

**Department of  
Conservation and  
Development**

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January 7, 2019

Donald and Anne Goldman  
1972 Meadow Road  
Walnut Creek, CA 94595

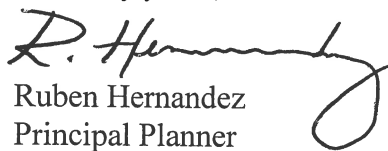
RE: County File WA18-0003

This letter acknowledges receipt of your letter of appeal dated December 21, 2018, regarding County File #WA18-0003, which was approved by the County Planning Commission on December 12, 2018.

Your appeal will be heard by the Contra Costa County Board of Supervisors. You will be notified by letter when the hearing has been scheduled. You should be aware that you or your representative should be present at the hearing.

If you have any questions regarding this matter, please call Susan Johnson at 925-674-7868.

Sincerely yours,

  
Ruben Hernandez  
Principal Planner

cc: Applicant/Owner  
File #WA18-0013

DONALD AND ANNE GOLDMAN  
1972 MEADOW ROAD  
WALNUT CREEK, CA 94595

WA18-0003  
CONTRA COSTA

2018 DEC 21 PM 12:13

APPLICATION & PERMIT CENTER

Contra Costa County Board of Supervisors  
Martinez, CA

December 21, 2018

Subject: Request that you disapprove County Project #WA18-0003

We, Donald and Anne Goldman, reside at 1972 Meadow Road, in unincorporated Contra-Costa County. **We are asking that the approvals of all the residential antennas be reversed or held in abeyance until their County-wide consequences are considered and feasible technical alternatives to local wireless antennas be considered.**

The Zoning and the subsequent Planning Commission hearings make clear that County Code by which such decisions are made needs revision in order to allow the residents' justified concerns regarding financial and safety be properly addressed. The concern over the peril attached to the radiation energies and intensities emitted by the proposed system makes prudence a necessity in allowing emitters into our residential areas.

This concern is reflected in state and national discourse on this subject (please read attachment 7 by Senator Blumenthal of Connecticut and take the time to see the Commonwealth Forum on Children and Cell Phones by a series of recognized scientists from the US and overseas, link given in Attachment 8).

We are appealing the approval of WA18-0003 and all the other proposed antennas on these grounds, as well as the fact that major negative factors were not considered in deciding to approve them. The factors in the Code **ignored the continuous, on-going impact of the installations on the residents** and treated the installation of radio emitters as if they were installing a sewer line that, once completed, would become invisible and undetectable. Financial loss, decrease of salability, and of course, health of the residents, were dismissed as irrelevant.

**The universality of these appeal denials shows that this issue is not related to any particular residential street but rather is County-wide.** Therefore, the County needs to show due diligence in assuring that, as our Code states, its residents' health, safety and welfare are protected. Therefore, I propose that Contra Costa County declare a moratorium on these types of constructions in residential areas until due diligence can be performed. I suggest that a panel of residents be empowered to look into these questions and other questions and report back to the Board in a timely fashion

Regarding the specific appeal on the Meadow Road antenna: These factors were presented by letter prior to the 1<sup>st</sup> public hearing, and orally and in writing during that meeting. However, when the decision was announced, they were notably not commented upon in the remarks by the Zoning Administrator presiding. Her comments did recognize the underlying health concerns that colored most of the discussion against the antennas but which are barred from being a determining factor by the FCC. The subsequent staff report dated November 28, 2018 has rejected the appeal grounds given below.

This appeal has several grounds:

- Intrusive and unaesthetic installation and an error in the Staff Report for this installation.
- Real financial loss to homeowners on and adjacent to Meadow Road
- Lack of need for a new Verizon facility on or near the Meadow Road/Tice Valley area.
- Violation of the Contra Costa Code: zoning regulations
- Violation of the California Constitution

We live in a bucolic neighborhood on Meadow Road which runs in generally north-south direction. Along the eastern side, it is lined with long-established beautiful trees, some of which will have to be severely cut back in order to mount

these installations safely and securely. The east side is also more sparsely lined with telephone/utility poles, one of which is the designated tower. And to complete the picture, a "mini-canal" roughly 4' deep and 6-7' wide, runs down that east side; most if not all of the poles are planted within the ditch and are inundated as the seasonal heavy rains cause the ditch to fill often to overflowing. (Many have needed guy wires to remain erect, but some are tilting) Each rainy season, this canal provides major protection to the low-lying houses in the designated flood plain on the west side of the road by keeping the huge flow of water from the Las Trampas Ridge to the east from those houses (see photos).

In fact, given that mini-canal, Meadow Road is probably the worst street one could pick to install any more than the necessary power and passive electrical equipment on utility poles.

- Intrusive and unaesthetic installation

**Firstly, the staff report dated 12/12/2018 supporting this meeting is erroneous. On Page 2, Conclusions, it states: "Additionally, staff has determined that the project, as conditioned, is the least obtrusive design."**

This statement is factually incorrect. First, the least intrusive design is based on fiber optic cable, not cellular wireless, technology. Unlike the proposed wireless equipment, **fiber optic cable will be indistinguishable from existing wires entering the home**, will emit **no detectable radiation**, will require **no cutting of trees, no unsightly housing of electronic components, no antenna installations and will not negatively impact housing prices.** The main fiber optic cable down the street will be needed for the proposed wireless antennas in any event and in many cases is already installed.

Using fiber optics may require either a cable or a Wi-Fi in the home (which many homeowners already have) to run the "Internet of Things". Smartphones are already dual-capable and can now operate over cellular and Internet networks. And Wi-Fi will be at least as fast as the proposed wireless installation.

In short, it will look as if it isn't there.

Second, the existing design as proposed will be very visually intrusive, both initially and ultimately, as additional equipment from Verizon and its competitors is installed. (See attachment 6 for future ramifications of this.) This pole is embedded within this drainage ditch or canal that runs down the length of Meadow Road. Mounting the electronics seven feet up from its base (see Verizon Drawing PSL#433678) will display the pole-mounted electronic components 2-4 feet above the road, rendering them very visible to all who pass. Higher mounting will also be visible from the road. The location makes it difficult to conceal ground mounting. And high locations may make the pole unstable.

Understand that this canal is a major facility that protects all the homes to the west of Meadow Road from flooding during the severe rains that come each year. Even partial blockage from natural or man-made causes does compromise this protection and can and has caused severe damage to the low-lying homes to the west. So there is risk from compromising the ground around them or increasing the load carelessly.

Codes and zoning permit reviews do not protect against this kind of soil or erosive failure.

For these reasons, the report must be corrected. And since the canal runs the length of the street, **installations on Meadow Road should be forbidden.**

- Real financial loss to the County and homeowners on and adjacent to Meadow Road.

**Homeowners will lose when they try to sell their homes. But the County will ultimately lose income every day.**

It is well documented (see attachments 1,2,3) that there is a strong homebuyer's reluctance to buy residences that are close to cell towers or antennas. *Whether or not the towers are even being used.* So, there is real financial loss to

homeowners who wish to sell. Either residences do not sell at all, or a premium discount must be given to a hesitant buyer. Well documented studies in the US and internationally show significant decreases in home prices in the vicinities of these installations. The drivers of these losses may be the visual inappropriateness of the large electronics equipment in a residential area or concern over the antenna in general. Losses could range from 10% to 25% of the home value. In the Alamo/Tice Valley area, most homes sell in the range of \$1M to \$2M or more. Taking \$1.5 million as a rough average, an average homeowner would lose \$150,000 to \$375,000 upon selling! These are not trivial sums for individual middle-class residents to lose. Typically, for those homeowners, their homes can represent a major part of their estate.

**And Contra Costa County would lose some significant fraction of that in their property tax base.** There are roughly 30 houses within *visual* range of the antenna proposed. Cumulatively, their homeowners would lose \$4,500,000 to \$11,280,000 in property value!

**This diminished value will potentially be costing \$50,000-\$150,000 per year or more in lost property taxes just for Meadow Road And this scenario could be repeated for every antenna/tower erected on every street within the unincorporated county!**

**This is an unfair burden placed on the homeowners and taxpayers of the county.** And there is *no counter-balancing service provided by Verizon* or any other service provider that would come close to repaying them (or the County) for their sacrifice. Therefore, the permits should be denied.

- Lack of need for a new Verizon facility on or near the Meadow Road/Tice Valley area. We are Verizon customers and have been for many years. We have lived in our home since 1962 and have always used Verizon in and out of the home. Further, few if any Verizon customers have had less than excellent service in our area. *So, there is no need to improve Verizon service in this part of Contra Costa at this time.*

**And the need for added services are predictions, not fact.** Our part of the County is relatively stable in population and so the customer base should not grow notably. But, **according to the staff report, Verizon stated:** “Additionally, a proposed site may not be needed for added coverage but instead for increased capacity” so greater need may **or may not** occur but not for at least five years according to Verizon’s representative at the Zoning hearing.

**The proposed antennas cannot be justified on the basis of either current or near-term customer need.** Therefore, the permits should be denied.

- Violation of the Contra Costa County Code Chap. 88-24 Wireless Telecommunications Facilities  
“88-24.202. - Purpose..... The purpose of this chapter is to establish *criteria for the location and design of wireless telecommunication facilities in the county, consistent with state and federal requirements.*  
*This chapter is intended to advance and promote the following goals:*  
...(3) *Protect and enhance the public health, safety, and welfare of county residents...*”

While the County may accept the Federal Government’s power so as to justifying its ignoring “public health and safety” concerns of its citizens, it cannot ignore the harm to the *welfare* of the homeowners in the vicinity of the proposed installations. These dollar losses will be real and deeply felt. They constitute a real and irredeemable harm to the owners of these residential properties. And the County knows these losses will occur and so is potentially culpable of **knowingly inflicting them on its residents.** Therefore, the permits should be denied.

- Violation of the California Constitution “Article 1 DECLARATION OF RIGHTS, Sec. 7. (a) A person may not be deprived of life, liberty, or property without due process of law or denied equal protection of the laws: ...”

A government entity deliberately approving installations while knowing that they will incur significant losses to homeowners constitutes deprivation of property without due process. Therefore, the permits should be denied.

- Proposed direction for Contra Costa:

Cell phones are essential in our society, that goes without saying. WE propose an alternative to the County and to Verizon: technology be implemented in **residential areas** that would use **non-wireless technology locally coupled with wireless regionally** (as we have today). Local non-wireless technology in residential areas would avoid the legal and political concerns noted above as well as the unspoken health and environmental concerns underlying it all. Fiber optics wire technology is available, suitable and will be used in any event. (Attachment 4). The Planning Commission should request Verizon and other future applicants to show alternative approaches such as fiber optics that can permit amicable community growth and cellular services.

This approach is consistent with an axiom long used by public safety communities: **“ALARA”**.

**ALARA** stands for “as low as reasonably achievable” (Attachment 5). The principle states that toxic exposures should not just meet a standard but should be lowered as far as reasonably possible. It takes into account that we have incomplete knowledge of the effects of man-made inputs to our bodies and builds in a measure of prudence into our decision-making. ALARA should be applied by Contra Costa and by all potentially hazardous providers doing business in our County.

Fiber optic systems are in the spirit of ALARA and will avoid much contentiousness in our County.

Sincerely,  
Donald Goldman  
Anne Goldman

Attachments:

1. Realtor Magazine, Homeowners Object to Cell Tower Installations, November 16, 2012
2. National Institute for Science, Law, and Public Policy, EMF Real Estate Survey Results: “Neighborhood Cell Towers & Antennas-Do They Impact a Property’s Desirability?” June 28, 2014
3. Environmental Health Trust, Cell Phone Towers Lower Property Values..., March, 2017
4. Ciena.com, “5G wireless needs fiber, and lots of it – “ AN EXCELLENT, BALANCED-VIEW WEBSITE ON THIS TECHNICAL SUBJECT <https://www.ciena.com/insights/list/>
5. Merriam-Webster Dictionary, ALARA definition

FOR YOUR FURTHER INFORMATION

6. New York Times, 5G Cell Service is Coming. Who decides where it goes? March 2, 2018, <https://www.nytimes.com/2018/03/02/technology/5g-cellular-service.html>
7. The CTMirror, Sen. Blumenthal wants FCC to prove 5G wireless technology is safe, Dec. 3, 2018, <https://ctmirror.org/2018/12/03/blumenthal-wants-fcc-prove-5g-wireless-technology-safe/#rp5>
8. Panel on EMF& Children at Commonwealth Club, Mar. 10, 2015 A sobering review of the research on children’s health issues related to cell phone usage. <http://electromagnetichealth.org/electromagnetic-health-blog/video-commonwealth-club-emf-forum/>

# Home Owners Object to Cell Tower Installations

November 19, 2012

Many home owners across the country are trying to stop cell phone towers from being placed in residential areas, arguing that the "eyesores" decrease home values.

The pushback has prompted wireless companies to get creative with installation. In Phoenix, the companies have been disguising cell phone towers as palm trees.

But residents in a neighborhood in Mesa, Ariz., are speaking out against the installation of another "cell phone tower palm." The 70-foot AT&T cell phone tower is made to look like a palm tree, but has no actual palm trees surrounding it.

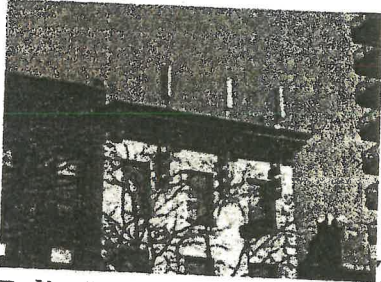
"I do realize that AT&T needs this cell phone tower—we're not against the tower itself. It just doesn't need to be so close to our homes," Cory Barham, who lives about 400 yards from the proposed tower, told AOL Real Estate. "Apart from the tower being so tall, we all feel that property values will go down if they build it so close. Most people I know wouldn't want to buy a house near a cell phone tower."

Cell phone towers have long been viewed by residents across the country as eyesores, and some residents have expressed health and radiation concerns from the towers too (although the American Cancer Society, based from research, says that it is unlikely.)

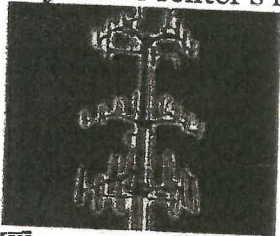
Source: "Cell Towers Near Homes? Battle in Mesa, Ariz., Typifies Fears Nationwide," AOL Real Estate (Nov. 16, 2012)

## Attachment 2

# EMF Real Estate Survey Results: “Neighborhood Cell Towers & Antennas— Do They Impact a Property’s Desirability?” | [electromagnetichealth.org](http://electromagnetichealth.org)



The National Institute for Science, Law and Public Policy’s survey “**Neighborhood Cell Towers & Antennas—Do They Impact a Property’s Desirability?**” initiated June 2, 2014, has now been completed by 1,000 respondents as of June 28, 2014. The survey, which circulated online through email and social networking sites, in both the U.S. and abroad, sought to determine if nearby cell towers and antennas, or wireless antennas placed on top of or on the side of a building, would impact a home buyer’s or renter’s interest in a real estate property.



**The overwhelming majority of respondents (94%) reported that cell towers and antennas in a neighborhood or on a building would impact interest in a property and the price they would be willing to pay for it. And 79% said under no circumstances would they ever purchase or rent a property within a few blocks of a cell tower or antenna.**

- **94% said a nearby cell tower or group of antennas would negatively impact interest in a property or the price they would be willing to pay for it.**
- **94% said a cell tower or group of antennas on top of, or attached to, an apartment building would negatively impact interest in the apartment building or the price they would be willing to pay for it.**
- **95% said they would opt to buy or rent a property that had zero antennas on the building over a comparable property that had several antennas on the building.**
- **79% said under no circumstances would they ever purchase or**

- rent a property within a few blocks of a cell tower or antennas.**
- **88% said that under no circumstances would they ever purchase or rent a property with a cell tower or group of antennas on top of, or attached to, the apartment building.**
  - **89% said they were generally concerned about the increasing number of cell towers and antennas in their residential neighborhood.**

The National Institute for Science, Law and Public Policy (NISLAPP) was curious if respondents had previous experience with physical or cognitive effects of wireless radiation, or if their concern about neighborhood antennas was unrelated to personal experience with the radiation. **Of the 1,000 respondents, 57% had previously experienced cognitive effects from radiation emitted by a cell phone, wireless router, portable phone, utility smart meter, or neighborhood antenna or cell tower, and 43% had not experienced cognitive effects. 63% of respondents had previously experienced physical effects from these devices or neighborhood towers and antennas and 37% had not experienced physical effects.**

The majority of respondents provided contact information indicating they would like to receive the results of this survey or news related to the possible connection between neighborhood cell towers and antennas and real estate decisions.

Comments from real estate brokers who completed the NISLAPP survey:

**"I am a real estate broker in NYC. I sold a townhouse that had a cell tower attached. Many potential buyers chose to avoid purchasing the property because of it. There was a long lease."**

**"I own several properties in Santa Fe, NM and believe me, I have taken care not to buy near cell towers. Most of these are rental properties and I think I would have a harder time renting those units... were a cell tower or antenna nearby. Though I have not noticed any negative health effects myself, I know many people are affected. And in addition, these antennas and towers are often extremely ugly—despite the attempt in our town of hiding them as chimneys or fake trees."**

**"We are home owners and real estate investors in Marin County and have been for the last 25 years. We own homes and apartment building here in Marin. We would not think of investing in real estate that would harm our tenants. All our properties are free of smart meters. Thank you for all of your work."**

**"I'm a realtor. I've never had a single complaint about cell phone antennae. Electric poles, on the other hand, are a huge problem for buyers."**



Concern was expressed in the comments section by respondents about potential property valuation declines near antennas and cell towers. While the NISLAPP survey did not evaluate property price declines, a study on this subject by Sandy Bond, PhD of the New Zealand Property Institute, and Past President of the Pacific Rim Real Estate Society (PRRES), The Impact of Cell Phone Towers on House Prices in Residential Neighborhoods, was published in *The Appraisal Journal* of the Appraisal Institute in 2006. The Appraisal Institute is the largest global professional organization for appraisers with 91 chapters. The study indicated that **homebuyers would pay from 10%–19% less to over 20% less for a property if it were in close proximity to a cell phone base station.** The ‘opinion’ survey results were then confirmed by a market sales analysis. **The results of the sales analysis showed prices of properties were reduced by around 21% after a cell phone base station was built in the neighborhood.”**

*The Appraisal Journal* study added,

**“Even buyers who believe that there are no adverse health effects from cell phone base stations, knowing that other potential buyers might think the reverse, will probably seek a price discount for a property located near a cell phone base station.”**

James S. Turner, Esq., Chairman of the National Institute for Science, Law & Public Policy and Partner, Swankin & Turner in Washington, D.C., says,

**“The recent NISLAPP survey suggests there is now a high level of awareness about potential risks from cell towers and antennas. In addition, the survey indicates respondents believe they have personally experienced cognitive (57%) or physical (63%) effects from radiofrequency radiation from towers, antennas or other radiating devices, such as cell phones, routers, smart meters and other consumer electronics. Almost 90% are concerned about the increasing number of cell towers and antennas generally. A study of real estate sales prices would be beneficial at this time in the United States to determine what discounts homebuyers are currently placing on properties near cell towers and antennas.”**

Betsy Lehrfeld, Esq., an attorney and Executive Director of NISLAPP, says,

**“The proliferation of this irradiating infrastructure throughout our country would never have occurred in the first place had Section 704 of the Telecommunications Act of 1996 not prohibited state and local governments from regulating the placement of wireless facilities on health or environmental grounds. The federal preemption leaves us in a situation today where Americans are clearly concerned about risks from antennas and towers, some face cognitive and physical health consequences, yet they and their families increasingly have no choice but to endure these exposures, while watching their real property**

valuations decline.”

The National Institute for Science, Law, and Public Policy (NISLAPP) in Washington, D.C. was founded in 1978 to bridge the gap between scientific uncertainties and the need for laws protecting public health and safety. Its overriding objective is to bring practitioners of science and law together to develop intelligent policy that best serves all interested parties in a given controversy. Its focus is on the points at which these two disciplines converge.

NISLAPP contact:  
James S. Turner, Esq.  
(202) 462-8800 / jim@swankin-turner.com  
Emily Roberson  
er79000@yahoo.com

If you can support NISLAPP's work, please donate here:



## Electromagnetic Health News!



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## Attachment 3

# Cell Phone Towers Lower Property Values: Documentation And Research on Cellular Base Stations Near Homes - Environmental Health Trust

Research indicates that over 90% of home buyers and renters are less interested in properties near cell towers *and* would pay less for a property in close vicinity to cellular antennas. Documentation of a price drop up to 20% is found in multiple surveys and published articles as listed below. The US Department of Housing and Urban Development (HUD) considers cell towers as "Hazards and Nuisances."

**Once built. Cell towers can go up an additional 20 feet- without community consent.**

Most people in the United States are unaware that once a tower is built, it can go up to 20 feet higher with no public process due to the passing of Section 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012. In other words, a 100 foot tower can be increased to 120 feet after it is constructed and the community will have no input. Communities are largely unaware of this law.

Scroll down this page for resources on property de-valuation.

Read the peer reviewed published science documenting the public health risk at this link.

**The realtor industry has written several articles documenting the property devaluation after communication towers are built near property.**

*National Association of REALTORS® Lists References including EHT's page on their Cell Towers Page . More at <https://www.nar.realtor/cell-phone-towers#section-165807>*

"Impact of Communication Towers and Equipment on Nearby Property Values" prepared by Burgoyne Appraisal Company, March 7, 2017

The Cost of Convenience: Estimating the Impact of Communication Antennas on Residential Property Values (*Land Economics*, Feb. 2016)

The Lo Down on Cell Towers, Neighborhood Values, and the Secretive Telecoms(link is external) (*The Dissident Voice*, Dec. 19, 2015)

Cell Towers: Not in My Back Yard (*Tedium Blog*, Aug. 5, 2015)

- "Understanding EMF values of business and residential locations is relatively new for the real estate industry. Cell phone towers bring extra tax

revenue and better reception to a section of the city, but many are skeptical because of potential health risks and the impact on property values. Increasing numbers of people don't want to live near cell towers. In some areas with new towers, property values have decreased by up to 20%."

"Cell Tower Antennas Problematic for Buyers" published in REALTOR® Magazine:

- An overwhelming 94 percent of home buyers and renters surveyed by the National Institute for Science, Law & Public Policy (NISLAPP) say they are less interested and would pay less for a property located near a cell tower or antenna.
- The NISLAPP survey echoes the findings of a study by Sandy Bond of the New Zealand Property Institute and past president of the Pacific Rim Real Estate Society (PRRES). "The Impact of Cell Phone Towers on House Prices in Residential Neighborhoods," which was published in The Appraisal Journal in 2006, found that buyers would pay as much as 20 percent less for a property near a cell tower or antenna.

2014 Survey by the National Institute for Science, Law and Public Policy (NISLAPP) in Washington, D.C., "Neighborhood Cell Towers & Antennas—Do They Impact a Property's Desirability?"

- Home buyers and renters are less interested in properties located near cell towers and antennas, as well as in properties where a cell tower or group of antennas are placed on top of or attached to a building. 94% said a nearby cell tower or group of antennas would negatively impact interest in a property or the price they would be willing to pay for it.
- Read the Press Release: Survey by the National Institute for Science, Law & Public Policy

### Lawyers Write About the Property Value Drop.

Best Best and Krieger Letter to Ms. Marlene H. Dortch, Secretary Federal Communications Commission September 19, 2018 "RE" Smart Communities and Special Districts Coalition – Ex Parte Submission: Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment, WT Docket No. 17-79; Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment, WC Docket No. 17-84"

- "Further, the assumption that there is little to consider in a small cell application is belied by the definition the Commission adopts for "small wireless facility": while it justifies its rules based on the assumption that many small cells are the size of a pizza box, a pizza box is about 1/2 cu. ft. in size, while the Commission proposes to expedite permitting of equipment cabinets 28 cu. ft. in size – a stack of 56 pizza boxes – on front lawns throughout the country. Considering that the Smart Communities' prior filings show that the addition of facilities of this size diminish property values, it is strange for the Commission to assume that approval can be granted in the regulatory blink of an eye."
- "A good example lies in the Commission's discussion of undergrounding.62 The Commission at once appears to recognize that communities spend

millions of dollars on undergrounding projects, and that allowing poles to go up in areas where poles have been take down has significant impacts on aesthetics (not to mention property values)."

**NEWS ARTICLES**

New York Times: "A Pushback Against Cell Towers" August 2010

*"If they have the opportunity to buy another home, they do."*

*She said cell antennas and towers near homes affected property values, adding, "You can see a buyer's dismay over the sight of a cell tower near a home just by their expression, even if they don't say anything."*

The Times of India: "Property hit where signal masts rise" July 2012

*"Property dealers across the city say that buildings which host mobile phone towers have 10-20 % less market value.*

*"Forget buying these properties , people don't want to take them on rent even, particularly when they have a choice. If a person is going to invest crores, why would he buy a property with a tower?" asks Pal. According to LK Thakkar, a Defence Colony-based property dealer, while the cost of the building which has the tower is relatively less, other buildings in the vicinity also get affected. "No one wants to buy a house within 100 metres of the building which has the tower. The rates for such properties drop by 10-20 %, and sometimes even more," said Thakkar, co-owner of A-One Associates ."*

"Do neighborhood cell towers impact property values?" Pennsylvania Association of Realtors,

2014

- A recent survey by the National Institute for Science, Law & Public Policy (NISLAPP) found that 94 percent of homebuyers are "less interested and would pay less" for a property located near a cell tower or antenna.

"Appraiser: Cell Tower Will Affect Property Values" New Jersey Patch on T Mobile Cell Tower

- "Properties that are approximately close to the tower will suffer substantial degradation to their value based on the nature of the unusual feature in the residential neighborhood."

**STUDIES ON IMPACTS OF TOWERS**

Sandy Bond, Ph.D., Ko-Kang Wang, "The Impact of Cell Phone Towers on House Prices in Residential Neighborhoods," The Appraisal Journal, Summer 2005; Source: Goliath business content website.

- "Overall, respondents would pay from 10%–19% less to over 20% less for a property if it were in close proximity to a CPBS."

Property values. Documentation And Res... <https://enrtrust.org/cell-phone-towers-lower-property-values-docume..>  
"Cellular Phone Towers: Perceived impact on residents and property values"  
University of Auckland, paper presented at the Ninth Pacific-Rim Real Estate  
Society Conference, Brisbane, Australia, January 19-22, 2003; Source: Pacific  
Rim Real Estate Society website,

A Field Guide to Cell Towers, The National Association of Realtors

The effect of distance to cell phone towers on house prices S Bond, Appraisal  
Journal, Fall 2007, Source, Appraisal Journal (Found on page 22) See also Using  
GIS to Measure the Impact of Distance to Cell Phone Towers on House Prices in  
Florida

Florida State University Law Review Volume 24 | Issue 1 Article 5 1996 The  
Power Line Dilemma: Compensation for Diminished Property Value Caused by  
Fear of Electromagnetic Fields

New Zealand Ministry for the Environment, "Appendix 5: The Impact of  
Cellphone Towers on Property Values" Source: New Zealand Ministry for the  
Environment website

Powers, turbines and transmission lines impacts on property value edited by Sally  
Bond Sally Sims and Peter Dent, 2014

### **The US Department of Housing and Urban Development (HUD) considers cell towers as "Hazards and Nuisances."**

- HUD requires its certified appraisers to take the presence of nearby cell towers into consideration when determining the value of a single family residential property.
- HUD guidelines categorize cell towers with "hazards and nuisances." HUD prohibits FHA underwriting of mortgages for homes that are within the engineered fall zone of a cell tower.
- "The appraiser must indicate whether the dwelling or related property improvements is located within the easement serving a high-voltage transmission line, radio/TV transmission tower, cell phone tower, microwave relay dish or tower, or satellite dish (radio, TV cable, etc)."
- Read it here at the US Department of Housing and Urban Development.

Cell Towers are Discussed in the Written Testimony of Bobbi Borland Acting  
Branch Chief, HUD Santa Ana Homeownership Center Hearing before the  
Subcommittee on Insurance, Housing and Community Opportunity U.S. House  
of Representatives Committee on Financial Services on "The Impact of Overhead  
High Voltage Transmission Towers and Lines on Eligibility for Federal Housing  
Administration (FHA) Insured Mortgage Programs" Saturday, April 14, 2012

- With regard to the new FHA originations, the guide provides that: "The appraiser must indicate whether the dwelling or related property improvements are located within the easement serving a high-voltage transmission line, radio/TV transmission tower, cell phone tower, microwave relay dish or tower, or satellite dish (radio, TV cable, etc)."

### **Middle Class Tax Relief and Job Creation Act of 2012, Sec.**

## 6409(a)

The Federal Communications Commission (FCC) has proposed and is currently considering rules to clarify and implement the requirements of Section 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012. Under section 6409(a), "a State or local government may not deny, and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station." The FCC considers eligible facilities' requests to include requests for carrier co-locations and for replacing existing antennas and ground equipment with larger antennas/equipment or more antennas/equipment.

The FCC has proposed, as part of these rules, applying a four-pronged test, which could lead to cell towers increasing in height by 20-plus feet beyond their approved construction heights.

Applying the test may also lead increases in the sizes of compounds, equipment cabinets and shelters, and hazardous materials used for back-up power supplies, beyond what was originally approved.

Under this test, a "substantial increase in the size of the tower" occurs if:

- 1) [t]he mounting of the proposed antenna on the tower would increase the existing height of the tower by more than 10%, or by the height of one additional antenna array with separation from the nearest existing antenna not to exceed twenty feet, whichever is greater, except that the mounting of the proposed antenna may exceed the size limits set forth in this paragraph if necessary to avoid interference with existing antennas; or
- 2) [t]he mounting of the proposed antenna would involve the installation of more than the standard number of new equipment cabinets for the technology involved, not to exceed four, or more than one new equipment shelter; or
- 3) [t]he mounting of the proposed antenna would involve adding an appurtenance to the body of the tower that would protrude from the edge of the tower more than twenty feet, or more than the width of the tower structure at the level of the appurtenance, whichever is greater, except that the mounting of the proposed antenna may exceed the size limits set forth in this paragraph if necessary to shelter the antenna from inclement weather or to connect the antenna to the tower via cable; or
- 4) [t]he mounting of the proposed antenna would involve excavation outside the current tower site, defined as the current boundaries of the leased or owned property surrounding the tower and any access or utility easements currently related to the site.

<http://apps.fcc.gov/ecfs/document/view?id=7521070994>

## Attachment 4

# 5G wireless needs fiber, and lots of it - Ciena

When the topic of 5G wireless comes up, your first thought likely isn't about fiber networks running under the ground. But as Ciena's Brian Lavallée explains, 5G mobile networks will significantly affect both the wireless side (obviously!) and the wireline side of the global network infrastructure. In fact, 5G's formidable network performance goals are heavily predicated on the availability of fiber, and lots of it, to cell sites.

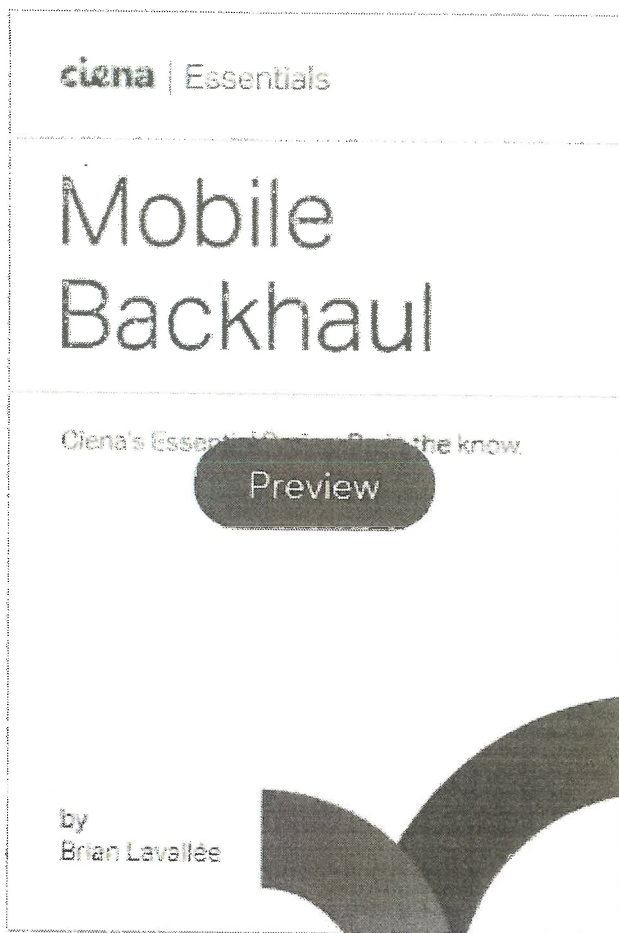
According to the International Telecommunications Union's (ITU) latest "*Trends in Telecommunication Reform*" report, ongoing capital investments related to fiber infrastructure are expected to total a staggering \$144.2B between 2014 and 2019. One of the primary drivers for this immense capital investment into fiber infrastructure deployments comes out of thin air, in the form of tomorrow's 5G radios.

5G mobile networks will significantly affect both the *wireless* side (obviously!) and the *wireline* side of the global network infrastructure, as airborne bits jump to and from terrestrial wireline networks. In a previous [post](#), I summarized the main aspirational performance goals of 5G, which are listed below. These formidable network performance goals are heavily predicated on the availability of fiber, and lots of it, to the cell sites.

- Up to 1000 times increased in bandwidth, per unit area
- Up to 100 times more connected devices
- Up to 10Gbps connection rates to mobile devices in the field
- A perceived network availability of 99.999%
- A perceived 100% network coverage
- Maximum of 1ms end-to-end round trip delay (latency)
- Up to 90% reduction in network energy utilization

Traditionally, 2G and 3G mobile networks often used copper-based Time Division multiplexing (TDM) circuits, such as multiple bonded T1s or E1s, to connect cell sites to a nearby Mobile Switching Center over the Mobile Backhaul (MBH) network. Although this now legacy MBH architecture has indeed served the industry well for decades, it's quickly showing its age with advent of 4G. MBH upgrades are taking place all over the world converting legacy copper-based MBH serving cell sites to packet-based transport over fiber, which enables far higher capacities to best future-proof MBH networks. The increased adoption of 4G LTE and LTE-Advanced mobile network technology is accelerating these MBH fiber upgrades, which can and will be leveraged by future 5G networks, given the almost unlimited bandwidth that fiber-based networks offer. You can examine viable options for the road ahead with our [Essentials Series guide: Mobile Backhaul](#).





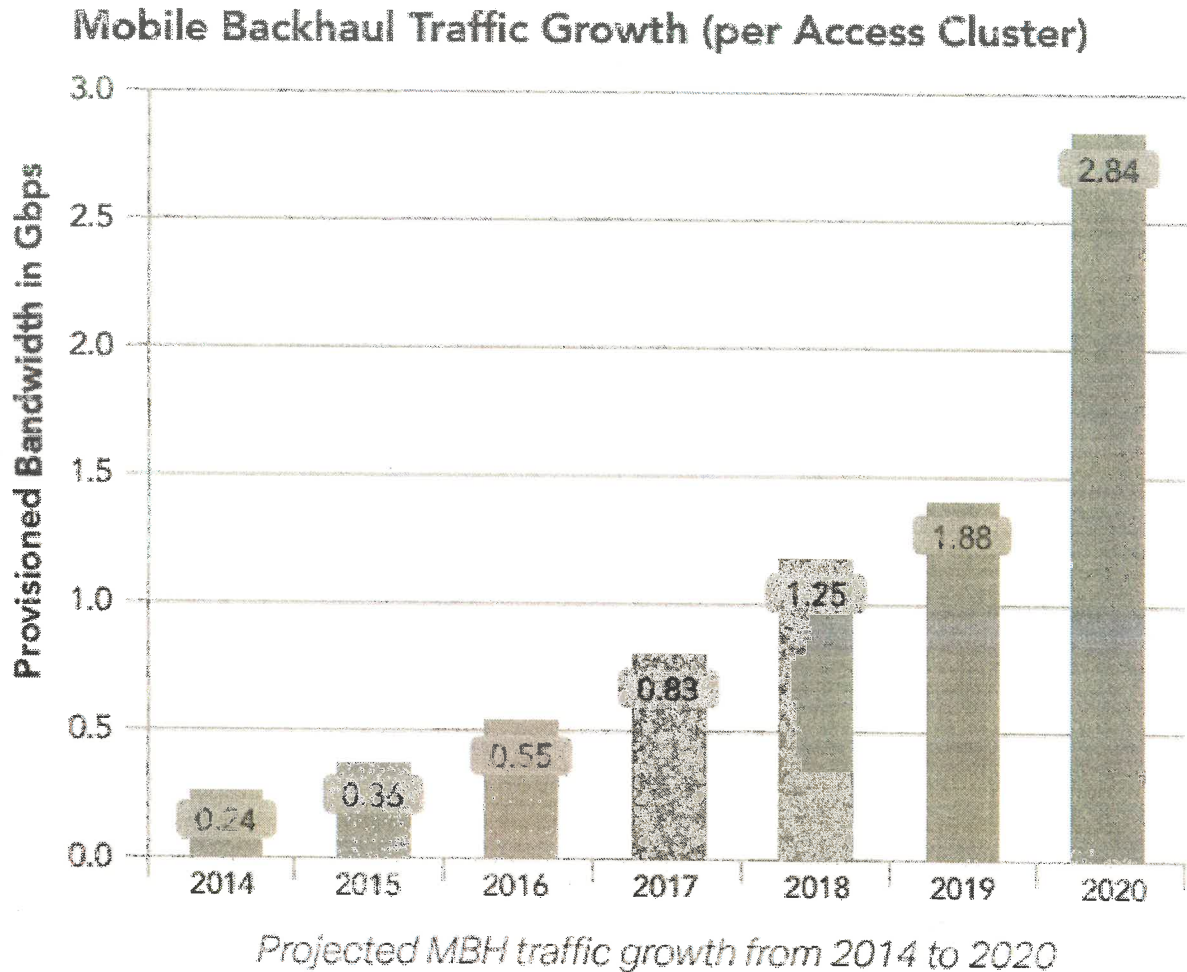
To improve the coverage, capacity, and overall Quality of Experience (QoE) of mobile users, Mobile Network Operators (MNOs) are adopting small cells, which strategically place radios closer to users. Small cells can be backhauled over copper (xDSL, HFC-based cable modems...), air (microwave, millimeterwave...), or fiber (Ethernet, PON...). All three media options are being used today, to varying degrees, with the technology choice based on economic, environmental, regulatory, and time-to-market criteria, which are often specific to the target geographic location and application. Fiber-based small cell MBH is always the preferred option, whenever and wherever possible, because the technology is scalable, secure, understood, and in many cases, the most cost-effective. However, there are indeed cases where deploying fiber simply isn't a viable option.

The maximum theoretical download speed for LTE-Advanced (Release 8) is 300Mbps, although typical real-world download speeds are far lower at about 40Mbps, if you're fortunate enough to even have this type of service coverage in your neck of the woods. As an increasing number of mobile users access more video-centric content for longer periods of time using increasing powerful smartphones, Radio Access Network (RAN) bandwidth demands will continue to grow, unabated.

### **The Math: 4G vs 5G Speeds**

Today, a typical modern macrocell is served by a 1GbE packet-based optical MBH network link, although the typical traffic over this 1GbE physical connection is about 200Mbps to 300Mbps, leaving some room for growth, for

4G networks. Thus, the total aggregate bandwidth consumed by all of the concurrent mobile users to a typical macrocell is roughly equivalent to the maximum theoretical download speed of a single LTE-Advanced (Release 8) user connection. Granted, this is a rough estimate but you see where I'm going. Although current MBH networks may suffice for 4G today, the promised access speeds of 5G is likely going to overload existing MBH networks quite quickly.



MNOs connecting 3G and 4G cells, small and macro, via fiber are also laying the foundation for 5G, which has maximum theoretical download speeds from 1Gbps for high mobility users (ex. bullet train commuters) to 10Gbps for low mobility users (ex. stationary, walking). Even if the maximum theoretical download speed of 10Gbps were scaled down by 90% to 1Gbps, the entire 1GbE MBH connection to a typical macrocell today, intended to serve all concurrent 4G users, would be consumed by one bandwidth-hungry 5G user, like me.

The access network, which includes the RAN, is the one part of the global network infrastructure that still has a significant amount of copper and wireless technology deployed, which will be a problem for 5G deployments, due to the promised speeds of this new technology.- *Brian Lavallée, Director of Portfolio Solutions Marketing*

It's important to lay fiber now to small and macro cells, wherever and whenever possible, if these cell sites are to be upgraded to 5G in the coming years, as copper and air-based MBH options simply cannot scale to the immense amount of backhaul traffic that'll be generated by a 5G RAN. Fortunately, 5G is intended as an overlay to existing 3G/4G mobile networks, meaning that for existing cells that need not be upgraded to 5G in the future, using air and copper-based backhaul options are viable options for today, and tomorrow.

Most bandwidth consumed over mobile network airwaves is related to video-centric content flowing from a distant data center located across a city, a country, or even an ocean. Our growing affinity, dependence, and downright addiction to our mobile devices has led them to being the often preferred access vehicle to online content relegating cable and xDSL modems to a more secondary role. If 5G is to be aggressively rolled out in the coming years delivering real-world access speeds significantly faster to what's available on today's 3G/4G networks, whatever the 5G speed will ultimately be, all parts of the wired network connected to the RAN will be affected by the deluge of content flowing to and from data centers. The only transport media capable of scaling to these demands is fiber meaning it'll have to be available everywhere, particularly in the RAN to the hundreds of thousands of small and macro cells deployed worldwide.

## 5G for Fixed Broadband

Another monkey wrench in the works is using fixed 5G access as a broadband replacement technology, which some carriers are considering. Although the "mobile" part is removed once the 5G radios are installed in a residential or business premise, they'll still have a major effect on the RAN, and every part of the network between cell sites and data centers. Deployments of fixed 5G broadband access should be quicker and easier to deploy than running cables to premises meaning the rate that bandwidth can be turned up is accelerated, which will exacerbate bandwidth pressures on all parts of the global network. Although 5G fixed access will result in less fiber required to the premise, more bandwidth is turned up faster, meaning more RAN fiber.

Essentially all metro, regional, long haul, and submarine networks today are fiber-based, meaning they can already scale to voracious DCI growth by leveraging the very latest in optical transmission technologies. The access network, which includes the RAN, is the one part of the global network infrastructure that still has a significant amount of copper and wireless (microwave/millimeterwave) technology deployed, which will be a problem for 5G deployments, due to the promised speeds of this new technology. Areas targeted for 5G coverage require lots of fiber to be successful, and not just for capacity reasons, but also to meet the other rather formidable 5G performance goals related to network diversity, availability, and coverage, since all three of these goals are achieved through a greater number of interconnected paths, of fiber. It's rather ironic that the projected performance goals of 5G *wireless* will depend on the availability of *wireline* fiber.

In fact, the only reason we don't have fiber connected right to our

smartphones is because we'd be less mobile.

## Attachment 5

### **Medical Definition of ALARA**

#### **Medical Definition of ALARA**

: an effort, approach, or policy that aims to maintain the level of exposure to radiation or other hazardous materials (such as toxic chemicals) as far below regulatory limits as possible. Inherently, ALARA aims to achieve the lowest possible dose to the population ... — Jonathan M. Samet et al., in *Cancer Epidemiology and Prevention*, 2006 —often used before another noun ... believe strongly that the ALARA principle should be followed whenever possible ... — Eliot Siegel, *Applied Radiology*, April 2006

## 5G Cell Service Is Coming. Who Decides Where It Goes?

By Allan Holmes

March 2, 2018

WASHINGTON — The future of cellular service is coming to a neighborhood near you.

But who gets to decide when, where and how it gets delivered is still a heated fight.

The new technology, known as 5G, delivers wireless internet at far faster speeds than existing cellular connections. But it also requires different hardware to deliver the signals.

Instead of relying on large towers placed far apart, the new signals will come from smaller equipment placed an average of 500 feet apart in neighborhoods and business districts. Much of the equipment will be on streetlights or utility poles, often accompanied by containers the size of refrigerators on the ground. More than 300,000 cell stations now provide wireless connections, and 5G will bring hundreds of thousands — perhaps millions — more.

The prospect of their installation has many communities and their officials, from Woodbury, N.Y., to Olympia, Wash., insisting that local governments control the placement and look of the new equipment. They say that the cell stations could clutter neighborhoods with eyesores and cost the communities a lot of potential revenue.

“Residents across the country are just now beginning to understand the harms that hasty and insensitive small cell deployments can inflict on their communities,” said Jim Baller, the president of Baller Stokes & Lide, a law firm in Washington that represents municipalities on communications issues.

But telecommunications companies — hoping to cash in on what is predicted to be \$250 billion in annual service revenue from 5G by 2025 — are pushing to build the system as quickly and cheaply as possible. And they have the federal government on their side.

The companies, like Verizon Communications and AT&T, say that the equipment will be safe and unobtrusive, and that it is needed to support future applications like driverless cars. Dotting them throughout neighborhoods is necessary for full coverage, they say, because the new 5G signals do not travel as far as the radio frequencies now in use.

The new equipment, AT&T told the Federal Communications Commission last year, “will revolutionize the way consumers and businesses use mobile broadband services, and of the emerging internet of things.”

To get their way, the telecom firms have lobbyists working state legislatures, advocating laws that restrict local oversight of 5G. Since 2016, 13 states have passed bills that limit local control, and several other states are considering similar laws. Wireless companies are also lobbying Congress, which is considering several bills on the issue.

And the F.C.C., under the leadership of Ajit Pai, its Republican chairman, has strongly encouraged weakening regulations to accelerate the deployment of new 5G technology — including reducing the role of local governments.

This week, another Republican F.C.C. commissioner, Brendan Carr, announced details of a plan to streamline the environmental and historic review process for 5G infrastructure, saying it could cut costs by 80 percent. The agency will vote on the measure this month.

Mr. Pai and Mr. Carr have said regulatory changes are necessary to keep pace with global competitors. But bringing high-speed service to underserved areas — closing the digital divide — has also been one of Mr. Pai's central arguments for reining in local regulations. The money companies save from fewer regulations, he says, can be used to expand broadband into rural areas.

City officials are not buying it. Mobilitie, one of the nation's largest cell-tower operators, submitted an unofficial plan in Montgomery County, Md., in the fall, designating where the company might want to place small cells. Of the 215 small-cell sites in that plan, only 11 were in areas with fewer than 1,000 people per square mile.

“It is deeply disingenuous to suggest that the need to pre-empt urban areas' ordinances is so we can bring broadband to rural areas,” said Mitsuko R. Herrera, the county's technology special projects director. “There is zero evidence to support that premise.”

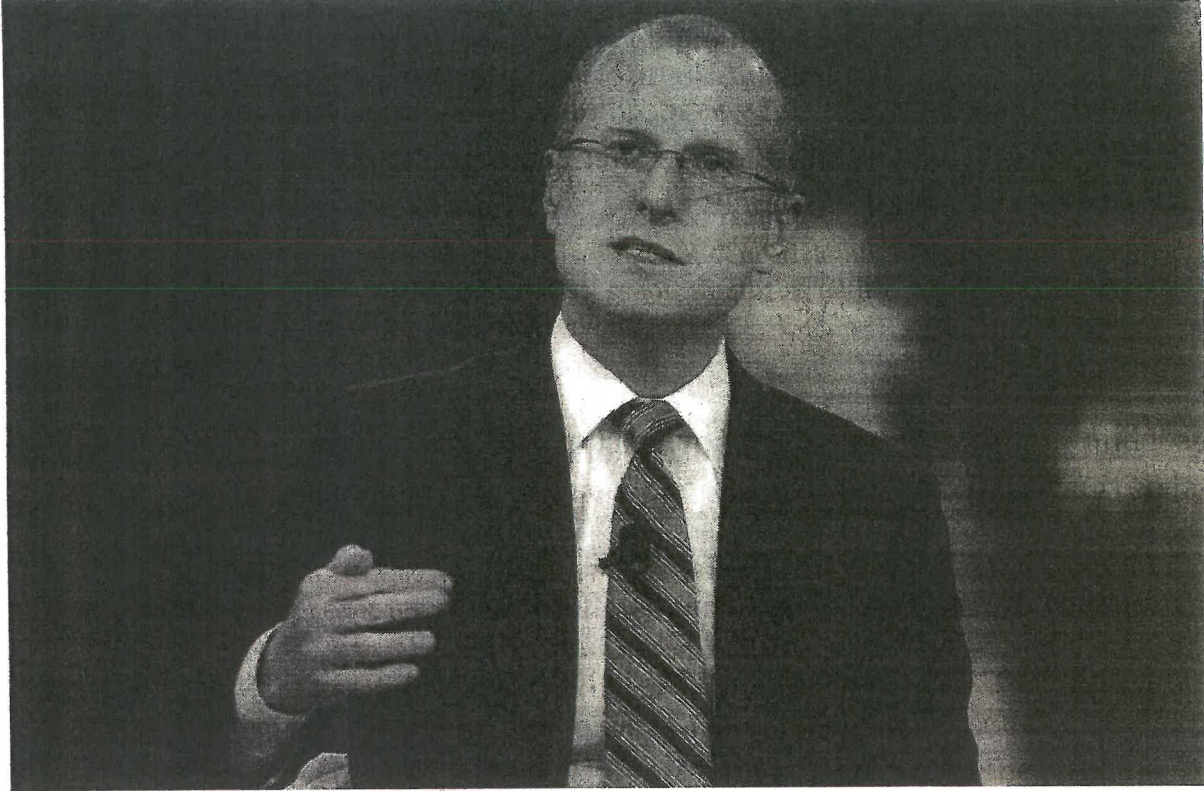
Jason Caliento, a Mobilitie senior vice president, agreed. “Small cells are a tool in the toolbox, but alone are not going to solve the rural divide,” he said.

In January, Mayor Sam Liccardo of San Jose, Calif., resigned his seat on an F.C.C. 5G advisory committee, saying it was rigged to give industry what it wanted “without any obligation to provide broadband access to underserved residents.”

In response, Mr. Pai said the F.C.C. looked forward to working with the committee “to remove regulatory barriers to broadband deployment and to extend digital opportunity to all Americans.”

The wireless industry has filed multiple comments to the F.C.C. complaining about delays from local governments. AT&T executives said officials in California, whom they did not identify, had delayed deployment of small cells by more than 800 days because they “scrutinized” antenna designs, radio-frequency exposure and effects on property values, among other things. Companies have suggested cutting local approval windows by a month or more.

Cities and counties argue the delays are caused by the wireless companies themselves. Officials in Montgomery County said Mobilitie had routinely filed incomplete applications that caused months of setbacks.



Brendan Carr, an F.C.C. commissioner, this week announced details of a plan to streamline the environmental and historic review process for 5G infrastructure.

Joshua Roberts/Reuters

Mobilitie officials said their relationship with local governments was “evolving” and leading to better collaboration. “I don’t think we’ve ever seen more progress” than has occurred lately, Mr. Caliento said.

City officials say shortening reviews risks small-cell facilities becoming unsightly and unsafe.

That is what worries Donna Baron, a 75-year-old retiree who learned a streetlight near her home on DuFief Drive in North Potomac, Md., was marked to become a small cell, as were dozens more nearby. She held up an image of a possible cell station that might replace the light.

“The pole is a lot rounder, it has boxes on it and a huge fake mailbox at the bottom,” Ms. Baron said. If the F.C.C. pre-empts local rules, “you’re going to end up with a Medusa, with a bunch more stuff attached.”

Wireless companies are also asking the F.C.C. to cap local fees. AT&T says that three California cities assess fees of \$2,600 to \$8,000 a year per attachment, and that a “Georgia municipality is considering an annual fee of \$6,000 per node.”



David Young, who manages infrastructure leases for Lincoln, Neb., said he understood the carriers' frustration. But he said cities had a responsibility to charge fair rates. He has negotiated with wireless companies to pay \$1,995 a year per pole. He set the rate based on market analysis, which he discussed with the companies. "They were quite happy to pay the price that we asked," Mr. Young said.

Texas cities can't negotiate rates. Last year, the State Legislature passed a law pushed by AT&T that allows cities to charge carriers no more than \$250 per pole each year. Before the law, cities often charged \$1,500 to \$2,500 a year per pole, and the change will cost Texas cities as much as \$1 billion over eight years, the Texas Municipal League estimated.

AT&T argues that charging fees not based on cost violates the federal Communications Act, which blocks local governments from prohibiting broadband services.

A group of Texas cities led by the city of McAllen, near the Mexico border, filed a lawsuit last year against the state, arguing that the new cell-site law violated the state Constitution, which prohibits the Legislature from forcing cities to grant something of value to corporations.

Lawyers representing Texas argue the state has the authority to cap municipalities' pole rental fees. During oral arguments in December, a judge denied the state's motion for dismissal, and last month denied the cities' request for a temporary injunction. The case is expected to go to trial this year.

The maneuvering in Washington has left people like Marc King, 71, a longtime resident of Germantown, Md., feeling resigned.

"A Russian woman stood up to speak at one of these public meetings, and she said that when she lived in Russia, the government slam dunked her and she had no say," Mr. King said. "Now she lives in the United States of America, where she's getting slam dunked by the government and she has no say. That gives you a window into what's going on here."

Allan Holmes is a reporter for the Center for Public Integrity, a nonprofit investigative reporting organization in Washington.

A version of this article appears in print on March 2, 2018, on Page B3 of the New York edition with the headline: 5G Cell Service Is Coming. Critics Fear the Stations Will Look Like 'a Medusa.'

[READ 56 COMMENTS](#)

# Attachment 7

The CT Mirror (<https://ctmirror.org/2018/12/03/blumenthal-wants-fcc-prove-5g-wireless-technology-safe/>)

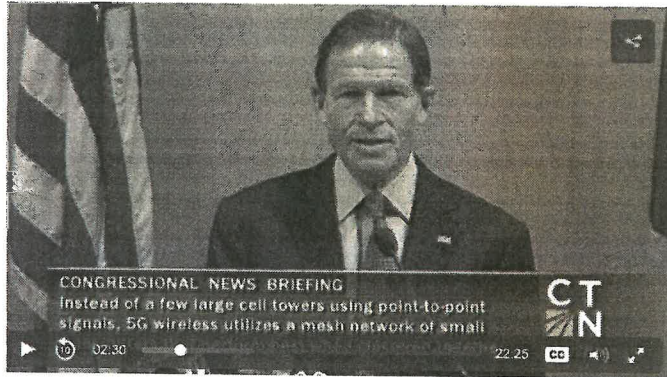
## Blumenthal wants FCC to prove 5G wireless technology is safe

By: [ANA RADELAT](#) | December 3, 2018

[View as "Clean Read"](#)

**Washington** – U.S.

Sen. Richard Blumenthal is leading a campaign to determine whether new “5G” wireless technology is safe and is asking the federal government for proof the cutting edge radiofrequency does not pose health risks – including cancer.



CT-M

On Monday, Blumenthal, D-Conn., a member of the Senate Commerce Committee, and Rep. Anna Eshoo, D-Calif., wrote to

Federal Communications Commission Brendan Carr seeking information on how his agency has determined 5G technology is safe.

**U.S. Sen. Richard Blumenthal speaking during a press conference about 5G wireless technology at the Legislative Office Building in Hartford on Monday.**

“We need to know whether the radio frequencies can cause cancer,” Blumenthal said at a press conference in Hartford on Monday.

The FCC did not have an immediate response to the letter.

Blumenthal said 5G technology “is a vast improvement” over the 2G and 3G radio waves that allow wireless devices like cell phones and computers to operate. He said the new technology “offers the tremendous promise of higher speeds and reliability.

“But there is also a peril of health hazards associated with radiofrequency that is higher and requires more transmitters and antennas,” he said.

The issue of whether 5G technology is safe was raised by Paul TenHaken, the mayor of Sioux Falls, S.D., at a Commerce Committee field hearing last month.

would be placed near schools, libraries and homes, would not pose a risk to his constituents.

Carr replied that “federal law ... says that state and local governments can’t take (radiofrequency) concerns into account given how much work has gone into this issue at the federal level...”

“Both at the FCC and other expert health agencies in Washington, they stay very much up to speed on these issues and have reached the determination that these are safe,” Carr told TenHaken.



[https://checkout.fundjournalism.org/memberform?org\\_id=ctmirror&amount=15&installmentPeriod=monthly&campaign=7010b00000197rX](https://checkout.fundjournalism.org/memberform?org_id=ctmirror&amount=15&installmentPeriod=monthly&campaign=7010b00000197rX)

Blumenthal wants proof. In his letter to Carr, the senator said “most of our current regulations regarding radiofrequency safety were adopted in 1996 and have not yet been updated for next generation equipment and devices.”

Blumenthal also cited a study released this month by the National Toxicology Program, an inter-agency program within the U.S. Department of Health and Human Service, that showed evidence of cancerous heart tumors, as well as some evidence of cancerous brain tumors, in male rats exposed to exposed to high levels of radiofrequency radiation like that used in 2G and 3G cell phones.

The study, begun in 1999, did not address 4G and 5G technologies.

“The stark, simple fact is that health hazards are unknown and unstudied,” Blumenthal said at his press conference. “That is a sign of neglect and disregard at the Federal Communications Commission that is unacceptable. We need to know whether the technology can cause cancer and other diseases.

Communications workers and environmentalists are also concerned about the impacts of 5G technology.

David Weidlich, head of the Connecticut local of the Communication Workers of America, said the AT&T workers he represents have radiofrequency monitors when they work at the cell towers. However, Weidlich said at the Hartford press conference, the microtowers that would be used to transmit 5G frequencies would be installed on individual telephone poles where “there is no consistent safety mechanisms.”

Blumenthal and Eshoo gave Carr a Dec. 17 deadline to comply with their request for information.

## Comments

20 comments

**Department of  
Conservation and  
Development**

30 Muir Road  
Martinez, CA 94553-4601

Phone: 855-323-2626

**Contra  
Costa  
County**



**John Kopchik**  
Director  
**Aruna Bhat**  
Deputy Director  
**Jason Crapo**  
Deputy Director  
**Maureen Toms**  
Deputy Director  
**Kelli Zenn**  
Business Operations Manager

PAYER:

APPLICATION #: CDWA18-00003

TYPE: Wireless Facility

Payment Type: Check  
Check Nbr: 791

ACCOUNT ITEM LIST:

Item #	Description	Total Fees	Current Paid	Total Paid
0047	Appeal (\$125)	\$125.00	\$0.00	\$125.00
0047	Appeal (\$125)	\$125.00	\$0.00	\$125.00
0047	Appeal (\$125)	\$125.00	\$125.00	\$125.00
0047	Appeal (\$125)	\$125.00	\$0.00	\$125.00
052B	Notification Fee (\$30)	\$30.00	\$0.00	\$30.00
S-060K	Wireless Facility Access Permit Fee	\$4,000.00	\$0.00	\$4,000.00
Total Fees:		\$4,530.00	Paid:	\$4,530.00
			Balance:	\$0.00

ISSUED BY: FAVILA  
DATE: 12-21-2018

APPLICATION DESC: Applicant is requesting approval of a wireless access permit for the installation of a 4 ft. antenna on top of an existing utility pole as well as 2 RRUs32, 2 diplexers, 2 RRU shrouds,, 1 disconnect switch, 2 power supply units, 1 fiber demarc box and 1 pole-mounted power meter located in the county right-of-way.

SITE ADDRESS: 1955 MEADOW RD, WALNUT CREEK, CA 94595-2650

PARCEL: ROW-188-112

NOTES: Appeal fee.

Receipt Number: 180016639