

**BEFORE THE MONTGOMERY COUNTY  
BOARD OF APPEALS  
Office of Zoning and Administrative Hearings  
Stella B. Werner Council Office Building  
Rockville, Maryland 20850  
(240) 777-6660**

**IN THE MATTER OF:** \*  
**WASHINGTON, D.C. SMSA LIMITED** \*  
**PARTNERSHIP (d/b/a VERIZON WIRELESS)** \*  
**and** \*  
**MARYLAND-NATIONAL CAPITAL PARK** \*  
**AND PLANNING COMMISSION** \*  
 Petitioners \*  
 Robert Posilkin \*  
 Phillip Perrine \*  
 Roque Fial \*  
 Joseph Joyce \*  
 Curt Westergard \*  
 For the Petition \*  
M. Gregg Diamond, Esquire \*  
 Attorney for Petitioners \*

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Board of Appeals Case No. S-2729  
(OZAH No. 08-27)

Before: Martin L. Grossman, Hearing Examiner

**HEARING EXAMINER’S REPORT AND RECOMMENDATION**

**TABLE OF CONTENTS**

	<b>PAGE</b>
I. STATEMENT OF THE CASE .....	2
II. FACTUAL BACKGROUND .....	3
A. The Subject Property and the General Neighborhood .....	3
B. Proposed Use .....	7
C. Impact of the Proposed Facility on the Neighborhood .....	16
D. Need for the Proposed Facility .....	24
E. The Master Plan .....	30
III. SUMMARY OF HEARING .....	31
IV. FINDINGS AND CONCLUSIONS .....	45
A. Standard for Evaluation .....	46
B. General Conditions .....	48
C. Specific Standards .....	54
D. Additional Applicable Standards .....	59
V. RECOMMENDATION .....	62

## I. STATEMENT OF THE CASE

Petition No. S-2729, was filed on March 3, 2008, by Washington, D.C. SMSA Limited Partnership (d/b/a Verizon Wireless; hereinafter “Verizon”) and the Maryland-National Capital Park and Planning Commission (M-NCPPC). Petitioners seek a special exception, pursuant to §59-G-2.58 of the Zoning Ordinance, to permit construction of an unmanned, wireless telecommunications facility on a 140 foot tall monopole at 1313 Bonifant Road, Silver Spring. The subject site is in the RE-2 Zone, which permits telecommunications facilities by special exception. The site is parkland owned by M-NCPPC, and the Tax Account Numbers are 05-00269087 and 05-00268540. The tower would be a “stealth” facility, designed to look like a pine tree.

The Transmission Facilities Coordinating Group (TFCG) voted to approve Petitioners’ proposal initially on June 8, 2005, and again on May 2, 2007, subject to the granting of a special exception. Exhibit 13. On March 31, 2008, the Board of Appeals issued a notice that a hearing in this matter would be held before the Office of Zoning and Administrative Hearings on September 19, 2008. Exhibit 19. Technical Staff at the Maryland-National Capital Park and Planning Commission, in a report issued August 25, 2008, recommended approval of the special exception (Exhibit 22).<sup>1</sup> The Planning Board, in a letter dated September 5, 2008, also unanimously recommended approval of the Petition, with the condition that Verizon obtain a Park Construction Permit prior to any clearing, grading or construction on the site (Exhibit 24(a)).

A public hearing was convened as scheduled on September 19, 2008, and Petitioners called five witnesses. There were no other participants at the hearing, which concluded on the same day. The record was held open until September 26, 2008, so that Petitioners could file a minor revision to the Landscape and Lighting Plan, and electronic copies of certain exhibits. The record closed, as scheduled on September 26, 2008, and the petition remains unopposed.

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<sup>1</sup> The Technical Staff report is frequently quoted and paraphrased herein.

As will appear more fully below, Petitioners have met all the requirements for the special exception they seek, and the Hearing Examiner recommends that it be granted, with conditions specified in Part V of this report.

## **II. FACTUAL BACKGROUND**

### **A. The Subject Property and the General Neighborhood**

As noted above, the address of the subject property is 1313 Bonifant Road, Silver Spring, Maryland. The subject site is in Northwest Branch Recreational Park, which is owned by co-applicant, M-NCPPC. The National Capital Trolley Museum is located in the park adjacent to the subject site,<sup>2</sup> and there is a public golf course north of the site. The subject site will consist of a 2,250 square-foot, fenced compound (45 feet by 50 feet), which will contain the monopole and an equipment building. There is an access road outside the compound. The compound will be located on Parcel P229, a 61.5 acre tract of parkland, and the new access road will be constructed on Parcel P250 (also identified as “Parcel 2”), a 43.19 acre tract of parkland.<sup>3</sup> Verizon has leased the site from M-NCPPC, and the lease gives Petitioner a non-exclusive right of entry at all times. Exhibit 11.

According to Technical Staff, the subject site is in the Northwest Branch watershed, and is not located within a special protection area. There are perennial and intermittent streams on site, along with areas of 100-year floodplains and wetlands. No existing trees are located where the facility is proposed. Exhibit 22, p. 17. There is a gentle upward slope which makes the location of the proposed monopole approximately 60 feet higher than the elevation at street level along Bonifant Road. Exhibit 22, p. 7.

The new Trolley Museum is located just on the east side of a gravel access road that extends

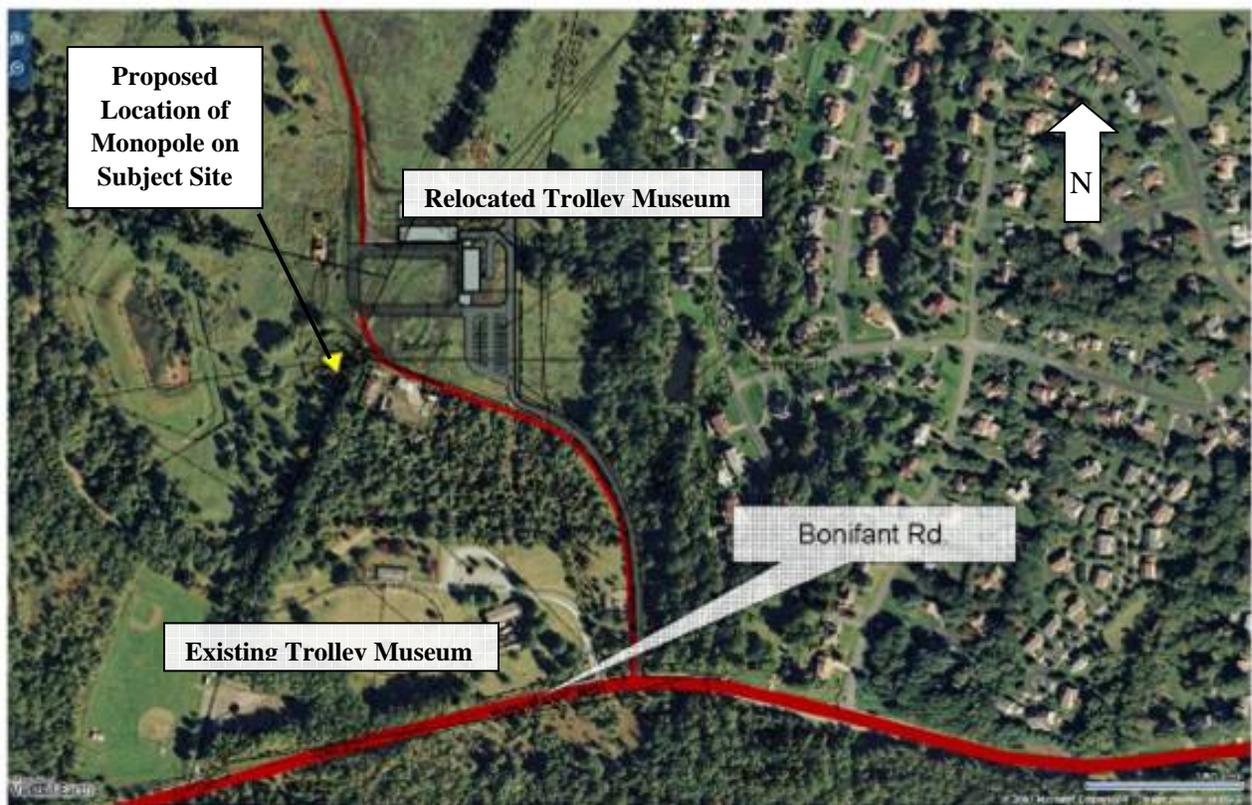
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<sup>2</sup> The museum will be relocating 1,000 feet to the north to make way for construction of the Inter-County Connector (ICC).

<sup>3</sup> Parcel P250 is the identification of this parcel in the tax records. The deed which conveyed this land to the M-NCPPC identifies this area as Parcel 2, as explained in an e-mail from Verizon’s attorney to Technical Staff (Exhibit 23). It has been referred to in both ways in this case.

north from Bonifant Road. A short stem off that road will access the Verizon site where the tower and equipment building will be located. Thus the Verizon site is located just to the southwest of the new Trolley Museum site, which consists of a parking lot, several buildings and an area of track where the trolleys will run. Tr. 38.

The site can be seen on a “General Orientation Map,” provided by Verizon as part of Exhibit 10. It is reproduced below:

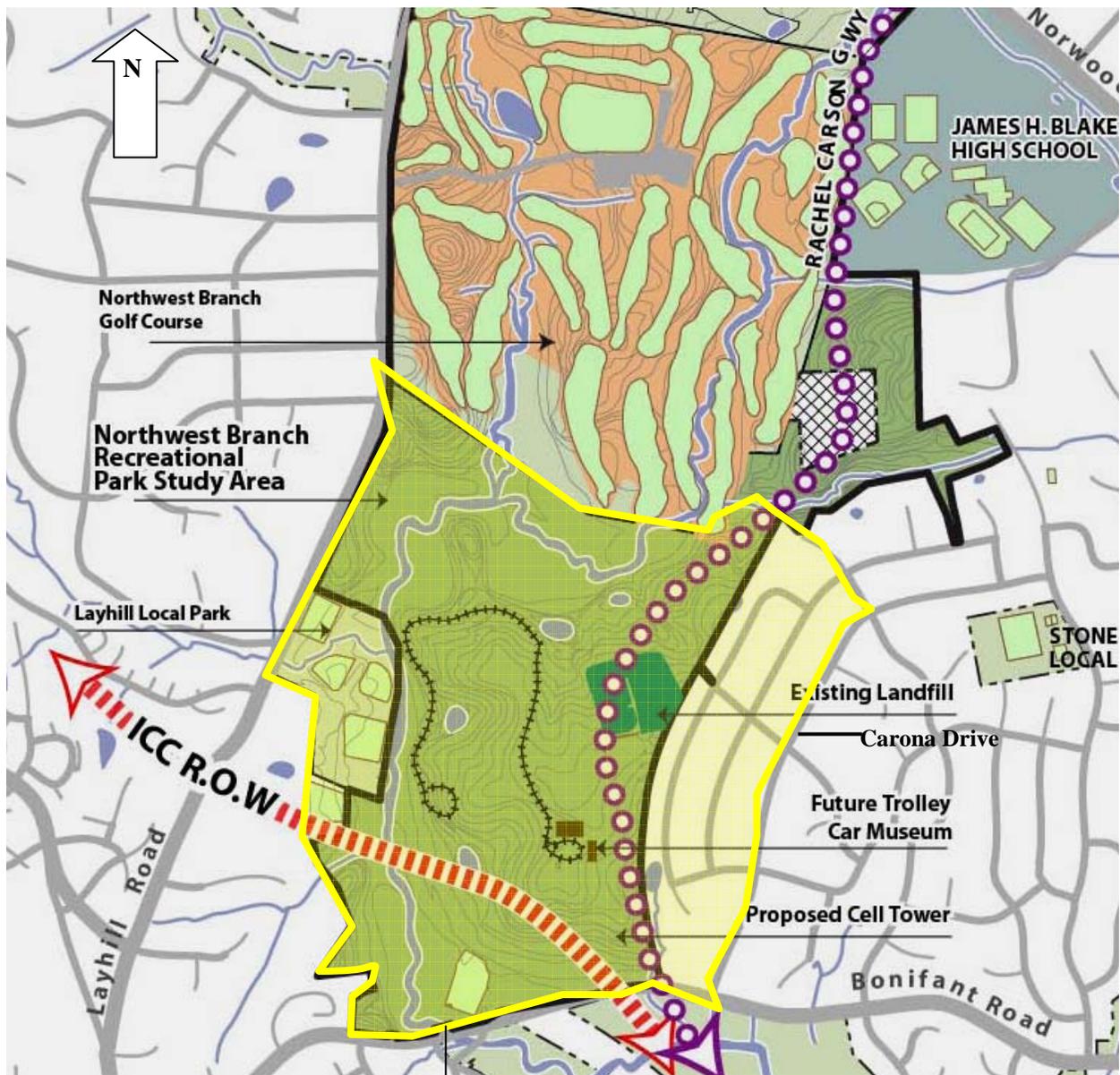


 = tree monopole location

Petitioners’ land planning expert, Phil Perrine, described the site for the monopole as a relatively flat site, which falls off in either direction, with wooded areas to the west along the stream valley park; to the south, both immediately south of the property and down along Bonifant Road; and to the east, up to border of the park, where it confronts the closest residential homes. Thus, while it is relatively open in the immediate area of the site, the surrounding perimeter is fairly well

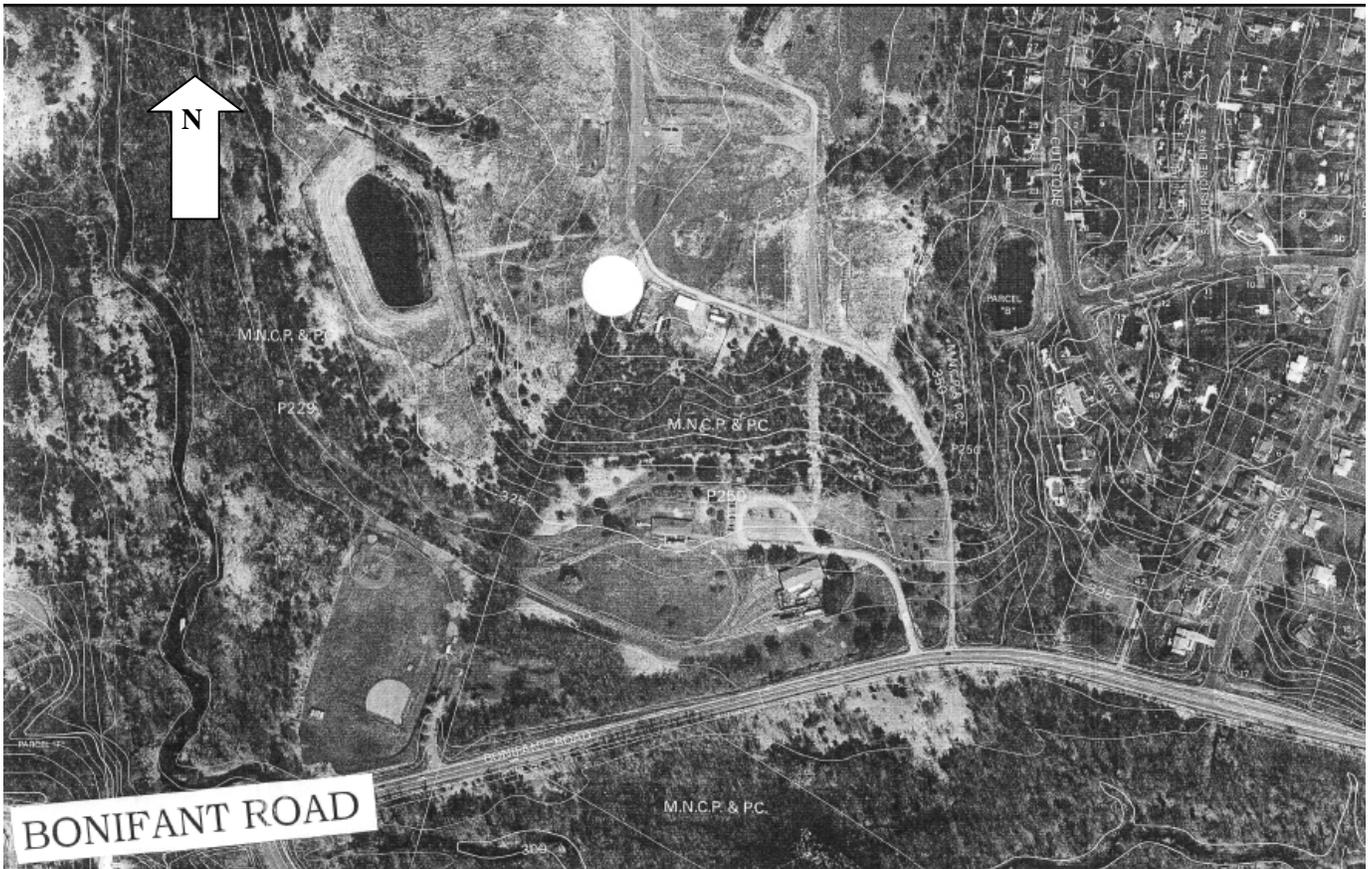
wooded and forested with mature trees. Tr. 70. The path of the Inter-County Connector is to the south of the site, right through the existing Trolley Museum location. Tr. 69. The park area is zoned RE-2. Tr. 72.

Technical Staff defined the neighborhood as bordered by the Northwest Park Golf Course to the north; Jaystone and Carona Drives to the east; Bonifant Road to the south; and Northwest Branch Park and Layhill Local Park to the west, as shown below on a map from Exhibit 22, p. 8.



Neighborhood

Staff stated that this definition included the properties that could be affected by visual impacts. No traffic impacts were taken into consideration in defining the neighborhood because the proposed use will generate only minimal traffic. Mr. Perrine accepted this definition of the neighborhood (Tr. 68), as does the Hearing Examiner. Most of the neighborhood can be seen on the following aerial photo, which marks the subject site with a large dot (Exhibit 29):



The residential area to the east, north of Bonifant Road, is all zoned R-200. The area to the west of the park, north of Bonifant Road is also R-200. Thus, the neighborhood consists solely of single-family detached dwelling units and publicly-owned parkland (Exhibit 22, p.7), although Mr. Perrine characterized the Trolley Museum as “an industrial-type museum.” Tr. 73. Only one other special exception (S-1982), an accessory apartment, exists within the neighborhood boundary.

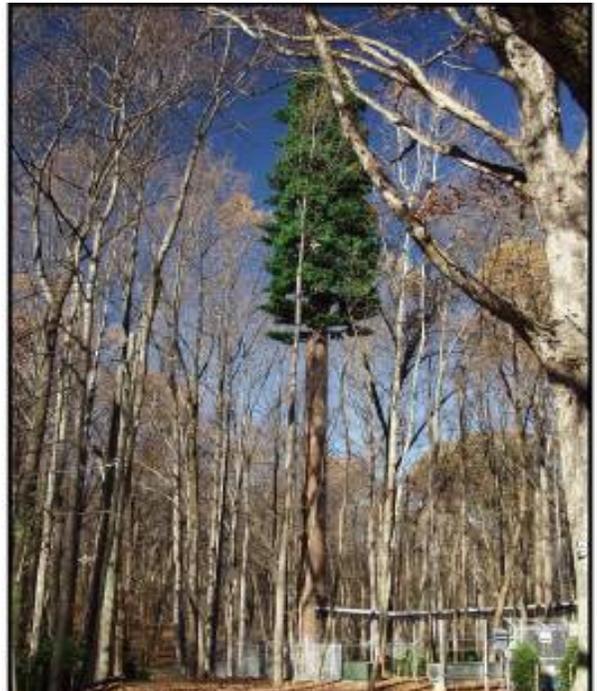
Exhibit 22. p. 7.

### B. The Proposed Use

The proposed use is an unmanned wireless telecommunications facility, with a 140-foot “stealth” monopole, designed to look like a pine tree, and an equipment building within a 2,250 square-foot fenced compound (45 feet by 50 feet). The monopole will be covered in a rubberized material which will simulate pine tree bark underneath faux limbs and foliage. The branches of the simulated foliage do not contain any operative elements. The faux limbs, which are inserted into the steel pole, will begin at a height of about 30 feet or 40 feet, and will continue to a height of 140 feet. Antennas will be attached at about the 134-foot level, located behind the faux foliage, and will reach up to a height of approximately 137 feet. Tr. 40. Samples of an ordinary monopole and a stealth tree monopole are shown below (Exhibit 10(a), pp. 3 and 4):



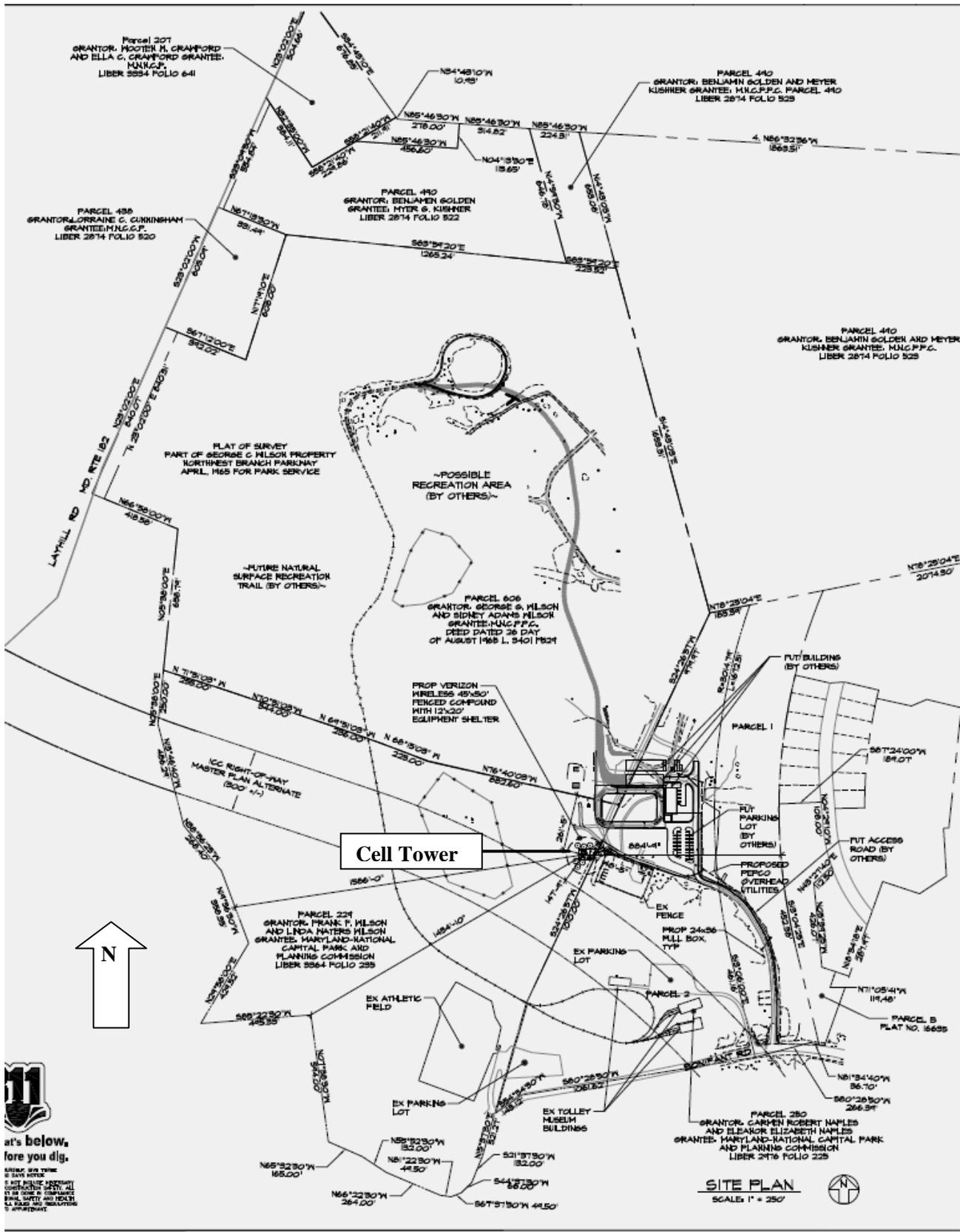
**Typical Cell Monopole**



**Typical Stealth Tree Monopole**

The monopole will be designed to withstand wind velocities and icing conditions as determined by Montgomery County’s Building Code (Tr. 42), and in the event of collapse, it “[b]uckles at the half way point so it falls on itself.” Tr. 86-87. The Site Plan (Exhibit 21(c)) is set

forth below, followed by the Site Details (Exhibit 21(e)):



**SITE NOTES:**

- 1. APPLICANT: VERIZON WIRELESS  
9000 JUNCTION DRIVE  
ANNAPOLIS JUNCTION, MD 20701  
TEL: (301) 512-2000  
FAX: (301) 512-2186
- APPLICANT'S ATTORNEY: M.S. DIAMOND  
THE LAW OFFICES OF M. GREGG DIAMOND, P.C.  
7500 WOODMONT AVENUE  
SUITE 100  
BETHESDA, MARYLAND 20814  
(240) 396-2266
- 2. PROPERTY OWNER: MARYLAND NATIONAL CAPITAL PARK & PLANNING COMMISSION  
8787 GEORGIA AVE  
SILVER SPRING, MD 20910
- 3. SITE DATA: TAX MAP JURIS. PARCEL P221  
DISTRICT OR TAX ACCOUNT: 00264087  
TRACT AREA: 61.50 AC. +/-  
ADDRESS: 6111N ROAD  
EXISTING USE: OPEN LAND
- 4. CURRENT ZONING: THE TELECOMMUNICATIONS FACILITY IS LOCATED IN THE RE-2 ZONE, THE REMAINDER OF THE PROPERTY IS ZONED R-200

- 5. TOTAL DISTURBED AREA = 22,204 SF
- 6. HORIZONTAL AND VERTICAL CONTROL SHOWN HEREON IS BASED ON A GPS BY JOHN C. MELLAMA, DATED JULY 18, 2006.

SOURCE: NAD83  
LATITUDE: N89° 05' 41.958"  
LONGITUDE: W77° 01' 56.125"  
GROUND ELEVATION: 870.00' AMSL  
TOP OF PROP TREEPOLE: 140.00' AGL

SOURCE: NAD27  
LATITUDE: N89° 05' 41.868"  
LONGITUDE: W77° 01' 54.204"

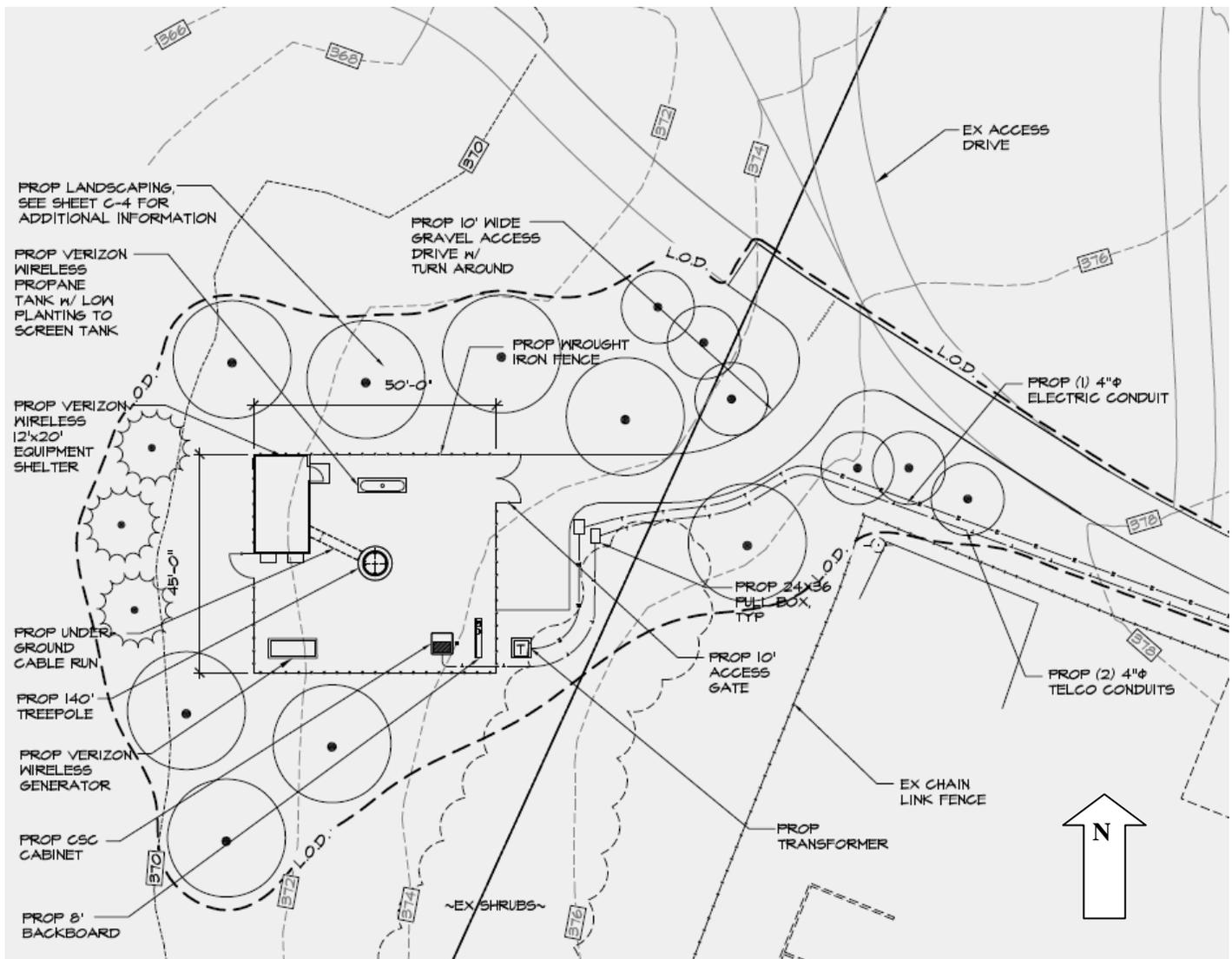
- 7. THE SCOPE OF WORK FOR THIS PROJECT CONSISTS OF THE INSTALLATION OF A 12'-0"X30'-0"X10'-6" HIGH EQUIPMENT SHELTER ON GRADE AND 140'-0" TREEPOLE TELECOMMUNICATIONS TOWER LOCATED WITHIN A 45'-0" X 50'-0" FENCED COMPOUND. THE EQUIPMENT SHALL SERVICE VERIZON WIRELESS ANTENNAS MOUNTED TO THE TREEPOLE.
- 8. THE STRUCTURE WILL NOT SUPPORT LIGHTS OR SIGNS UNLESS REQUIRED FOR AIRCRAFT WARNINGS OR OTHER SAFETY RECORDS. THE SHELTER SHALL HAVE ONE (1) LIGHT FIXTURE OVER THE ACCESS DOOR.
- 9. THE APPLICANT WILL PROVIDE A CERTIFICATION FROM A REGISTERED ENGINEER THAT THE STRUCTURE WILL MEET THE APPLICABLE DESIGN STANDARDS FOR WIND LOADS, OF THE ELECTRONIC INDUSTRIES ASSOCIATES (EIA).
- 10. IF THE ANTENNAS ARE NO LONGER USED FOR TELECOMMUNICATIONS PURPOSES FOR A CONTINUOUS PERIOD OF ONE (1) YEAR, THEY SHALL BE REMOVED BY THE ANTENNA OWNER AT OWNER'S EXPENSE.
- 11. NO WATER OR SANITARY UTILITIES ARE REQUIRED FOR THE OPERATION OF THIS FACILITY.
- 12. THIS SITE HAS BEEN INCLUDED IN THE THE FOREST CONSERVATION PLAN PREPARED FOR THE PROPOSED TROLLEY MUSEUM PROJECT CURRENTLY UNDER CONSTRUCTION ON THIS SITE (NATIONAL CAPITAL TROLLEY MUSEUM - FOREST CONSERVATION PLAN APPROVAL #SC2008004, APPROVED 08/24-07).
- 13. STORMWATER MANAGEMENT NOTE: NO STORMWATER MANAGEMENT IS REQUIRED FOR THE PROPOSED INSTALLATION.
- 14. THE EXTERIOR OF THE SHELTER SHALL BE FINISHED IN BRICK USING LAWRENCEVILLE WAVETEX 3-204. ALL DOOR FRAMES ARE TO BE PAINTED WITH SHERWIN WILLIAMS WESTCHESTER GRAY #2844.
- 15. BOUNDARY SHOWN PER COUNTY RECORDS. EXISTING SITE FEATURES SHOWN PER SURVEY BY JOHN C. MELLAMA SR., INC. PERFORMED IN JULY OF 2006.
- 16. THIS PLAN PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT. PLAN IS SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.
- 17. ALL DETAILS SHOWN ARE "STANDARD" OR "TYPICAL" FOR REFERENCE ONLY. FOR ACTUAL DETAILS, SEE ARCHITECTURAL, STRUCTURAL, OR CONSTRUCTION PLANS BY OTHERS.
- 18. THE COMMUNICATION SHELTER SHALL BE UNMANNED, WITH INFREQUENT VISITS BY MAINTENANCE PERSONNEL, AND WITH ACCESS AND PARKING FOR NO MORE THAN ONE VEHICLE. THE PROP FACILITY IS NOT FOR HUMAN HABITATION AND THEREFORE HANDICAP ACCESS IS NOT REQUIRED.
- 19. THE PROPOSED TREEPOLE MONOPOLE IS LOCATED MORE THAN 300 FEET FROM ALL OFF-SITE DWELLINGS.
- 20. THE PROPOSED TOWER & EQUIPMENT SHELTER SETBACKS ARE AS FOLLOWS:

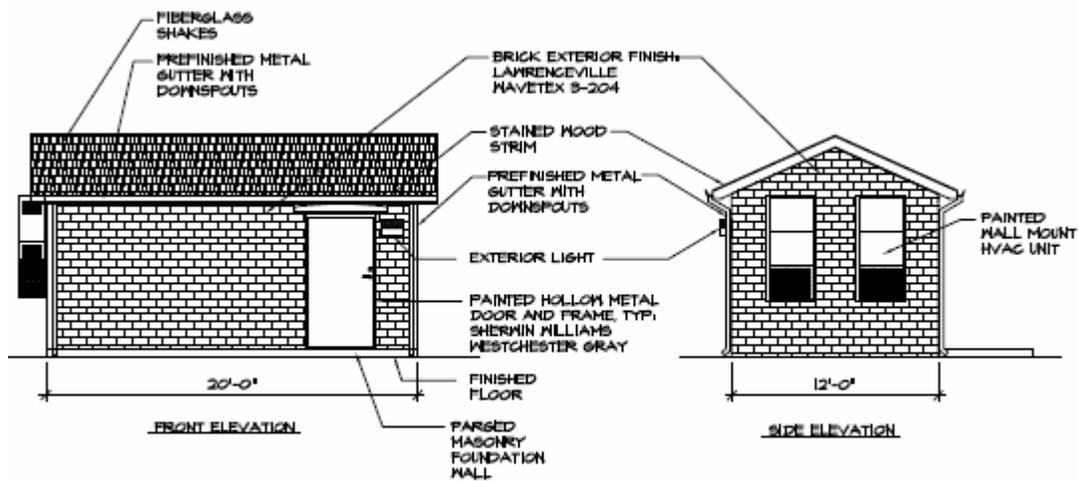
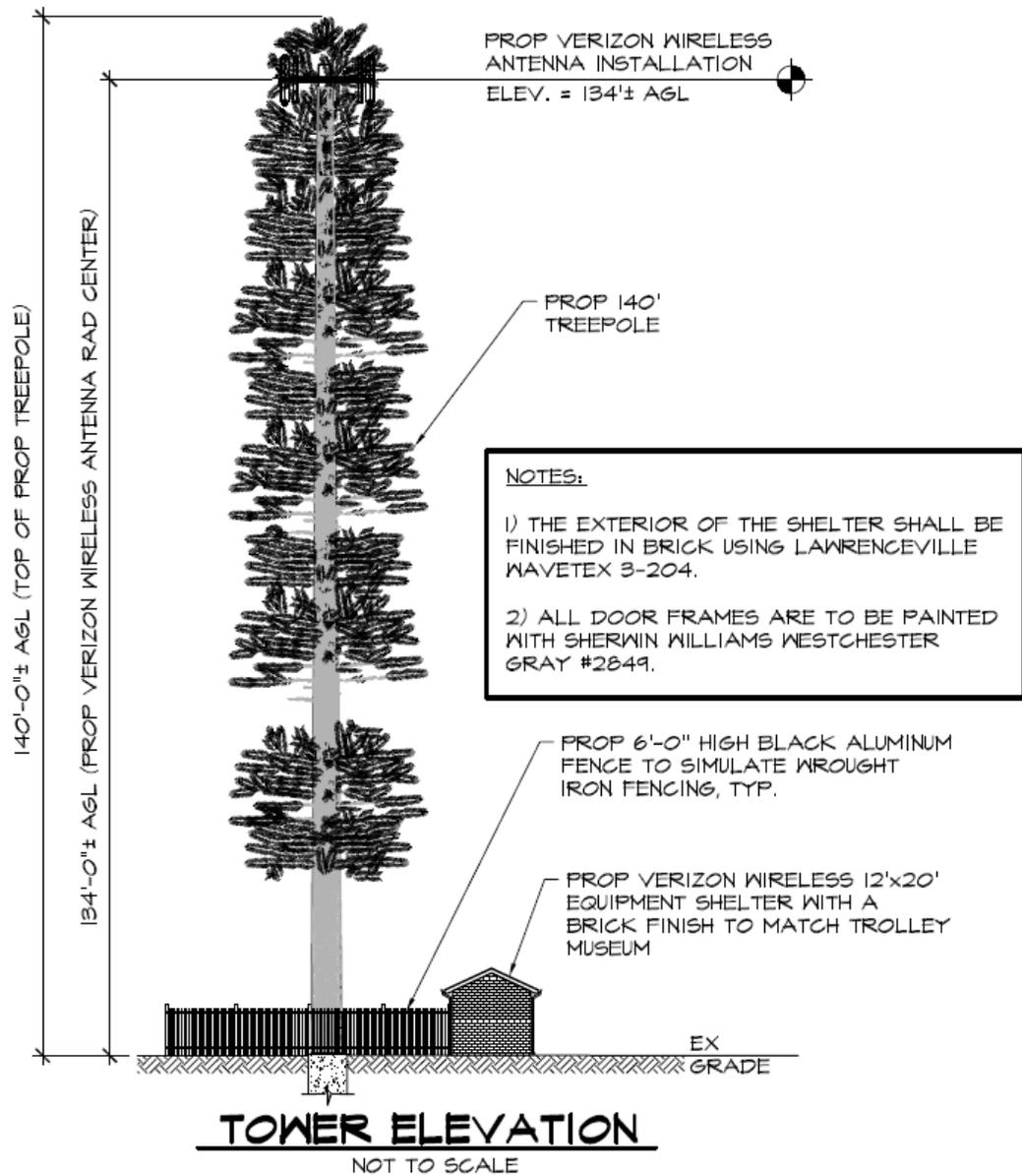
MONOPOLE SETBACKS			EQUIPMENT SHELTER SETBACKS		
	REQUIRED	PROVIDED		REQUIRED	PROVIDED
FRONT	140'	1069'-0"	FRONT	50'	1074'-2"
SIDE	140'	884'-9"	SIDE	50'	897'-10"
REAR	140'	2195'-5"	REAR	12'	219'-0"

- 21. TROLLEY MUSEUM CONSTRUCTION NOTES: (VERIZON WIRELESS SHALL PROVIDE THE FOLLOWING ITEMS DURING CONSTRUCTION).
  - 1. 10'-0" HIGH BLACK ALUMINUM FENCE, SIMILATING WROUGHT IRON APPEARANCE, TO BLEND IN WITH TROLLEY MUSEUM ARCHITECTURAL ELEMENTS.
  - 2. INSTALL THREE (3) NEW WOODEN UTILITY POLES, LOCATION TO BE DETERMINED BY TROLLEY MUSEUM.
  - 3. PROVIDE AND INSTALL TWO (2) 4" DIA. CONDUITS FOR FIBER TELEPHONE SERVICE FROM BONIFANT ROAD TO PROPOSED TELECOMMUNICATIONS SITE. TROLLEY MUSEUM TO HAVE ACCESS TO FIBER TELEPHONE SERVICE.
  - 4. PROVIDE ONE (1) 4" DIA. CONDUIT FOR ELECTRICAL SERVICE FROM BONIFANT ROAD TO PROPOSED TELECOMMUNICATIONS SITE.
  - 5. PROPOSED EQUIPMENT SHELTER TO BE GLAD WITH BRICK TO MATCH TROLLEY MUSEUM LAWRENCEVILLE WAVETEX 3-204. TRIM AND ACCESSORIES ON SHELTER ARE TO BE PAINTED TO MATCH TROLLEY MUSEUM SHERWIN WILLIAMS WESTCHESTER GRAY #2844.
  - 6. PROVIDE A TREEPOLE STYLE MONOPOLE.

**GENERAL NOTES**

1. CONTRACTOR SHALL NOTIFY "MISS UTILITY" (BU) 48 HOURS PRIOR TO DOING ANY EXCAVATION IN THIS AREA. CONTRACTOR SHALL CONTACT A SUBSURFACE UTILITY LOCATOR FOR LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL VERIFY EXISTING UTILITY LOCATIONS BY TEST PIT AS NECESSARY. LOCATION OF UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE AND FOR PLANNING PURPOSES ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. DAMAGE TO UTILITIES OR PROPERTY OF OTHER BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPAIRED TO PRECONSTRUCTION CONDITIONS BY THE CONTRACTOR.
2. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH ALL STATE AND LOCAL CODES AND ORDINANCES, THE LATEST EDITION THEREOF.
3. ANY PERMITS WHICH MUST BE OBTAINED SHALL BE THE CONTRACTOR'S RESPONSIBILITY. CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THIS PROJECT FROM ALL APPLICABLE GOVERNMENTAL AGENCIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
4. CONTRACTOR SHALL COORDINATE ALL UTILITY CONNECTIONS WITH APPROPRIATE UTILITY OWNERS.
5. THESE PLANS ARE NOT FOR RECORDATION OR CONVEYANCE.
6. EXISTING PAVEMENT AND OTHER SURFACES DISTURBED BY CONTRACTOR (WHICH ARE NOT TO BE REMOVED) SHALL BE REPAIRED TO PRECONSTRUCTION CONDITIONS BY THE CONTRACTOR.





**VERIZON WIRELESS EQUIPMENT SHELTER DETAIL**

N.T.S.

The equipment shelter will measure 12 feet by 20 feet and will have a brick veneer and a slanted roof that will simulate the architecture of the Trolley Museum itself. The compound will be surrounded by a six-foot, wrought iron fence. There will be enough space within the equipment compound to accommodate two future co-locators on the monopole. Exhibit 22, p. 11. According to Verizon's agent, Robert Posilkin, Verizon complied with all requests of Technical Staff and the Trolley Museum in terms of design, color and location. The roof, the type of brick and the type of fencing are all in response to the requests of both the landlord, M-NCPPC, and the Trolley Museum. Tr. 40-41.

The equipment shelter houses the electronics for the structure and backup batteries. Those batteries were described by Joseph Joyce, Verizon's "cell site construction professional engineer." Tr. 117-127. The cell site will have two 20 volt batteries, each with 10 cells. These batteries are 2 feet by 2 feet by about 8 feet high, with electronic equipment that boosts the voltage up to 24 volts, in order to drive the equipment in the cell site. According to Mr. Joyce, the batteries used for a cell tower are safer than car batteries because automobile batteries are powered by liquid lead acid, while the cell tower uses gel paste or sealed paste cells, which means they don't leak liquid if they should break. If one broke open, you would find a white paste on the floor. Also, car batteries produce hydrogen gas, while cell tower batteries do not produce enough gas to warrant venting. Mr. Joyce testified that they do not present any problems or dangers at all. Nevertheless, appropriate hazmat permits will be obtained to cover the batteries and propane stored on site. Tr. 45-47 and Exhibit 21(a). Underground cables will connect the equipment building to the monopole.

According to Mr. Joyce, the cell site has both batteries and a generator so that, in the event of a power failure, service will not be interrupted. The batteries provide power for as long as it takes for the generator to come up to speed, and then the cell switches over to the generator back up power. The batteries also act as a filter to knock down any spikes or glitches that might be coming

through the power line during normal operations. Thus, the batteries act as a standby power source and as a filter, giving continuous 24 volt DC power to the equipment. If the generator does not come on, the batteries are designed to carry the cell site for a minimum of eight hours, as dictated by the FCC. If the generator comes on, the fuel would last for two days.

Mr. Joyce also testified that there will be no lights on the tower because, unless a tower is near an airport, lights are not required by the FAA for towers under 200 feet. This tower is not near an airport. He also noted that the concrete slab for the equipment shelter is only a 12 by 20, and does not require any stormwater management.

Although the facility will be unmanned, it will be in continuous operation 24 hours per day. The only visits to the monopole will be for emergency repairs or regularly scheduled maintenance visits one or two times per month. Exhibit 22, p.11. Though the facility will not be lighted continuously, there will be a light at the entry door to the equipment shelter, so if it is visited in the evening, the cell technician can approach in safety. Tr. 50.

Access to the facility will be provided from existing roadways within the park, with the exception of an extension from the future Trolley Museum parking lot to the monopole's equipment compound. Exhibit 22, p. 11. At the request of M-NCPPC, Verizon has agreed to pave the Trolley Museum access road, which is currently gravel. Tr. 53-54.

Landscaping will be provided in accordance with details specified by the Parks Department, and will surround the perimeter of the iron fence. Exhibit 22, p. 11. The Landscape and Lighting Plan (Exhibit 31(a)) is shown below and on the following page:

## **PLANT LIST**

### **MAJOR TREES**

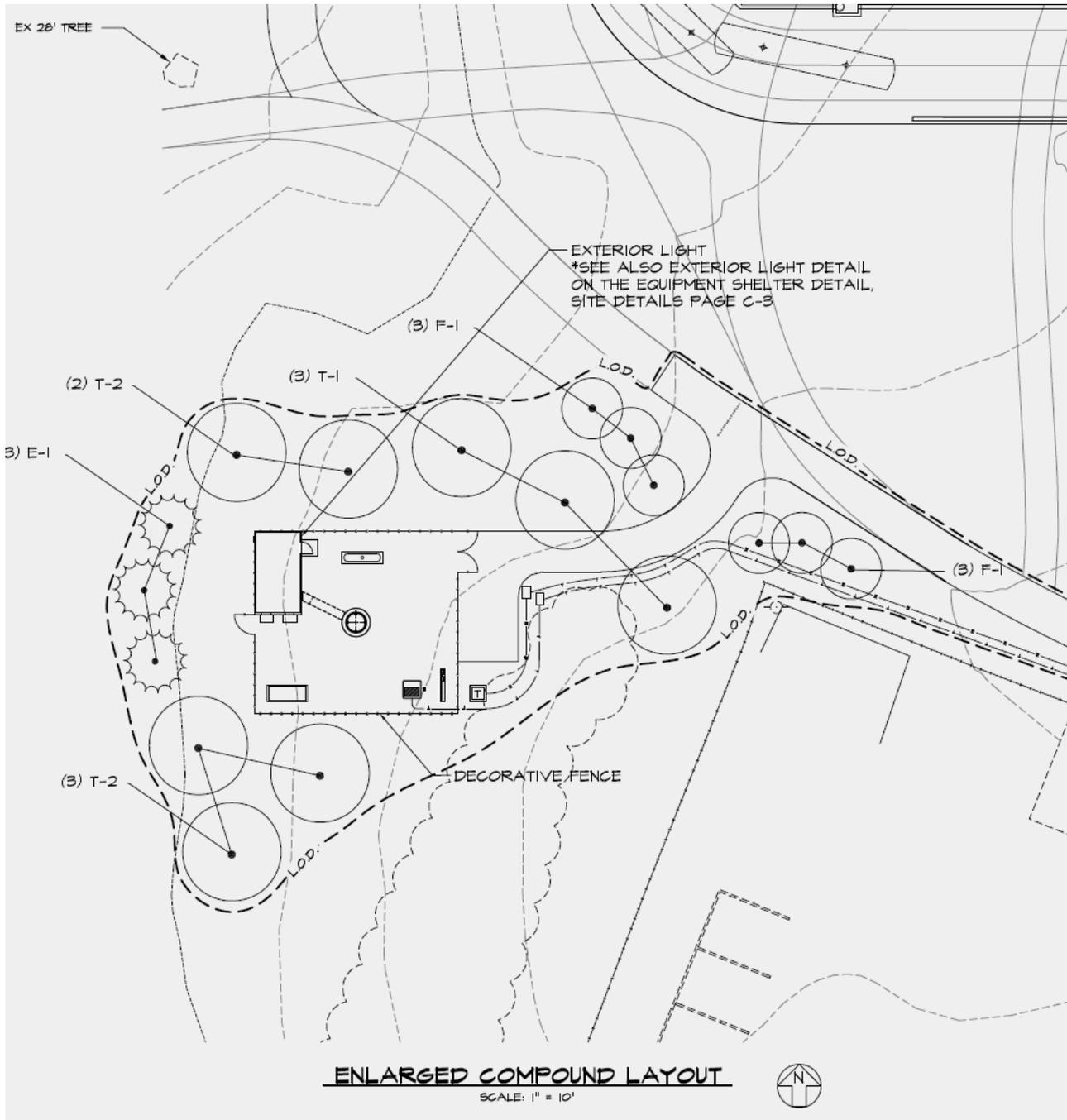
KEY	QUANTITY	BOTANICAL NAME/ COMMON NAME	SIZE	ROOT	REMARKS
T-1	3	Quercus Rubra Red Oak	2"-2 1/2"	B & B	
T-2	5	Metasequoia glyptostroboides Dawn Redwood	2"-2 1/2"	B & B	

**EVERGREEN TREES**

E-1	3	Ilex x 'Nellie R. Stevens' Nellie R. Stevens Holly	6' - 7'	B & B	
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**FLOWERING TREE**

F-1	6	Amelanchier Canadensis Shade Blow Service Berry	6' - 7'	B & B	multi-stem 3 or more
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## **GENERAL NOTES**

1. CONTRACTOR SHALL CONTACT "MISS UTILITY" (800-257-7777) AND SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES WITHIN THE PROJECT AREA PRIOR TO INSTALLATION OF PLANT MATERIAL.
2. PLANT MATERIAL AND BEDS SHALL RECEIVE A MINIMUM 3-INCH DEPTH OF MULCH.
3. ALL AREAS DISTURBED BY PLANTING OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
4. QUANTITIES OF TREES, EVERGREENS, AND SHRUBS NOTED ON THE PLANT LIST ARE BASED UPON THE GRAPHIC SYMBOLS SHOWN ON THE DRAWINGS. IF THERE IS A DISCREPANCY BETWEEN GRAPHIC SYMBOLS AND QUANTITIES SHOWN IN THE PLANT LIST, CONTACT OWNER'S REPRESENTATIVE.
5. ALL PLANT MATERIALS SHALL BE NURSERY GROWN AND SHALL COMPLY WITH THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1), LATEST EDITION, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSEYMEN.
6. ALL TREES TO CONFORM TO THE AMERICAN ASSOCIATION OF NURSEYMEN'S STANDARDS: SECTION 1.1.2.4. HEIGHT OF BRANCHING. ALL TREES TO BE MATCHED.
7. ALL PLANT MATERIALS TO BE FULL HEAVY SPECIMENS.
8. THIS DRAWING IS FOR LANDSCAPING INFORMATION ONLY. REFER TO SITE GRADING, UTILITY, AND SEDIMENT AND EROSION CONTROL FOR ALL OTHER INFORMATION

The only sign on the facility will be limited the two square foot identification sign required by Zoning Ordinance §59-G-2.58(a)(8). Tr. 52-53. The use requires neither water nor sewer services, and will put virtually no burden upon transportation services since it will require only one or two trips per month. Exhibit 22, p. 17. Fire stations are nearby, if needed. Tr. 90-91.

Although it will be surrounded by forest, no trees will have to be removed to construct and operate this telecommunications facility. Technical Staff reports that there are no environmental concerns regarding the proposed use (Exhibit 22, pp. 17-18):

This subject site is in the Northwest Branch watershed (Use IV). The site is not located within a special protection area. There are perennial and intermittent streams on site along with areas of 100-year floodplains and wetlands. However, based on the locations of these existing natural resources and the proposed placement of the monopole, no natural resource will be adversely impacted. No existing trees are located where the facility is proposed. [Emphasis added]

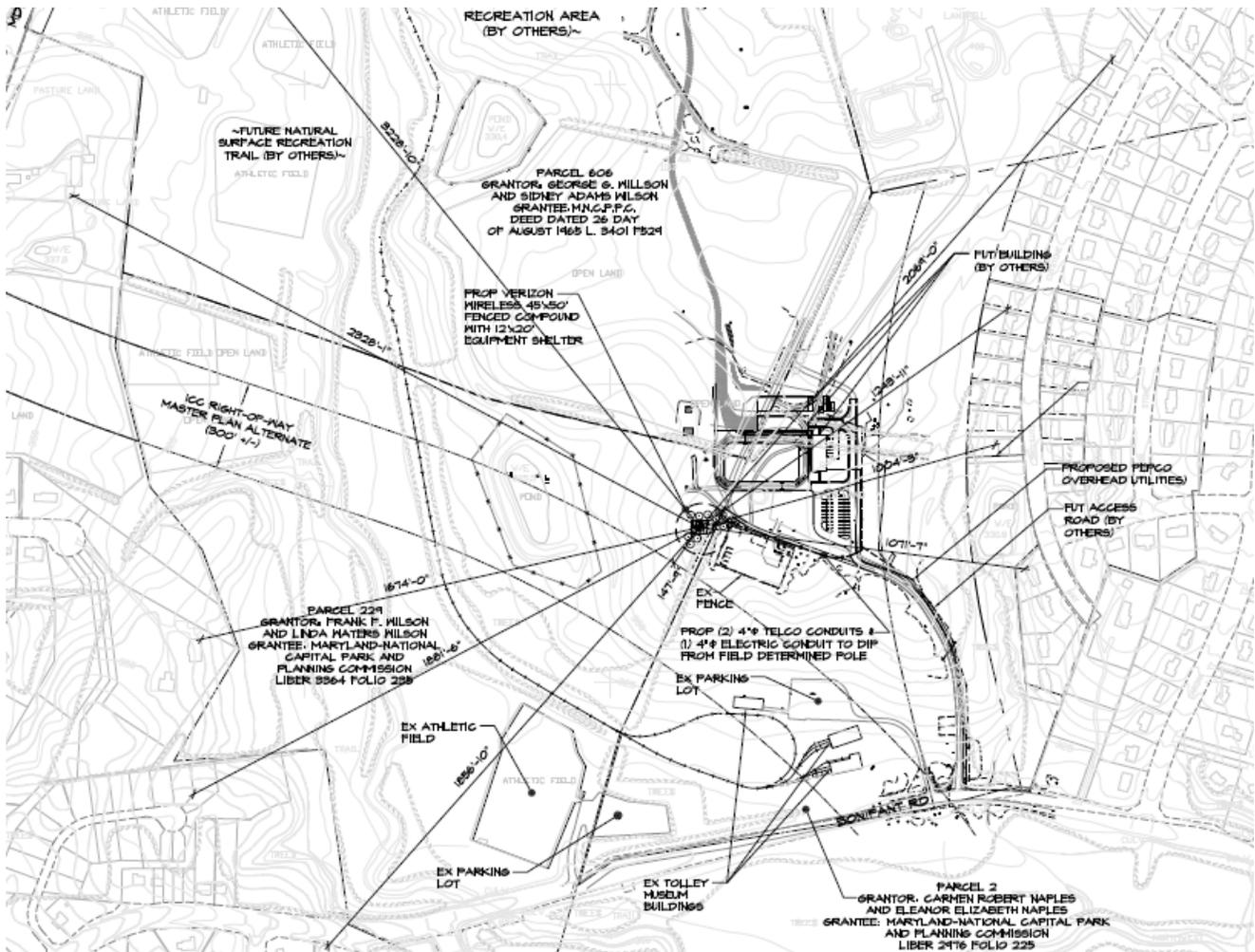
The Montgomery County Forest Conservation Law is applicable to this application. However, on August 24, 2007, a Final Forest Conservation Plan (FFCP) was approved that included both the telecommunications facility proposal and the future Trolley Museum. The approved FFCP consists of 37.19 acres of saved forest and 0.07 acres of removed forest.

The FFCP is included in the record of this case as Exhibits 6(a) and (b), and a condition is recommended in Part V of this report that the proposed use must comply therewith.

### C. Impact of the Proposed Facility on the Neighborhood

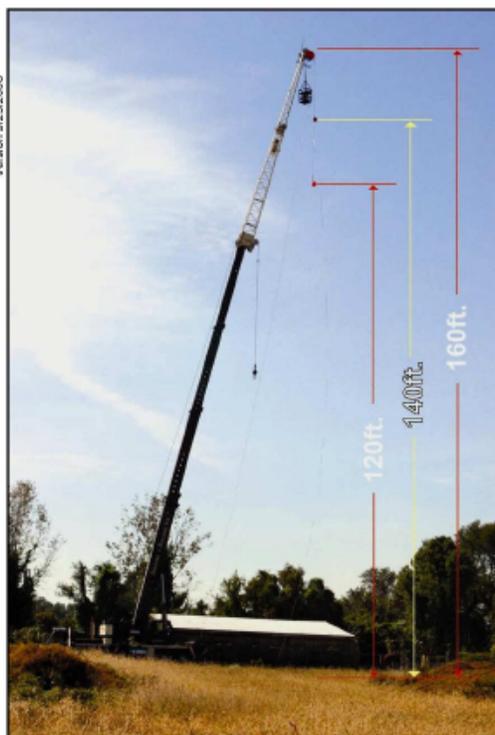
The most significant issue regarding a telecommunications facility in a residential zone is its potential visual impact upon the neighbors. For the reasons explained below, the Hearing Examiner finds that the proposed monopole will not be a visual nuisance to the neighborhood.

To assess visual impact, Petitioners took two steps. First, they produced a “Residential Setback Plan” (Exhibit 21(d)), which shows the distances from the proposed monopole to the nearest residences:



As shown in Exhibit 21(d), it is about 1004 feet from the proposed monopole to the nearest residence (*i.e.*, to the home itself), which is to the east side of the site, and it is about 900 feet to the nearest property line of a lot that has a residence on it. The closest property line of any kind is that of a stormwater management facility, which is about 884 feet away. Tr. 82-83. Thus, the setbacks vastly exceed those required by Zoning Ordinance §§59-G-2.58(a)(1) and (2). Subsection (a)(1) would require a 140 foot setback from the property line (one foot for every foot of tower height) and Subsection (a)(2) would require a 300 foot setback from the nearest dwelling.

Verizon also evaluated visual impact by doing a study in which a crane was set up at the site, and large rubber spheres were suspended at the potential heights of the tower. Nearby residents were notified of the test date. Tr. 59-60. “Before” and “after” photographs were taken, and then an imaging expert simulated the stealth pole at the appropriate locations, in place of the crane for each “after” photograph. Tr. 128-135. Samples of these pictures and simulations are compiled in Exhibit 10 and 10(a),<sup>4</sup> some of which are reproduced below, following the pictures of the test crane and map:



### Crane Test

**Date:**

Monday October 10, 2004

**Duration:**

8am – 12pm

**Location:**

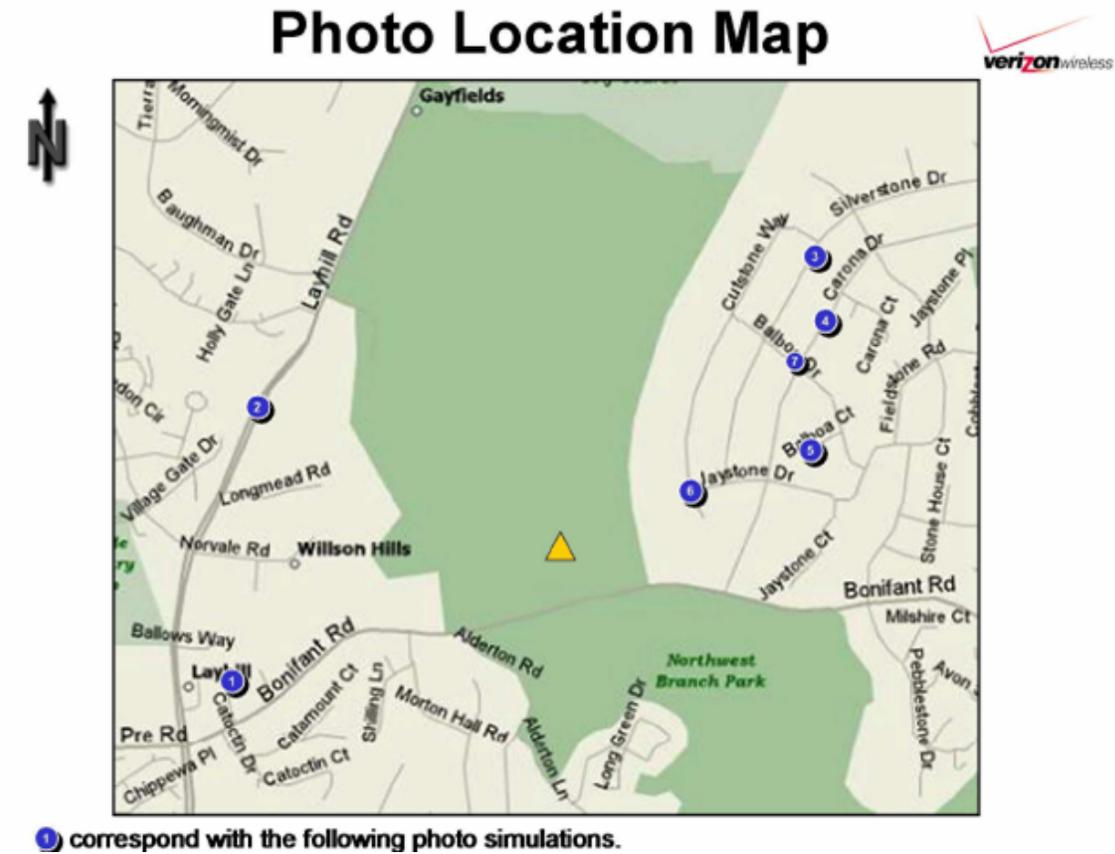
1313 Bonifant Road  
Silver Spring, MD  
20905-5955

### Procedure:

Visual impacts were determined by using a crane to lift 3 large red and white hard rubber spheres to 120, 140 and 160 feet above ground level. A team of photographers then drove in EACH nearby by community and photographed views back to the site. GPS and a laser rangefinder were used to verify the bearing and distance of significant views. Video footage was also taken to evaluate a driver's perspective from a car. The attached photo simulations are biased towards those areas where the monopole was fully or partially visible.

<sup>4</sup> Exhibit 10(a) is identical to Exhibit 10, except that page numbers are added for ease of reference.

The locations from which the photos were taken are identified on the following Photo Location Map of the area:



### Bonifant Park Drive



Existing conditions, Summer



crane with marker at 140 ft



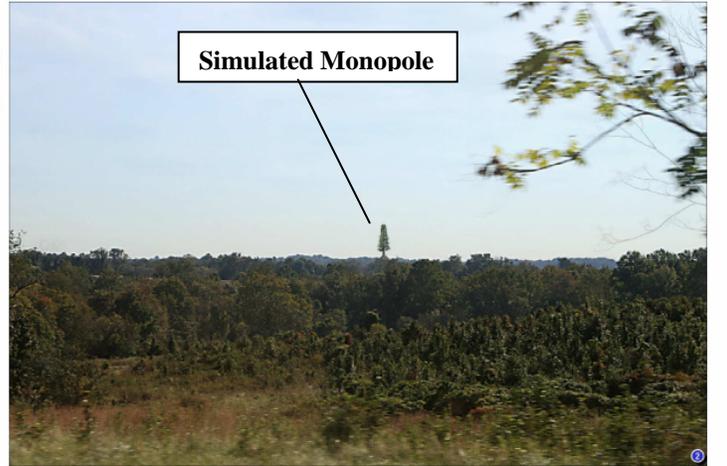
In the studio, the photographs are processed and based on the crane position and scale, a tree monopole is simulated into the photo.

### Layhill Road



Existing conditions, Summer

### Layhill Road



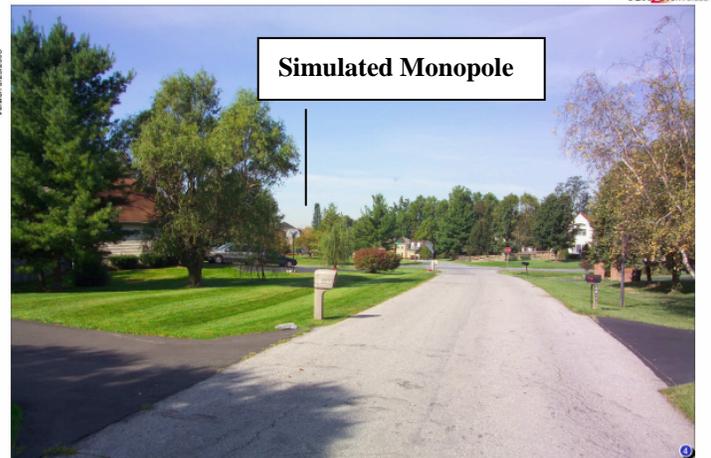
Simulation of proposed 140ft tree monopole

### Carona Drive



Existing conditions (Summer)

### Carona Drive



Simulation of the proposed 140ft tree monopole.

### Silverstone Drive



Existing conditions (Summer)

### Silverstone Drive



Simulation of the proposed 140ft tree monopole (summer)

### Jaystone Drive



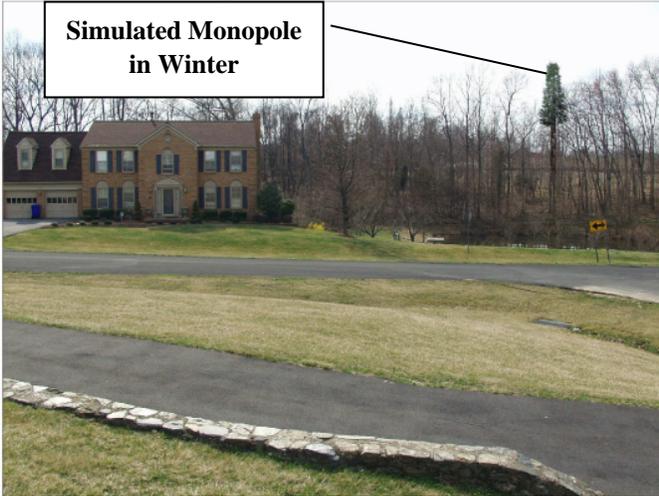
Existing conditions

### Jaystone Drive



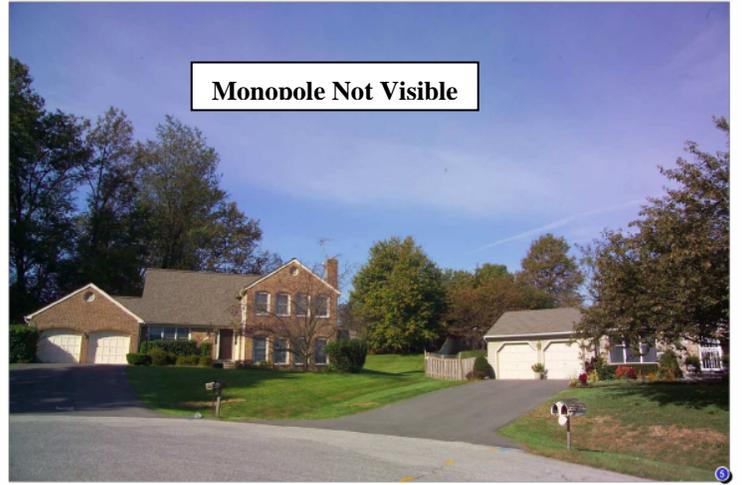
Simulation of the proposed 140ft tree monopole.

### Jaystone Drive



Simulation of the proposed 140ft tree monopole.

### Balboa Court



Existing conditions during crane test (not visible)

### Carona Drive



Existing Conditions (Winter)

### Carona Drive



Simulation of the proposed 140ft tree monopole

There are numerous reasons why the proposed telecommunications facility will have little visual impact on the neighborhood. The Stonegate community contains the closest residential properties to the site, and their views of the monopole would be through intervening forest. The 140-foot tower height complies with the Zoning Ordinance, and the proposed monopole structure has been sited on the park property in a manner designed to minimize its visual impact. It will be in the center part of a one-half mile wide stream valley park, 1,004 feet away from the nearest single-family home (to the east); 3,228 feet away from the nearest single-family home to the north; 1,674 feet away from the nearest home to the west; and 1,856 feet away from the nearest home to the south. Exhibits 21(d) and 22, p. 15.

The “stealth” pole will be designed to look like a pine tree, and there are intervening tree stands at the perimeter of the property, closer to the nearest homes. While the pole may be taller than most trees, it is well distanced and will not be lighted. The building and the fencing employ architectural material designed to have an appearance similar to the Trolley Museum itself, so they will blend in. The access road to the monopole site is actually an access road that will be paved for the Trolley Museum, so there will be no new access road being provided, except for a 20 foot stub at the end. The new Trolley Museum buildings will also screen the lower part of the cell tower and the equipment building. Tr. 78-86.

For all these reasons, the Hearing Examiner agrees with Technical Staff’s finding that “the proposed monopole will not have an unacceptable visual impact on the defined neighborhood and outlying areas.” Exhibit 22, p. 17.

Petitioners’ land planning expert, Phil Perrine, testified that the facility will be in harmony and compatible with the surrounding neighborhood; will not cause any objectionable noise, vibration, fumes, odor, dust, or glare; and will not adversely affect health, safety, security or welfare of residents or visitors. In fact, the new equipment will provide better coverage, which will add to

the safety of people that live or drive nearby this area. Tr. 87-90. As mentioned in the previous section of this report, the battery backup system will not endanger the neighborhood, and the new use will also not burden local transportation facilities since it will require only one or two trips per month.

Petitioners also introduced a study by a real estate consulting firm, Lipman Frizzell and Mitchell, LLC, which evaluated the potential economic impact of the proposed use upon the neighborhood. Exhibit 14. The study concluded that “the proposed monopine and supporting equipment building will not impact negatively on its immediate or general surroundings.” Exhibit 14, p. 9. Although the author of the report did not testify at the hearing, there is no evidence in this case contrary to the findings of the study.

Finally, Petitioners’ agent testified that Verizon is licensed by the Federal Communications Commission (FCC) to conduct the proposed use (Tr. 55-56), and Petitioners placed an “EMF Compliance Report” into the record as Exhibit 17.<sup>5</sup> The FCC regulates radio frequency exposure issues on a Federal level, and local officials are prohibited from deciding, based on health concerns, that a facility is inappropriate, as long as it complies with FCC regulations. Section 704(B) of the Telecommunications Act of 1996, 47 USC §332(c)(7)(B)(iv), provides, *inter alia*, that

*No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the [Federal Communications] Commission's regulations concerning such emissions.*

The EMF Compliance Report was prepared by a firm called Telecom Specialists, Inc., and its president, Andrew Pak, certified that the proposed facility will comply with FCC-set standards for RF emissions. Exhibit 17, p. 10. The author of the report also did not testify at the hearing,

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<sup>5</sup> “EMF” stands for Electromagnetic Field, which in this case is a shorthand for the impact of the radio waves produced by the cell tower upon its surroundings.

but once again there is no evidence in this case contrary to his findings.

The Hearing examiner finds, based on the uncontroverted evidence, that the proposed use, though it will be visible from some vantage points, will have no non-inherent adverse effects on the surrounding community.

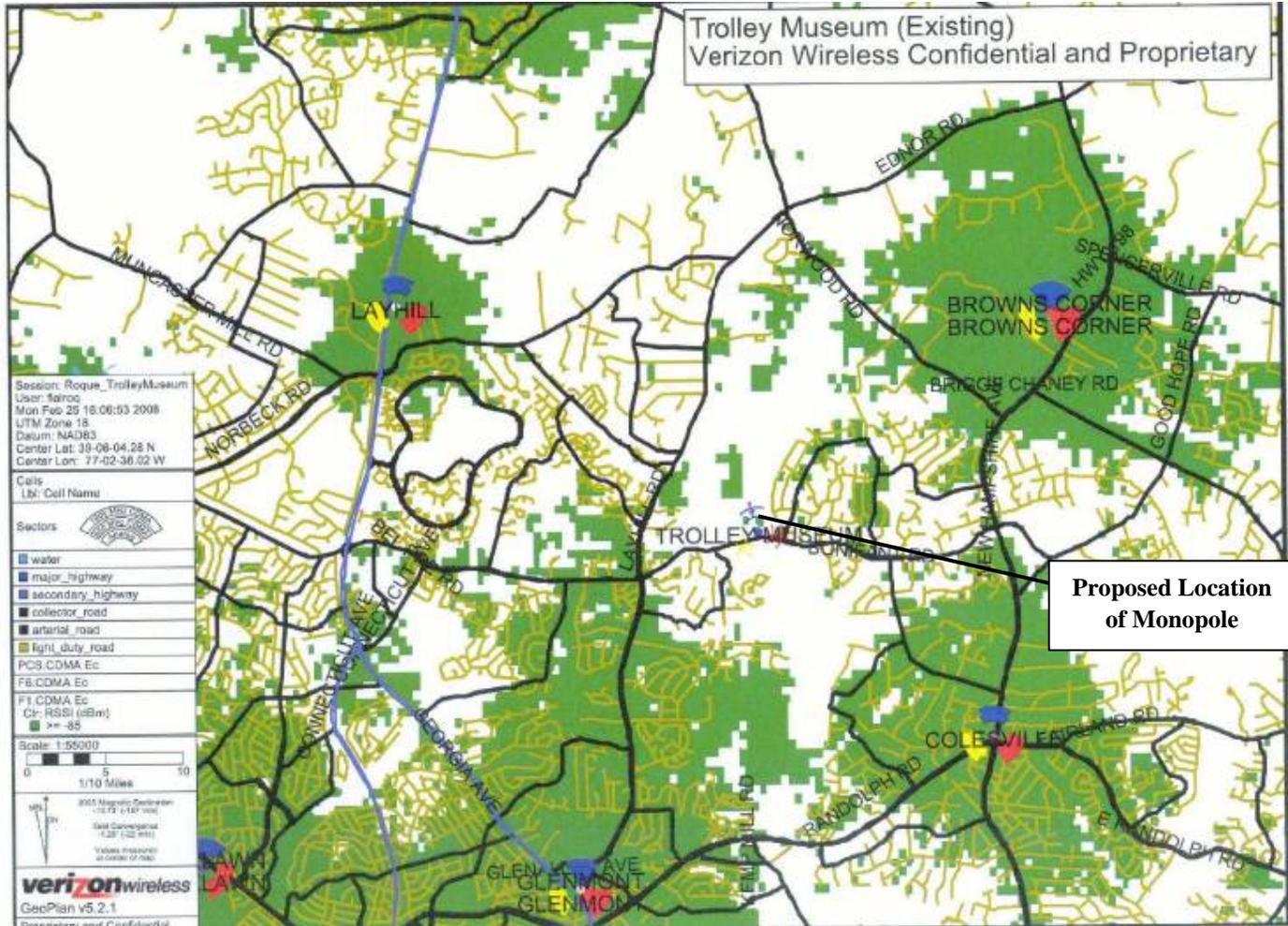
#### **D. Need for the Proposed Facility**

Even though this petition has been recommended by both the Transmission Facilities Coordinating Group and the Planning Board, the Board of Appeals “must make a separate, independent finding as to need and location of the facility.” Zoning Ordinance §59-G-2.58 (a)(12).

Petitioners presented evidence at the hearing as to both the need for, and the proper location of, the proposed telecommunications facility. That testimony came from Verizon’s consulting real estate manager, Robert Posilkin and from a Verizon radio frequency (RF) engineer, Roque Fial. Tr. 95-117.

Mr. Posilkin identified Exhibit 12(a) as an existing cell coverage map, showing the area around the Trolley Museum, near the intersection of Layhill Road and Bonifant Road. It is used to see what Verizon coverage looks like in a particular area, and where Verizon may need an additional cell site. Coverage in the area is depicted with a green color (*i.e.*, the darker area in the black and white reproduction shown below in this report). Existing cells are labeled, and the colors, red, yellow and blue, indicate the direction of the antennas, making up an entire 360 degree circle and showing an operational site. Four existing cells are shown on the map, Brown’s corner, Colesville, Glenmont and Layhill. All of these sites are linked, so that the antennas are visible to one another, in order to provide the highest possible level of service. Tr. 14-20.

A copy of Exhibit 12(a), showing existing cell coverage in the area, is reproduced on the following page:



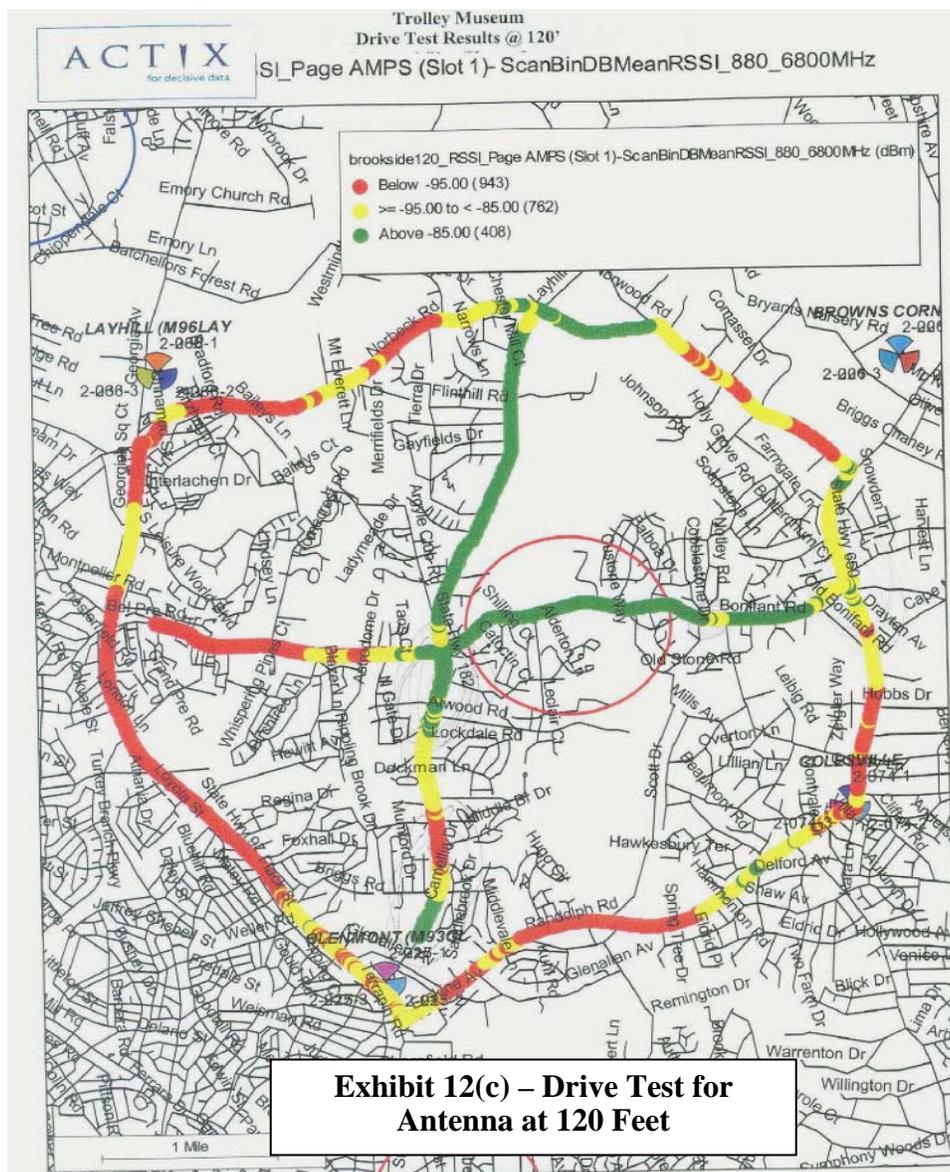
As explained by Mr. Posilkin, the area around the subject site shows mostly in white on the map, which indicates inadequate radio coverage at the present time. Mr. Posilkin stated that there has been a need for service there for quite a while because of the distance between cells and because of topography (a steep drop-off to Bonifant Road). Verizon is not getting sufficient signal strength along Bonifant Road, which is a very heavily used thoroughfare connecting Layhill Road and New Hampshire Avenue. Moreover, the cell tower at Glenmont is receiving too many calls, and is in need of relief, which would be provided by establishing another facility in the area.

A number of other sites were considered for the proposed facility, which were identified by Mr. Posilkin, using an aerial photo of the area (Exhibit 27). He testified that the other alternatives

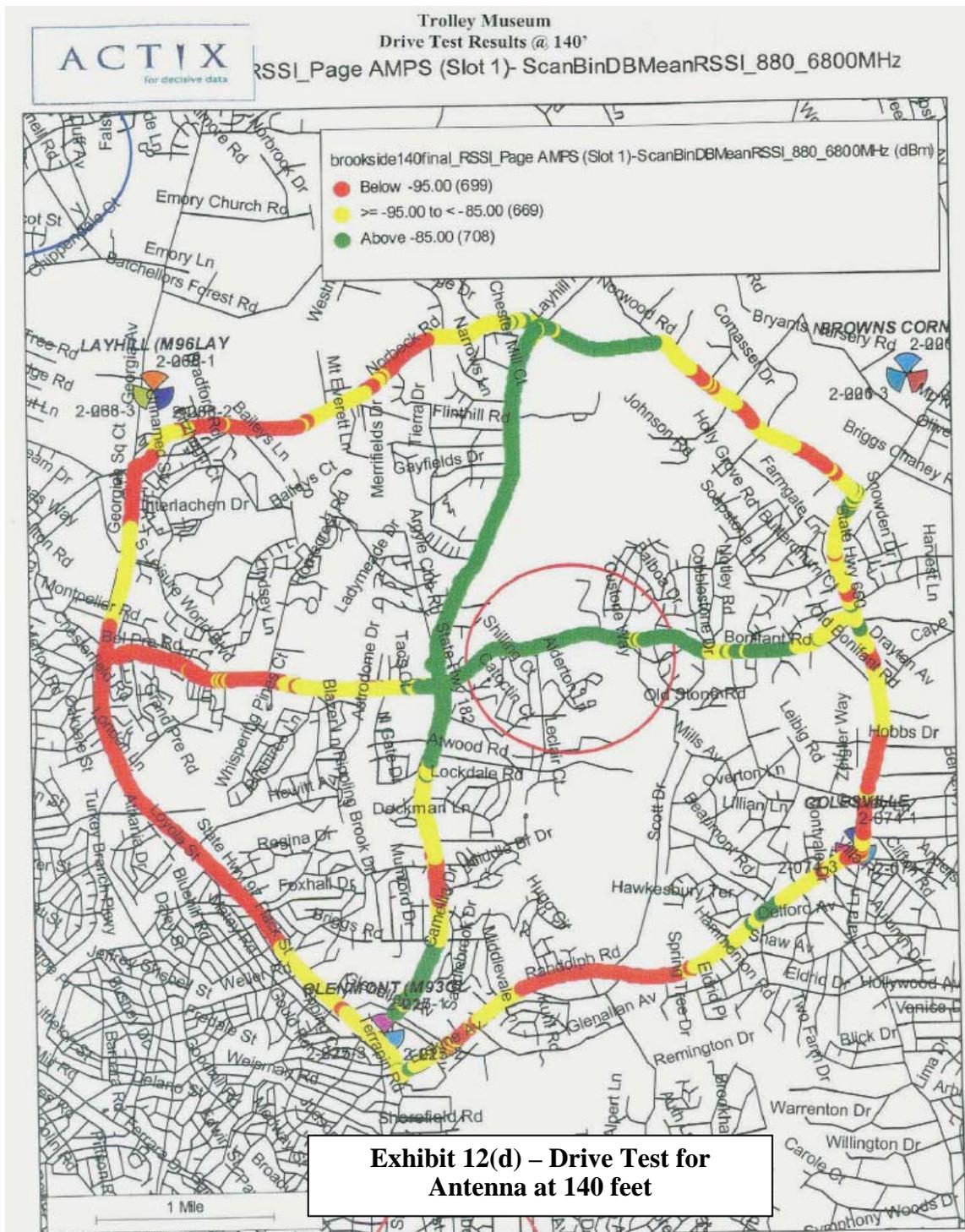
were tested and found to be inadequate. The subject site was determined to be the best site for the new facility. Tr. 25-29.

To determine the effectiveness of the proposed cell tower at various possible tower heights, a process known as a “drive test” is used. Mr. Posilkin described the drive tests used to determine the appropriate tower height. Verizon brought a crane to the site and attached a test antenna to the end of the crane. Engineers turned it on, and drove around the area, measuring signal strengths at many locations. The signal was tested for three heights, 120 feet, 140 feet and 160 feet. TR. 30-33.

Exhibit 12(c) shows a drive test at 120 feet and Exhibit 12(d) shows the drive test at 140 feet. These exhibits are reproduced below.



**Exhibit 12(c) – Drive Test for Antenna at 120 Feet**



RF Engineer Fial explained that, during the drive tests, the signals are sampled by computer at intervals. A distinct frequency is used in these tests so that signals from other nearby towers are not received. The drive tests cannot be conducted on private property, so the signals

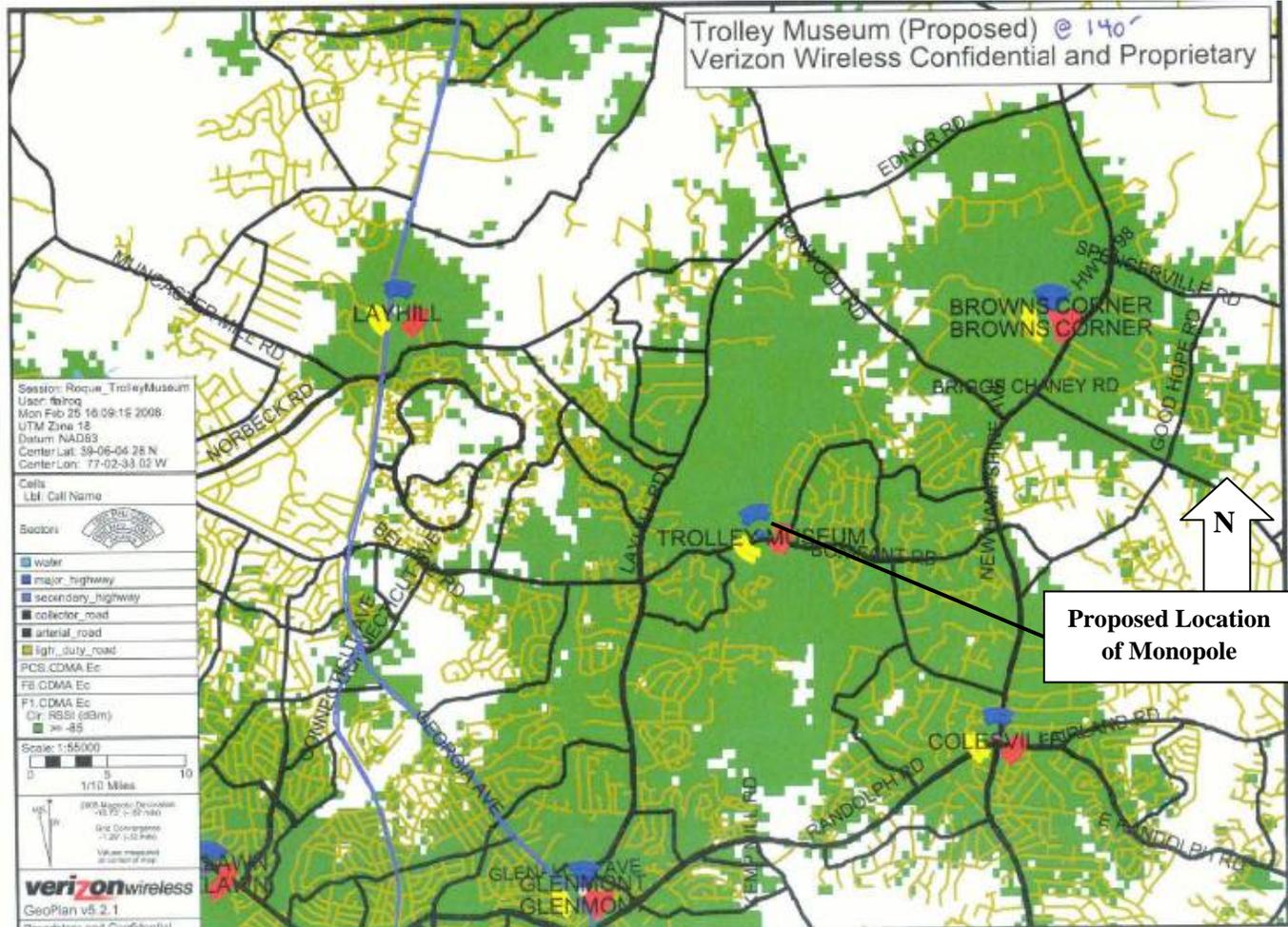
shown are received by a vehicle that actually drove the public roads. Therefore, the map colors don't extend into the neighborhoods. The green represents reliable coverage (*i.e.*, better than -85 decibels), and yellow and red are not an adequate signal to meet the Verizon Wireless standard.

The numbers in parentheses (408 on Exhibit 12(c) and 708 on Exhibit 12(d)) show the number of measurement points with a green signal. Thus, having 708 hits, as happened with the 140 foot antenna, means you have a better signal than 408 hits, as happened with the 120 foot antenna. The RF engineers determined that 140 feet was the optimal height for a cell tower at the site. TR. 30-33. In Mr. Fial's professional opinion, the cell tower needs to go to 140 feet in order to provide adequate relief to the Glenmont cell. There is enough of a difference between 120 feet and 140 feet to justify that extra 20 feet, which will allow offloading coverage from the Glenmont site to the south. Tr. 105.

According to Mr. Fial, there are no technologies available which could replace the need for a cell tower such as the one being proposed for an area like this. Smaller facilities, such as those mounted on telephone poles along roads (*e.g.*, the Distributive Antenna System, or DAS) have limited power and limited coverage. They would cover the road itself, but not the residential area outside of the road. He is not aware of any other systems that can offer the service provided by a cell tower such as the one being proposed here.

Mr. Posilkin testified that unless the new cell is installed, considerable interruptions of service or lack of service to customers will continue, resulting in lost calls and dropped calls, and no relief to the Glenmont site. The biggest impact presently is that an increasing number of customers rely heavily on their phones for public safety. "Without this site, we would not be able to accommodate the public safety demands . . . in those areas." Tr. 30.

Exhibit 12(b), which is shown on the following page, demonstrates the added coverage (*i.e.*, the green or darker area) which will be provided by the proposed 140 foot tower at the subject site:



As can be seen, when compared to the existing coverage shown in the map on page 25 of this report (Exhibit 12(a)), locating the cell tower in the proposed site will greatly improve cell coverage in the area. There is no evidence in the record to contradict the testimony of Messrs. Posilkin and Fial, and the Hearing Examiner credits that testimony as being accurate and persuasive. Based on that testimony and on the recommendation of the Transmission Facilities Coordinating Group, the Technical Staff and the Planning Board, the Hearing Examiner finds that there is a need for proposed telecommunications facility, and that it is appropriately located.

### **E. The Master Plan**

Petitioners' property is located in the northeast corner of the area subject to the *1994 Aspen Hill Master Plan*. The Master Plan does not appear to address telecommunications facilities, as such, and Technical Staff, in their discussion of the Master Plan (Exhibit 22, p. 13), stated only:

The property is located within the area covered by the 1994 Aspen Hill Master Plan. Although the Master Plan is silent as to telecommunications facilities, the Planning Department concludes that because the Plan recommends the RE-2 Zone for this site, and because the RE-2 Zone allows a telecommunications facility by special exception, the proposed use is consistent with the goals and objectives of the Aspen Hill Master Plan

The *1994 Aspen Hill Master Plan* does contain specific guidelines regarding special exception uses, in general (pages 80 – 81). Of interest are the following guidelines:

*Avoid excessive concentration of special exception and other nonresidential land uses along major transportation corridors*

\* \* \*

*Protect major transportation corridors and residential communities from incompatible design of special exception uses. [Any modification or addition to an existing building should be compatible with the architecture of the adjoining neighborhood; Front yard parking should be avoided, or if unavoidable, should be adequately landscaped and screened; and Screening and buffering should be used to limit impact on abutting residential areas]*

The subject proposal will not offend either of these guidelines. There is only one other special exception in the area, and the use will not be located along a major transportation corridor. As discussed in the previous section of this report, neighboring residential communities will be protected from incompatible design by distance, screening and stealth design of the monopole.

As mentioned by Technical Staff, the property is zoned RE-2, and Zoning Code §59-C-1.31(b) permits telecommunications facilities by special exception in the RE-2 Zone. The Aspen Hill Plan recommends leaving the zoning in this area as it currently exists – Master Plan, p. 40.

The Hearing Examiner concludes that because the Master Plan supports the RE-2 Zone, and that zone permits the subject use by special exception, it is fair to say that the planned use is

not inconsistent with the goals and objectives of the *Aspen Hill Master Plan*.

### III. SUMMARY OF HEARING

At the hearing, Petitioners called five witnesses, Robert Posilkin, a Verizon real estate manager; Phil Perrine, an expert in land planning; Roque Fial, a radio frequency engineer; Joseph Joyce, a licensed engineer; and Curt Westergard, an imaging expert. M. Gregg Diamond, Esquire, who represents Verizon, indicated, after some uncertainty, that he also represents Co-Petitioner M-NCPPC for purposes of this application. Mr. Diamond stated that his clients accept both the Technical Staff's report and the Planning Board's letter, including its recommended condition. Tr. 7-8. The record was held open until September 26, 2008, so that Petitioners could file a minor revision to the Landscape and Lighting Plan, and electronic copies of certain exhibits.

#### 1. Robert Posilkin (Tr. 11-61):

Robert Posilkin testified that he is a consulting real estate manager for Verizon Wireless. He described his background, indicating his involvement in this field since 1996. His primary responsibilities are to receive the technical requirements for new sites that are acquired by Verizon Wireless from their radio frequency or RF engineers; to find a physical location that serves those technical needs and is compatible with all of the necessary government approvals; to plan the construction of that site; and to put it in operation throughout the Washington Metropolitan area.

In early 2004, Verizon asked Mr. Posilkin to find a site for constructing a cell site in the area near Bonifant Road and Layhill Road in Silver Spring, Maryland, based on a submittal from Verizon's radio frequency (RF) engineers showing where the service and site were required.

The RF engineers prepared what's called a search area, which is essentially a circle on a map showing the best area to locate a structure in order to provide the necessary coverage in that area, and that's the area in which he centers his search.

According to Mr. Posilkin, Verizon Wireless conducts a 24/7 analysis of an area for wireless

coverage. Engineers are constantly driving all areas where there may be coverage to measure how that coverage is performing. By collecting that drive data, by looking at actual phone coverage and by assessing data showing lost calls, dropped calls and customer complaints, the RF staff makes an analysis as to where coverage is needed and what the priority is for pursuing that site based on that identified need.

Mr. Posilkin identified Exhibit 12(a) as an existing coverage map, around the Trolley Museum, near the intersection of Layhill Road and Bonifant Road. It is used to see what Verizon coverage looks like in a particular area, and where Verizon may need a site or more than one site. Coverage in the area is depicted with a green color. Existing cells are labeled, and the colors, red, yellow and blue, indicate the direction of the antennas, making up an entire 360 degree circle and showing an operational site. Four existing cells are shown on the map, Brown's corner, Colesville, Glenmont and Layhill. All of these sites are linked so that the antennas are visible to one another, sort of in a honeycomb fashion, which is why they are called cell sites, and to provide the highest possible level of service.

Mr. Posilkin testified that the RF engineers asked him to find a site near the existing Trolley Museum. That area shows mostly in white, which indicates inadequate radio coverage at the present time. There has been a need for service there for quite a while because of distance between cells and because of topography (a steep drop-off to Bonifant Road). Verizon is not getting sufficient signal strength along Bonifant Road, which is a very heavily used thoroughfare connecting Layhill Road and New Hampshire Avenue.

The proposed new cell tower would provide the missing service and relieve some of the overload of calls being received by the Glenmont cell (sometimes referred to as the Glenmont water tank site). The 140 foot height is needed to provide that relief to the Glenmont site, even though a 120 feet tower might be sufficient for the immediate cell area.

According to Mr. Posilkin, in locating that new cell site facility, he takes into account topography (to insure coverage) and meeting the requirement of the zoning ordinance, local laws, and the review and hopefully approval of adjoining and nearby communities. First, he looks for buildings to use as a base, and if there are no adequate tall structures, Verizon begins to look at the possibility of building a new cell site on raw land. The new Trolley Museum will be too short to serve the purpose here.

Mr. Posilkin identified an aerial photo of the area (Exhibit 27), showing three other sites considered and rejected for the cell. He explained why they could not be used, and as a result, Verizon decided upon the subject site. Unless the new cell is installed, considerable interruptions of service or lack of service to customers will continue, resulting in lost calls and dropped calls, and no relief to the Glenmont site. The biggest impact presently is that an increasing number of customers rely heavily on their phones for public safety. "Without this site, we would not be able to accommodate the public safety demands of the public in those areas." Tr. 30.

Mr. Posilkin described the drive tests used to determine the appropriate tower height. Verizon brought a crane to the site and attached a test antenna to the end of the crane. Engineers turned it on, and drove around the area, measuring signal strengths at many locations. The signal was tested for three heights, 120 feet, 140 feet and 160 feet. He identified Exhibit 12(b) which is the computer simulation showing with the proposed cell tower coverage at 140 feet; 12(c) shows a drive test at 120 feet and 12(d) shows the drive test at 140 feet. As a result of producing the data that is in Exhibit 12(a), (b), (c) and (d), the RF engineers determined that 140 feet was the optimal height for a cell tower at the site.

Although the tests were conducted at 140 feet, the antennas will be mounted at 134 feet, which is just below the top of the structure, and those antennas extend actually a little bit above 134 by about two or three feet. So they will be within one or two feet of the tested height. That

difference is de minimis and would not affect the transmission success of the proposal.

The tower coordinator of the TFCG observed that he didn't see much of a difference in coverage between a 120 foot tower and a 140 foot tower, but Verizon explained to the committee that while, as to coverage of the site, there wasn't much difference, in terms of providing the linkage to Glenmont, that 20 feet made a difference. The Tower Committee then voted to approve the application (Exhibit 13).

Mr. Posilkin described the proposed site. The new Trolley Museum is located just on the east side of a gravel road that extends north from Bonifant Road. It is identified on the site plan by the label "Fut Building (by others)." When the road comes up from Bonifant Road and it heads toward the Trolley Museum, there's going to be a stem that comes off of that main road, a short stem that will come to the Verizon site where the tower and equipment building will be located. Thus the Verizon site is located just to the southwest of the new Trolley Museum site which consists of a parking lot, several buildings and an area of track where the trolleys will run.

Coming off the Trolley Museum access road is another road heading west, and it ends at the Verizon Wireless site. That site consists of compound area measuring 50 by 45 feet, inside of which will be the proposed tree monopole, and connected to the tree monopole, a short distance away, will be an equipment building that's connected by a proposed underground cable wire.

The proposal includes a 140 foot structure that consists of a 135 foot tall pole element, covered in a rubberized material which will simulate bark underneath faux limbs. Right above that, extending from a height of about 40 feet or 30 feet, the faux foliage, which are limbs that are inserted into the steel, the monopole, will continue to a height of 140 feet. At 134 feet, right near the tip is where the antennas will be attached to the pole. Those antennas will be located behind the faux foliage and will reach up to a height of approximately 137 feet, and be covered by the foliage, and the very top of the structure will be at 140 feet. The branches of the simulated foliage do not

contain any operative elements. At the base of the structure is a six foot wrought iron fence. Just to the left is the equipment shelter itself, which will have a brick veneer that will simulate the brick on the Trolley Museum itself, and a slanted roof. The equipment shelter houses the electronics for the structure. According to Mr. Posilkin, Verizon complied with all requests of Technical Staff and the Trolley Museum in terms of design, color and location. The roof, the type of brick and the type of fencing are all in response to the requests of both the landlord and the Trolley Museum.

Verizon has constructed other monopoles with pine tree design at other locations in Montgomery County, Maryland. The proposed tree monopole in this case similar in design to the tree monopole that the Board of Appeals approved in case No. S-2279, which is a monopole off of MacArthur Boulevard at the entrance to Great Falls Park in Potomac, Maryland, and to the tree monopole that the Board of Appeals approved in Case No. S-2347, which is the Verizon Wireless tree monopole on the WSSC property immediately adjacent to the Avenel Golf Course in Potomac, Maryland.

Mr. Posilkin testified that the proposed monopole in this case will be designed to meet all of the requirements of the Montgomery County building code and to withstand wind velocities and icing conditions, as determined by Montgomery County's building code.

This site is designed so that the antennas are not visible. They are specifically located behind that faux foliage. The foliage is placed, and on occasion is moved and adjusted, in order to hide those antennas. The monopole will be constructed to support the antennas of at least two additional wireless communications carriers, who will also be required to place their antennas so that they are hidden behind the faux foliage of the branches.

The shelter contains electronic computer and switching equipment which receives and transmits the signal from wireless phones. It accommodates all the electronics and computer equipment necessary to make the site work. In the normal operation of this cell site facility, it will

draw electrical power from the local power lines. There will be heavy duty backup batteries, as permitted by co-applicant, the M-NCPPC, and a backup generator, as well as air conditioners. The generator is powered by propane stored on site in accordance with regulations, and it is exercised once a week for approximately 30 minutes, which means it is remotely turned on just to keep it in operating condition. It is also used if there's an emergency situation where the power to the site fails and the batteries are no longer operable, so that cell calls can, in fact, go through and not be limited by weather or other catastrophic conditions.

Verizon Wireless registers all of its sites on an annual basis and pays fees to comply with Montgomery County's hazardous materials annual registration obligation with regard to the batteries, and with regard to the storage of fuel on the site. Exhibit 21(a) is a Hazmat use permit application receipt from the Montgomery County government, Homeland Security Department. This receipt from August of 2007 identified 64 renewals covering individual sites. If Verizon Wireless is allowed to construct the subject special exception facility, it will register this site with the Hazmat program.

The facility will not be manned. The tree monopole will not be lit in any way. There will not be a light that is on continuously at the equipment shelter, either. There will be a light at the entry door so that when it is visited in the evening, the cell technician can approach in safety. Mr. Diamond agreed to submit a revised Landscape and Lighting Plan showing the light in question.

Mr. Posilkin accepted Technical Staff's definition of neighborhood. He also indicated that the site is large enough to handle equipment from two other operators. He testified that the Verizon Wireless telecommunications facility will not create any noise, fumes, odor dust, or other nuisance type effects. The facility as proposed will be enclosed by a wrought iron fence, six feet in height, as requested by the Trolley Museum staff. There will be a sign on the entrance fence to the facility providing the name of the owner and an 800 telephone number. The communications facility be

secured 24 hours a day, and there will be no public access.

This design is no different from over a hundred facilities Mr. Posilkin has been involved with, in terms of its basic operations, electrical use and propagation of radio signals. The FCC licenses specific radio signals to Verizon Wireless. Based on his experience, operation of the proposed telecommunications facility will not adversely affect electrical supply in the neighborhood or interfere with radio or TV reception in the neighborhood.

If this telecommunications facility were to become no longer necessary for the operation of the Verizon Wireless system, these facilities will be removed. Based on his experience in constructing telecommunications facilities over the past 15 years, telecommunications towers, such as the one being proposed in this case, have no adverse impact on neighboring property values. Mr. Posilkin commissioned a study to be done by a real estate expert to confirm that in this case. Exhibit 14, Mr. Lipman's real estate report. In locating similar communications facilities, specifically within Montgomery County, Maryland, Mr. Posilkin is not aware of any adverse impact on the use or enjoyment or development of neighboring properties. The proposed use of this telecommunications facility would not, in any way, affect health, safety or welfare of residents of workers in the neighborhood of this facility; nor would the character of the neighborhood be adversely affected due to the number of cell site facilities in the neighborhood.

At the request of Park and Planning, and working cooperatively with the Park and Planning Commission, Park and Planning staff, Mr. Posilkin scheduled two community meetings in the neighboring Stonegate community, which is shown as the far eastern portion of the neighborhood. He showed the location of the proposed facility and spoke in detail about the need, about its appearance and about its location. He answered questions about coverage, and heard from the community as to why they needed improved service. At the time the Planning Commission held public hearing on whether or not to grant Verizon Wireless a lease for the site, that the neighboring

community association indicated to the Planning Commission that they neither supported nor objected to the proposal.

In May of 2008, Mr. Posilkin contacted the president and vice president of the Stonegate Citizens Association, and scheduled a balloon visibility test, where a crane is brought to the site and a balloon attached at the proposed height, which would be at the tip of the crane. On June 14, 2008, a crane was brought to the site with a balloon attached at a height of 140 feet. The test started at 9 a.m., ended at 4 p.m., and it was a perfectly clear day. People could see what the view might be from their home, or the view might be as they drive by the location. Stonegate's the closest community to the site.

2. Phillip Perrine (Tr. 61-94):

Phillip Perrine testified as an expert in land planning. Using an aerial photo (Exhibit 29), Mr. Perrine described the area surrounding the subject site. The site is located in Northwest Branch Park, which is comprised of about 680 acres of land and stretches up to about to Norbeck Road. It has about 250 feet of frontage along Bonifant Road. The site of the monopole itself is on Parcel 229, just to the west of the eastern property line of Parcel 229. The access drive coming into the site is on Parcel P-250. The notation of Parcel 2 refers to the deed description, but the parcel is called Parcel P-250 on the tax map, as described in Exhibit 23. Subdivision will not be required, even though two parcels are involved, because there is an exception to the subdivision rules for telecommunications facilities.<sup>6</sup>

Northwest Branch Creek is located just to the west of the subject site. The site itself is on a little bit higher ground. It's about 60 feet higher than Bonifant Road. The land then slopes back down from the site both to the east and west, and there is a storm water management facility to the

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<sup>6</sup> Montgomery County Code §50-9(g) provides: "*Recording of a subdivision plat under this Chapter is not required for: . . . (g) Telecommunications towers/antennas, including associated accessory structures, unless or until other development of the land which requires a subdivision plan.*"

east. And then further east, there is Cutstone Drive, Silverstone Drive, and Carona is about where the ridge is. Mr. Perrine testified that the surrounding area the staff described went a little bit further east than his recommended neighborhood. He would have included that first row of homes adjacent to the east side of the park, but Technical Staff went all the way to Carona, which he accepts because the ridge line makes a good boundary for a neighborhood. To the west the neighborhood border follows the edge of the park

Mr. Perrine described the site for the monopole as a relatively flat site, which falls off in either direction. There are wooded areas to the west along the stream valley park. To the south, both immediately south of the property and down along Bonifant Road, is wooded. And along the east of the park is a wooded area, that is to the west of the residential homes. So while it's relatively open in the immediate area of the site, the surrounding perimeter is fairly well wooded and forested with mature trees. Mr. Perrine accepted Mr. Posilkin's description of the area, adding that there is a golf course in the park and that the path of the Inter-County Connector is to the south of the site, right through the existing Trolley Museum location. The park area is zoned RE-2, and the residential area to the east, north of Bonifant Road, is all R-200. The area to the west of the park above Bonifant Road is also R-200. In terms of land uses, in addition to the park, there are the Trolley Museum, which Mr. Perrine characterized as an industrial-type museum, recreational facilities and single-family, detached homes.

In Mr. Perrine's opinion, approval of the proposed special exception for a telecommunications facility would not affect the areas existing character as both parkland and residential use property. There is one other special exception in the neighborhood, an accessory apartment at 14624 Silverstone Drive, midway between Jaystone Drive, and Balboa Drive. The confluence of the telecommunications facility and the one accessory apartment would not have any adverse effect on the neighborhood.

Mr. Perrine has examined other telecommunications facilities constructed in Montgomery County on park or park-like property that are adjacent to residential neighborhoods, and found that they did not change the residential nature of the areas. He mentioned facilities at Bullis School along Falls Road, Great Falls Park along MacArthur Boulevard and Avenel Golf Course, the WSSC property. All those towers have been in place about 7 to 10 years or more, and the residential areas are still very much residential. There's been no discernible change or effect due to the tower. In his opinion, the structure proposed here would have no adverse impact on the neighborhood.

Mr. Perrine testified that the monopole in the present case would be set back from all property lines a distance greater than the height of the monopole. The monopole will be 140 feet, and the nearest property line (the stormwater management facility) is about 884 feet east of this property. As shown in Exhibit 21(d), the nearest residence is about 1004 feet, to the east side of the site, and it is about 900 feet to the nearest property line of a lot that has a residence on it. The 140 foot height complies with the Zoning Ordinance, and the proposed monopole structure has been sited on the park property in a manner designed to minimize its visual impact. It will be located within the center part of a one half mile wide stream valley park, near some existing tree stands. There will be a stealth pole design, and there are tree stands at the perimeter of the property, closer to the homes. So while the pole may be taller than some trees, it is well distanced. The building and the fencing employs architectural material to have an appearance similar to the Trolley Museum itself, so it would blend in. The Stonegate community's view of the pole would be through trees adjacent to their properties. The access road to the monopole site is actually an access road that will be paved for the Trolley Museum, so they'll be no new access road being provided, except for a 20 foot stub at the end. The new Trolley Museum buildings will also screen the lower part of the cell tower and the equipment building.

Mr. Perrine testified that there will be screening or landscaping to at least six feet in height.

Technical Staff requested that there be a wrought iron fence instead of a six foot or an eight foot board on board fence. The landscape material that's shown on the landscape plan (Exhibit 21(f)) is material suggested by Technical Staff, arrayed in a kind of a fashion they thought would look best and fit best with the setting. The fence material, the brick work on the buildings structure, the gabled roof as opposed to a flat roof, were all done at the request of the Technical Staff and the museum people to have a facility that coordinated with the museum.

According to Mr. Perrine, the property owner is a co-applicant for the special exception, the Maryland National Capital Park and Planning Commission. The telecommunications facility has been designed for at least three carriers to put antennas on line. They would have to get a lease from the Planning Commission, for their ground facilities. There will be no outdoor storage of equipment at this site. Verizon Wireless has submitted a recommendation from the transmission facility coordinating group, which is already in the record, and the proposed structure, equipment and their use is required for public convenience and necessity in this neighborhood.

In Mr. Perrine's opinion, the proposed structures and use at this location will not endanger health and safety of residents or workers in the area. There is a 1,000 foot setback, and if the tower collapses, it buckles at the half way point so it falls on itself. Based on his review of the application, these facilities would not be in any way detrimental to the neighboring properties, and would be in harmony and compatible with the surrounding neighborhood terms of design, scale and bulk, as well as operations, because the facility is unmanned and requires only infrequent (once a month) maintenance trips. It would be compatible and harmonious because of the distance, the wooded area at the perimeter of the property, its location amongst the Trolley Museum facilities and buildings, and because of its design as a stealth facility, as a pine tree.

Mr. Perrine further opined that the proposed use would not be detrimental to the use, peaceful enjoyment, economic value or development of the surrounding area, nor would it cause

any objectionable noise, vibration, fume, odor, glare or physical activity. It also will not adversely affect health, safety, security or welfare of residents or visitors in the neighborhood, and the better coverage it provides will assist in the safety of people that live or drive nearby this area by giving them better cellular coverage. There will be no water or sewage usage, and stormwater runoff will just infiltrate into the ground. The facility has an on-site fire suppression system, and a fire station is about three miles away. Public facilities are adequate to serve the area.

A telecommunications facility is a special exception use in the RE-2 zone. The site is located in the Aspen Hill Master Plan, which was adopted in 1994. The Cloverly Plan picks up right at the eastern edge of the park area, the Northwest Park, and that was adopted in 1997. Approval of this special exception would be consistent with the master plan and its recommendations. The Aspen Hill Plan just indicates continuation of the Northwest Branch Park with recreation facilities, and they are there now.

Mr. Perrine noted that inherent characteristics of any tower facility include antennas on the structure, and technical equipment on the ground, which may be fenced in. You could see part of any tower, because of its height. There will be the emission of radio frequency waves. There's a low number of vehicular trips associated with these things, and there generally are either battery or generators as back up system for these facilities. Nothing in this facility is different than what you would normally find. So there are no inherent characteristics that would cause an adverse effect different than any other type of facility like this. The stealth pine tree design is not present in all towers but it addresses the visual effect, and it would have no adverse effects. The tower is sited to minimize its visual impact, and avoid cutting down any additional trees. There are no trees to be removed, and no pristine parkland will be dug up. The facility has been located at somewhat equal distance between residential communities to the east and west, a bit closer to the east, but still 1,000 feet away.

### 3. Roque Fial (Tr. 95-117):

Roque Fial testified as an expert in Radio Frequency (RF) Engineering for Verizon. He testified that he was assigned to study the Trolley Museum area because of inadequate cell coverage and to provide relief for the Glenmont cell. Mr. Fial explained the drive test results shown in Exhibits 12(c) and (d). The maps show drive tests at two heights, at 120 feet, and at 140 feet. It covers the objective along Layhill Road and Bonifant at both heights, but since this is a coverage issue and a relief site for Glenmont, it is much better at 140 feet. It shows that there is enough overlap.

To do the drive tests, a transmitter is placed on the top of a crane, and the RF engineer drives around sampling signals by computer at intervals. A distinct frequency is used in these tests so that signals from other nearby towers are not received. The drive tests cannot be conducted on private property, so the signal shown is a vehicle that actually drove the public roads. Therefore, the map colors don't extend into the neighborhoods. The green represents reliable coverage (*i.e.*, better than -85 decibels), and yellow and red are not an adequate signal for Verizon Wireless standard. The numbers in parentheses (408 on Exhibit 12(c) and 708 on Exhibit 12(d)) show the number of measurement points with a green signal. Thus, having 708 hits means you have a better signal than 408 hits.

In Mr. Fial's professional opinion, there is a benefit to Verizon Wireless in going to 140 feet in providing relief to the Glenmont cell. There is enough of a difference between 120 feet and 140 feet to justify that extra 20 feet that Verizon Wireless actually needs to benefit offloading coverage from the Glenmont site to the south.

According to Mr. Fial, there are no technologies available which could replace the need for a cell tower such as the one being proposed for an area like this. Smaller facilities, such as those mounted on telephone poles along roads (*e.g.*, the Distributive Antenna System, or DAS) have

limited power and limited coverage. They would cover the road itself, but not the residential area outside of the road. He is not aware of any other systems other than this DAS system that are substitutes for a cell tower kind of arrangement.

4. Joseph Joyce (Tr. 117-127):

Joseph Joyce is a licensed professional engineer employed by Verizon, who gave expert testimony as a “cell site construction professional engineer.” He described the backup batteries used at cell sites. Normally a cell site has two 24 volt batteries. These batteries are 2 foot by 2 foot by about 8 foot high. (Your typical car battery is, 8 inches by 12 inches by 12 inches.) Each battery has 10 cells, at two volts each. That amounts to 20 volts, but it is also being powered by electronic equipment that boosts it up to 24 volts, in order to drive the equipment in the cell site.

According to Mr. Joyce, the batteries used for a cell tower are safer than car batteries because automobile batteries are powered by liquid lead acid, while the cell tower uses gel paste or sealed paste cells, which means they don’t leak liquid if they should break. If one broke open, you would find a white paste on the floor. Also, car batteries produce hydrogen gas, while cell tower batteries do not produce enough gas to warrant venting. They do not present any problems or dangers at all.

According to Mr. Joyce, the cell site has both batteries and a generator because you don’t want your cell site to be running strictly on batteries. You want to make sure that when the power fails that the batteries carry it through for as long as it takes for the generator to come up to speed, do the switch over to the generator back up power. It is a carry over so you don’t lose service. The batteries actually serve two functions. They provide back up and also act as a filter to knock down any spikes or glitches that might be coming through the power line during normal operations. The batteries act as a standby power source and as a filter, giving continuous 24 volt DC power to the equipment. If the generator did not come on, the batteries are designed to carry the cell site for a minimum of eight hours, as dictated by the FCC. If the generator comes on, the fuel would last for

two days.

Mr. Joyce further testified that the concrete slab for the equipment shelter is only a 12 by 20, and does not require any stormwater management, as far as he knows. There will be no lights on the tower, because unless a tower is near an airport lights are not required by the FAA for towers under 200 feet. This tower is not near an airport.

5. Curt Westergard (Tr. 128-135):

Curt Westergard testified as an imaging expert. He prepared the photographs and simulations that are in Exhibits 10 and 10(a).<sup>7</sup> Exhibit 10, page 8, shows the orientation of the photographs towards the monopole. The numbers show the locations from which the photos are taken looking directly at the site of the proposed monopole. Photos are taken showing the existing condition, which are followed by simulated photos showing how the view will look after the stealth tower is added. A crane was used to indicate the height (Exhibit 10, pp. 5-6), and then a stealth pine tree tower was simulated into each photograph at that height (Exhibit 10, p. 7).

Mr. Westergard took more photos than those included in the exhibit, and selected those where the tower could be seen and those that signified a public gathering spot or intersection. For example, there is no photo included from Long Green Drive, to the south of the site, because the crane was not visible from that site. The same was true from the very southern end of Corona Drive, where it intersects with Bonifant Road, and at the far eastern tip of Norvale Road, where the only place from which the crane could have been seen was on somebody's private property.

#### **IV. FINDINGS AND CONCLUSIONS**

A special exception is a zoning device that authorizes certain uses provided that pre-set legislative standards are met, that the use conforms to the applicable master plan, and that it is

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<sup>7</sup> Exhibit 10(a) is identical to Exhibit 10, except that page numbers are added for ease of reference.

compatible with the existing neighborhood. Each special exception petition is evaluated in a site-specific context because a given special exception might be appropriate in some locations but not in others. The zoning statute establishes both general and specific standards for special exceptions, and the Petitioners have the burden of proof to show that the proposed use satisfies all applicable general and specific standards. Technical Staff concluded that Petitioners will have satisfied all the requirements to obtain the special exception, if they comply with the recommended conditions (Exhibit 22).

Weighing all the testimony and evidence of record under a “preponderance of the evidence” standard (Code §59-G-1.21(a)), the Hearing Examiner concludes that the instant petition meets the general and specific requirements for the proposed use, as long as Petitioners comply with the conditions set forth in Part V, below.

#### **A. Standard for Evaluation**

The standard for evaluation prescribed in Code § 59-G-1.2.1 requires consideration of the inherent and non-inherent adverse effects on nearby properties and the general neighborhood from the proposed use at the proposed location. Inherent adverse effects are “the physical and operational characteristics necessarily associated with the particular use, regardless of its physical size or scale of operations.” Code § 59-G-1.2.1. Inherent adverse effects, alone, are not a sufficient basis for denial of a special exception. Non-inherent adverse effects are “physical and operational characteristics not necessarily associated with the particular use, or adverse effects created by unusual characteristics of the site.” *Id.* Non-inherent adverse effects, alone or in conjunction with inherent effects, are a sufficient basis to deny a special exception.

Technical Staff have identified seven characteristics to consider in analyzing inherent and non-inherent effects: size, scale, scope, light, noise, traffic and environment. For the instant case,

analysis of inherent and non-inherent adverse effects must establish what physical and operational characteristics are necessarily associated with a telecommunications facility. Characteristics of the proposed telecommunications facility that are consistent with the “necessarily associated” characteristics of telecommunications facilities will be considered inherent adverse effects, while those characteristics of the proposed use that are not necessarily associated with telecommunications facilities, or that are created by unusual site conditions, will be considered non-inherent effects. The inherent and non-inherent effects thus identified must then be analyzed to determine whether these effects are acceptable or would create adverse impacts sufficient to result in denial.

Technical Staff lists the following inherent physical and operational characteristics necessarily associated with a telecommunications facility use (Exhibit 22, p. 19):

- (1) antennas installed on or within a support structure with a significant height;
- (2) a technical equipment area that may or may not be enclosed within a fence;
- (3) visual impacts associated with the height of the support structure;
- (4) radio frequency emissions;
- (5) a very small number of vehicular trips per month for maintenance; and
- (6) some form of back-up power.

The Hearing Examiner agrees with Technical Staff’s listing of the inherent characteristics of telecommunications facilities. The inherent effects of a typical monopole telecommunications facility would generally have only a visual impact on the neighborhood, since it would be noiseless, unmanned and require only occasional servicing. That is the case here, except that even the visual impact is small in this instance because the telecommunications facility will be set back far from the nearest dwelling and will be adequately buffered. There are no unusual, negative characteristics of the site.

For all the reasons discussed in Part II. above, and considering size, scale, scope, light, noise, traffic and environment, the Hearing Examiner concludes, as did the Technical Staff, that there are no non-inherent adverse effects from the proposed use which would require denial of the petition.

## B. General Conditions

The general standards for a special exception are found in Zoning Code §59-G-1.21(a). The Technical Staff report, the approval of the Transmission Facilities Coordinating Group, the exhibits in this case and the testimony at the hearing provide ample evidence that the general standards would be satisfied in this case.

### Sec. 59-G-1.21. General conditions.

**§5-G-1.21(a)** -*A special exception may be granted when the Board, the Hearing Examiner, or the District Council, as the case may be, finds from a preponderance of the evidence of record that the proposed use:*

(1) *Is a permissible special exception in the zone.*

Conclusion: A telecommunications facility is a permissible special exception in the RE-2 Zone, pursuant to Code § 59-C-1.31(b).

(2) *Complies with the standards and requirements set forth for the use in Division 59-G-2. The fact that a proposed use complies with all specific standards and requirements to grant a special exception does not create a presumption that the use is compatible with nearby properties and, in itself, is not sufficient to require a special exception to be granted.*

Conclusion: The proposed use complies with the specific standards set forth in § 59-G-2.58 for a telecommunications facility as outlined in Part C, below.

(3) *Will be consistent with the general plan for the physical development of the District, including any master plan adopted by the Commission. Any decision to grant or deny special exception must be consistent with any recommendation in a master plan regarding the appropriateness of a special exception at a particular location. If the Planning Board or the Board's technical staff in its report on a special exception concludes that granting a particular special exception at a particular location would be inconsistent with the land use objectives of the applicable master plan, a decision to grant the special exception must include specific findings as to master plan consistency.*

Conclusion: Petitioners' property is located in the northeast corner of the area subject to the 1994 Aspen Hill Master Plan. The Master Plan does not appear to address telecommunications facilities, as such. Technical Staff concluded that because the Master Plan recommends the RE-2 Zone for this site, and the RE-2 Zone allows a telecommunications facility by special exception, the proposed use is consistent with the goals and objectives of the Aspen Hill Master Plan. Exhibit 22, p. 13.

The 1994 Aspen Hill Master Plan does contain specific guidelines regarding special exception uses, in general (pages 80 – 81). The Master Plan indicates that an excessive concentration of special exceptions should be avoided; that major transportation corridors and residential communities should be protected from incompatible design; that front yard parking should be avoided, or if unavoidable, should be adequately landscaped and screened; and that screening and buffering should be used to limit impact on abutting residential areas.

The subject proposal will not offend any of these guidelines. There is only one other special exception in the area, and the use will not be located along a major transportation corridor. As discussed in this report, neighboring residential communities will be protected from incompatible design by distance, screening and stealth design of the monopole.

The property is zoned RE-2, and Zoning Code §59-C-1.31(b) permits telecommunications facilities by special exception in the RE-2 Zone. The Aspen Hill Plan recommends leaving the zoning in this area as it currently exists – Master Plan, p. 40.

The Hearing Examiner concludes that because the Master Plan supports the RE-2 Zone, and that zone permits the subject use by special exception, it is fair to say that the planned use is not inconsistent with the goals and objectives of the Aspen Hill Master Plan.

- (4) *Will be in harmony with the general character of the neighborhood considering population density, design, scale and bulk of any proposed new structures, intensity and character of activity, traffic and parking conditions, and number of similar uses.*

Conclusion: The proposed installation will be in harmony with the character of the neighborhood because it will be barely visible from the adjacent community due to the large setbacks and landscape buffers. There will also be no significant impact on traffic or parking. The proposed use is a low intensity use, only requiring on-site personnel for emergency repairs and regularly scheduled maintenance visits once or twice a month. As stated by Technical Staff (Exhibit 22, p. 22),

Large setbacks and natural terrain help protect the character of the surrounding neighborhood. Also, the monopole is proposed to be designed as a stealth pine tree to further bring the monopole into harmony with its natural parkland surroundings. There will be no significant impact on traffic or parking as the proposed low intensity use will only require on-site personnel for emergencies or regularly scheduled maintenance visits once or twice a month. No similar uses exist within the defined neighborhood. Public facilities and services are adequate to serve the proposed telecommunications facility.”

Based on these facts and the other evidence of record, the Hearing Examiner concludes, as did Technical Staff, that the proposed use will be in harmony with the general character of the neighborhood.

- (5) *Will not be detrimental to the use, peaceful enjoyment, economic value or development of surrounding properties or the general neighborhood at the subject site, irrespective of*

*any adverse effects the use might have if established elsewhere in the zone.*

Conclusion: Technical Staff found the telecommunications facility will not be detrimental to the use, peaceful enjoyment, economic value or development of surrounding properties or the general neighborhood. The Hearing Examiner agrees for all the reasons stated immediately above, and based on findings of the real estate impact study (Exhibit 14) discussed in Part II.C. of this report. Therefore, the Hearing Examiner finds that the telecommunications facility will not be detrimental to the use, peaceful enjoyment, economic value or development of surrounding properties or the general neighborhood at the subject site.

- (6) *Will cause no objectionable noise, vibrations, fumes, odors, dust, illumination, glare, or physical activity at the subject site, irrespective of any adverse effects the use might have if established elsewhere in the zone.*

Conclusion: The tower will have no lights, and the equipment building will not be illuminated at night except when night-time servicing is required. Petitioners' land use expert testified that the special exception would cause no objectionable noise, vibrations, fumes, odors, dust, illumination, glare or physical activity at the subject site. Tr. 87-90. Technical Staff agreed. Exhibit 22, p. 22. Thus, the undisputed evidence supports the conclusion that the telecommunications facility will cause no objectionable noise, vibrations, fumes, odors, dust, illumination, glare, or physical activity, and the Hearing Examiner so finds.

- (7) *Will not, when evaluated in conjunction with existing and approved special exceptions in any neighboring one-family residential area, increase the number, intensity, or scope of special exception uses sufficiently to affect the area adversely or alter the predominantly residential nature of the area. Special exception uses that are consistent with the recommendations of a master or sector plan do not alter the nature of an area.*

Conclusion: The proposed special exception use will not change the intensity of special exception uses in any substantial way. There is only one other special exception in the neighborhood, and it is an accessory apartment. Moreover, the proposed use is consistent with the Aspen Hill Master Plan. The Hearing Examiner finds that the proposed special exception will not increase the number, scope, or intensity of special exception uses in a way that will affect the area adversely.

- (8) *Will not adversely affect the health, safety, security, morals or general welfare of residents, visitors or workers in the area at the subject site, irrespective of any adverse effects the use might have if established elsewhere in the zone.*

Conclusion: The evidence supports the conclusion that the proposed use would not adversely affect the health, safety, security, morals or general welfare of residents, visitors or workers in the area at the subject site. Moreover, the federal Telecommunications Act of 1996, 47 USC §332(c)(7)(B)(iv), provides that:

*No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the [Federal Communications] Commission's regulations concerning such emissions.*

Exhibit 17, the report of Andrew Pak, an RF engineer, indicates that the proposed facility will operate well within the FCC maximum standard. Petitioners will also be required to comply with all applicable hazmat regulations governing the site.

The Hearing Examiner therefore concludes that the proposed telecommunications facility will not adversely affect the health, safety, security, morals or general welfare of residents, visitors or workers in the area.

- (9) *Will be served by adequate public services and facilities including schools, police and fire protection, water, sanitary sewer, public roads, storm drainage and other public facilities.*

Conclusion: The evidence supports the conclusion that the proposed special exception would be adequately served by the specified public services and facilities, to the extent they are needed for this type of use.

- (A) *If the special exception use requires approval of a preliminary plan of subdivision, the Planning Board must determine the adequacy of public facilities in its subdivision review. In that case, approval of a preliminary plan of subdivision must be a condition of the special exception.*
- (B) *If the special exception does not require approval of a preliminary plan of subdivision, the Board of Appeals must determine the adequacy of public facilities when it considers the special exception application. The Board must consider whether the available public facilities and services will be adequate to serve the proposed development under the Growth Policy standards in effect when the special exception application was submitted.*

Conclusion: The special exception sought in this case would not require approval of a preliminary plan of subdivision. Therefore, the Board must consider whether the available public facilities and services will be adequate to serve the proposed development under the applicable Growth Policy standards. These standards include Local Area Transportation Review (“LATR”) and Policy Area Mobility Review (PAMR). As indicated in Part II. B. of this report, Technical Staff did do such a review, and concluded that the proposed use would add no additional trips during the peak-hour weekday periods and only one or two service trips per month. Thus, the requirements of the LATR and PAMR are satisfied without a traffic study. By its nature, the site requires no school, water or sewer services. Fire houses are nearby. Technical Staff concluded, as does the Hearing Examiner, that the instant petition meets all the applicable Growth Policy standards.

- (C) *With regard to public roads, the Board or the Hearing Examiner must further find that the proposed development will not reduce the safety of vehicular or pedestrian traffic.*

Conclusion: Based on the evidence of record, especially the Transportation Staff's conclusion that the proposed use "will have no adverse effect on area roadway conditions or nearby pedestrian facilities," the Hearing Examiner so finds. Exhibit 22, Attachment 6.

### **C. Specific Standards**

The testimony and the exhibits of record, especially the Technical Staff Report (Exhibit 22) and the conclusion of the Transmission Facilities Coordinating Group (Exhibit 13), provide sufficient evidence that the specific standards required by Section 59-G-2.58 are satisfied in this case, as described below.

#### ***Sec. 59-G-2.58. Telecommunication facility***

*(a) Any telecommunication facility must satisfy the following standards:*

*(1) A support structure must be set back from the property line as follows:*

*a. In agricultural and residential zones, a distance of one foot from the property line for every foot of height of the support structure.*

*b. In commercial and industrial zones, a distance of one-half foot from property line for every foot of height of the support structure from a property line separating the subject site from commercial or industrial zoned properties, and one foot for every foot of height of the support structure from residential or agricultural zoned properties.*

*c. The setback from a property line is measured from the base of the support structure to the perimeter property line.*

*d. The Board of Appeals may reduce the setback requirement to not less than the building setback of the applicable zone if the applicant requests a reduction and evidence indicates that a support structure can be located on the property in a less visually obtrusive location after considering the height of the structure, topography, existing vegetation, adjoining and nearby residential properties, if any, and visibility from the street.*

Conclusion: The proposed facility will have a 140 foot tall monopole tower. Subsection (a)(1) would require a 140 foot setback from the property line (one foot for every foot of tower height), as measured from the base of the monopole structure, in accordance with subsections (a)(1)a. and c.<sup>8</sup> The closest property line of any kind belongs to a lot to the east on which a stormwater management facility is located, which is about 884 feet away from the base of the monopole;<sup>9</sup> it is about 900 feet to the nearest property line of a lot that has a residence on it. Tr. 82-83. Thus, the setbacks vastly exceed that required by Zoning Ordinance §§59-G-2.58(a)(1).

(2) *A support structure must be set back from any off-site dwelling as follows:*

- a. *In agricultural and residential zones, a distance of 300 feet.*
- b. *In all other zones, one foot for every foot in height.*
- c. *The setback is measured from the base of the support structure to the base of the nearest off-site dwelling.*
- d. *The Board of Appeals may reduce the setback requirement in the agricultural an[sic] residential zones to a distance of one foot from an off-site residential building for every foot of height of the support structure if the applicant requests a reduction and evidence indicates that a support structure can be located in a less visually obtrusive location after considering the height of the structure, topography, existing vegetation, adjoining and nearby residential properties, and visibility from the street.*

Conclusion: The subject site is in a residential zone, so the 300 foot setback requirement applies.

As shown in the Residential Setback Plan (Exhibit 21(d)), reproduced on page 16 of this report, the closest off-site dwelling is 1,004 feet to the east. Thus, the proposal is in compliance with this requirement.

(3) *The support structure and antenna must not exceed 155 feet in height, unless it can be demonstrated that additional height up to 199 feet is needed for service, collocation, or public safety communication*

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<sup>8</sup> Subsection (a)(1)b is inapplicable because it applies only to commercial and industrial zones.

<sup>9</sup> The Technical Staff report (Exhibit 22, p. 25) gives the setback as “600 feet away.” Technical Staff informed the Hearing Examiner that that was an error, and that the setback was actually approximately 885 feet, as indicated by Phil Perrine, Petitioners’ land planner.

*purposes. At the completion of construction, before the support structure may be used to transmit any signal, and before the final inspection, pursuant to the building permit, the applicant must certify to the Department of Permitting Services that the height and location of the support structure is in conformance with the height and location of the support structure, as authorized in the building permit.*

Conclusion: The support structure will be 140 feet in height, and the antenna will be mounted at about the 134-foot level, located behind the faux foliage. The antenna will reach up to a height of approximately 137 feet. Tr. 40. Thus, the proposal meets the requirement of being under 155 feet. A condition has been proposed in Part V of this report to insure compliance with the certification requirement.

*(4) The support structure must be sited to minimize its visual impact. The Board may require the support structure to be less visually obtrusive by use of screening, coloring, stealth design, or other visual mitigation options, after considering the height of the structure, topography, existing vegetation and environmental features, and adjoining and nearby residential properties. The support structure and any related equipment buildings or cabinets must be surrounded by landscaping or other screening options that provide a screen of at least 6 feet in height.*

Conclusion: The proposal conforms to this requirement, as outlined by Technical Staff (Exhibit 22, pp. 26-27):

The telecommunications facility satisfies this standard. As previously mentioned, the proposed facility will be located in an area chosen by the applicants to reduce any visual impact upon the surrounding neighborhood. This location was chosen over other nearby areas because it is near the center of the one-half mile wide Northwest Branch Park and adjacent to an existing tree stand. The monopole will be designed as a stealth treepole to help the use blend in with the natural surroundings of the park [and it will be appropriately landscaped]. Additionally, the proposed location of the monopole was chosen because of its proximity to the future Trolley Museum. This allows the applicants to construct a [six-foot] wrought iron fence and brick façade for the equipment compound design, matching the architectural detail to be used for the future Trolley Museum and further helping the telecommunications facility blend in with its surroundings. Photographic simulations provided by the applicants indicate that the proposed tower will not have an unacceptable visual impact on the neighborhood.

(5) *The property owner must be an applicant for the special exception for each support structure. A modification of a telecommunications facility special exception is not required for a change to any use within the special exception area not directly related to the special exception grant. A support structure must be constructed to hold no less than 3 telecommunications carriers. The Board may approve a support structure holding less than 3 telecommunications carriers if: 1) requested by the applicant and a determination is made that collocation at the site is not essential to the public interest; and 2) the Board decides that construction of a lower support structure with fewer telecommunications carriers will promote community compatibility. The equipment compound must have sufficient area to accommodate equipment sheds or cabinets associated with the telecommunications facility for all the carriers.*

Conclusion: The property owner, Maryland-National Capital Park and Planning Commission, is a co-petitioner. The facility will be capable of supporting three telecommunications carriers. Exhibit 22, p. 27.

(6) *No signs or illumination are permitted on the antennas or support structure unless required by the Federal Communications Commission, the Federal Aviation Administration, or the County.*

Conclusion: No signs or illumination are proposed, except the two square foot sign required by subsection (8), below, and a light on the equipment shelter to be used if emergency repairs are required at night.

(7) *Every freestanding support structure must be removed at the cost of the owner of the telecommunications facility when the telecommunications facility is no longer in use by any telecommunications carrier for more than 12 months.*

Conclusion: Petitioners' site plan (Exhibit 21(c), Site Note 10) calls for removal by Petitioners if the facility is not used for more than one year, and a condition to that effect is recommended in Part V of this report.

(8) *All support structures must be identified by a sign no larger than 2 square feet affixed to the support structure or any equipment building. The sign must identify the owner and the maintenance service provider of the*

*support structure or any attached antenna and provide the telephone number of a person to contact regarding the structure. The sign must be updated and the Board of Appeals notified within 10 days of any change in ownership.*

Conclusion: The required sign will be installed (Tr. 52-53 and Exhibit 22, p. 28), and a condition so stating is recommended in Part V of this report.

*(9) Outdoor storage of equipment or other items is prohibited.*

Conclusion: No outdoor storage of equipment is proposed. Equipment will be enclosed as described elsewhere in this report.

*(10) Each owner of the telecommunications facility is responsible for maintaining the telecommunications facility, in a safe condition.*

Conclusion: A condition to this effect is recommended in Part V below. Petitioners plan to service the facility on a monthly basis.

*(11) The applicants for the special exception must file with the Board of Appeals a recommendation from the Transmission Facility Coordinating Group regarding the telecommunications facility. The recommendation must be no more than one year old.*

Conclusion: A recommendation of approval, dated May 2, 2007, was filed herein as Exhibit 13. It was less than one year old when the petition was filed on March 3, 2008.

*(12) Prior to the Board granting any special exception for a telecommunications facility, the proposed facility must be reviewed by the County Transmission Facility Coordinating Group. The Board and Planning Board must make a separate, independent finding as to need and location of the facility.*

Conclusion: As noted, both the Transmission Facility Coordinating Group and the Planning Board recommended approval. The Technical Staff and the Hearing Examiner recommend that the Board make the finding that there is a need for the proposed

telecommunications facility and that it will be appropriately located, based on the evidence set forth in Part II of this report.

*(b) Any telecommunications facility special exception application for which a public hearing was held before November 18, 2002 must be decided based on the standards in effect when the application was filed.*

Conclusion: Not applicable.

*(c) Any telecommunications facility constructed as of November 18, 2002 may continue as a conforming use.*

Conclusion: Not applicable.

**D. Additional Applicable Standards**

**Section 59-G-1.23. General development standards.**

*(a) Development Standards. Special exceptions are subject to the development standards of the applicable zone where the special exception is located, except when the standard is specified in Section G-1.23 or in Section G-2.*

Conclusion: This petition falls under the exception because Zoning Ordinance §59-G-2.58 specifies the development standards for telecommunications facilities. As discussed above, the proposed use meets those standards.

*(b) Parking requirements. Special exceptions are subject to all relevant requirements of Article 59-E.*

Conclusion: Technical Staff did not recommend any additional parking for the proposed facility because it will require only one or two service visits per month.

*(c) Minimum frontage. In the following special exceptions the Board may waive the requirement for a minimum frontage at the street line if the Board finds that the facilities for ingress and egress of vehicular traffic are adequate to meet the requirements of section 59-G-1.21:*

\* \* \*

*(5) Public utility buildings and public utility structures,*

*including radio and T.V. broadcasting stations and telecommunication facilities.*

Conclusion: No waiver is needed because the subject site is located on existing parkland, which has more than adequate frontage. In any event, the facilities for ingress and egress of vehicular traffic are adequate to meet the requirements of section 59-G-1.21.

*(d) Forest conservation. If a special exception is subject to Chapter 22A, the Board must consider the preliminary forest conservation plan required by that Chapter when approving the special exception application and must not approve a special exception that conflicts with the preliminary forest conservation plan.*

Conclusion: The property is subject to a final forest conservation plan (Exhibits 6(a) and (b)) which has already been approved.

*(e) Water quality plan. If a special exception, approved by the Board, is inconsistent with an approved preliminary water quality plan, the applicant, before engaging in any land disturbance activities, must submit and secure approval of a revised water quality plan that the Planning Board and department find is consistent with the approved special exception. Any revised water quality plan must be filed as part of an application for the next development authorization review to be considered by the Planning Board, unless the Planning Department and the department find that the required revisions can be evaluated as part of the final water quality plan review.*

Conclusion: This section pertains only to sites in special protection areas, where water quality plans are required. This site is not within an SPA.

*(f) Signs. The display of a sign must comply with Article 59-F.*

Conclusion: As indicated earlier in this report, the only sign on the facility will be the two square foot sign required by the special exception.

*(g) Building compatibility in residential zones. Any structure that is constructed, reconstructed or altered under a special exception in a residential zone must be well related to the surrounding area in its siting, landscaping, scale, bulk, height, materials, and textures, and must have a residential appearance where appropriate. Large building elevations must be divided into distinct planes by wall offsets or architectural articulation to achieve compatible scale and massing.*

Conclusion: The proposed monopole will be appropriately sited, scaled, disguised and landscaped to avoid impinging on the residential appearance of the neighborhood.

*(h) Lighting in residential zones. All outdoor lighting must be located, shielded, landscaped, or otherwise buffered so that no direct light intrudes into an adjacent residential property. The following lighting standards must be met unless the Board requires different standards for a recreational facility or to improve public safety:*

*(1) Luminaires must incorporate a glare and spill light control device to minimize glare and light trespass.*

*(2) Lighting levels along the side and rear lot lines must not exceed 0.1 foot candles.*

Conclusion: As discussed elsewhere in this report, no lighting will be used on a regular basis. A light is planned for use only in the event of emergency nighttime repairs.

#### **Section 59-G-1.26. Exterior appearance in residential zones.**

*A structure to be constructed, reconstructed or altered pursuant to a special exception in a residential zone must, whenever practicable, have the exterior appearance of a residential building of the type otherwise permitted and must have suitable landscaping, streetscaping, pedestrian circulation and screening consisting of planting or fencing whenever deemed necessary and to the extent required by the Board, the Hearing Examiner or the District Council. Noise mitigation measures must be provided as necessary.*

Conclusion: It is not “practicable” to make a 140 foot tall monopole “have the exterior appearance of a residential building;” however, as mentioned above, it will be appropriately sited, scaled, disguised and landscaped to avoid impinging on the residential appearance of the neighborhood. Noise mitigation will not be needed.

Based on the testimony and evidence of record, I conclude that the telecommunications facility use proposed by Petitioners, as conditioned below, meets the specific and general requirements for the special exception, and that the Petition should be granted, subject to the conditions set forth in Part V of this report.

## V. RECOMMENDATION

Based on the foregoing analysis, I recommend that Petition No. S-2729 for a special exception to construct and operate a telecommunications facility, including a 140 foot tall monopole and related equipment, at 1313 Bonifant Road, Silver Spring, Maryland, be GRANTED, with the following conditions:

1. The Petitioners shall be bound by all of the exhibits of record, and by the testimony of their witnesses and the representations of counsel identified in this report.
2. Petitioners must comply with the Final Forest Conservation Plan (Exhibits 6(a) and (b)).  
Petitioners must obtain a Park Construction Permit prior to any clearing, grading or construction on the site.
3. Department of Permitting Services requirements, if any, for stormwater quality and quantity control must be fulfilled prior to issuance of any sediment and erosion control permits.
4. At the completion of construction, before the support structure may be used to transmit any signal, and before the final inspection pursuant to the building permit, the Petitioners must certify to the Department of Permitting Services that the height and location of the support structure is in conformance with the height and location of the support structure as authorized in the building permit.
5. The telecommunication facility must display a contact information sign, no larger than two square feet, affixed to the outside of the equipment enclosure. This sign must identify the owner and the maintenance service provider and provide the telephone number of a person to contact regarding the installation. The sign must be updated and the Board of Appeals notified within 10 days of any change in ownership.
6. There must be no antenna lights or stroboscopic lights unless required by the Federal Communications Commission, the Federal Aviation Administration, or the County.

7. There must be no outdoor storage of equipment.
8. Each owner of the telecommunications facility is responsible for maintaining the facility in a safe condition.
9. The facility shall be available for co-location of up to three carriers.
10. The telecommunications facility must be removed at the cost of the owner of the telecommunications facility when the facility is no longer in use by any telecommunications carrier for more than 12 months.
11. Petitioners must obtain a Hazmat Use Permit for the subject site before commencing operations.
12. Petitioners must obtain and satisfy the requirements of all licenses and permits, including but not limited to building permits and use and occupancy permits, necessary to occupy the special exception premises and operate the special exception as granted herein. Petitioners shall at all times ensure that the special exception use and the entire premises comply with all applicable codes (including but not limited to building, life safety and handicapped accessibility requirements), regulations, directives and other governmental requirements.

Dated: October 17, 2008

Respectfully submitted,

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Martin L. Grossman  
Hearing Examiner