Application for **SPECIAL USE PERMIT**
Department of Planning and Development Review
Land Use Administration Division
900 E. Broad Street, Room 511
Richmond, Virginia 23219
(804) 646-6304
http://www.richmondgov.com/

Application is hereby submitted for: (check one)
- [x] **special use permit, new**
- [ ] **special use permit, plan amendment**
- [ ] **special use permit, text only amendment**

Project Name/Location
Property Adress: 5263 WARWICK RD Date: 2/14/18
Tax Map #: C0070176045 Fee: $1,800
Total area of affected site in acres: 2,500 S.F.

(See ***page 6*** for fee schedule, please make check payable to the "**City of Richmond**")

Zoning
Current Zoning: R-4

Existing Use: CHURCH

Proposed Use
(Please include a detailed description of the proposed use in the required applicant's report)
155' (150' W/5' LIGHTNING ROD) MONOPOLE TOWER WITH ASSOCIATED GROUND EQUIP.
Existing Use: N/A

Is this property subject to any previous land use cases?
Yes [ ] No [x] If Yes, please list the Ordinance Number:

Applicant/Contact Person: DREW PATTERSON
Company: NETWORK BUILDING AND CONSULTING, LLC
Mailing Address: 4435 WATERFRONT DR., SUITE 100
City: GLEN ALLEN State: VA Zip Code: 23060
Telephone: (804) 363-0891 Fax: (—) —
Email: dpatterson@nbcllc.com

Property Owner: METROPOLITAN AFRICAN AMERICAN BAPTIST CHURCH TR.
If Business Entity, name and title of authorized signee: JAMES MCLAUREN, TRUSTEE

(The person or persons executing or attesting the execution of this Application on behalf of the Company certifies that he or she has or have been duly authorized and empowered to so execute or attest.)

Mailing Address: 5263 WARWICK RD.
City: RICHMOND State: VA Zip Code: 23224
Telephone: (804) 303-6291 Fax: (—) —
Email: —

Property Owner Signature: James A McLauren Sr.

The names, addresses, telephone numbers and signatures of all owners of the property are required. Please attach additional sheets as needed. If a legal representative signs for a property owner, please attach an executed power of attorney. **Faxed or photocopied signatures will not be accepted.**

NOTE: Please attach the required plans, checklist, and a check for the application fee (see Filing Procedures for special use permits)

Drew C. Patterson
Project Manager
Network Building and Consulting, LLC
4435 Waterfront Drive, Suite 100
Glen Allen, VA 23086

February 14, 2018

Department of Community Development
Land Use Administration Division, Room 511
City Hall
900 East Broad Street
Richmond, Virginia 23219

RE: Special Use Permit (SUP) Application
New Tower at 5236 Warwick Road
Parcel ID: #C0070176045
Parcel Owner: Metropolitan African American Baptist Church

Dear Director:

Enclosed you will find the following materials to support the SUP application filed on behalf of the applicant, PI Tower Development, LLC, with respect to their proposed tower at the above referenced address:

- SUP application form;
- Application fee: Check in the amount of $1,800.00 and made payable to "City of Richmond";
- Two (2) sets: Applicant's report with 11" x 17" site plans, drawn to scale;
- One (1) electronic set: all filing materials.

If you have any questions or require any additional information, please contact me at any time. Thank you in advance for your consideration of this matter.

Sincerely,

Drew C. Patterson

Drew C. Patterson
Project Manager
Consultant to PI Tower Development, LLC

PI TOWER DEVELOPMENT, LLC
SPECIAL USE PERMIT – APPLICANT'S REPORT

REQUEST

PI Tower Development, LLC (t/a "Parallel Infrastructure") (the "Applicant") proposes to construct and operate a 150 foot monopole communications tower on a 7.32 acre parcel located at 5263 Warwick Road ("Property"). The Property is owned by the Metropolitan African American Baptist Church. Their church facility is located in the front of the Property along Warwick Road and the proposed tower will be located in an unused field in the rear of the property.

T-Mobile is interested in the proposed location and will be the anchor tenant. T-Mobile is licensed by the Federal Communications Commission (FCC) to provide wireless communications services throughout the City of Richmond ("City"). The propagation maps submitted with this application depict T-Mobile's network of existing antenna sites in this portion of the City. T-Mobile's network of sites is largely based on the use of existing towers and tall structures built by T-Mobile, other carriers and tower companies. The propagation maps also depict the coverage objective of T-Mobile's antennas and equipment on the proposed tower. T-Mobile currently has a gap in coverage between three adjoining sites: VA31382A located at 5502 Pride Road, VA11359F located at 443 E. Belt Blvd. and VA31443D located at 4827 Old Warwick Road.

The Applicant is proposing to locate the tower and associated ground equipment within a 50' x 50' fenced compound/lease area. The fenced compound will be screened with landscaping on the north and east sides per City code. There is an existing mature wooded tree buffer on the north, south and west sides that will further screen the ground equipment and tower base from adjacent properties. The proposed tower will have an overall structure height of 155 feet (150 foot tower with a 5 foot lightning rod). The tower will be made of galvanized steel to match the backdrop of the sky and will accommodate at least four (4) users (T-Mobile and three (3) others). The facility will be unmanned and will be visited approximately once a month by technicians. The facility will not be lit and will not emit any odor, fumes or glare. The noises emitted from the equipment on the ground will not be any louder than normal residential HVAC equipment. Therefore, the impact on surrounding properties resulting from this passive use will be minimal.

Purpose of Tower

The purpose of the tower is to provide improved voice and data coverage to the surrounding area. Specifically, the proposed tower will achieve the following:

- Enhance the existing wireless network by supporting the latest wireless technologies and connecting the propagation rings of the three (3) surrounding T-Mobile sites;
- Provide coverage and capacity to the following:
    - Those living in the adjacent residential neighborhoods (Woodstock, Harris Heights, Meadow Creek Apartments, Southwood Apartments, Barleth Heights, Warwick Gardens, etc.);
    - Those travelling on nearby roads (Hull Street, Warwick Road, neighborhood roads);
    - Those working in nearby businesses (businesses along Hull Street and Warwick Road);
    - Emergency personnel operating in the area.
- Provide multiple collocation positions for other wireless carriers to expand their networks.

ORDINANCE REQUIREMENTS

City Master Plan

The subject property is located within the R-4, Single Family Residential District. In the R-4 District, "Wireless communications facilities and microwave relay facilities, including support structures" are only permitted on property owned by the City. The subject Property is not owned by the City; therefore, a special use permit (SUP) is required. SUP applications are reviewed for compliance with the City's Master Plan to ensure the proposal is compatible with the surrounding area and that it is an appropriate use for the site. Specifically, applications are reviewed to ensure that the City Charter conditions for granting SUP's have been met. The City Charter requires that prior to City Council approval, it must be shown that the proposed special use will not:

1. Be detrimental to the safety, health, morals and general welfare of the community involved;

   This request will not be detrimental to the safety, health, morals and general welfare of the community involved. In fact, the proposed tower will benefit the community as follows:

   - *Enhance general welfare by providing improved wireless service to residents, which will allow them to work, study and shop from home;*
   - *Enhance general welfare by providing improved wireless service to businesses, which will allow them to be more efficient and effective in their everyday operations;*
   - *Facilitate public safety and health by providing reliable wireless service to emergency personnel operating in the area.*

2. Tend to create congestion in streets, roads, alleys and other public ways and places in the area involved;

   This request will not create congestion in streets, roads, alleys and other public ways and places in the area involved. The tower will be located over 600 feet from the closest public road (Hull Street).

3. Create hazards from fire, panic or other dangers;

   This request will not create hazards from fire, panic or other dangers. This request will meet or exceed all applicable governmental regulations, including those required by the FCC, FAA, State of Virginia and City of Richmond.

4. Tend to cause overcrowding of land and an undue concentration of population;

   This request will have no effect on the overcrowding of land. The proposed tower will be located in an unused field in the rear of the subject property.

5. Adversely affect or interfere with public or private schools, parks, playgrounds, water supplies, sewage disposal, transportation or other public requirements, conveniences and improvements; or

   This request will not adversely affect or interfere with public or private schools, parks, playgrounds, water supplies, sewage disposal, transportation or other public requirements, conveniences and improvements. The proposed tower will benefit schools and transportation by enhancing wireless service in the area, which will (1) provide students access to the latest online educational opportunities while at home and (2) provide reliable service to those travelling on nearby roads.

6. Interfere with adequate light and air.

   This request will have no effect on light and air.

Division 11, Wireless Telecommunications Facilities

Division 11 of the Zoning Ordinance regulates wireless sites. The submission requirements listed in §114-692.2(a)(1) are as follows:

(1) The applicant's narrative containing the following information:

a. The address and latitude/longitude of the proposed location;

The address is 5263 Warwick Road and is at a latitude/longitude of 37° 29' 32.91"N, -77° 29' 31.7"W.

b. A description of communications/broadcast services which the applicant intends to provide at the site;

As the anchor tenant, T-Mobile will provide enhanced wireless service by providing residents, consumers and local businesses the latest wireless technologies. This includes, but is not limited to, deployment of their newly acquired 600MHz spectrum.

c. The methodology behind the site selection (i.e., describe alternative sites considered in the site selection process and why the proposed site is the most suitable);

In building out its network, T-Mobile first looks to collocate on existing structures (telecommunications towers, power transmission towers, rooftops, etc.) within a search ring. T-Mobile places a strong emphasis on collocation for two reasons: 1) it is the desire of most local governments and 2) it is typically cheaper than building a new site. For this search ring, there were no existing towers or structures that were tall enough to meet the coverage objective. T-Mobile researched a line of transmission towers to the east of the site; however, the height was not sufficient for T-Mobile's coverage objective and the structural capacity was not adequate for T-Mobile's proposed equipment.

d. A description of any other regulatory review required for the site and the status of that review (Federal Communications Commission, Federal Aviation Administration, NEPA impact report);

The Applicant will comply with all local, State and federal requirements. The NEPA, SHPO, FAA and FCC approvals are currently in process and should be completed within the next 2-3 months.

e. The measures that will be taken to ensure compatibility with surrounding properties;

This site will remain compatible with the surrounding properties for the following reasons:

- *The proposed tower will be located in an unused field in the rear of the subject property;*
- *The proposed tower is over 750 feet from Warwick Road and over 600 feet from Hull Street Road;*
- *The subject property has an existing mature wooded tree buffer on the north, south and west sides that will screen the ground equipment and tower base from adjacent properties and streets;*
- *The fenced compound will be screened with landscaping on the north and east sides per City code. The above-referenced tree buffer will screen the compound on the south and west sides;*
- *The closest residential structures (Meadow Creek Apartments) are approximately 300 feet west of the tower site. The above-referenced tree buffer is approximately 180 feet wide between the apartments and the tower site; therefore, the ground equipment and tower base will not be visible from the apartments.*

f. A statement acknowledging removal of antennas upon termination of the use;

The Applicant agrees to remove all antennas upon termination of their use.

g. A statement indicating compliance with NIER standards;

See attached NIER. The Applicant will operate this facility in compliance with all applicable governmental regulations (including those adopted by the FCC) regarding RF emissions.

h. A noninterference statement;

The Applicant will operate this facility in compliance with all applicable governmental regulations (including those adopted by the FCC) regarding noninterference.

i. A statement indicating willingness to allow and the feasibility of collocation of other users at the site; and

The Applicant will construct and own the tower. They will market the tower to as many wireless carriers as structurally possible. T-Mobile requires the top position to meet its coverage objective; however, the tower will have adequate space for at least three other carriers.

j. A statement indicating whether the site will be shared with the city if needed for public safety purposes.

The Applicant is willing to share the site with the City for public safety purposes subject to a lease and market value rent. However, the Applicant would like to reserve the top three positions for wireless carriers.

(2) A map showing the location of the proposed site and the location of existing facilities operated or owned by the applicant within the city and within three miles of the corporate limits, with an accompanying description of each facility (address, latitude/longitude, height of support structure, mounting height of antenna array, and willingness to allow and feasibility of collocation of other users at site).

A vicinity map of the existing site is located on Sheet T-1 of the enclosed site plan. The Applicant does not currently have any other existing facilities in the City of Richmond. However, the Applicant recently received POD approval for a new tower at 711 Hospital Street, which is in the City.

Plans required for applications shall also clearly depict the following:

a. The location of the facility within the overall property, the access point from a public street, the location of other structures within 100 feet.

See Sheet A-0 of the enclosed site plan.

b. A detailed layout plan consisting of a site plan, roof plan, floor plan, as applicable to the specific proposal.

See Sheets A-0 and A-1 of the enclosed site plan.

c. Detailed elevation drawings showing the location and type of antenna array, the structural element to which the array will be affixed, and for mounts using alternative support structures, any architectural device used to incorporate the array into building/structure design, the location and materials of any security fencing where required.

See Sheet A-2 of the enclosed site plan.

d. The location and details of lighting when required.

No additional lighting is proposed.

e. The location, type of equipment, noise suppression measures and operational procedure for any emergency power supply.

T-Mobile may install an emergency generator within the fenced compound. Noise will not be an issue for the following reasons:

- *The noises emitted from the equipment on the ground will not be any louder than normal residential HVAC equipment;*
- *The closest residential structures (Meadow Creek Apartments) are approximately 300 feet west of the tower site. The subject property has an existing mature wooded tree buffer on the north, south and west sides that will muffle any ground equipment noise from the apartments and other adjacent properties.*

f. The color of antennas, cables, support structure.

The proposed tower will be galvanized steel to match the backdrop of the sky.

g. Landscape plans-minimum evergreen hedge for the base of the support structure and ground-mounted equipment, with additional trees for support structure screening.

See Sheet A-1 of the enclosed site plan.

(3) Any antenna, support structure, and/or related electronic equipment which has not been used for the purpose of radio transmission for a continuous period of 12 months shall be deemed to be abandoned and shall be removed from the premises within 90 days of such abandonment.

Any antenna, support structure and/or related electronic equipment proposed herein which has not been used for the purpose of radio transmission for a continuous period of 12 months shall be removed from the premises within 90 days of the end of such 12-month period.

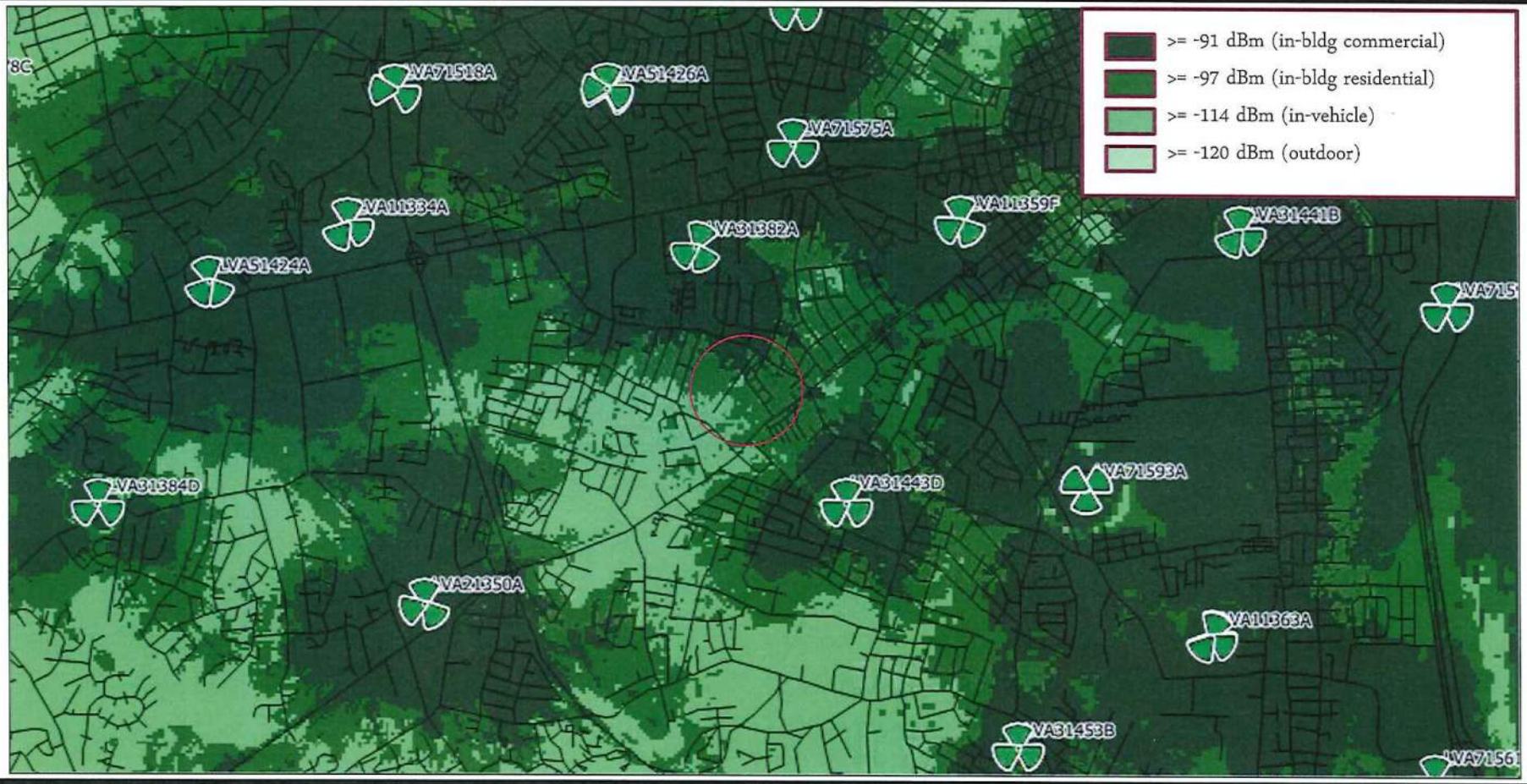
(4) Statement regarding the need for a traditional array.

A flush or semi-flush antenna design does not provide the same functionality as a full antenna array. Specifically, with a flush-mount design, only three antennas can be located at each rad center; therefore, each carrier would need two rad centers to fit their antennas. Furthermore, a flush-mount design can limit the ability to tilt antennas and install radio heads, therefore, reducing antenna effectiveness. To achieve T-Mobile's coverage objective in this area, a traditional full antenna array is required and requested (see attached propagation maps showing the coverage provided by a full array).

CONCLUSION

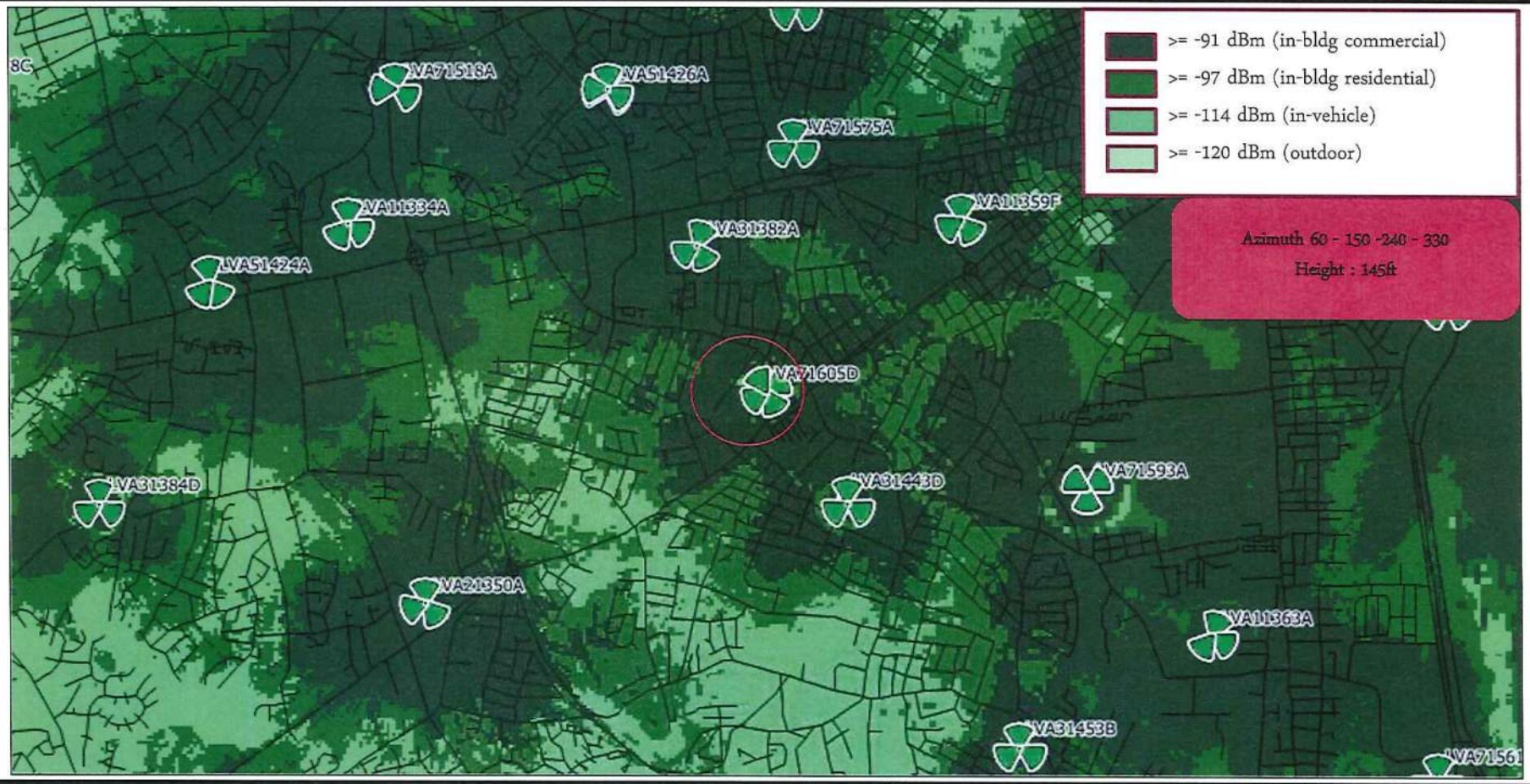
In conclusion, the Applicant requests approval of this SUP application as it (1) meets the requirements of the City of Richmond Zoning Ordinance and (2) does not adversely affect the character of the surrounding neighborhood, adjoining properties or the environment. This proposal reflects a solution that will allow T-Mobile and other carriers to provide improved wireless service to citizens, businesses and emergency officials while minimizing adverse impacts to the surrounding community.

Existing L2100 Coverage



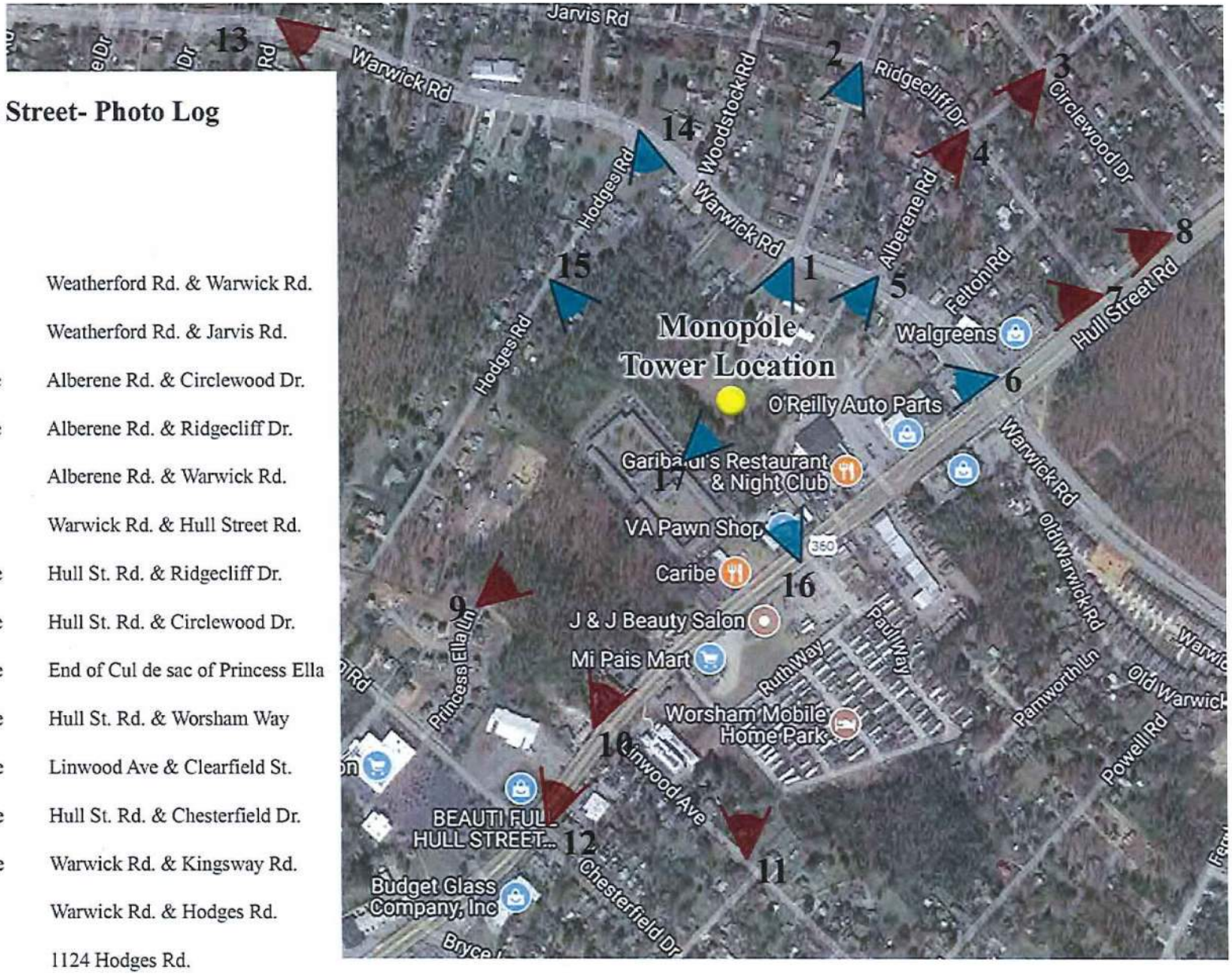
L1900 Coverage-Only VA71605D

L2100 Coverage-Adding VA71605D



VA - Richmond - Hull Street- Photo Log

Photo Location	Coordinates		
Tower	34.49258 N, 77.49208 W		
1	37.49431 N, 77.49119 W	Visible	Weatherford Rd. & Warwick Rd.
2	37.49656 N 77.49020 W	Visible	Weatherford Rd. & Jarvis Rd.
3	37.49643 N 77.48762 W	Not Visible	Alberene Rd. & Circlewood Dr.
4	37.49579 N 77.48869 W	Not Visible	Alberene Rd. & Ridgecliff Dr.
5	37.49410 N 77.48998 W	Visible	Alberene Rd. & Warwick Rd.
6	37.49300 N 77.48829 W	Visible	Warwick Rd. & Hull Street Rd.
7	37.49388 N 77.48680 W	Not Visible	Hull St. Rd. & Ridgecliff Dr.
8	37.49461 N 77.48581 W	Not Visible	Hull St. Rd. & Circlewood Dr.
9	37.49040 N 77.49571 W	Not Visible	End of Cul de sac of Princess Ella
10	37.48903 N 77.49406 W	Not Visible	Hull St. Rd. & Worsham Way
11	37.48755 N 77.49189 W	Not Visible	Linwood Ave & Clearfield St.
12	37.48790 N 77.49474 W	Not Visible	Hull St. Rd. & Chesterfield Dr.
13	37.49693 N 77.49847 W	Not Visible	Warwick Rd. & Kingsway Rd.
14	37.49570 N 77.49335 W	Visible	Warwick Rd. & Hodges Rd.
15	37.49404 N 77.49464 W	Visible	1124 Hodges Rd.
16	37.49126 N 77.49082 W	Visible	Hull St. Rd. & Christopher Way
17	37.49200 N 77.49287 W	Visible	Meadow Creek Apartments



BC architects engineers

lendlease

150'-0" Monopole Tower w/ 5' Lightning Rod

Aerial View

VA - Richmond - Hull Street - PIVA040

5263 Warwick Rd., Richmond, VA 23224

BC architects engineers

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150'-0" Monopole Tower w/ 5' Lightning Rod - Visible

View 1 from Weatherford Rd. & Warwick Rd.

VA - Richmond - Hull Street - PIVA040

5263 Warwick Rd., Richmond, VA 23224

BC architects engineers

lendlease

150'-0" Monopole Tower w/ 5' Lightning Rod - Visible

View 2 from Weatherford Rd. & Jarvis Rd.

VA - Richmond - Hull Street - PIVA040

5263 Warwick Rd., Richmond, VA 23224

BC architects engineers

lendlease

150'-0" Monopole Tower w/ 5' Lightning Rod - Visible

View 5 from Alberene Rd. & Warwick Rd.

VA - Richmond - Hull Street - PIVA040

5263 Warwick Rd., Richmond, VA 23224

Existing View

BC architects engineers

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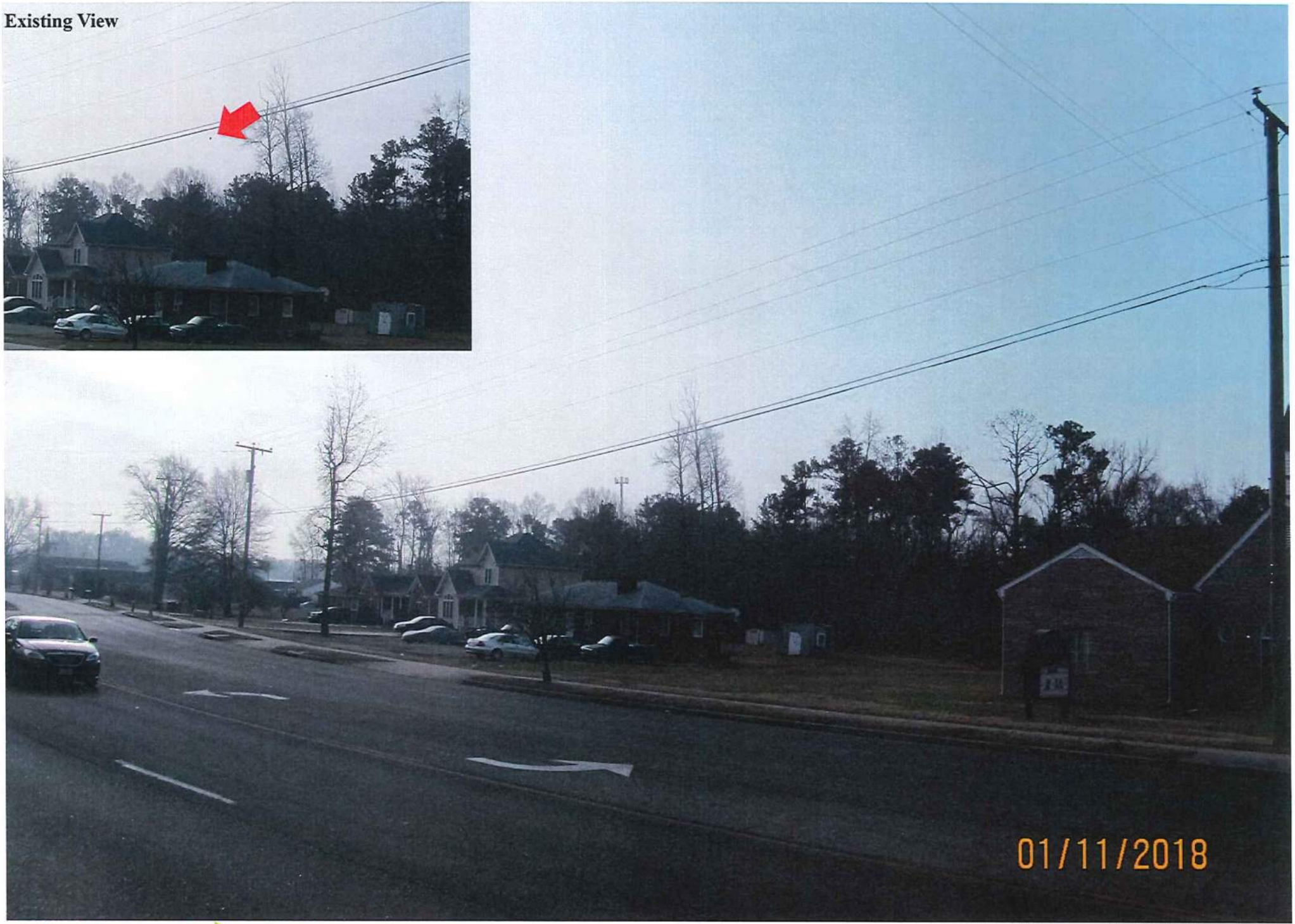
150'-0" Monopole Tower w/ 5' Lightning Rod - Visible

View 6 from NW corner of Warwick Rd. & Hull St.

VA - Richmond - Hull Street - PIVA040

5263 Warwick Rd., Richmond, VA 23224



BC architects engineers

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150'-0" Monopole Tower w/ 5' Lightning Rod - Visible

View 14 from Warwick Rd. & Hodges Rd.

VA - Richmond - Hull Street - PIVA040

5263 Warwick Rd., Richmond, VA 23224

Existing View

BC architects engineers

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150'-0" Monopole Tower w/ 5' Lightning Rod - Visible

View 15 from 1124 Hodges Rd.

VA - Richmond - Hull Street - PIVA040

5263 Warwick Rd., Richmond, VA 23224

Existing View

BC architects engineers

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150'-0" Monopole Tower w/ 5' Lightning Rod - Visible

View 16 from Hull Street Rd. & Christopher Way

VA - Richmond - Hull Street - PIVA040

5263 Warwick Rd., Richmond, VA 23224

BC architects engineers

lendlease

150'-0" Monopole Tower w/ 5' Lightning Rod - Visible

View 17 from Meadow Creek Apartments

VA - Richmond - Hull Street - PIVA040

5263 Warwick Rd., Richmond, VA 23224

BC
architects
engineers

January 25, 2018

Alejandra Stinson
Parallel Infrastructure
7411 Fullerton Street
Suite 110
Jacksonville, FL 32256

Re: Parallel Site Name/Number: VA-Richmond-Hull Street-PIVA040
Site Address: 5263 Warwick Road, Richmond, VA 23224

BC Architects Engineers, PLC has been commissioned to review the potential risk or hazard of RF or electromagnetic exposure which would result from the Parallel/T-Mobile installation located in the City of Chesapeake, Virginia.

Per FCC regulations regarding Human Exposure and Electromagnetic Radiation levels, the limit for prolonged, extended, or continuous exposure to RF at PCS frequencies is set at 1,000 microwatts per square centimeter for public applications. This value represents the amount of power in microwatts, which reaches a surface area of one square centimeter. The FCC limit is the most stringent of limits established by public and professional organizations and has the highest margin of safety of all limits. In establishing these limits, standards bodies add significant safety margins such that systems could operate at the limit. This is done to ensure public safety.

RF exposure levels for the T-Mobile installation with a typical 3-sector facility will approximately 3.6 microwatts per square centimeter (mW/cm^2) at a distance of 169.5' from the antennas. This distance corresponds to the center height of T-Mobile's antennas. This is the closest distance to the antennas where the public would be exposed to the highest levels of RF energy. At this distance, the RF levels are 263 times below the FCC regulated limits for RF exposure of approximately 1,000 microwatts per square centimeter.

Electromagnetic energy at PCS frequencies is in the Non-Ionizing Electromagnetic Radiation (NIER) range. Ionizing frequency ranges damage human tissue. Non-ionizing frequency ranges do not damage human tissue.

Thousands of extensive studies have been conducted on exposure to RF energy. To date, no studies have indicated that PCS frequencies have a detrimental effect on human health. The results of these studies are public knowledge and are independent of T-MOBILE and any other wireless carrier's own interests.

BC
architects
engineers

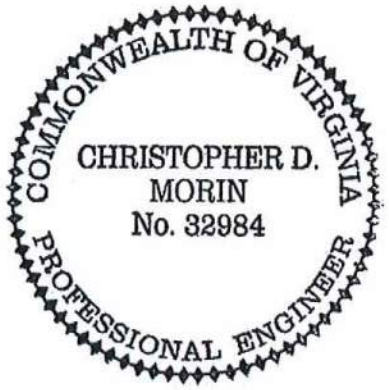
The Telecommunications Act of 1996 stipulates that RF exposure and safety is a non-issue at PCS frequencies and power levels. Further, the FCC website states the following:

"Calculations corresponding to a "worst-case" situation (all transmitters operating simultaneously and continuously at the maximum licensed power) show that, in order to be exposed to RF levels near the FCC's guidelines, an individual would essentially have to remain in the main transmitting beam and within a few feet of the antenna for several minutes or longer. Thus, the possibility that a member of the general public could be exposed to RF levels in excess of the FCC guidelines is extremely remote."[1]

In conclusion, the T-Mobile installation does not represent an increased health risk to the immediate community. Furthermore, the T-Mobile installation will operate at 1000 times below the most stringent of RF safety limits for public exposure and meets FCC requirements regarding RF exposure and safety.

Sincerely,

Christopher D. Morin, PE
Principal Member of BC Architects Engineers, PLC



[1] Source = http://www.fcc.gov/cgb/consumerfacts/rfexposure.html