



County of Fairfax, Virginia

MEMORANDUM

DATE: 02/02/2015

TO: Distribution List

FROM: Barbara C. Berlin, AICP
Director, Zoning Evaluation Division
Department of Planning and Zoning

SUBJECT: Special Exception Application Analysis

REFERENCE: Application Number: SEA 91-S-031 (Milestone Communications)

Case Information

Staff Coordinator: **Mary Ann Tsai**
 Pre-Staffing Date: **3/16/15** Staffing Date: **4/23/15**
 Tentative PC Date: **6/17/15** Tentative BOS Date: **6/23/15**

Memo Includes Full-Size Development Plans for Noted (●) Addressees: Yes No

Attached for your review and comment is the zoning case information for the subject application.

Action addressees are requested to provide written comments to the staff coordinator by **(03/09/2015)** to be considered in preparing staff's recommendation on this application. Information addressees may also submit any comments by the same date.

Action Addressees

- DPZ Planning Division
Chief, Env. & Dev. Review Br.
Attn: Pam Nee
- DPWES Site and Addressing
Attn: Brandy Dyer
- DPWES Sanitary-Sewer
Attn: Gilbert Osei-Kwadwo
- VDOT
Attn: Paul Kraucunas
- Dept. of Transportation
Transportation Planning
Chief, Site Analyst Section
Attn: Michael Davis
- Fairfax County Park Authority
Planning & Development Div.
Plan Review Coordinator
Attn: Lynne Johnson 4th fl
- Planning Commission
Board of Supervisors
Springfield District
- Office of Community
Revitalization/Reinvestment
Attn: Barbara Byron
CRD/CRA or Tysons only

Information Addressees

- Planning Commission
Executive Director
Attn: Jill Cooper
- Economic Dev. Authority
Dir. Real Estate Services
Attn: Curtie Hoffman
- Clerk to Board of Supervisors
Attn: Cathy Chianese
- Dept. of Information Technology
Technology Infrastructure Div.
Attn: Steve Brundage
- Dept. of Health
Div. of Environmental Health
Technical Review and Information
Resources
Attn: Kevin Wastler
- Northern Va Soil and Water
Conservation District
Attn: Willie Woode
- Dept. of Family Services
Adult Aging Services
AAA, B-3-708
Attn: Jacquie Woodruff
- Dept. of Facilities Mgmt.
Analyst, Property Mgmt. Div.
Attn: Marguerite Guarino
- DPZ-ZED Division Director
Attn: Barbara Berlin
- DPZ-ZED Asst. Director
Attn: Regina Coyle
- DPZ-ZED
Attn: Branch Chiefs
- DPZ-ZED
Chief, Proffer Interp. Branch
Attn: Kevin Guinaw
- DPZ-ZED
Admin. Asst., Legal Notices
Attn: Michelle Cabero
- DPZ Chief Zoning Inspector
Attn: Joe Bakos
- Southeast Fairfax Dev. Corp.
Attn: Tony Fontana
MV or LEE only

Department of Planning and Zoning
 12055 Government Center Parkway, Suite 801
 Fairfax, Virginia 22035-5509
 Phone 703 324-1290
 FAX 703 324-3924
 www.fairfaxcounty.gov/dpz/



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COUNTY OF FAIRFAX
Department of Planning and Zoning
Zoning Evaluation Division
 12055 Government Center Parkway, Suite 801
 Fairfax, VA 22035 (703) 324-1290, TTY 711
www.fairfaxcounty.gov/dpz/zoning/applications

APPLICATION No: SEA 91-S-031
 (Staff will assign)

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APPLICATION FOR A SPECIAL EXCEPTION Zoning Evaluation Division
 (PLEASE TYPE or PRINT IN BLACK INK)

APPLICANT	NAME Milestone Communications, Cellco Partnership d/b/a Verizon Wireless), Virginia
	MAILING ADDRESS Milestone Communications Power and Electric Company 12100 Sunset Hills Road Reston, Virginia 20107
	PHONE HOME (N/A) WORK (703) 262-2555
	PHONE MOBILE (N/A)
PROPERTY INFORMATION	PROPERTY ADDRESS 12895 Clifton Creek Drive Clifton, Virginia 20124
	TAX MAP NO. 0753 01 0010 SIZE (ACRES/SQ FT) 95.11
	ZONING DISTRICT R-C (WS) MAGISTERIAL DISTRICT Springfield
	PROPOSED ZONING IF CONCURRENT WITH REZONING APPLICATION:
SPECIAL EXCEPTION REQUEST INFORMATION	ZONING ORDINANCE SECTION 9-104
	PROPOSED USE Amend SE 91-S-031 for an electrical substation use to permit a telecommunications facility consisting of a 140 feet tall monopole and related equipment in a 2,450 sf compound area <i>and</i>
AGENT/CONTACT INFORMATION	NAME Frank W. Stearns, Esq. <i>change in land area</i>
	MAILING ADDRESS Donohue and Stearns, PLC 201 Liberty Street Leesburg, Virginia 20175
	PHONE HOME (N/A) WORK (703) 726-2547
	PHONE MOBILE (N/A)
MAILING	Send all correspondence to (check one): <input type="checkbox"/> Applicant -or- <input checked="" type="checkbox"/> Agent/Contact
<p>The name(s) and addresses of owner(s) of record shall be provided on the affidavit form attached and made part of this application. The undersigned has the power to authorize and does hereby authorize Fairfax County staff representatives on official business to enter the subject property as necessary to process the application.</p> <p>Frank W. Stearns, Esq.</p> <p>TYPE/PRINT NAME OF APPLICANT/AGENT SIGNATURE OF APPLICANT/AGENT</p> <p><i>Frank W. Stearns</i></p>	

DO NOT WRITE IN THIS SPACE *Deborah L. Schubert* SEA 2014-0395 *MPC*
 Date Application accepted: January 26, 2015 Application Fee Paid: \$ 16,375.00 *1/26/15*

**Statement of Justification
(HIGHLIGHTING CHANGES MADE IN RESPONSE TO STAFF COMMENTS)**

Applicants: Milestone Communications, Cellco Partnership d/b/a Verizon Wireless, and Virginia Power and Electric Company
Site Name: Clifton Substation
Property Address: 12895 Clifton Creek Drive, Clifton, Virginia 20124
(the "Property")
Supervisor District: Springfield
Parcel ID No: 075 3 01 0010
Zoning Classification: Residential-Conservation District, R-C (WS)
Property Owner: Virginia Electric and Power Company

Applicants, Milestone Communications, Cellco Partnership d/b/a Verizon Wireless ("Verizon"), and Virginia Power and Electric Company, together as the "Applicants" request a Special Exception Amendment to allow for the modification of existing Special Exception SE 91-S-031 for the construction and operation of a wireless telecommunications facility. The facility will consist of a 140 feet tall monopole structure, and associated equipment located in a lease area measuring 35 feet by 70 feet (2,450 square feet) screened by an 8 feet tall chain link fence with brown privacy slats. The existing substation on the property owned and operated by Virginia Electric and Power Company will remain in its present substation use and no changes are proposed as part of this application.

Current Improvements on and Description of Subject Property

The subject parcel totals approximately 95.11 acres and is zoned RC (WS) and planned for Public Facilities, Governmental and Institutional Use. Adjoining properties are zoned RC (WS) and planned for .1 - .2 dwelling units per acre.

The Property is owned by the Virginia Electric and Power Company ("Owner") and is currently improved with an electric substation. It is adjacent to and connects with utility structures located in a major electrical transmission corridor with an easement width of two hundred thirty feet (230') that runs from east to west across the property. The existing substation use is located within a fenced area with two transformer banks consisting of seven transformers, circuits, and a seventy foot (70') by twenty feet (20') building that houses control and communications equipment. The existing substation facility occupies approximately 8.1 acres of the total site area. It operates continuously and is unmanned with only routine service visits. Access to the substation property is via a controlled access gravel driveway off of Clifton Creek Drive. The existing substation property is bordered by heavy vegetation in all directions except as cleared for the transmission easement and transmission lines.

The substation was originally approved by the Board of Supervisors under Special Exception SE 91-S-031 on March 9, 1992. This approval was granted to the Virginia Electric and Power Company for a 92.91 portion of the current parcel, 075-3 ((1)) 10 for the substation and an adjoining parcel, formerly 075-4 ((04)) 2 pt., for a portion of the access road. In addition to SE

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Zoning Evaluation Division

91-S-031, the Board of Supervisors approved SE 91-S-046 for a smaller substation to be constructed by the Northern Virginia Electric Cooperative (NOVEC) on a five acre portion of parcel 075-3 ((1)) 10. This five acre portion of Parcel 10 was deleted from the application acreage of SE 91-S-031.

Although the recorded access easement that runs across a portion runs of 75-4 ((4)) 2B (formerly Parcel 75-4 ((4)) 2) was included in the acreage of the SE 91-S-031, it is requested by the applicant that this easement and the related acreage not be included in the current application. The existing easement and access road will not be changed in any way by the current proposal and will be used by the applicant only for routine monthly maintenance trips to the site (a copy of the recorded easement is included in the application package). Further, the five acre portion of parcel 75-3 ((1)) 10 that was subject to SE 91-S-046 was never transferred by Virginia Power and Electric Company or used by NOVEC for a separate sub-station and that SE was allowed to expire. Therefore the current SEA application will be located only on parcel 75-3 ((1)) 10 which is owned by Virginia Power and Electric Company and has a total acreage of 95.11 acres. There also are no changes proposed to the existing approved Special Exception uses on this property as a result of the current SEA application by the applicants Milestone Communications, Verizon Wireless and Virginia Power.

Statement Describing the Proposed Use

The following section corresponds to the requirements contained in the Special Exception Application Information package and pursuant to Section 9-011, Paragraph 7, of the Fairfax County Zoning Ordinance, and fully describes the proposed use:

Type of operation.

The property is currently used for an unmanned electric substation that borders a major utility corridor containing two electrical transmission lines supported by a combination of lattice tower and pole structures, and an underground-liquefied natural gas pipeline. The existing transmission structures in this utility corridor are between approximately one hundred twenty two feet (122') feet and one hundred thirty seven feet (137') in height. The applicant requests a Special Exception to construct a one hundred forty feet (140') tall monopole structure and associated equipment to house a telecommunications use. The use will be designed to accommodate a minimum of five (5) wireless telecommunications carriers, including the applicant, Verizon. The use will be located in the southeast quadrant of the substation property, approximately 590 feet north of the Norfolk and Southern Railroad corridor and 1,700 feet west of Clifton Creek Drive.

Milestone will enter into a lease agreement with the Owner, pursuant to which Verizon Wireless will install and operate a wireless telecommunications facility on the Property. Verizon will install up to twelve (12) antennas in three sectors at a rad center elevation of one hundred forty feet (140'). Verizon will use two antenna models for the facility: one model will measure approximately ninety-four point six inches (94.6") high by eleven point two inches (11.2") wide and one model will measure approximately seventy-two point five inches (72.5") high by four

point one inches (4.1") wide. The antenna details are provided on Sheet A-4 of the Zoning Drawings.

The monopole is designed to accommodate four additional telecommunication carriers at rad center heights of one hundred thirty feet (130'), one hundred twenty feet (120'), one hundred ten (110') and one hundred feet (100'). An elevation of the monopole showing the location of all antenna platforms is provided on Sheet A-1 of the Zoning Drawings.

Verizon will install up to four equipment cabinets in a twelve feet (12') by twenty feet (20') equipment area with canopy within the overall thirty-five feet (35') by seventy feet (70') fenced compound area. Two cabinets will be installed initially, one measuring thirty-two inches (32") by thirty-two point three inches (32.3") by eighty-nine point one inches (89.1") tall and one measuring thirty two inches (32") by thirty two inches (32") by seventy three inches (73") tall. Two additional cabinets will be installed by Verizon in the future. Verizon will also locate a back-up generator measuring seven feet eight inches (7'8") tall by nine feet two inches (9'2") wide by three feet four inches (3'4") deep within the compound. The equipment compound will also house the equipment of all future telecommunication carriers locating at the site. Shown on the "Compound Plan and Elevation", Sheet A-1 of the Zoning Drawings, are the placement of the monopole and equipment and the limits of the use. Specific details of Verizon's cabinets and generator are shown on Sheet A-3, "Equipment Details".

Including areas for stormwater facilities, the total area of disturbance is 7,550 square feet. An "Erosion and Sediment Control Plan" is submitted with the Zoning Drawings on Sheet ES-1.

The installation proposed by Verizon will not interfere with radio, television or telephone reception and the radio frequency emissions will comply with all applicable EPA and FCC emission requirements. Furthermore, neither the antennas nor the related equipment will produce any noise, fumes, dust, odors, lights, glare or vibrations, except at such time as the generator is infrequently tested or used for emergency service.

Hours of operation.

The existing electrical sub-station is an unmanned use that operates continuously 24 hours per day, seven days per week. The proposed telecommunications use will not change the current hours of operation on the property and will operate 24 hours per day, 365 days per year.

Estimated number of patrons, clients, patients, pupils, etc.

There are no on-site patrons or clients associated with the existing or proposed uses. The existing substation serves the western Fairfax County area and is an integral part of Virginia Power's 500 Kv transmission lines serving the entire Northern Virginia region. The proposed telecommunications use will be a component of Verizon Wireless' network serving the western Fairfax County area.

Proposed number of employees, attendants, teachers, etc.

There are no on-site employees associated with the existing or proposed uses. With the exception of routine maintenance and repairs, no employees will work at the site. The proposed telecommunications use will be visited one to two times per month for maintenance purposes. In addition, electricians visit the existing substation use on the property for routine maintenance.

Estimate of the traffic impact of the proposed use.

The proposed telecommunications use will not change the traffic use on the property that is limited primarily to routine but infrequent maintenance and inspection. There will be no changes to the existing access drive or access point off Clifton Creek Drive approved for the substation use.

There are infrequent visits to the substation by personnel for routine maintenance and inspection no more than one to two times per month. The existing use and proposed telecommunications facility shall not be hazardous or conflict with the existing and anticipated traffic in the neighborhood.

Vicinity or general area to be served by the proposed use.

The area served by the proposed telecommunications is depicted on the attached Verizon radio frequency coverage maps. The map identified as "Ivatoka Neighbors Only" shows the current Verizon coverage in the general area as provided by existing or pending sites labeled on the map as "Manassas Park", "Stonewall Park", "Sudley", "Clifton", and "Clifton Creek." The map identified as "Ivatoka with Neighbors at 140'", shows the coverage from the existing and pending sites in the general area with the projected improvement in the coverage from a new 140 feet tall monopole on the subject application site identified on the map as "Ivatoka".

Verizon's objective for this site is to provide coverage and capacity in the Clifton area, specifically along Main Street and Clifton Creek Drive. The new Ivatoka site will resolve the need for adequate coverage in the area surrounding the proposed site and also ensure adequate overlapping coverage between and among existing Verizon sites in this general area. Ultimately, the proposed site will allow residents and commuters to experience better quality and diminished dropped calls.

Description of the building façade and architecture of proposed new buildings and addition

The telecommunications facility will consist of a self-supporting galvanized steel monopole structure, one hundred forty feet (140') in height. Verizon Wireless will have two steel equipment cabinets, one measuring thirty two inches (32") by thirty two point three inches (32.2") by eighty nine point one inches (89.1") tall and one measuring thirty two inches (32") by thirty two inches (32") by seventy three inches (73") tall, inside the cabinet area. The cabinet area will be covered by a metal canopy with a three inch (3") metal decking roof and measuring twenty feet (20') wide by eight feet six inches (8'6") tall. Verizon Wireless will also install a back-up generator measuring nine feet two inches (9'2") long by three feet four inches (3'4")

wide by seven feet eight inches (7'8") high on a concrete pad within the compound area. The monopole and the compound area will be designed to support Verizon's antennas and equipment and that of up to four (4) additional telecommunication carriers. The overall compound area will be enclosed by an eight feet (8') tall chain link fence with brown privacy slats and a 12 feet (12') wide access gate.

Listing, if known, of all hazardous or toxic substances to be generated, utilized stored, treated and/disposed of on-site and the size and contents of any existing or proposed storage tanks or containers.

There are no known hazardous or toxic substances as set forth in Title 40 of the Code of Federal Regulations parts 116.4, 304.4 and 355.

A statement that the proposed use conforms to the provisions of all applicable ordinances, regulations, adopted standards and any applicable conditions, or if any waiver, exception or variance is sought by the applicant from such ordinances, regulations, standards and conditions such shall be specifically noted with the justification for any such modification.

The telecommunications use will be constructed on a major electrical substation property owned by Virginia Power that is adjacent to and associated with a major transmission power easement two hundred thirty feet in width. As per Section 2-514, part 3A (2), of the Fairfax County Zoning Ordinance, "monopoles, with related unmanned equipment cabinets and/or structures" are a permitted use (subject to Paragraphs 3B through 3K) "in any zoning district in a utility transmission easement which is ninety (90) feet or more in width." The telecommunications use will be constructed on a major electrical substation property that is adjacent to and associated with a major transmission power easement greater than 90 feet in width. In similar instances, the Department's interpretation and administration of this Section consistently has included electrical substation property associated with an easement ninety feet or greater in width as part of that transmission easement. However, the substation property and use is under previous Special Exception SE 91-S-031 with conditions for that use.

The proposed telecommunication use will conform to the requirements of Sections 2-514 (3), 9-103, 9-104 and 9-105 of the Fairfax County Zoning Ordinance. The applicant will address transitional screening and a waiver will be requested as necessary. The applicant will also provide a written request for waiver of storm water management.

Compliance with Provisions of Section 9, Special Exceptions

The proposed facility is in compliance with the Provisions, General Standards and Requirements contained in Section 9 of the Zoning Ordinance as presented in the following:

General Standards (Section 9-006)

General Standard 1. The proposed use at the specified location shall be in harmony with the adopted Comprehensive Plan.

Applicants' Response: The property on which the proposed monopole will be located is planned for Public Facilities, Governmental and Institutional use and is currently developed with an existing electrical power substation. The substation is adjacent to and associated with a major electrical transmission easement two hundred feet (230') in width that contains two existing lines of steel poles and towers approximately 122 to 137 feet in height. The overall substation property is ninety-five acres in size and surrounded in all directions by heavily wooded areas except where cleared for the transmission easement and substation. The size and surroundings of the property and the comparable structures in the area will minimize impacts and the proposed use will not adversely affect the existing or proposed uses envisioned for this area by the Comprehensive Plan. The use will also be in conformance with the provisions of the Mobile and Land Based Telecommunications section of the Public Facilities element of the Policy Plan.

General Standard 2. The proposed use shall be in harmony with the general purpose and intent of the applicable zoning district regulations.

Applicants' Response: The proposed property is within the R-C (WS) zoning district. The use will be consistent with the current use of the property and the adjacent existing utility transmission corridor and will be screened by existing vegetation and heavily wooded areas from most residential uses. The use will not impact watercourses, stream valleys or watersheds nor will degrade wooded, natural and scenic areas or agricultural lands. The overall addition of the monopole structure and equipment compound to the existing substation property will not increase the impact on the surrounding R-C (WS) zoned area.

General Standard 3. The proposed use shall be such that it will be harmonious with and will not adversely affect the use or development of neighboring properties in accordance with the applicable zoning district regulations and the adopted comprehensive plan. The location, size and height of buildings, structures, walls and fences, and the nature and extent of screening, buffering and landscaping shall be such that the use will not hinder or discourage the appropriate development and use of adjacent or nearby land and/or buildings or impair the value thereof.

Applicants' Response: The proposed telecommunications use will be sited on a large parcel with extensive wooded areas between the use and most residences. The use is in harmony with the surrounding area and will not affect the existing electrical substation use or development of neighboring properties. The facility will be unmanned, generate no traffic, blend with other tall structures in the utility corridor, and have minimal land disturbance.

General Standard 4. The proposed use shall be such that pedestrian and vehicular traffic associated with such use will not be hazardous or conflict with the existing and anticipated traffic in the neighborhood.

Applicants' Response: The proposed telecommunications facility will be unmanned with one (1) or (2) monthly maintenance visits. These additional visits will not be hazardous or conflict with the existing and anticipated traffic in the neighborhood or general area.

General Standard 5. In addition to the standards which may be set forth in this Article for a particular category or use, the Board shall require landscaping and screening in accordance with the provisions of Article 13.

Applicants' Response: The proposal will conform to the provisions of Article 13 of the Zoning Ordinance

General Standard 6. Open space shall be provided in an amount equivalent to that specified for the zoning district in which the proposed use is located.

Applicants' Response: The use will not require an open space provision.

General Standard 7. Adequate utility, drainage, parking, loading and other necessary facilities to serve the proposed use shall be provided. Parking and loading requirements shall be in accordance with the provisions of Article 11.

Applicants' Response: The design of the proposed facility will address all utility, drainage, parking, loading and other necessary facility as is necessary and required.

General Standard 8. Signs shall be regulated by the provisions of Article 12; however, the Board may impose more strict requirements for a given use than those set forth in this Ordinance.

Applicants' Response: The facility will not require signage.

Additional Submission Requirements for Category 1 Uses (Section 9-103)

In addition to the general standards set forth above, all applications for Category 1 uses shall be accompanied by the following items:

1. Four (4) copies of a map showing the utility system of which the proposed use will be an integral part, together with a written statement outlining the functional relationship of the proposed use to the utility system.

Applicants' Response: Attached are radio frequency propagation (coverage) maps that depict the relationship of the proposed telecommunications facility to the existing or proposed Verizon sites in the vicinity of which the proposed use will be an integral part. Verizon's objective for this site is to provide coverage and capacity in the Clifton area, specifically along Main Street and Clifton Creek Drive. The new site, identified as "Ivatoka" on the propagation maps, will resolve the need for adequate coverage in the area surrounding the proposed site and also ensure adequate overlapping coverage between and among existing Verizon sites in this area of Fairfax County. A written statement is included with propagation maps.

2. Four (4) copies of a statement, prepared by a certified engineer, giving the exact technical reasons for selecting the particular site as the location for the proposed facility and

certifying that the proposed use will meet the performance standards of the district in which located.

Applicants' Response: Statements prepared by certified engineers, giving the technical reasons for selecting the site and certifying that the telecommunications use will meet the performance standards of the RC (WS) zoning district are attached with the application.

Standards for All Category 1 Uses (Section 9-104)

All Category 1 special exception uses shall satisfy the following standards:

1. Category 1 special exception uses shall not have to comply with the lot size requirements or the bulk regulations set forth for the zoning district in which located.

No response needed.

2. No land or building in any district other than the I-5 and I-6 District shall be used for the storage of materials or equipment, or for the repair or servicing of vehicles or equipment, or for the parking of vehicles except those needed by employees connected with the operation of the immediate facility.

Applicants' Response: The land and telecommunications use will not be used for the storage of materials or equipment, or for the repair or serving of vehicles or equipment, or for the parking of vehicles except those needed for employees on infrequent maintenance visits.

3. If the proposed location of a Category 1 use is in an R district, there shall be a finding that there is no alternative site available for such use in a C or I district within 500 feet of the proposed location; except that in the case of electric transformer stations and telecommunication central offices, there shall be a finding that there is no alternative site available in a C or I district within a distance of one (1) mile, unless there is a substantial showing that it is impossible for satisfactory service to be rendered from an available location in such C or I district.

Applicants' Response: There are no alternative sites in a commercial or industrial district within 500 feet of the proposed location suitable for the facility.

4. Before establishment, all uses, including modifications or alterations to existing uses, shall be subject to the provisions of Article 17, Site Plans, in the Zoning Ordinance.

Applicants' Response: Any future modifications or alterations will comply with the provisions of Article 17 of the Zoning Ordinance.

Additional Special Exception Requirements for Mobile & Land-based Telecommunications Facilities (Section 9-105)

1. Except for antennas completely enclosed within a structure, all antennas and their supporting mounts shall be of a material or color that closely matches and blends with the structure on which it is mounted.

Applicants' Response: The antennas and their supporting mounts will be of a color that closely matches and blends with the monopole structure on which mounted.

2. Except for a flag mounted on a flagpole, as permitted under the provisions of Par. 2 of Sect. 12-203, no commercial advertising or signs shall be allowed on any monopole, tower, antenna, antenna support structure, or related equipment cabinet or structure.

Applicants' Response: There will be no commercial advertising or signs on the monopole structure.

3. If any additions, changes or modifications are to be made to monopoles or towers, the Director shall have the authority to require proof, through the submission of engineering and structural data, that the addition, change, or modification conforms to structural wind load and all other requirements of the Virginia Uniform Statewide Building Code.

Applicants' Response: The construction and any future modifications will conform to structural wind load and all requirements of the Virginia Uniform Statewide Building Code.

4. No signals, lights or illumination shall be permitted on an antenna unless required by the Federal Communications Commission, the Federal Aviation Administration or the County, provided, however, that on all antenna structures which exceed 100 feet in height, a steady red marker light shall be installed and operated at all times, unless the Zoning Administrator waives the red marker light requirement upon a determination by the Police Department that such marker light is not necessary for flight safety requirements for police and emergency helicopter operations. All such lights shall be shielded to prevent the downward transmission of light.

Applicants' Response: No signals, lights or illumination will be located on the monopole unless required by the County. The applicant will seek a waiver to the County's requirement as specified in Zoning Section 2-514, Paragraph 3H. A steady red light marker will be located on the monopole only if required by the Fairfax County Police Department or the FAA.

5. All antennas and related equipment cabinets or structures shall be removed within 120 days after such antennas or related equipment cabinets or structures are no longer in use.

Applicants' Response: All antennas and related equipment will be removed with 120 days in the event no longer in use.

COMPLIANCE WITH THE FAIRFAX COUNTY COMPREHENSIVE PLAN

The property is located in the Johnny Moore Community Planning Sector (P3) of the Pohick Planning District in Planning Area III and is planned for Public Facilities, Governmental and Institutional use. On page 50 of the Pohick Planning District section of the Fairfax County Comprehensive Plan, as amended through 4-9-2013 the Plan states:

“1. In order to meet the growing need for public utilities, transmission lines and two electrical substations will be required on Parcel 75-3((1))10 by Virginia Power and the Northern Virginia Electric Cooperative. The Fairfax County Zoning Ordinance requires that electric substation and distribution centers including transformer stations obtain special exception approval. Further, utility transmission facilities including but not limited to poles, structures, or other similar equipment for the transmission of electricity require special exception approval. Under the Zoning Ordinance, transmission lines approved by the State Corporation Commission (SCC) pursuant to Section 56.46.1 of the Code of Virginia, as amended, are not included as utility transmission facilities. Virginia Power and the Northern Virginia Electric Cooperative should participate in the Fairfax County public hearing process for any facilities to be constructed on this site.

There should be no transmission lines through the Town of Clifton. Special exception applications filed for the two electrical substations/distribution centers shall include sufficient acreage surrounding the proposed facilities in order to ameliorate the visual and audio impacts on nearby properties. Additional buffering and screening in excess of minimum Zoning Ordinance provisions shall be required in those areas which do not contain existing substantial vegetation.”

The proposed meets the requirements of Policy Plan’s Public Facilities element for Mobile and Land Based Telecommunication uses as addressed in the following:

General Guidelines

Objective 42: In order to provide for the mobile and land-based telecommunication network for wireless telecommunication systems licensed by the Federal Communications Commission, and to achieve opportunities for the collocation of related facilities and the reduction or elimination of their visual impact, locate the network’s necessary support facilities which include antennas, support structures and equipment buildings or equipment boxes in accordance with the following policies.

Policy a. Avoid the construction of new structures by locating proposed telecommunication facilities on available existing structures such as rooftops, telecommunication and broadcast support structures, electrical utility poles and towers, and water storage facilities when the telecommunication facilities can be placed inconspicuously to blend with such existing structures. (See Figures 8, 9, 10.)

Applicants’ Response: The applicant identified existing structures of sufficient height in the existing electrical transmission corridor in the general area where the monopole is proposed to be

located. However, the existing Dominion Virginia Power (DVP) transmission towers in this corridor that are of sufficient height and structurally capable of accommodating a telecommunications use are already occupied by other telecommunications carriers. By adding the Verizon Wireless equipment to these towers, failure may likely occur. There are no other suitable structures for collocation in the immediate and surrounding areas that fulfill Verizon's service area objectives.

Policy b. When existing structures are not available for co-location, or co-location is not appropriate because of adverse visual impacts or service needs, locate new structures that are required to support telecommunication antennas on properties that provide the greatest opportunity to conceal the telecommunication facilities and minimize their visual impact on surrounding areas.

Applicants' Response: The proposed monopole and compound will be located on a large 95-acre property developed with an electrical power substation that contains and is adjacent to an existing major electrical transmission corridor approximately 230 feet in width. The transmission easement that runs through the property and then to both the northwest and southeast contains two rows of large transmission structures in the form of lattice towers and steel poles approximately one hundred twenty two feet (122') to one hundred thirty seven feet (137') in height. Eight tall poles and towers are located on the easement through the property. Another five tall poles are used to connect the substation with the major transmission line and to distribute power off the property to the south and southwest. At least three poles on the property also are used for the collocation of other telecommunication facilities. The proposed monopole will be compatible and blend with the numerous existing tall structures on the property and those along the utility corridor. The site is also and buffered by wooded areas on and adjoining the 95-acre property. As such the proposed facility will have minimal visual impact on surrounding areas.

Policy c. When new structures or co-locations are required to serve residential neighborhoods, consider minimizing visual impacts on the surrounding area by utilizing camouflage structure design and/or micro-cell technologies or similar miniaturization technologies, such as distributed antenna systems (DAS), if feasible.

Applicants' Response: The proposed structure will not have a camouflaged design but will be located on a large public utility site and will blend with existing tall structures, most approximately one hundred twenty two feet (122') to one hundred thirty seven feet (137') in height, used for electrical transmission purposes in the immediate area.

Policy d. When multiple sites provide similar or equal opportunity to minimize impacts, public lands shall be the preferred location.

Applicants Response: There are no public sites in the immediate area with an equal opportunity to locate the structure and minimize impacts.

Policy e. Locate mobile and land-based telecommunication facilities on public property only after a lease agreement between the County, or related board or authority, and the service provider has been established.

Applicants Response: The structure will not be located on a public use site.

Policy f. Ensure that the use of public property by mobile and land-based telecommunication facilities does not interfere with the existing or planned operational requirements of the public use and complies with adopted policies and plans to protect natural resources.

Applicants Response: The proposed structure will not be located on a public use site.

Policy g. Co-locate mobile and land-based telecommunication facilities operated by different service providers on single sites and/or structures whenever appropriate. Locate single-use structures on a property only when a co-location structure for multiple service providers is not desirable or feasible due to technological differences, site limitations or visual impact concerns.

Applicants' Response: The proposed 140-foot tall monopole will accommodate up to a total of five telecommunication providers, including the co-applicant Verizon Wireless.

Policy h. Ensure that the height of the proposed telecommunication facility is no greater than necessary to allow for co-location on the telecommunication facility based on its service area requirements while still mitigating the visual impact of the facility.

Applicants' Response: The 140-foot height of the proposed monopole is the minimum extent feasible to meet wireless coverage objectives and accommodate up to five telecommunication carriers. The height is consistent with adjacent and nearby utility transmission structures and will not have a visual impact on surrounding areas.

Policy i. When new structures, co-locations and/or technologies (such as distributed antenna systems, micro-cell technology or miniaturization technology) are necessary to meet the service area requirements for the residential neighborhood(s), ensure that the height and mass of any appropriate co-location on the telecommunication facility is in character with the surrounding residential area and mitigates the visual impact of the facility on the surrounding residential area.

Applicants' Response: The proposed monopole structure is in keeping with other large poles and towers of comparable height on the property and in the power transmission that runs through the substation property. The monopole is designed to accommodate up to five telecommunication carriers in an integrated placement of antennas at ten-foot intervals.

Policy j. Design, site and/or landscape proposed telecommunication facilities to minimize impacts on the character of the property and surrounding areas. Demonstrate the appropriateness of the design through facility schematics and plans which detail the type,

location, height, and material of the proposed structures and their relationship to other structures on the property and surrounding areas.

Applicants' Response: The proposed monopole is of similar height and scale as the existing one hundred twenty feet two feet (122') to one hundred thirty seven feet (137') electrical transmission poles and towers on the property and in the adjacent transmission corridor. The facility is also consistent with the existing electrical substation facility use of the subject property and in context with its immediate surroundings. Extensive and well-established woodland areas on and adjoining the substation property, as well as the property's size and distance from most properties, will serve to screen the use from nearby residences and the Town of Clifton. The appropriateness of the design and site is demonstrated by the elevations of the proposed structure and its relationship to nearby structures and trees provided on the Zoning Drawings, Sheet A-1, and on the attached site photos and photo-simulations of the structure taken from different vantage points throughout the area.

Policy k. Demonstrate that the selected site for a new telecommunication facility provides the least visual impact on residential areas and the public way, as compared with alternate sites. Analyze the potential impacts from other vantage points in the area, especially from residential properties, to show how the selected site provides the best opportunity to minimize its visual impact on the area and on properties near the proposed site.

Applicants' Response: The selected site is located in a residentially zoned (RC) area and is used for non-residential / electrical substation purposes. The site's relationship to an existing pattern of large electrical transmission structures in the area mitigates visual impacts by providing context and the opportunity to visually blend the new structure with those existing on the property and in the surrounding area. Other non-residential properties in the immediate area are used for schools and places of worship or are located in the historic Clifton Town Center. As compared with the proposed site, a new structure on these properties would be more solitary and prominent and have little context or compatibility to the existing uses. The application contains a set of photo-simulations taken from eight vantage points in nearby residential areas that demonstrate the appropriateness of the design and any visual impacts on surrounding areas.

Policy l. A key concept in assessing telecommunication facilities is mitigation which is defined as actions taken to reduce or eliminate negative visual impacts. Mitigate the visual impact of proposed telecommunication facilities and their equipment, by using effective design options appropriate to the site such as:

- **Design, site and/or landscape the proposed facility to minimize impacts on the character of the area;**
- **Locate proposed telecommunication facilities near or within areas of mature vegetation and trees that effectively screen or provide an appropriate setting for the proposed structure provided such location does not adversely impact sensitive resources or cause fragmentation of forested communities. When viewed in context, consider perspective views, relative topography and other factors, to mitigate the visual presence and prominence of the structure;**
- **Blend proposed telecommunication facilities with an existing pattern of tall structures;**

- **Obscure or block the views of proposed telecommunication facilities with other existing structures, vegetation, tree cover, or topographic features to the maximum extent feasible; and**
- **Replace existing telecommunication facilities with taller structures or extend their overall height to reduce the need for another structure when such height increases or structure replacements are visually appropriate to the site, including the surrounding area and are consistent with the type, style and pattern of the existing structure.**

Applicants' Response: The structure is located on an established non-residential, public utility property that contains electrical transmission structures and equipment and is of an industrial character. The proposed monopole will blend with an existing pattern of tall structures on the property and in the existing transmission corridor that are of a comparable height and design. Three of these tall structures are currently equipped with collocated telecommunication antenna platforms. Views of the proposed structure from most residences in the area will be mitigated by the extensive areas of woodland on the substation property and the surrounding area. Distance and the proposed structure's relationship to other tall structures in the existing transmission corridor will also reduce the structure's visual presence and impact.

Policy m. Locate proposed telecommunication facilities to ensure the protection of historically significant landscapes and cultural resources. The views of and vistas from architecturally and/or historically significant structures should not be impaired or diminished by the placement of telecommunication facilities.

Applicants' Response: The proposed facility will not adversely impact historically significant landscapes and cultural resources nor impair or diminish views and vistas from such resources.

Policy n. Site proposed telecommunication facilities to avoid areas of environmental sensitivity, such as steep slopes, floodplains, wetlands, environmental quality corridors, and resource protection areas.

Applicants' Response: The facility will avoid areas of environmental sensitivity.

Policy o. Site proposed telecommunication facilities to allow for future expansion and with corresponding levels of screening to accommodate expansion.

Applicants' Response: Both the monopole and equipment compound area will be designed to accommodate up to a total of five telecommunication providers while maintaining current levels of screening.

Policy p. Design and site proposed telecommunication facilities to preserve areas necessary for future right-of-way dedication and ancillary easements for construction of road improvements.

Applicants' Response: The facility is far removed from all roadways and will not impede on any areas necessary for future right-of-way or road improvements

Policy q. Locate and construct antennas used for purposes other than mobile and land-based telecommunication services in accordance with the same guidelines established in this “Mobile and Land-Based Telecommunications Services” section.

Applicants’ Response: The proposed monopole is for mobile and land based purposes.

Objective 43: Design proposed telecommunication facilities to mitigate their visual presence and prominence, particularly when located in residential areas, by concealing their intended purpose in a way that is consistent with the character of the surrounding area. (See Figures 11 and 12.)

Policy a. Disguise or camouflage the appearance of proposed telecommunication facilities to resemble other man-made structures and natural features (such as flagpoles, bell towers, and trees) that are typically found in a similar context and belong to the setting where placed.

Applicants’ Response: The proposed structure will not be of a camouflaged design but will be consistent and in context with the other tall utility structures on the substation and adjoining electrical transmission line easement.

Policy b. Design proposed telecommunication facilities that are disguised and camouflaged to be of a bulk, mass and height typical of and similar to the feature selected.

Applicants’ Response: The proposed structure will be of a mass and height similar to other large towers and poles used for electric transmission purposes on the subject property and along the transmission power line that traverses the area in a generally north to south direction.

Policy c. Use other new and existing structures and vegetation of comparable form and style to establish a grouping that complements a camouflaged telecommunication facility and supports its design, location and appearance.

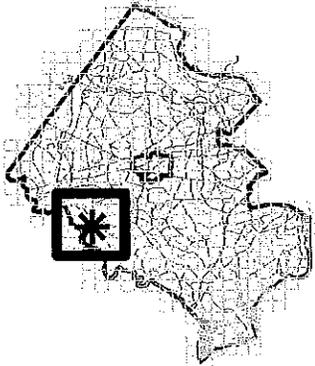
Applicants’ Response: The design, style and height of the proposed monopole are comparable with the other existing poles and towers in the electrical transmission corridor that traverses the property. The new monopole will be supported by and visually blend with these structures.

Conclusion

In light of the foregoing, the Applicants respectfully submit that this Special Exception application is in compliance with the Fairfax County Zoning Ordinance and Comprehensive Plan. Granting the Applicants’ request will be appropriate and in the interest of the citizens of Fairfax County.

Special Exception Amendment

SEA 91-S-031



Applicant: MILESTONE COMMUNICATIONS, CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS, VIRGINIA POWER AND ELECTRIC

Accepted: 01/26/2015
Proposed: AMEND SE 91-S-031 PERVIOUSLY APPROVED FOR ELECTRIC SUBSTATION TO PERMIT A TELECOMMUNICATIONS FACILITY AND CHANGE IN LAND AREA

Area: 95.11 AC OF LAND; DISTRICT - SPRINGFIELD

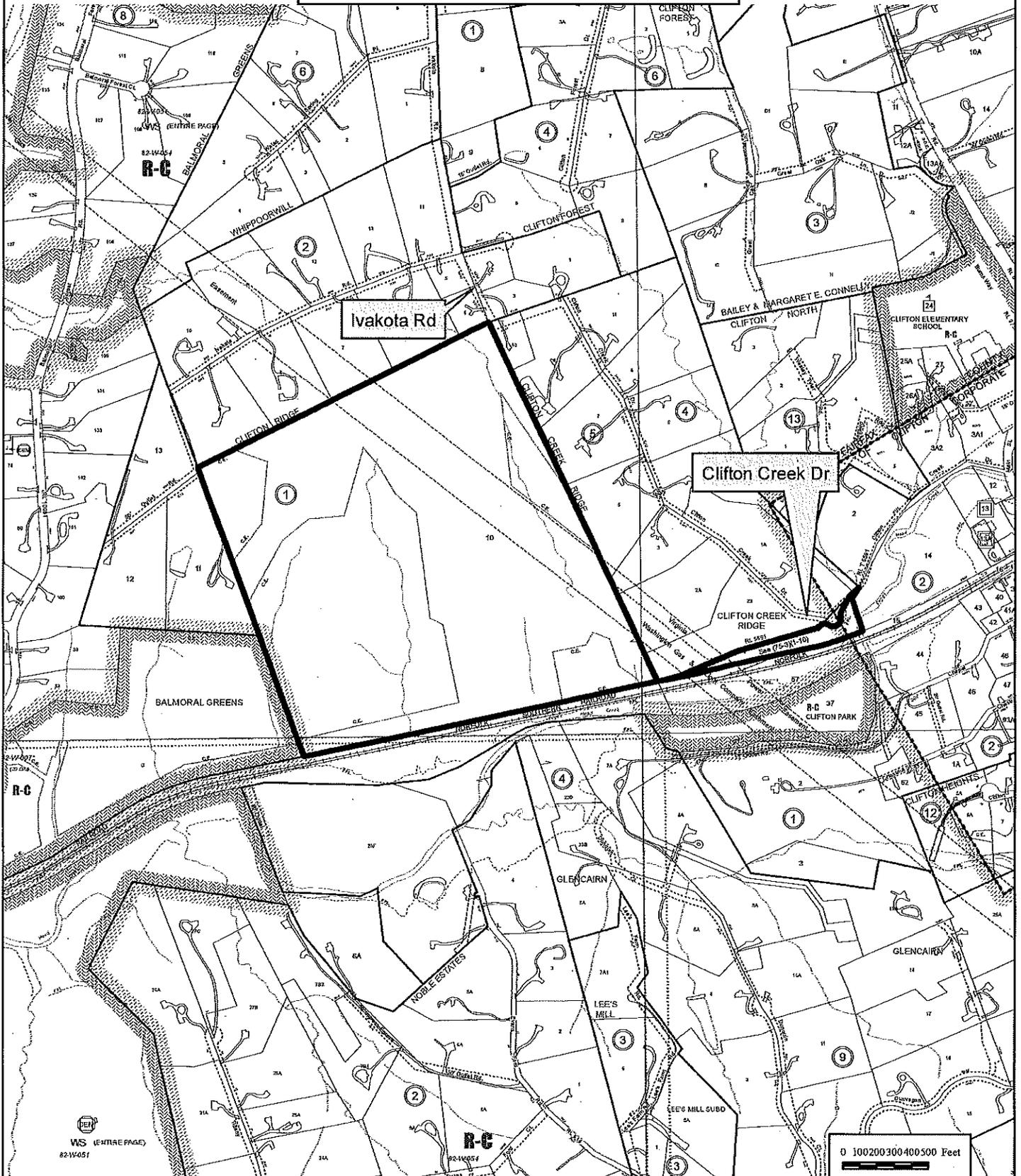
Zoning Dist Sect: 03-0C0403-0C04
Located: 12895 CLIFTON CREEK DRIVE, CLIFTON VA 20124
Zoning: R- C
Plan Area: 3,
Overlay Dist: WS
Map Ref Num: 075-3- /01/ /0010



Special Exception Amendment

SEA 91-S-031

MILESTONE COMMUNICATIONS, CELLCO
PARTNERSHIP D/B/A VERIZON WIRELESS,
VIRGINIA POWER AND ELECTRIC





SITE NAME: CLIFTON CREEK SUBSTATION
12895 CLIFTON CREEK DRIVE
CLIFTON, VA 20124
FAIRFAX COUNTY



Know what's below.
 Call before you dig.

PRIOR SPECIAL EXCEPTION APPROVALS
 ES 91-007 APPROVED 08/12

SITE INFORMATION

SCOPE OF WORK: MILESTONE COMMUNICATIONS PROPRIETOR TO BUILD A TELECOMMUNICATIONS FACILITY ON THE PROPERTY LISTED BELOW. THE FACILITY CONSISTS OF A 140' MONOPOLE AND SPACE FOR MULTIPLE CARRIERS IN ATTACHED COMPOUND, CLIFTON, VA 20124

SITE ADDRESS: 12895 CLIFTON CREEK DRIVE, CLIFTON, VA 20124

PROPERTY OWNER: ELECTRIC AND POWER CO VIRGINIA
 ADDRESS: PO BOX 27007 F.R. 17TH DOMINION RESSOURCES INC
 CO JOANNE GARRETT RICHMOND, VA 23281

MAP #: 0763 01 001 0
 PARCEL AREA: 94.112 ACRES

COORDINATES (NAD 83): 34° 46' 42.35" NAD 83
 LONGITUDE (NAD 83): -77° 25' 55.44" NAD 83

JURISDICTION: FAIRFAX COUNTY

ZONING: RS (M9)
 ZONING AREA: 85,112 ACRES

GROUND ELEVATION: 269.7' (NAD 83) NAD 88

STRUCTURE TYPE: MONOPOLE

STRUCTURE HEIGHT: 140' (ASU)

HANDICAP REQUIREMENTS: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. DISABLED ACCESS NOT REQUIRED.

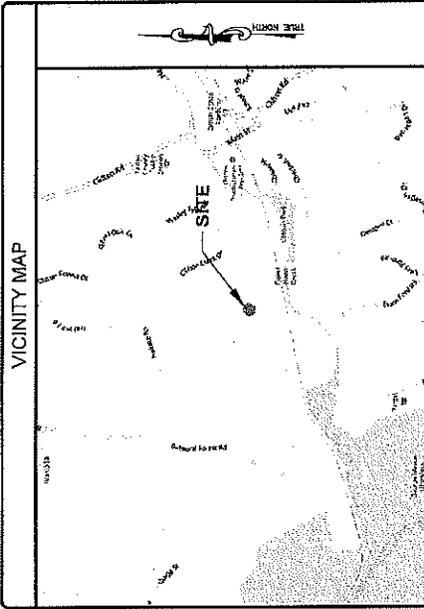
PROJECT TEAM

APPLICANT:
 MILESTONE COMMUNICATIONS
 12895 CLIFTON CREEK DRIVE 100
 CLIFTON, VA 20124
 (703) 650-3555

VIRGINIA POWER AND ELECTRIC COMPANY
 PO BOX 27007 F.R. 17TH DOMINION RESSOURCES INC
 CO JOANNE GARRETT RICHMOND, VA 23281

PROJECT MANAGEMENT FIRM:
 NETWORK BUILDING + CONSULTING, LLC
 695 MARSHLEE DRIVE, SUITE 200
 RICHMOND, VA 23220
 (410) 712-7082

ENGINEERING FIRM:
 NRC ENGINEERING SERVICES, LLC
 11111 WOODBURN DRIVE, SUITE 200
 ELK RIDGE, MD 21075
 (410) 712-7082



CODE COMPLIANCE

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 CODES.

- 2009 INTERNATIONAL BUILDING CODE
- 2008 NATIONAL ELECTRICAL CODE
- 2009 NFPA 101, LIFE SAFETY CODE
- 2009 IFC
- AMERICAN CONCRETE INSTITUTE
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION
- MANUAL OF STEEL CONSTRUCTION, 13TH EDITION
- VIRGINIA UNIFORM BUILDING CODE (UBCBC 2009)
- ANSI/ISA-22.4
- ISA 607
- INSTITUTE FOR ELECTRICAL & ELECTRONICS ENGINEER #1
- IEEE C62 NATIONAL ELECTRIC SAFETY CODE LATEST EDITION
- TELECORDIA GR-123
- ANSI SP-11

DRAWING INDEX

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Z-1	SPECIAL EXCEPTION PLAN
Z-2	CIVIL MAPS
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Z-4	EXISTING VEGETATION PLAN
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A-2	TOWER ELEVATION DETAILS
A-3	EQUIPMENT DETAILS
A-4	ANTENNA DETAILS
SWM-1	DRAINAGE AREA MAPS
SWM-2	STORMWATER MANAGEMENT PLAN
SWM-3	STORMWATER MANAGEMENT CALCULATIONS
ES-1	EROSION & SEDIMENT CONTROL PLAN
ES-2	EROSION & SEDIMENT CONTROL DETAILS

DO NOT SCALE DRAWINGS

THESE DRAWINGS ARE FORMATTED TO BE FULL-SIZE AT 24"X36". CONTRACTOR SHALL PRINT AND SCALE DRAWINGS TO FIT THE SHEET. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGNER/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR MATERIAL ORDERS OR BE RESPONSIBLE FOR THE SAME. CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICE TO PROTECT ENVIRONMENT DURING CONSTRUCTION.

SIGNATURE BLOCK

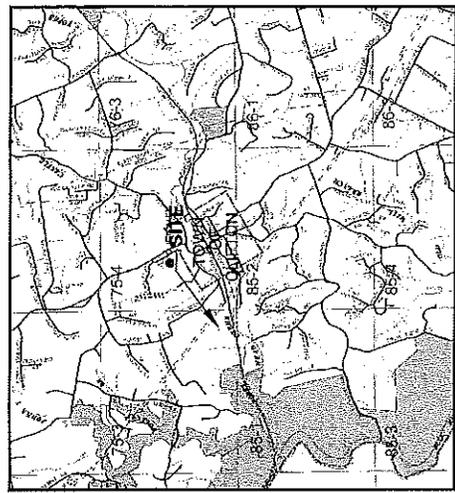
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TEASING: _____ DATE: _____

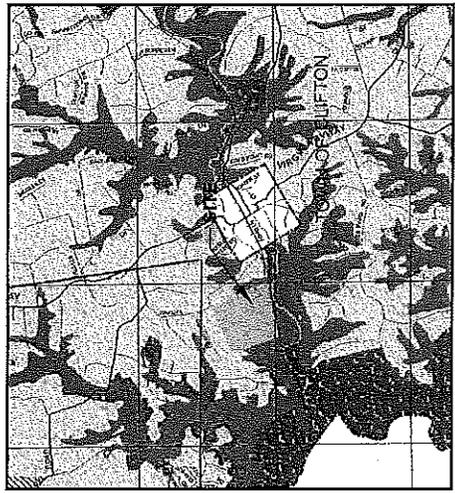
ENGINEER	APPLICANT	SITE INFORMATION	DESIGN RECORD	PROFESSIONAL STAMP	ENGINEER	SHEET TITLE	SHEET NUMBER
NBC TOTALLY COMMITTED. NS-C CONSULTING SERVICES, LLC 100 WASHINGTON COMMONS DRIVE FALLS CHURCH, VA 22044	Milestone COMMUNICATIONS 12810 SUNSET HILLS ROAD, SUITE 100 CLIFTON, VA 20124 TEL: (703) 620-2455 FAX: (703) 622-8889	CLIFTON CREEK SUBSTATION 12895 CLIFTON CREEK DRIVE CLIFTON, VA 20124 FAIRFAX COUNTY	REVISIONS		TRENT SAVARI, P.E. VA PROFESSIONAL ENGINEER LIC. #98978	TITLE SHEET	T-1

PRIOR SPECIAL EXCEPTION APPROVALS
 6E-N-4-011 APPROVED 12/02

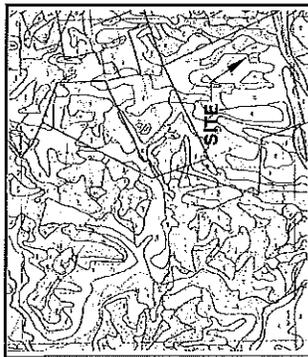
		<p>CLIFTON CREEK SUBSTATION 12895 CLIFTON CREEK DRIVE CLIFTON, VA 20124 FAIRFAX COUNTY</p>	<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>07/01/14</td> <td>CONTRACT</td> <td>RNC</td> </tr> <tr> <td>2</td> <td>07/01/14</td> <td>FINAL</td> <td>RNC</td> </tr> </tbody> </table>	NO.	DATE	DESCRIPTION	BY	1	07/01/14	CONTRACT	RNC	2	07/01/14	FINAL	RNC		<p>TRENT SANKAR, P.E. VA PROFESSIONAL ENGINEER LIC. #948978</p>	<p>CIVIL MAPS</p>	<p>Z-2</p>
NO.	DATE	DESCRIPTION	BY																
1	07/01/14	CONTRACT	RNC																
2	07/01/14	FINAL	RNC																
ENGINEER	APPLICANT	SITE INFORMATION	DESIGN RECORD	PROFESSIONAL STAMP	ENGINEER	SHEET TITLE	SHEET NUMBER												



1. LAND USE MAP
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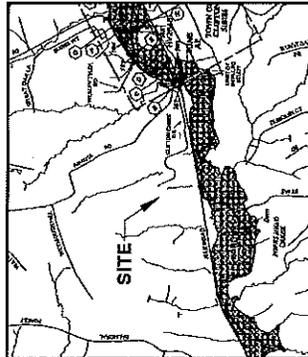
2. TRAIL MAP
 SCALE 1:2500



3. RESOURCE MANAGEMENT MAP
 SCALE 1:2500



4. ZONING MAP
 SCALE 1:2500



5. SOILS MAP
 SCALE 1:2500

6. FLOOD ZONE MAP
 SCALE 1:2500

7. FLOOD ZONE MAP
 SCALE 1:2500

NBIC
TOTALLY COMMITTED

NS-C ENGINEERING SERVICES, LLC
1000 WASHINGTON AVENUE, SUITE 100
FAIRFAX, VA 22031

Milestone
COMMUNICATIONS

22119 STONEMILL ROAD, SUITE 100
FAIRFAX, VA 22031
TEL: (703) 636-2525
FAX: (703) 636-4889

CLIFTON CREEK SUBSTATION
18888 CLIFTON CREEK DRIVE
CLIFTON, VA 20124
FAIRFAX COUNTY

REVISIONS

REV	DATE	DESCRIPTION	BY
1	10/28/14	DS/PJAN	INC
2	11/10/14	PHAL	INC



TRENT S. MARK, P.E.
VA PROFESSIONAL ENGINEER LIC. #044872

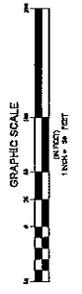
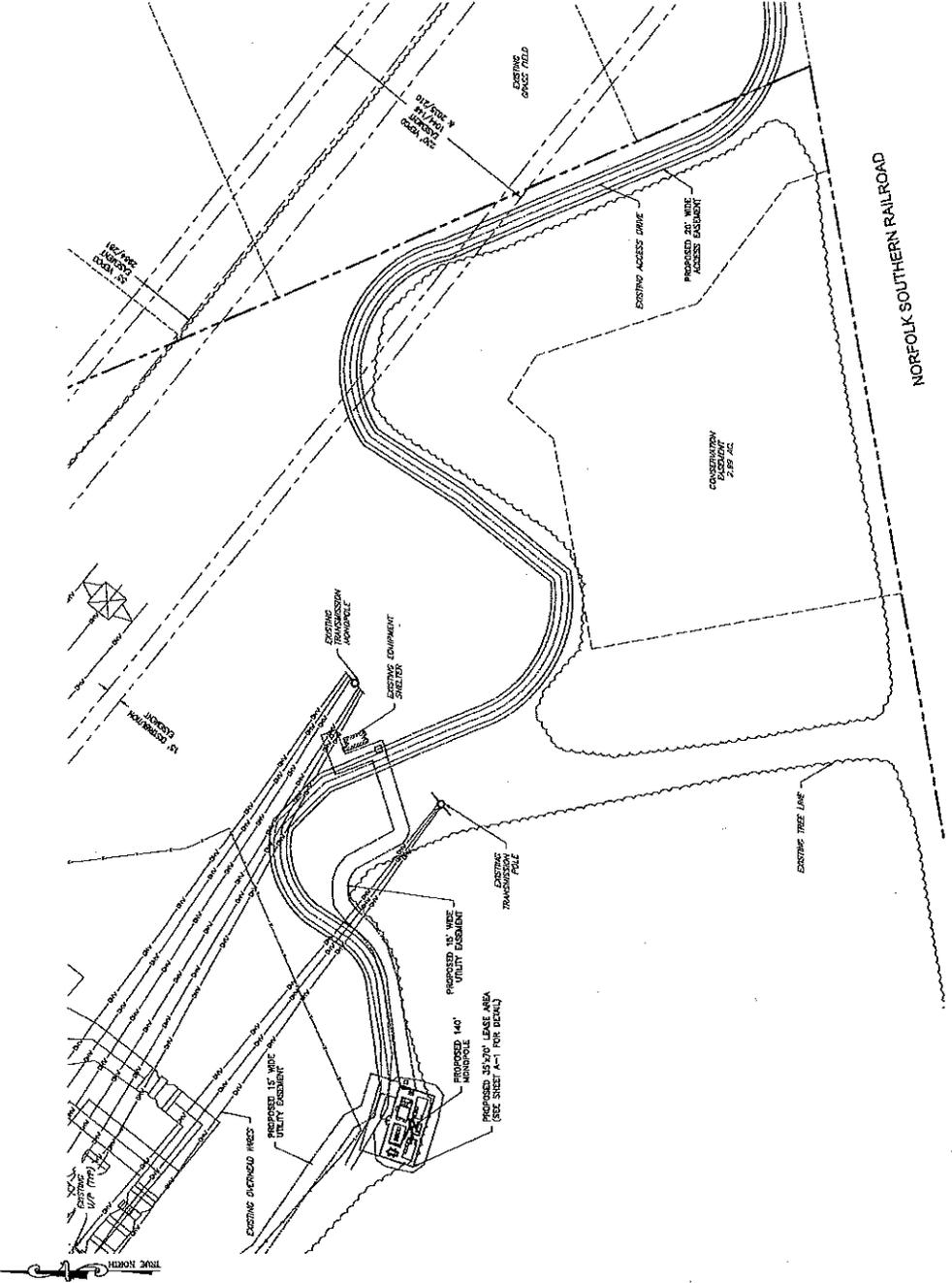
PARTIAL SITE PLAN

Z-3

LEGEND

- PROPERTY LINE - SHADY AREA
- PROPERTY LINE - UNITS
- EXISTING ROAD
- EXISTING TREE LINE
- EXISTING EXHAUST
- PROPOSED EXHAUST
- EXISTING BUILDING

PROJ. SPECIAL EXCEPTION APPROVALS
SEE 114-001 APPROVED 3/8/12



1 SITE PLAN
SCALE: 1"=40'

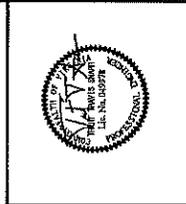
NBIC
TOTALLY COMMITTED.
NBIC ENGINEERING SERVICES, LLC
10000 WOODBRIDGE BLVD, SUITE 100
FAIRFAX, VA 22030

Milestone
COMMUNICATIONS
12110 SULLY ROAD, SUITE 100
RESTON, VA 20190
TEL: (703) 428-2555
FAX: (703) 428-4889

CLIFTON CREEK SUBSTATION
12885 CLIFTON CREEK DRIVE
CLIFTON, VA 20124
FAIRFAX COUNTY

REVISIONS

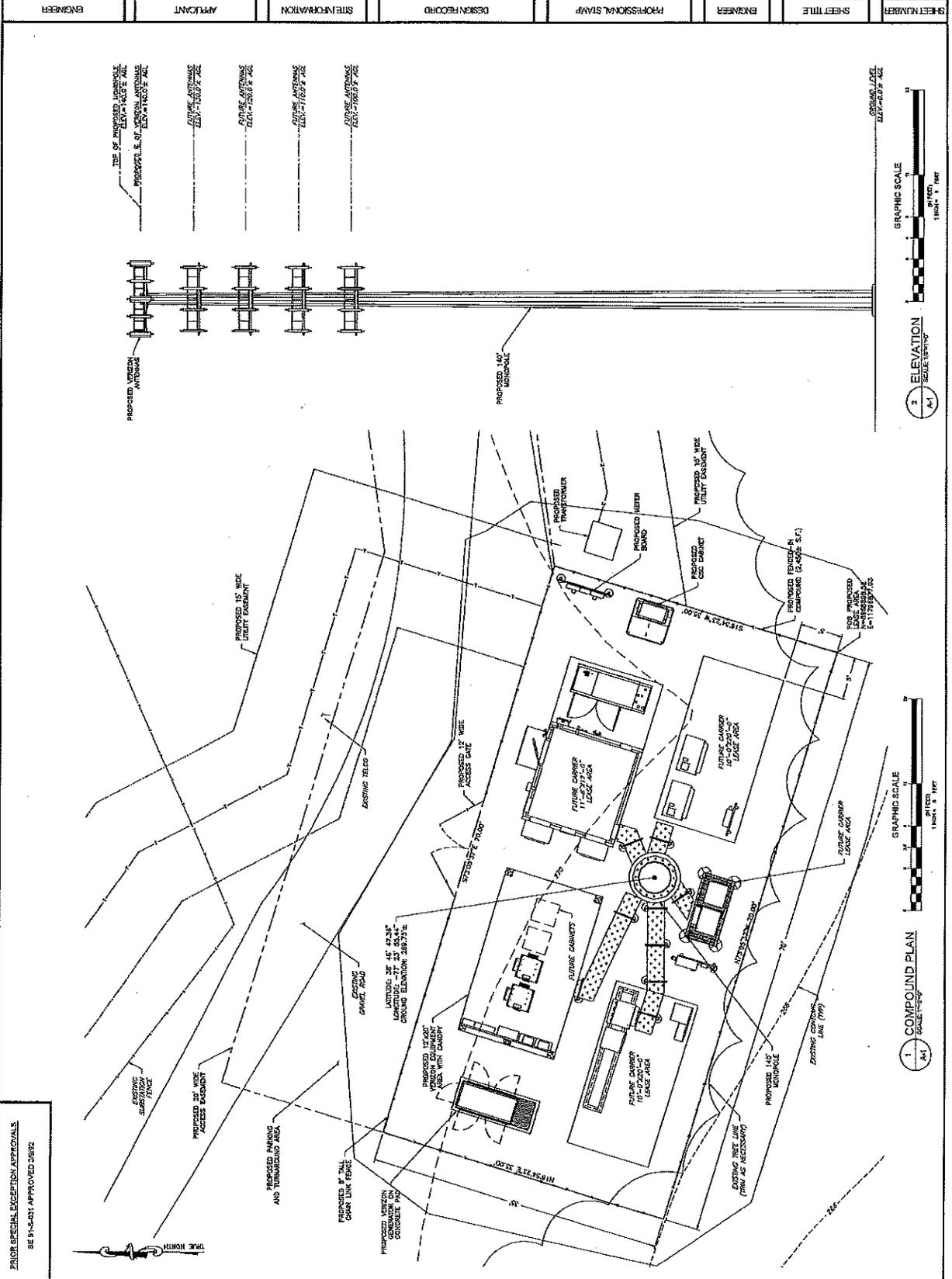
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0	1/20/14	ISSUE FOR PERMITS	PHIL



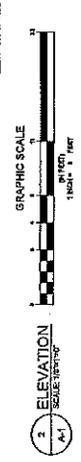
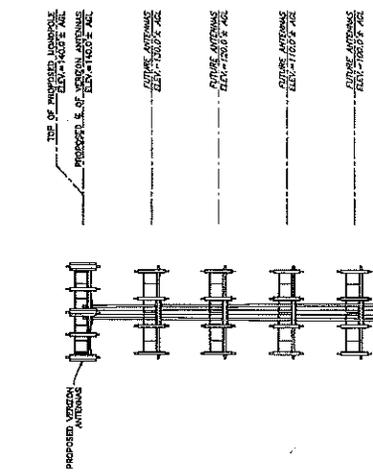
TRENT SWARTZ, P.E.
VA PROFESSIONAL ENGINEER LIC. #44978

**COMPOUND PLAN
& ELEVATION**

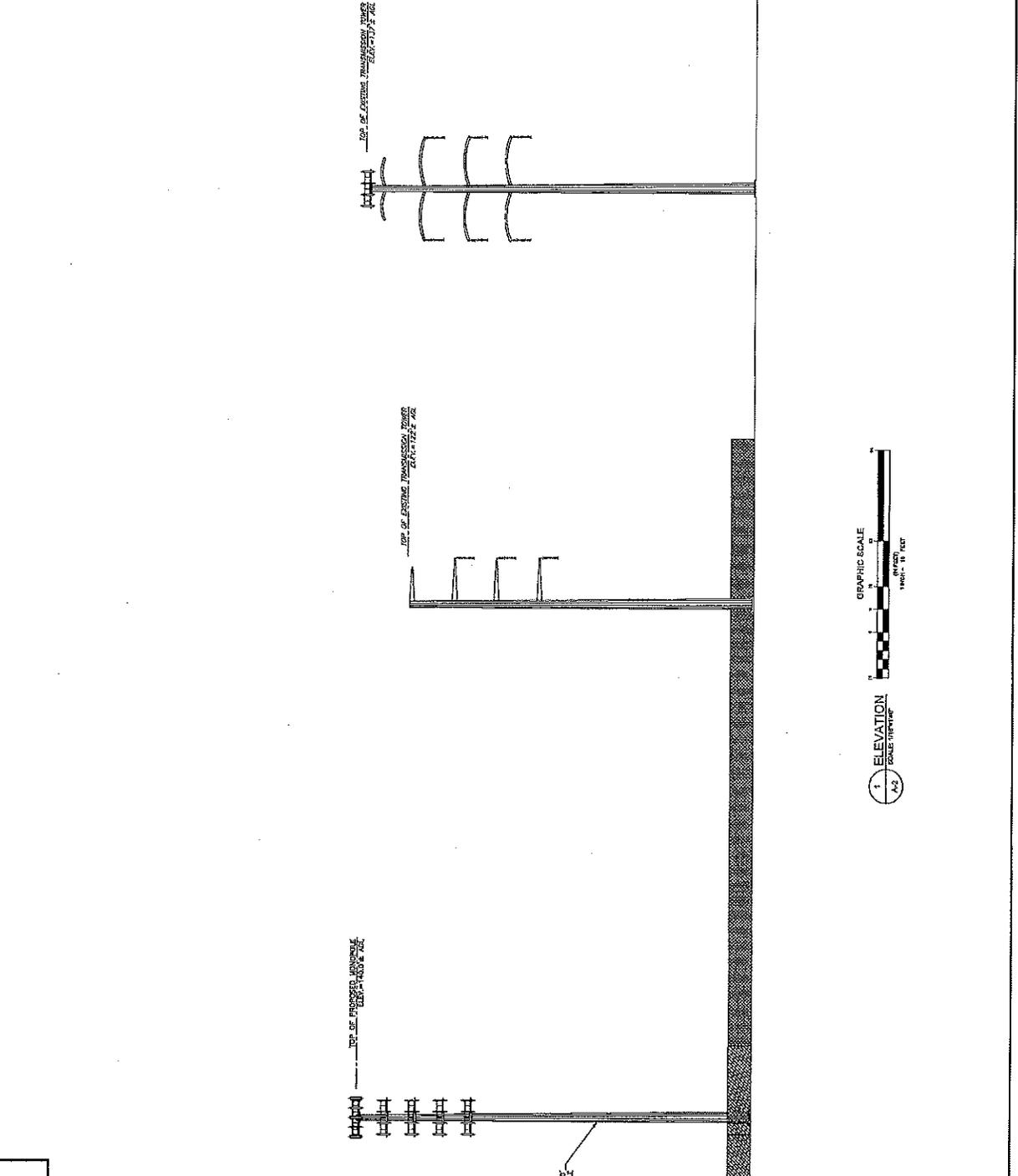
A-1



FOR SPECIAL EXCEPTION APPROVALS
SEE 91-5451 APPROVED CASE



FOR SPECIAL EXCEPTION APPROVALS
 SE 21-0031 APPROVED 3/8/22



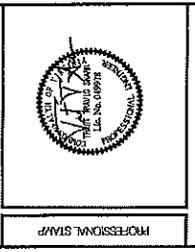
NTIC
 NETWORK TECHNOLOGIES INC.
 12110 SUNSET HILLS ROAD, SUITE 100
 FARMERSVILLE, VA 22434
 TEL: (703) 620-2833
 FAX: (703) 620-8889

Milestone
 COMMUNICATIONS
 12110 SUNSET HILLS ROAD, SUITE 100
 FARMERSVILLE, VA 22434
 TEL: (703) 620-2833
 FAX: (703) 620-8889

CLIFTON CREEK SUBSTATION
 12885 CLIFTON CREEK DRIVE
 CLIFTON, VA 20124
 FAIRFAX COUNTY

REVISIONS

REV	DATE	DESCRIPTION	BY
1	STATUS	WORKMAN	DKC
2	REVISION	FINAL	DKC



TRENT SWARR, P.E.
 VA PROFESSIONAL ENGINEER LIC. #6444979

TOWER ELEVATION
 DETAILS

A-2





CLIFTON CREEK SUBSTATION
12895 CLIFTON CREEK DRIVE
CLIFTON, VA 20124
FAIRFAX COUNTY

REVISIONS

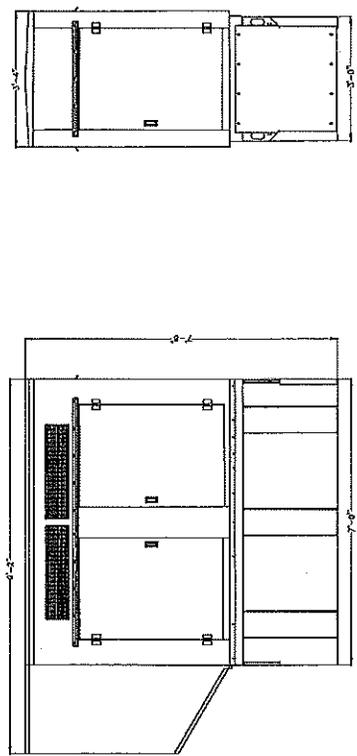
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1	DATE	DESCRIPTION	BY
2	DATE	DESCRIPTION	BY
3	DATE	DESCRIPTION	BY



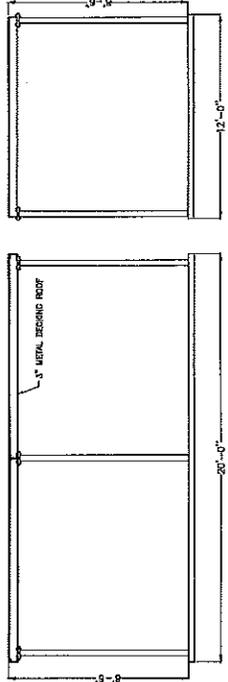
TRENT SUMNER, P.E.
VA PROFESSIONAL ENGINEER LIC. #404879

EQUIPMENT
DETAILS

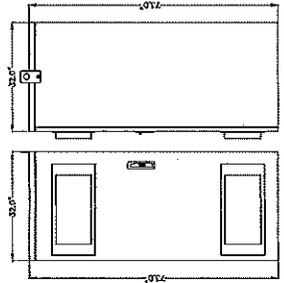
A-3



3 GENERATOR ELEVATIONS
SCALE: 3/8"=1'-0"

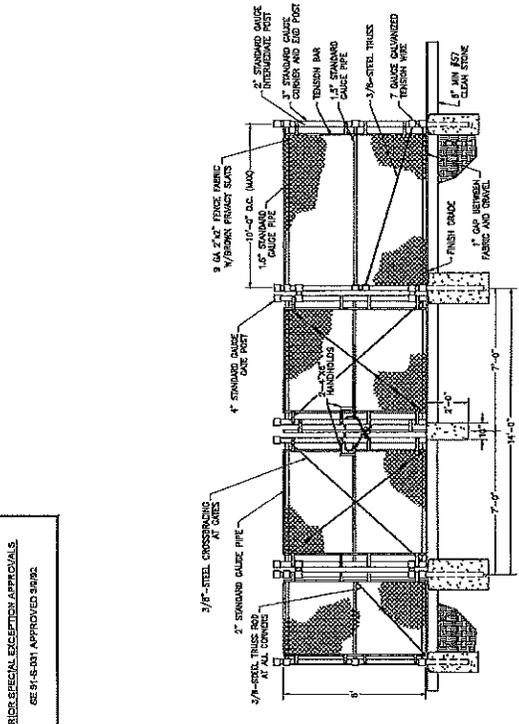


4 METAL CANOPY DETAIL
SCALE: NOT TO SCALE

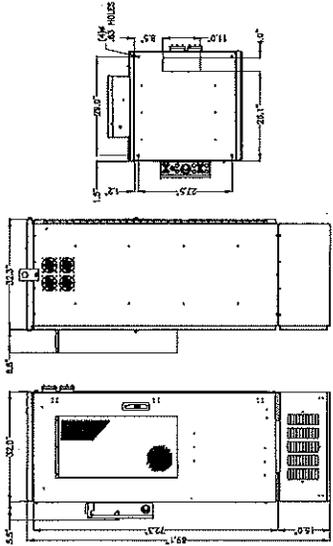


CONFIGURATION	INTERNAL BATTERY TRAYS	TRAYS	# OF BATTERIES (BUILT)	WEIGHT (LBS)	HEIGHT (LBS)
24 OR 48V, 110-220V <td>10</td> <td>5</td> <td>2</td> <td>100 LBS</td> <td>3005 LBS</td>	10	5	2	100 LBS	3005 LBS

5 CHARLES CUBE-BBDLJ2PH1 BATTERY CABINET
SCALE: 3/8"=1'-0"



1 TYPICAL FENCE AND GATE DETAILS
SCALE: 3/8"=1'-0"



2 CHARLES LT-P-M6322RF2 OUTDOOR PRIMARY CABINET
SCALE: 3/8"=1'-0"

FOR SPECIAL EXCEPTION APPROVALS
SEE 54-45-01 APPROVED 2002.

FOR SPECIAL EXCEPTION APPROVALS
 SEE 61-5-41 APPROVED 2/8/02

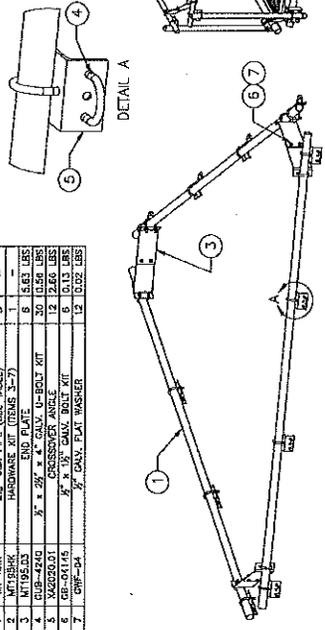
ANTENNA INFORMATION CHART

SECTOR	STATUS	ANTENNA MANUFACTURER	ANTENNA MODEL	RAD CENTER	AZIMUTH	MECHANICAL DOWN TILT	RRH QUANTITY & MODEL	COMB/HYBRID CABLE QUANTITY & SIZE	CABLE LENGTH
ALPHA	PROPOSED	ANTEL	BAW-70003-182F-750MHz	140'-0"	315°	0°	-	-	UNKNOWN
ALPHA	PROPOSED	ANTEL	BAW-17103-182F-50MHz	140'-0"	315°	0°	-	-	UNKNOWN
ALPHA	PROPOSED	ANTEL	BAW-70003-182F-750MHz	140'-0"	315°	0°	(1) ALCATEL-LUCENT RRH240-AWS	HYBRID CABLE	UNKNOWN
ALPHA	PROPOSED	ANTEL	BAW-17103-182F-50MHz	140'-0"	315°	0°	(1) ALCATEL-LUCENT RRH240-AWS	HYBRID CABLE	UNKNOWN
BETA	PROPOSED	ANTEL	BAW-70003-182F-750MHz	140'-0"	80°	0°	-	-	UNKNOWN
BETA	PROPOSED	ANTEL	BAW-17103-182F-50MHz	140'-0"	80°	0°	-	-	UNKNOWN
BETA	PROPOSED	ANTEL	BAW-70003-182F-750MHz	140'-0"	80°	0°	(1) ALCATEL-LUCENT RRH240-AWS	HYBRID CABLE FROM ALPHA	UNKNOWN
BETA	PROPOSED	ANTEL	BAW-17103-182F-50MHz	140'-0"	80°	0°	(1) ALCATEL-LUCENT RRH240-AWS	HYBRID CABLE FROM ALPHA	UNKNOWN
GAMMA	PROPOSED	ANTEL	BAW-70003-182F-750MHz	140'-0"	215°	0°	-	-	UNKNOWN
GAMMA	PROPOSED	ANTEL	BAW-17103-182F-50MHz	140'-0"	215°	0°	-	-	UNKNOWN
GAMMA	PROPOSED	ANTEL	BAW-70003-182F-750MHz	140'-0"	215°	0°	(1) ALCATEL-LUCENT RRH240-AWS	HYBRID CABLE FROM ALPHA	UNKNOWN
GAMMA	PROPOSED	ANTEL	BAW-17103-182F-50MHz	140'-0"	215°	0°	(1) ALCATEL-LUCENT RRH240-AWS	HYBRID CABLE FROM ALPHA	UNKNOWN

NOTES:
 1. CONTRACTOR TO VERIFY PROPOSED ANTENNA INFORMATION IS THE MOST CURRENT DATA AT TIME OF CONSTRUCTION.
 2. CONTRACTOR TO VERIFY ALL PROPOSED AND EXISTING ANTENNA AND CABLES WERE CONSIDERED AND MAINTAINED.
 3. STRUCTURAL ANALYSIS PERFORMED BY A LICENSED ENGINEER PRIOR TO INSTALLATION.

1 ANTENNA SCHEDULE
 (K4) NOT TO SCALE

ITEM	QTY	WEIGHT
1. ANTENNA SCHEDULE	1	-
2. END PLATE	6	5.81 LBS
3. CROSSOVER ANGLE	12	2.66 LBS
4. CABLE BULK KIT	5	0.13 LBS
5. CABLE TIE	12	0.22 LBS
6. CABLE TIE	12	0.22 LBS



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NATC
 TOTALLY COMMITTED.
 NAC ENGINEERING SERVICES, LLC
 1110 SUNSET BELLS ROAD, SUITE 100
 FARMERSVILLE, VA 22434
 TEL: (703) 628-2153
 FAX: (703) 628-1889

Milestone
 COMMUNICATIONS
 12110 SUNSET BELLS ROAD, SUITE 100
 FARMERSVILLE, VA 22434
 TEL: (703) 628-2153
 FAX: (703) 628-1889

SITE INFORMATION
 CLIFTON CREEK SUBSTATION
 12885 CLIFTON CREEK DRIVE
 CLIFTON, VA 20124
 FAIRFAX COUNTY

DESIGN RECORD

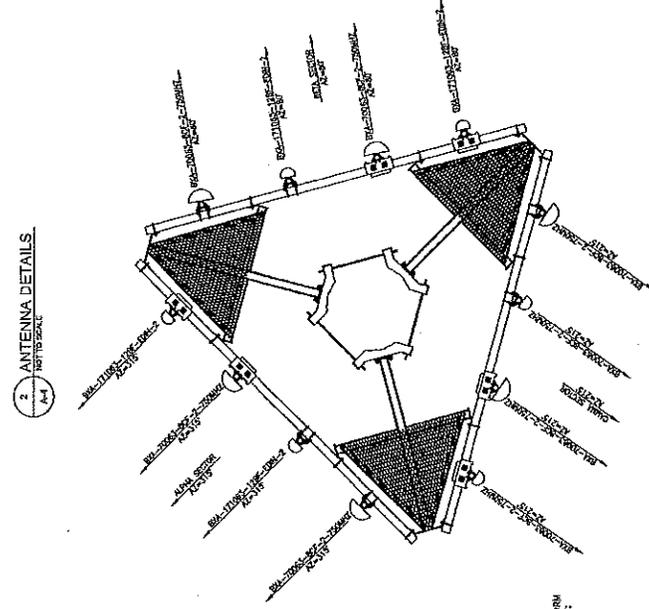
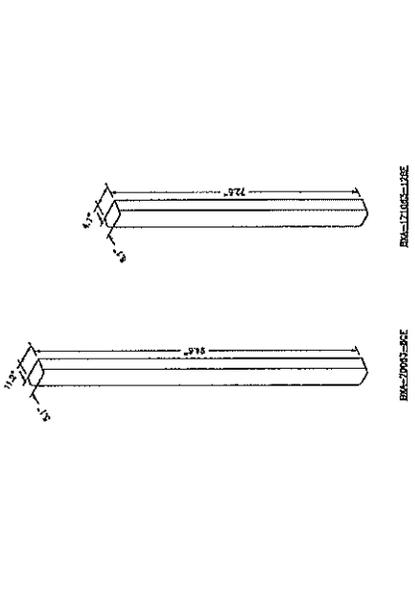
REV	DATE	DESCRIPTION	BY
1	01/28/03	ISSUE FOR PERMITS	RHC
2	02/10/03	ISSUE FOR PERMITS	RHC

PROFESSIONAL STAMP

 TRENT SHARR, P.E.
 VA PROFESSIONAL ENGINEER LIC. #618978

SHEET TITLE
ANTENNA DETAILS

SHEET NUMBER
A-4



REVISIONS

REV	DATE	DESCRIPTION	BY
1	01/28/03	ISSUE FOR PERMITS	RHC
2	02/10/03	ISSUE FOR PERMITS	RHC



1 OUTFALL DRAINAGE AREA MAP
SCALE: 1"=20'

2 EXISTING DRAINAGE AREA MAP
SCALE: 1"=20'

3 PROPOSED DRAINAGE AREA MAP
SCALE: 1"=20'

4 ADEQUATE OUTFALL DRAINAGE AREA MAP

5 EXISTING DRAINAGE AREA MAP

6 PROPOSED DRAINAGE AREA MAP

7 EXISTING DRAINAGE AREA MAP

8 PROPOSED DRAINAGE AREA MAP

9 EXISTING DRAINAGE AREA MAP

10 PROPOSED DRAINAGE AREA MAP

11 EXISTING DRAINAGE AREA MAP

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97 EXISTING DRAINAGE AREA MAP

98 PROPOSED DRAINAGE AREA MAP

99 EXISTING DRAINAGE AREA MAP

100 PROPOSED DRAINAGE AREA MAP

<p>NPAIC TOTALLY COMMITTED</p> <p>NPAIC ENGINEERING SERVICES, LLC 13119 KENNETT BELLS ROAD, SUITE 100 RESTON, VA 20190 TEL: (703) 628-2855 FAX: (703) 628-9869</p>	<p>Milestone COMMUNICATIONS</p> <p>13119 KENNETT BELLS ROAD, SUITE 100 RESTON, VA 20190 TEL: (703) 628-2855 FAX: (703) 628-9869</p>	<p>CLIFTON CREEK SUBSTATION 12895 CLIFTON CREEK DRIVE CLIFTON, VA 20124 FAIRFAX COUNTY</p>	<p>REVISIONS</p> <table border="1"> <tr><th>NO.</th><th>DATE</th><th>DESCRIPTION</th><th>BY</th></tr> <tr><td>1</td><td>04/20</td><td>ISSUE FOR PERMITS</td><td>END</td></tr> <tr><td>2</td><td>08/01</td><td>FINAL</td><td>END</td></tr> </table>		NO.	DATE	DESCRIPTION	BY	1	04/20	ISSUE FOR PERMITS	END	2	08/01	FINAL	END
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<p>DESIGNER</p>	<p>APPLICANT</p>	<p>SITE INFORMATION</p>	<p>DESIGN RECORD</p>	<p>PROFESSIONAL STAMP</p>												
<p>ENGINEER</p>	<p>ENGINEER</p>	<p>SHEET TITLE</p> <p>DRAINAGE AREA MAPS</p>	<p>SHEET NUMBER</p> <p>SWM-1</p>	<p>TRIDENT ENGINEER, P.C. VA PROFESSIONAL ENGINEER, LIC. #649078</p>												

