TO:** Sandi Beaulieu, Planner  
Planning Division  
Department of Planning and Zoning

**FROM:** Sharad Regmi, Stormwater Engineer  
Environmental and Site Review Division  
Department of Public Works and Environmental Services

**SUBJECT:** 2232 Application # 2232-H11-4, Dominion Virginia Power, Sunset Hills Substation, 2232 Plan dated January 12, 2011, LDS # 3292-ZONA-001-1, Tax Map # 18-3-01-0013-B, Hunter Mill District

We have reviewed the subject application and offer the following stormwater management comments.

### Chesapeake Bay Preservation Ordinance (CBPO)

There is no Resource Protection Area (RPA) on this site. Water quality controls are required for this redevelopment (PFM 6-0401.2B). Location of the water quality control facility is shown on the plan. The size, type, and the percentage of phosphorus removal capacity of the water quality control facility need to be shown on the construction plan (PFM 6-0400).

### Floodplain

There are no regulated floodplains on the property.

### Downstream Drainage Complaints

There are no downstream drainage complaints on file.

### Stormwater Detention

Stormwater detention is required, if not waived (PFM 6-0301.3). Location of an underground stormwater storage facility is depicted on the plan. The size, type, and configuration of underground detention facility need to be shown on the construction plan (PFM 6-0303.2).

### Site Outfall

An outfall narrative has not been provided (PFM 6-0203.2A). At the construction plan submission, it will be necessary to demonstrate adequate outfall as per PFM 6-0203 & 6-0204.



Sandi Beaulieu, Planner  
2232 Application # 2232-H11-4, Sunset Hills Substation  
March 14, 2011  
Page 2 of 2

Please contact me at 703-324-1720 if you require additional information.

SR/

cc: Craig Carinci, Director, Stormwater Planning Division, DPWES  
Jeremiah Stonefield, Chief, Stormwater & Geotechnical Section, ESRD, DPWES  
Zoning Application File

McGuireWoods LLP  
1750 Tysons Boulevard  
Suite 1800  
McLean, VA 22102-4215  
Phone: 703.712.5000  
Fax: 703.712.5050  
www.mcguirewoods.com

Sheri L. Akin  
Direct: 703.712.5483

McGUIREWOODS

sakin@mcguirewoods.com  
Direct Fax: 703.712.5050

April 14, 2011

**BY E-MAIL AND FIRST CLASS MAIL**

Ms. Sandi Beaulieu  
County of Fairfax  
Planning Division  
Suite 730  
12055 Government Center Parkway  
Fairfax, Virginia 22035

**Re: Application No. 2232-H11-4  
Dominion Virginia Power – Sunset Hills Substation  
Tax Map No. 18-3-((1))-13B  
Response to Environmental and Site Review Division**

Dear Sandi:

On behalf of our client, Dominion Virginia Power ("Dominion"), this letter is in response to the Environmental and Site Review Division comments regarding the above-referenced 15.2-2232 application.

Written responses to various comments are as follows:

**DPWES MEMORANDUM DATED MARCH 14, 2011**

- 1. Comment: Chesapeake Bay Preservation Ordinance (CBPO). There is no Resource Protection Area (RPA) on this site. Water quality controls are required for this redevelopment (PFM 6-0401.2B). Location of the water quality control facility is shown on the plan. The size, type, and the percentage of phosphorus removal capacity of the water quality control facility need to be shown on the construction plan (PFM 6-0400).**

Applicant Response: The Applicant will address the requirements of PFM 6-0401.2B and PFM 6-0400 at the time of site plan submission.

- 2. Comment: Stormwater Detention. Stormwater detention is required, if not waived (PFM 6-0301.3). Location of an underground stormwater storage facility is depicted on the plan. The size, type, and configuration of underground detention facility need to be shown on the construction plan (PFM 6-0303.2).**

Applicant Response: The size, type, and configuration of the underground detention facility will be shown on the site plan.

3. **Comment: Site Outfall. An outfall narrative has not been provided (PFM 6-0203.2A). At the construction plan submission, it will be necessary to demonstrate adequate outfall as per PFM 6-0203 & PFM 6-0204.**

Applicant Response: Adequate outfall will be demonstrated at the time of site plan.

Thank you for your assistance with this matter.

Sincerely,



Sheri L. Akin  
Land Use Planner

cc: Mr. David Emigh, Dominion Virginia Power  
Carson Lee Fifer Jr, Esquire, McGuireWoods LLP  
Planning Commissioner Frank A. de la Fe – Hunter Mill District



## County of Fairfax, Virginia

## MEMORANDUM

March 21, 2011

**TO:** Sandi Beaulieu, Planner I  
Planning Division, DPZ

**FROM:** Hugh Whitehead, Urban Forester II  
Forest Conservation Branch, DPWES *HW*

**SUBJECT:** Dominion Virginia Power, 2232-H11-4  
Tax Map #018-3-01-0013B, Hunter Mill

I have reviewed the above referenced 2232 application received January 21, 2011, by the Planning Division, DPZ. The following comments and recommendations are based on this review and a site visit conducted on March 14, 2011.

1. **Comment:** The Statement of Justification states: "the Applicant proposed to construct the substation facility central to the property with fencing and a variable width landscaped buffer along the property boundaries. A barrier consisting of a chain link fence or wall is the only screening required by the Zoning Ordinance based upon surrounding uses. However, in order to provide additional screening, the Applicant is also proposing a variable width landscape buffer ranging from 10 to 18 feet along the property lines."

**Recommendation:** Existing trees and barriers and proposed landscaping will satisfy transitional screening and barrier requirements. Ensure that existing and proposed tree canopy on the site meets the 10-year tree canopy requirement of 10 percent.

2. **Comment:** Several of the existing screening trees have been damaged by recent snow loads and broken branch and resulting wounds could provide opening for disease and decay pathogens to enter the trees.

**Recommendation:** Ensure that a tree preservation plan for the site includes a narrative that addresses maintenance activities designed to enhance the survivability of trees designated for preservation as required by PFM 12-0509.3J. Activities should include, but not be limited to, pruning and mulching.

If there are any questions, please contact me at (703)324-1770.

HCW/  
UFMID #: 159220

cc: RA File  
DPZ File

Department of Public Works and Environmental Services  
Land Development Services, Urban Forest Management Division  
12055 Government Center Parkway, Suite 518  
Fairfax, Virginia 22035-5503  
Phone 703-324-1770, TTY: 703-324-1877, Fax: 703-803-7769  
www.fairfaxcounty.gov/dpwes



McGuireWoods LLP  
1750 Tysons Boulevard  
Suite 1800  
McLean, VA 22102-4215  
Phone: 703.712.5000  
Fax: 703.712.5050  
www.mcguirewoods.com

Sheri L. Akin  
Direct: 703.712.5483

McGUIREWOODS

sakin@mcguirewoods.com  
Direct Fax: 703.712.5050

April 14, 2011

**BY E-MAIL AND FIRST CLASS MAIL**

Ms. Sandi Beaulieu  
County of Fairfax  
Planning Division  
Suite 730  
12055 Government Center Parkway  
Fairfax, Virginia 22035

**Re: Application No. 2232-H11-4  
Dominion Virginia Power – Sunset Hills Substation  
Tax Map No. 18-3-((1))-13B  
Response to Forest Conservation Comments**

Dear Sandi:

On behalf of our client, Dominion Virginia Power ("Dominion"), this letter is in response to Forest Conservation Branch comments regarding the above-referenced 15.2-2232 application.

Written responses to various comments are as follows:

**FOREST CONSERVATION MEMORANDUM DATED MARCH 21, 2011**

- 1. Recommendation: Existing trees and barriers and proposed landscaping will satisfy transitional screening and barrier requirements. Ensure that existing and proposed tree canopy on the site meets the 10-year tree canopy requirement of 10 percent.**

Applicant Response: An existing and proposed tree canopy calculation for the site has been calculated as follows: Site area = 55,112 square feet, existing trees to remain on site = 6,901 square feet. All proposed plantings will be shrubs and will not count towards tree canopy, but by Code, 10% is required, or 5,511 square feet, and 12.5% is provided, or 6,901 square feet.

- 2. Recommendation: Ensure that a tree preservation plan for the site includes a narrative that addresses maintenance activities designed to enhance the survivability of trees designated for preservation as required by PFM 12-**

April 14, 2011  
Page 2

**0509.3J. Activities should include, but not be limited to, pruning and mulching.**

Applicant Response: The Applicant will address the tree preservation requirements of PFM 12-0509.3J at the time of site plan submission.

Thank you for your assistance with this matter.

Sincerely,



Sheri L. Akin  
Land Use Planner

cc: Mr. David Emigh, Dominion Virginia Power  
Carson Lee Fifer Jr, Esquire, McGuireWoods LLP  
Planning Commissioner Frank A. de la Fe – Hunter Mill District

\\30335710.1

# Fairfax Water

FAIRFAX COUNTY WATER AUTHORITY  
8560 Arlington Boulevard, Fairfax, Virginia 22031  
www.fairfaxwater.org

**PLANNING & ENGINEERING  
DIVISION**

Jamie Bain Hedges, P.E.  
Director  
(703) 289-6325  
Fax (703) 289-6382

April 21, 2011

Ms. Sandi Beaulieu  
Facilities Planning Branch  
Fairfax County Department of Planning & Zoning  
12055 Government Center Parkway, Suite 730  
Fairfax, Virginia 22035

Re: Application No. 2232-H11-4  
Dominion Virginia  
Tax Map: 18-3

Dear Ms. Beaulieu:

The following information is submitted in response to your request for a water service analysis for the above application:

1. The property can be served by Fairfax Water.
2. Adequate domestic water service is available at the site from an existing 12-inch water main located at the property. See the enclosed water system map.

If you have any questions regarding this information please contact Dave Guerra at (703) 289-6343

Sincerely,



Traci K. Goldberg, P.E.  
Manager, Planning

Enclosure



# Northern Virginia Regional Park Authority

5400 Ox Road, Fairfax Station, VA 22039 | 703-352-5900 | Fax: 703-273-0905 | www.nvrpa.org

March 14, 2010

Sandi Smith *Beaulieu*  
 Fairfax County  
 Department of Planning and Zoning  
 Planning Division, Suite 730  
 12055 government Center Parkway  
 Fairfax, VA 22035-5505

**RE: Dominion Virginia Power Substation at Clay Lane; 2232-H11-4**

Dear Ms. ~~Smith~~: *Beaulieu*

We have reviewed the 2232 application and plans and the statement of justification (plans dated January 12, 2011 and statement of justification dated January 20, 2011) for Dominion Virginia Powers' substation referenced above and offer the following comments.

Background

As you know, the Northern Virginia Regional Park Authority owns and operates the Washington & Old Dominion Railroad Regional Park (W&OD Trail) adjacent to the southwest side of the subject property. This 45-mile long and 100-foot wide linear park traverses Northern Virginia between Shirlington in Arlington County and Purcellville in Loudoun County. The park features paved and unpaved multi-use trails, interpretive exhibits, wayside areas, and parking for trail users. The W&OD hosts an estimated two million visitors a year and was designated a National Recreation Trail in 1987 by the U.S. Department of Interior. The W&OD Railroad features make the park eligible for listing on the National Register of Historic Places.

The Park Authority acquired the W&OD property from Virginia Power in fee simple, and Virginia Power retained an easement over the 45-mile long right of way. The easement reserves to Virginia Power the right to construct, operate and maintain its electric transmission and distribution facilities and related utility uses.

Impacts

The subject site shares a 330-foot boundary with the W&OD Trail and the plans show a 10-foot wide buffer along the park property. The substation will be highly visible to park users. The Park Authority believes that a wider buffer adjacent to the W&OD is justified given the substation's negative visual impacts to this narrow regional resource. Moreover, existing mature vegetation should be preserved to the extent possible along the common boundary. Virginia Power has allowed taller tree planting areas within certain zones of transmission facilities, provided the trees do not create a reliability threat to the transmission lines. The Park Authority

City of Alexandria

David M. Pritzker  
 Justin Wilson

Arlington County

Paul Ferguson  
 Michael A. Nardolilli

Fairfax County

Stella Koch  
 Jean R. Packard

City of Fairfax

Brian D. Knapp  
 Arthur F. Little

City of Falls Church

Barry D. Buschow  
 Jeffrey Tarbert

Loudoun County

Joan G. Rokus  
 Su Webb

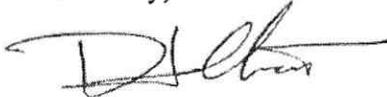
and Virginia Power have worked together to facilitate tree and understory plantings within the transmission and distribution rights of way for the public's benefit.

Recommendations

1. Mature vegetation should be preserved along the common boundary and supplemented where appropriate. We also request that the applicant work with the County and the Park Authority during the site plan stage to provide appropriate screening, including taller tree planting areas and understory plantings.
2. A wider buffer is recommended along the W&OD Trail boundary to mitigate the visual impacts from the substation and facilitate the preservation of existing mature vegetation.
3. For public safety and to protect park infrastructure, all construction and maintenance access to the substation should be from Clay Lane and not along or across the W&OD paved or gravel trails. A construction fence should be placed along the property line to prevent encroachment onto park property during construction of the substation. Installation of the transmission lines across the W&OD must be closely coordinated with the Park Authority so that the gravel and paved trails remain open and safe during construction.

Thank you for the opportunity to comment. Please contact me at 703-359-4628 or at [dighhaut@nvrpa.org](mailto:dighhaut@nvrpa.org) if you have any questions or concerns.

Sincerely,



Daniel Ighaut  
Land Manager

c: Kate Rudacille, Deputy Director of Planning and Development  
Karl Mohle, Manager, W&OD Railroad Regional Park

McGuireWoods LLP  
1750 Tysons Boulevard  
Suite 1800  
McLean, VA 22102-4215  
Phone: 703.712.5000  
Fax: 703.712.5050  
www.mcguirewoods.com

Sheri L. Akin  
Direct: 703.712.5483

McGUIREWOODS

sakin@mcguirewoods.com  
Direct Fax: 703.712.5050

April 14, 2011

**BY E-MAIL AND FIRST CLASS MAIL**

Ms. Sandi Beaulieu  
County of Fairfax  
Planning Division  
Suite 730  
12055 Government Center Parkway  
Fairfax, Virginia 22035

**Re: Application No. 2232-H11-4  
Dominion Virginia Power – Sunset Hills Substation  
Tax Map No. 18-3-((1))-13B  
Response to Northern Virginia Regional Park Authority (NVRPA)**

Dear Sandi:

On behalf of our client, Dominion Virginia Power ("Dominion"), this letter is in response to NVRPA comments regarding the above-referenced 15.2-2232 application.

Written responses to various comments are as follows:

**NVRPA LETTER DATED MARCH 14, 2011**

- 1. Recommendation: Mature vegetation should be preserved along the common boundary and supplemented where appropriate. We also request that the applicant work with the County and the Park Authority during the site plan stage to provide appropriate screening, including taller tree planting areas and understory plantings.**

Applicant Response: Dominion is sensitive to preserving the mature canopy vegetation along the common boundary with the exception of the 100 foot wide easement where the Transmission Line enters the site. It appears that most of the large canopy trees outside of the line crossing can be trimmed to accommodate concerns that reaching limbs may pose to the electrical substation. Digging outside the fence line will be limited to the fence replacement and the Transmission Line crossing area. Dominion will work with the Trail Staff to provide additional buffer on park property between the gravel and paved paths where height limitations and underground utility constraints (fiber optic/water) can be avoided.

2. **Recommendation: A wider buffer is recommended along the W&OD Trail boundary to mitigate the visual impacts from the substation and facilitate the preservation of existing mature vegetation.**

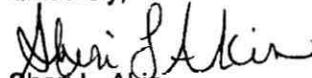
Applicant Response: Due to site constraints, Dominion is unable to provide a wider buffer, but as noted above, will work with the Trail Staff to enhance the existing buffer between the gravel and paved trails.

3. **Recommendation: For public safety and to protect park infrastructure, all construction and maintenance access to the substation should be from Clay Lane and not along or across the W&OD paved or gravel trails. A construction fence should be placed along the property line to prevent encroachment onto park property during construction of the substation. Installation of the transmission lines across the W&OD must be closely coordinated with the Park Authority so that the gravel and paved trails remain open and safe during construction.**

Applicant Response: All access to the site will be from Clay Lane. In addition, construction fencing will be placed along the property line or areas that construction will occur. The Applicant will work with the Park Authority to implement an access plan for continuous use of the trails.

Thank you for your assistance with this matter.

Sincerely,

  
Sheri L. Arkin  
Land Use Planner

cc: Mr. David Emigh, Dominion Virginia Power  
Carson Lee Fifer Jr, Esquire, McGuireWoods LLP  
Planning Commissioner Frank A. de la Fe – Hunter Mill District

THE RESTON PLANNING AND ZONING COMMITTEE  
JANUARY 17, 2011 MEETING MINUTES

Members Present: Hill, Cerny, Cupina, Wynands, Muhammed, Eckhardt, Vanell, Walker, Romeo, Kennedy and Weber

Members Absent: Weissburg, Straits, Murphy, Edwards, Donohue, Bruce, and Traylor.

Agenda Item: Review of plans by Dominion Virginia Power Company (VEPCO) to construct a substation off Clay Lane. Primary purpose of substation will be to supply electric power to Metro Silver Line. Substation will also provide power to future development in the area.

Notes:

The meeting began at 7:35 pm.

Lee Fifer of McGuire Woods represented VEPCO. VEPCO representatives in attendance included Jonathon Schultis and Janell Hancock.

Mr. Fifer stated that the 1.265 acre parcel in question is located at approximately 11014 Sunset Hills Rd. It is north of Sunset Hills, east of the U.S. Post Office, and adjacent to vacated Clay Lane in an area zoned I-5 for light industrial use. It is currently developed with a gravel lot. The W&OD Trail borders the site. He noted that an electric substation is an allowed use in an I-5 area. Mr. Fifer also noted that a substation is considered a quasi-public facility which complies with the Comprehensive Plan. However, pursuant to Section 15.2-2232 of the Code of Virginia, an application must be submitted to Fairfax County for its review of the location, character, and extent of the proposed public facility.

The substation will transform power from the high-voltage transmission line that parallels the W&OD Trail through Reston and convert it to 220 volts so it can serve the Metro Silver Line and future development in the area. Initially, two transformers to power the Metro trains will be built on the site. A third would be installed by 2016. The facility will be approximately half the size of the existing VEPCO substation located about one mile west. The facility will be surrounded by security fencing.

A 95 foot tall "backbone" structure will connect the substation with the transmission lines. In order to connect the substation with the Silver Line, a trench will be dug along the W&OD Trail from the substation to a point where the trail meets the Dulles Toll Road and the new Metro line. A conduit will be placed in the trench at a depth of approximately 4 feet. For a period of about two weeks when the trench is being dug and the conduit constructed, W&OD traffic will be rerouted along the adjacent bridle path. VEPCO will coordinate construction with the Northern Virginia Regional Park Authority. VEPCO retains an easement along the W&OD corridor.

The existing landscape buffer along the W&OD Trail will be supplemented with additional plantings to further screen the new facility. Storm water will be managed on the site and directed into an existing inlet.

Construction will begin in the summer and be completed within four to six months. The substation must be energized by December 1, 2011, in order to meet Metro's construction requirements.

The site is adjacent to an automobile repair business. The closest residential property is located about 800 feet away in the Equestrian Court subdivision.

The facility will emit no noise, light, or vibrations. It is not anticipated that construction will impact road traffic in any way.

Mr. Hill moved that the Committee recommend approval of VEPCO's application by Fairfax County. Mr. Cupina seconded. The Committee approved the resolution by unanimous vote.

The meeting adjourned at 8:40 PM.

Minutes prepared by Stephen Cerny.

## § 15.2-2232. Legal status of plan.

A. Whenever a local planning commission recommends a comprehensive plan or part thereof for the locality and such plan has been approved and adopted by the governing body, it shall control the general or approximate location, character and extent of each feature shown on the plan. Thereafter, unless a feature is already shown on the adopted master plan or part thereof or is deemed so under subsection D, no street or connection to an existing street, park or other public area, public building or public structure, public utility facility or public service corporation facility other than railroad facility, whether publicly or privately owned, shall be constructed, established or authorized, unless and until the general location or approximate location, character, and extent thereof has been submitted to and approved by the commission as being substantially in accord with the adopted comprehensive plan or part thereof. In connection with any such determination, the commission may, and at the direction of the governing body shall, hold a public hearing, after notice as required by § 15.2-2204.

B. The commission shall communicate its findings to the governing body, indicating its approval or disapproval with written reasons therefor. The governing body may overrule the action of the commission by a vote of a majority of its membership. Failure of the commission to act within sixty days of a submission, unless the time is extended by the governing body, shall be deemed approval. The owner or owners or their agents may appeal the decision of the commission to the governing body within ten days after the decision of the commission. The appeal shall be by written petition to the governing body setting forth the reasons for the appeal. The appeal shall be heard and determined within sixty days from its filing. A majority vote of the governing body shall overrule the commission.

C. Widening, narrowing, extension, enlargement, vacation or change of use of streets or public areas shall likewise be submitted for approval, but paving, repair, reconstruction, improvement, drainage or similar work and normal service extensions of public utilities or public service corporations shall not require approval unless involving a change in location or extent of a street or public area.

D. Any public area, facility or use as set forth in subsection A which is identified within, but not the entire subject of, a submission under either § 15.2-2258 for subdivision or provision 8 of § 15.2-2286 for development or both may be deemed a feature already shown on the adopted master plan, and, therefore, excepted from the requirement for submittal to and approval by the commission or the governing body; provided, that the governing body has by ordinance or resolution defined standards governing the construction, establishment or authorization of such public area, facility or use or has approved it through acceptance of a proffer made pursuant to § 15.2-2303.

E. Approval and funding of a public telecommunications facility by the Virginia Public Broadcasting Board pursuant to Article 12 (§ 2.2-2426 et seq.) of Chapter 24 of Title 2.2 shall be deemed to satisfy the requirements of this section and local zoning ordinances with respect to such facility with the exception of television and radio towers and structures not necessary to house electronic apparatus. The exemption provided for in this subsection shall not apply to facilities existing or approved by the Virginia Public Telecommunications Board prior to July 1, 1990. The Virginia Public Broadcasting Board shall notify the governing body of the locality in advance of any meeting where approval of any such facility shall be acted upon.

F. On any application for a telecommunications facility, the commission's decision shall comply with the requirements of the Federal Telecommunications Act of 1996. Failure of the commission to act on any such application for a telecommunications facility under subsection A submitted on or after July 1, 1998, within ninety days of such submission shall be deemed approval of the application by the commission unless the governing body has authorized an extension of time for consideration or the applicant has agreed to an extension of time. The governing body may extend the time required for action by the local commission by no more than sixty additional days. If the commission has not acted on the application by the end of the extension, or by the end of such longer period as may be agreed to by the applicant, the application is deemed approved by the commission.

(Code 1950, §§ 15-909, 15-923, 15-964.10; 1958, c. 389; 1960, c. 567; 1962, c. 407, § 15.1-456; 1964, c. 528; 1966, c. 596; 1968, c. 290; 1975, c. 641; 1976, c. 291; 1978, c. 584; 1982, c. 39; 1987, c. 312; 1989, c. 532; 1990, c. 633; 1997, cc. 587, 858; 1998, c. 683.)