

ASSESSOR
BUILDING INSPECTOR
PLUMBING INSPECTOR

TOWN OF LOCKPORT

6200 Robinson Road
Lockport, New York 14094



OFFICE OF LANDS,
BUILDING, AND CODE ENFORCEMENT

FIRE BUREAU
PLANNING BOARD
ZONING BOARD

(716)439-9526
439-9527
FAX 439-9532

PLANNING BOARD AGENDA

Work Session:

DATE: January 3, 2017

TIME: 4:00 PM

PLACE: 6560 Dysinger Rd.

Meeting Date:

DATE: January 17, 2017

TIME: 7:00 PM

PLACE: 6560 Dysinger Rd.

SCHEDULED AGENDA FOR MEETING TO DATE

1. Approval of December 20, 2016 minutes.
2. 7310 Chestnut Ridge Rd., SBL# 110.00-1-11, REL LLC owner. Horvath Communications proposing Telecommunications Tower located in a B-1 Business District. Required approvals needed; Site Plan, Special Use Permit. Project has applied to Zoning Board of Appeals for Use Variance and Area Variance.
3. 4040 Lake Ave., SBL# 81.04-1-21.2 Wrights Corners Self Storage owner. Proposing to amend Site Plan and Special Use Permit approved April 19, 2016 Tim Arlington, Apex Consulting presenting.
4. 5737 Transit Rd., SBL# 123.13-3-2./BB. Presenting information on 2 queuing lanes behind Key Bank for ATM Kiosk. A formal application has not been issued. Seeking direction only from Board at this time

NOTICE OF BALLOON TEST

Please be advised that Horvath Communications, Inc. & Bell Atlantic Mobile Systems of Allentown, Inc. d/b/a Verizon Wireless have applied to the Town of Lockport Planning Board for a Special Use Permit and Site Plan Approval and to the Town of Lockport Zoning Board of Appeals for Use and Area Variances for the proposed installation of a 195-foot wireless telecommunications facility at the following location:

**7154 Chestnut Ridge Road, Lockport, New York
Tax Map No. 110.-1-11**

A balloon test has been scheduled for Thursday, March 2, 2017 (with an inclement weather date of Friday, March 3, 2017) from 8:00 a.m. to 10:00 a.m. during which a balloon will be floated at the location and height of the proposed wireless telecommunications facility to demonstrate its potential visibility from viewpoints in the surrounding area.

The Application for the proposed facility is on file with the Town of Lockport and may be reviewed during regular business hours.

Judi Newbold

From: Brian Belson <B_Belson@elockport.com>
Sent: Thursday, March 02, 2017 3:28 PM
To: 'Judi Newbold'
Subject: Test

Because the weather is not going to be good tomorrow, they are going to reschedule the balloon test for a couple of weeks from now to give time to notify residents.

Brian Belson
Town of Lockport Building/Zoning
6200 Robinson Rd.
Lockport, NY 14094
716-439-9526
Fax: 716-439-9532
e-mail: b_belson@elockport.com

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The Application for the proposed facility is on file with the Town of Lockport and may be reviewed during regular business hours.

FILED

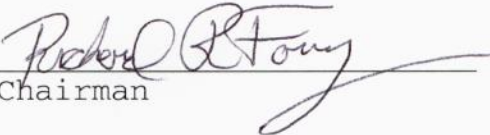
MAR 13 2017

**TOWN CLERK
LOCKPORT, NY 14094**

TOWN OF LOCKPORT

CERTIFICATE OF COMPLIANCE

I HEREBY CERTIFY that the proposed site plan on the property owned by Gerald Tomaino, at 4040 Lake Avenue, Lockport, New York, as set forth in the application before the Planning Board has been approved as to architectural design by the Town of Lockport Planning Board.


Chairman

DATED: Jan 17, 2017

**SEQRA
RESOLUTION
TOMAINO**

WHEREAS, a Short Environmental Assessment form having been prepared and filed by the Applicant or his designee, relative to 4040 Lake Road, Lockport, New York 14094, the expansion for Tomaino Self Storage, Gerald Tomaino, applicant, and this form having been reviewed and considered; and

WHEREAS, the proposed project has been determined to be an Unlisted Action under SEQRA and a short EAF has been completed for the project; and

WHEREAS, the Lockport Town Planning Board, in accordance with State Environmental Quality Review Act (SEQRA) has reviewed, considered and determined that the proposed project will not adversely affect the natural resources of the State and/or the health, safety and welfare of the public and is consistent with social and economic considerations, based on completion of Parts 1, 2 and 3 of the EAF.

NOW, THEREFORE, BE IT RESOLVED, that the Lockport Town Planning Board hereby determines that the proposed project is not anticipated to result in any significant adverse environmental impact and issues a Negative Declaration (authorizing the attached short EAF to act as the SEQRA Negative Declaration in accordance with recent SEQRA amendments), and the Chairman of the Town Planning Board is authorized to sign the EAF.

**ARCHITECTURAL DESIGN
RESOLUTION**

**TOMAINO SELF STORAGE
APPLICANT, GERALD TOMAINO**

NOW THEREFORE BE IT RESOLVED, that based upon the Planning Board review of the proposed project's site plan, the input received from the Planning Consultant as attached hereto and taking into consideration those criteria set forth in Town Code § 53-8, the Board finds:

- 1) That the overall architectural design including architectural colors, styles, signage, and landscaping in relation to architectural design and character of the surrounding area and the buildings contained therein are all compatible with and contribute to the overall areas of the Town of Lockport.

ACCORDINGLY, the Planning Board hereby approves the design as submitted and directs the issuance of a Certificate of Approval by the Chairman.

**SPECIAL USE PERMIT AMENDMENT
RESOLUTION**

**TOMAINO SELF STORAGE,
GERALD TOMAINO, APPLICANT**

WHEREAS, On April 14, 2010 the Town Planning Board granted special use permit for the Tomaino Real Estate Appraisal and Storage Unit Project, said special use permit being amended by the Planning Board on February 11, 2014, October 25, 2014, and in April 2016, and

WHEREAS, the applicant has now applied for an amendment to the plans for Phase III of the Project as depicted on the site plan submitted and prepared by Apex Consulting dated Decemeer 10, 2016, to allow for the construction of 3 additional storage buildings, and further for that applicant to abandon the use of the front of the property for the storage of RVs, boats and similar vehicles,

NOW THEREFORE BE IT RESOLVED, that having taken into consideration the scale of the proposed project and the possible impact on neighboring properties and all the criteria set forth in Town Code § 200-137, the Board finds:

- 1) That the proposed attached findings submitted to the Board dated December 2016 submitted by Apex Consulting Survey & Engineering Services P.C., Timothy W. Arlington, sets forth the appropriate findings and these findings are hereby adopted by this Board, and

BE IT FURTHER RESOLVED, that the Board further finds no adverse impacts that require mitigation caused by this Project, and

BE IT FURTHER RESOLVED, a Special Use Permit is hereby granted to allow the construction of 3 additional storage buildings as proposed, with the following conditions:

- 1) Final Town Engineer approval.
- 2) Front area of the property no longer to be used for vehicle storage.
- 3)

**TOWN OF LOCKPORT PLANNING BOARD
SITE PLAN RESOLUTION**

BE IT RESOLVED, that the site plan for the Proposed Self Storage Phase III for Gerald Tomaino, applicant as submitted by Apex Consulting Survey & Engineering Services P.C. dated December 10, 2016, is hereby approved and this approval is conditioned on the following:

1. Final Town Engineer approval.

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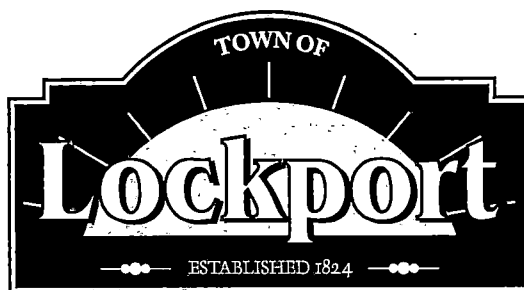
The Application for the proposed facility is on file with the Town of Lockport and may be reviewed during regular business hours.

FILED

MAR 13 2017

**TOWN CLERK
LOCKPORT, NY 14094**

SUPERVISOR
MARK C. CROCKER
SUPERINTENDENT OF HIGHWAYS
DAVID J. MILLER
TOWN CLERK
JUDITH A. NEWBOLD



COUNCIL MEMBERS
DARLENE S. DICARLO
PATRICIA DUFOUR
THOMAS J. KEOUGH
PAUL W. SIEJAK
TOWN ATTORNEY
BRIAN D. SEAMAN

FILED

JUN 21 2017

**TOWN CLERK
LOCKPORT, NY 14094**

June 21, 2017

Jacqueline P. Murray, Esq.
The Murray Law Firm, PLLC
10 Maxwell Drive, Suite 100
Clifton Park, New York 12065

RE: Horvath Communications Application
7154 Chestnut Ridge Road, Lockport, New York

Dear Ms. Murray:

While our consultant, Mr. William Johnson, was preparing his report concerning the above matter, he discovered that your client's application was missing, or contained incorrect materials. The missing or incorrect materials include critical items such as existing RF coverage plots, alternate site RF analysis, and related materials. We understand that some additional materials have since been provided to our consultant. While we appreciate this, the additional materials have not been provided to the Town or made part of the official record in this matter. Please provide these additional materials to the Town in the form of an amendment or supplement to your application. Without such, this Board continues to view your application as incomplete.

Additionally, after consultation with our consultant, we are requesting that your client provide the following additional materials which this Board has determined are necessary in order to complete our SEQRA and site plan review:

1. An RF coverage analysis that shows performance with respect to existing sites rather than comparing to the standard coverage of the proposed site at 176' ACL.
2. A current FAA "no hazard" letter (the one provided expired in July, 2016).
3. Explanation why application seeks approval for a 196' tower when an ACL of 176' is proposed.

6560 Dysinger Road • Lockport, New York 14094-7970

Tel (716) 439-9520 • Fax (716) 439-0528

www.elockport.com

4. An analysis of lower ACL in terms of coverage with existing sites and a traffic offloading analysis for lower ACL.
5. A statement that a thorough analysis has been done and that FAA marking/lighting requirements are not applicable.

Again, the Planning Board has determined that the above matters are necessary in order to make a proper decision regarding SEQRA as well as site plan review.

Very truly yours,

A handwritten signature in black ink, appearing to read "Richard R. Forsey". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

Richard Forsey, Chairman
Town of Lockport Planning Board

DAVID S. MAROTTA

June 28, 2018

Town of Lockport Planning Board
Town of Lockport Zoning and Appeals Board
6560 Dysinger Road
Lockport, NY 14094

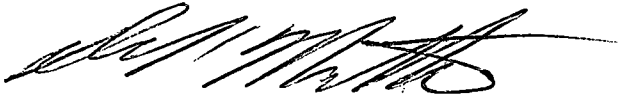
Dear Planning Board Members and Zoning and Appeals Board Members:

Enclosed please find observations and questions as it relates to the proposed cell tower at proposed location of 7154 Chestnut Ridge Rd, Lockport NY and an alternative site, which is more centrally located within the target zone.

It was our understanding that alternative possible sites would be analyzed by the independent expert, William P. Johnson. After reading Mr. Johnson's contract and report, it is clear that Mr. Johnson is not analyzing alternative possible sites to achieve the goal of RF coverage. It is clearly stated by Mr. Johnson in his contract that he will not be doing new RF analysis and that his report is strictly a review of Horvath Communications' application procedure and that he does not have access to their software.

In closing your time in reviewing this very complicated process of cell tower sites is greatly appreciated.

Sincerely,



David S. Marotta

Enclosure

cc: Brian D. Seaman, Town Attorney



CELL TOWER
Considerations and Observations

The following is stated without prejudice.

For almost the past two years we have watched Horvath Communications/Verizon (H-V) attempt to apply and receive a permit from the Town of Lockport to build a 195' cell tower at 7154 Chestnut Ridge Rd, Lockport NY; at a site that is:

1. Very close to a highly populated neighborhood.
2. Property that is not zoned correctly.
3. Property that is too small and would need multiple variances.
4. Property history uses that would lend itself to a good probability of environmental unknowns.

H-V's application and presentation to the Town Board has been:

1. Incomplete and outdated as verified by the consultant, William Johnson.
2. Delayed requests, disingenuous actions and statements of misrepresentation.
 - a) Balloon Test: numerous requests to get action.
 - b) Balloon finally floated...**Why at 160 feet?**
 - c) H-V public notice mailing stated: "195 foot wireless telecommunication facility."
 - d) Statements of no requirement of blinking light. We now know not true... Mercy Flight will require one.
 - e) Board asked H-V for alternative sites. H-V's response is disingenuous; said alternative sites resulted in three of the four sites were at the base of the escarpment and would require a 400' - 450' tower to be feasible with locations that are very difficult to reach. Said alternative sites were out of and did not meet required 2.2 mile radius as stated in Application: Page 8, Figure 2 - Lincoln Avenue Extension is 2.46 miles away.
 - f) Application: Page 3 - Site Analysis. "#5 Robert Lewis 7154 Chestnut Ridge Rd, Lockport NY: This parcel did not meet RF objective, too far out of ring." **Then why are we looking at this site?**

I could state many more statements that have been incorrect, disingenuous, misleading and contradicting but will not at this time. But in light of:

1. Having so much land available in this area, much of which is owned or controlled by the same proposed Landlord, Robert E Lewis.
2. Proposed site being approximately 3,260 lineal feet from the center of the targeted coverage area as shown on Application - Page 2, Figure 1.
3. Possible future consequences by the precedent that could be set by not protecting our zoning laws to the fullest extent.

We respectfully ask that alternative sites be truly considered; sites that are more in accordance with application requirements and objectives, i.e.: 2.2 mile radius as it relates to target area neighborhoods and population density.

ALTERNATIVE SITE

Alternative site and proposed site comparison: (Please See Enclosed Target Coverage Area Map)

1. Proposed Site is approximately 3,260 feet off center of the targeted area.
Alternative Site is approximately 1,260 feet off center of the targeted area (almost 2,000 feet closer to center of target area, must be better.) Both H-V's Application and William Johnson's report emphasize importance of being located in the center of the target area.
2. Proposed Site is approximately 1.14 miles and 1.87 miles to the two most densely populated neighborhoods: Day Road-East High St and Lincoln Ave Ext.
Alternative Site is approximately 1.26 miles and 1.42 miles to the two most densely populated neighborhoods: Day Road-East High St and Lincoln Ave Ext. (Equal and less distance than proposed site, must be better.)
3. Proposed Site is approximately 1.04 miles to North Canal Road.
Alternative Site is approximately 1.76 miles to North Canal Road; within 2.2 mile required radius. North Canal Road is least populated with less than 50 homes.
4. Proposed Site is approximately 1,000 feet to Route 77 / Route 31 and within 680 feet from the first home.
Alternative Site is approximately 5,080 feet to Route 77 / Route 31 and well within 2.2 mile radius.

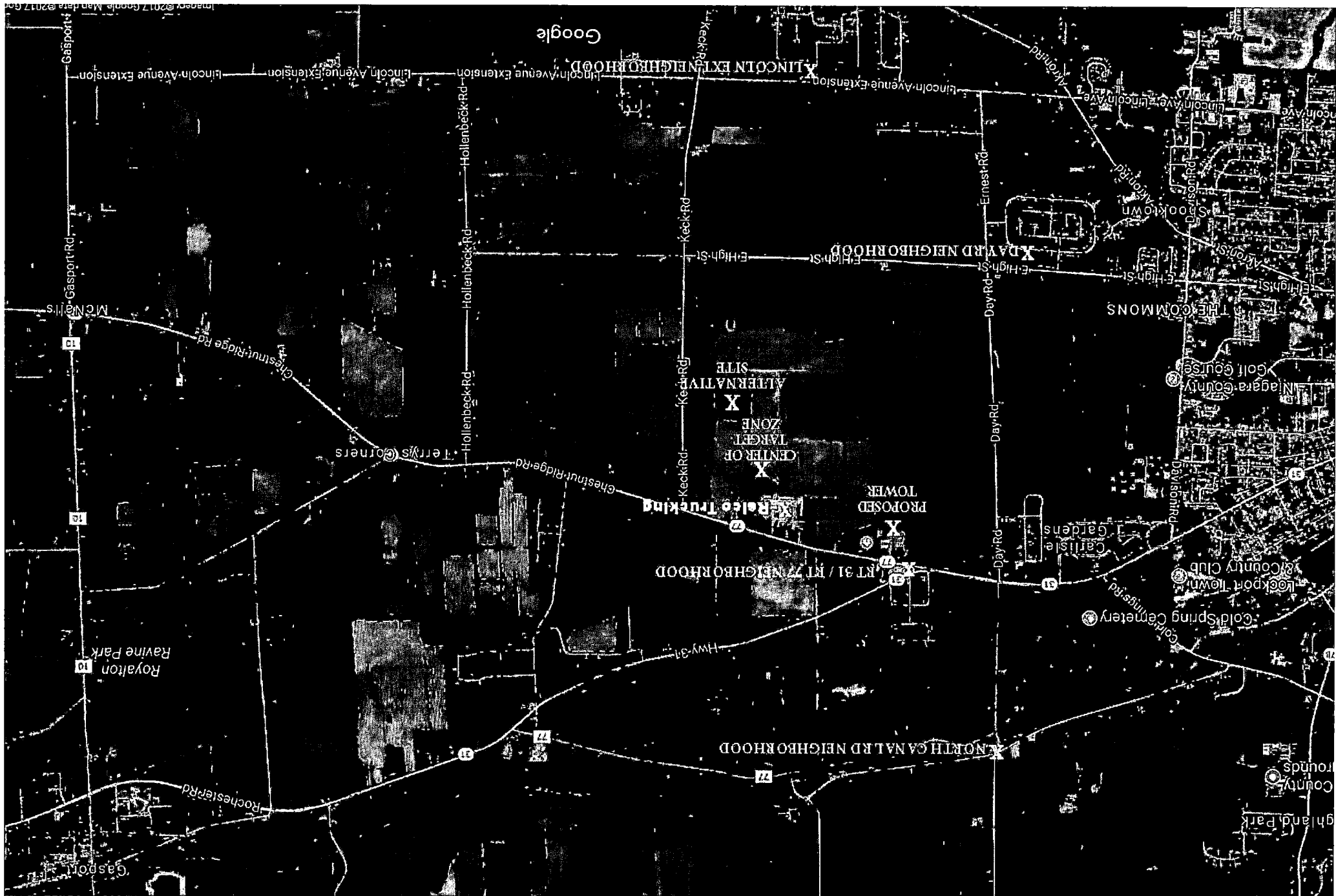
ADVANTAGE TO ALTERNATIVE SITE

1. Better central location and shorter distance to most populated neighborhoods in the targeted areas.
2. Meets requirement of the 2.2 mile radius area per Application.
3. Same land owner as proposed site, should have no objections.
4. Much less zoning requirements needed to be waived by the Town Board while still meeting Application requirements.
5. Hundreds of fewer homes being impacted. Alternative site is less than twenty five (25) homes within the first 3,200 feet. Proposed Site over two hundred (200) homes within the first 3,200 feet.
6. Alternative Site Elevation: Approximately 698 feet. Proposed Site elevation is 618 feet. Approximately 80 feet higher (per Google Maps). Both H-V's Application and William Johnson's report emphasize importance of height to avoid ground clutter and reach for cell coverage. 80 feet results in a 40% higher cell tower. Must be better.

Please show us case law that states Town Boards should first consider corporate profit before its' neighborhoods, zoning laws, safety and environmental issues.

Please vote NO for this site.

7182 Chestnut Ridge Rd
Lockport, New York 14094
Cell: (716) 316-1464 * Home: (716) 438-7637



Google

NORTH CANAL RD NEIGHBORHOOD

RT 31 / RT 77 NEIGHBORHOOD

PROPOSED TOWER

Target Zone

CENTER OF TARGET ZONE

ALTERNATIVE SITE

DAYARD NEIGHBORHOOD

LINCOLN AVENUE EXTENSION

LINCOLN AVENUE EXTENSION

LINCOLN AVENUE EXTENSION

Ernest Rd

Day Rd

Keck Rd

Keck Rd

Hollenbeck Rd

Hollenbeck Rd

Chestnut Ridge Rd

Chestnut Ridge Rd

Terry's Corners

Gasport Rd

10

13

10

31

77

77

51

51

77

77

Gasport

Rochester Rd

Royaton Ravine Park

Castles Gardens

Gold Spring Cemetery

Lockport Town

Nagara County Golf Course

THE COMMONS

Nagara County Golf Course

Lockport

ghandi Park

County

rounds

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Figure 1 - Targeted Coverage Area for the Proposed Chestnut Ridge Facility

From a coverage perspective, the Chestnut Ridge Facility is intended to provide an adequate and safe level of emergency and non-emergency Verizon Wireless telecommunications services (in-building and mobile) along the roadways surrounding the Town of Lockport and Rt 77 / Chestnut Ridge Rd. Specifically:

- o The Telecommunications Facility must fill or enhance coverage in areas of weak and unreliable service in Verizon Wireless' 4th Generation (4G)/Long Term Evolution (LTE) (700 MHz) wireless telecommunications network along Rt 77 / Chestnut Ridge Rd, Hwy 31 / Rochester Rd, Day Rd, North Canal Rd and Lincoln Ave Extension and several other local roads, including the homes and businesses in the area.
- o The Telecommunications Facility must also provide new Advanced Wireless Services (AWS, or 2000 MHz) coverage that approximates 700 MHz LTE wireless telecommunications coverage so that Verizon Wireless' wireless telecommunications service is comparable at both 4G LTE and AWS frequencies in and around the targeted Coverage Area.
- o Lastly and of significant importance, coverage from this facility must integrate (to the fullest extent possible) with existing service from Verizon Wireless' neighboring cells, thereby providing reliable and seamless wireless telecommunications coverage at both LTE and AWS frequencies (as well as future 4th Generation wireless telecommunications services in the existing cellular 850 MHz and PCS 1900 MHz bands), especially along all local and commuter routes passing through and around Targeted Coverage Area.

Dear Mr. Belson,

I am writing you regarding the cell tower. Until a week ago I had no interest in the tower. Then my son came home on vacation and suggested I needed to get rid of my flip phone, and up- date my technology to the year 2017. To illustrate what his phone could do, he began to show me. And to our surprise the signal was so weak that he had to go out on the porch to get a good signal.

That is when I became very interested in cell tower and called the town clerk, who suggested I write you. Hopefully, I am not too late to ask for your consideration in this matter. I feel we do need a new cell tower out here in the Town of Lockport, because I now understand what many have been complaining about. Until now, I just did not get it because every thing was working just fine at my house.

Any help you can give me, and others like me, will be so very much appreciated. (Yes, you can teach old dogs new tricks.!)

Very Sincerely,



Sharon S. Strassel

4822A Cambridge Dr.

Lockport, NY 14094

July 11, 2017

FILED

JUL 11 2017

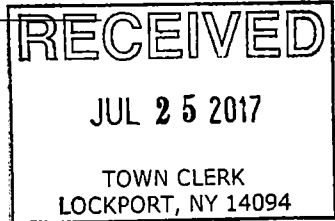
TOWN CLERK
LOCKPORT, NY 14094

M | L | F

THE MURRAY LAW FIRM PLLC

10 Maxwell Drive, Suite 100 • Clifton Park, NY 12065
Tel:(518) 688-0755 • Fax:(518) 688-0297

www.themurraylawfirm.com



July 24, 2017

UPS Overnight

Planning Board
Town of Lockport
6560 Dysinger Road
Lockport, NY 14094

Re: Proposed Telecommunications Facility to be located at
7154 Chestnut Ridge Road, Lockport, NY
SBL 110.-1-11

Dear Board Members:

In response to the Planning Board's letter dated June 21, 2017, please find a complete copy of the applicant's RF analysis, which has previously been submitted to the Board's technical consultant, Professor William Johnson.

Very truly yours,
THE MURRAY LAW FIRM, PLLC

A handwritten signature in black ink, appearing to read "J. Silver".

Joshua A. Silver
jas@themurraylawfirm.com

RF ANALYSIS OF PROPOSED TOWER LOCATION AT 7154 CHESTNUT RIDGE ROAD



Chestnut Ridge Wireless Telecommunications Facility **Radio Frequency/Site Selection Analysis**

Verizon Wireless proposes to construct and maintain a new public utility/personal wireless telecommunications service facility (the "Telecommunications Facility") located at 7154 Chestnut Ridge Rd, Lockport, Niagara County, New York for the primary purpose of permitting Verizon Wireless (the "Applicant") to solve coverage and capacity deficiencies in its network. This facility (referred to by Verizon Wireless as the "**Chestnut Ridge Cell Site**") is specifically intended to solve significant wireless telecommunications coverage and capacity deficiencies in the Verizon Wireless network in the Town of Lockport area, including the local neighborhoods and places of business surrounding the intersection of Rt 77 / Chestnut Ridge Rd, Hwy 31 / Rochester Rd, Day Rd, North Canal Rd and Lincoln Ave Extension and the rest of the geographic area shown on the attached propagation studies- (the "Targeted Coverage Area").

This project is a necessary and critical upgrade of the Verizon Wireless wireless telecommunications network in Niagara County. Upon completion, new, advanced emergency and non-emergency 4G Verizon Wireless telecommunications services will be provided to the Targeted Coverage Area. More specifically, the proposed wireless telecommunications facility will add new 700 MHz Upper Band (Block C) and Advanced Wireless Services (AWS) frequencies to Verizon Wireless' existing regional wireless telecommunications network. Verizon Wireless is using these recently-acquired frequencies for activation and operation of its fourth generation (4G) wireless telecommunication services.

This report documents the process by which the proposed location for the Telecommunications Facility was chosen. It includes a description of the need for and development of the Chestnut Ridge "search area", provides background information on the evolution and current state of wireless telecommunications technology, describes how modern 4th Generation wireless telecommunications services benefit the Town and community at large, and provides a summary of the locations evaluated as potential alternative sites for the project.

Coverage Objectives

The purpose of the Chestnut Ridge Cell Site is to solve wireless telecommunications service and capacity deficiencies in the Targeted Coverage Area and seamless "handoff" to neighboring cells. The boundary of the Targeted Coverage Area is shown pictorially in **Figure 1** below where the red boundary approximates the coverage objective boundary.



Figure 1 - Targeted Coverage Area for the Proposed Chestnut Ridge Facility

From a coverage perspective, the Chestnut Ridge Facility is intended to provide an adequate and safe level of emergency and non-emergency Verizon Wireless telecommunications services (in-building and mobile) along the roadways surrounding the Town of Lockport and Rt 77 / Chestnut Ridge Rd. Specifically:

- The Telecommunications Facility must fill or enhance coverage in areas of weak and unreliable service in Verizon Wireless' 4th Generation (4G)/Long Term Evolution (LTE) (700 MHz) wireless telecommunications network along Rt 77 / Chestnut Ridge Rd, Hwy 31 / Rochester Rd, Day Rd, North Canal Rd and Lincoln Ave Extension and several other local roads, including the homes and businesses in the area.
- The Telecommunications Facility must also provide new Advanced Wireless Services (AWS, or 2000 MHz) coverage that approximates 700 MHz LTE wireless telecommunications coverage so that Verizon Wireless' wireless telecommunications service is comparable at both 4G LTE and AWS frequencies in and around the targeted Coverage Area.
- Lastly and of significant importance, coverage from this facility must integrate (to the fullest extent possible) with existing service from Verizon Wireless' neighboring cells, thereby providing reliable and seamless wireless telecommunications coverage at both LTE and AWS frequencies (as well as future 4th Generation wireless telecommunications services in the existing cellular 850 MHz and PCS 1900 MHz bands), especially along all local and commuter routes passing through and around Targeted Coverage Area.

Changes in Wireless Telecommunications Technology and Usage

The wireless industry can best be characterized as one of unprecedented growth. Nationally, data compiled by CTIA – *The Wireless Association* indicates that there are approximately 321.7 million subscriber connections active in the United States as of June 30, 2012.^[1]

This is an increase of more than 15.4 million connections over the prior year (6/30/11 – 6/30/12), which was preceded by growth of approximately 13.4 million connections the year before that (6/30/10 – 6/30/11).

Verizon Wireless has approximately 107.8 million total wireless telecommunications connections as of the end of the fourth quarter of 2011 (Securities and Exchange Commission Form 10-K Annual Report for Fiscal Year Ending December 31, 2011)^[2]. This figure represents an increase of approximately 5.6 million wireless telecommunications connections from the prior year; during the fourth quarter alone Verizon Wireless added approximately 1.0 million net wireless telecommunications connections nationally.

Subscriber usage on the Verizon Wireless network is more than doubling year-over-year, and this trend is expected to continue for the foreseeable future. For example, data from the Centers for Disease Control and Prevention indicates that (a) approximately 35.8% of all adults and children live in households that have replaced landline telephone service with only wireless service, and (b) nearly one in six American homes (15.9%) receive all or almost all calls on wireless devices despite also having landline service.^[3] This trend, referred to as “cutting the cord”, is clearly increasing, and wireless networks must now handle communications from multiple wireless devices owned by multiple members of a household (that previously were addressed by a single household connection to the landline system).

From a public safety standpoint, advances in wireless technology are transcending the historical distinction between “voice” and “data” services. It is beyond dispute that wireless telecommunications technology provides vital emergency communications services to local residents and businesses, the traveling public, emergency service providers, hospitals and health care professionals, 911 Public Safety Answering Points (PSAPs), and other law enforcement personnel and governmental officials. This usage is increasing rapidly, with the Federal Communications Commission (FCC) reporting that more than two thirds -- almost 70% -- of 911 calls today are made from mobile devices (Wireless 911 Services – FCC Consumer Facts; *see also*, Statement of FCC Chairman Julius Genachowski, Framework for Next Generation 911 Deployment, PS Docket No. 10-255, *Notice of Inquiry*, 25 FCC Rcd 17869 (2010)).^[4]

In recognition of this fact, federal officials are rapidly moving forward with plans to upgrade legacy circuit-switched 911 systems to provide the capability to accept all manner of wireless data, including text messages, photos and video. *FCC Notice of Proposed Rulemaking dated September 22, 2011 (FCC 11-134)*. Moreover, the FCC has recently implemented a two-year phase-in period for accessibility requirements for Advanced Communications Services (ACS) (including, for example, texting, close captioned video and video description services), making modern wireless and broadband devices accessible for emergency and non-emergency use to persons with disabilities. *FCC Report and Order dated October 7, 2011 (FCC 11-151)*

With the transition to smart phones and other wireless telecommunications devices, these changes are critical to not only provide the public with an additional means of emergency communications, but also to

^[1] Online at http://files.ctia.org/pdf/CTIA_Survey_MY_2012_Graphics-final.pdf.

^[2] Online at <http://www.sec.gov/Archives/edgar/data/732712/000119312512077846/d257450d10k.htm>.

^[3] *Centers for Disease Control and Prevention, Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, January - June 2012* (Released 12/19/2012), concluding that the potential for bias due to undercoverage remains a real and growing threat to surveys conducted only on landline telephones. This report is online at <http://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201212.PDF>.

^[4] Fact Sheet online at <http://www.fcc.gov/guides/wireless-911-services>; Genachowski statement attached hereto.

bring effective emergency wireless 911 services to persons with disabilities for the first time (e.g., the deaf, blind and/or speech-impaired). For these new services to function properly alongside the wireless communications technologies of today, additional network capacity and bandwidth are critical.

In this context, wireless telecommunications *of all forms* are vital to the public welfare, safety and convenience, and not a mere luxury or entertainment item. To ensure the continuity of emergency and non-emergency wireless telecommunications within the broader Verizon Wireless network, it is imperative that network coverage and capacity needs be addressed promptly, so that the Verizon Wireless network can continue to function without interruption during emergencies and/or catastrophic conditions.

Fourth Generation (4G) Network Technology Evolution

Pursuant to certain licenses granted by the Federal Communications Commission (FCC), Verizon Wireless owns and operates wireless telecommunications services in Niagara County through high-speed third generation (3G) voice, data, video and other services using legacy Cellular and Personal Communications Services (PCS) frequencies. These licenses afford Verizon Wireless the exclusive right to transmit and receive signals within the licensed frequency bands.

Due to the increased demand of wireless devices and the explosion of voice, data and other wireless services in the mid-2000s, network resources and available spectrum in both the legacy Cellular and PCS licensed bands were quickly approaching and often exceeding maximum capacity. Simultaneously, wireless carriers were in the planning phases of deploying new 4G technologies nationwide, offering improved and expanded voice, data and other wireless services. Additional spectrum and radio channels are required to deploy these new technologies, as generally there isn't sufficient space on the existing licensed frequencies to accommodate the migration from 3G to 4G services (as both technologies must operate simultaneously).

In response to the wireless telecommunications industry's growing need for additional spectrum (i.e., capacity), the FCC began the process of auctioning off 700 MHz spectrum to interested wireless service providers in 2008. The 700 MHz spectrum was previously used for analog television broadcasting, specifically UHF Channels 52 through 69. In 2009, as a result of these auctions, Verizon Wireless acquired nation-wide FCC licenses in the 700 MHz band and is using this spectrum to provide 4G services to its customers. Furthermore, Verizon Wireless has acquired additional frequencies in the Advanced Wireless Services (AWS) frequency band to complement (add more capacity to) its existing frequencies and provide additional high-speed 4G bandwidth.

Although a multi-year task that will continue for several years to come (i.e., to match the 4G footprint to that of the legacy 3G cellular and PCS network), a couple of key and unforeseen situations have arisen that have driven the need to re-focus on urban and populated areas (like residential areas and businesses along Rt 77 / Chestnut Ridge Rd, Hwy 31 / Rochester Rd, Day Rd, N Canal Rand and Lincoln Ave Extension in conjunction with the continued efforts to expand into rural areas. First, the expectation was that the 700 MHz 4G/LTE sites, when added to an existing cellular 850 MHz site, would provide coverage very similar to or exceeding that provided by the legacy 3G site; in practice this is not the case and there are many areas where fill-in 4G sites are needed whereas underlying 3G service is acceptable. Second, the popularity and explosion of data intensive applications (e.g., Facebook, YouTube, Hulu, etc.) has resulted in 4/LTE growth that far exceeds projections; as a result Verizon Wireless is beginning to roll out its AWS frequencies to offload capacity-burdened LTE 700 MHz sites¹. At 2000 MHz, these high-frequency AWS signals aren't capable of providing comparable coverage to 700 MHz, so in the not-so-distant future AWS fill-in sites will be required so that the AWS network footprint offers seamless coverage that closely approximates the LTE 700 MHz network coverage footprint.

¹ Adding AWS (2000 MHz) technology to existing capacity-limited LTE (700 MHz) sites is the same scenario as in the past where Verizon Wireless built PCS sites to offload capacity-limited 850 MHz cellular sites. Since the PCS (1900 MHz) frequencies are not able to cover and penetrate buildings and trees as well as the 850 MHz cellular signals, additional PCS sites were required to "match" the existing cellular coverage.

Long Term Evolution (LTE) Technology

The technology used by Verizon Wireless for migration to 4G network functionality is known as LTE (Long Term Evolution). LTE is an advanced high-performance air interface standard that is designed to increase mobile telecommunications network coverage and capacity, offering throughput speeds that range from 12 to 20 times faster than Verizon Wireless' existing 3G technology, known as EVDO (Evolution Data Optimized). It is important to note however that 4G/LTE technology operates at lower power levels than 3G, and as a result spacing between new 4G facilities is generally less than spacing between legacy 3G (as well as earlier analog and 2G) facilities. In the foreseeable future, the LTE standard will be backward-compatible with Verizon Wireless' existing voice and data services, so customers using LTE devices in areas where LTE service may not exist will seamlessly access and use the legacy 3G network.

As compared to Verizon Wireless' existing CDMA network, LTE technology uses different signaling schemes (i.e., frequency division multiplexing similar to that of modern-day WiFi and WiMax versus Verizon Wireless' existing 3rd generation CDMA, or Code Division Multiple Access, technology), operating frequencies and power levels. Having said this, the basic wireless network design principles are similar and will apply to this technology, and the ability to control and minimize interference is critical to the overall performance and reliability of the network. For these reasons, the LTE deployment focuses on achieving acceptable levels of network performance by carefully minimizing interfering signals from neighboring and distant sites while maximizing coverage within each site's targeted coverage area. This objective is pursued by installing high performance LTE antennas at each new and existing facility, with each LTE antenna selected based on its inherent operational characteristics (antenna pattern, gain) and adjusted (via antenna orientation, downtilt, etc.) to contain coverage within only a well-defined target area (thus reducing interference with neighboring and distant sites).

To achieve acceptable data speeds and performance in LTE, a mobile device must operate in a relatively low interference environment (i.e., where spillover coverage from surrounding and distant facilities is minimized) while receiving sufficiently strong signals from its intended serving cell. As with CDMA where a pilot or reference signal is used to determine cell coverage, LTE coverage and performance is also determined by the strength and quality of the reference signal generated by a nearby serving site. In LTE terms, the signal strength of this reference signal is referred to as the Reference Signal Received Power level, or RSRP. An LTE mobile device must be able to receive and decode the reference signal in order to successfully connect and maintain reliable connection to the wireless network. The reference signal power used by Verizon Wireless to ensure reliable LTE coverage, service and performance is -105 dBm.

General Methodology – Network Design

Verizon Wireless' approach to cell site placement begins with recognition that a particular geographic area, or "cell", cannot be sufficiently served from the existing communications facilities in the surrounding network. This lack of service can be attributable to a lack of direct wireless coverage, a lack of available calling capacity, or both.

In the Chestnut Ridge Cell, the primary issue is a lack of direct (i.e., localized) 4G/LTE coverage while providing at least a 20% capacity offload to the surrounding cells. The current unreliable level of wireless telecommunications service in the Targeted Coverage Area originates in part from Verizon Wireless capacity-limited sites currently in the general area. These sites are the "East Lockport" facility located at 52 Walnut Street, "Hartland HD" facility located at 3744 Hartland Road and "Dysinger" facility located at 6585 Block Church Road. As year-round usage continues to grow in the Targeted Coverage Area it becomes critical that coverage from the existing facilities be contained to the area generally surrounding their respective cells and prevented from extending fringe coverage to the neighborhoods and businesses generally surrounding the Targeted Coverage Area. To compensate, new localized coverage is needed to offload customer traffic in the neighborhoods along Rt 77 / Chestnut Ridge Rd, Hwy 31 / Rochester Rd, Day Rd, North Canal Rd and Lincoln Ave Extension so that appropriate levels of capacity can be offered to customers in the East Lockport and Hartland HD cells. Providing this new local service is the primary objective of the proposed Chestnut Ridge Facility.

To demonstrate the current level of 4G/LTE service in the Chestnut Ridge Cell and surrounding area, existing 4G (700 MHz) coverage in the area is illustrated in the propagation analysis attached as **Exhibit 1**². When viewing **Exhibit 1**, regions in blue indicate areas of reliable 700 MHz 4G coverage, green regions illustrate reliable coverage from future Verizon Wireless facilities, and areas in white are those that are underserved. A propagation analysis showing the new emergency and non-emergency coverage and calling capacity that will be provided by the proposed Chestnut Ridge Telecommunications Facility (shown in the color green) at the proposed height of 195± ft. is included in **Exhibit 2**. The antenna height is discussed later in the "Tower Height; Future Co-Location Capacity" section of this report.

As the results above demonstrate, coverage is currently deficient in, among other locations, the Targeted Coverage Area. The lack of coverage is a direct result of the intricacies of modern 4G/LTE technology and the surrounding local RF environment. As described previously, the insufficient level of 4G service near the Targeted Coverage Area is primarily coming from the East Lockport and Hartland HD facilities, but more specifically the reason these sites are not able to adequately serve the Lockport area are as follows:

- The Dysinger facility (6.23± miles southeast of the proposed Chestnut Ridge, site located at 6585 Block Church Road), but is capacity-limited due to its proximity to the businesses located in the vicinity of the Town of Lockport. From a coverage perspective, this telecommunications is located too far from the Chestnut Ridge Cell, this prevents sufficient 4G signal strength (and signal quality) from reaching the Targeted Coverage Area.
- The *Hartland HD* facility (4.24± miles northeast of the proposed Chestnut Ridge site, located at 3744 Hartland Road). This facility provides coverage and capacity to the Town of Gasport along Rte.10 / Gaston Rd in which there is high usage. Like the Dysinger facility, the Hartland HD facility is also capacity limited. Also from a coverage perspective, this wireless telecommunications facility is located too far from the Town of Lockport, this prevents sufficient 4G signal strength (and signal quality) from reaching the Targeted Coverage Area.
- The *East Lockport* (2.73± miles west of the proposed Chestnut Ridge site, located at 52 Walnut Street). This facility provides coverage and capacity to the Town of Lockport along Rte. 31 / East Ave in which there is very high usage. Like the Dysinger and the Hartland HD facility, the East Lockport facility is also capacity limited.

Unfortunately, a significant portion of available capacity and coverage from the East Lockport, Hartland HD and Dysinger facilities is inefficiently used up by mobile devices communicating with the network through them via sporadic fringe weak and unreliable (i.e., poor quality) signals that *do* reach as far as The Targeted Coverage Area (or further). As a result, mobile devices operating at/near the intended Targeted Coverage Area, when they are able to connect, are operating at or near peak power (and conversely the East Lockport and Hartland HD sites are forced to operate at/near peak power to reach these distant mobile devices attempting to operate in poor RF conditions). In a snow-ball type effect, as the East Lockport, Hartland HD and Dysinger sites and associated mobiles power up to communicate from the Targeted Coverage Area, they interfere with other sites and mobile devices in the area, forcing all sites (and associated mobile devices) in the area to operate at higher power; this added interference forces the East Lockport, Hartland HD and Dysinger sites and their associated mobile devices to power up further to overcome the new interference, and cycle continues until there are no longer sufficient resources to serve all the users surrounding the Targeted Coverage Area. Placing a local and dominant serving site (i.e., the proposed Chestnut Ridge Telecommunications Facility) located along Rt 77 / Chestnut Ridge Rd enables the majority of mobile devices in the Targeted Coverage Area to effectively communicate at relatively low power and at appropriate capacity efficiency. Similarly, once mobile devices in the area are effectively "offloaded" from surrounding sites (specifically East Lockport and Hartland HD), significant capacity efficiencies are gained on these surrounding sites as all their available capacity is available to mobile devices operating in close proximity and generally in good RF conditions surrounding them (i.e., within their intended coverage areas).

² All propagation studies in this report were developed using a Verizon Wireless in-house radio frequency propagation prediction tool called "Geoplan".

Ultimately, the proposed Chestnut Ridge Telecommunication Facility will remedy the coverage and capacity issues described above, and successfully “offload” customer traffic in the Targeted Coverage Area (enabling optimization – or coverage reduction – on the East Lockport, Hartland HD and Dysinger sites so that available capacity from these sites is focused within the surrounding localized areas that require additional capacity). It is worth mentioning that planned Verizon Wireless sites to the north and west of the targeted coverage area are too distant to provide adequate coverage to the Targeted Coverage Area.

In short, regarding Verizon Wireless’ surrounding sites and their respective inability to adequately serve the Chestnut Ridge Cell, none of these facilities can be modified to properly serve the Targeted Coverage Area. Nor is it practical to modify (e.g., raise antenna height) any of the further away sites as coverage from one of these distant facilities would provide nothing more than wide-spread RF “Noise” throughout the Targeted Coverage Area and would in effect worsen the existing capacity challenges in the area (as mobile devices operating at/near the Targeted Coverage Area would need to operate at or close to peak power at all times to overcome interference in the area, which creates a scenario where the mobile devices are interfering with each other). The only technologically feasible way to resolve the coverage and capacity issues within the Chestnut Ridge Cell is to place a new facility along Rt 77 / Chestnut Ridge Rd close to the neighborhoods and businesses; and in such a location as to fit into the network of surrounding existing and future cells. As such, Verizon Wireless is proposing the Chestnut Ridge Telecommunications Facility in a location which not only works from a technological standpoint, but also in a location which is appropriate from a land use and zoning perspective.

In sum, due to changes in wireless technology and its usage, areas of widely-varying terrain and/or dense mature vegetation in the community, and distance to adjoining (existing and future) cell sites ranging from 2.72 miles – 6.23 miles, it is not possible for neighboring facilities to reliably serve the Targeted Coverage Area. To provide a dominant (i.e., continuous) level of advanced 4th Generation wireless communications coverage to this area, a new, wireless telecommunications facility is required in the Chestnut Ridge Cell.

Chestnut Ridge Search Area and Proposed Site Selection Methodology

In general terms, wireless telecommunications is a “line-of-sight” technology. For this reason, wireless telecommunications signals can only travel so far, and are impeded by topography and vegetation. Hills, buildings, and foliage attenuate and/or block RF signals, which is why wireless telecommunications coverage is usually better in the winter (when leaves are down) than in the summer. To provide an adequate and safe level of service, the transmitting antennas must be placed above the trees and high enough to “see” over nearby hills or buildings. Additionally, wireless telecommunications transmissions are broadcast at a very low power level (compared to radio and TV), and therefore do not travel as great a distance comparatively through free space.

Second, with the popularity of mobile devices and the heavy usage associated with operation of these devices, the subsequent strain on network resources is more and more frequently driving the need for additional “fill in” sites to handle wireless traffic congestion.

For these reasons, new wireless telecommunications facilities must be located within specific geographic areas in order to satisfy applicable coverage and capacity objectives, and also integrate with service from neighboring cell sites in the Verizon Wireless telecommunications network. The geographic area that is chosen to meet the needs of a new facility is called a “search area”. The search area for the proposed Chestnut Ridge Telecommunications Facility is shown in **Figure 2** below, and targets the properties generally surrounding the intersection of Rt 77 / Chestnut Ridge Rd and Rt 31 / Rochester Rd.



Figure 2 – Chestnut Ridge Search Area

The search area shown in **Figure 2** was prepared by a qualified in-house Verizon Wireless Radio Frequency (RF) Engineer. The location of the search area is driven by the coverage objectives described earlier in this document, as Verizon Wireless' new wireless telecommunications facility must:

- (a) be located in an area where it can provide the needed coverage and adequately serve demand from mobile devices within the target area.
- (b) be close enough to the designated high-usage areas to provide the necessary level of capacity relief.
- (c) properly integrate and "hand-off" to surrounding cells in the network (existing and future).

The size and shape of the search area is ultimately driven by topography, vegetation and surrounding terrain, and existing and planned coverage, and the location of surrounding cells in the network. Not all areas within the search area are suitable for wireless telecommunications facility use. Propagation modeling and technical judgments are necessary resources that determine what site or sites will adequately satisfy the applicable coverage and capacity objectives.

Although the search area is generally limited (i.e., having approximately a 2.20 mile radius, this is the ideal location from both a capacity and coverage perspective. RF-wise, assuming the antennas are placed sufficiently high above local tree and building clutter, a site at or close to this intersection would offer efficient and adequate coverage (since all three sectors of the site would provide coverage in three key directions – northwest along Day Rd and North Canal Rd, east along Rt 77 / Chestnut Ridge Rd and Rt 31 / Rochester Rd and Lincoln Ave Extension and High St.

In arriving at its decision to place the proposed Telecommunications Facility at 7154 Chestnut Ridge Rd, Verizon Wireless completed a thorough analysis of the Chestnut Ridge Search Area. An effort has been made to identify potential locations that would be both technically appropriate and sensible from a zoning and land use perspective. The Site Acquisition Specialist then identified appropriate locations within the search area for the proposed new Telecommunications Facility.

As a final step, each candidate identified by Site Acquisition is reviewed by Verizon Wireless RF Engineering where a computer model is used to analyze each prospective site to determine if it meets the applicable coverage and capacity objectives.

Existing Wireless Telecommunications Towers or Other Tall Structures

As is common when developing all new Verizon Wireless sites, the first consideration is whether there are any existing telecommunications towers (or other tall structures) within the specified search area, capable of hosting the proposed Verizon Wireless communications facility (known as "collocation"). Collocation is often the preferred approach (wherever feasible) as it offers a timely and generally less expensive approach to providing new or enhanced service to a given area.

There are no existing telecommunications towers or other tall structures inside or near the search area on which collocation was possible. Accordingly, collocation on an existing telecommunications tower or other tall structure is not a viable alternative for Verizon Wireless to pursue.

New Wireless Telecommunications Tower at New Location

In cases where the search area does not contain any existing towers or other tall structures of sufficient height, location or landlord interest, construction of a new wireless telecommunications facility is required. Subject to technical limitations, a site search for new tower (raw land) candidates generally involves consideration of the following: town or other municipal properties; industrial and commercial zones; agricultural zones; and lastly, residential zones. Local zoning requirements are also considered in consultation with Verizon Wireless' land use counsel.

For the proposed Chestnut Ridge Telecommunications Facility, and as described above, the objective was to identify a location close to Rt 77 / Chestnut Ridge Rd and Rt 31 / Rochester Rd. that made sense technically (i.e., could host a wireless telecommunications facility at a height required to clear the surrounding tree canopy and tall buildings), satisfy local zoning laws to the fullest extent possible, and was feasible from a construction and maintenance aspect.

Land Use Considerations

Based upon Verizon Wireless' evaluation of the Chestnut Ridge Search Area, the Chestnut Ridge Rd. property has been identified as the most appropriate site for Verizon Wireless' proposed Telecommunications Tower. The proposed site location offers natural tree screening from the neighboring and nearby properties to the east and west. The tower structure is proposed to be set back of the property.

This property is located within the search area and is close to the ideal Targeted Coverage Area of Rt 77 / Chestnut Ridge Rd and Rt 31 / Rochester Rd. The Chestnut Ridge Rd allows Verizon Wireless to place the proposed facility in an area that will work well from RF coverage; capacity and performance perspective while keeping it in an area that will not interfere with day-to-day traffic patterns around the storage facility.

From a technical standpoint, the Applicant's RF Engineer has determined that an antenna height of 176 ft. (antenna centerline or "ACL") is the minimum required to elevate the antennas sufficiently high above the surrounding trees and buildings in the immediate area. Reducing antenna height closer to the tree and roof tops results in near-field scatter and detrimental signal degrading effects that lessen the facility's effectiveness (i.e., ability to satisfy coverage and capacity objectives).

Tower Height; Future Co-Location Capacity

As stated above, the proposed 195± ft. structure height will provide new emergency and non-emergency Verizon Wireless 4G coverage and capacity to the residential/commercial area within the Targeted

Coverage Area, and provide seamless connectivity to existing Verizon Wireless sites to the northwest, northeast and south. The proposed ACL of 176 ft. is necessary to minimize the service disruption along Rt 77 / Chestnut Ridge Rd, Rt 31 / Rochester Rd and Gasport RD between Chestnut Ridge and the Hartland HD and the East Lockport and Dysinger cells. This height is also needed to provide a "seamless" handover to the East Lockport Cell along Rt 31 / Rochester Rd. A lower antenna height at the Chestnut Ridge Cell could potentially lead to the deployment of additional cells in the surrounding areas. Given the surrounding tree canopy and the necessity to place the antennas a safe distance above this surrounding vegetative clutter (to prevent local signal scatter and blocking from trees too close to the antennas and allow for a reasonable amount of tree growth before such signal degrading effects occur), the selected antenna height of 180 ft. above ground level (176 ft. ACL height) is the minimum from which Verizon Wireless is able to effectively satisfy coverage objectives in this Lockport area.

As the antenna center line (ACL) descends from the proposed 176 ft., it enters into a range where clutter becomes an increasingly problematic factor. Examples of clutter are trees, houses, buildings, soil, and other physical objects on the ground. Clutter attenuates, or weakens and disperses, the RF energy necessary for wireless telecommunications. As the ACL descends, RF energy is increasingly attenuated by the total accumulated volume of clutter. A graphic depiction of attenuation is found in **Figure 3** (not to scale).

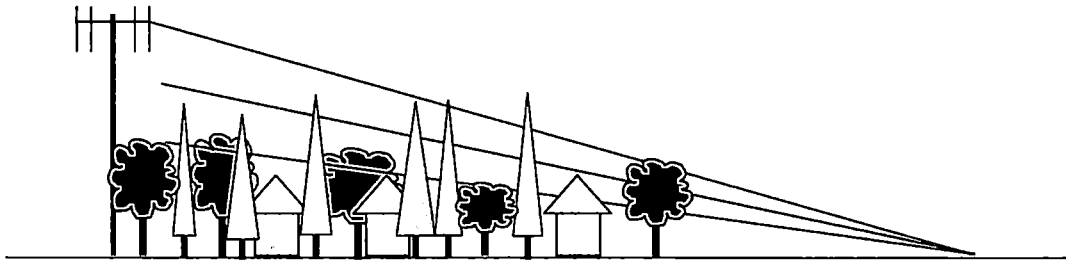


Figure 3 – Impact of Clutter

The proposed site will have an ACL of 176± ft. in order to provide safe and reliable wireless telecommunications coverage to the target area and will provide reliable transitions to the adjacent sites. This height will also further an important local objective by providing additional co-location space for additional wireless users. A lower ACL would substantially limit the coverage due to the surrounding foliage and buildings.

Based upon the foregoing, a minimum tower height of 195± ft. AGL (199± ft. when including a 4± ft. lightning rod) is required to satisfy the coverage objectives described above.

Technical Information

Frequency Modulation / Type of Service

The frequency, modulation and class of service of Verizon Wireless' radio equipment in the Lansing area is:

Frequencies:

Cellular (B Band) – Legacy 3G; Future 4G

Tx 880.020 – 889.98 and 891.51 - 893.970 MHz

Rx 835.020 – 844.98 and 846.51 - 848.970 MHz

Personal Communications Service (PCS) Band (Block B3/D) – Legacy 3G; Future 4G

Tx 1945.00 – 1955.00 MHz

Rx 1865.00 – 1875.00 MHz

WU 700 MHz Upper Band (Block C) ; 4G/LTE

Tx 746.00 – 757.00 MHz

Rx 776.00 – 787.00 MHz

Advanced Wireless Services (AWS-1) Band (Block A) – 4G/LTE

Tx 2110.00 – 2120.00 MHz

Rx 1710.00 – 1720.00 MHz

Modulation: 4G Long Term Evolution (LTE)

Class of Service: Handheld Mobile Communications

Verizon Wireless offers handheld, third-generation (3G) and fourth generation (4G) voice and data wireless services over its FCC-licensed frequencies throughout Niagara County.

Conclusion

There are no existing towers or other tall structures within or near the search area for Verizon Wireless to co-locate upon. Accordingly, construction of a new tower at a new location is required.

A new wireless telecommunications tower located at the Chestnut Ridge Rd property at a height of 195± ft. AGL (199± ft. when including a 4± ft. lightning rod) will enable Verizon Wireless to provide the required coverage to the Targeted Coverage Area, and integrate (or connect) this new coverage with Verizon Wireless' existing regional wireless network in Niagara County. Verizon Wireless believes that the proposed site is the most appropriate location for the proposed Telecommunications Facility.

Date: June 27, 2015

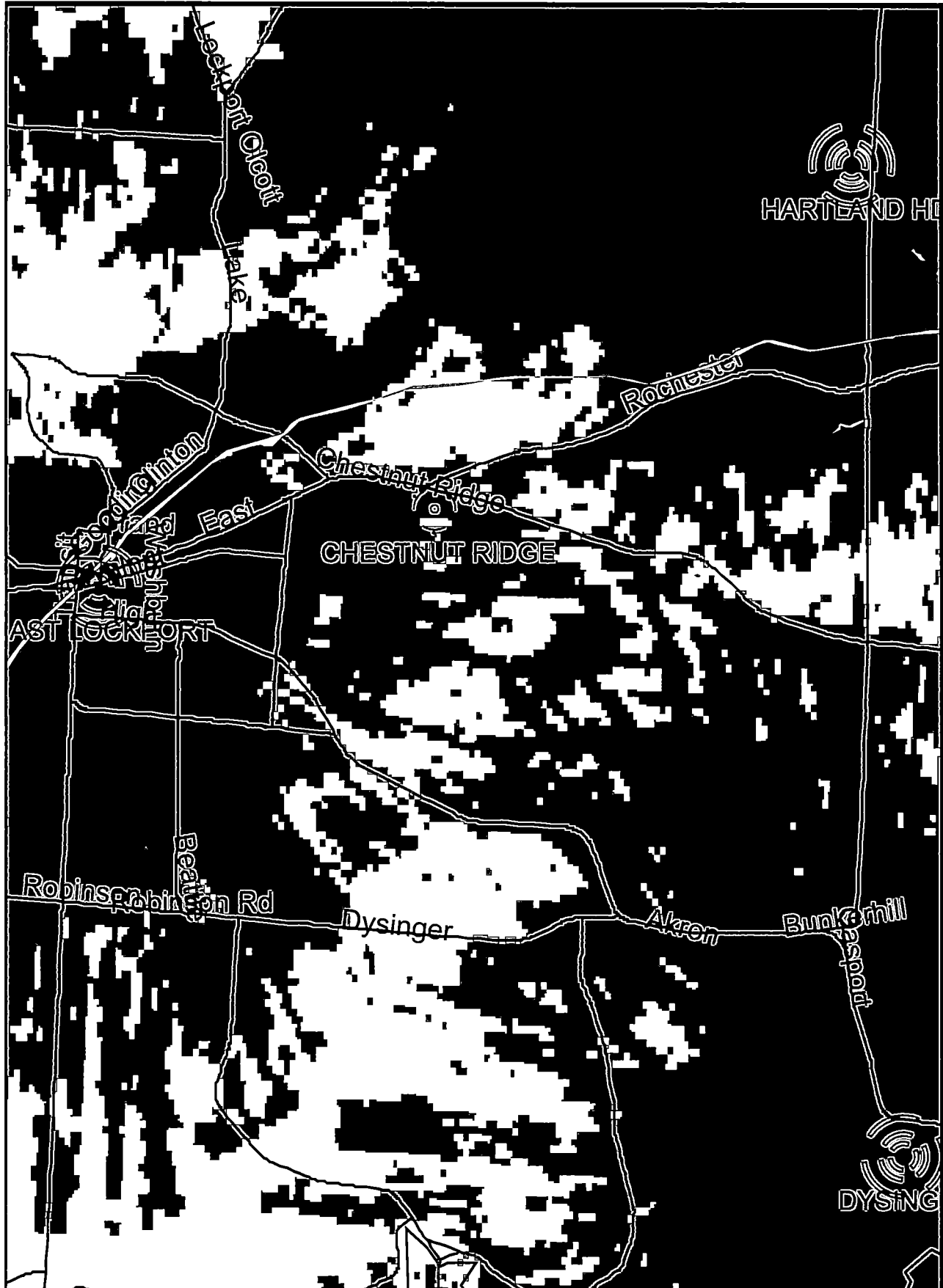
Prepared by:

Christopher Mancini

Christopher Mancini
Radio Frequency (RF) Design Engineer
Verizon Wireless

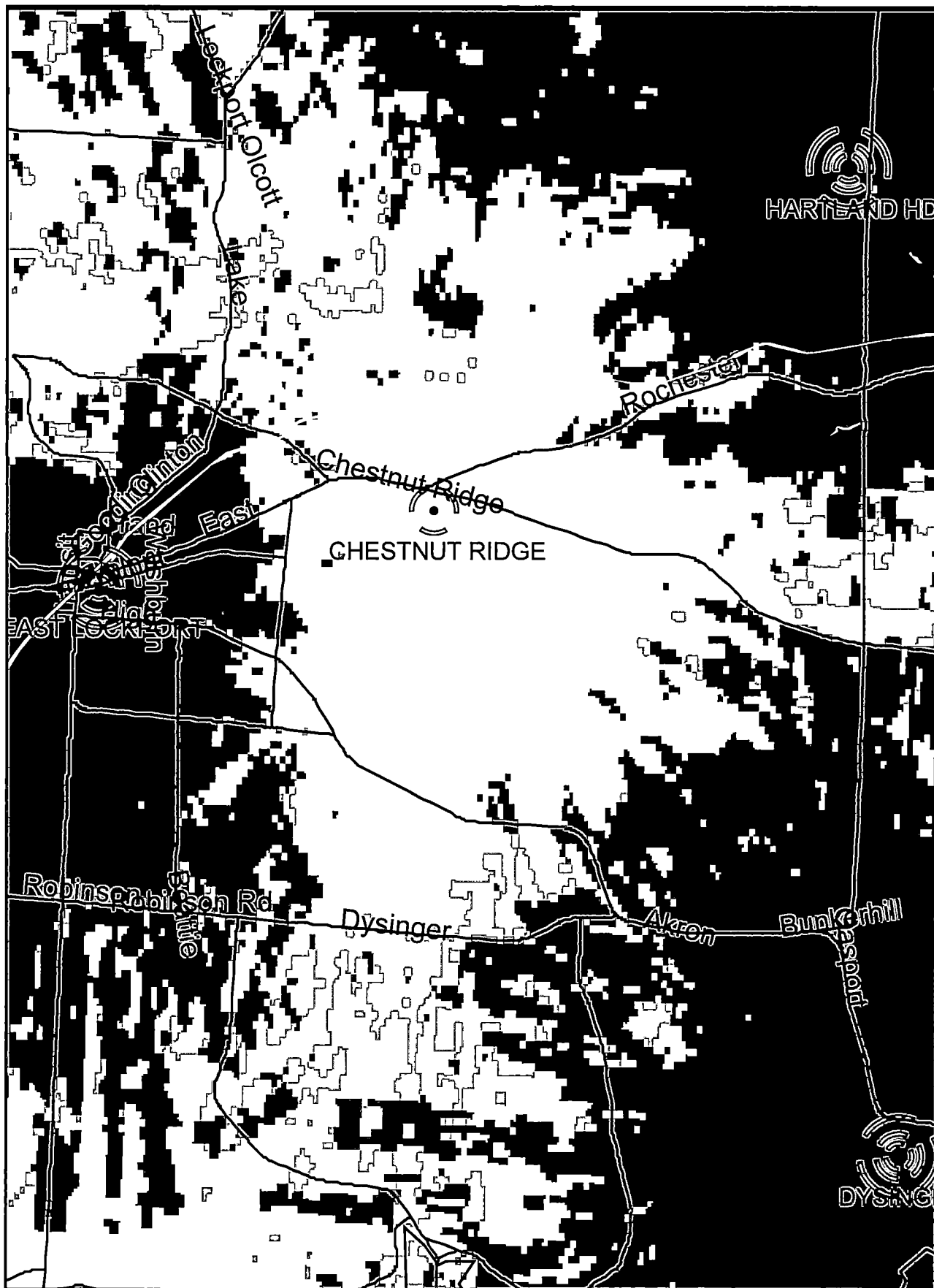
Chestnut Ridge Existing Coverage 176' ACL

4G LTE Services; - 105dBm RSRP Blue = Existing



Chestnut Ridge Proposed Coverage 176' ACL

4G LTE Service; -105dBm RSRP Blue = Existing , Green = Proposed



RF ANALYSIS OF ALTERNATE TOWER SITES NORTH OF PROPOSED LOCATION



**BELL ATLANTIC MOBILE SYSTEMS OF ALLENTOWN, INC.
d/b/a
VERIZON WIRELESS**

CHESTNUT RIDGE SITE

**7154 CHESTNUT RIDGE ROAD
LOCKPORT, NY, 14094**

**SUPPLEMENTAL RADIO FREQUENCY ANALYSIS
NOVEMBER 14, 2016**

Bell Atlantic Mobile Systems of Allentown d/b/a Verizon Wireless previously furnished a detailed analysis regarding its proposed wireless communications facility to be located in Lockport, NY, also known as the "Chestnut Ridge" cell site. Below supplemental report evaluates alternate location northwest of proposed site.

Two locations proposed by the town are evaluated in this supplement report. Exhibit 1 show google earth pins of these two locations in comparison with the proposed facility. Both of these locations (**Location 1: 43.193569, -78.639327** & **Location 2: 43.192195, -78.650955**) are ~ 1.04 miles away from the proposed location. **Exhibit 2 & Exhibit 3** shows coverage plots from **Location 1** and **Location 2**. Placing a new facility at either location will not work from RF prospective because it does not meet its capacity and coverage objective. As you can see from **Exhibit 2 and Exhibit 3** when comparing the proposed location with **Location 1 & Location 2**, the coverage shrinks to the south. There is loss of coverage to residents along Davison Rd, multiple residents along E High Street, multiple residents along Akron Street, Dysinger Road, Lincoln Ave and numerous local roads, business, and residents in the area. Proper RF design and capacity planning dictate that traffic be evenly distributed between the sectors of a communications facility in order to deliver an adequate quality of service to all users of that facility. This is done by placing the new facility in the center of the target coverage area. Moreover, positioning of this candidate is farther away from our existing East Lockport facility that VZW is trying to provide capacity relief. As a result of this separation, the two locations will not provide much needed capacity for the existing exhausted sectors. For these reasons, a tower at these locations is not an acceptable candidate for a new Verizon Wireless communications facility that has the intended objective of providing coverage and capacity offload to the targeted objective.

EXHIBIT 1
VERIZON WIRELESS
GOOGLE EARTH LOCATION PLOT

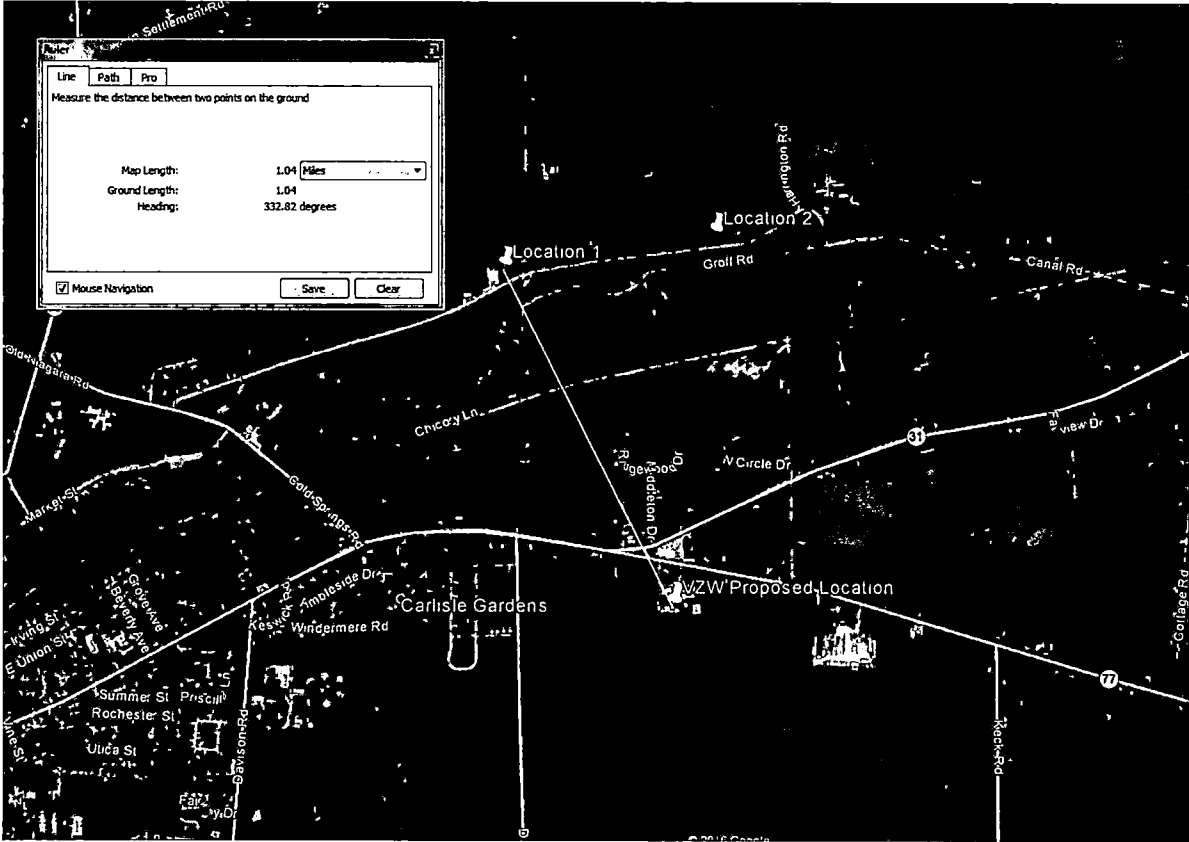
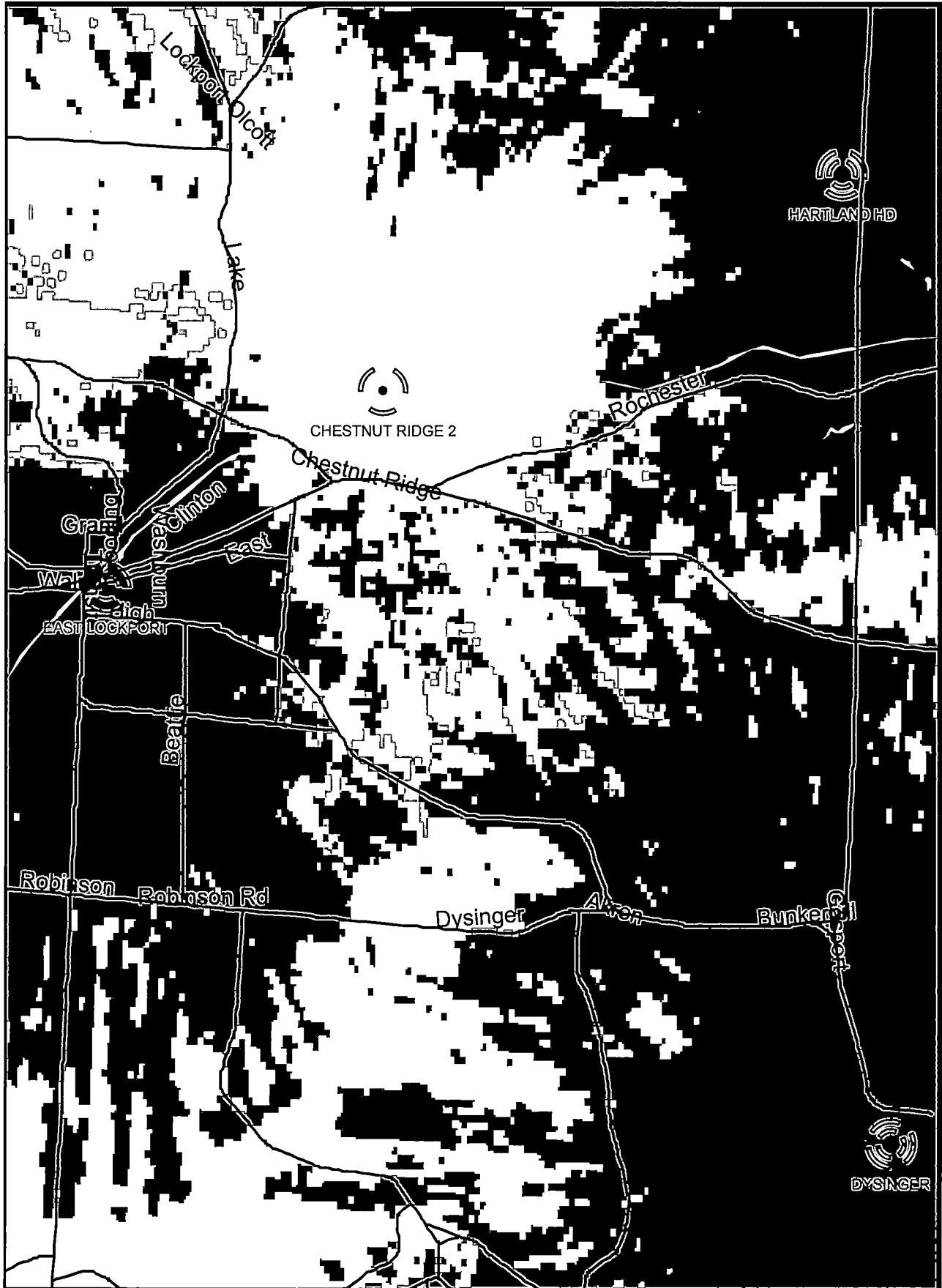


Exhibit 2: Chestnut Ridge Coverage 176' ACL
4G LTE Service; -105dBm RSRP Blue = Existing, Green = Location 2



Exhibit 1: Chestnut Ridge Coverage 176'ACL
4G LTE Service; -105dBm RSRP Blue = Existing, Green = Location 1



RF ANALYSIS OF ALTERNATE TOWER SITES SOUTH OF PROPOSED LOCATION



**BELL ATLANTIC MOBILE SYSTEMS OF ALLENTOWN, INC.
d/b/a
VERIZON WIRELESS**

CHESTNUT RIDGE SITE

**7154 CHESTNUT RIDGE ROAD
LOCKPORT, NY, 14094**

**SUPPLEMENTAL RADIO FREQUENCY ANALYSIS
JANUARY 9, 2017**

Bell Atlantic Mobile Systems of Allentown d/b/a Verizon Wireless previously furnished a detailed analysis regarding its proposed wireless communications facility to be located in Lockport, NY, also known as the "Chestnut Ridge" cell site. Below supplemental report evaluates alternate location northwest of proposed site.

Three additional locations proposed by the town are evaluated in this supplement report. Exhibit 3 show google earth pins of these three locations in comparison with the proposed facility. All three of these locations (**Location 1: 43.165916, -78.634846, Location 2: 43.165055, -78.608648, & Location 3: 43.1512, -78.6723**) are ~ 1.04 miles away from the proposed location. **Exhibit 4, Exhibit 5 & Exhibit 6** shows coverage plots from **Location 1, Location 2 and Location 3**. Placing a new facility at any of these locations will not work from RF prospective because it does not meet its capacity and coverage objective. As you can see from **Exhibit 3, Exhibit 4 and Exhibit 5** when comparing the proposed location with **Location 1, Location 2 & Location 3**, the coverage shrinks to the North. There is loss of coverage to residents along Wilson Rd, multiple residential homes along Middleton Dr, multiple residential homes along Ridgewood Dr, Day Road, and numerous local roads, business, and residents in the area. Proper RF design and capacity planning dictate that traffic be evenly distributed between the sectors of a communications facility in order to deliver an adequate quality of service to all users of that facility. This is done by placing the new facility in the center of the target coverage area. Moreover, positioning of this candidate is farther away from our existing East Lockport facility that VZW is trying to provide capacity relief. As a result of this separation, the three locations will not provide much needed capacity for the existing exhausted sectors. For these reasons, a tower at these locations is not an acceptable candidate for a new Verizon Wireless communications facility that has the intended objective of providing coverage and capacity offload to the targeted objective.

Exhibit 4: Chestnut Ridge Coverage 176'ACL
4G LTE; -105 dBm RSRP Blue = Existing, Green = Location 1

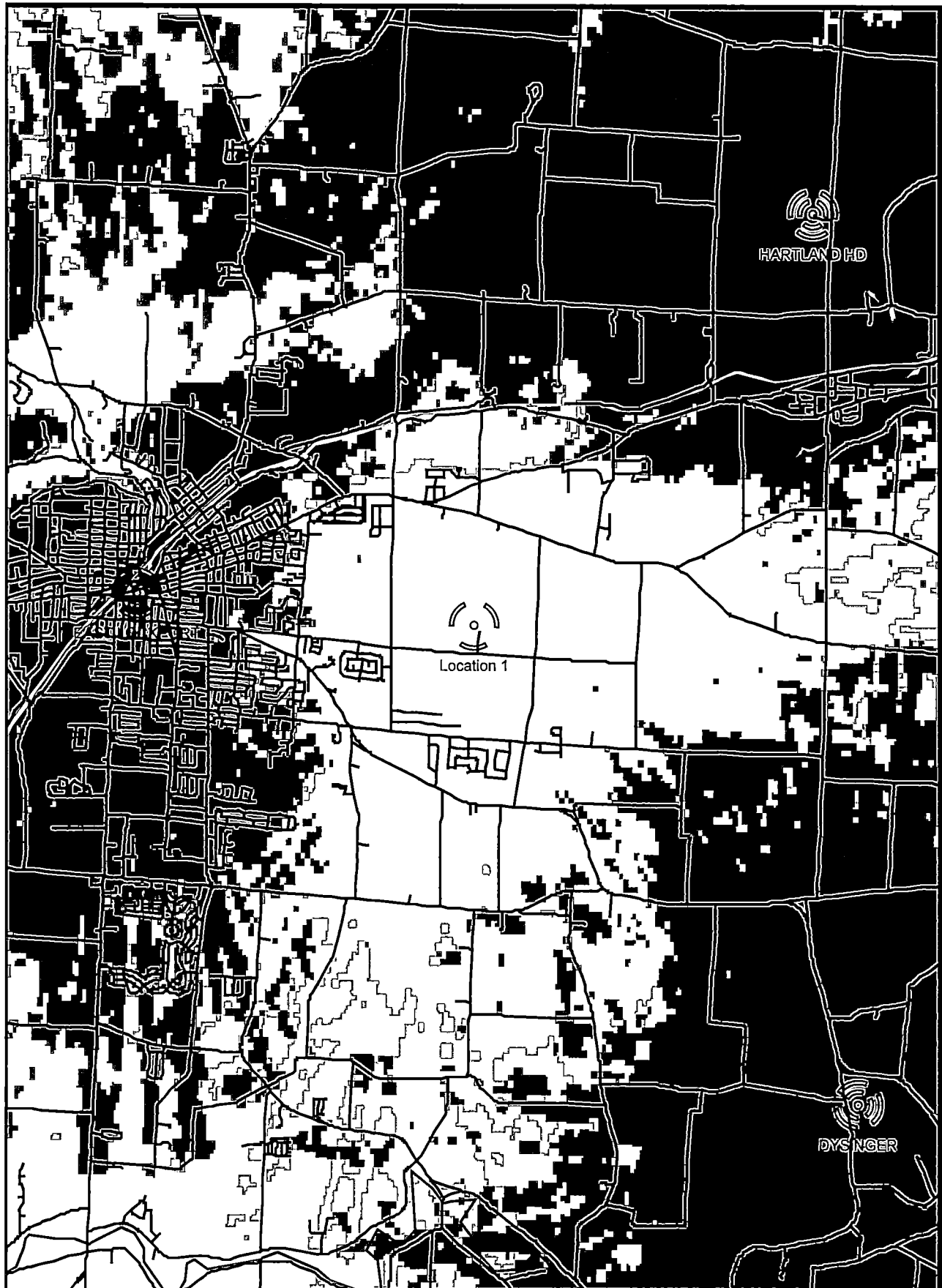


Exhibit 4: Chestnut Ridge Coverage 176'ACL
4G LTE; -105 dBm RSRP Blue = Existing, Green = Location 2

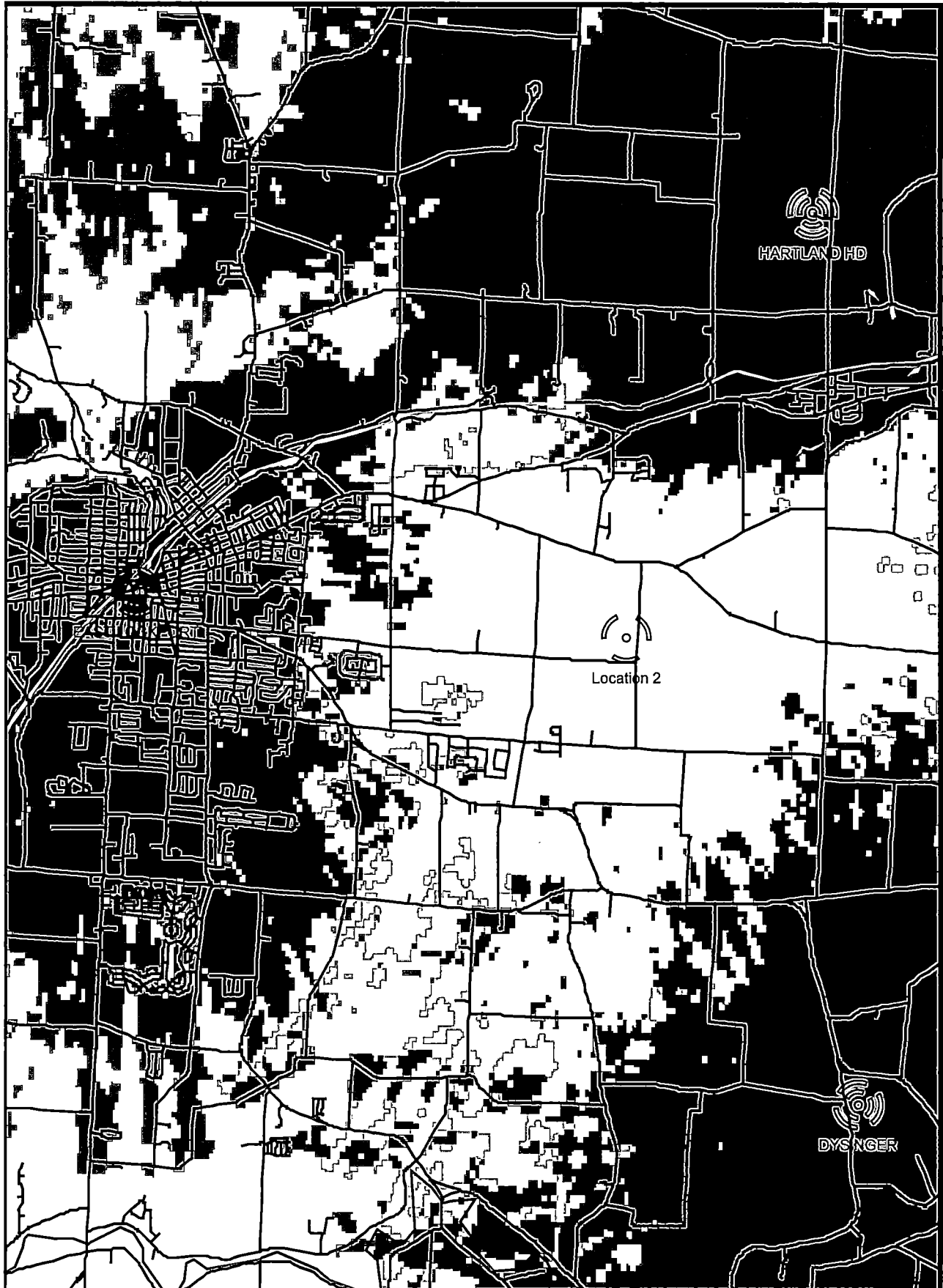
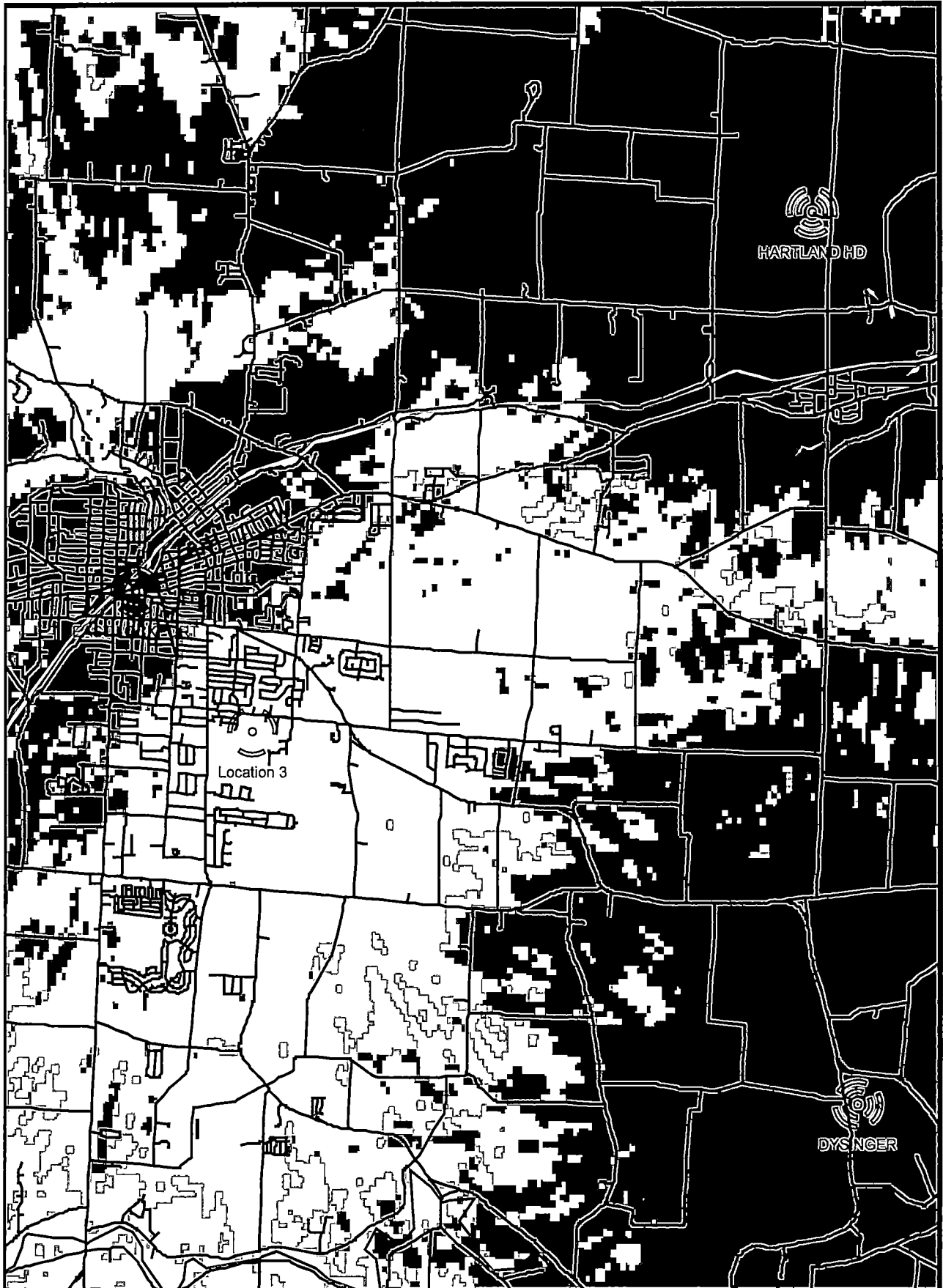


Exhibit 6: Chestnut Ridge Coverage 176'ACL
4G LTE; -105 dBm RSRP Blue = Existing, Green = Location 3



RF PLOTS DEMONSTRATING REDUCTION IN COVERAGE BETWEEN 176 AND 156
FEET AGL, AND 176 AND 136 FEET AGL

Exhibit 7: Chestnut Ridge Height Justification
4G LTE; -105 dBm Pink = ACL176', Green = ACL156'

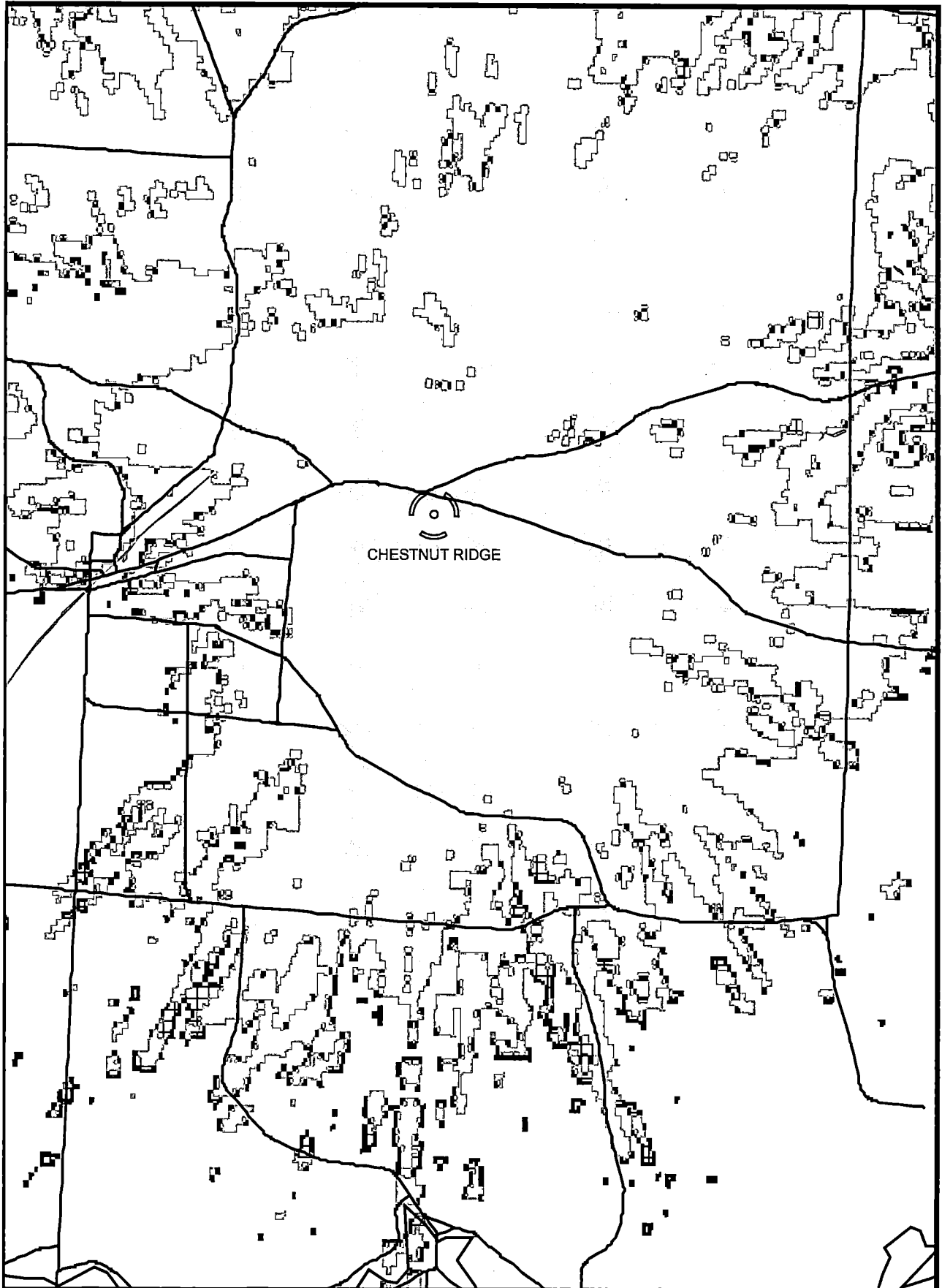
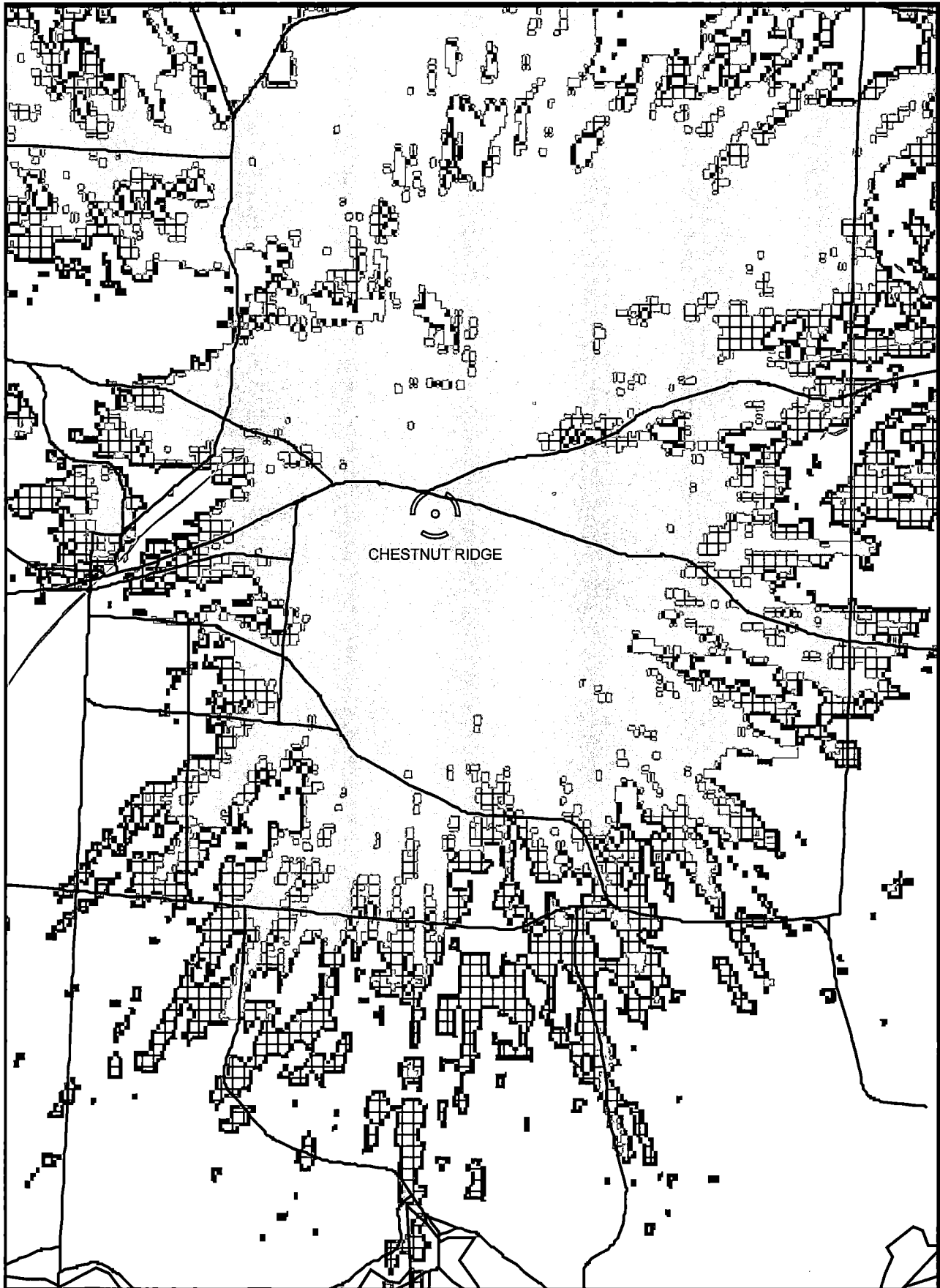


Exhibit 8: Chestnut Ridge Height Justification
4G LTE; -105 dBm Pink = ACL176', Green = ACL136'



RF CAPACITY REQUIREMENT/TRAFFIC PLOTS REPORT

LOCKPORT AREA – CAPACITY REQUIREMENT/ TRAFFIC PLOTS

In addition to the coverage deficiencies, Verizon Wireless's network does not have sufficient capacity to handle the existing and projected LTE voice and data traffic in the area near and neighboring the proposed Chestnut Ridge facility ("targeted service improvement area"). Therefore, the proposed facility is (also) needed to provide "capacity relief" to the existing nearby Verizon Wireless sites so that the proposed and neighboring sites are able to adequately serve the existing and projected capacity demand in the area. Unless addressed, Verizon Wireless subscribers will experience loss of service and/or significant service degradation in this area. All existing neighbor cell sites are either too distant and/or are at or quickly approaching their respective capacity limitations to effectively serve the Chestnut Ridge targeted service improvement area. Verizon Wireless' East Lockport facility (located 2.73± miles west of the proposed site), Hartland HD facility (located 2.73± miles northeast of the proposed site); and Dysinger facility (located 6.23± miles southeast of the proposed site) are approaching their capacity limit and in dire need of capacity relief. The proposed location must provide capacity relief to the existing Verizon Wireless neighboring sites. Without this capacity relief, Verizon Wireless subscribers will experience degraded service as described above.

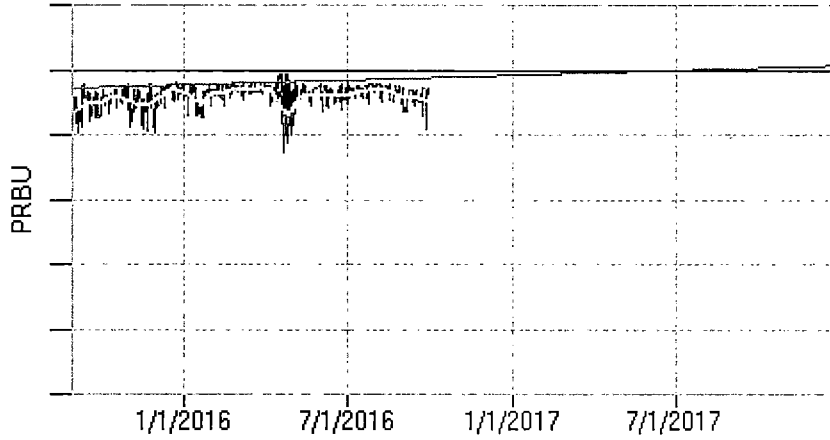
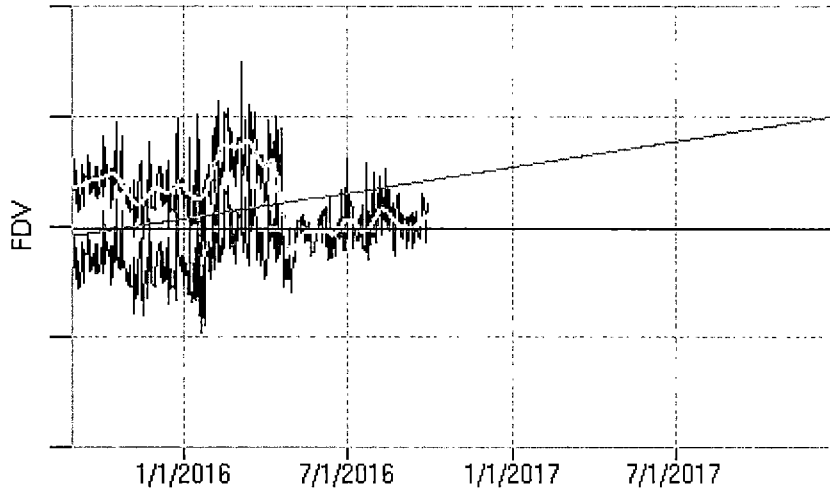
As indicated previously, trending actual and recorded throughput data over time for a site and comparing it to the theoretical maximum throughput capabilities for that site determines when a site will require capacity relief. These trends, specifically for the neighboring sites, are visually represented on the Verizon Wireless FDV/PRBU Data Chart (**Attachment 1**). The red line indicates the capacity limit for the sites. The trend line shown in gold represents the expectation where LTE traffic continues to grow similarly to historical subscriber and usage growth on the system. LTE traffic growth includes rapid subscriber migration from EVDO (3G) capable devices to 4G LTE devices, as well as the transition from CDMA Voice to VoLTE.

As the results in **Attachment 1** illustrate the actual (blue line) and normalized (green line) data volume trends have reached and plateaued at the theoretical maximum (red line) for the neighboring sites. As mentioned previously, other neighboring Verizon Wireless sites in the area are suffering similar capacity constraints. Even if these surrounding sites could be upgraded or modified to provide acceptable coverage to the targeted service improvement area, they also do not have sufficient remaining capacity to offload neighboring sites to an appreciable extent (given the current usage and projected usage growth). In order to solve the existing and growing capacity demand in the area, a new facility is required. The proposed Chestnut Ridge site will provide the necessary localized and dominant serving wireless facility that improves RF service across all Verizon Wireless owned frequency bands.

ATTACHMENT 1: TRAFFIC PLOTS

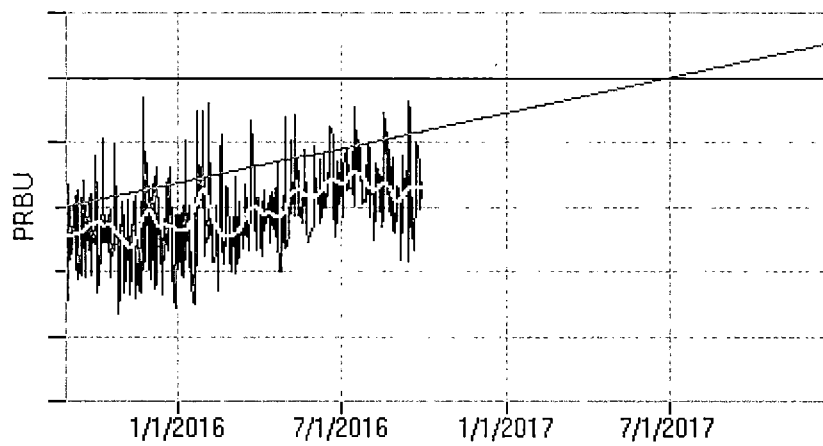
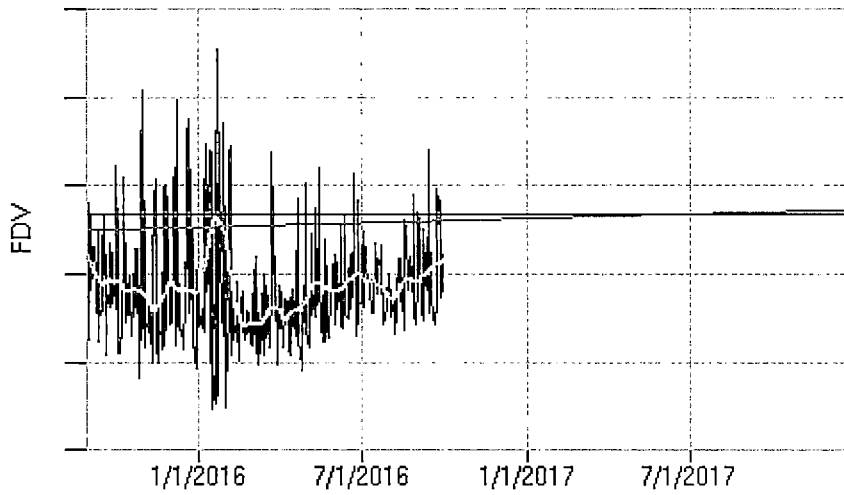
East Lockport 70173: Capacity Projections

ENODEB: 70173-1-1



Dysinger 70271: Capacity Projections

ENODEB: 70271-1-1



Hartland 70246: Capacity Projections

ENODEB: 70246-2-1

