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:
T-MOBILE NORTHEAST, L.L.C. AND WEST HILLANDALE SWIM CLUB,

Petitioners	*	
	*	
Matthew Chaney	*	
Jules Cohen	*	
Christine Dalton	*	Board of Appeals Case No. S-2709
Pavan Dandapanthula	*	(OZAH Referral No. 08-06)
Gus Druedson	*	
Shauna Garver	*	
Judith Harrison	*	
Oakleigh Thornton	*	
For the Petitioner	*	
	*	
Sean Hughes, Esquire	*	
Attorney for the Petitioner	*	
* *		
Barbara Moore, Montgomery County	*	
Office of Homeland Security	*	
Neither In Support of Nor in	*	
Opposition to the Petition	*	
* *		
Betsy Bretz	*	
Royal Fuchs	*	
Matthew Gervase	*	
Kathryn Hopps	*	
Susan Present	*	
Richard Present	*	
Ida Ruben	*	
Emma Stelle	*	
Doris Stelle	*	
In Opposition to the Petition	*	
* *		
Howard Bassen, Federal Drug Administration	*	
Deanna Murphy, Federal Drug Administration	*	
In Opposition to the Petition	*	
	*	
Louis Mancuso, Esq.	*	
Attorney for the Federal Drug Administration	*	
* *		

Before: Françoise M. Carrier, Hearing Examiner

HEARING EXAMINER'S REPORT AND RECOMMENDATION

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I. SUMMARY

The present petition seeks approval for a telecommunications facility consisting of a 120-foot, free-standing cell phone tower in the shape of a flag pole, with no flag on top, within a 35-foot by 53-foot equipment compound surrounded by an eight-foot wooden fence. The subject site is the Hillandale Swim Club, a community swim club located on Schindler Drive in the White Oak area of Silver Spring, not far from New Hampshire Avenue.

This application has been met with significant community involvement, mostly in the form of large numbers of form letters from Swim Club members supporting the application and smaller numbers of witnesses and letters from local residents in opposition. Much of the opposition was based on the location proposed for the equipment compound and tower, which is in the front part of the site, next to the pool building and in full view from the street. The Hearing Examiner considers the visual impact issue to be a close call in this case, but ultimately concluded that in light of the large numbers of tall trees on the site and in the neighborhood, the visual impact does not justify denial of the application. Petitioners have requested a reduction of the required property line setback from 120 feet (equal to the height of the structure) to 41 feet along a property line shared with an elementary school. The record contains evidence that would support either an affirmative or a negative decision on this issue, as well. The Hearing Examiner, having carefully weighed the evidence, concludes that the setback reduction may properly be granted.

This report nonetheless recommends denial of the application, on two grounds. First, Petitioners failed to demonstrate to the Hearing Examiner's satisfaction that the location proposed for the facility would satisfy a specific condition for the use requiring a finding that the support structure is "sited to minimize visual impact." As explained further in Part V of this report, T-Mobile did not adequately explain why a location at the rear of the site, which appears to offer the potential for reduced visual impact, is not feasible. Second, Petitioners failed to meet even the burden of production, let along the burden of persuasion, on a safety-related issue. T-Mobile represented during the hearing that it intended to have four lead-acid batteries inside its equipment cabinets to

provide back-up power in the event of a power outage. Several community members expressed concerned about possible risks from these batteries, which, like car batteries, contain sulfuric acid, an "extremely hazardous substance" under County regulations. A County official responsible for the registration of hazardous material storage sites testified that the risks associated with lead-acid batteries increases with the number of batteries. In addition, a community member submitted an article outlining various safety risks associated with arrays of such batteries. After the second hearing date, T-Mobile's counsel stated in a letter that the number of batteries needed would be 16, rather than four. T-Mobile has submitted no evidence concerning the safety of an array of 16 batteries, or 32 or 48 batteries with potential co-locators, other than conclusory statements by counsel. The post-hearing quadrupling of the number of batteries deepened concern among community members who commented before the record closed, and led the Hearing Examiner to conclude that a favorable decision on this application would require evidence that the batteries do not pose an unacceptable safety risk. Petitioners have submitted no such evidence.

If the Board is inclined to grant the present application, the Hearing Examiner has provided recommendations, at the end of the report, for additional items of evidence that the Board may wish to require from T-Mobile, as well as several recommended conditions of approval.

II. STATEMENT OF THE CASE

Petition S-2709, filed July 17, 2007, requests a special exception under Section 59-G-2.58 of the Montgomery County Zoning Ordinance for a telecommunications facility, to be constructed on property located at 915 Schindler Drive, Silver Spring, Maryland, in the R-90 Zone, known as parcel A, West Hillandale Swim Club Subdivision and Parcel N400, Tax Map JP63, Tax Account No.00282244.[1] Petitioner T-Mobile Northeast LLC has entered into an agreement to lease a portion of the subject property from petitioner West Hillandale Swim Club, Inc. (the "Swim Club"), the owner of

[1] The Hearing Examiner hereby takes official notice of the Maryland Department of Assessments and Taxation Real Property Database, which clarified inconsistencies in the record as to the tax map, parcel number and tax account information.

the property. The Swim Club is a joint applicant for the telecommunications special exception and also requests administration modification of its existing special exception, CBA-1193, to permit the construction of the proposed telecommunications facility on the site. The Petitioners ask that the special exception request and the modification request be decided concurrently.

Technical Staff of the Maryland-National Capital Park & Planning Commission ("M-NCPPC") reviewed the present petition and, in a report dated October 29, 2007, recommended approval with conditions.[2] See Ex. 22. Staff submitted supplemental information, responding to questions from the Hearing Examiner, on November 27, 2007. See Ex. 35. The Montgomery County Planning Board ("Planning Board") considered this petition on November 15, 2007 and voted 4 to 1 to recommend approval based on the findings in the Staff Report, with one significant change: the Planning Board recommended that the 120-foot monopole proposed as the support structure for the telecommunications facility be designed as a flagpole, with the antennas inside the pole. See Ex. 30.

The Planning Board recommendation noted that many community members who spoke at the Planning Board's meeting complained of a lack of notification regarding this petition. The record indicates that the sign posted on the property had a tendency to tip forward or fall down, so that it was not always readily visible, but that it was picked up and re-posted several times. Moreover, the hearing was postponed at the request of a community member for a 30-day period from December 3, 2007 to January 4, 2008, in part to ensure that the sign could be properly posted every day for a 30-day period. The record also reflects that the required hearing notices were mailed to adjoining and confronting property owners. Moreover, the record contains 141 letters from community members, and 11 community members testified at the hearing, indicating that by the time of the Planning Board's hearing, and certainly by the time of the Hearing Examiner's hearing, the application was very broadly known in the general neighborhood.

Community members complained during the Hearing Examiner's hearing that the Swim Club failed to contact directly each of the neighboring homeowners. The Swim Club President

[2] The Staff Report has been liberally paraphrased and quoted in Part II of this report.

testified that the club did not systematically contact the immediate neighbors, but relied on word of mouth and swim club members to let people know what was happening. The decision not to contact directly the homeowners who would be most affected by the proposal displays a surprising lack of courtesy for a community organization, and may have contributed to the vociferous opposition this application has generated in the Hillandale community. Nonetheless, the Hearing Examiner finds that the notice required by law was given and was effective in informing the community about this petition.

The Planning Board further noted that it received a letter on November 14, 2007 from the Federal Drug Administration (the "FDA") requesting that the Planning Board defer consideration of the petition due to concern that radio frequency emissions from the proposed monopole could interfere with testing of sensitive medical equipment that takes place at the FDA's nearby White Oak campus. *See* Ex. 30. The Planning Board was not inclined to defer issuing a recommendation on the petition, but stated that it "would support a collaborative effort between the FDA and T-Mobile to resolve the issue before a final decision on the petition is reached." *Id.* As discussed in more detail in Part III.F. below, the FDA and T-Mobile engaged in discussions about the proposed facility from November, 2007 through January, 2008 without reaching an agreement concerning what emissions the FDA would consider acceptable. More importantly, federal law prohibits Montgomery County from regulating a cellular telephone facility on the basis of radio frequency ("RF") emissions, provided that the emissions are below a threshold established by the Federal Communications Commission (the "FCC"). The uncontroverted evidence establishes that the facility proposed here would generate RF emissions far below the applicable FCC threshold. The Hearing Examiner twice afforded the FDA the opportunity to present a legal basis for the Board of Appeals to regulate this proposed facility on the basis of potential RF interference, but on both occasions the FDA chose not to do so. Accordingly, for the reasons discussed in Part III.F., the Hearing Examiner concludes that the FDA's concerns about RF emissions do not present legally acceptable grounds to deny or condition the proposed special exception, and therefore do not justify deferring a decision on this petition to give the FDA more time for discussions with T-Mobile.

Finally, the Planning Board's letter expresses concern on the part of the dissenting Planning Board member, Gene Cryor, that the commissioners did not receive enough information, and that the driving force for this project seems to be to secure a strong revenue stream for a community swimming pool that is experiencing financial strain. *See* Ex. 30. While it is clearly true that the Swim Club's desire for revenue is one of the driving forces behind this application, that has little bearing on the legal issues to be decided. Moreover, the Hearing Examiner is persuaded that sufficient information has been submitted, both in support of the petition and in opposition, to provide a reasonable basis for a decision on the merits.

On August 6, 2007 the Board of Appeals scheduled a public hearing in this matter for December 3, 2007, to be conducted by a hearing examiner from the Office of Zoning and Administrative Hearings. The hearing was later postponed to January 4, 2008, principally to cure a notice problem, namely that the original notice of hearing failed to state that the Swim Club seeks a modification to its existing special exception to permit the telecommunications facility, in addition to the telecommunications facility special exception. The public hearing was convened after proper notice on January 4, 2008 and concluded on February 1, 2008. Testimony and other evidence were received in support of and in opposition to the proposed special exception. The record was held open to permit additional submissions by the Petitioners and allow time for public comment, and closed on February 28, 2008. The volume of evidence prevented the Hearing Examiner from completing her report and recommendation within the prescribed 30-day period. In addition, during the course of preparing her report the Hearing Examiner discovered that two emails from Technical Staff, which were submitted in late January, 2008 in response to questions from the Hearing Examiner arising from the first hearing day, inadvertently were not placed in the record. The record was reopened on May 9, 2008 to admit these items into the record and provide for a public comment period, and finally closed on May 21.

After the first hearing date, on January 14, 2008, the Hearing Examiner received a written request from community member Susan Present to dismiss the telecommunications facility

petition on grounds that it was incomplete and should not have been accepted as filed, or that it was not properly filed. *See* Ex. 101. The basis for this argument was Ms. Present's contention that T-Mobile failed to provide complete information about its back-up battery power supply or the possible use of an emergency generator. She notes that under the Board's rules, "an application for a special exception is not considered filed until all forms are correctly completed, all required supporting material is submitted and the filing fee is paid." Board Rules of Procedure, Rule 1.2.

The Hearing Examiner does not have the authority to dismiss a special exception. Moreover, the information required for a special exception petition does not appear to include the level of detailed information that Ms. Present requested about back-up power. Accordingly, while the issue became a serious one in this case, the Hearing Examiner does not consider it appropriate grounds for dismissal, and recommends that the Board consider this case on its merits.

III. BACKGROUND

For the reader's convenience, background information is grouped by subject matter.

A. The Subject Property and Neighborhood

The subject property consists of approximately 4.81 acres located on the east side of Schindler Drive in Silver Spring, a few blocks west of New Hampshire Avenue and several blocks north of I-495. Its general location may be seen on the aerial photograph on the next page.

The site is irregular in shape, with approximately 250 feet of frontage along Schindler Drive and an upward slope from the front of the property, on Schindler Drive, to the rear. The property is heavily forested along all of its borders except its Schindler Road frontage. The property has been the site of the Hillandale Swim Club for nearly 60 years, and contains elements common to a community swim club – a large swimming pool, a small "kiddie pool" for very young children, a pool house, a playground, a volleyball court and a large parking lot. The parking lot, the pool house, the kiddie pool area and the playground are visible from the street. The main pool and the volleyball court

are behind the pool house. A tall chain-link fence topped with barbed wire encloses the pool area and the playground. The record does not reflect whether this fence encloses the volleyball court as well.

Aerial Photograph Downloaded from Google Earth[3]

As shown in the close-up aerial photograph on the next page, the subject site borders Schindler Road to the west; the rear yard of one single-family, detached home and Cresthaven-Roscoe Nix Elementary School to the south; undeveloped, forested land to the east; and the rear yards of single-family, detached homes to the north. Across Schindler Road, it confronts one single-family home directly, another diagonally and, diagonally to the southwest, Francis Scott Key Middle School.

[3] The Hearing Examiner hereby takes official notice of the aerial photography available on-line via Google Earth.

Close-up Aerial Photograph Downloaded from Google Earth

Swim Club Seen from Schindler Drive, from Ex. 38(b)

Pool Building, from Ex. 38(b)

Technical Staff suggests that the relevant neighborhood for this case is bounded by West Nolcrest Drive and Harper Road to the north, Cresthaven Drive to the east, LaGrande Road to the south and Northwest Branch Park to the west, as shown below. *See* Ex. 22 at 4.

Vicinity Map, Excerpted from Staff Report Attachment 1

The Hearing Examiner considers the Staff's neighborhood somewhat restrictive in the case of a 120-foot flagpole, which would be visible within a broader area. Photographic simulations submitted by the Petitioner show that the proposed facility would not be visible at locations approximately one mile away, suggesting that the relevant neighborhood is smaller than the area within a one-mile radius but larger than the area shown above, which extends to a point roughly 1,200 feet from the proposed monopole site at its farthest point and 400 feet away at its closest point. Taking into account natural boundaries and general distances, the Hearing Examiner considers the relevant area to be roughly bounded by Northwest Branch Park on the west, Edelbut Drive and McCeney Avenue on the north, New Hampshire Avenue on the east and Devere Drive and a line extending from it on the south. This area is shown on the map below.

The general neighborhood as shown above is classified entirely under the R-90 Zone and contains primarily single-family detached homes, as well as institutional uses including the adjacent elementary school and the middle school across the street.[4]

B. Master Plan

The subject property is within the area covered by the *1997 Approved and Adopted White Oak Master Plan* (the "Master Plan"), which shows the Swim Club site in an area recommended for single-family residential development under the R-90 Zone. The Master Plan provides the following general guidance for special exceptions: "Evaluate new requests for special exception uses and their impact on the character and nature of the residential neighborhoods in which they are proposed." This guidance is, of course, consistent with the findings required to approve a special exception. Technical Staff concludes that because the Master Plan recommends continued R-90 zoning for the subject site and the R-90 Zone permits a telecommunications facility by special exception, the proposed use is not inconsistent with the goals and objectives of the Master Plan. *See* Ex. 22 at 6.

C. Proposed Use

1. Nature of the Use

T-Mobile approached the Swim Club about locating a monopole on its property in 2007. The Swim Club was very receptive to the idea, having unsuccessfully sought out cell phone companies to locate on the site in the past. The Swim Club has been experiencing financial strain for several years due to lower membership levels, and some time ago decided to investigate potential revenue streams that would help the pool survive until membership numbers increase, and provide funding for some infrastructure improvements. The pool membership had voted two or three times to support having a cell tower on the property, so the board signed a contract with T-Mobile when the

[4] Based on knowledge gained in other cases, the Hearing Examiner is able to identify the non-residential use at the corner of New Hampshire Avenue and I-495 as the National Labor College, a private educational institution providing post-secondary education for adults.

opportunity arose. The Swim Club's president, Susan Garver, explained that the cell tower lease would give the Swim Club a guaranteed revenue stream that it can take loans against, instead of borrowing against the property itself and risking losing the property. Ms. Garver added that loans may not be necessary, as the pool has had a good initial response to a 50th-anniversary capital campaign, but the additional income would nonetheless be helpful to the pool's financial stability. Although many community members expressed concern about the Swim Club's long-term viability, Ms. Garver opined that the pool "has a very good chance of surviving long term." Tr. Jan. 4 at 26.

The Petitioner proposes to construct an unmanned, wireless telecommunications facility disguised as a 120-foot flagpole, but without a flag on top.[5] The antennas necessary to send and receive signals would be concealed inside the flagpole. The flagpole is proposed to be located inside an equipment compound measuring 35 feet by 53 feet, surrounded by an eight-foot stockade wooden fence, potentially topped with barbed wire (the site plan detail sheet, Exhibit 155(b), states "barbed wired only at owners [sic] request"). The equipment compound would house T-Mobile's equipment cabinets, which are specified on the site plan not to exceed eight feet in height, and are depicted on the site plan detail sheet at a height of 70 inches. *See* Exs. 155(a) and (b). The facility would operate 24 hours a day, but the only visits to the site would be regularly scheduled maintenance visits one or two times per month, plus any emergency repairs that may be necessary. Both the tower and the equipment compound would be able to accommodate two other telecommunications carriers, as required under the Zoning Ordinance.

2. Proposed Location and Setback Issues

T-Mobile proposes to place the equipment compound and the tower in a grassy area in front of the fenced pool area, just to the right of the pool house (looking at the pool from Schindler Drive). This would place the compound close to a forested area along the site's southern border, on a

[5] During the hearing, Petitioner's counsel represented that T-Mobile would be willing to fly a flag other than the United States flag, such as a flag designed for the Swim Club, or to leave the pole without a flag. (Flying the United States flag requires illumination after dark, which T-Mobile wished to avoid.) Post-hearing submissions, however, clearly state that the monopole would be in the form of a flagpole without a flag.

small hill next to the parking lot. The existing entrance drive and parking lot would be used for vehicular access. The site plan, reproduced on the next page, depicts a circle with the location proposed for the monopole as its center and a 300-foot radius. This shows that the monopole would comply with the specific condition of the use requiring the support structure for a telecommunications facility to be located at least 300 feet from any off-site dwelling. *See* Code § 59-G-2.58(a)(2). The monopole would be approximately 300 feet from the closest part of the Gervase residence, on the corner of Schindler Drive and Schindler Court, and approximately 310 feet from two other houses on Schindler Court and four houses on Ruppert Road. The site plan is shown in full on the next page and in parts, at a larger scale, on the pages that follow.

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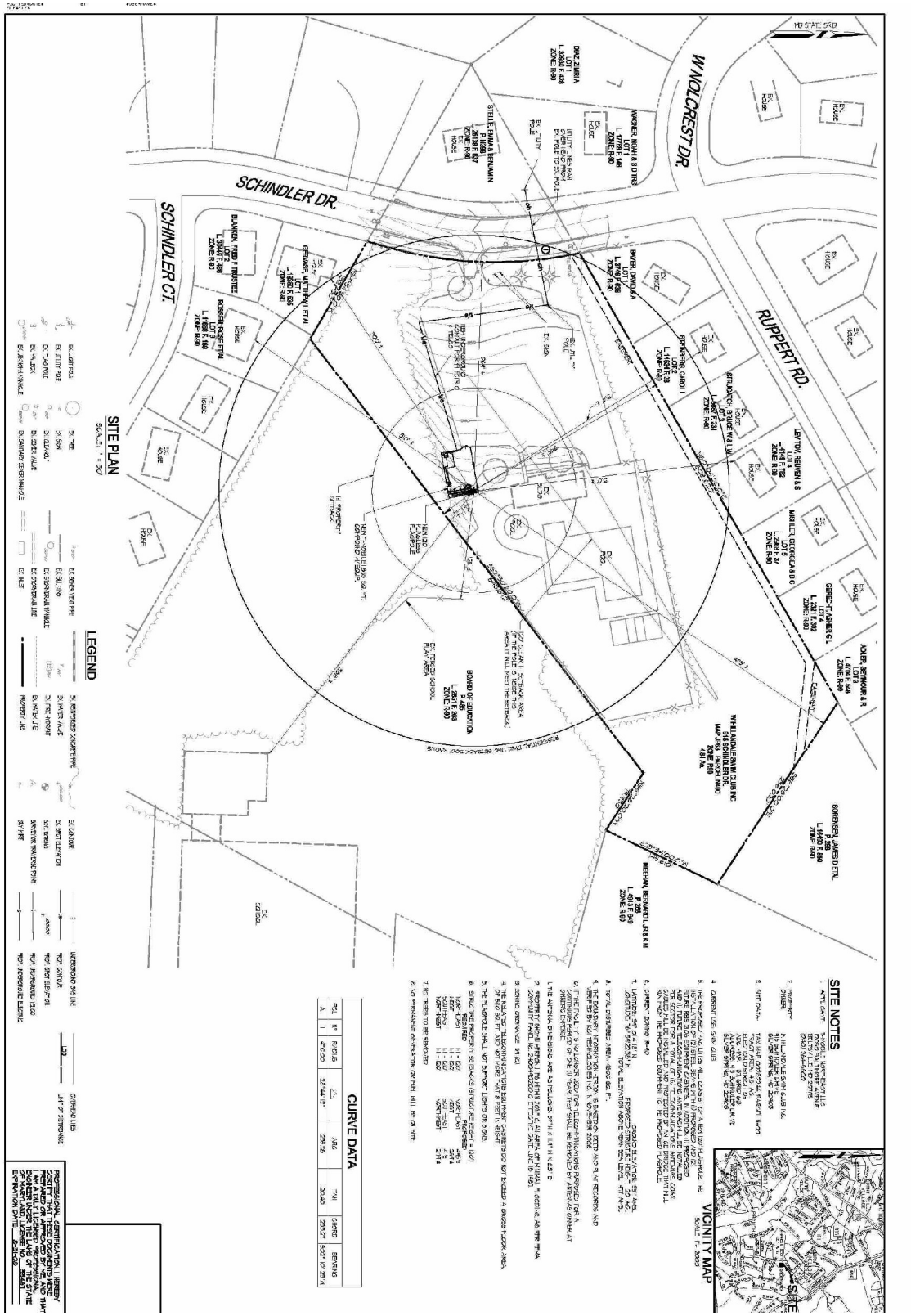
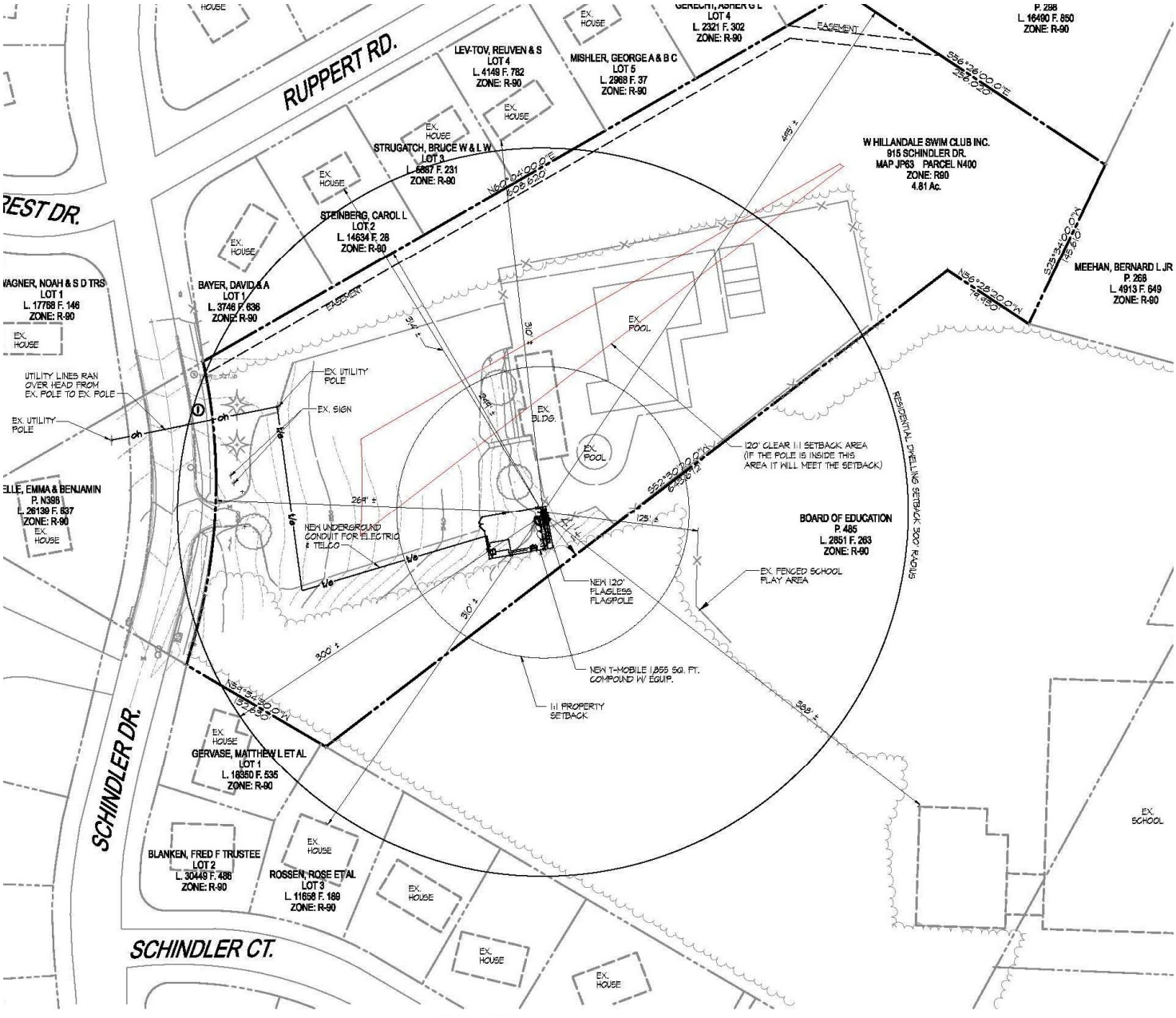
Site Plan, Exhibit 155(a)

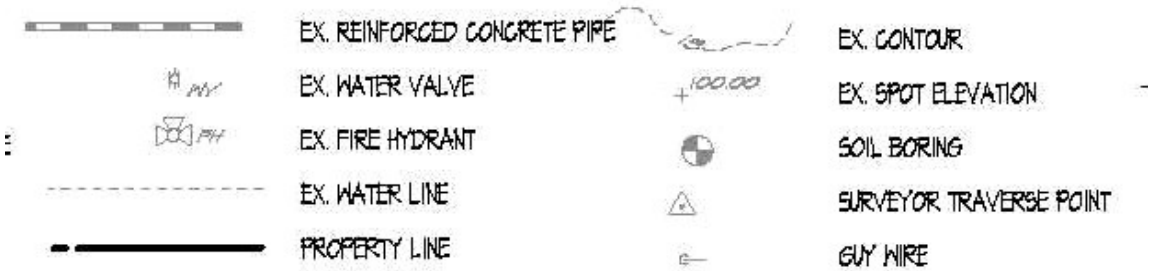


Site Plan Graphics, from Exhibit 155(a)

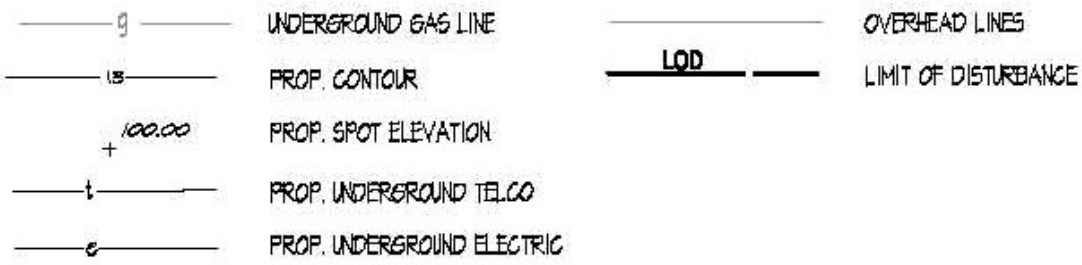


Site Plan Legend, from Exhibit 155(a)

Legend Continued



Legend Continued



Site Notes from Site Plan, Exhibit 155(a)

SITE NOTES

1. APPLICANT: T-MOBILE NORTHEAST LLC
   12050 BALTIMORE AVENUE
   BELTSVILLE, MD 20705
   (240) 264-8600

2. PROPERTY OWNER: W HILLANDALE SWIM CLUB INC.
   915 SCHINDLER DRIVE
   SILVER SPRING, MD 20903

3. SITE DATA: TAX MAP 00282244, PARCEL N400
   TRACT AREA: 4.81 AC.
   ELECTION DISTRICT: 05
   ADC MAP: 37, GRID G3
   ADDRESS: 915 SCHINDLER DRIVE
   SILVER SPRING, MD 20903

4 CURRENT USE: SWIM CLUB

5. THE PROPOSED FACILITIES WILL CONSIST OF A NEW 120' FLAGPOLE, THE INSTALLATION OF (2) STEEL BEAMS WITH (1) PROPOSED AND (2) FUTURE RBS 2106 EQUIPMENT CABINETS. IN ADDITION (1) PROPOSED AND (1) FUTURE TELECOMMUNICATIONS ANTENNAS WILL BE INSTALLED PER SECTOR FOR A TOTAL OF (6) TELECOMMUNICATIONS ANTENNAS. COAX CABLES WILL BE INSTALLED AND PROTECTED BY AN ICE BRIDGE THAT WILL RUN FROM THE PROPOSED EQUIPMENT TO THE PROPOSED FLAGPOLE.

6. CURRENT ZONING: R-90

7. LATITUDE: 39° 01'41.18" N GROUND ELEVATION: 351' AMSL
   LONGITUDE: 76° 59'22.38" W PROPOSED STRUCTURE HEIGHT: 120' AGL
   TOTAL ELEVATION ABOVE MEAN SEA LEVEL: 471' AMSL

8. TOTAL DISTURBED AREA: 4600 SQ. FT.

9. THE BOUNDARY INFORMATION HEREON IS BASED ON DEED AND PLAT RECORDS AND VERIFIED BY KCI TECHNOLOGIES INC. IN NOVEMBER 2006

10. IF THE FACILITY IS NO LONGER USED FOR TELECOMMUNICATIONS PURPOSED FOR A CONTINUOUS PERIOD OF ONE (1) YEAR, THEY SHALL BE REMOVED BY ANTENNAS OWNER AT OWNER'S EXPENSE.

11. THE ANTENNA DIMENSIONS ARE AS FOLLOWS: 59" H X 11.9" W X 6.3" D

12. PROPERTY SHOWN HEREON LIES WITHIN ZONE C, AN AREA OF MINIMAL FLOODING, AS PER FEMA COMMUNITY PANEL No. 2400490200 C, EFFECTIVE DATE JUNE 18, 1987.

13. ZONING ORDINANCE 59 (C)

14. THE RELATED TELECOMMUNICATIONS EQUIPMENT CABINETS DO NOT EXCEED A GROSS FLOOR AREA OF 560 SQ. FT. AND NOT MORE THAT 8 FEET IN HEIGHT.

15. THE FLAGPOLE SHALL NOT SUPPORT LIGHTS OR SIGNS.

16. STRUCTURE PROPERTY SETBACKS (STRUCTURE HEIGHT = 120')

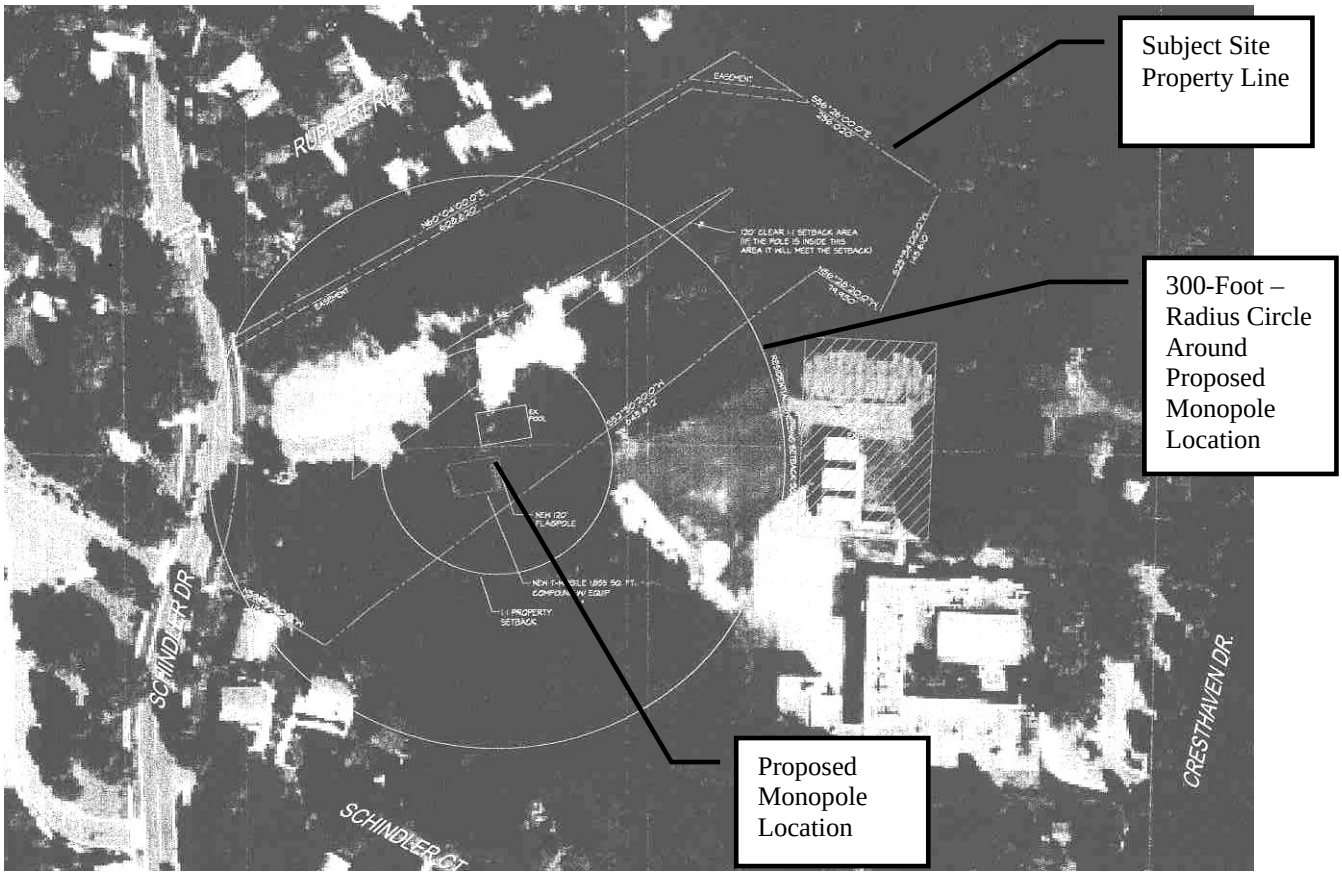
REQUIRED		PROPOSED	
NORTHEAST	1:1 - 120'	NORTHEAST	495'±
WEST	1:1 - 120'	WEST	269'±
SOUTHEAST	1:1 - 120'	SOUTHEAST	41'±
NORTHWEST	1:1 - 120'	NORTHWEST	249'±

17. NO TREES TO BE REMOVED

18. NO PERMANENT GENERATOR OR FUEL WILL BE ON SITE.

T-Mobile also submitted an aerial photograph of the site, with lines superimposed over the photograph to show the location proposed for the equipment compound and the monopole, as well as a 300-foot-radius circle around the monopole. This exhibit was submitted during the hearing and again after the hearing, revised to show the smaller compound. An error appears to have been made in the post-hearing revision, because the 300-foot-radius circle goes right through three homes on Schindler Court, and may go through one house on Ruppert Road, although it is hard to tell. It is clear from a cursory examination of the exhibit that the lines superimposed on the photograph are not at the scale printed on the page; at the printed scale, the compound measures approximately 30 by 45 feet, not 35 by 53 feet. The Hearing Examiner expects that the aerial photograph, reproduced below, is inaccurate. Nonetheless, if the Board elects to approve the petition, T-Mobile should be required to explain the inconsistency between the site plan and the aerial photograph and demonstrate, to the Board's satisfaction, that the 300-foot setback requirement would be satisfied.

Aerial Photograph with Outline of Proposed Facility, Ex. 155(d)



The specific conditions for a telecommunications facility also require, in a residential zone, a setback from the property line of one foot for every foot of height of the support structure. *See* Code § 59-G-2.58(a)(1). In this case, the proposed 120-foot monopole has a 120-foot setback requirement from each property line. As shown on the site plan graphics on page 17, the proposed location would satisfy this requirement in all directions except one: to the southeast, in the direction of the school, the tower would be only 41 feet from the property line. Petitioners have requested a waiver of 79 feet of the 120-foot setback requirement, which represents roughly a two-thirds reduction of the setback. The Board is specifically authorized to grant such waivers under Section 59-G-2.58(a)(1)(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.

The waiver requested here would result in a setback larger than the eight-foot side setback requirement for a main building in the R-90 Zone.

T-Mobile argues that the waiver should be granted because the adjacent school would suffer no adverse effects from the proximity of the proposed monopole. T-Mobile engineer Gus Druedson explained that there is no location on the subject site that would satisfy both the 300-foot setback from off-site homes and the 120-foot property line setback. *See* Tr. Jan. 4 at 64. T-Mobile chose a location that meets the most setbacks possible. Mr. Druedson opined that the proposed location is appropriate, compared to somewhere like the middle of the parking lot, or a location that would require cutting down trees to build an access road. In his view, the proposed location is the best one on the site, and the one that would have the least impact possible on the property. He maintained, moreover, that a location behind the pool would make the monopole and equipment compound visible to a larger number of residences (on Ruppert Drive) than the current proposal.

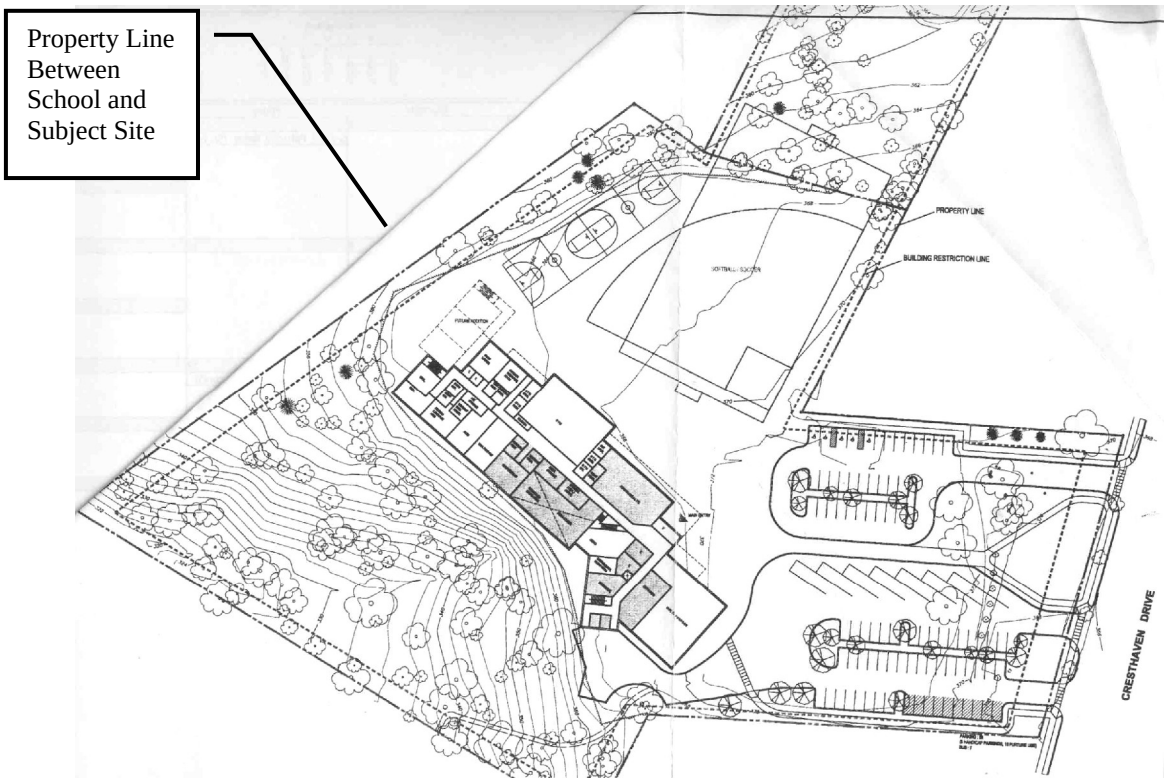
The school itself has not participated in these proceedings, but several community members argued that a monopole should not be permitted so close to a school because of potential

adverse health effects, the visual impact of the pole detracting from the view of the trees, and the "stigma" associated with cell towers.

The Staff Report found that the proximity of the school site "is not considered an incompatible arrangement as monopoles and other tall poles are often located on school property." *See* Ex. 22 at 11-12. Staff noted that ten monopoles have been approved on Montgomery County Public Schools ("MCPS") sties, including two at elementary schools. The Staff Report observed that the property line separating the monopole site from the school is heavily wooded, "making placement close to the southern property line ideal to lessen the monopole's visual impact." Ex. 22 at 20.

At present, the school building itself is nearly 400 feet from the location proposed for the tower, and even the school's fenced play area is 125 feet from the tower location.[6] *See* Ex. 155(a). As shown on the drawing below, however, plans have been approved for construction of a new school building, which would be located much closer to the subject site than the current building.

Planned School Construction, Ex. 42(c)



[6] Technical Staff estimates the distance from the pole to the school at 332 feet, but the Hearing Examiner has used the number show on the site plan, Exhibit 155(a).

The Staff Report recognized that plans are underway to modernize the elementary school, but did not take those plans into account, on grounds that they are tentative. *See* Ex. 22 at 14, n.18; 20, no. 21. At the Hearing Examiner's request, between the two hearing dates Staff examined a revised plan for the new school building and contacted MCPS about the status of the project. Staff learned from MCPS that the "approximate final building location on the site has been determined" (Ex. 161), funding has been approved for design but not for construction and, as of January 28, 2008, a mandatory referral application had not yet been filed with the MNCPPC. *See* Ex. 162 at 1-2. Staff still considers these plans tentative. Staff opined, moreover, that if the school modernization plans were taken into account, Staff would likely find the proposed cell site to be compatible with the school plan. *See id.* at 2. It is difficult to estimate the distance from the new school site to the proposed monopole site based on the drawing that has been submitted in this record, but Staff opined that the distance is more than 120 feet – outside the "fall zone" for the monopole in the event of a collapse. Staff opined that because schools normally have many tall poles on their own property, including stadium lighting, parking lot light poles, flagpoles and even monopoles, and because the zoning ordinance does not specifically mention school properties in establishing setback requirements for monopoles, Staff "does not consider the proposed school site incompatible with the proposed monopole placement." Ex. 162 at 2.

Community member Kathryn Hopps contests Technical Staff's conclusions, stating that the new school building would be approximately 110 feet from the proposed monopole location, which is within the "fall zone" for a 120-foot tower. *See* Ex. 164. In her view, this is inappropriately close. She notes, moreover, that Cresthaven Elementary School does not have stadium lighting, and its flag pole and light poles are modest in height.

The Hearing Examiner agrees with Technical Staff that the location proposed for the monopole would be generally compatible with the school, even assuming that the new building is constructed as planned. The top portion of the cell tower would be visible above the trees as a pole sticking up, making only a modest difference in the view. The County is not permitted to regulate cell

sites based on concerns about RF emissions, provided that the site does not exceed the emissions threshold established by the FCC. Moreover, the undisputed testimony of T-Mobile's engineer demonstrated that such a tower is very unlikely to fall completely over, given its construction. This conclusion does not, however, resolve the question of whether the requested setback reduction should be granted. The standard for granting such a reduction a bit more complicated than whether it would result in adverse impacts on the property on the receiving end of the shortened setback.

The obvious interpretation of the property–line setback requirement of one foot for every foot in height is to create a "fall zone" to protect adjoining properties if the tower falls over. However, the Zoning Ordinance authorizes the Board to reduce the setback dramatically, down to the minimum building setback for the zone, if the "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." Authorizing the Board to reduce the setback to the building setbacks for the zone, which are minimal compared to the typical height of a cell tower (in the R-90 Zone, the largest setback requirement is 30 feet from the street), suggests that the primary goal is not a fall zone, but the normal goal for setback requirements: creating a buffer between uses.[7] In the case of a very tall structure like the tower proposed here, a significant setback could protect adjacent property from the sense of a tower "looming" over it. Seen in that light, this provision could be interpreted as an effort to strike a balance between creating a buffer zone around a tall structure and picking a location that minimizes visual impacts. Based on that interpretation, whether the new school building would be more or less than 120 feet from the proposed tower is of little importance.

The wording of the waiver provision refers to locating the support structure on the property in a "less visually obtrusive location," but does not explain what "less" refers to, i.e, less visually obtrusive than what? Logic suggests that the reference means "less than if the setback were

[7] This conclusion is supported by the setback requirement for support structures in commercial and industrial zones, which is one half-foot for each foot of height of the structure, clearly not providing for a fall zone.

not granted," and that the objective is to allow the Board to approved a reduced setback so that the monopole can be sited to minimize visual intrusion. In this case, if a setback reduction is not granted the proposed facility cannot be approved at all, because there is no location on the site that would satisfy both the 120-foot setback and the 300-foot setback. Does this mean that the site is not eligible for a setback reduction, because it is impossible to compare the proposed location with one that could be used if no setback reduction were granted?

During the first hearing day in this case, the Hearing Examiner alerted T-Mobile's counsel, Sean Hughes, that this language raises a question as to whether a setback reduction can be approved only if the site could satisfy all the setbacks, but the setback reduction would allow the facility to be placed in a location that is less visually obtrusive than without the setback reduction, or whether a setback reduction can be approved to allow a monopole at a location that is less visually obtrusive than other possible locations on the site, even if there is no location on site that satisfies all the setback requirements. Mr. Hughes submitted a brief letter in which he argued that the plain language of the ordinance allows a setback reduction, regardless of whether all the applicable setback requirements could be met somewhere on the site. *See* Ex. 130. Mr. Hughes chose to limit his review of the legislative history to the most recent statutory change, which was the adoption in 2005 of Ordinance 15-54, creating a new special exception category for telecommunications facilities that separated them from public utility buildings and structures. As Mr. Hughes noted, that legislation did not change the part of the text in question, so it sheds no light on the meaning of the language.[8]

Prior to the adoption of Ordinance 15-54, telecommunication facility special exceptions were regulated under Section 59-G-2.43, then entitled "Public utility buildings, public utility structures and telecommunication facilities." Examining the legislative history of this section, one finds Ordinance 13-27, which first adopted the present setback requirement and setback reduction

[8] Mr. Hughes also relies on the Oakview Swim Club case for the proposition that it is "well established County interpretation and practice" to allow setback reductions regardless of whether all the setbacks could be satisfied at some location on the site. The Hearing Examiner does not consider a single case sufficient to establish a practice. Moreover, the fact that a particular conclusion was reached in one case would not obligate the Hearing Examiner or the Board to reach the same conclusion in a later case, if later investigation revealed that the first decision was based on an error of law.

provision. The County Council adopted this ordinance in 1996 as a comprehensive regulatory approach to the siting of telecommunication facilities on public and private land. *See* Ordinance 13-27 at 3. Various drafts of the legislation used phrases such as "the least visually obtrusive location" and "a visually unobtrusive location," before settling on "a less visually obtrusive location."[9] The Planning Board recommended that setback waivers under this provision should be considered only after the applicant satisfies the minimum area requirements, meaning that the subject property is of sufficient size to accommodate the required setbacks. The Hearing Examiner found no discussion of this recommendation in the legislative history, but if the Council desired to follow that recommendation, it could have added specific language to do so. The language of the section remains ambiguous, and the legislative history sheds little light, but in the absence of any indication in the legislative history that the Council intended to permit setback reductions only if a site could otherwise satisfy the setback requirements, the Hearing Examiner will not interpret this language to include that restriction.

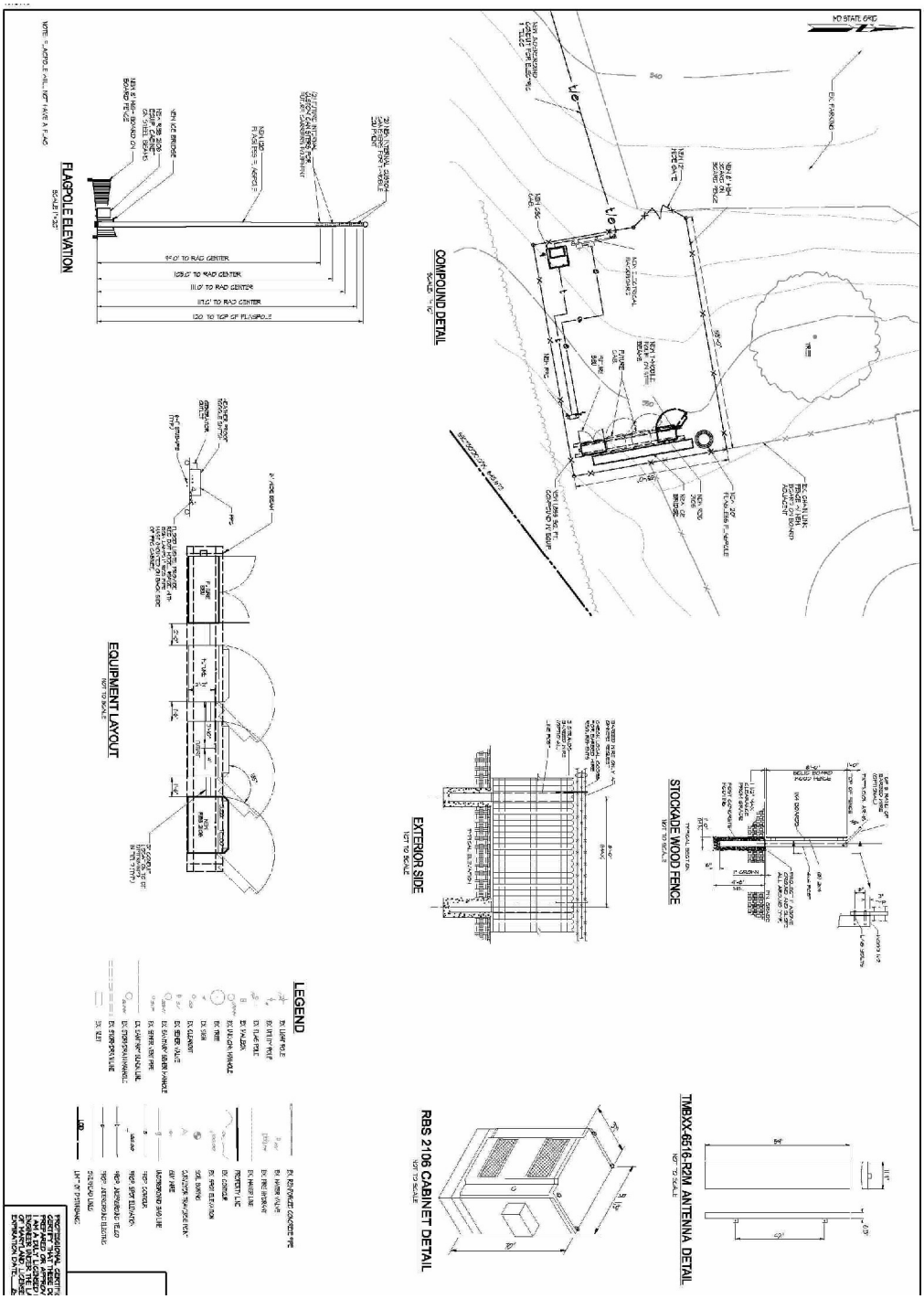
Having determined that the Board has the authority to permit the requested setback reduction, we now turn to whether it should be granted, i.e., whether a monopole would be less visually obtrusive at the proposed location than at other possible locations on the site where the property line setback could be satisfied. As T-Mobile pointed out numerous times, locating the proposed facility near the school property line allows the facility to be screened on one side by the forested area along that property line. The proposed location is not necessarily the *least* visually intrusive possibility on the site, as discussed in Part V.B below with reference to Section 59-G-2.58(a)(4), but the setback reduction provision does not require that – it merely requires a finding that permitting a reduced setback would allow a less visually obtrusive location than if the setback were satisfied. In the Hearing Examiner's view, this standard has been met.

[9] The ordinance actually used the phrase "less visually *un*obtrusive," but this double negative was clearly unintended and was removed in a 2002 update.

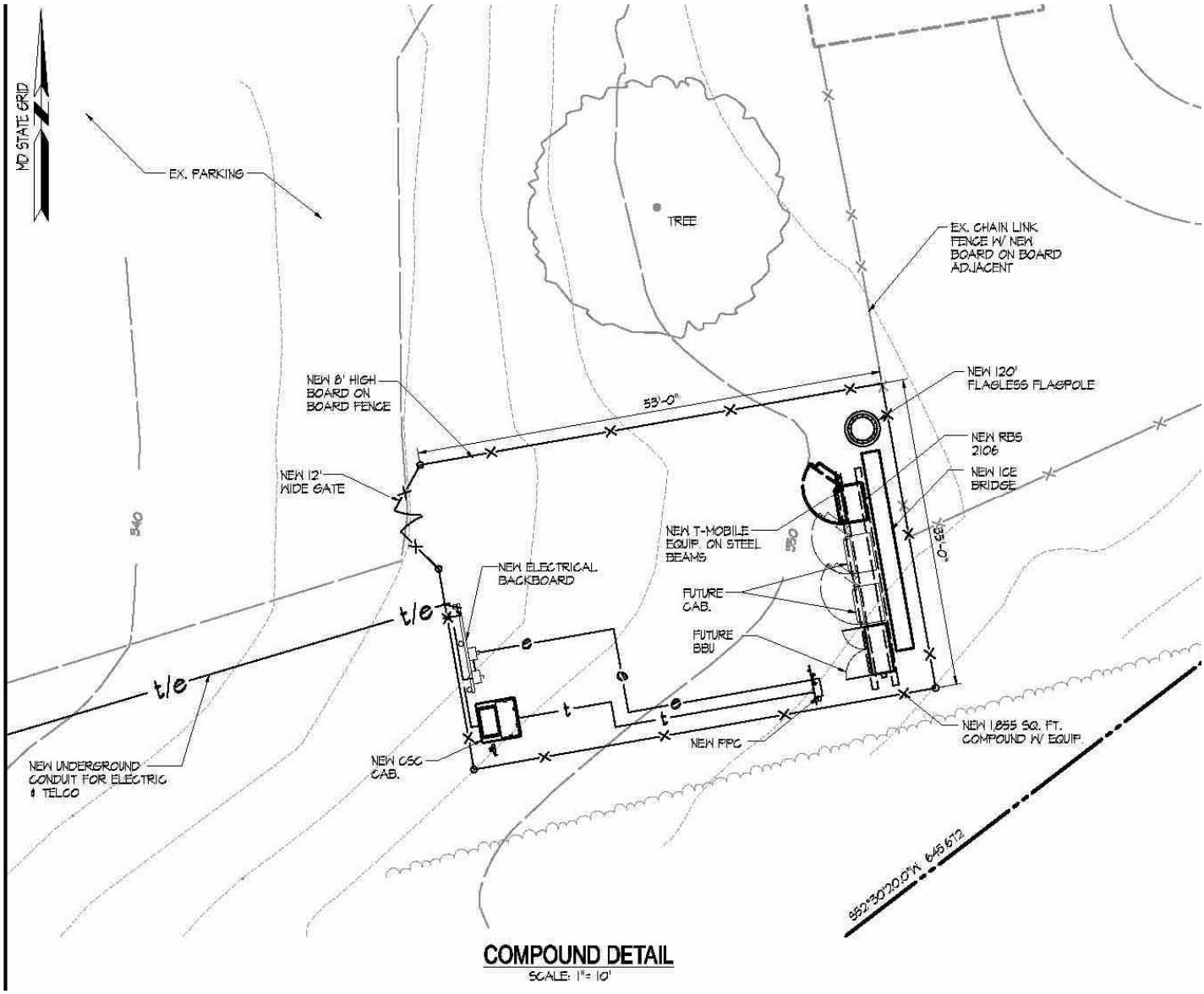
3. Compound Details

In addition to the site plan, the Petitioner has submitted a Details and Elevations Sheet, Exhibit 155(b), which is reproduced in full below and in parts, at a larger scale, on the pages that follow.

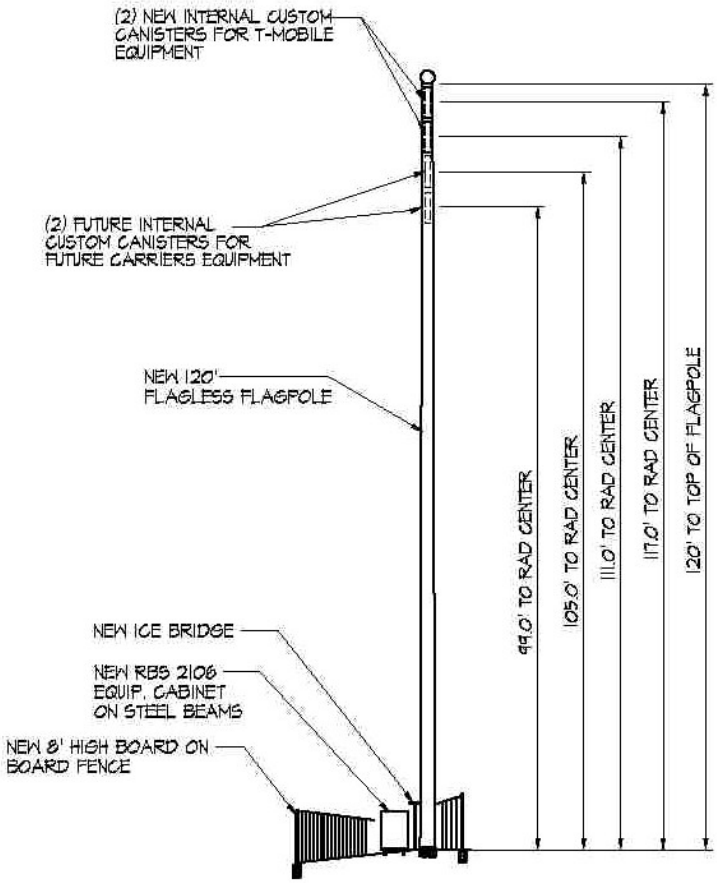
Details and Elevations Sheet, Ex. 155(b)



Compound Detail from Ex. 155(b)



Flagpole Elevation, from Ex. 155(b)

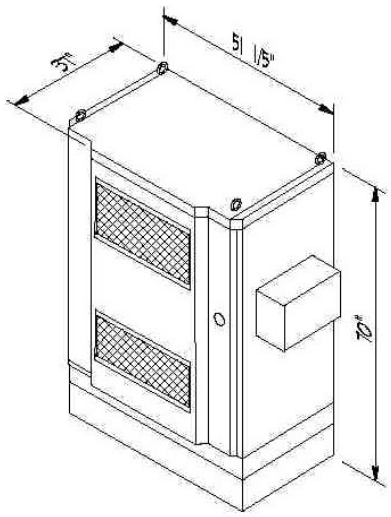


FLAGPOLE ELEVATION

SCALE 1"=20'

NOTE: FLAGPOLE WIILL NOT HAVE A FLAG

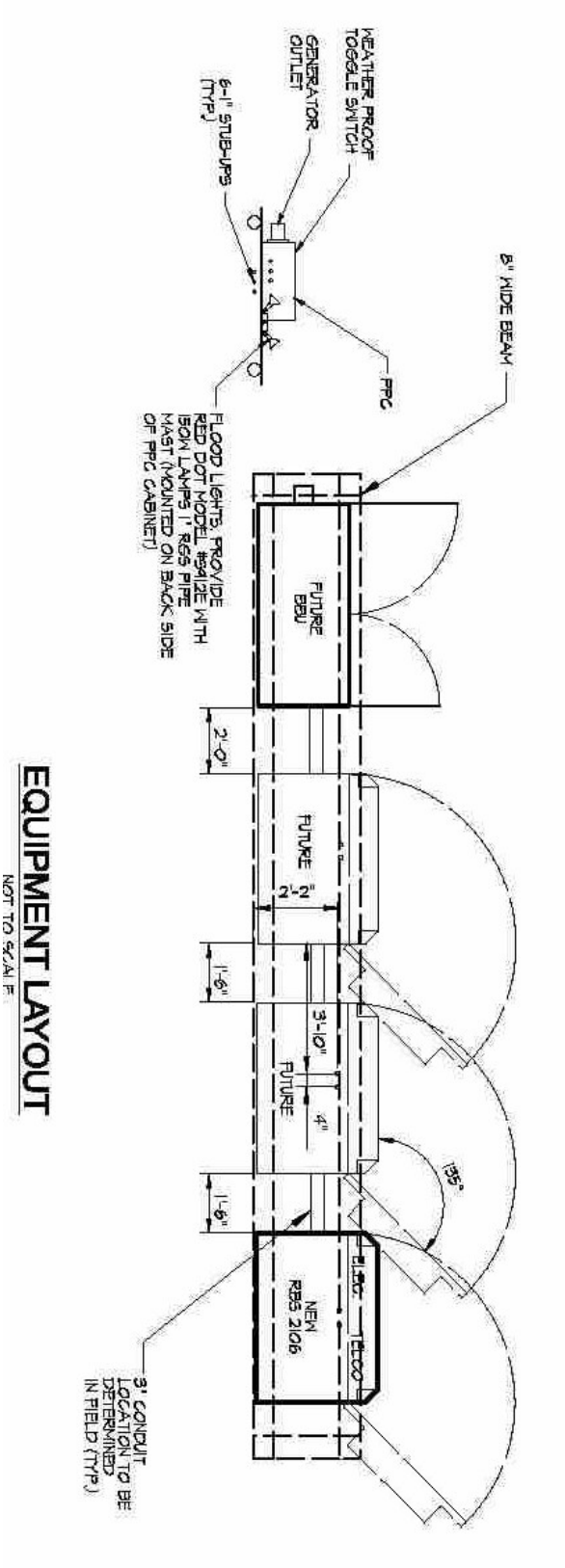
Cabinet Detail, from Ex. 155(b)



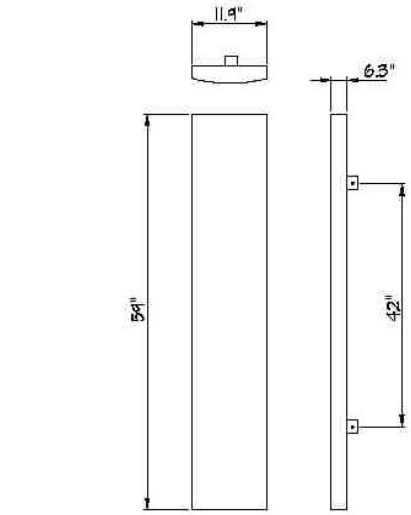
RBS 2106 CABINET DETAIL

NOT TO SCALE

Equipment Layout, from Ex. 155(b)

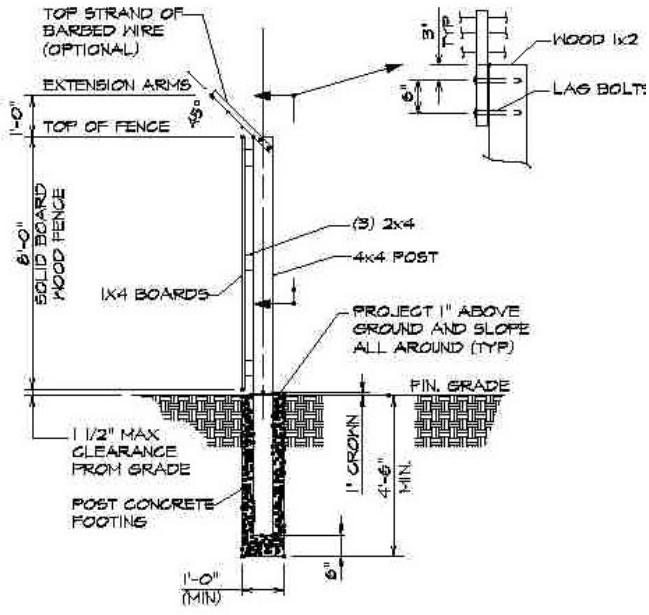


Antenna Detail, from Ex. 155(b)



TMBXX-6516-R2M ANTENNA DETAIL
NOT TO SCALE

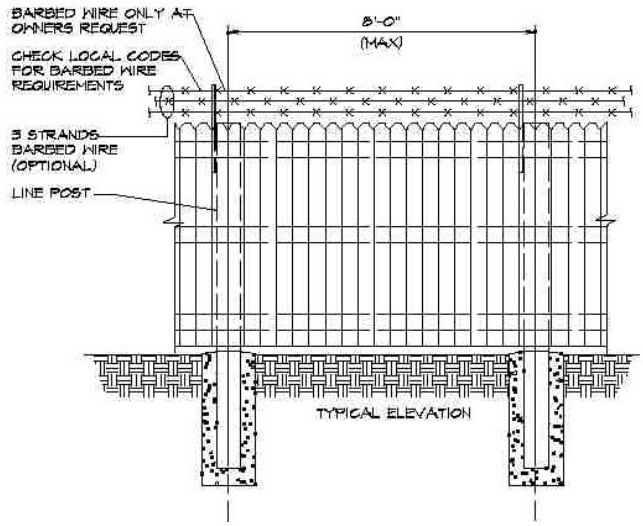
Stockade Wood Fence Typical Section, from Ex. 155(b)



TYPICAL SECTION

STOCKADE WOOD FENCE
NOT TO SCALE

Exterior Side of Fence, from Ex. 155(b)



D. Visual and Property Value Impact

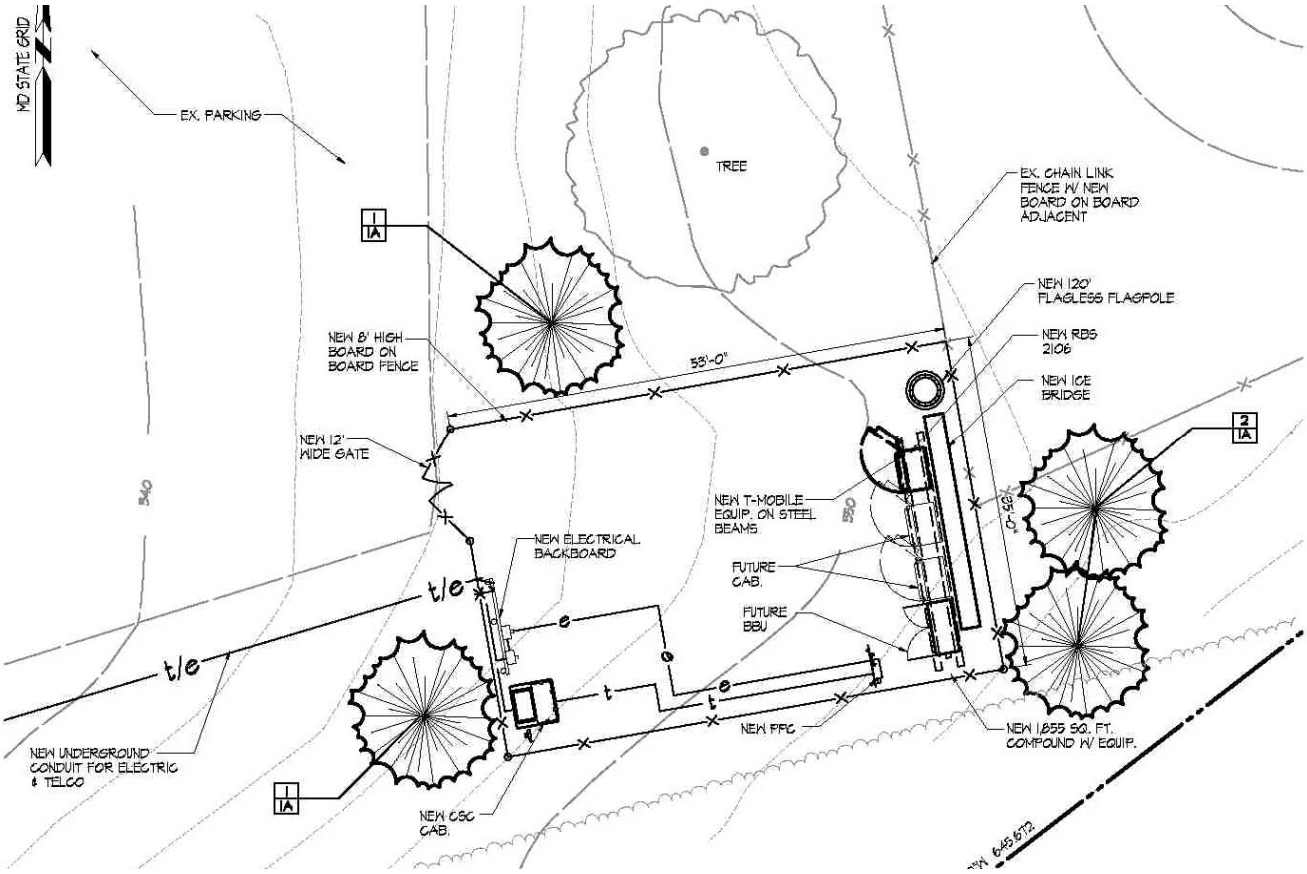
1. Factual Evidence Related to Visual Impact

The proposed monopole and equipment compound would be visually shielded, to some degree, by the tall trees on and near the subject site. The compound would be located near the pool house, at the far end of the parking lot from Schindler Drive and adjacent to a stand of trees along the property's southern boundary. It would be set back significantly from the street, a distance shown on the Site Plan as 269 feet. It would be visually shielded from some angles, such as parts of Ruppert Road, by the pool building. From other angles the compound would be screened by the forested areas along both the southern and northern site boundaries, at least during the warm-weather months. Submitted photographs and testimony suggest that most of the nearby trees are deciduous and the few evergreens have little or no foliage below a height of 60 or 70 feet, so their screening ability is considerably diminished during the cold-weather months. *See* Ex. 70(f). Nonetheless, the density of the trunks would at least mitigate the view of the compound and the tower for the closest homes on Schindler Court and Ruppert Road. The submitted photographs suggest that the top part of the monopole, perhaps as much as the top 40 feet, would be taller than most of the trees in the immediate area, making it potentially visible from a variety of locations. The facility would be completely visible from the home directly across Schindler Road, which has a view directly into the

Swim Club parking lot. It would be visible from the side yard of a house at the corner of Schindler Drive and West Nolcrest Drive, although side yards typically get much less use than the front or rear of a home. The compound would also be completely visible to anyone walking or driving along Schindler Drive, although the impact would obviously be much greater for those living across the street than for passerby.

The Petitioner has proposed to add limited landscaping around the equipment compound, in response to community concerns about the visual impact of the proposed facility. As shown below, the Landscape Plan proposes a total of four evergreens, all Foster's Hollies: one along the Schindler Road side of the compound, one along the Ruppert Road side and two along the side facing the pool. Only one tree is proposed along the Schindler Road side of the compound, because that is where Petitioner has placed the gate providing access into the compound, and the gate obviously cannot be blocked by vegetation.

Landscape Plan, from Ex. 155(c)



The Petitioner provided the photograph that follows as a simulation of what the proposed flagpole and compound would look like from Schindler Drive. The simulation is imperfect for two obvious reasons. First, it shows considerably more vegetation than T-Mobile has actually proposed on its submitted Landscape Plan. The photograph shows a line of four evergreens along the Schindler Drive side of the compound, with another evergreen visible around the corner on each side. The Landscape Plan, in contrast, shows only one tree along the 35-foot Schindler Drive side of the compound, and none along the side abutting the woods. The second limitation of this photograph is that it depicts a flag at the top of the flagpole, but the Details and Elevations sheet clearly states that the Petitioner proposes a flag without a flagpole. This cuts two ways – from a distance, a flag would make the facility more visible. From across the street, however, a flag might make the facility look more "normal" – more like what people expect to see when they look at a flagpole. In any event, a little imagination and the careful placement of a thumb suffice to give an idea of what the pole would look like without a flag.

Photo Simulation of Monopole and Compound Seen from Schindler Drive, Ex. 70(f)

One of the concerns raised by many community members is the size and visibility of the equipment compound. As originally proposed, the compound measured 50 feet by 50 feet, for a total of 2,500 square feet. Many community members considered this excessive, particularly when compared to the 810-square-foot compound that Omnipoint Communications CAP Operations, LLC, a subsidiary of T-Mobile, proposed in applying for a special exception to construct a cell tower at the nearby Oakview Swim Club. That case, Special Exception No. S-2669, was approved in 2006.[10] As community members pointed out, 2,500 square feet is equal to the square footage of the pool building, which is the main structure on the subject site.

At the Hearing Examiner's urging, Petitioner submitted new plans after the second hearing day that propose a smaller equipment compound, measuring 35 feet by 53 feet, for a total of 1,855 square feet. The compound orientation is shown with the shorter side facing Schindler Drive.

Upon examining the approved site plan in the Oakview Swim Club case, the Hearing Examiner observed approved measurements of 15 feet by 54 feet, for a total of 810 square feet. A review of the compound detail sheet from that case supports Mr. Chaney's testimony in this hearing that the compound at the Oakview site was probably sized for T-Mobile alone. *See* S-2669 Hearing Examiner's Report at 14. From a layperson's perspective, it does not appear to have much space available for other carriers. Moreover, the site plan notes indicate specifically that the monopole will be designed to accommodate no less than three carriers, without saying anything about the equipment compound. *See* Hearing Examiner's Report at 16. As Mr. Chaney suggested however, the ability to accommodate a co-locator would depend on how much equipment the co-locator has. A review of the compound detail information in the present case suggests that the compound would have more than enough space to add two more carriers with equipment of the same size as T-Mobile. Perhaps T-Mobile considers the extra space necessary or desirable to leave a certain amount of

[10] The Hearing Examiner hereby takes official notice of the file in special exception case No. S-2669, the Hearing Examiner's Report and Recommendation having been submitted into the record by T-Mobile as Exhibit 77.

space between equipment belonging to various carriers, but none of its witnesses offered a meaningful or persuasive explanation of why so much space is needed.

Community member Susan Present submitted information about five cell towers at Montgomery County school sites, all of which had equipment compounds much smaller than proposed here: 500 square feet, 960 square feet, 700 square feet, 600 square feet and 700 square feet. *See* Exs. 123(a) to (f). Petitioner's counsel pointed out that these facilities did not require special exceptions, so they were not subject to the requirement to provide space for co-locators. *See* Tr. Feb. 1 at 148. The Hearing Examiner notes that in four of these five cases, the submitted Staff Report indicates that the cell tower was designed to accommodate two co-locators. There is no indication, however, that the equipment compounds were sized to accommodate additional carriers. Those community members who commented on the revised plans consider the new compound size to still be too large. *See* Exs. 159 and 160. Ms. Present asserts that all 155 sites in Montgomery County where T-Mobile has built its own facility ("rawl and" sites) have equipment compounds under 1,000 square feet in size. This underscores the lack of explanation from T-Mobile about why nearly 2,000 square feet of space is requested here.

T-Mobile submitted nine Board of Appeals opinions, dating from 1995 through 2003, which approved telecommunications facilities with compounds at least as large as the one proposed here. One 1995 decision (before the County enacted its current regulatory scheme for telecommunications facilities) approved a 170-foot monopole on a 9-acre property in the RE-2 Zone, plus two "leased areas," a 40' x 40' area for one cell carrier and a 40' x 60' area for another carrier. The entire leased area was to be surrounded by an eight-foot chain link fence. *See* Ex. 104(j). Another 1995 decision approved a 190-foot monopole on a property measuring 166 acres in the RDT Zone, with a 2,400-square-foot leased area and no mention of fencing. *See* Ex. 104(i). A 1997 decision approved a 250-foot tower on a 50-acre property in the R-200 Zone, with a fenced area of 50' x 60'. *See* Ex. 104(h). A 2000 decision approved a modification to an existing special exception to expand the fence around a 180-foot tower in the RDT Zone (acreage not provided) and add a

second equipment shelter for a co-locator. *See* Ex. 104(g). This expanded the fenced area from 2,500 to 3,500 square feet. One 2003 decision modified an existing special exception located on a 17-acre tract in Boyds (zone not provided) to permit a 50' x 20' addition to an equipment compound for a co-locator. *See* Ex. 104(f). Four other 2003 decisions approved cell phone sites with compounds measuring 45' x 45', 44' x 56', 50' x 50' and 60' x 60'. *See* Exs. 104(b) – (e). Two of these sites were in the RDT Zone, one in the RE-2 Zone and one in the R-200 Zone (acreages not provided).

The Hearing Examiner notes that none of the examples T-Mobile submitted was a T-Mobile application. Moreover, the fact that compounds of similar and larger sizes have been approved in other cases has only marginal relevance to the factual and legal issues in this case. Each special exception application must be evaluated based on its individual facts and circumstances. The subject site is vastly smaller in size than all of T-Mobile's examples for which the Opinion stated the size of the property. Moreover, in the eight examples for which a zone was identified, all were in rural zones or the RE-2 or R-200 Zone, both of which have fairly large minimum lot sizes (two acres in the RE-2 Zone and 20,000 square feet in the R-200 Zone), resulting in much less densely developed areas than the R-90 Zone, with its minimum lot size of 9,000 square feet. Thus, a mere cursory review of the examples submitted suggests profound differences from the present case.

As noted in post-hearing submissions by Ms. Present and Mr. Gervase, T-Mobile has proposed a very minimal amount of landscaping. *See* Exs. 159 and 160. The Landscape Plan indicates a height at planting but not a width, and does not give any indication of the expected height and width at maturity. *See* Ex. 155(c). This makes it difficult to tell how much of the compound fencing and the monopole would actually be screened. Mr. Gervase states that in ideal soil, Foster's Hollies typically grow to a height of 15 to 25 feet, with a spread of 8 to 12 feet.[11] *See* Ex. 160. He reports that the growth rate for these trees in ideal soil is 12 to 24 inches per year, taking five to ten

[11] In the absence of a reply from T-Mobile contradicting Mr. Gervase's assertions about Foster's Hollies, the Hearing Examiner takes them to be true.

years to reach maximum height and spread. If all four trees shown on the landscape plan were to grow to the maximum spread, within five to ten years, one tree would screen 12 feet of the 35 linear feet of fence shown facing Schindler Drive, two trees would screen 24 feet of the 35 feet of fence facing the pool, and one tree would screen 12 feet of the 53 feet of fence facing Ruppert Road. If they reach 25 feet in height, the trees would also soften the view of the first 17 feet of monopole above the fence. In fairness, it could be difficult to plant trees along the full length of the fence facing Rupport Road due to the proximity of a large, existing deciduous tree. Nonetheless, it is plain that even at maturity, four Foster's Hollies would provide woefully inadequate screening.

Ms. Present suggested in her post-hearing submission that T-Mobile could soften the view from Schindler Drive further by putting the gate in a less visible location, such as the side facing Ruppert Road, instead of on the side facing Schindler Drive. This would allow the entire 35-foot width of the compound wall facing Schindler Drive to be lined with evergreens. To support her argument that more trees would be needed, Ms. Present submitted a copy of the equipment compound detail for the T-Mobile site at the Oakview Swim Club, which provides for nine pine trees to fully screen the one long, exposed side of the compound, leaving only the gate area unscreened. *See* Ex. 159(a). She also provided a copy of a special exception application that T-Mobile's Ominpoint Communications subsidiary filed with the City of Rockville for a cell tower at Julius West Middle School. *See* Ex. 159(b). This application includes a site plan that shows nine trees to be planted along the compound fence, fully screening all exposed sides except the entrance area. *See id.* at 57. Ms. Present suggests that the flagpole would look more like a flag pole if it were outside the compound, and would facilitate making the compound smaller. *See* Ex. 158 at 4. She argues that the flagpole should also be reduced to 50 feet in height, as T-Mobile did to get approval from the City of Rockville for a cell tower at Julius West Middle School. *See* Ex. 159 at 8. This, Ms. Present suggests, would decrease the tower's visual and property value impact.

Ms. Present and Mr. Gervase object to language on the Landscape Plan indicating that plants would be guaranteed only for "one full growing season," noting that this would leave it to the

Swim Club to add maintenance and replacement of these trees to its budget. *See* Exs. 155(c), 159 and 160. Community member Richard Present pointed out in a post-hearing submission that it appears, from the Landscape Plan, that the compound and landscaping would close off access to a path that children currently use to walk to Cresthaven Elementary School. *See* Ex. 158. He asserts that closing off this path would add three to four blocks to children's walk to school, causing inconvenience to those families and potentially adding to the acrimony that many community members who are not Swim Club members feel about the proposed cell tower. *See id.*

The Hearing Examiner agrees with Ms. Present and Mr. Gervase that if the special exception is approved, T-Mobile should be obligated to fully screen the equipment compound with evergreens, and to assume the obligation for maintenance and replacement for those trees for as long as the tower or the compound are located on the site. In the Hearing Examiner's view, it would be a small matter to ensure access to the community path to the school, so that should also be a requirement.

If the Board of Appeals elects to approved the special exception, the Hearing Examiner recommends requiring a revised Landscape Plan that includes the following features:

1. The gate located on the Ruppert Road side of the compound.
2. Plantings adequate to fully screen the compound on all sides except for the gate and the side facing existing forest (unless it is demonstrated that additional plantings along the Ruppert Road side would be damaging to the large tree currently growing within a few feet of the propose compound location).
3. A specified minimum height at planting and expected maximum height and spread after two, five and ten years.
4. T-Mobile's commitment to provide for the maintenance of these trees, and replacements for any that die, for as long as the tower or the equipment compound is located on the site.

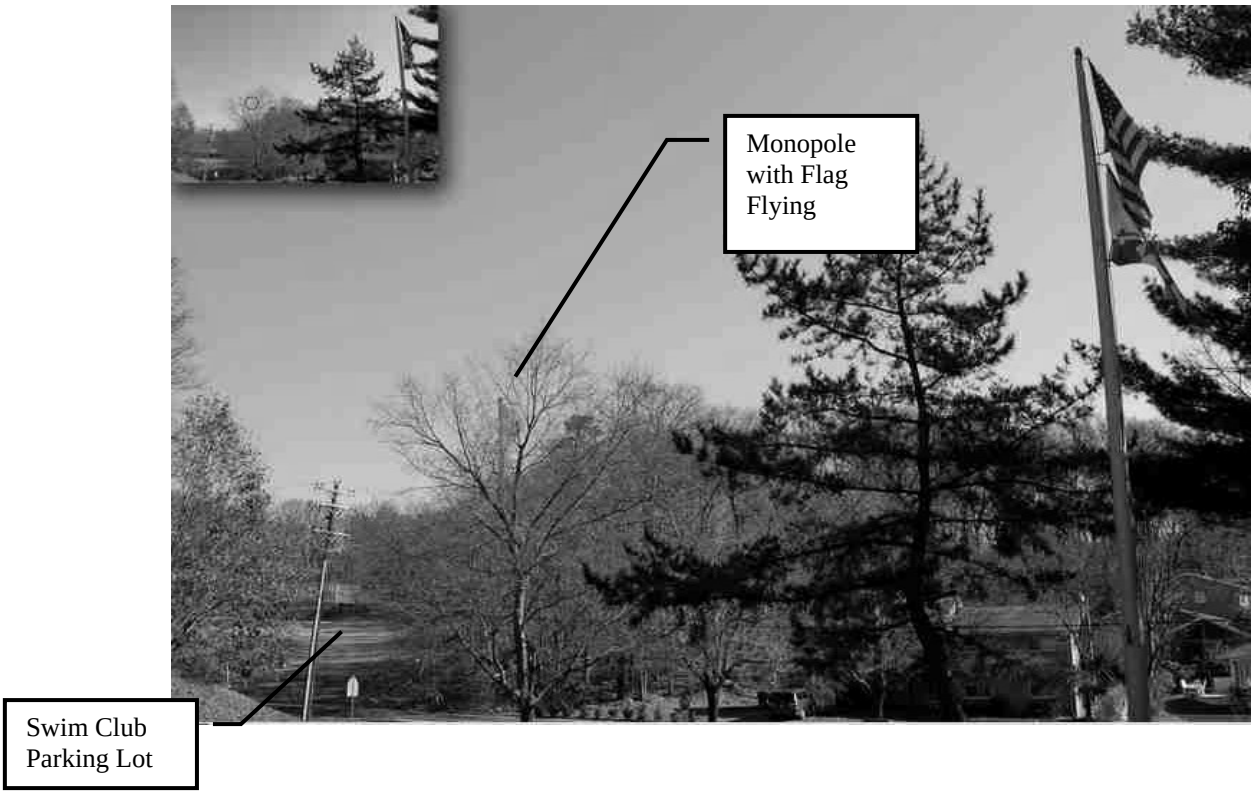
5. T-Mobile's commitment to ensure that all tree-related work is performed by a certified arborist or licensed tree professional.
6. T-Mobile's commitment to adjust the location of the compound fence and landscaping as needed to preserve community access to the path currently used by children walking to the adjacent elementary school.

T-Mobile submitted photographic simulations, as shown on the next page, in which the proposed monopole is visible through the leafless trees, but just barely. It should be noted that the monopole is depicted in this photograph with a traditional array of antennas, not the flagpole design that was adopted at the Planning Board's urging. The monopole would, presumably, be less visible with a bare flagpole on top instead of antennas spread out around the pole. The caption under this photograph identifies it as photo number three in a series, taken looking southeast on Schindler Drive, from a location on Schindler Drive that is 0.12 miles northwest of "the site." *See* Ex. 70(d). (It is not clear whether that distance is from the nearest property line of the Swim Club property, or from the location proposed for the monopole.) The Hearing Examiner observes that there is a house in the background of the photograph, suggesting that there are houses between the location of the photograph and the subject site. Examining the aerial photograph on page 20 (excerpted from the Staff Report, Attachment 1), the Hearing Examiner concludes that the photograph in Exhibit 70(d) was probably taken between two homes on Schindler Drive north of Ruppert Road, looking past the Ruppert Road homes to the location proposed for the monopole, which would be on the other side of the pool building and a forested area.

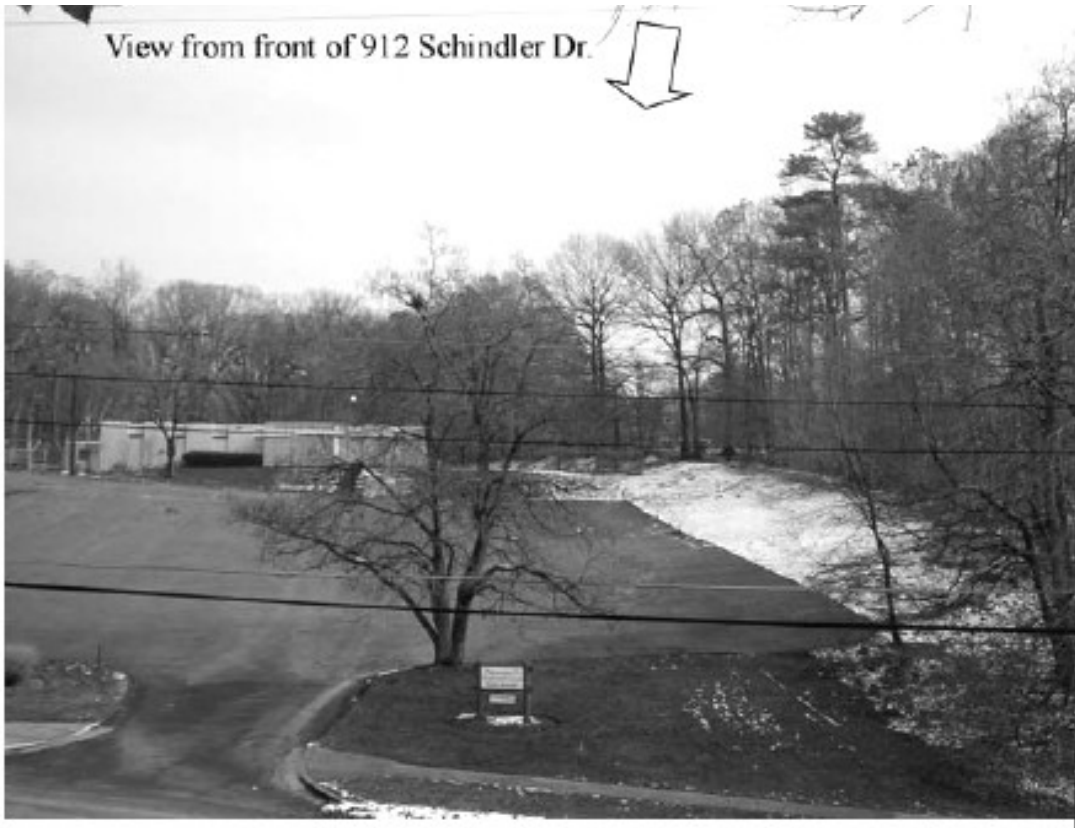
Photographic Simulation Taken from Schindler Drive, 0.12 Mile Northwest of Site. Ex. 70(d)

T-Mobile submitted the photograph below, which depicts how the proposed flagpole would look with a flag flying. Uncontradicted testimony at the hearing indicates that the tall tree that obscures the monopole in this photograph has since been cut down as part of the middle school's ongoing renovation/building project. *See* Tr. Jan. 4 at 50.

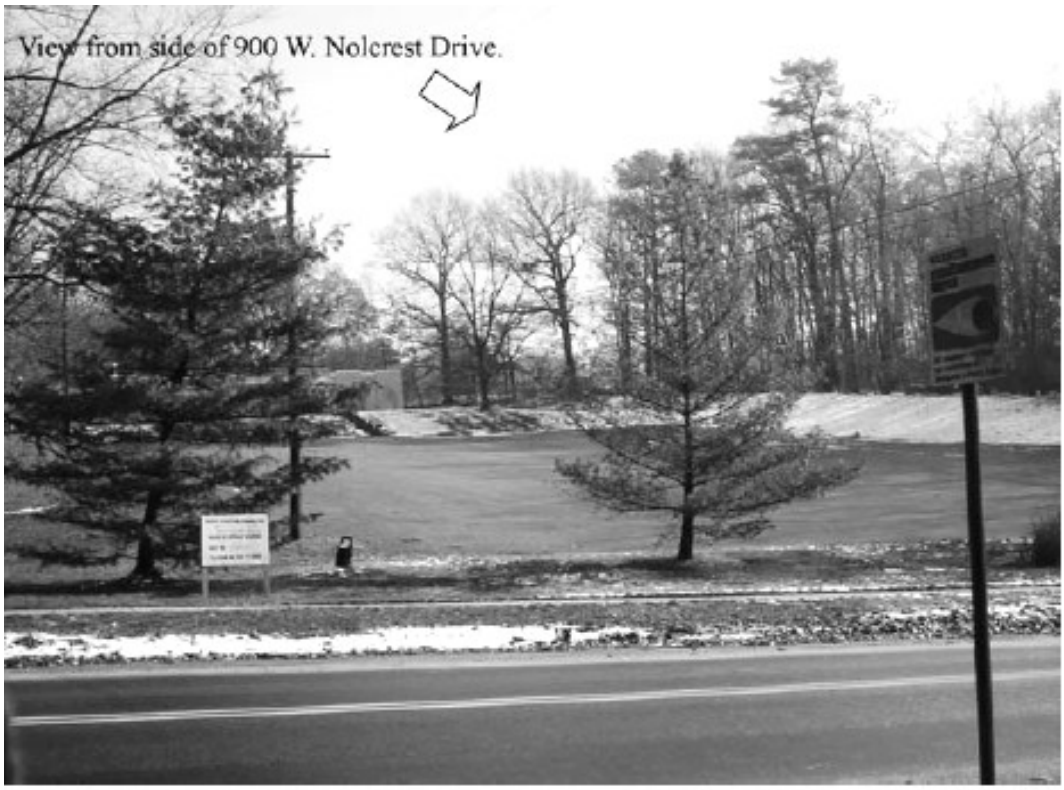
Photographic Simulation Taken from Middle School. Ex. 70(e)

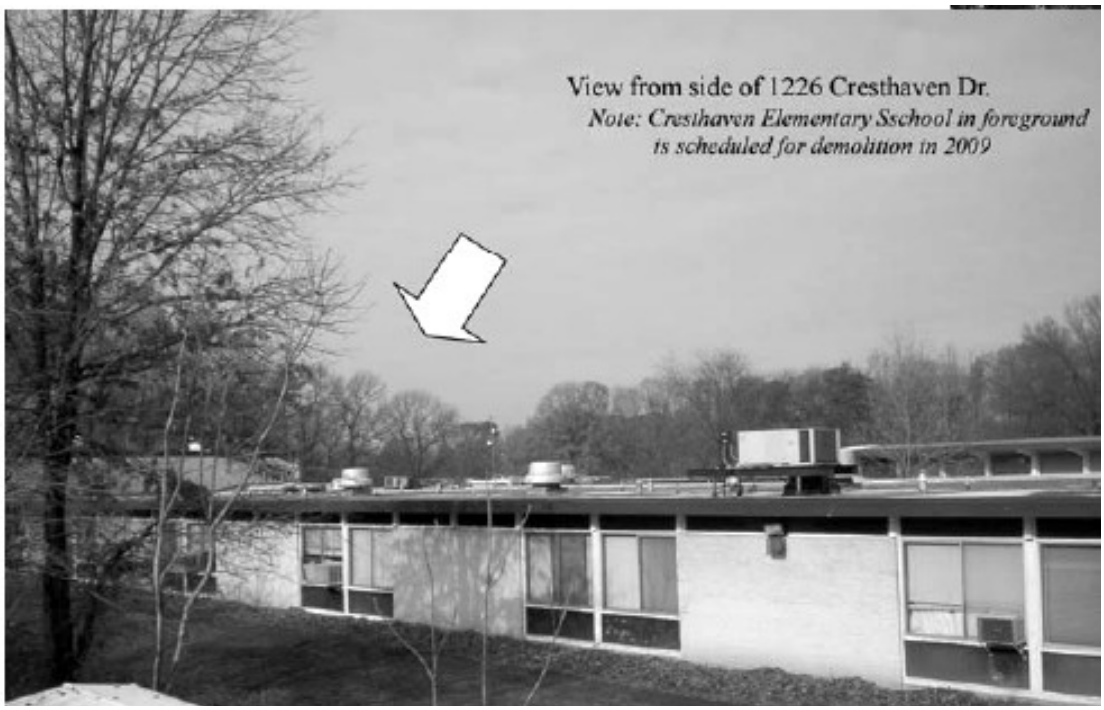


The other three photographic simulations T-Mobile submitted, Exhibits 79(b), (c) and (g), were taken from locations approximately one mile from the subject site. In each of them, the proposed flagpole is not visible. As community members pointed out, T-Mobile did not submit any photographs to show the visual effect of the proposed facility from the streets that border the subject property, Schindler Court and Ruppert Road. Fortunately, Ms. Present filled in that gap. The photographs that follow, taken from Exhibit 48(c), depict views toward the proposed monopole location from various nearby locations.




View from rear of 1001 Ruppert Rd.


View from side of 900 W. Nolcrest Drive.



The Staff Report concluded that with the change to a flagpole design with internal antennas, "the proposed monopole will not have an unacceptable visual impact on the neighborhood." *See* Staff Report at 12. This conclusion was based on observations that the monopole would be partially obscured by the 300-foot distance to the nearest single-family homes, substantial forested land on the subject site, and the adjacent elementary school. Staff noted that the monopole would be wholly visible "only to those who are practically on the grounds of the subject site," although the top of the pole could be visible above the tree canopy. *See* Staff Report at 12 and supplemental email, Ex. 35. Staff notes that the Zoning Ordinance establishes 300 feet as the appropriate distance to buffer single-family homes from the visual impact of a monopole. *See* Staff Report at 12.

Environmental Planning Staff at the MNCPPC drew a slightly different conclusion, noting that the monopole would be "clearly visible to traffic on Schindler Dr. and to the homes along Schindler Court and Ruppert Drive." This conclusion did not, however, drive Environmental Staff to recommend denial of the application. *See* Staff Report Attachment 4.

Several community members argued that the monopole and the equipment compound would have serious negative visual impacts on the community, as they would be completely visible

from the house across Schindler Drive and to anyone walking or driving on Schindler Drive, and partially visible through and above the trees, particularly during the cold-weather months, from homes on Schindler Court, Ruppert Drive and nearby streets. *See* opposition testimony and letters, summarized in Part III.I.

Some neighbors argued that the monopole should only be approved if the tower and the compound are built behind the pool and the pool building, where they would not be visible from the road. This would reduce the visual impact on Schindler Drive and probably from Schindler Court, but would increase the visual impact on homes on Ruppert Drive. Moreover, T-Mobile maintains that putting the compound behind the pool would require cutting down trees and constructing a ten-foot-wide gravel road to provide vehicular access to the compound.

Neighbor Matthew Gervase contends that at the nearby Oakview Swim Club, the monopole and equipment compound are located behind the pool, out of sight from the street, and the maintenance staff have to drive across the grass to get to the compound. *See* Ex. 160. This information was submitted in a post-hearing letter, so there was no opportunity to cross-examine Mr. Gervase on this point. Moreover, T-Mobile chose not to respond to any of the post-hearing submissions made by community members. Examining the site plan in the Oakview Swim Club case, the Hearing Examiner observed that the monopole and equipment compound are shown behind the pool in a corner of the fenced pool area, with no obvious means of vehicular access to them. The site plan shows a large open area between the gravel parking lot and a gate in the chain link fence that surrounds the pool area, so Mr. Gervase's description may be accurate, but it is difficult to tell. It is, moreover, impossible to tell from the information in the record of this case whether it might be possible for a vehicle to drive through the subject site to a potential monopole site behind the pool area. Lacking any evidence to the contrary, the Hearing Examiner takes T-Mobile's representation that a location behind the pool would require taking down a large number of trees to provide vehicular access to be true. Assuming, then, that the location proposed is the best one on the site, the issue is clearly presented: whether this site, given its limitations, is appropriate for a cell tower.

At least one neighbor argued that the proposed monopole would mar the view of the trees from the adjacent elementary school, which has been approved for construction that would replace the existing building with a new building considerably closer to the location proposed for the monopole, and would be in full view of the nearby middle school. *See* testimony of Kathryn Hopps.

Neighbor Ida Ruben, whose backyard on Schindler Court abuts the Swim Club property, testified that during the winter she can see the adjacent elementary school clearly, and that some people can see the pool clearly from their homes, especially those that live on the pool side of the property. She contends that the monopole and compound would therefore be clearly visible to neighboring homes on Schindler Court and Ruppert Road during the winter months. Ms. Ruben observed that her house is at the top of a hill, so the tower would be more visible than suggested by T-Mobile's photographs.

2. Relevant Legal Authority

Ms. Present submitted four opinions from United States Courts of Appeals upholding decisions that rejected requests to construct telecommunications monopoles due to adverse visual impacts and, in some cases, safety impacts on nearby schools.

In *Michael Linet, Inc. v. Village of Wellington*, 408 F.3d 757 (11th Cir. 2005), the United States Court of Appeals for the Eleventh Circuit upheld a decision by the Village of Wellington, Florida to deny an application to build a cell phone site on a golf course within a residential community. The proposed 120-foot cell phone tower was rejected based on concerns voiced by local residents about potential negative impacts on property values. *See* 408 F. 3d at 760. Residents testified that they would not have purchased their homes if the pole had been present, and a local realtor testified that the pole would adversely affect home resale values. *See id.* Ancillary concerns included potential impact on nearby non-commercial air traffic and proximity to a middle school. The company seeking to build the tower presented testimony that the proposed tower would not negatively affect property values from two witnesses: the executive director of another telecommunications facility that had

constructed a similar cell site after resident opposition, and a real estate appraisal executive who testified based on a study involving condominium sales in Boca Raton, Florida. *See id.*

The court in *Linet* held that a "blanket aesthetic objection" does not constitute substantial evidence sufficient to justify denying a cell tower application. *See id.* at 761. Such a standard, it pointed out, "would eviscerate the substantial evidence requirement and unnecessarily retard mobile phone service development." *Id.* The court found that aesthetic objections coupled with evidence of an adverse impact on property values or safety concerns, however, can constitute substantial evidence. *See id.* The court ruled that in the case before it, the Village had relied on substantial evidence and its decision should be upheld. *See id.* at 762. The court noted, in particular, that the Village had relied on testimony from local residents and a local realtor, whereas the cell phone company had presented testimony from a telecommunications executive who had placed a tower in a different part of the community, and a realtor whose conclusions were based on a study from a different county.

In *American Tower v. City of Huntsville*, 295 F.3d 1203 (11th Cir. 2002), the same Court of Appeals upheld a decision by the City of Huntsville, Alabama denying a request to construct a wireless communications tower in an established residential neighborhood. The City's Board of Zoning Appeals decision cited as grounds for the denial the proposed tower's negative aesthetic impact, its effect on property values and its effect on the health, safety and welfare of the public, particularly considering its proximity to two schools and several soccer fields used by children. *See* 295 F. 3d at 1208. The evidence concerning negative aesthetic and property value impact consisted of testimony from residents. Witnesses included a local realtor and real estate investor who testified that once the proposed tower became known, it had become more difficult to sell houses in the neighborhood, and prices had gone down. *See id.* The Court of Appeals acknowledged that the company seeking to build the tower had presented evidence in support of the application, including an appraisal study prepared by two certified real property appraisers that concluded the proposed tower would not affect the value or marketability of properties in the area. *See id.* n. 8. The Court of

Appeals concluded, however, that it was within the purview of the Board of Zoning Appeals to weight the evidence presented, "necessarily crediting some witnesses over others," and it was not the role of the federal courts to second-guess that judgment. *See id.* n. 7 and 8. The court rejected the proposition that testimony concerning potential negative effects on property values cannot be considered because it has already been taken into account legislatively, in the decision to permit such towers in residential districts. *See id.* no. 7. On the contrary, the court stated that "residential districts can exist in which a tower would not impact on property values significantly. So, significant negative impact on property values is not inherent with towers in residential districts." *Id.*

In *Cellular Telephone Company v. Borough of Ho-Ho-Kus,* 197 F.3d 64 (3d Cir. 1999), the United States Court of Appeals for the Third Circuit overturned a decision by the Zoning Board of Adjustment for Ho-Ho-Kus, New Jersey denying an application by three cell phone companies to build a wireless communications facility on property located in a non-residential area, but in so doing held that its findings regarding the proposed monopole's impact on property values were supported by substantial evidence. After two and half years and 44 public hearings, the Board denied the application on grounds that the Borough already had adequate cell phone service, that the site was inappropriate given its already congested nature, and that numerous variances would be required. *See* 197 F.3d at 67. The Board also found that the proposed monopole would have a significant, detrimental visual impact and result in significant decline in real property values. *See id.* The evidence concerning detrimental impact included two experts presented by the cell phone companies, who testified that the monopole would have no detrimental economic impact, and one expert presented by opponents, who testified to the contrary. The experts in favor of approval based their conclusions on studies they had conducted in other New Jersey communities, in which they found no discernible effect on the value of nearby upscale homes. The expert in opposition based his conclusions on a "paired-sales" analysis (comparing sales prices for similar homes with and without views of monopoles) showing that the proposed monopole would adversely affect the value of some Ho-Ho-Kus homes. *See id.* at 72. The Board found the opposition expert more persuasive, and the

Court of Appeals found that this constituted substantial evidence. *See id.* at 74. The court found, however, that the Board lacked a sufficient basis for its conclusion that the Borough had adequate cell phone service, and remanded the case to the district court with instructions to remand to the Board to reconsider its decision in light of this finding.

In *Sprint Spectrum v. Town of Ontario Planning Board*, 176 F.3d 360 (2d Cir. 1999), the United States Court of Appeals for the Second Circuit upheld a local zoning board's denial of a request to build three cell towers in Ontario, New York. The court rejected a claim by Sprint that the town had violated the federal Telecommunications Act of 1996 by treating Sprint differently from other cell phone providers. In so doing, the court noted that local governments retain the discretion to treat different cell phone tower applications differently based on their location and individual impacts, even if the providers seek to provide the same functionality. *See* 176 F. 3d at 639. Thus, the town appropriately took into consideration traditional bases of zoning regulation such as preserving neighborhood character and avoiding aesthetic blight. *See id.* The court found that the town relied on substantial evidence in concluding that the three towers proposed would have a significant negative aesthetic impact, including Sprint's admission that "the tower will be visible from a wide area surrounding the site." *Id.* at 646. Likewise, the court found that the town relied on substantial evidence in concluding that the towers would have a negative impact on real estate values.

3. Factual Evidence Related to Property Value Impact

Many neighbors argued that the proposed facility would result in decreased property value for the Swim Club property itself and surrounding properties. *See* opposition testimony and letters, summarized in Part III.I. Community members fear that the visual impact of the monopole and equipment compound would decrease property values for homes within sight of the facility. Some also argue that the RF emissions and general "negative associations" with monopoles would decrease property values in the area. Ms. Ruben, for example, argued that if a potential home buyer is showed two homes, one with a monopole nearby and one without, the buyer will choose the home

without the monopole. She argued that the Swim Club's neighbors should not have to subsidize the pool's costs by accepting a decrease in their property values to gain some extra income for the pool.

Several community members are concerned that if the Swim Club runs out of money and closes down, its property, encumbered with the telecommunications facility special exception, will be left in a devalued state, since its re-use potential would be limited by the presence of the monopole and equipment compound. Community members argued that a decrease in value for this five-acre site, which is a significant tract in a neighborhood of 9,000-square-foot lots, would have a domino effect, driving down the value of other nearby properties that have already been devalued by the monopole itself. Ms. Present argues that to cure this problem, if the present application is approved, the conditions of approval should require a revision to the lease between T-Mobile and the Swim Club to include a termination clause, in the event that the property changes hands. In support of this argument, she submitted a sample lease between the Washington Sewer & Sanitary Commission ("WSSC") and a cell phone company seeking to co-locate on a WSSC water tower. *See* Ex. 123(g). This lease terminates if the WSSC property changes ownership. The lease was provided to Ms. Present by Robert Hunnicutt, a telecommunications analyst who serves as Montgomery County's Tower Coordinator, advising the Tower Commission.

T-Mobile presented an expert witness, Oakleigh Thorne, to support its argument that the proposed facility would not have an adverse impact on property values. Mr. Thorne, a real estate appraiser with 42 years' experience, opined that the proposed cell tower would have no impact on property values within the subject site or within a reasonable relationship to the proposed monopole. He noted that his opinion was based on a traditional monopole, with a visible array of antennas sticking out from the top of the pole, or possibly multiple arrays for co-locators. His firm's analysis did not consider the flagpole design proposed here.

Mr. Thorne explained that his opinion was based on a series of studies that his firm undertook between 1996 and 2001 for AT&T, Cingular and Verizon regarding the impact of existing monopoles on surrounding property values. Each study compared the sale prices of homes with

views of monopoles to those of comparable homes with monopole view. In all cases, the monopoles were traditional designs with visible arrays sticking out from the poles. The prices were compared on a per-square-foot basis, using similar homes on similar lots, with similar designs, that were sold within two to three months of one another. If the prices of two comparable homes were within one to two dollars per square foot, Mr. Thorne's firm concluded that the view of the monopole had no impact. *See* Tr. Jan. 4 at 176.

The geographic distance between comparable homes varied among studies. Mr. Thorne explained that his approach was to walk the roads and make a judgment, without trespassing on private properties, as to which homes would have a view of the monopole in question. Then his team drove to nearby neighborhoods which, due to topography and trees, did not have a view of the monopole, looking for similar lot sizes and housing styles. In some cases comparable homes were found a quarter of a mile away, and in other cases three quarters of mile away. *See* Tr. Jan. 4 at 182-83. Mr. Thorne described the concept as "homogeneity of the product," noting that one can't compare a two-story, 3,000-square-foot colonial with a 1,500-square-foot rambler, or a home on a 12,000-square-foot lot with one on a 3,000-square-foot lot. *Id.* at 183. Most of the homes within view of towers were about 300 to 500 feet from the communication antennas and buildings, although some (for example at the Bullis School in Potomac) were as close as 175 feet.

The table that follows, excerpted from Exhibit 38(b), lists the locations where Mr. Thorne's company conducted studies, the dates and typical home prices.

Monopole, Cell Tower and Water Tower Studies				
#	STUDY NAME	LOCATION (County & State)	TYPICAL HOME PRICES	STUDY DATES
1, 2, 3	Bullis School	Montgomery County, MD	$1.2 - $2.5 million	4/96 6/98 5/01
4	Clearview Estates	Howard County, MD	$250,000 -$400,000	4/96
5, 6, 7	Eastern Shore	Kent & Queen Anne Counties, MD (Three tall lattice towers)	$60,000 - $125,000	4/99
8	Bas Yavok School for Girls	Owings Mills Baltimore County, MD	$240,000 - $375,000	10/97
9, 10	Hunt @ Fairfax Station	Fairfax County, VA	$400,000 - $600,000	3/96 7/97
11	Hampshire Greens	Three Water Towers w/Communication Equipment Montgomery County, MD	$500,000 - $700,000	11/00

Mr. Thorne mentioned that during the Clearview Estates study in Howard County, one homeowner who lives right next to a 140-foot monopole was asked whether he got a discount on the purchase price for his home because of the tower. He said no, he wanted that location because he wants good cell service. *See* Tr. Jan. 4 at 186. Mr. Thorne expressed some surprise that his study in Kent County and Queen Anne's County (on the Eastern Shore) showed no impact on prices, because the telecommunications facilities in question were large lattice towers, with a big footprint, strobe lights and guy wires coming down off the towers, at three independent locations. *See id.* at 178. He noted that the topography is pretty flat in those areas, so there is good visibility for quite a distance. Mr. Thorne agreed that those areas are not very developed and housing prices are fairly low, both of which may have affected peoples' choices. He drew a distinction between luxury homes in Potomac and basic shelter in Kent and Queen Anne Counties, where people view these structures as utilities and ignore them.

Mr. Thorne noted that the Owings Mills study was located in a dense residential neighborhood. He also described a study that his firm did twice at a development called The Hunt in Fairfax County, near Rte. 123. The second time they studied the area, his firm found that prices had fallen for a number of homes that were near the newly-widened Route 123 and had views of the

monopole. Mr. Thorne's firm talked to a number of home buyers and sellers, and found that it was noise from Route 123 that was driving the prices down, not the view of the monopole.

Mr. Thorne testified that the results of all of his studies have been consistent: no discernible negative economic impact due to the presence of telecommunications facilities on adjacent properties. *See* Ex. 38(b) at 5. In all of the studies, his firm never encountered a homeowner who considered a view of a communication device such as a monopole as a motivation to offer a lower-than-market price for a home with such a view. Mr. Thorne concludes, based on in-depth analysis of sales and interviews with homeowners, that these devices are considered part of the communication infrastructure and, once constructed, are ignored. *See id.*

In applying the lessons from these studies to the present application, Mr. Thorne examined the subject site to see whether there was anything unique or atypical about this location compared to those in the studies. He found nothing unusual that would suggest the proposed monopole would have an impact on home prices or marketing within two or three years after the monopole is built. *See* Tr. Jan. 4 at 180-181. In assessing the local real estate market based on Maryland's Department of Assessments and Taxation database and the Metropolitan Regional Information Systems information on real estate sales and listings, Mr. Thorne found that the housing stock in the area of the site is in good condition and offers "a competitive curb appeal when compared to other subdivisions in Montgomery County." *See* Ex. 38(b) at 5.

Mr. Thorne acknowledged that some people argue one should do a before and after study – one study before a monopole is built and another after it is built. He identified methodological problems with that approach, such as changes in the general real estate market over time. If a monopole were built in 2005, for example, home prices in 2007 would show a decline compared to pre-2005 prices, but that's because of changes in the market. Also, one would have to assess prices in an area before the plan to build a monopole is even announced, because there could be some impact if the public knows about it. In addition, some houses might change during the time it takes for the monopole to be built, for instance adding a finished basement.

Finally, Mr. Thorne opined that having good cell phone service helps in the marketability of homes, because more and more people are relying exclusively on cellular service. He also opined that people driving down Schindler Drive wouldn't notice the monopole because they wouldn't be looking for it, and would be focused on the road in front of them. He acknowledged that the house across Schindler Drive from the swim club would have a view of the facility, but argued that this would have no impact on its value.

Under questioning from community member Susan Present, Mr. Thorne stated that he has testified four or five times for AT&T and twice for Verizon. He acknowledged that he has never testified that a cell tower could have an adverse impact on real estate prices, and that all of the studies he has conducted have concluded there would be no negative impact. Mr. Thorne also acknowledged that he has spoken at conferences about how to present information on real estate impact at hearings such as this one.

Mr. Thorne conceded that there are home buyers who would not purchase a home near a cell tower – his wife is one of them. However, he has compared sales data on 150 to 200 pairs of homes in eleven different studies, and found clear evidence that the market does not ascribe a negative impact on buying decisions due to a visual relationship with a monopole. *See* Tr. Jan. 4 at 193-94.

The Hearing Examiner asked Mr. Thorne to comment on the concern raised by community members that if the swim club goes out of business and its property is sold, the property – and, by extension, surrounding properties -- will be worth less if the proposed cell tower has been built. Mr. Thorne stated that he spends a great deal of time appraising land and commercial buildings, and he opined that in today's market, at this location, he could call three builders and the property would probably be under contract in less than two months. *See* Tr. Jan. 4 at 195-96. He further opined that the property would be equally valuable with or without the monopole. *See id.* at 201.

Mr. Thorne opined that nearby homes would not be affected by the tower, using as an example the Gervase home, at the corner of Schindler Drive and Schindler Court. Mr. Thorne opined

that the tall trees would block the view of the monopole from that property, even if the pole is taller than the trees. He noted that if he were doing a study of the impact of the proposed monopole, he would not include the Gervase home as one with a view of the monopole. Mr. Thorne similarly opined that the homes on Schindler Court would not see the monopole because they sit lower than the subject site, and because of the trees. When asked by a community member about homes on Ruppert Drive, Mr. Thorne suggested that one or two may be able to see the monopole, but others will not. He reiterated his opinion that having a view of the monopole would not affect property values.

He also stressed that in this case, T-Mobile is proposing a flagpole design, which doesn't have the "ugly array" that the poles had in his studies, just a narrow pole. Mr. Thorne concluded that people don't like change, but if the proposed tower is constructed, people will notice it for two or three months and then it will become a fixture that they don't focus on, just another communications utility device. *Id.* at 200-201.

Local realtor and Hillandale resident Betsy Bretz testified that she has had clients refuse to consider homes where the local schools had power lines or cell towers because they considered it unsafe for their children. *See* Tr. Feb.4 at 170-177. When asked by Ms. Present whether the proposed tower would affect her business beneficially or adversely, Ms. Bretz indicated that it would have an adverse effect.

Community member Ida Ruben rejects Mr. Thorne's findings. In her view, if potential home buyers are shown one home near a monopole and another that is not near a monopole, they will choose the one without the monopole. *See* Tr. Jan. 4 at 254.

Ms. Present also rejects Mr. Thorne's findings. Between the two hearing days, Ms. Present walked around the neighborhood of the Bullis School, where three of Mr. Thorne's studies took place. *See* Tr. Feb. 1 at 118. She located a home from which the Bullis tower is very visible, which was recently offered for sale at a price of $2.7 million. She presented for comparison a photograph that the realtor had placed on a website, and a photograph that Ms. Present took of the house. *See* Exs. 146(a) and (b). She notes that in her photograph, the cell tower is visible behind

the house through the winter treetops. In the realtor's photo, there is no cell tower in the background. Ms. Present argues that this suggests the realtor thought the house would look better, and therefore fetch a better price, without a cell tower in the background. *See* Tr. Feb. 1 at 118-19. In comparing the two photographs, the Hearing Examiner notes that realtor's photo must pre-date Ms. Present's, because the latter shows a large, iron gate in front of the driveway and the former does not. Moreover, three tall, deciduous trees that appear prominently in front of the house in Ms. Present's photo are not in the realtor's photo, and some landscaping that is shown in the realtor's photo is missing from Ms. Present's photo. It may be that the realtor used an older photograph of the house for several reasons, including the visibility of the cell tower, or it may be that because the realtor's photograph was taken when the trees had their leaves, the cell tower was obscured from view.

Ms. Present contends that Mr. Thorne overlooked several factors, including that the size of the compound would be a "behemoth," at 2,500 square feet in size, with a footprint approximately twice the size of the footprint of her home. *See* Tr. Feb. 1 at 119. Ms. Present maintains that the eight-foot fence around the compound would have an industrial appearance, creating a blight that would be clearly seen by many nearby homes and well as pedestrian and vehicular traffic. Ms. Present testified that based on her visual observation, the equipment compound at the Bullis site is considerably smaller than the size proposed here, is obscured by buildings and is partially inside a brick building. She argued that in assessing the Hillandale real estate market, Mr. Thorne should not have eliminated the most expensive recent sale as an outlier. She noted that there are several new, larger homes in the neighborhood with higher assessed values, but some replaced older homes, and therefore would not have appeared in the sales data.

4. Hearing Examiner's Analysis

One of the most important questions for the Board to consider is whether the proposed facility would have a visual impact or property value impact sufficiently adverse to warrant denial of the application. This assessment must be made in light of the standard of review specified in the zoning ordinance, which permits denial of a special exception only if the proposed use would have

adverse impacts that are non-inherent, i.e., not typical of the use. Because they require height to function, all telecommunication facilities have some visual impact. The question is whether this proposed facility would have greater impact than most because of its features, or features of the site and its surroundings.

Based on this record, the Hearing Examiner considers this question a close call. The equipment compound and all but the bottom eight feet of the monopole would be fully visible from Schindler Drive. Only one home would have this clear view, since most of the property confronting the subject site is occupied by the middle school. As noted earlier, a submitted photograph suggests that because of the site configuration, the middle school population would not have a direct view of the facility. Moreover, it is not clear that the effect of a visual intrusion on a school population should be considered adverse in the way that a visual intrusion on a home is adverse. Assuming that the Board accepts the Hearing Examiner's recommendations concerning landscaping requirements, if the application is approved, the visual impact on the one home across the street and on pedestrians and drivers on Schindler Drive will be mitigated by landscaping. Sufficient landscaping around the fence should make it blend into the background of the surrounding trees to some degree, and soften its appearance. The residents of that home would still have a view of the pole, but the Hearing Examiner found Mr. Thorne's testimony that facilities of this type tend to become part of the background, like other utility installations, quite persuasive.

Because of the tall trees on the subject site, the view of the proposed facility for most of the neighborhood would be limited to the top of the pole sticking up above the trees. In the Hearing Examiner's view, this represents a minor visual intrusion.

In the Hearing Examiner's experience, most cell tower equipment compounds are located so that the fencing is at least partially obscured from view on all sides by buildings or trees. It is unusual, in this Hearing Examiner's experience, for a cell phone company to propose a monopole and equipment compound in a location that is completely unscreened from the street. This fact could provide support for a decision by the Board to deny the monopole on the basis of its visual impact. In

the Hearing Examiner's view, however, the visual impact is not sufficient to warrant denial. The impact on the general neighborhood would be relatively minor, particularly in light of the fact that all monpoles have some visual impact. The visual impact on the home across the street would be significant at first, but as Mr. Thorne testified, over time the installation would likely become part of the little-noticed infrastructure in the background of our suburban neighborhoods.

The Hearing Examiner similarly found Mr. Thorne's written report and testimony concerning impact on property values more persuasive than the anecdotal testimony of community members. There are undoubtedly some people who would not buy a home within view of a monopole, but after studying sales data on 150 to 200 pairs of homes in eleven different studies, Mr. Thorne concluded that the real estate market as a whole does not reflect a negative impact on buying decisions due to a visual relationship with a monopole. The Hearing Examiner found this testimony more persuasive than the common sense protests by community members that something so large *must* affect real estate values. Accordingly, based on the preponderance of the evidence, the Hearing Examiner concludes that neither visual nor property value impacts justify denial of the present application.

Ms. Present argues that because of the importance of the existing tree buffer on the subject site in screening the proposed facility, any approval of the special exception should include a condition that identifies "[t]he entire tree buffer of the property" as landscape screening for the compound. *See* Ex. 159 at 2. She suggests that T-Mobile should be required to replace any trees that die with a mature tree in approximately the same location, and to ensure that all tree-planting work and removal of dead or diseased trees is performed by a certified arborist or licensed tree professional. This suggestion has merit, and it is consistent with a query made by the Hearing Examiner during the hearing, asking T-Mobile whether it would agree to a condition that would require preservation of some number of trees around the compound in the event that the property changes hands – a significant fear held by many neighbors, given the Swim Club's precarious financial condition. Imposing such a requirement would involve crafting a fairly complex condition of approval,

because currently, T-Mobile's lease with the Swim Club covers only the 2,500-square foot area that was originally proposed for the equipment compound. Moreover, identifying the "entire tree buffer of the property" in this manner seems excessive. If the Board of Appeals approves the special exception, the Hearing Examiner recommends imposing a condition of approval that would require T-Mobile to obtain authorization to preserve, maintain and replace as necessary, perpetually until the tower is removed from the site, all existing trees that are within 50 feet of the compound or within 75 feet of a property line that currently abuts a residential lot or the elementary school property. This would ensure preservation of the forested screening that is essential to a finding of compatibility for this monopole, even if the property is sold and put to a different use.

Ms. Present also argues that if the present application is granted, a condition of approval should require the lease between T-Mobile and the Swim Club to be revised to include a termination clause if the Swim Club closes and the property is sold. In the Hearing Examiner's view, this is probably beyond the Board's authority and certainly unnecessary, if a potential approval includes the buffer-preservation condition described in the previous paragraph.

E. Back-up Power and other Safety Issues

T-Mobile engineer Gus Druedson stated that the proposed monopole would be very sturdy. He explained that monopoles are designed so that the bottom portions are stronger than industry standards require, and if the very top of the pole falls it will bend, lowering the stress on the lower parts of the pole and making additional failure much less likely. The evidence also demonstrates that no existing structures lie within the potential fall zone for a 120-foot tower, even if the entire tower were to fall over.

Ms. Present and other community members raised concerns about safety issues related to the need for a back-up source of electrical power at the subject site, for use in the event of a power outage. Initially, community members were under the impression that the proposed facility would include a generator installed permanently on the site, along with above-ground storage of large quantities of fuel. This misunderstanding was created by a detail sheet that T-Mobile submitted to the

Tower Commission, which showed a receptacle to connect a generator to the equipment cabinets. *See* Ex. 48(d). Hearing testimony clarified that T-Mobile does not intend to have a generator or fuel on the site on a permanent basis, but may bring a mobile emergency generator to the site in the event of a prolonged power outage. *See* Tr. Jan. 4 at 204. This is reflected on the Site Plan, which states that "No permanent generator or fuel will be on site." *See* Ex. 155(a). In the Hearing Examiner's view, the potential use of an emergency generator from time to time, a common business practice, would not result in adverse effects that should be considered significant for purposes of this application. If the Board elects to approve the present application, the Hearing Examiner recommends that the Board reserve jurisdiction to impose additional conditions related to generator usage if future evidence, such as complaints from neighbors about excessive generator usage, so warrants.

After several requests from Ms. Present and one from the Hearing Examiner, T-Mobile produced limited information about its actual source of back-up power, which is batteries, similar in size, weight and operation to a car battery (about 12 inches by 11 inches in size and 70 pounds in weight). *See* Ex. 107. During the hearing, T-Mobile asserted that it would have four back-up batteries on site. *See* Ex. 107. After the hearing T-Mobile submitted new information, asserting that the subject site would need two sets of four batteries under normal circumstances, and would need an additional eight batteries to comply with a ruling by the FCC, recently confirmed after reconsideration, which requires cell sites to have at least eight hours of back-up power.[12] *See* Ex. 155. Thus, the total number of batteries proposed turned out to be 16, rather than four. Assuming that two other carriers were to co-locate at this site and use the same number of batteries as their source of back-up power (they would be prohibited from using generators by the note on the site plan), this could bring the total number of batteries on site to a total of 48.

[12] An exemption is available for sites that cannot comply due to local laws, but the Hearing Examiner is not aware of any such prohibition in Montgomery County.

T-Mobile's counsel, Mr. Hughes, asserted that the housing and use of the back-up batteries "are very safe and in full compliance with all applicable laws." *See* Ex. 107. The latter point turned out to be debatable. Ms. Present brought out that T-Mobile has adopted a corporate policy of not complying with Montgomery County's registration requirements for businesses that store hazardous materials, arguing that they should be considered exempt. Barbara Moore, Permit Coordinator in the County's Office of Emergency Management, Hazardous Materials Use Permits (part of the County's Homeland Security Department) testified that that the County's Hazardous Materials Use Permit Regulation, Executive Regulation 17-03, first issued in 1991, imposes a reporting requirement on any commercial business that stores a total of five gallons or more of hazardous materials. Ms. Moore explained that a hazardous material is anything that is harmful to humans, plants, animals or aquatic life. The registration requires disclosure of the quantity of a material stored at a site so that in the event of an emergency, first responders can assess the level of risk and determine how much equipment they need to wear and bring.

Ms. Moore explained that about 97 percent of the County's telecommunications facilities are in the "high use" category because they store batteries that contain sulfuric acid, which is considered an extremely hazardous substance under federal law. Montgomery County considers any business that stores ten pounds or more of a hazardous substance to be in the "high use" category. Ms. Moore noted that a few telecommunications sites are "SARA" facilities under the federal Superfund Amendment and Reorganization At of 1986, which requires reporting at the state level as well as to the County. Those facilities have 10,000 pounds or more of a hazardous substance, or 220 gallons or more of an extremely hazardous substance. The few SARA sites are located on buildings that are used for another purpose that involves hazardous materials, so that pushes the site into the higher category. Ms. Moore also noted that any business that may bring an emergency generator to its site for even one day is supposed to include the hazardous materials associated with that generator, such as fuel, on its hazardous materials inventory.

Ms. Moore testified that all of the cell phone carriers operating in Montgomery County have reported their hazardous materials storage and filed the required emergency plans, with the exception of T-Mobile. The emergency plan for a typical unmanned site is just to call 911, but the hazardous materials registration means that the County's HAZMAT team goes out and they know what's stored there. *See* Tr. Feb. 1 at 93. T-Mobile has approximately 155 cell phone sites in Montgomery County but has refused to register them as hazardous materials storage sites. Ms. Moore stated that the County Attorney is now involved in discussions with T-Mobile. She expects that T-Mobile will be required to file, the only question is the time frame and the fee.

T-Mobile submitted into the record correspondence between T-Mobile's Corporate Counsel, Marin Fetterman, and Anthony Loconte, Program Manager, Montgomery County Homeland Security Department Office of Emergency Management.[13] *See* Exs. 143 and 144. T-Mobile's letter, dated December 27, 2007, acknowledges that the company's cell sites in Montgomery County are unstaffed, outdoor sites with equipment cabinets containing sealed lead-acid batteries, and that the batteries contain electrolyte, which is comprised of water and sulfuric acid, an extremely hazardous material that is subject to reporting requirements under federal law. *See* Ex. 143. The letter asserts that under county law, because the hazardous material is in the same packaging, form and concentration as a product packaged for distribution to and use by the general public, it should be considered exempt from reporting. The letter asserts that the battery electrolyte used at T- Mobile sites remains in the same non-spillable casings as used by any consumer, that the unaltered batteries are placed on secure racks in locked, outdoor cabinets, that the cabinets are in a secure area accessible only by authorized personnel, and that after the useful life of each battery expires, T-Mobile sends the unaltered battery to the manufacturer, distributor or recycling center for recycling. *See id.*

[13] Homeland Security regulations permit Ms. Moore to bring documents to a hearing pursuant to a subpoena, which she did in this case, but do not permit those documents to be copied or placed in the public record. The documents, including the correspondence mentioned, were reviewed before the second hearing day by Mr. Hughes, Ms. Present and the Hearing Examiner. Mr. Hughes provided copies of the letters from T-Mobile's files.

The January 8, 2008 response from the County rejects the request for an exemption, stating that typically, "communication facilities report their storage battery banks because of the large quantities of sulfuric acid and electrolyte which represents a serious and significant hazard to emergency responders." Ex. 144. The letter explains that the County must consider not only normal conditions of use, but what may happen in the event of an incident such as fire, building collapse, a vehicle driving into the building, flooding or acts of terrorism, during which battery containers could be compromised, resulting in significant risk to emergency responders who might come into contact with the electrolyte.

T-Mobile's primary representative at the hearing, Matthew Chaney, stated that T-Mobile will either register its Montgomery County sites or reach an agreement with the County on this issue. *See* Tr. Feb. 1 at 189. If the Board of Appeals approves the special exception, the Hearing Examiner recommends that the effective date for the special exception be delayed until T-Mobile and the County have resolved this issue.

Ms. Moore acknowledged that the batteries T-Mobile stores at its cell phone sites are standard at the hundreds of cell phone sites in Montgomery County, and have the same chemical composition as 12-volt batteries in cars. She noted, however, that the risk associated with such batteries increases with increased size or an increased number of batteries. Ms. Moore confirmed that T-Mobile will be permitted to continue storing this type of battery at its site, provided that it submits the hazardous material registration forms. When asked whether it is an unsafe practice to have these batteries around the County, inside their cabinets within fenced compounds, Ms. Moore stated there is always a risk when hazardous materials are involved, but the risk is reduced if proper reporting is carried out and the building and fire codes are followed. *See* Tr. Feb. 1 at 109.

Community member Judith Harrison, a chemistry PhD who works with batteries, testified that lead-acid batteries are ubiquitous, and are safe in normal usage, otherwise we wouldn't drive around with them in our cars. *See* Tr. Feb. 1 at 162-69.

Community member Doris Stelle argued that the slope of the subject property would allow any leading hazardous materials to flow down to Schindler Drive and from there to the Northwest Branch and other area streams. *See* Ex. 166.

If the evidence were limited to what was produced at the hearing – a proposal for four lead-acid batteries on the subject property, accompanied by evidence from Ms. Moore, Ms. Harrison and T-Mobile that such batteries are in very common use at cell tower sites and other business locations all over the County, one might reasonably conclude that T-Mobile had demonstrated that the batteries would not pose a meaningful risk to the Hillandale community. However, T-Mobile's post-hearing statement quadrupling the number of batteries to 16 was not supported by any evidence whatsoever concerning the risks associated with an array of 16 batteries – or 48 batteries, assuming an equal number for each potential co-locator. The record contains some evidence to support the contention that the batteries would be safe, but all of it was based on the notion of four batteries per carrier, not 16.

Ms. Moore testified that the danger associated with lead-acid batteries increases with a larger number of batteries. In addition, Ms. Present submitted into the record an article entitled *Lead-Acid Battery Hazards*, written by Robert L. Taylor, President of Morning Star Industries, Incorporated, Power Systems Solutions Division. *See* Ex. 159(f). Ms. Present she was referred to the article by the fire department when she asked for information about battery hazards. *See* Tr. Feb. 1 at 134-35. The article states that tens of millions of lead-acid batteries of a "significant size" are used in non-vehicular applications in the United States, ranging from heavy industry to home computer power supply units, and that battery installations vary from very small to enough to fill a 10,000-square-foot room. *See* Ex. 159(f). The article goes on to describe "issues not generally known, including the effects of a self-propagating battery fire." The author states that battery posts contain lead, a hazardous material, and may contain other hazardous substances such as antimony, arsenic and calcium metal. He states that sulfuric acid can wick past the seals on the battery posts onto the post terminal and battery cover. A primary concern raised in the article is that battery containers can crack due to manufacturing

defects, age, incompatibility with cleaning products, chemical degradation of the container and chemicals, abuse, accidents, earthquakes, fire or improper installation.

The author argues that if a fully-charged lead-acid battery is shorted, the device shorting the battery will hopefully become hot and melt or vaporize, clearing the short. If that does not happen, the author contends that the electrical connection between the battery terminals allows for very rapid chemical reaction as the sulfuric acid converts the lead and lead dioxide to lead sulfate. This can cause an increase in heat level inside the battery that may destroy the battery cell and even vaporize its materials, including the electrolyte and lead. When a short is placed across a string of batteries, one failed cell can cause other cells to dissipate their energy into the failed cells, making them melt and give off vapors, and potentially spreading to other batteries, resulting in clouds of acid mist and vapor that will overwhelm a typical ventilation system.

The article argues that because of potential exposure to hazardous materials under normal conditions of use, lead-acid batteries should not be exempt from disclosure as hazardous materials, and a facility with a substantial number of batteries outside of motor vehicles should be reported to the local emergency planning authorities or fire department. *See* Ex. 159(f).

The record is bereft of information about this article and its author, who appears to be an officer in a private company. It is possible that T-Mobile might have rebutted this article, had it chosen to submit a response. It is also possible that T-Mobile might have demonstrated that 16, 32 or 48 batteries in the type of installation proposed here would not pose a substantial risk to the community, had it chosen to submit any evidence on this issue. It is also possible that the hundreds of cell tower sites in Montgomery County each have lead-acid batteries in numbers comparable to what T-Mobile proposes for this site. The record does not have any such information, however, because T-Mobile chose not to submit any evidence regarding the safety of lead-acid batteries in these numbers, at a location just feet from a kiddie pool and in close proximity to homes and an elementary school. While the Hearing Examiner is not persuaded that the single article Ms. Present submitted demonstrates anything conclusively, the Zoning Ordinance assigns the burden of proof in a

special exception case to the applicant. See Code § 59-G-1.21(c). The Hearing Examiner finds that T-Mobile has failed not only to meet its burden of persuasion on this point, but even to meet its burden of production. Accordingly, on this record, the Hearing Examiner recommends denial of the petition.

F. Radio Frequency Emissions

The potential impact of radio frequency ("RF") emissions typically is not addressed in a telecommunications facility special exception case, due to federal law that prohibits a local government from regulating cellular phone facilities on the basis of environmental effects of RF emissions. The Federal Communications Commission ("FCC") has found that taken together, sections 2, 301 and 303(c)-(f) of the Communications Act, codified at 47 U.S.C. §§ 152(a), 301 and 303(c)-(f), comprehensively regulate radio frequency interference, completely occupying the field to the exclusion of local and state governments. *See In the Matter of Petition of Cingular Wireless*, Memorandum Opinion and Order, WT-Docket No. 02-100, (July 3, 2003) (Exhibit 131(a) in the record of this case), citing *In the Matter of 960 Radio, Inc.,* Memorandum Opinion and Declaratory Ruling, FCC 85-578, 1985 WL 193883 (Nov. 4, 1985). Moreover, the Telecommunications Act of 1996 states specifically that state and local governments may not regulate the location or operation of a telecommunications facility based on environmental effects of RF emissions, as long as the emissions are below a threshold established by the FCC. *See* Telecommunications Act of 1996, Section 704, codified at 47 U.S.C. 332(c)(7)(B). The record in this case clearly establishes that RF emissions from the proposed facility would be many thousands of times below the FCC threshold. *See* Ex. 53(b).

The question of potential RF interference was the subject of considerable discussion in this case due to concerns raised by the Federal Drug Administration ("FDA") about the possibility that emissions from the proposed T-Mobile facility and potential future co-locators could interfere with the testing of sensitive medical equipment on the FDA's nearby White Oak campus. Activities on the FDA campus include testing medical and other electronic equipment for sensitivity to electromagnetic interference to assess, for example, whether a pacemaker will continue to operate properly in an environment where it is exposed to certain types and levels of RF emissions. The existing buildings

have testing laboratories that are shielded to block interference by RF emissions. FDA representatives testified, however, that the agency's long-term plans include outdoor testing facilities, which would require a radio-frequency-free environment.

T-Mobile presented expert testimony and reports to support its position that the FDA campus is not currently in a radio-frequency-free environment, given its location on New Hampshire Avenue, and that the facility proposed here would make only a minor addition to the RF field strength on the campus. See testimony of Jules Cohen; Exs. 53(b), 120 and 120(b). T-Mobile presented uncontroverted testimony that several telecommunications facilities are located on high-rise buildings within a short distance of the FDA campus, and that a T-Mobile telecommunications facility is located within the FDA campus itself, having been installed there at the FDA's request to serve a particular floor of one building.

The FDA did not contradict this testimony or related written reports, but stated, even after T-Mobile performed specific tests requested by the FDA, that there was not enough information to allow the agency to determine whether the proposed facility would cause problems for the FDA. See testimony of Howard Bassen and Deanne Murphy; Ex. 154. The FDA's concern is based in part on the unknown effects of potential co-locators on the proposed flagpole. Co-locators could be wireless communications providers operating at the same frequency as T-Mobile, or they could be one of a number of enterprises described in the Zoning Ordinance's definition of telecommunications facility. The Hearing Examiner asked whether T-Mobile might be able to craft a condition for the special exception to limit potential co-locators to wireless communications providers, which would place some parameters on potential future impacts. T-Mobile's counsel stated that T-Mobile would not be able to agree to such a condition. T-Mobile emphasized, however, that it supports the FDA's mission and will cooperate in resolving any future interference problems in the proper forum, before the FCC.

T-Mobile argues persuasively that as a legal matter, Montgomery County does not have the authority to regulate the proposed special exception on the basis of its RF emissions. In

support of this position, T-Mobile submitted the FCC decision cited above, *In the Matter of Petition of Cingular Wireless,* where the FCC found that federal law preempts a provision of the Anne Arundel County, Maryland zoning ordinance requiring owners and users of telecommunications facilities to demonstrate that their facilities would not degrade or interfere with the County's public safety communications system. Although the FCC found that this ordinance was preempted, the agency was concerned about interference with the County's public safety communications system, and required the County and the two cell phone carriers involved in the case to report to the agency on the progress of mitigation efforts within a specified time frame. *See In the Matter of Petition of Cingular Wireless,* Memorandum Opinion and Order at 2. The facts of this case show both the breadth of federal preemption in the field of RF emissions and the FCC's regulatory authority over RF emissions.

T-Mobile submitted two decisions from United States Courts of Appeals in support of its position. In *Freeman v. Burlington Broadcasters,* United States Court of Appeals for the Second Circuit, Docket No. 97-9141 (Feb. 23, 2000), the court held that a condition of a permit to construct and use a communications tower, which required the permittees to remedy any RF interference with appliances and devices in local homes, was preempted by federal law and therefore unenforceable. In *Southwestern Bell Wireless Inc. v. Johnson County Board of County Commissioners*, 199 F.3d 1185 (10th Cir. 1999), the court held that a local zoning regulation prohibiting the operation of communication towers in a way that interferes with public safety communications was preempted by federal law and therefore was invalid.

The Hearing Examiner offered the FDA not one, but two opportunities to submit legal analysis contradicting T-Mobile's argument, but on both occasions the FDA submitted nothing regarding preemption. The FDA did not ask the Board of Appeals to deny the proposed special exception, but requested that the Board not grant the special exception until the FDA and T-Mobile reached an agreement concerning acceptable levels of RF emissions. As the Hearing Examiner observed during the hearing, deferring a decision indefinitely could eventually be considered a de facto denial of the application, which the County does not have the authority to do.

Immediately before the second hearing date, T-Mobile submitted the results of testing it had just performed at the FDA campus. *See* Exs. 120, 121(a), 121(b). In a letter dated February 5, 2008, the day after the hearing concluded, the FDA's counsel, Louis Mancuso, stated that he had not seen that submission until the afternoon before the second hearing date, and therefore did not have adequate opportunity to respond at the hearing. *See* Ex. 154. Counsel requested that the comments contained in his February 5 letter be included in the record, which they will be in the interest of fairness.

In his February 5 letter, Mr. Mancuso objected to the implication that the testing T-Mobile performed was done at the actual levels at which T-Mobile intends to operate, when it was really based on an estimate. He noted that T-Mobile had not committed to a numerical limit on its emissions, so the estimated power level used in its testing was of little value. Mr. Mancuso requested until the close of business on February 19, 2008 to submit a written argument regarding the federal preemption issue or notification that an agreement had been reached between the FDA and T-Mobile, but no submission was received.

In light of the persuasive value of the three decisions submitted by T-Mobile on preemption and the lack of any countervailing authority submitted by the FDA, the Hearing Examiner concludes that the Board is not authorized to decide this application, regulate this proposed use or defer a decision on this application on the basis of potential RF emission impacts. The FDA may take up the interference question with the FCC if it so chooses.

G. Need for the Proposed Facility

The Montgomery County Code requires that the County's Chief Information Officer (the Director of the Department of Technology Services, or "Director") "establish and maintain a process to coordinate the location of public and private telecommunications facilities in the County." Code § 2-58E (a). The County Executive must issue regulations to implement this process. As part of this process, a designee or contractor selected by the Director (known as the "Tower Coordinator") must review the siting of each proposed facility, advise any land use agency with jurisdiction over the siting

of transmission facilities (including the Board of Appeals and the Planning Board) on "the technical rationale at that location for any transmission facility," and make a recommendation as to the proposed location. See Code § 2-58E(c); Executive Regulation 14-96, effective December 10, 1996. The Director must also convene a Transmission Facility Coordinating Group (known as the "Tower Committee") consisting of the Tower Coordinator and representatives of the MNCPPC, the Office of Management and Budget, the cable television administrator in the Department of Technology Services, the Department of Public Works and Transportation, the Department of Permitting Services ("DPS") and any other County, bi-county, or municipal department or agency the Director invites to send a representative. See Code § 2-58E(d)(1). The Tower Commission must review and comment on any pending transmission facility siting issue. See Code § 2-58E(d)(2).

In the present case, the Tower Coordinator found that T-Mobile considered three alternatives to the proposed location, but could not get approval at one site (on the FDA campus) and found that the other two would not meet its coverage objectives. The Tower Coordinator agreed with this conclusion and further found, based on a site visit and a review of RF coverage maps provided by T-Mobile, that "it does not appear that there are any existing structures to which T-Mobile could attach antennas to meet their coverage objective." Tower Coordinator Recommendation, Ex. 48(a). the Tower Coordinator noted that, based on T-Mobile's RF maps, "it appears that there is a need to improve coverage to meet their desired signal levels for that area," and that the proposed 120-foot height is required to meet the coverage objectives. *Id.* The Tower Coordinator noted that the monopole would be quite visible and some nearby residents might object. Ultimately, the Tower Coordinator did not recommend approval of the proposed facility, based on the fact that it would violate the property line setback requirement. *See id.*

The Tower Committee considered T-Mobile's application at a meeting on March 7, 2007. *See* Minutes, Ex. 48(n). The Tower Committee asked T-Mobile, as the Tower Coordinator had also done, whether the company would consider disguising the monopole as a tree. T-Mobile replied that it would consider that option if asked to do so during the special exception process. The Tower

Committee was told that the proposed monopole would be approximately 62 feet from the property line with the adjacent school. On current plans, it is shown only 41 feet from the property line. Thus, the Tower Committee's recommendation was apparently based in part on incorrect information.

The Tower Committee's minutes reflect a discussion among the members about the property line setback requirement and the waiver provision stated in the Zoning Ordinance, which allows the Board of Appeals to 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." *See* Ex. 48(n); Code § 59-G-2.58(1)(d). The Tower Coordinator, Robert Hunnicutt, stated that in the past, the Tower Committee had made recommendations for some monopole sitings that required a special exception, and conditioned them on obtaining approval for a setback reduction. Mr. Hunnicutt noted his understanding that currently, the Tower Committee is not inclined to recommend an application for approval if it does not meet Code requirements. In his view, if the Tower Committee continues to recommend applications that do not meet Code standards, the standards eventually become meaningless. *See* Ex. 48(n).

The WSSC representative on the Tower Committee argued that if the reason for the property line setback is to create a fall zone, there would be no harm in this case because there is a large piece of property next door. The DPS representative stated that there are reasons for setbacks other than a fall zone, and that ignoring setbacks is not in the interest of the Tower Committee. Counsel for T-Mobile argued that schools accept monopoles on their properties at other locations, so that should not be a concern in this case. He also argued that the proposed location is better than elsewhere on the property. A representative of the Montgomery County Public Schools on the Tower Committee stated her view that is not within the committee's authority to recommend an application that does not satisfy setback requirements, because reducing the setback is within the Board of

Appeals' authority. Four members voted not to recommend the application, based only on the setback issue. One member voted against the motion and one abstained. *See* Ex. 48(n).

The specific conditions for a telecommunications facility special exception require the applicant to submit a recommendation from the Tower Committee regarding the proposed facility that is not more than one year old. *See* Code § 59-G-2.58(a)(11). The specific conditions also require the Board of Appeals and the Planning Board to make "a separate, independent finding as to need and location of the facility," in addition to the findings that are made by the Tower Committee. *See* Code § 59-G-2.58(a)(12). The Zoning Ordinance does not define "need" or provide any standards for consideration of this question. The Tower Coordinator made a finding in this case that T-Mobile has a need for the proposed facility to meet its coverage objectives. The Tower Committee minutes do not reflect any discussion of whether there is a need for the proposed facility, other than a statement by a representative of the Tower Coordinator's office that it appeared that the 120-foot height "may be needed" to meet T-Mobile's coverage needs. *See* Ex. 48(n). The minutes do suggest that the vote not to recommend this application for approval was based solely on the setback issue, suggesting that the Tower Committee accepted the Tower Coordinator's conclusion in his written recommendation that there is a need for the proposed facility, at the proposed height, to meet T-Mobile's coverage objectives.

Several community members opposed to the present petition argued that "need" should mean a need for the facility in the community, and that such a need has not been demonstrated. *See, e.g.,* testimony and written submissions of Royal Fuchs and Richard Present. The Zoning Ordinance requires a finding of "neighborhood need" for several categories of special exception, including automobile filling stations and community swimming pools. *See* Code § 59-G-1.24. It requires a finding of "County need" for several others, including drive-in restaurants, funeral parlors and hotels. *See* Code § 59-G-1.25. "Neighborhood need" is defined to mean that "a need exists for the proposed use to serve the population in the general neighborhood, considering the present availability of identical or similar uses to that neighborhood." Section 59-G-1.24. "County

need" means that "a need exists for the proposed use due to an insufficient number of similar uses presently serving existing population concentrations in the County, and the uses at the location proposed will not result in a multiplicity or saturation of similar uses in the same general neighborhood." Section 59-G-1.25. Neither of these requirements applies to a telecommunications facility special exception. The Hearing Examiner concludes that if the County Council had intended to require a finding of neighborhood need or county need, it would have done so explicitly, as it has for other uses. In the case of telecommunications facilities, it chose not to impose such a requirement. This supports the interpretation the Board of Appeals has used in past cases, namely, that "need" in this context means a need to improve coverage to meet a cell phone carrier's coverage objectives.

T-Mobile presented expert testimony and RF coverage maps to demonstrate that it has a need for the proposed facility. The coverage maps, which are reproduced in Appendix A to this report, show that the proposed facility would provide indoor coverage within an area that currently has only on-street and in-vehicle coverage, and in-vehicle coverage at one very small location that currently has only on-street coverage. *See* Exs. 11(a) and (b). The area that would benefit from this improved service is relatively small, and as Mr. Present pointed out, the largest parcel within it is a park, not a residential or business area. Nonetheless, although T-Mobile's coverage objective in this case is modest, the coverage maps indicate that the proposed facility would satisfy that objective.

T-Mobile's RF engineering expert, Pavan Dandapanthula, described the process of identifying a need for a new cell site. *See* Tr. Feb. 1 at 15. He testified that when customer complaints cross a certain threshold, T-Mobile starts looking for a location for a new cell site. In this case, Mr. Dandapanthula was given several candidates to consider, but chose the proposed site based on its potential to alleviate congestion by providing additional capacity. *See id.* at 23. He stated that the middle school across the street would have worked just as well, but the school declined because of its construction plans. Mr. Dandapanthula testified that today, the target for every wireless carrier is to provide in-home coverage that allows the customer to make a call from any room in the home, just like a land line. He referred to the coverage maps discussed above to support

his conclusion that T-Mobile has a need to improve coverage in the area of the subject site, and that the proposed facility would satisfy that need.

Several opposition participants stated that they and their neighbors already have great cell phone service, so there is no need for the proposed facility. Other community members who support the present application argued that there are significant "dead zones" in the neighborhood where people cannot use their cell phones, or can only use them outdoors. The ambiguity of the evidence from community members on this point underscores the greater reliability of the more objective data provided on the coverage maps.

Opposition witnesses alleged that T-Mobile's evidence lacks credibility because in a statement to the Tower Committee, T-Mobile asserted that the Burnt Mills neighborhood would receive the biggest service improvement from the proposed facility, but the coverage maps do not show improvements in the area that West Hillandale residents think of as Burnt Mills. *See* testimony and written submission of Royal Fuchs and Richard Present. A review of an ADC map of Montgomery County, 32d Edition, reveals three areas near the subject site with "Burnt Mills" in their name: Burnt Mills Village, between Northwest Branch Park and Route 29; Burnt Mills, between Route 29 and Lockwood Drive; and Burnt Mills Hills, a few blocks north of the subject site.[14] Given the ease with which such areas can be confused, the Hearing Examiner finds that possible imprecision in the reference made before the Tower Committee does not meaningfully undercut the credibility of T-Mobile's coverage maps.

T-Mobile also argues that the proposed facility would improve its ability to provide E911, or "enhanced 911" service to its subscribers. T-Mobile acknowledged that all cell phone companies are required to complete 911 calls, regardless of whether the caller is their subscriber. *See* FCC Order attached to Exhibit 159(g). Thus, as Ms. Present suggested, if other cell carriers already provide good service in the area that this facility would target, T-Mobile subscribers should be able to complete 911 calls even if their T-Mobile coverage is less than ideal. T-Mobile's RF engineer

[14] The Hearing Examiner hereby takes official notice of the ADC Montgomery County Street Map, 32d edition.

testified that E911 service includes recently improved technology to identify the geographic location of a caller, which can be of assistance to emergency service providers. He stated that this technology only works with seamless, in-building cell phone coverage, and that only T-Mobile can provide improved geographic location capabilities to its subscribers, because it has more precise data on them that other carriers do not have. *See* Tr. Feb. 1 at 70-72. This suggests that the proposed facility could improve E911 services to T-Mobile subscribers. Ms. Present submitted a page from an FCC website describing a requirement for cell carriers to provide latitude ad longitude information on request, but the submitted information does not specify whether it applies to callers who are not subscribers of a particular cell carrier. *See* Ex. 159(g). The Hearing Examiner does not find this information specific enough or persuasive enough to rebut Mr. Dandapanthula's testimony.

In addition to disputing the need for a cell tower in this area, several community members argued that this application should be denied because T-Mobile did not adequately consider alternative sites. *See* testimony and written submissions of Royal Fuchs, Richard Present and Susan Present. They contend that numerous buildings exist in the area, outside the residential neighborhoods, that could serve as locations for a cell phone facility. The Hearing Examiner makes no findings on this point because it lies outside the Board's purview and its technical expertise. The Board's responsibility is to assess the potential impacts of the proposed facility on the general neighborhood around it. The application requirements for a special exception to do not provide for submission to the Board of the detailed information that would be necessary to assess whether alternative sites were adequately considered, nor does the Board have access to staff with the technical expertise to evaluate such data. The responsibility to evaluate whether a proposed location is appropriate from a technical standpoint lies with the Tower Committee and the Tower Coordinator, who found that the proposed location is appropriate.

H. Lighting, Signage, Utilities and Traffic

Lighting for the proposed facility would consist of two 150-watt flood lights mounted on the back of one of the equipment cabinets. *See* Detail and Elevations Sheet, Ex. 155(b). T-Mobile

did not explain how or when these lights would be used, or whether they would cause any light spillover or glare on any neighboring properties. Technical Staff was under the impression that there would be no lighting associated with this facility. *See* Staff Report at 12. If the Board is inclined to approve the present petition, the Hearing Examiner recommends that T-Mobile be required to submit written information sufficient to allow the Board to assess whether the proposed floodlights would cause any objectionable illumination or glare.

Signage would be limited to a two-foot-square warning sign that the FCC requires on the outside of the equipment compound. Electric and telephone utilities are already available on site, and no other utilities would be needed for the proposed facility. Neighbor Matthew Gervase notes with some concern that the site plan shows a path for new, underground telephone and electric conduits through the Swim Club parking lot. *See* Ex. 160. He questions whether T-Mobile would be responsible for repairing the parking lot after the conduits are installed, or whether the Swim Club would be required to pay for that. He also asks whether the work would be done during the summer, when the Swim Club is in use. These questions go beyond the level of detail that the Board of Appeals considers in a special exception case.

Technical Staff concluded that the proposed facility would not have any adverse impact on the transportation network because it would generate only a very small number of trips to the site, consisting of maintenance visits once or twice a month. *See* Staff Report Attachment 5. Even if two other companies were to co-locate on the site in the future, their total traffic generation would be only four to six trips per month, except for possible emergency visits.

I. Community Participation

Active community participation has been one of the hallmarks of this case. Two individuals testified in support of the proposed telecommunications facility, in addition to the President of the Swim Club. Nine community members testified in opposition, many of the them members of the Swim Club and all residents of streets in the immediate vicinity of the subject site. The witnesses also included two representatives of the FDA, whose concerns are discussed in Part III.G above. The

record contains 126 letters in support and 15 letters in opposition. All testimony and nearly all written comments were provided before T-Mobile reduced the equipment compound size by 25 percent.

1. Testimony in Support

Judith Harrison, a scientist with a PhD in chemistry, has lived in the West Hillandale neighborhood for 13 years, a short walk from the subject property. She testified and submitted two letters in support. *See* Tr. Feb. 1 at 162-69; Exs. 55(a) and 78. Ms. Harrison's comments regarding the safety of the batteries T-Mobile proposes are summarized in Part III.E. above, and her remarks about the need for the facility are addressed in Part III.G. Ms. Harrison also addressed the safety of RF emissions from cell towers, explaining that cell towers operate by sending signals through the air, with a frequency similar to UHF television signals and slightly higher than FM radio signals. As she correctly noted, we commonly accept televisions and radios in our homes without worrying about the signals. *See* Ex. 78.

Ms. Harrison noted that cell towers have been built at many locations in Montgomery County on and near schools and at community pools. She cites this as precedent for locating a cell tower at a swim club, stating that their prevalence at such locales is indicative of the fact that they pose no health risks. *See id.* Ms. Harrison states that the location proposed for the cell tower is bordered on three sides by tall trees that would block its view from every angle except directly across the street. She notes that because the middle school is almost directly across the street, only a handful of houses would have a direct line of site to the proposed facility, making the visual impact very small. In her view, the community would benefit from the proposed facility because it would provide needed income for the Swim Club, which is a valued community institution. *See id.*

A teenage member and coach of the Swim Club's swim team, Christine Dalton, testified about how important the Swim Club community is to kids who are members, providing a way for kids to who attend different schools to maintain relationships with kids in the neighborhood and creating a place for positive interaction among older and younger children. Miss Dalton is concerned

that without the cell tower, the pool will close and other kids in the neighborhood won't be able to have the wonderful experience she has had.

2. Letters in Support

The Swim Club submitted 100 form letters signed by West HIllandale residents in support of the petition. *See* Exs. 19, 82-91. The letters assert that the proposed facility would be in the best interest of the West Hillandale community because (1) it would provide revenue for maintenance of the "cherished, but aging," Swim Club, which increases property values and provides the neighborhood with a unique community resource, but will likely close without this additional income of more than $10,000 per year; and (2) it would enhance cell phone service in the community. The letters state that scientific studies show there are no negative health impacts from cell phone installations; that the proposed tower would have a minimal visual impact due to rolling hills and an abundance of 80 to 100-foot trees; that a similar installation was successfully completed at the nearby Oak View Swim Club, one mile south on New Hampshire Avenue; and that cell towers are located on hundreds of school, recreational, business and special exception properties all over Montgomery County.

The record contains eleven letters in support that cite the following arguments in identical or similar language: (1) the Tower Commission, the Planning Board and Technical Staff have determined that there is a need for the proposed cell tower and recommend approval of the present application; (2) there is an overwhelming need for a cell tower due to large dead zones in the neighborhood with no cell signals; (3) locating a cell tower in a community is not unusual, and many new communities insist on one to ensure good cell services; (4) lack of reliable cell services is harmful to property values; (5) the proposed tower would be consistent with the character of the neighborhood and its location would allow it to be screened by tall trees; and (6) the tower would have the added benefit of adding financial stability to the Swim Club, a valuable community resource. *See* Exs. 59-61, 79-81, 119,129, 134, 137 and 151.

The record contains 14 additional letters in support that are more individually written, which are summarized below in alphabetical order.

Daniel Abebe lives within walking distance of the subject site and alleges that there is an overhwhelming need for a cell tower in this neighborhood due to large dead zones. *See* Ex. 95. He considers the proposed location typical, because there are many cell towers at pools and schools in the County. He notes that the proposed installation would not require cutting down any trees, and would place the tower near the tree line where it can be screened on three sides. Mr. Abebe also supports the prospect of adding financial stability to the Swim Club, a valuable community resource.

Karl Aro, the President of the Swim Club board, has lived in West Hillandale since 1983 and has been a Swim Club member for over 20 years. He rejected Mr. Gervase's assertions that the Swim Club has been mismanaged, arguing that the board members, all volunteers, work diligently to maintain its finances, but that an older pool requires constant maintenance. He doubts that the Swim Club could save any significant amount of money by hiring its own employees to maintain the pool instead of using a management company.

Mr. Aro finds it hard to believe that the FDA would conduct outdoor testing of its equipment anywhere near New Hampshire Avenue, given the testimony that such testing must be at least 100 yards away from any metal. He is suspicious that "given the local politics," the agency's participation in this case "is really only returning a political favor to those in the community who have been of assistance in establishing FDA in the Hillandale area." Ex. 99 at 2.

Mr. Aro noted that he is the Executive Director of the Department of Legislative Services, the non-partisan, central staff agency to the state legislature. He stated that the fate of the legislation Ms. Ruben referred to is uncertain, given likely opposition from cell phone companies and perhaps some schools. He noted that approximately ten schools in Montgomery County currently have cell towers, and two more are pending. He notes that if passed, the legislation would likely grandfather existing installations. Finally, he suggests that if this legislation passes, it will make other locations such as the subject site even more essential to T-Mobile.

Peter and Ann Corran live three blocks from the subject site. They contend that the proposed tower will lend needed cell phone coverage to the neighborhood and give the Swim Club a sorely needed financial boost. *See* Exs. 57, 117. Without the tower, they expect that the Swim Club will close, making the neighborhood less unique, more anonymous and cell-phone challenged.

Ash and Gloria Gerecht, owners of property adjacent to the subject site to the north, have been members of the Swim Club since 1962 and have been vigilant in seeing that it remains within its approved restrictions. *See* Ex. 50. They support the present petition, although they believe the lease is not as favorable to the Swim Club as it might have been, because this facility will help the club remain a valued amenity for years to come, giving its member-management breathing time to attract more members as younger residents replace older ones. The Gerechts observe that they are also members of the Four Corners YMCA, which they visit four to five morning a week. That site has a telecommunications pole rising above its structures "which has simply become part of the framework, and of which we are not conscious most of the time." Ex. 50. If the proposed tower is built at the subject site, they believe that it, too, will simply be "part of the framework." *Id.*

Joe Helfrich repeats the points made by some of his neighbors about previous recommendations of approval and the need for improved cell phone service, noting that there is a dead zone right over his house, and that he has tried multiple cell phone carriers without luck. *See* Ex. __. Mr. Helfrich states that cell towers are not unusual in communicates, and lack of reliable cell service is harmful to property values. Moreover, he notes, the proposed facility would add financial stability to a valuable community resource.

John and Janet Linnehan, longtime Swim Club members, argue that the present petition satisfies all legal, regulatory and safety requirements, and has been recommended for approval by Park & Planning. *See* Exs. 52 and 138. They suggests that if not located on the subject site, the proposed tower would probably be built on a nearby property, since the neighborhood needs better cell phone service. They prefers that it be located on the subject site, where it will support the

Swim Club, which they consider the only community-based facility in the area, and critical to the well-being of the neighborhood.

The Linnehans allege that some of the opponents of this petition have ulterior motives such as driving the Swim Club out of business to reduce competition with their own swim club, allow a rival swim club to take over the West Hillanale Swim Club, or allow the subject property to be developed for a different use. It is the Linnehans' impression that a majority of Swim Club members live close to the subject site and want the tower. They assert that the proposed facility would not hurt property values, noting that many new communities are built with cell towers, and that lack of cell phone service is a greater detriment to home sales than the presence of a cell tower. The Linnehans argue that the community would benefit from this proposed facility, that cell towers have become ubiquitous, and that the loss of the pool would deal a far greater blow to the property values and the cohesiveness of the community than would the proposed facility.

John Parry supports the present application for two reasons. *See* Ex. 136. He conducts business in his home and currently is unable to get acceptable cell phone services, and the cell tower would enable the Swim Club to continue as an important community facility. Mr. Parry suggests that "[i]f the object of community planning is to make a community better, then allowing the cell tower to exist will greatly outweigh the minor aesthetic challenge that a cell tower adjacent to a large existing parking lot will present." Ex. 136.

Elizabeth Riggs, Linda Warschoff and Ellen Weiser each wrote that the proposed facility is a win/win situation for the neighborhood, since cell phone reception is very poor in portions of the neighborhood, and the Swim Club needs the income. *See* Exs. 58, 116 and 128. Ms. Warschoff and Ms. Weiser add that opponents of the tower exaggerate the visual impact, and that good cell phone service and a vibrant community pool enhance the value of homes in the neighborhood.

John Schorn lives a few blocks from the subject site and is a Swim Club member. *See* Ex. 92(a). He cites the recommendations of approval and findings of need from the Tower

Commission, the Planning Board and Technical Staff, noting that his household gets very poor cell phone reception. Mr. Schorn supports the prospect of providing financial stability for a valuable community resource, describing the pool as "a little parcel of peace and tranquility."

David Seigel lives on LaGrande Road one block from the subject site, and does not expect the proposed flagpole tower to affect either his view or his property value. *See* Ex. 121. He states that there are numerous cell phone dead spots in the neighborhood, and that the Swim Club is a major resource and community center that should not be put in financial jeopardy. He echoes the view of other supporters that a majority of neighborhood residents either support the tower or have no opinion, and the opponents are a small, vocal and organized minority.

Nancy Stark lives six houses from the subject site on LaGrande road. She notes that cell phone coverage in the neighborhood is intermittent, and people are often seen standing outside looking for a reliable signal. *See* Ex. 118. In her view, a majority of the neighborhood is either supportive of the proposed cell tower or disinterested, and most people realize that the Swim Club needs to revenue.

3. Witnesses in Opposition

Betsy Bretz has lived in Hillandale for 35 years, on the other side of New Hampshire Avenue from the subject site. She has a masters degree in environmental management and urban studies, has been a realtor since 1983 and chairs the Lab Quest Partnership, an organization involving community members and the federal government that is concerned with the FDA consolidation.

Ms. Bretz described the present proposal as a very divisive issue in the Hillandale community and a very good deal for T-Mobile. In Ms. Bretz's view, cell towers should be in commercial areas, not in a residential area bounded by an elementary school and across the street from a middle school. She expects that any time a house is for sale in the neighborhood, the sellers will have to disclose that a cell tower is coming, and that it may or may not be visible from that house or have any effect on it. Ms. Bretz has had clients, as a realtor, who have refused to consider homes

where the local schools had power lines or cell towers, because they considered it unsafe for the children. In her view, the community should be doing things to bring people back to the public schools, not to give people more reasons to send their children to private school.

Ms. Bretz noted that in her role with the FDA, she has worked hard to keep cell towers away from the FDA campus. She believes the proposed tower would not add to the community at all. As a realtor, she has specialized in the Hillandale area and has sold several hundred homes in the neighborhood. When asked by Ms. Present whether the proposed tower would affect her business beneficially or adversely, she stated that she had not thought of it that way, but it would be an adverse effect. *See* Tr. Feb. 1 at 176.

Royal Fuchs has lived at 14 Schindler Court, backing up to the subject site, for nearly 20 years. He argued in testimony and written submissions that the proposed facility would be visually obtrusive and would have a negative impact on property values. *See* Tr. Jan. 4 at 157-169; Exs. 31, 132. In his view, the potential property value impact cannot be quantified reliably. He notes that typical homeowners do not have the organization or financial resources to compete with the telecommunications industry, making them vulnerable to adverse decisions, and that approval of this petition would set a bad precedent for other neighborhoods. Mr. Fuchs alleged that the Swim Club failed to communicate with affected area residents before entering into the lease, and that its members intimidated local residents into supporting the proposed facility by stating that the choice was a cell tower or Section 8 housing. *See* Ex. 132. He maintained that the pool is not well used, except for swim meets, and is not the valuable community asset that other witnesses described, because the nearby Martin Luther King pool offers far greater aquatic opportunities.

Mr. Fuchs' argued that a need for the facility has not been demonstrated, and that T-Mobile did not adequately investigate alternative sites. He recommended that the Hearing Examiner obtain and place in the record T-Mobile's entire application to the Tower Committee, to ascertain "whether T-Mobile has been truthful and diligent in seeking suitable alternatives to achieve its coverage objectives." Ex. 106. The Hearing Examiner did not follow this recommendation because

the special exception standards do not call for an examination of whether alternatives were considered. The Tower Committee has the responsibility to assess whether alternative sites were appropriately considered, not the Board of Appeals.

Mr. Fuchs submitted a petition with 73 signatures in opposition to the proposed monopole, all from residents of homes located within or very close to the general neighborhood defined by Technical Staff, as shown on the map on the next page. *See* Ex. 41. The petition states that the residential nature of the community would be significantly compromised by the proposed facility, property values would decline, the setback from the elementary school has not been adequately addressed by T-Mobile or the County, the lease between T-Mobile and the Swim Club does not adequately protect the community in the event that the Swim Club does not survive, and there is no widespread cell phone reception problem in West Hillandale that justifies the visual impairment attendant to erecting the proposed 120-foot tower. *See* Ex. 41.

Map of Homes in Opposition to Petition, from Ex. 41

Matthew Gervase has lived next door to the Swim Club for most of his 35 years, and his family has been there for 38 years. His home is at the corner of Schindler Drive and Schindler Court, backing up to the pool parking lot. Mr. Gervase testified and wrote in opposition to the proposed facility based on visual impact and safety concerns. He believes that the compound would add an unattractive, industrial look to what he feels is "a well-presented pool complex." Ex. 56. If the present petition is approved, he recommends that T-Mobile be required to place the tower in the rear two acres of the Swim Club property, which would make the tower less visible, contribute less of the stigma attached to cell towers for the neighborhood, and greatly reduce safety concerns by moving the compound farther away from the pool. *See id;* Ex. 160. He suggests that an access road is not necessary, as T-Mobile claimed, given that no access road was built for the cell tower compound at Oakview Swim Club, and that the same approach could be used here by moving the access gate.

Mr. Gervase is very concerned about the safety of pool users, particularly children in the kiddie pool, which would sit just a few feet from the cell tower compound. He is also concerned about t safety at the elementary school next door, which his young children will eventually attend. He feels that despite what the FCC says, proximity to the RF emissions is not safe. Mr. Gervase was disconcerted by the quadrupling of the number of batteries after the hearing. He notes that in the event of an emergency during the summer, the true first responders will be pool staff, especially if pool members are injured. He fears that the wooden fence could increase the danger by creating debris and shrapnel in the event of an explosion, and questions whether lifeguards at the pool would need training in dealing with hazardous materials. If so, he asks who would pay for that training, the Swim Club or T-Mobile. Mr. Gervase's detailed comments on the proposed landscaping are described in Part III.D. above, and his concerns about the utility lines are addressed in Part III.H.

Kathryn Hopps is a Hillandale resident, a former Cresthaven Elementary school parent, a current Key Middle School parent and a member of the Cresthaven renovation committee. She provided both testimony and written submissions in opposition to the petition. *See* Exs. 42 and 164. Ms. Hopps argues that the proposed facility should not be permitted because it would mar the

aesthetics of the new elementary school planned on the subject site, which will be built into the slope of the lot on three levels. In her view, the monopole would detract from the view of the trees and be aesthetically incompatible.[15] In Ms. Hopps' view, the proposed 41-foot setback from the property line is inadequate.[16] As she correctly notes, the location shown for the school expansion on current drawings would put the school much closer to the location proposed for the cell tower. *See* Exs. 42 (b) and (c). After the hearing, Ms. Hopps submitted documentation showing that on March 11, 2008 the Board of Education has approved "preliminary plans" for the modernization of Cresthaven Elementary School. *See* Ex. 164, Attachment A. She contends that contrary to Technical Staff's rough estimate, after the proposed expansion the school building will be approximately 110 feet from the location proposed for the monopole, which is within the "fall zone" for a 120-foot tower and, in her view, inappropriately close. *See* Ex. 164. Ms. Hopps also notes that while Technical Staff discussed the prevalence of tall poles such as flagpoles, parking lights and stadium lights on school properties, he ignored variations among schools, and specifically how facilities at elementary schools differ from high schools. She observes that the vast majority of cell towers on public school properties are at high schools. *See* Ex. 164 at 2. Ms. Hopps notes that the flagpole at Cresthaven Elementary School is a standard, modest flagpole, about 100 feet shorter and much narrower than the oversized flagpole proposed in this application. She asserts that Creshaven Elementary has "low and lean" parking lot lighting, in keeping with the scale proposed for the new school building, and as an elementary school, has neither a stadium nor stadium lighting.

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[15] Ms. Hopps points out that the proposed tower would violate the Montgomery County Public Schools (MCPS) policy that no site should be considered for a telecommunications facility unless it can satisfy standard setback requirements. *See* Ex. 42. As stated in the Board of Education's policy document concerning telecommunication facilities, which Ms. Hopps submitted into the record, this policy applies to cell tower sites proposed on property owned by the Board of Education. *See* Ex. 42(a). In the Hearing Examiner's view, this policy is likely designed to protect the surrounding community from undue adverse impacts, not to protect the schools, since the setback requirements establish minimum distances from property lines and off-site dwellings, but not from on-site structures such as a school building. Accordingly, its relevance to the present situation is marginal.

[16] Ms. Hopps suggests that 41 feet is smaller than the setback that would be required in an industrial or commercial zone, but in this she is incorrect. Many industrial and commercial zones in Montgomery County require no side setback or very minimal side setbacks. Moreover, the Zoning Ordinance specifically authorizes the Board to permit a setback as low as the requirement for the zone in which the property is located, which in this case is eight feet.

Ms. Hopps states that the proposed facility would be in full view of the new Key Middle School, although a submitted photograph suggests that only the top of the pole would be visible. *See* Exhibit 70(e) on page 41 above. She argues that the beautification of Hillandale with taxpayer funds represented by the school construction and renovation would be undercut by installing a cell tower between them. She suggests that the County should be more concerned with the needs of the 47 percent of Cresthaven students who are approved for free and reduced-price lunches, as well as the rest of the community, than with corporate interests. *See* Tr. Jan. 4 at 155, Ex. 93. Ms. Hopps argues that constructing the proposed monopole would send a signal to prospective staff and middle-class parents that not only has the average income of families sending children to Cresthaven Elementary fallen, the neighborhood is becoming less desirable, leading more people to put their children in schools with a higher proportion of middle class students. *See* Ex. 164.

Ms. Hopps is concerned that middle school students, some of whom walk through the subject site to get to school, will climb the fence around the equipment compound and have access to the equipment inside. T-Mobile responds that even if someone climbs the eight-foot fence, the equipment cabinets will be locked.

Finally, Ms. Hopps joins the ranks of those who believe the proposed facility would have an unacceptable visual impact on the neighborhood in general, would lead to reductions in property values, and should be removed if the Swim Club closes.

Richard Present, Susan Present's husband, provided testimony and three written submissions. *See* Tr. Feb. 1 at 177-84, Exs. 45, 122 and 158. He argued that T-Mobile failed to demonstrate a need for the proposed facility in the community. Mr. Present notes that the present application has created a schism in the West Hillandale neighborhood between supporters of the monopole, who are mostly Swim Club members, and opponents, who mostly are not members of the pool. He describes his wife and himself as rarities: long-term Swim Club members who oppose the monopole. Mr. Present is not confident that the Swim Club will survive long-term, even if the monopole is installed. He submitted a December 2007 letter from the Swim Club board to the

membership, describing a need to raise $25,000 for repairs by February, in addition to the normal annual budget, and indicating that the Swim Club's reserves are virtually exhausted. *See* Ex. 122(a). In Mr. Present's view, the Swim Club should solve its financial problems itself, not by "inflicting harm on the community in the form of reduced property values and a large compound and cell tower that is unharmonious with our neighborhood." Ex. 158(a); Tr. Feb. 1 at 183. He argues that it defies common sense to suggest that the proposed facility would not be detrimental to the neighborhood.

Mr. Present reviewed the 90 signatures submitted in support of this application and 70 signatures submitted in opposition, and found that households within the general neighborhood designated by Staff oppose the monopole by a ratio of more than four to one. *See* Ex. 158(a) at 2. In Mr. Present's view, this means that the people who live near the subject site are overwhelmingly saying they are satisfied with their cell phone service and do not want the proposed facility.

Susan Present stated in a post-hearing submission that her professional background includes "many years developing and enforcing residential health and safety regulations," and that she has served as an expert witness in court on matters of health and safety. *See* Ex. 158 at 7. If this information had been provided during the hearing, Petitioner's counsel and the Hearing Examiner might have questioned Ms. Present about her professional credentials, allowing the Hearing Examiner to determine what weight to give to her testimony. In light of the vague description of Ms. Present's professional background in her post-hearing submission and the lack of any reference to it during her testimony, she will be considered a lay witness.

Ms. Present's arguments have already been discussed in previous sections. In addition to her testimony and questioning of witnesses, Ms. Present provided voluminous documentary evidence in support of her arguments, which is listed below.

(1) A copy of the Environmental Planning memorandum attached to the Staff Report. *See* Ex. 48(b).

(2) Four photographs depicting the view of the subject site from different locations in the neighborhood, which are reproduced on page 88 above. *See* Ex. 48(c).

(3) A diagram that apparently was part of T-Mobile's application to the Tower Commission, with a detailed view of equipment showing a connection point for a generator. *See* Ex. 48(d).

(4) A copy of an FCC ruling concerning the requirement for back-up power at cell sites. *See* Ex. 48(e).

(5) An article from a web site about the FCC ruling requiring back-up power at cell sites. *See* Ex. 48(f).

(6) An article from a web site about the use of generators for back-up power at Verizon cell sites, which includes storing 250 gallons of diesel fuel in above-ground tanks at each site. *See* Ex 48(g).

(7) A copy of Montgomery County Executive Regulation 17-03, pertaining to the issuance of Hazardous Materials Use Permits. *See* Ex. 48(h).

(8) A copy of an article from *The Hillandaler*, which appears to be a neighborhood newsletter, describing the present application and showing the relationship of the proposed tower location to the new school building proposed next door. *See* Ex. 48(i).

(9) A Continuation Sheet from the National Register of Historic Places entitled "Subdivisions and Architecture Planned and Designed by Charles M. Goodman Associates in Montgomery County, Maryland." *See* Exs. 48(j), (l) and (m).

(10) A real estate listing for a property at 1000 La Grande Road, describing it prominently as "A Goodman Contemporary." *See* Ex. 48(k).

(11) Minutes of the Tower Commission meeting at which the present application was considered. *See* Ex. 48(n).

(12) An excerpt from the Hearing Examiner's Report and Recommendation in the Oakview Swim Club case, Special Exception No. S-2669, describing testimony

about the need for seamless coverage for public convenience and service. *See* Ex. 48(o).

(13) Pages from web sites for T-Mobile, AT&T and Sprint regarding service levels in the Hillandale area. *See* Ex. 48(p).

(14) A page that appears to have been extracted from T-Mobile's application to the Tower Commission, which states that some sites T-Mobile considered as alternatives to the subject site were rejected because they would not provide coverage to the Burnt Mills residential area. *See* Ex. 48(q).

(15) A copy of a map of the Hillandale area that was submitted by community member Royal Fuchs, which identifies homes whose residents signed a petition in opposition to the proposed cell tower. *See* Ex. 48(r).

(16) Five Staff Reports from Mandatory Referral cases considered by the Planning Board in 2004 and 2005, which recommended approval of telecommunications facilities on school properties. All of the facilities had equipment enclosures much smaller than proposed in this case. *See* Exs. 123(a)-(d).

(17) A Staff Report issued by the City of Rockville Planning Division on November 9, 2006 regarding a proposed 50-foot monopole with a 1,000-square-foot equipment compound. *See* Ex. 123(f).

(18) A model Water Tank Site Lease Agreement between the Washington Suburban Sanitary Commission and a hypothetical telecommunications provider to allow cell phone antennas to be placed on a water tower. *See* Ex. 123(g).

(19) A page that appears to be excerpted from a lease between T-Mobile and the Oakview Swim Club, giving the Swim Club the option to terminate the lease after 20 years, with payment of undisclosed sums for the next ten years, if the Swim Club decides to use the leased premises for its development of the property. *See* Ex. 123(h).

(20) A map of the Hillandale Area that identifies the area represented by the Burnt Mills Citizens Association. *See* Ex. 148.

(21) A map showing the locations of existing T-Mobile sites in the Hillandale area, as well as suggested co-location sites such as the National Labor College and the fire department. *See* Ex. 149.

(22) Photographs of four new, larger homes that have recently been built in the Hillandale area. *See* Exs. 147(a) through (d).

(23) Two photographs of a house with a view of the monopole on the Bullis School campus, one with the tower visible and one without. *See* Exs. 146(a) and (b).

(24) A compound detail map for the Oakview Swim Club telecommunications facility. *See* Ex. 159(a).

(25) A series of documents related to T-Mobile's petition for a special exception from the City of Rockville to install a cell tower on the grounds of Julius West Middle School. *See* Ex. 159(b).

(26) A list of all T-Mobile sites in Montgomery County that T-Mobile provided to Ms. Present with a statement that all T-Mobile sites have back-up battery power inside the equipment cabinets, and that T-Mobile may bring temporary generators to the site in the event of an extended power outage. *See* Ex. 159(c).

(27) Drawings showing the monopole/light pole elevation and compound detail for a telecommunications facility installed on an extension to a light pole at Blake High School. *See* Ex. 159(d).

(28) A drawing showing a telecommunications facility proposed on an extension to a light pole at Wheaton High School. *See* Ex. 159(e).

(29) An article entitled "Lead-Acid Battery Hazards," by Robert L. Taylor. *See* Ex. 159(f).

(30) An email from Robert Hunnicutt attaching an FCC order regarding cell carriers' obligation to complete 911 calls for any cell phone user. *See* Ex. 159(g).

(31) An FCC Order dated July 17, 2003 adopting a consent decree that terminated an investigation into possible violation by T-Mobile of certain FCC rules related to E911 service. *See* Ex. 159(h). A cursory review of the Order suggests that the primary issue was a particular technological approach proposed by T-Mobile.

(32) Testimony before the Subcommittee on Communications, Committee on Commerce, Science and Transportation, United States Senate, March 5, 2003 by Michael Amarosa, Senior Vice President, Trueposition, Inc. *See* Ex. 159(i). The testimony related to E911 service, described as the technology that locates individuals calling for help from a wireless phone.

Ida Ruben has lived in the Hillandale area for 45 years. She resides on Schindler Court, backing up to the Swim Club property, is a member of Swim Club, and would love to see the Swim Club continue. Ms. Ruben is, nonetheless, opposed to the present application due to the adverse effects she expects, and provided both testimony and two written submissions. *See* Tr. Jan. 4 at 249-77, Exs. 125 and 126. She pointed out that most Swim Club members drive to the pool, so many of those supporting this project may not live very close to the pool. Ms. Ruben argues that when T-Mobile floated a balloon at the intended 120-foot height and took pictures for its photo simulations, the neighborhood should have been notified so that they could see the balloon themselves. The Hearing Examiner agrees that this would have been helpful to the community's understanding of the proposal, but does not consider it appropriate to require T-Mobile to go through that exercise – which the Zoning Ordinance does not require – a second time. Ms. Ruben's testimony concerning the visual and property value impact of the proposed facility is described in Part III.D. above.

Ms. Ruben, a former member of the State Senate, observed that legislation is under consideration by the Montgomery County delegation to the State Senate that would prohibit cell

towers from being located on the grounds of elementary and middle schools in Montgomery County. *See* Tr. Jan. 4 at 272, Ex. 126. In her view, this legislation supports the position that cell towers should not be placed on or near the grounds of an elementary school, particularly where, as in this case, the normal setback requirement is not met. In Ms. Ruben's view, cell towers do not belong in residential neighborhoods, and the Swim Club should not ask the neighbors to solve its financial problems by burdening them with a cell tower that will devalue their homes.

Doris Stelle is a long-time West Hillandale resident and her son, Benjamin Stelle, lives directly across the street from the Swim Club. Ms. Stelle testified and wrote in opposition. *See* Tr. Feb. 1 at 153-61, Exs. 47 and 166. Ms. Stelle objects to the proposed facility based on its visual impact and possible economic and safety impacts. She argues that too much attention has focused on the flagpole, and not enough on the equipment compound. Ms. Stelle suggests that a 1999 article cited by Technical Staff regarding the impacts of monopoles on nearby properties is so old it should be considered an anachronism. She also argued that the small rental payment the pool would receive is not worth the impact on the neighborhood, pointing out that other nearby cell tower locations have larger rents and less obtrusive installations: a nearby church where the antennas are in the steeple and the equipment cabinets are in a brick, chapel-like building, and the Oakview Swim Club, where the entire installation is at the back of the property, facing a ravine and I-495.

Emma Stelle lives with her husband Benjamin Stelle in the house directly across Schindler Drive from the subject site. She testified and submitted a letter in opposition. *See* Tr. Jan. 4 at 91-97, Ex. 49. Ms. Stelle stated that the proposed facility would be very visible from her home, that the equipment compound (as originally proposed) would be "massive," and that a 120-foot tower would be 40 feet higher than the trees on the subject property, which are all deciduous and therefore have no leaf coverage for at least four or five months each year. Ms. Stelle also voiced concerns based on the mistaken belief that the installation would include a generator. She stated that her block suffers from frequent power outages due to the large number of tall trees in the area, averaging once a month since June 2007, often for several hours at a time, and she was concerned about the noise

and fumes associated with a generator. The Hearing Examiner has recommended denial of the present application due to insufficient information about the proposed form of back-up power, 16 lead-acid batteries. It has been established, however, that T-Mobile does not intend to keep a generator on site for regular use, and intends to bring one to the site only in the event of a lengthy power outage. The Hearing Examiner does not consider potential occasional use of an emergency generator grounds for denial of the present application.

Carol and Benjamin Stelle also submitted a joint letter, voicing similar concerns about negative visual impact and detrimental impact on property value. *See* Ex. 20.

4. Letters in Opposition

David Bayer, who resides at 1001 Ruppert Road, argues that it is shortsighted for Technical Staff to rely on trees as a visual buffer without some legal requirement that the trees be maintained in perpetuity. *See* Ex. 165. Even with the trees, Mr. Bayer fears that the proposed monopole would still have significant and damaging visual impacts on nearby homes, including his own, due to the slope of the land. He further contends that adverse health and safety impacts from the back-up batteries, the stigma of the cell tower and the development restrictions imposed by the absence of a termination clause in the lease would result in adverse economic impacts on surrounding properties and the subject site.

Shirley Harris wrote in opposition to the proposed facility based on its visual impact, potential property value impact and safety concerns related to the mistaken belief that the proposal include a generator. *See* Ex. 39. She argued that the large scale of the proposed monopole and the bulk of the 5,000-square-foot compound (a mistaken impression; the compound was originally proposed at 2,500 square feet and is now proposed at 1,855 square feet) would be inharmonious with the general character of the neighborhood. She argued that the possibility of the Swim Club closing with the monopole still in place would have a detrimental effect on local property values, and that the neighborhood already has superior cell phone coverage, so the proposed facility is not needed.

Jean and Tom Helfand have lived on Cresthaven Drive, across from the elementary school, for 27 years. *See* Ex. 44. They value the "good-neighborliness, diversity and appearance" of their neighborhood. Having served on the Swim Club board in the past, they hope the pool will remain. They oppose the monopole not because of the view from their house, which would be just the flagpole poking above the tree line a few hundred yards away, but because it would be within view of the beautifully renovated elementary school; it would be intrusive in many ways to neighboring residences; the lease would not protect the community in the event that the Swim Club closes; and the facility would not benefit the Helfands, who enjoy excellent cell phone reception through Verizon. Ultimately, they believe that a telecommunications facility in the middle of a residential community, particularly one of dubious need, is wrong.

Kyong Hyon has lived on Cresthaven Drive in West Hillandale since 1992. *See* Ex. 40. Mr. Hyon[17] recently demolished his 1,400-square-foot house and has a 7,000-square-foot house under construction on the site. He notes that many other houses in the neighborhood have been rebuilt or remodeled, and he expects more such activity as employment on the FDA campus expands. Mr. Hyong fears the installation of the proposed facility would make his neighbors hesitate to make similar investments for several reasons: fear that expanding the footprint of a home would bring it within the fall zone of the monopole (the Hearing Examiner notes that this would be an unfounded fear, since the 120-foot tower would be at least 300 feet from all existing off-site dwellings, and none of the adjacent lots appears to be large enough to expand the footprint of the homes to within a 120-foot distance); the monopole would lead to reduced real estate values in the neighborhood; and the reduction in the value of the Swim Club property due to lost development potential would further reduce real estate values in the neighborhood. Mr. Hyon contends that the proposed facility would be out of place, and would destroy his quiet Hillandale neighborhood.

[17] My apologies if Kyong Hyon should be addressed as "Ms." Rather than "Mr." My knowledge of asian names is not adequate to tell whether this is a female or a male name.

Reuven Lev-Tov, whose home of 36 years is separated from the subject site by a small swath of woodland owned by Montgomery County, argues that the proposed monopole would be an eyesore and would devalue surrounding properties, including his own, without providing any benefit. *See* Ex. 108. He considers this an unfair and unconstitutional taking of his property without compensation. He reminds the Board members they were appointed to carry out the public trust and as such, act in a fiduciary capacity. Mr. Lev-Tov suggests that if the Board intends to grant the present petition, all the details of the financial arrangements underlying the transaction should be obtained and published so the public may be privy to them. This, in the Hearing Examiner's view, would go well beyond the Board's purview in evaluating the present application, which is largely unrelated to the financial arrangements between the two petitioners.

Irma and John McNelia live at 926 Schindler Drive, near the subject site. *See* Ex. 27(b). They have lived at this location, within view of the pool, for 40 years and were members of the Swim Club when their children were young. The McNelias fear that the Swim Club will close and the community, which will receive no benefit from the sale of the land, will be stuck with the cell tower. They argue that this facility would sacrifice the community's property values and safety for business interests and the interests of Swim Club members who do not live in the affected area. They consider a cell tower a bad choice for a well-established residential community.

Myra and Benjamin Posin, residents of LaGrande Road "within sight of the tower," contend that the monopole would be "a blot on the landscape and a possible noise and health problem." *See* Ex. 127. They argue that the facility would decrease property values and is not necessary, because the cell phone company already operates in the immediate area without this tower.

Carol Steinberg, a Ruppert Road resident, wrote three letters in opposition. *See* Exs. 14, 43 and 156. She objects to a cell tower in her neighborhood, arguing that it would be unsightly and possibly unhealthy. She objects to having a cell tower in the view from her home, which is next door to the subject site, and to the prospect of hearing a generator during power outages. Ms.

Steinberg contends that she would not have purchased her home with a monopole on the subject site, so she believes others would feel the same, devaluing her home. She is concerned that no one will be interested in buying the subject property if the tower is built and the Swim Club fails. Ms. Steinberg notes that she has good cell phone reception, so this proposal would be of no benefit to her.

Ms. Steinberg was alarmed by the increased number of back-up batteries T-Mobile plans at the site, and the increased risk of hazardous materials leakage. She maintains that her neighborhood is more sensitive than most to fears about explosions, because a house on Cresthaven Drive exploded in 2001, killing two people and traumatizing residents. In her capacity as a clinical psychologist, Ms. Steinberg has treated people in the neighborhood for post-traumatic stress disorder, and she believes that the installation of the proposed facility and its possible hazards would be extremely stressful.

The co-presidents of the adjacent elementary school wrote two letters. The first stated a concern about diesel fuel being stored so close to the school, to power the generator that was mistakenly assumed to be part of the proposal, and voiced support for the citizens of Hillandale in their efforts to address this situation with T-Mobile. *See* Ex. 74. The second letter, apparently written after it became known that T-Mobile does not propose a permanent generator or fuel storage, states that the PTA co-presidents "express our support and acknowledge the efforts of the Hillandale Community in working with T-Mobile to clarify T-Mobile's intentions regarding the monopole installation…". *See* Ex. 150. The Hearing Examiner is at a loss to interpret the ambiguous wording of this letter, and therefore accords it no weight.

IV. SUMMARY OF HEARING

A. Applicant's Case in Chief

1. Shauna Garver, Hillandale Swim Club. Tr. Jan. 4 at 19-45.

Ms. Garver has been a member of the board of directors of the Hillandale Swim Club for one year and a member of the pool for three years. She testified that the Swim Club has been in

existence for about 48 years, and is both serving as co-applicant for the proposed telecommunications facility special exception and seeking a modification of the Swim Club's special exception to permit the telecommunications facility.

Ms. Garver stated that the Swim Club board of directors is responsible for ensuring the operation of the pool each year, which includes keep it safe, keeping up the maintenance and getting new members. She described the Swim Club as a volunteer effort and a vital element of the community for many people. Ms. Garver stated that her community is under-served with regard to parks and other recreational facilities, and many neighborhood children attend private schools or specialized schools, so the pool serves as the only place where neighbors and neighborhood children can get together in a social setting. For Ms. Garver, the pool has opened up a sense of community, including a softball league and a soccer league.

Ms. Garver noted that the Swim Club has been experiencing financial strain for some years due to lower membership levels, and decided to investigate finding revenue streams that would help the pool survive until membership numbers increase, and make some infrastructure improvements. The board had discussed having a cell tower on the property for several years, but they couldn't find a service that was interested until T-Mobile approached the pool in 2007. The pool membership had voted two or three times to support having a cell tower on the property, so the board signed a contract with T-Mobile. Installation of the cell tower would give the Swim Club a guaranteed revenue stream that it can take loans against, instead of taking loans against the property itself and risking losing the property. Ms. Garver added that loans may not be necessary, as the pool has had a good initial response to a 50th-anniversary capital campaign, but the additional income would nonetheless be helpful to the pool's financial stability.

Ms. Garver spent a good deal of the summer talking to people and trying to find out their views on the proposed tower. For a long time she found overwhelming support for the tower, and she wrote a form letter supporting the application which "everyone" signed.

Ms. Garver opined that the pool “has a very good chance of surviving long term.” She commented that the cell tower issue has brought attention to the pool’s role in the community, mobilizing and re-energizing people. She noted that the Swim Club just had elections for the board and has some new board members who are very ambitious and energetic. She believes this will go a long way toward reversing the trend the pool has experienced over the last few years. Ms. Garver stated that the continuation of the cell tower lease if the pool closes was not a subject of negotiation between the Swim Club and T-Mobile, although the board was aware of the lease provision that automatically transfers the lease to a new property owner if the property is sold. The board felt overwhelmingly that it was in the best interest of the community to see the pool survive, and that was the overriding concern.

Ms. Garver stated that the Swim Club had limited involvement in deciding where the cell tower would be located on the site. The board felt that the proposed location next to the tree line would have good screening. In her view, other cell towers in the area are not very noticeable, and sort of blend in with the tree tops. There was some discussion of locating the tower in the rear of the property, but that would create setback problems from some homes, would require a road to be built to gain access to that part of the property and would involve cutting down trees. The board did not feel that would be a very attractive option.

Community member Royal Fuchs asked Ms. Garver to what degree the Swim Club or its membership considered the effect a cell tower might have on pool membership. Ms. Garver replied that they expect a positive impact, as the income would enable the pool to make some infrastructure improvements while keeping membership fees down. She considers cell towers ubiquitous, and does not believe people will turn away from the pool because of this one. When Mr. Fuchs suggested that the pool is not really used very much, Ms. Garver countered that usage is very good, noting that the swim team had 60 to 80 members last year, and several social events.

When asked about community outreach, Ms. Garver conceded that the pool board had not systematically contacted all of the neighbors who live adjacent to the pool or directly across from it. She described outreach efforts as "hit and miss." Tr. at 44.

2. Gus Druedson, T-Mobile engineer. Tr. Jan. 4 at 55-79, 84-86.

Mr. Druedson has been working in the engineering field for seven years, including three years exclusively on wireless communications facilities. He is not, however, a professional engineer and was not proposed as an expert witness. His role, once a property has been selected, is to help determine the best location for a facility on the site.

Mr. Druedson present revised site plan drawings that show the proposed cell tower as a flagpole, rather than a traditional monopole. He briefly described the five-acre site, noting that T-Mobile proposes to use the existing parking lot as the drive to the equipment compound. Mr. Druedson identified salient features on an aerial photograph of the site and several at-grade photographs. He discussed setback and location issues as noted in Part III.D. above, and described how monopole construction is designed to avoid a falling tower, as discussed in Part III.E.

Community member Ida Ruben asked whether any photos were available of the site at a time of year when the leaves are bare. Mr. Druedson replied that the aerial photograph was taken when the leaves were bare, but not the others. In response to a question from Ms. Present, he confirmed that at the proposed location in front of the pool building, the facilities would not require removing any trees. Addressing the slope of the property, Mr. Druedson explained that if the land is flat, they put the compound on a concrete slab. In this case, where the land is sloped, the compound equipment would be placed on a metal platform sitting on two steel beams and concrete piers, rather than a concrete pad. Using a concrete pad, he explained, would require a lot of grading. Concrete tiers of varying heights would allow the platform itself to be level, without doing extensive grading. Mr. Druedson added that all of the equipment inside the compound would be below the top of the fence, and therefore not visible from the outside.

3. Matthew Chaney, T-Mobile consultant. Tr. Jan. 4 at 79-84, 202-247; Tr. Feb. 1 at 147-152, 186-192.

Mr. Chaney is an employee of Network Building Consulting, which has been working with T-Mobile for a number of years. He has served as the zoning project manager for T-Mobile Northeast since October 2005, working out of T-Mobile's office. He was not proffered as an expert witness. When a potential new site is identified, Mr. Chaney's job is to make sure that all zoning requirements would be met, and "to find good solutions to these, one that is palatable to as many people" as possible. Tr. Jan. 4 at 203.

Mr. Chaney identified a series of photographs that include simulations of what the proposed tower would look like on the site (Exs. 70(a) through (g)). When asked why there were no photographs taken from Schindler Court, Ruppert Drive or Cresthaven Drive, all of which surround the subject site, Mr. Chaney stated that the person who took the photos was directed to drive around and take pictures from wherever the tower would be visible. He also explained that the Tower Commission asked for photographs starting about a mile away and moving in.

Responding to a concern raised by community members, Mr. Chaney testified that the proposed facility would not have a permanent generator on site. *See id.* at 204. He explained that the equipment would include a battery back-up unit to provide emergency power for several hours, and that a generator would be used only in an emergency situation like a hurricane or an ice storm. The back-up batteries, he noted, would not generate noise, fumes or light.

Mr. Chaney stated that the process by which T-Mobile identifies a need to enhance coverage begins with a determination by the RF engineers, usually through customer complaints, that an area needs additional coverage. Mr. Chaney and his team look first for potential co-location opportunities such as existing telecommunications towers, tall rooftops, water tanks, or utility transmission lines. He described co-location as a better solution for all parties involved. Only if no viable co-location opportunity can be found do they being looking for parcels to erect a freestanding pole. *See id.* at 206. Referring to a map showing the location of T-Mobile's existing sites in the

general area of the subject property (Ex. 75), Mr. Chaney noted that these include three locations on top of multi-family apartment buildings and a free-standing pole on the grounds of the Oakview Swim Club, with the subject site fairly close to a spot in the middle of the existing sites.

Mr. Chaney stated that appropriate parcels for a new tower have as much existing screening as possible, to minimize the visual impact. They also have to meet code requirements, and serve the RF objectives. The best thing is a nice, large parcel with huge trees that is far away from houses. If that isn't available, Mr. Chaney looks for the biggest parcel with the most screening and distance from homes that is available.

Mr. Chaney stated that his team was unable to find any viable co-location opportunities to serve the area that would be served by the subject site. They identified two possible sites on New Hampshire Avenue, but the RF department said they were too close to existing T-Mobile facilities. Mr. Chaney explained that facilities located too close together duplicate existing coverage rather than improving it. He noted that he approached the FDA about locating on their campus and was told that it had no interest in leasing to T-Mobile. That, Mr. Chaney stated, ruled out most of the large rooftops along Route 29 and New Hampshire Avenue. *See id.* at 210.

Mr. Chaney stated that his team then began looking for a site for a free-standing facility. T-Mobile has done many sites with the Montgomery County Public Schools, and they approached Key Middle School, located diagonally across the street from the Hillandale Swim Club. However, the middle school was not interested because they were planning major construction in 2009. Mr. Chaney also approached MNCPPC regarding a park located just south of the FDA campus on New Hampshire Avenue, but they were not interested. *See id.* at 210.

Mr. Chaney reported that based on the Tower Committee's database, Sprint, Montgomery County, Excel, Metrocom, T-Mobile and Verizon all have approvals for facilities on the rooftops of a series of high-rise multi-family buildings located in the area of the subject site, known as The Enclave (formerly Berkshire Towers).

Turning to the location proposed for the monopole and equipment compound on the subject site, Mr. Chaney stated that the proposed location is the best they could find from a visual impact standpoint. It is in a corner near the parking lot, it doesn't require removing any trees and it makes the best possible use of existing trees for screening. *See* Tr Jan. 4 at 213. Mr. Chaney opined, as a lay person, that the proposed special exception would be consistent with the applicable master plan, would be in harmony with the general character of the neighborhood, would not have any detrimental impact on the use, enjoyment or economic value of surrounding properties and would not have an adverse effect on health, safety or security in the area. *See id.* at 214-216. He noted that the only traffic generated would be one vehicle every six to eight weeks for maintenance. Mr. Chaney stated that the proposed use would not involve any lighting,[18] nor would it generate noise, vibrations, fumes or odors. The only signage would be the required two-foot notification sign, and all equipment would be stored within the fenced compound.

Mr. Chaney stated that the only public services the proposed use would need are electricity and telephone, both of which are already available on site. He represented that if the tower is built, T-Mobile will take it down if it is not used by a cell carrier for a period of more than 12 months. *See* Tr. Jan. 4 at 217. T-Mobile's counsel, Sean Hughes, stated that Mr. Chaney is authorized to make representations on behalf of T-Mobile, although he is not a T-Mobile employee. *See id.* at 218.

In response to a question from the Hearing Examiner, Mr. Chaney addressed in more detail the generator issue raised by neighbors. He acknowledged that a drawing of the equipment cabinet shows a generator receptacle, which is there to allow a generator to be plugged in during an emergency. He noted that the generator receptacle is a standard part of the cabinets, and is not added especially for T-Mobile. Mr. Chaney is not directly involved in the operation of cell phone sites and has only been involved with T-Mobile for about 18 months, so he was not a good source of information as to how often T-Mobile actually brings generators to its sites. It is his understanding that

[18] This turned out to be less than fully accurate, as discussed in Part III.H.

T-Mobile will bring a generator to a site if the power is going to out for many, many hours or a day. *See* Tr. Jan. 4 at 240.

Community member Susan Present asked Mr. Chaney why the compound proposed in this case, at 2,500 square feet, is so much larger than the 800-square-foot compound that was built at the Oakview Swim Club. Mr. Chaney did not work on the Oakview Swim Club site, but looking at the site plan, he first stated that if another carrier wanted to co-locate there, they would have to expand the compound. *See* Tr. Jan. 4 at 233. Later he conceded that it might be possible to fit other carriers within the 800-foot compound, depending on how many cabinets they wanted to install. *See* Tr. Jan. 4 at 236. Mr. Chaney noted that the present application provides enough room in the compound for T-Mobile and other carriers, and he considers the 2,500 square-foot size typical for a facility like this. He testified that T-Mobile seeks a compound for every new, multi-carrier, raw land facility at a standard 50-foot-by-50-foot size, unless there are property characteristics such as not having a large enough open area that require changing the compound shape or making it smaller. In addition, for a multi-carrier facility, sometimes the lease requires T-Mobile to build a compound only large enough for its own use, leaving it to potential future co-locators to build their own compounds or add on to T-Mobile's. *See* Tr. Feb. 1 at 150.

Mr. Chaney testified that if other carriers co-locate on the proposed facility, their antennas will be inside the flagpole, not sticking out on the outside. *See* Tr. Jan. 4 at 239.

Community members asked Mr. Chaney whether T-Mobile had considered various locations in the area, such as the White Oak Shopping Center. In each case, Mr. Chaney indicated that the location suggested was too close to an existing T-Mobile site to be useful. He emphasized that it would be quicker, cheaper and more certain of approval to install a new facility on an existing structure, so T-Mobile only proposes a new free-standing structure when necessary. When asked by Ms. Present why T-Mobile had not considered the National Labor College or the Center for the Handicapped as locations, Mr. Chaney could not answer; he did not know why those were not identified for the RF department to consider as potential sites. *See* Tr. Feb. 1. at 191.

Mr. Chaney testified that in his experience, most leases for cell phone towers provide that the lease continues if the property changes hands. *See* Tr. Jan. 4 at 245-46. Mr. Hughes, who has represented cell phone companies for ten years, confirmed that due to the sizeable investments involved, leases for cell phone sites and most commercial businesses typically provide that they continue if the property changes hands. *See id.* at 246.

Mr. Chaney made a commitment on T-Mobile's behalf, if the special exception is approve, to either comply with the County's regulation regarding hazardous material storage notification or have an agreement with the County or "appropriate adjudication" that makes sure the company is in compliance. *See* Tr. Feb. 1 at 189. Mr. Chaney has not personally been involved in the discussions with Montgomery County about this issue.

4. Jules Cohen, RF engineer. Tr. Jan. 4 at 96-107, 146-150.

Mr. Cohen was designated an expert in radio frequency engineering. He testified that T-Mobile asked him to review the amount of exposure expected from the proposed installation and the field strength expected at the FDA campus. He concluded that the maximum RF exposure to the public would be at least 5,000 pounds below the standard that has been set by the FCC. He further concluded that the field strength at the FDA campus would be at a low level, certainly below one volt per meter. Considering the likely ambient field strength at the FDA campus because of other telecommunications, radio and television facilities nearby, Mr. Cohen opined that the proposed facility would add a minor component to the total field strength. In addition, he noted, FDA has indicated that they have shielded their testing facilities, so there would be no impact on sensitive equipment. Mr. Cohen observed that without protective shielding, the FDA campus, located in Silver Spring near New Hampshire Avenue, Route 29 and I-495, would not be a suitable place to test sensitive equipment.

Mr. Cohen was questioned by two FDA scientists, Howard Bassen and Charles Warr. The FDA was represented by counsel on the second hearing day, but at the first hearing day no counsel was present for the agency, so Mr. Bassen and Mr. Warr were permitted to ask questions directly. Mr. Cohen conceded that he did not have detailed knowledge of all of the test facilities and

equipment, outdoors and indoors, throughout the six or seven large buildings on the FDA campus. He stated that his conclusion about the minor impact of the proposed telecommunications facility was based on an assumption that other existing facilities must have established field strength at the FDA site, including some in the same band width (1900 megahertz) that T-Mobile proposes to use. He conceded that he did not have any data about field strength from other, existing sources, but opined, based on his engineering judgment, that because of the number of nearby transmitting devices, their field strength is probably in excess of what the proposed T-Mobile facility would produce. Mr. Cohen noted that he had been given a list of six transmitting devised located at Berkshire Towers, which is close to the FDA site. These consist of four cell phone towers, a Montgomery County communications system and one other device that has not been specifically identified.

Mr. Cohen conceded that potential impacts from possible future co-locators on the proposed tower cannot be estimated at this time, because potential co-locators have not been identified. A discussion took place between Mr. Bassen and applicant's counsel, Sean Hughes, who explained that if the special exception is approved and implemented, any company seeking to co-locate on the flagpole would need to submit an application to the Tower Committee. That application would have to demonstrate, among other things, that overall RF emissions with the combined facilities would be below the limit established by the FCC. *See* Tr. Jan. 4 at 104. Mr. Hughes acknowledged that the Tower Committee does not send out notices of their hearings, so interested parties have to monitor their agenda.

5. Oakleigh Thorne, real estate consultant. Tr. Jan. 4 at 171-202.

Mr. Thorne was designated an expert in real estate appraisal and impact analysis. His testimony and written submissions are discussed in Part III.D. above.

6. Pavan Kumar Dandapanthula, RF engineer. Tr. Feb. 1 at 14-66.

Mr. Dandapanthula designs cell tower sites for T-Mobile, and was designated an expert in radio frequency engineering and cell tower design. He testified that T-Mobile routinely monitors all of its existing sites to track things like the number of calls being carried, the number of dropped calls

and the number of customer complaints. He noted that the most common complaint currently is lack of service inside the home. If the complaints cross a certain threshold, T-Mobile's site acquisition team starts looking for a location for a new cell phone facility. In this case, the search area was roughly a half-mile radius around the Hillandale Swim Club site. Mr. Dandapanthula stated that he was given several candidate sites to consider, and chose the site proposed here "after careful consideration of . . . its potential to alleviate congestion" by providing additional capacity. Tr. Feb. 1 at 23. Two of the candidates were rooftop sites on existing buildings, but they were located 0.3 and 0.4 miles from an existing T-Mobile facility, and Mr. Dandapanthula considered them too close to provide useful coverage. He stated that the middle school across the street from the subject site would have worked just as well, but the school declined because of upcoming construction. He found that the site proposed here, at 120 feet, was the best candidate to meet T-Mobile's coverage objectives. In particular, he noted, it is almost equidistant from all of the existing sites in the area. *See id.* at 34.

Mr. Dandapanthula noted that a multitude of things can interfere with cell phone coverage, including topographic changes and vegetation. *See id.* at 25-26. He used an existing coverage map and a projected coverage map to demonstrate that the facility proposed here would improve indoor cell phone coverage within certain areas, and in-vehicle coverage in other areas. The two maps, Exhibits 11(a) and (b), attached as Appendix A, depict the location of each existing T-Mobile facility, with grey triangles to show each transmission "sector." Mr. Dandapanthula explained that a customer traveling in a vehicle may start a call in one sector, but the call will be handed off to other sectors as the person travels. The quality of the calls signals depends on the carrier having adequate capacity. Mr. Dandapanthula also stated that the carrier's capacity will affect the speed of data transmission for people who use their cell phones for email and document transmission.

Mr. Dandapanthula noted that a major challenge for wireless carriers today is to replicate the ability of emergency service providers to identify the location of someone calling 911 for help. *See* Tr. Feb. 1 at 34. Standard technology has thus far been able to locate a caller within about

a half-mile area. Mr. Dandapanthula stated that enhanced 911, or "e-911" technology now exists that can find the location of a mobile phone caller within 200 feet, but it only works where there is seamless, in-building cell phone coverage. This, he explained, is because the technology uses a triangulation method: the calls is tracked using the three strongest sectors serving that area to acquire coordinates for a particular location. Mr. Dandapanthula noted that statistics maintained by the wireless industry show that in 2007, cell phone users made 290,000 calls to 911 per day. In Montgomery County, T-Mobile's records show that the four cell phone sites in the area of the subject site handled a total of approximately 28,000 calls to 911 last year. *See* Tr. Feb. 1 at 37. Those sites are located at the Oakview Swim Club, The Chateau high-rise at I-495 and New Hampshire Avenue, The Enclave high-rise at Route 29 and New Hampshire Avenue, and the Quality Inn on Route 29.

Mr. Dandapanthula noted that T-Mobile has an additional facility on the FDA campus, installed at the FDA's request, but it serves the limited purpose of allowing customers to use their cell phones on a particular floor of a building that is heavy in concrete and metal, so that a variable RF signal cannot transmit. It does not have the functional capacity of a standard telecommunications facility. *See id.* at 22, 40.

Mr. Dandapanthula stated that overlapping coverage for cell phone facilities is sometimes necessary to overcome transmission obstacles such a dip in the topography that causes the signal to shoot over an area. A little bit of overlap is necessary to provide seamless coverage, but too much would just duplicate coverage that already exists.

Turning to the proposed flagpole design proposed in the present case, Mr. Dandapanthula testified that this design does not result in a drastic drop-off in performance compared to a typical monopole with arrays spread out at the top, although it makes maintenance more difficult. He stated that the structure proposed here would look like a typical flagpole, except a little wider. *See id.* at 44.

Counsel for the FDA asked Mr. Dandapanthula why T-Mobile proposes to set the antennas in a direction that will send the signal over the FDA campus. Mr. Dandapanthula replied

that the direction of the antennas is limited by the flagpole design, which limits T-Mobile to one antenna for each of the three sectors, and requires 120 degrees of separation between each antenna. If the antennas were oriented to avoid sending a signal over the FDA campus, Mr. Dandapanthula believes they would not be able to achieve T-Mobile's coverage goals.

In response to questioning by Ms. Present, Mr. Dandapanthula stated that he only evaluated the candidate sites that the site acquisition team brought to him. As a result, he did not identify other locations in the area such as the National Labor College or the fire station. *See* Tr. Feb. 1 at 52-53.

In response to questioning by Mr. Present, Mr. Dandapanthula stated that the did not have with him the coverage maps that would show the effect on coverage of the other candidate sites that the site acquisition team presented to him. *See id.* at 61. As the Hearing Examiner stated during the hearing, the Board of Appeals does not have the authority to examine alternate sites and direct an applicant to use a different location. The Tower Commission has the responsibility to look at evidence concerning alternative sites and make a technical judgment as to whether the site proposed is acceptable. *See* Tr. Feb. 1 at 61-62.

B. Government Representative

Barbara Moore, coordinator of the Hazardous Materials Use Program for the Montgomery County Department of Homeland Security and Emergency Management, testified in response to a subpoena that the Hearing Examiner issued at the request of Susan Present.[19] *See* Tr. Feb. 1 at 87-114.

Ms. Moore testified that the County's Hazardous Materials Use Permit Regulation, Executive Regulation 17-03, imposes a reporting requirement on any commercial business that stores a total of five gallons or more of hazardous materials. The purpose of this requirement is to protect the community and first responders. Ms. Moore explained that about 97 percent of the County's

[19] Ms. Moore is prohibited by homeland security laws from testifying or bringing documents to a legal proceeding except in response to a subpoena.

telecommunications facilities are in the "high use" category because they store batteries on site, a component of which is sulfuric acid, which is considered an extremely hazardous substance under federal law. Montgomery County considers any business that stores ten pounds or more of a hazardous substance to be in the "high use" category.[20] Ms. Moore also noted that any business that may bring an emergency generator to its site for even one day is supposed to include the hazardous materials associated with that generator, such as fuel, on its hazardous materials inventory.

Ms. Moore testified that all of the cell phone carriers operating in Montgomery County other than T-Mobile have reported their hazardous material storage and filed the required emergency plans. The emergency plan for a typical unmanned site is just to call 911, but the hazardous materials registration means that the County's HAZMAT team goes out in the event of an emergency and they know what's stored there. *See* Tr. Feb. 1 at 93. T-Mobile has approximately 155 cell phone sites in Montgomery County but has refused to register them as hazardous materials storage sites. Ms. Moore stated that the County Attorney is now involved in discussions with T-Mobile. She expects that T-Mobile will be required to file; the only questions are the time frame and the fee.

Ms. Moore stated that a hazardous material is anything that is harmful to humans, plants, animals or aquatic life. The registration requires disclosure of the quantity of a material stored at a site, so that the first responders can assess the level of risk to determine how much equipment they need to wear and bring.

Mr. Hughes questioned Ms. Moore about correspondence pertaining to T-Mobile's refusal to register its cell phone sites as hazardous materials storage sites.[21] Ms. Moore acknowledged that T-Mobile wrote to her office in December 2007 stating that T-Mobile's cell phone

[20] Ms. Moore noted that a few telecommunications sites are "SARA" facilities under the federal Superfund Amendment and Reorganization At of 1986, which requires reporting at the state level as well as to the County. Those facilities have 10,000 pounds or more of a hazardous substance, or 220 gallons or more of an extremely hazardous substance. The few SARA sites are located on buildings that are used for another purpose that involves hazardous materials, so that pushes the site into the higher category.

[21] Homeland Security regulations permit Ms. Moore to bring documents to a hearing pursuant to a subpoena, which she did in this case, but do not permit those documents to be copied or placed in the public record. The documents were reviewed before the second hearing day by Mr. Hughes, Ms. Present and the Hearing Examiner. Mr. Hughes provided copies from T-Mobile's files of the letters pertaining to whether T-Mobile is required to register its sites.

sites store hazardous materials in the form of batteries containing electrolyte (water and sulfuric acid), but arguing that they should be exempt from the registration requirement because batteries do not pose a hazard. *See* Tr. Feb. 1 at 102-103. Ms. Moore acknowledged that the electrolytes in the batteries T-Mobile stores at its cell phone sites are standard at cell phone sites, and are similar to those in car batteries used by individuals. She noted, however, that the risk associated with such batteries increases with increased size or an increased number of batteries. Ms. Moore confirmed that T-Mobile will be permitted to continue storing this type of battery at its sites, provided that it submits the hazardous material registration forms.

Ms. Moore noted that the full registration process requires submitting an application form with corporate contact information, a form listing the type and amounts of hazardous materials and a site plan for each site, showing the layout and where the hazardous materials are stored. She stated that her department does not regulate what can be stored on a site, but the fire code has specifications for how hazardous materials are stored. Ms. Moore acknowledged that there are hundreds of cell phone sites in Montgomery County with batteries of the type T-Mobile proposes here. When asked whether it is an unsafe practice to have these batteries around the County, inside their cabinets inside fenced compounds, Ms. Moore stated there is always a risk when hazardous materials are involved, but the risk is reduced if proper reporting is carried out and the building and fire codes are followed. *See* Tr. Feb. 1 at 109.

Under questioning from community member Judith Harrison, Ms. Moore acknowledged that the batteries T-Mobile uses are lead oxide batteries, with the same chemical composition as the 12-volt batteries in cars. She stated that the batteries in cars are not regulated because her office does not regulate private residences.

C. Community Support

1. Christine Dalton. Tr. Jan. 4 at 87-91.

Miss Dalton has been a member of the Swim Club for 14 years and of its swim team since age seven (she is now 17), and last year was an assistant coach. She testified that the Swim

Club community means a great deal to all the kids who are members. Miss Dalton attends a private school and therefore does not get to see neighborhood kids throughout the year, so the pool is one way to keep those relationships and have them grow. She also gets to have relationships with other children who act as role models, and with younger children whom she can teach what she has learned. Miss Dalton has gotten many community service hours from teaching younger children to swim, and hopes to continue working at the pool next summer. With regard to the usage of the pool, she testified that she goes to the pool six or seven days a week all summer, which gives children something to do during the summer. In her view, the pool management has improved greatly in the last couple of years, when it's been run by a dedicated group of high school and college students. Miss Dalton talked about how important the swim team is to her, and how the pool has given her a great sense of community that many of her friends don't have where they live. She is concerned that without the cell tower, the pool will close and other kids in the neighborhood won't be able to have the wonderful experience she has had.

2. Judith Harrison, Tr. Feb. 1 at 162-169.

Ms. Harrison resides at 802 Devere Drive, Silver Spring. She has a Ph.D. degree in chemistry, is a professor of chemistry and does scientific research that includes building batteries and teaching people about them. Ms. Harrison testified that batteries are ubiquitous, and are not dangerous when used normally. These are the batteries in people's cars, in ships and in businesses – this is the work horse battery that everyone uses. She stated that the concern people voiced about an accident happening when batteries are changed is misplaced. The Material Safety Data Sheet for the batteries clearly states that no respiratory protection is needed under normal handling conditions, just as it would not be needed to change the battery in your car.

Ms. Harrison explained that the batteries in question have solid lead, called lead foroxide, and an electrolyte, sulfuric acid. A mist can be formed when the battery is being made, or when the lead foroxide is being made, but not when the battery is being discharged normally. She observed that these batteries are very robust, packed in a nice, hard, steel case. Ms. Harrison

acknowledged that a battery case could be broken open and then you would have to worry about the sulfuric acid, but that is very rare. She also acknowledged that there is a vent for a small amount of gas that is produced when the battery operates, which is why there is a warning about risk of explosion, but batteries don't explode very often – otherwise we would not put them in our cars and drive around with our children in them.

Ms. Harrison commented that the anecdotal evidence offered at the hearing about community members who do or do not have good cell phone service is not a scientific way to decide whether a cell tower is needed. In her view, the most scientific evidence that was presented was from the RF engineer, who said that T-Mobile had studied thousands of calls that use their existing towers to see how many are dropped and how much background noise there is, which means there are too many calls, and based on that statistical analysis, they determined that there is a need. Ms. Harrison stated that the signals from cell phones are designed to be very weak, so they won't interfere with other phones. As a result, you don't get coverage if you don't have a cell tower nearby, or if some obstruction such as topography or a building blocks the signal. To Ms. Harrison, the subject site's location equidistant from T-Mobile's existing sites in the area makes perfect sense, to provide coverage where it's needed without interference from existing cell towers.

Finally, Ms. Harrison stated that she finds the implication that the FDA's testing labs are not sufficiently shield a little bit unbelievable, from a scientific perspective. *See* Tr. Feb. 1 at 167. Based on her experience as a scientist, she would expect the FDA's scientists to make sure their testing sites are shielded from outside influences, including a safety margin. Ms. Harrison also pointed out that the worst-case-scenario presented in the RF engineer's report showed RF emissions well below the level that the FDA's Mr. Bassen said could be a problem.

E. Community Opposition

1. Matthew Gervase. Tr. Jan. 4 at 45-53.

Mr. Gervase has lived next door to the pool at 911 Schindler Drive for most of his 35 years, and his family has been there for 38 years. He argued that the Swim Club could improve its

financial situation more by doing pool operation and maintenance itself, instead of having an overpaid pool management company, than by installing a cell tower. He believes the Swim Club's financial problems were self-inflicted, caused by 10 to 15 years of poor management.

Mr. Gervase is opposed to the proposed cell tower, particularly at the proposed location. He feels that putting a 120-foot monopole with RF emissions and all the negative images attached about 50 feet from where children play in knee-deep water, and only 10 feet from where they play on outdoor jungle gym equipment, would turn away prospective members. The Swim Club has a policy of clearing the pool after the first bolt of lightening, so he believes a 120-foot metal pole is a bad idea. Mr. Gervase also questioned the size of the proposed compound, as discussed in Part III.I, and argued that it would not blend in with the existing surroundings. He argued that if the cell tower has to be approved, it should be at the rear of the Swim Club property, where it would be better screened by the trees.

2. Emma Stelle. Tr. Jan. 4 at 91-97.

Ms. Stelle lives directly across the street from the entrance to the Swim Club parking lot, at 912 Schindler Drive. She notes that despite her prime location with regard to visibility of the site, she was never contacted by the Swim Club about this proposal (she was not 100 percent sure that no one contacted her husband, but believes that to be the case).

Ms. Stelle and her husband oppose the requested special exception on several grounds, principally the visual impact, noise and fumes that she expects. She argues that despite Technical Staff's conclusion to the contrary, the visual impact would not be minimal. It would be very visible from her house, and also for anyone driving or walking on Schindler Drive, which is a popular route for dog-walkers and other pedestrians. Ms. Stelle stated that the proposed 120-foot tower would be 40 feet higher than the trees on the subject property, which are all deciduous and therefore have no leaf coverage for at least four or five months each year. Moreover, there are no trees close to the proposed location for the compound, which Ms. Stelle considers "massive."

Ms. Stelle noted that the Swim Club parking lot is known in the neighborhood as the pool hill, where generations of children have gone for great sledding in the winter. She mentioned this because she is concerned that accommodating the slope of the property will result in at least one wall of the compound that is significantly taller than eight feet.

Ms. Stelle is concerned about what kind of back-up power generator T-Mobile plans to install, since the blueprint shows a place to install a generator. She testified that due to above-ground power lines and a large number of tall, old trees, which tend to drop limbs on a regular basis, her block has frequent power outages, generally on a monthly basis for several hours at a time. She is concerned that the proposed facility would, therefore, subject her family to the noise and fumes of an emergency generator on a regular basis, contributing significantly to a disruptive and unharmonious environment.

3. Howard Bassen, Federal Drug Administration. Tr. Jan. 4 at 107-146.

Mr. Bassen, an engineer for the FDA, was designated an expert in radio frequency engineering. He testified that the FDA performs testing at its White Oak campus for many types of foods, drugs and medical devices, and has many large laboratories with sensitive equipment. One group, he explained, tests medical devices for sensitivity to interference from electromagnetic fields, to assess whether the devices could stop working, and harm or kill people, due to electromagnetic fields in the environment. He noted that the agency plans to have outdoor testing facilities on this campus, to test medical, electronic and other equipment in an area free from metal or structures, and will need a radio-frequency-quiet environment. His concern is that the FDA's testing equipment is very sensitive to RF interference, and might not operate accurately with excessive RF field strength on campus.

Mr. Bassen reported that the FDA and T-Mobile had engaged in discussions about the proposed telecommunications facility, which were ongoing at the time of the first hearing. He suggested that an agreement might be possible based on setting a maximum level of emissions from each of the antennas that may be implemented.

Mr. Bassen had received a copy of a report prepared by Mr. Cohen the day before the hearing, and found that Mr. Cohen's estimates of the likely field strength agreed very closely with calculations Mr. Bassen had performed, suggesting a field strength at the FDA boundary of one volt per meter, or perhaps half a volt. He noted that some medical devices are required to prove only that they can withstand one volt per meter, and others must be proven capable of withstanding higher levels of interference.

On cross-examination, Mr. Bassen declined to state whether the FDA's existing testing facilities are currently properly screened and in a safe environment. *See* Tr. Jan. 4 at 116-17. His response to that direct question was to refer to the potential open air test site that is in the planning stages, and to state that he is not aware of the function of every piece of electronics on the FDA campus, so he can't answer the question. *See* Tr. Jan. 4 at 117-119. He later added that some laboratories are not shielded, but that the one laboratory he is most familiar with, the Center for Devices and Radiological Health, has an electromagnetic compatibility test lab that is shielded to a very good level. *See* Tr. Jan. 4 at 131. The non-responsive nature of Mr. Bassen's testimony on this point was relatively uninformative. When asked whether the FDA campus currently has a radio-frequency-quiet environment for outdoor testing, Mr. Bassen again did not provide a direct answer. He stated that the agency performed a survey before the first buildings were constructed several years ago, to measure ambient field strength, but he does not know what the current levels are. *See* Tr. Jan. 4 at 132. He also noted that the FDA's current campus location was chosen because it used to be the site of a Naval Ordinance Test Lab, which was a radio-quiet zone with a large, screened-off, secure campus that included outdoor testing sites. The agency felt that location would be the best possible in the Washington area.

4. Kathryn Hopps, Tr. Jan. 4 at 151-156.

Ms. Hopps has been a Hillandale resident for ten years, and is a former Cresthaven Elementary School parent and PTA co-president. She is currently a member of the Cresthaven Design Committee. She first read a letter from the current co-presidents of the Cresthaven PTA,

which expresses concern about T-Mobile storing diesel fuel at the subject site, in close proximity to the elementary school. The Hearing Examiner notes that T-Mobile's application does not include any request to store diesel or any other fuel on site.

Ms. Hopps also expressed her own view that the proposed facility would be too close the elementary school and would have unacceptable visual impacts, as summarized in Part III.I.

5. Royal Fuchs, Tr. Jan. 4 at 157-169.

Mr. Fuchs has lived at 14 Schindler Court, backing up to the subject site, for nearly 20 years. In the interest of not repeating testimony given by other community members, Mr. Fuchs focused on lack of community need for this facility and T-Mobile's consideration of alternatives, which Mr. Fuchs considers inadequate. Mr. Fuchs pointed out that the Tower Committee did not address community need, but rather found that "there is a need to improve coverage to meet T-Mobile's desired signal level." *Id.* at 158. He argued that this finding has been misinterpreted to mean that there is a community safety and economic need for additional cell phone service. Mr. Fuchs states that based on internet advertising, Verizon, Sprint Nextel and AT&T all offer good to excellent cellular service in the area bounded by New Hampshire Avenue, Route 29 and I-495. He noted that even for T-Mobile, the coverage maps they provide for public consumption indicate good coverage in the area of the subject site.

Mr. Fuchs also contends that T-Mobile did not adequately consider other ways to meet its coverage goals, such as co-locating on an existing telecommunications facility. Based on T-Mobile's application to the Tower Committee, they identified three co-location possibilities, two on New Hampshire Avenue and one on the FDA campus. The FDA rejected the notion of an additional cell phone facility on its campus and T-Mobile rejected the other two locations based on findings that they were too close to existing facilities and would not provide the desired coverage to the Burnt Mills area. Mr. Fuchs argued that it is inappropriate for residents of the West Hillandale neighborhood to be burdened by a cell tower in their community to benefit primarily residents of Burnt Mills, a nearby

neighborhood to the north, between Northwest Branch and Route 29. In Mr. Fuchs' view, T-Mobile should have engaged in a more exhaustive search than identifying only three potential sites.

In response to questions from swim club representative Shauna Garver, Mr. Fuchs stated that he has operated a small business partly from his home since 2004, and has had perfectly adequate cell phone service throughout the neighborhood and inside his home. He is not a T-Mobile subscriber, and cannot attest what service would have been with T-Mobile. In the process of gathering signatures on a petition in opposition to the proposed cell tower, Mr. Fuchs found unanimity among his neighbors that none have cell phone coverage problems in their home. He did not canvas residents of the Burnt Mills neighborhood.

6. Ida Ruben, Tr. Jan. 4 at 249-277.

Ms. Ruben objected to the fact that no one associated with the Swim Club contacted her about this application early in the process, despite the fact that her home abuts the school property. She contends that while Swim Club members were notified by the pool and therefore submitted lots of letters, some people who live near the site did not find out about this application until shortly before the Planning Board's hearing, and therefore Technical Staff did not know about their opposition.

Ms. Ruben identified a series of shortcomings in the Staff Report. She argued that Staff incorrectly relied on trees to block the view of the proposed monopole, because they ignored the difference in visibility during the winter months. Ms. Ruben was dismayed that the Staff Report referred to her street, Schindler Court, only once, despite its proximity to the subject site. Ms. Ruben noted that the member of Technical Staff who wrote the report in this case was fairly new to the agency and was not familiar with her neighborhood.[22] She questioned whether Staff was aware that Schindler Court has a steep hill rising up from Schindler Drive. Her house is at the top of the hill, so she contends that the proposed tower would be very visible from her property. She questioned

[22] Ms. Ruben's opinion of the Staff Report was lowered by two typographical errors in the report, one in which the proposed special exception was mistakenly identified as an accessory apartment, and another in which the property address was misstated as 815 Schindler Drive, rather than 915 Schindler Drive.

Staff's conclusion that the tower would not be very visible, noting that the Staff Report did not specifically address Schindler Court and Ruppert Drive, which have the closest residences, or the house directly across the street from the pool on Schindler Drive. Ms. Ruben noted that the proposed tower would be taller than the nearby trees, making it visible above the tree-tops even a couple of blocks away. She also observed that the memorandum from Environmental Planning Staff at the MNCPPC stated that the monopole would be visible to traffic along Schindler Drive and homes along Schindler Court and Ruppert Road, and that Environmental Planning Staff would support reducing the visual impact. *See* Tr. Jan. 4 at 266.

7. Deanna Murphy, Federal Drug Administration. Tr. Feb. 1 at 73-86.

Ms. Murphy is Director of the White Oak Consolidation Program at the FDA, having joined the agency in July 2007. She is responsible for oversight of design and construction and coordination with the General Services Administration ("GSA") for the FDA's new campus at White Oak. She noted that the FDA is constructing a new headquarters called the Federal Research Center on 130 acres of a 600-acre site managed by the GSA.

Ms. Murphy described the FDA's mission as promoting and protecting the public health by ensuring the safety, efficacy and security of human and veterinary drugs, biological products, medical devices, food products, cosmetics and products that emit radiation. She noted that the FDA is also responsible for advancing public health by helping to seek innovation that makes medicines and foods safe, more effective and affordable, and by helping the public to obtain accurate, science-based information about medicines and food.

Describing the history of the consolidation project, Ms. Murphy stated that the FDA has had a vision for 50 years or more of consolidating its 38 or so buildings across the Washington Metropolitan Area into a single location. The current consolidation is expected to bring 7,700 scientists and researchers to White Oak over time. She noted that the White Oak site was operated as a Naval Research Weapons Center starting in the 1940s, and was turned over to the FDA as a result of the Base Realignment Closure Act of 1995. Currently, the White Oak campus houses the

Center for Devices and Radiological Health and the Center for Drugs Evaluation and Research, with approximately 2,000 employees.

Ms. Murhpy stated that the Center for Devices and Radiological Health occupies a specialized technical building that includes shielded test chambers to assess electro-magnetic and radio frequency interference. The level of shielding, she explained, was designed based on measurements of the background level of RF emissions at White Oak when the buildings were being constructed. *See* Tr. Feb. 1 at 78. Ms. Murphy noted that the agency also requires the ability to perform testing in unshielded laboratories, and plans to create an open-air test site in the future. *See id.* at 76.

Ms. Murphy stated that she first heard about the proposed cell tower in September, 2007 from a concerned citizen who lives in the Hillandale area and happens to be an FDA employee. She stated that the FDA does not know precisely what T-Mobile plans to do at the proposed facilities, although FDA technical experts have been trying to communicate with T-Mobile's experts. Ms. Murphy emphasized that the federal government's investment in the White Oak consolidation will be over one billion dollars, and the agency does not want to see that investment compromised. *See id.* at 78-79.

On cross-examination by Mr. Hughes, Ms. Murphy acknowledged that funding has not yet been appropriated from some of the anticipated testing laboratories. She also acknowledged that the testing currently being done in the shielded laboratories is functioning properly in the current environment. When asked whether she was aware that a "radio-quiet" environment can be requested through the FCC, Ms. Murphy was unable to answer, deferring to an expert. *See* Tr. Feb. 1 at 81-82. She stated that she is familiar with the tall high-rise near the FDA campus call The Enclave, but she was not aware that Montgomery County uses that site for its emergency communications system, although she was aware that several companies have telecommunications facilities at that location. Ms. Murphy noted that assuming those facilities were in place when the FDA took RF measurements in the area, the design of the shielding for the testing facilities would have taken that into account.

She acknowledged that FDA has not had discussions with any of the radio and television tower owners in the area, or cell phone companies or other businesses, to find out what the future plans are or attempt to restrict their activities. She explained that the agency is concerned about this application because the tower is in such close proximity to the laboratory.

In response to questions from Ms. Present, Ms. Murphy stated that the FDA requested that the GSA reject T-Mobile's request to locate a new monopole on its campus to avoid interference. *See* Tr. Feb. 1 at 85.

8. Susan Present, Tr. Feb. 1 at 115-140.

Ms. Present has lived at 1000 LaGrande Road for 14 years. She argued that despite T-Mobile's evidence to the contrary, it seems almost a certainty that the proposed telecommunications facility would decrease property values in her neighborhood. In addition to the arguments summarized earlier in this report, Ms. Present explained that many of the homes in her neighborhood were designed by Charles M. Goodman, Washington's foremost modernist architect working on single family homes in the 1950s. *See* Tr. Feb. 1 at 116. For these historic homes, Ms. Present contends, the stakes are even higher than for other homeowners. She explained that Goodman homes were designed to have a connection to the surrounding natural views. *See* Tr. Feb. 1 at 120. They have large windows that are angled to provide views of trees and natural landscaping rather than just facing onto the street. *See* Tr. Feb. 1 at 134. Information Ms. Present submitted from the National Register of Historic Place (the "National Register") states that there are 25 Goodman houses in the Crest Park Subdivision, located on LaGrande Drive, Schindler Drive, Crest Park Court, West Nolcrest and Burnt Ember Drive. *See* Ex. 48(j). The Hearing Examiner notes that all of these streets are visible on the map on page 11 above, within fairly close proximity to the subject site. Additional National Register information describes Goodman houses as situated low to the ground and sited to take advantage of privacy, views and solar orientation, with the natural environment a key element, and suggests that subdivisions laid out by Goodman should be considered "historic designed landscapes." *See* Exs. 48(l) and (m).

Ms. Present testified that communities across the country have proven that putting up a telecommunications tower in a residential neighborhood would adversely affect property values. As discussed in Part III.D. above, she cited four United States Courts of Appeals opinions upholding decisions that rejected monopoles in part on the basis of adverse impact on property values and, in some cases, safety problems due to proximity to a school. *See* Tr. Feb. 1 at 116-117.

Ms. Present argued that contrary to T-Mobile's assertion that the proposed cell tower would lead to an increase in property values because people want better cell phone service, the general neighborhood around the subject site already has good to excellent coverage, as shown in some web site pages she submitted into the record. *See* Ex. 48(p). *See* Tr. Feb. 1 at 117-18. The Hearing Examiner notes that Ms. Present submitted three pages that appear to be the results of searches on the web sites of T-Mobile, AT&T and Sprint. The pages are not easy to read, due to the limitations of printing from web sites. The T-Mobile page seems to indicate a fairly broad area around the subject site where there is some level of signal strength, but not full strength. *See* Ex. 48(p) first page. The AT&T page suggests that the entire area around the subject site has good (or perhaps "best") coverage. *See* Ex. 48(p) second page. The Sprint page lacks a legend so it is difficult to interpret the various shades of green on the map, but there are three different shades of green shown in the area, suggesting varying levels of coverage. *See* Ex. 48(p) third page.

Ms. Present submitted a sample lease that the Montgomery County Tower Coordinator gave her, which includes a termination clause if the property changes hands. *See* Ex. 123(g). This lease leads Ms. Present to believe such clauses are standard. The Hearing Examiner notes that the sample lease is intended to allow telecommunications equipment to be installed on an existing water tower owned by the Washington Suburban Sanitary Commission ("WSSC"), and gives WSSC the right to terminate the lease on 12 months' notice if, among other things, a governmental agency needs the space or WSSC's primary business on the property ended. *See* Ex. 123(g). This lease is distinguishable from the present case in at least two important respects: (1) the major construction involved installing antennas on a water tower, not the expense of building a 120-foot free-standing

tower; and (2) as a governmental identity with wide authority and significant land ownership, WSSC likely stands in a very different negotiating posture from a community swim club operated by volunteers.

Ms Present contended that T-Mobile's pattern of refusing to register its cell towers as hazardous materials sites shows a disregard for the public safety that foreshadows how they would operate at the subject site. *See id.*

Ms. Present testified that she learned from Terry Brooks, division chief with the Parks Department who is in charge of telecommunications facilities on park property, that he directs companies to pursue private property and park property only as a last resort. In this case, he rejected immediately T-Mobile's inquiry about locating a new facility in a park in the Hillandale area. Ms. Present argued that the Tower Commission has interpreted it to be the County Council's intention for residential properties to be a last resort for cell towers. *See* Tr. Feb. 1 at 128.

Ms. Present refuses to believe that no suitable co-location sites were available as an alternative to the proposed tower. She observed that the biggest problem T-Mobile identified in rejecting co-location sites was the need to serve the Burnt Mills community, which is right next to a T-Mobile site on a Choice Hotel. She also submitted a map identifying several locations that she believes should have been considered, including on the local fire station, the campus of the National Labor College and the Centers for the Handicapped. *See* Ex. 149. Ms. Present sought to distinguish what T-Mobile wants from what it claims to "need." *See* Tr. Feb. 1 at 132. She characterized the Tower Committee, as not finding a need for the tower requested here, but merely finding that the proposed tower would meet T-Mobile's desire to provide a certain level of service.

9. Doris Stelle, Tr. Feb. 1 at 153-161.

Ms. Stelle resides at 1008 Devere Drive, Silver Spring, half a mile from the pool by car. Her son, Benjamin Stelle, lives directly across the street from the Swim Club on Schindler Drive. She has been a member of the pool since she moved into the neighborhood in 1980.

Ms. Stelle has observed a trend towards allowing cell towers, such as at churches. She noted that the Good Shepherd Church on New Hampshire Avenue has a cell tower insides its steeple, and the equipment is housed in a chapel-like, brick structure that measures 21 feet by 21 feet. She described this as a much more friendly tower installation that what T-Mobile proposes here. Ms. Stelle visited the Oakview Swim Club and saw that the tower compound is at the back of the pool property, backing onto a ravine that faces the Beltway, so no homes are affected at all. Ms. Stelle added that she discussed cell tower leases with Mary Pat Wilson, who handles such matters for the Montgomery County Public Schools, and was told that the schools will not consider a lease for less than $2,000 a month – more than double what the Hillandale Swim Club would get from T-Mobile. She noted that the Oakview Swim Club is getting $1,600 per month and the church gets close to that, so she questioned why the Hillandale Swim Club allowed the facility for so much less.

Ms. Stelle argued that while the Swim Club membership consented to the lease with T-Mobile, it was not informed consent. Pool members thought at first that the tower and equipment would be at the back of the property, but that didn't work out. In Ms. Stelle's view, the membership knew there would be a cell tower, but did not realize there would also be a 50-by-50 compound, with batteries that have hazardous materials. She is also concerned that the Swim Club could still go under, even with this lease. Tr. Feb. 1 at 157. Ms. Stelle noted that the Hillandale Civic Association did not take a position on this case, possibly because one of its officers was a Swim Club board member and there was a conflict of interest.

Finally, Ms. Stelle raised a concern that the area of the subject site will be unstable for some time, due to blasting associated with the construction of a new Key Middle School, and more blasting that may be necessary when the new elementary school is built starting next year.

10. Betsy Bretz, Tr. Feb. 1 at 170-177.

Ms. Bretz's testimony is summarized in Part III.I

11. Richard Present, Tr. Feb. 1 at 177-184.

Mr. Present resides at 1000 Le Grande Road in Silver Spring, at the corner of Le Grande Road and Schindler Drive. He observed that on his reading of the Tower Committee minutes, they do not appear to have a made a finding as to the need for the proposed cell tower. He acknowledged that T-Mobile would need a 120-foot tower to meet its objectives, rather than an 80-foot one, but that this is not the same as finding that there is a need for a cell tower in a community. He noted that the coverage maps submitted by T-Mobile contradict community testimony about large dead zones in the neighborhood. On T-Mobile's maps, the only areas shown with "minimal coverage" are on the other side of New Hampshire Avenue from the subject site, on what appears to be the FDA campus and a small area that is relatively far from the subject site. Mr. Present pointed out that although T-Mobile described a need to provide coverage in the Burnt Mills area, the coverage maps show that area with the highest level of coverage. *See* Tr. Feb. 1 at 180.

Mr. Present noted that many residents nearby the subject site, who would stand to benefit from the improved cell coverage, are nonetheless adamantly opposed to the project. He acknowledged that some people who live close by support the project, but stated that a review of the 90 signatures submitted on a petition in opposition to the tower suggests that households in the neighborhood designated by Technical Staff opposed the monopole by a ratio of four to one. *See* Tr. Feb. 1 at 181. In Mr. Present's view, this means that the people who live near the subject site are overwhelmingly saying that they are satisfied with their cell phone service and do not want the proposed facility. He also agreed with his wife's suggestion that other possible locations should be explored, particularly locations on existing buildings. Mr. Present stated that he has communicated with representatives of two local institutional uses, both of which indicated that they would be willing to explore the possibility of hosting a tower, but only if it had the support of the community. *See id.* at 182. Mr. Present noted that he and his wife are long-term members of the Swim Club, and wish that it had gotten the support of the community before embarking on this project.

Mr. Present argued that the proposed facility would decrease property values in the area, and that the Swim Club must solve its financial problems without inflicting harm on the community.

V. CONCLUSIONS

A special exception is a zoning device that authorizes certain uses provided that pre-set legislative standards are met. Pre-set legislative standards are both specific and general. The special exception is also evaluated in a site-specific context, because there may be locations where it is not appropriate. Weighing all the testimony and evidence of record under a "preponderance of the evidence" standard (*see* Code §59-G-1.21(a)), the Hearing Examiner concludes that the proposed special exception would satisfy some, but not all of the specific and general requirements for the use.

A. Standard for Evaluation

The standard for evaluation prescribed in Code § 59-G-1.21 requires consideration of the inherent and non-inherent adverse effects of the proposed use, at the proposed location, on nearby properties and the general neighborhood. 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-1.21. 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 telecommunication facility. Characteristics of the proposed use that are consistent with the characteristics thus identified will be

considered inherent adverse effects. Physical and operational characteristics of the proposed use that are not consistent with the characteristics thus identified, or adverse effects created by unusual site conditions, will be considered non-inherent adverse effects. The inherent and non-inherent effects thus identified must be analyzed, in the context of the subject property and the general neighborhood, to determine whether these effects are acceptable or would create adverse impacts sufficient to result in denial.

Physical and operational characteristics associated with a telecommunication facility include antennas installed on or within a support structure with a significant height; an equipment platform and equipment cabinets that may or may not be enclosed within a fence; visual impacts associated with the height of the support structure; RF emissions; a very small number of vehicular trips per month for maintenance; and some form of back-up power. In the present case, Technical Staff concluded that the proposed facility would have no non-inherent adverse effects. *See* Staff Report at 14. Staff noted that the facility would comply with FCC regulations related to RF emissions and its only impact would be visual, because it would be noiseless and unstaffed, requiring only occasional servicing. Staff also recommended a flag pole design to reduce visual impact. Staff found no unusual site characteristics.

The Hearing Examiner considers the proposed support structure and the presence of a fenced equipment compound to be inherent characteristics of the use; all telecommunication facilities must be attached to a support structure, and the monopole proposed here is below the 155-foot height that the Zoning Ordinance suggests is generally acceptable. Moreover, all telecommunications facilities have equipment cabinets, and based on the Hearing Examiner's experience in other cases, free-standing monopole sites typically house the cabinets in a fenced enclosure. Likewise, the anticipated level of vehicular trips and staffing is inherent in the use. Two elements that the Hearing Examiner considers non-inherent, however, are the location of the proposed facility on the site and the proposed back-up battery installation.

As discussed in Part IV.B. below, the Hearing Examiner concludes that Petitioners have not successfully demonstrated that the location proposed for this cell tower satisfies the requirement under Section 59-G-2.58(a)(4) that the support structure must be sited to minimize its visual impact. Failure to satisfy one of the specific conditions for the use should be considered a non-inherent characteristic. In addition, the need to request approval for a reduction of the required property line setback is not necessarily associated with or typical of the use, and should be considered non-inherent.

Some form of back-up power can be expected as part of any cell site, given the importance of maintaining cell phone service during power outages. As discussed in Part III.E, however, the Hearing Examiner concludes that T-Mobile has failed to demonstrate that its proposal to install an array of 16 batteries at the subject site would not result in safety hazards to the community. The lack of evidence that the batteries would be safe makes this a non-inherent characteristic of the use.

The Hearing Examiner has not identified any unusual site characteristics that should be considered non-inherent adverse effects.

For all of the reasons stated above and in the following sections, the Hearing Examiner concludes, based on a preponderance of the evidence, that the inherent and non-inherent adverse effects of the proposed special exception justify denial of the application.

B. Specific Standards

The specific standards for a telecommunications facility are found in § 59-G-2.58. As outlined below, the evidence of record demonstrates compliance with some, but not all, of the specific standards.

Sec. 59-G-2.58. Telecommunications facility.

(a) Any telecommunications 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 . . . .

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 subject site is in a residential zone, so the applicable property line setback is equal to the proposed height of the support structure (the cell tower, or in this case, the flagpole, which is 120 feet). The location proposed for the tower in this case satisfies this setback requirement on three sides of the property. To the east, however, the tower would be situated only 41 feet from the property line shared with the adjacent elementary school. Petitioners have requested a waiver of 79 feet of the 120-foot setback requirement, which represents a two-thirds reduction of the setback. As discussed in Part III.D, the Hearing Examiner concludes that the evidence supports a decision to approve the requested setback reduction, on grounds that while it might not produce the *least* visually intrusive location on the site, it would permit the facility to be located close to the forested area along the school property line, taking advantage of that natural screening and allowing a less obtrusive location than might be possible under the normal setback requirement.

(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 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 a residential zone, so the 300-foot setback applies. As discussed on Part III.D, the preponderance of the evidence indicates that the proposed location would satisfy this requirement. If the Board chooses to approve the present application, the Hearing Examiner recommends that T-Mobile be required to explain the inconsistency between the site plan and the aerial photograph and demonstrate, to the Board's satisfaction, that the 300-foot setback requirement would be satisfied.

> (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 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: Petitioners request a support structure height lower than 155 feet.

> (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: T-Mobile has agreed to make the proposed structure less visually obtrusive by disguising it as a flag pole. T-Mobile has also agreed to enclose the equipment compound within an eight-foot, wooden fence, and to soften the appearance of the fence by planting four trees. As noted in Part III.D, the Hearing Examiner recommends that if the present application is granted, T-Mobile should be required to submit a revised Landscape Plan

This paragraph also requires the support structure to be "sited to minimize its visual impact." This provision places the Board in the unusual posture of evaluating not just the location proposed, but possible better locations on the site. On this record, the Hearing Examiner cannot make an affirmative finding that this requirement is satisfied.

Several community members argued that the proposed facility should be located behind the pool, in the heavily wooded, rear portion of the site. T-Mobile responded that such a location had been rejected because it would require cutting down trees for the facility and to build a gravel access road to the equipment compound. T-Mobile's engineer testified that a location at the rear of the site would make the monopole and the compound visible to a larger number of residences, along Ruppert Road. This testimony is undercut by the aerial photograph on page __, which suggests that intervening trees would prevent Ruppert Road residents from seeing all but the top 40 feet or so of the tower.

Mr. Gervase maintained that at the nearby Oakview Swim Club, T-Mobile built a telecommunication facility behind the pool, at the rear of the site, and its employees drive over the grass to reach the facility because there is no access road. Mr. Gervase's contentions were supported by exhibits from the Oakview Swim Club case, and by Doris Stelle. T-Mobile chose neither to refute the argument that a road would not be necessary, nor to provide a reasonable explanation of why a location at the rear of the site would be infeasible, as opposed to simply more expensive. The record does not describe existing conditions on the site with enough detail to assess whether the only way to get vehicular access to the rear of the site is to cut down trees and build an access road, nor does it indicate how many trees would need to be cut down, or what impacts this would have on the community. The aerial photograph suggests that a monopole and compound would be significantly less visually obtrusive at the rear of the site, even if they were less than 300 feet from nearby homes. The Hearing Examiner does not interpret this provision to require an absolute level of proof that would demonstrate that the visual impact has been minimized to the highest possible degree. Rather, the Hearing Examiner would interpret this provision to require siting that minimizes visual impact to the

greatest degree reasonably possible on the site. Based on this interpretation, the Hearing Examiner concludes that Petitioners have not met their burden of persuasion to demonstrate that the proposed siting would minimize visual impact to the greatest degree reasonably possible on the site.

> (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 telecommunication facility for all the carriers.

Conclusion: The property owner is an applicant for the telecommunications facility special exception. Undisputed evidence demonstrates that both the support structure and the equipment compound can accommodate no less than three telecommunications carriers.

> (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 on the antennas or the support structure.

> (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: T-Mobile has committed to remove the support structure when it is no longer in use by any telecommunications carrier for more than 12 months.

> (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: T-Mobile has agreed to comply with this requirement.

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

Conclusion: No storage of equipment or other items outside the equipment compound is proposed.

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

Conclusion: No finding necessary.

(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: T-Mobile filed with the Board a recommendation from the Transmission Facility Coordinating Group that was issued in March 2007, less than one year ago.

(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: The present application was reviewed by the Transmission Facility Coordinating Group, as discussed in Part III.G. The Planning Board, adopting the reasoning in the Staff Report, found a need for the facility and recommended approval at the proposed location. As discussed in Part III.G., the Hearing Examiner is persuaded that T-Mobile has demonstrated a need for the proposed facility to provide enhanced cell phone service to its customers. As discussed above in connection with Section 59-G-2.58(a)(4), the Hearing Examiner finds that the location proposed for the facility has not been demonstrated to minimize the visual impact of the facility. Accordingly, the Hearing Examiner cannot make a finding, on this record, that the proposed location is appropriate.

(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.

C. General Standards

The general standards for a special exception are found in Section 59-G-1.21(a). The Technical Staff report and Petitioner's written evidence and testimony provide sufficient evidence that some but not all of the general standards would be satisfied in this case, as outlined below.

Sec. 59-G-1.21. General conditions:

(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 permitted use in the R-90 Zone.

(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 would comply with some, but not all of the standards and requirements set forth for the use in Code §59-G-2.58, as detailed in Part V.B. above.

(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 an approved and adopted 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: The evidence supports Technical Staff's conclusion that the proposed use would be generally consistent with the recommendations of the *1997 Approved and Adopted White Oak Master Plan*, as discussed in Part III.B.

(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. The Board or Hearing Examiner must consider whether the 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: As discussed in Part III.D regarding visual impact, the Hearing Examiner concludes, based on the preponderance of the evidence, that although the location proposed for the facility has not been proven to minimize its visual impact, the proposed facility would be sufficiently harmonious with the general character of the neighborhood to support approval, even at the location currently proposed. Unrefuted evidence demonstrates that public services and facilities would be adequate to serve the proposed development.

(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: The evidence supports the conclusion that, for the reasons stated in Part III.D., the proposed use would not be detrimental to the use, peaceful enjoyment and economic value of surrounding properties or the general neighborhood.

(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 evidence supports the conclusion that with the recommended conditions, the proposed special exception would cause no objectionable noise, vibrations, fumes, odors, dust or physical activity at the subject site. The information provided concerning lighting is not sufficient to assess whether any objectionable illumination or glare would result.

(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:. No other special exceptions have been identified in the general neighborhood, except for the Swim Club. The evidence supports the conclusion that the proposed special exception would not increase the intensity or scope of special exception uses sufficiently to affect the area adversely or alter its residential nature.

(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 regarding back-up battery power is not sufficient to determine whether the proposed facility would adversely affect the health and safety of residents in the area of the subject site.

(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 subject property would continue to be served by adequate public facilities with the proposed use and would have no adverse effect on pubic facilities.

(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 application was submitted.

Conclusion: Subdivision approval would not be required. The Hearing Examiner

accepts Technical Staff's conclusion that the very small number of vehicle trips the proposed use would generate can be accommodated by the local roadway network. No other traffic test applies under the Growth Policy in effect when this application was filed, in July 2007.

> (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: The evidence strongly supports a conclusion that the proposed use would have no detrimental effect on the safety of vehicular or pedestrian traffic on the public roads, as it would contribute only a minimal number of vehicles to area roadways.

> (b) Nothing in this Article relieves an applicant from complying with all requirements to obtain a building permit or any other approval required by law. The Board's finding of any facts regarding public facilities does not bind any other agency or department which approves or licenses the project.

Conclusion: No finding necessary.

> (c) The applicant for a special exception has the burden of proof to show that the proposed use satisfies all applicable general and specific standards under this Article. This burden includes the burden of going forward with the evidence, and the burden of persuasion on all questions of fact.

Conclusion: As discussed in Parts V.B. and III.E, the Hearing Examiner concludes that Petitioners have not met their burden of persuasion to demonstrate that the proposed support structure would be sited to minimize its visual impact, nor have they met their burdens of production or persuasion with regard to the safety of the batteries proposed as a back-up power source.

59-G-1.23 General Development Standards

Pursuant to Section 59-G-1.23, each special exception must comply with the development standards of the applicable zone where the special exception is located, unless the specific conditions for the use specify development standards, which is the case for telecommunications facility special exceptions. Section 59-G-1.23 also requires compliance with applicable parking requirements under Article 59-E, forest conservation requirements under Chapter 22A, and sign regulations under Article 59-F, and states that a special exception must incorporate

glare and spill light control devices to minimize glare and light trespass and, in a residential zone, may not have lighting levels along the side and rear lot lines exceeding 0.1 foot candles.

Ample parking would be available in the Swim Club's parking lot for the modest needs of this use. No forest conservation requirement applies because no forest would be disturbed. The single sign proposed is required under the specific conditions for the use. As noted in Part III.H., if the Board approves the present petition, the Hearing Examiner recommends that T-Mobile be required to submit written information sufficient to allow the Board to assess whether the proposed floodlights would cause any objectionable illumination or glare, or result in lighting levels exceeding 0.1 foot-candles along the side and rear lot lines.

VI. RECOMMENDATION

Based on the foregoing findings and conclusions and a thorough review of the entire record, I recommend that Petition No. S-2709, which requests a special exception under the R-90 Zone for a telecommunications facility to be constructed on property located at 915 Schindler Drive, Silver Spring, Maryland, be ***denied***, that the related requested to modify the special exception for the Hillandale Swim Club also be ***denied.***

In the event that the Board elects to grant the special exception, the Hearing Examiner recommends that the modification be granted as well, and that the following conditions and additional evidentiary requirements be imposed:

Evidentiary Requirements to be Satisfied Before Granting Special Exception

1. Petitioners must submit written information sufficient to demonstrate that the support structure as proposed is sited to minimize its visual impact to the greatest degree reasonably possible on the subject site.
2. Petitioners must submit written information sufficient to demonstrate that the proposed array of back-up batteries would not pose a safety risk to the community that justifies denial of the application.

3. Petitioners must submit a persuasive explanation of why the equipment compound cannot be further reduced in size to lessen its visual impact.
4. Petitioners must submit a revised Landscape Plan that includes the following features:
    a. The gate located on the Ruppert Road side of the compound.
    b. Plantings adequate to fully screen the compound on all sides except for the gate and the side facing existing forest (unless it is demonstrated that additional plantings along the Ruppert Road side would be damaging to the large tree currently growing within a few feet of the propose compound location).
    c. A specified minimum height at planting and expected maximum height and spread after two, five and ten years.
    d. T-Mobile's commitment to provide for the maintenance of these trees, and replacements for any that die, for as long as the tower or the equipment compound is located on the site.
    e. T-Mobile's commitment to ensure that all tree-related work is performed by a certified arborist or licensed tree professional.
    f. T-Mobile's commitment to adjust the location of the compound fence and landscaping as needed to preserve community access to the path currently used by children walking to the adjacent elementary school.
5. Petitioners must submit written information sufficient to allow the Board to assess whether the proposed floodlights would cause any objectionable illumination or glare, or result in lighting levels exceeding 0.1 foot-candles along the side and rear lot lines.

6. Petitioners must submit written information sufficient to explain the inconsistency between the site plan, Exhibit 155(a), and the aerial photograph, Exhibit 155(d), and to demonstrate that the 300-foot setback requirement would be satisfied.
7. Petitioners must submit written evidence that T-Mobile has either complied with Montgomery County's Hazardous Material Storage registration requirements or received approval from the County for an exemption from such compliance.

Conditions

1. Petitioners shall be bound by all of the testimony of their witnesses and exhibits of record, including the Site Plan, Exhibit 155(a), and the Landscape Plan (Exhibit number to be filled in after submission), and by the representations of counsel identified in this report.
2. T-Mobile must enter into an agreement with the Hillandale Swim Club that will permit it to preserve, maintain and replace as necessary, perpetually until the proposed tower is removed from the site, all existing trees that are within 50 feet of the equipment compound or within 75 feet of a property line that currently abuts a residential lot or the elementary school property.
3. The side of the equipment compound facing Schindler Drive may not be widened at any future time, including to accommodate a potential co-locator.
4. The Board of Appeals reserves jurisdiction to impose additional conditions in the future related to the use of an emergency generator on site, if future evidence such as complaints from neighbors so warrants.
5. Petitioners must obtain and satisfy the requirements of all licenses and permits, including but not limited to building permits or a use-and-occupancy permit, necessary to implement the special exception as granted herein. Petitioners shall at all times ensure that the special exception use and facility comply with all

applicable codes (including but not limited to building, life safety and handicapped accessibility requirements), regulations, directives and other governmental requirements.

Dated: June 2, 2008

Respectfully submitted,

Françoise M. Carrier
Hearing Examiner

APPENDIX A

T-Mobile Coverage Maps