



200ft





Existing Conditions



Photo-Simulation (to Scale) of Proposed Verizon Wireless Facility  
Powell East, CLMB-324 – Location 2

IF MONOPOLE DESIGN





Existing Conditions



Photo-Simulation (to Scale) of Proposed Verizon Wireless Facility  
Powell East, CLMB-324 – Location 2

OLD WATER TOWER DESIGN





Existing Conditions



Photo-Simulation (to Scale) of Proposed Verizon Wireless Facility  
Powell East, CLMB-324 – Location 1





Existing Conditions



Photo-Simulation (to Scale) of Proposed Verizon Wireless Facility  
Powell East, CLMB-324 – Location 3





Existing Conditions



Photo-Simulation (to Scale) of Proposed Verizon Wireless Facility  
Powell East, CLMB-324 – Location 4





Existing Conditions



Photo-Simulation (to Scale) of Proposed Verizon Wireless Facility  
Powell East, CLMB-324 – Location 5





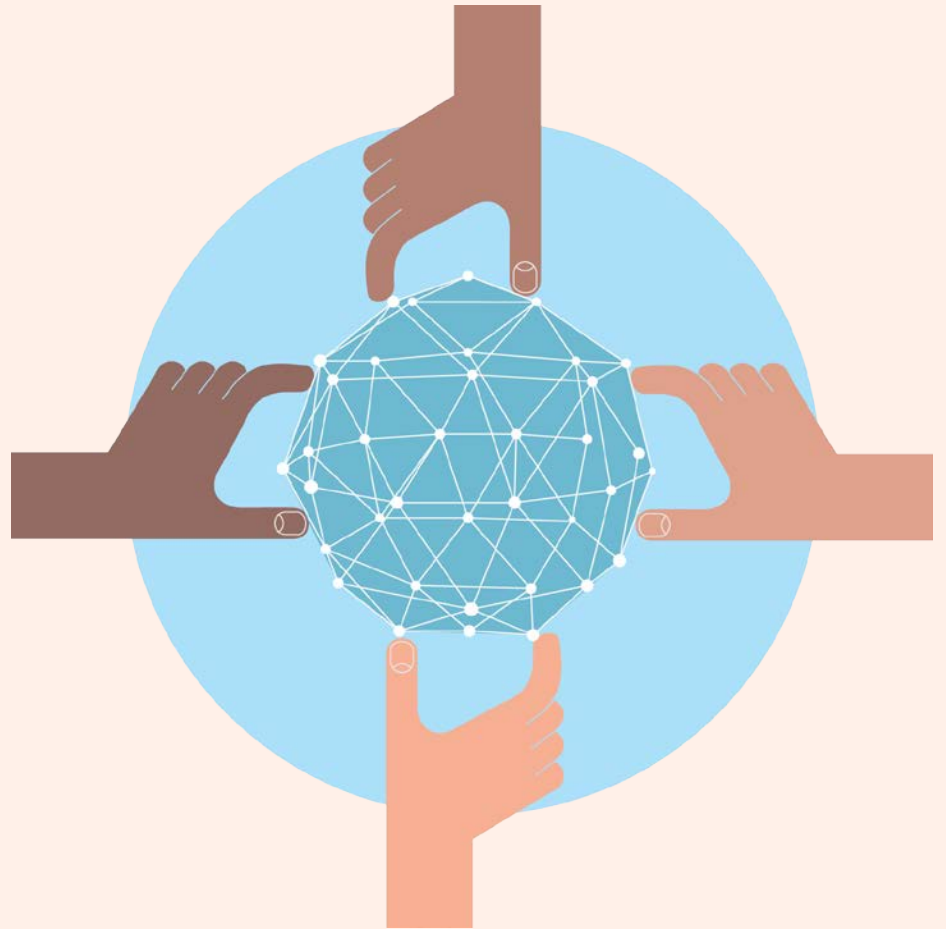






**Connecting  
our homes,  
businesses  
and  
communities.**

**verizon**<sup>✓</sup>



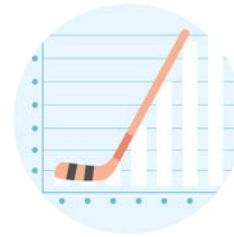


# Why are we expanding the wireless network?

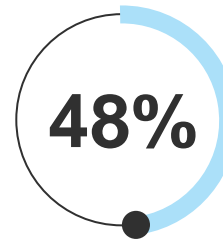
More people than ever before rely on wireless connections to manage their lives and businesses.

Verizon is expanding its wireless network to meet the growing demands of today and tomorrow.

**But it takes time.**



**U.S. mobile data usage is projected to grow nearly seven-fold through 2019.<sup>1</sup>**



**More than 48 percent of American households are wireless-only.<sup>2</sup>**



**In North America, the average household has 13 connected devices with smartphones outnumbering tablets 6 to 1.<sup>3</sup>**

1. Cisco VNI Mobile Forecast Highlights, 2014 – 2019, October 2015

2. CDCs 2015 Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, July-December

3. IHS Markit Connected Device Market Monitor: Q1 2016 , June 7, 2016



# What it takes to keep families and businesses connected.

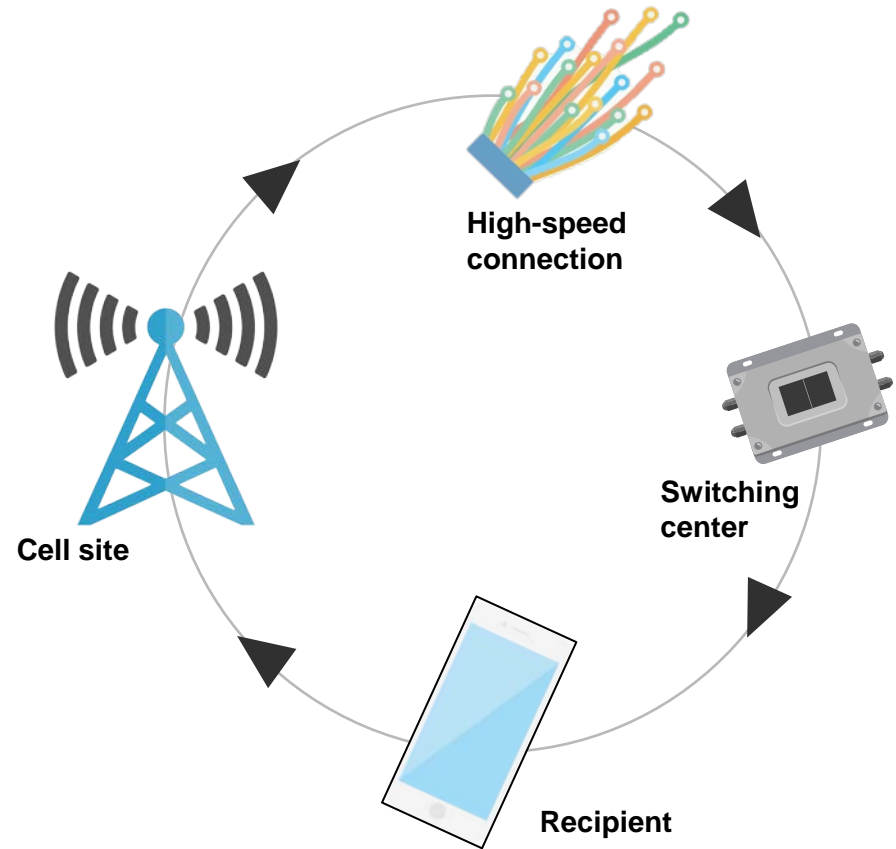
## How does wireless service work?

Radio frequencies can carry signals from radios and televisions, to baby monitors, garage door openers, home Wi-Fi service, and cordless phones.

Cell service uses these radio frequencies to wirelessly connect a mobile device with the nearest antenna. That antenna may be hidden in a church steeple, sitting on a rooftop, attached to a building façade or mounted on a freestanding tower structure. All are known generically as cell sites.

From the cell site, the call or data session then travels through a high-speed connection to a network switching center where it is then directed to the recipient.

This all happens in fractions of a second.



**The many types of wireless technologies include cellular and fixed wireless, or Wi-Fi.**



# Different locations require different solutions.

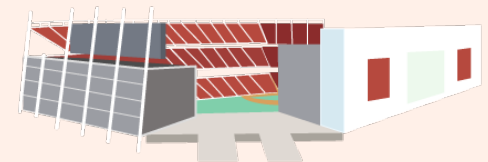
Verizon uses a balanced approach to engineering the best possible network given the local community's needs.

Macro sites are traditional cell sites or towers that provide capacity and coverage to a broad area, up to several miles.



Small cells are just like the name implies – short range cell sites used to complement macro cell towers in a smaller geographic area ranging from a few hundred feet to upwards of 1,000 feet. These lower power antennas enhance capacity in high traffic areas, dense urban areas, suburban neighborhoods, and more. Small cells use small radios and a single antenna placed on existing structures including utility poles and street lights.

Distributed Antenna Systems (DAS) are a group of antennas in outdoor or indoor locations that connect to a base station. DAS systems are typically used in large venues including stadiums and shopping centers.





# Staying ahead of demand.

A wireless network is like a highway system...



More wireless traffic needs more wireless facilities just like more vehicle traffic needs more lanes.

- Many wireless users share each cell site and congestion may result when too many try to use it at the same time.
- Wireless coverage may already exist in an area, but with data usage growth increasing exponentially each year, more capacity is needed.
- To meet capacity demands, we need to add more wireless antennas closer to users and closer to other cell sites to provide the reliable service customers have come to expect from Verizon.

Wireless subscribers used almost 10 trillion megabytes of data in 2015, more than double what they consumed in 2014.\*

\*Fortune, May 23, 2016.

# Finding the right location.

To meet customer needs and expectations, wireless providers need the ability to expand and enhance their networks where users live, work, travel and play.



Verizon gathers information from many sources including customer feedback, results of our own exhaustive network testing, and data from third parties.

When an area for improvement is identified, utilizing our existing network is always our first effort. If that is not possible, we then look at adding a new site.

## Steps to finding a new site

Our engineers analyze the areas that need improvement to figure out the ideal location based on customer needs, terrain and modeling results.

Using existing structures is considered first.

Network teams perform exhaustive searches in the area needing improvement to find a location that will meet our technical needs. We also look at interest from property owners.

We pick a location that has the highest likelihood of meeting technical needs and works for the community.

## Guidelines for new sites

We comply fully with all requirements for community notification and review, zoning and permitting.

Potential antenna locations must meet all local, state and federal regulations.

Verizon holds Federal Communications Commission (FCC) licenses for the frequencies utilized and we strictly follow their regulations.



# Wireless facilities and property values.

Cell service in and around the home has emerged as a critical factor in home-buying decisions.



National studies demonstrate that most home buyers value good cell service over many other factors including school district when purchasing a home.

75%

More than 75% of prospective home buyers said a good cellular connection was important to them.<sup>1</sup>

83%

The same study showed that 83% of Millennials (those born between 1982 and 2004) said cell service was the most important factor in purchasing a home.

90%

90% of U.S. households use wireless service. Citizens need access to 911 and reverse 911 and wireless may be their only connection.<sup>2</sup>

1. Money, "The Surprising Thing Home Buyers Care About More than Schools," June 2, 2015  
2. CTIA Facts and Infographics, June 2015

# Health and safety background.

**Health and safety organizations worldwide have studied potential health effects of RF emissions for decades, and studies continue.**

According to the FCC, measurements made near typical cellular and PCS installations, especially those with tower-mounted antennas, have shown that ground-level power densities are hundreds to thousands of times less than the FCC's limits for safe exposure.

The Federal Communications Commission (FCC) guidelines for operating wireless networks are based on the recommendations of federal health and safety agencies including:

- The Environmental Protection Agency (EPA)
- The Food and Drug Administration (FDA)
- The National Institute for Occupational Safety and Health (NIOSH)
- The Occupational Safety and Health Administration (OSHA)
- The Institute of Electrical and Electronics Engineers (IEEE)
- The National Council on Radiation Protection and Measurements (NCRP)

Wireless technology, equipment and network operations are highly regulated.

**More information can be found through these organizations:**

**Federal Communications Commission Radio Frequency Safety Program:**

[http://wireless.fcc.gov/siting/FCC\\_LSGAC\\_RF\\_Guide.pdf](http://wireless.fcc.gov/siting/FCC_LSGAC_RF_Guide.pdf)

<http://www.fcc.gov/oet/rfsafety/>

**Food & Drug Administration “Cell phone facts”:**

<http://www.fda.gov/Radiation-EmittingProducts/RadiationEmittingProductsandProcedures/HomeBusinessandEntertainment/CellPhones/ucm116282.htm>

**World Health Organization:**

<http://www.who.int/peh-emf/publications/facts/fs304/en/>

**American Cancer Society**

<http://www.cancer.org/cancer/cancercauses/othercarcinogens/athome/cellular-phone-towers>



# Building a wireless network you can rely on in a crisis.

**The reliability of your cell phone is never more important than when crisis strikes. That's when a simple call or text message can make the difference between life and death.**

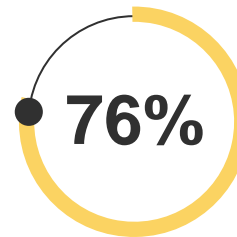


We build reliability into every aspect of our wireless network to keep customers connected when you need it most.

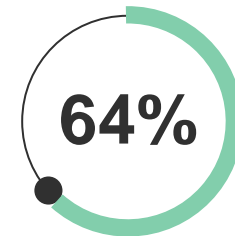
Reliability starts when we choose the safest, most secure locations available for our wireless equipment. The likelihood of earthquakes, and risk from wildfires, mudslides, floods, hurricanes and more are all considered.

When disaster strikes, we coordinate with first responders and can mobilize charging stations, special equipment, emergency vehicles and more to support local, state and federal agencies in all 50 states.

**It's who we are.**



of wireless subscribers have used devices in an emergency.<sup>1</sup>



of all 911 calls are made from wireless devices, with half of those made indoors.<sup>2</sup>

1. Wireless Week, March 9, 2016  
2. EMS World, April 24, 2014

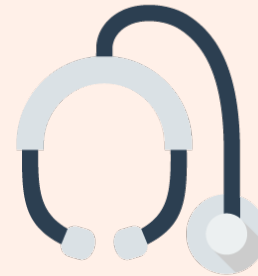
# Verizon is part of your community. Because we live and work there too.

We believe technology can help solve  
our biggest social problems.

We're working with innovators,  
community leaders, non-profits,  
universities and our peers to  
address some of the unmet  
challenges in education, healthcare  
and energy management.

Learn more about our corporate social  
responsibility at [www.verizon.com](http://www.verizon.com).

**verizon**✓







SHEET 2

S2

1

- PREMISES

S2

2

- LEGAL DESCRIPTIONS

S2

3

- FLOOD ZONE DATA

S2

4

- VICINITY MAP

COORDINATE POINT LOCATION

NAD 1983  
LATITUDE: 40° 09' 23.56" N  
LONGITUDE: 83° 03' 46.19" W  
NAVD 1988  
ELEVATION: 895.279'  
NORTH STATE PLANE COORDINATE  
(BLUE MARBLE GEOGRAPHIC  
CALCULATOR VERSION 3.0)  
NORTHING: 178986.981  
EASTING: 1811167.367

PROJECT BENCHMARK

NORTH: 179130.239  
EAST: 1811377.730  
ELEVATION: 895.902'  
LOCATION: BEING A MAG NAIL IN THE  
WALKING PATH 202' NORTHEAST  
OF THE NORTHEAST CORNER OF  
THE LEASE AREA.

POWER & TEL SOURCE

UTILITY COMPANY: AMERICAN ELECTRIC POWER  
IDENTIFICATION #: N/A  
TELEPHONE COMPANY: AT&T  
IDENTIFICATION #: N/A

S2

1

Know what's below.  
Call before you dig.

The utility information shown on this plot,  
prepared by FSSR was obtained from  
existing records and or by field locations.  
It is the contractor's responsibility to verify  
their existence and location, and to contact  
the appropriate utility company for field locations.

SYMBOL LEGEND

WOOD POWER POLE

CONCRETE POWER POLE

METAL TRAFFIC POLE

LIGHT POLE

GUY POLE

TELEPHONE PEDESTAL

GUY ANCHOR

MANHOLE

WATER VALVE

WATER METER

FIRE HYDRANT

ELECTRIC BOX

FENCE POST

SPOT ELEVATION

SET #5 REBAR  
(UNLESS OTHERWISE NOTED)

EXISTING #5 REBAR  
(UNLESS OTHERWISE NOTED)

ABBREVIATIONS

EG EDGE OF GRAVEL

EP EDGE OF PAVEMENT

ROW RIGHT OF WAY

CL CENTERLINE

RCP REINFORCED CONCRETE PIPE

CONC CONCRETE

CPP CORRUGATED PLASTIC PIPE

CMP CORRUGATED METAL PIPE

PL SUBJECT PROPERTY LINE

TC TOP OF CURB

BC BOTTOM OF CURB

POC POINT OF COMMENCING

POB POINT OF BEGINNING

IPC IRON PIN CAPPED

LINE LEGEND

OVERHEAD ELECTRIC

UNDERGROUND GAS LINE

UNDERGROUND WATER LINE

OVERHEAD ELECTRIC & TELEPHONE LINE

OVERHEAD TELEPHONE LINE

DRAINAGE/STORM SEWER LINE

EXISTING FENCE

PROPOSED FENCE

DITCH / SWALE

SUBJECT PROPERTY BOUNDARY

RIGHT OF WAY CENTERLINE

NOTE: SYMBOLS, ABBREVIATIONS, OR LINESTYLES DO NOT NECESSARILY  
APPEAR ON DRAWING(S). USE ONLY AS APPLICABLE

LINE	BEARING	DISTANCE
L1	S 86°46'20" E	10.00'
L2	S 86°18'46" E	5.19'
L3	S 86°18'46" E	15.97'
L4	N 21°17'14" E	10.49'
L5	S 21°17'14" W	10.49'
L6	N 86°18'46" W	12.00'
L7	S 86°18'46" E	20.00'

CURVE	RADIUS	CHORD BEARING	CHORD LENGTH
C1	30.00'	S 42°30'55" E	42.51'
C2	45.00'	S 25°45'22" E	42.75'
C3	750.00'	S 34°30'30" W	20.00'
C4	65.00'	N 25°58'04" W	62.17'
C5	10.00'	N 42°30'55" W	14.17'
C6	620.00'	S 36°14'53" W	20.21'

**SURVEYORS NOTES**

SOURCE OF BEARING AND ELEVATION IS A G.P.S. OBSERVATION ON APRIL 15, 2020, FROM A GPS CONTINUOUSLY OPERATING REFERENCE STATION DESIGNATION - ALUMCREEK\_OH2006 CORS APP, CORS\_ID - ACSO, PID - DL6453.

SITE SHOWN SUBJECT TO RIGHT OF WAYS AND EASEMENTS SHOWN HEREON OR NOT.

SOURCE OF ROTATION BASED ON THE SOUTH RIGHT OF WAY LINE OF WEST POWELL ROAD WHICH HAS THE BEARING OF S 86°17'21" E PER OFFICIAL RECORD 610, PAGE 51, AND THE CALCULATED BEARING OF S 86°46'20" E.

NO SEARCH OF PUBLIC RECORDS HAS BEEN PERFORMED BY THIS FIRM TO DETERMINE ANY DEFECTS AND/OR AMBIGUITIES IN THE TITLE OF THE PARENT TRACT.

THIS DRAWING DOES NOT REPRESENT A BOUNDARY SURVEY.

EXISTING CONTOURS ARE AT ONE FOOT INTERVALS.

LAND SURVEYOR'S CERTIFICATE

TYPE "A" SURVEY: UNADJUSTED TRAVERSE CLOSURE BETTER THAN 1 IN 10,000.

TO ALL PARTIES INTERESTED IN TITLE TO PREMISES SURVEYED I hereby certify that this plat and survey were made under my supervision, and that the angular and linear measurements, as witnessed by monuments shown hereon, are true and correct to the best of my knowledge and belief.

This survey and plat meets or exceeds the minimum standards of the governing authorities.

This property is subject to any recorded easements or right of ways not shown hereon.

Frank L. Sellinger, Sr. OH. Reg. No. 8229

"WIRELESS COMMUNICATION SITE SURVEY"

OWNER APPROVAL: \_\_\_\_\_ DATE: \_\_\_\_\_

TENANT APPROVAL: \_\_\_\_\_ DATE: \_\_\_\_\_

S2

3

I HAVE REVIEWED THE FLOOD INSURANCE RATE MAPS (FIRM) MAP NO. 39041C0237K DATED 4-16-2009 AND THE LEASE AREA DOES NOT APPEAR TO BE IN A FLOOD PRONE AREA. THE LEASE AREA IS LOCATED IN ZONE X.

PREPARED FOR:

TowerCo

CELLCO PARTNERSHIP  
D/B/A

verizon

FRANK L.  
SELLINGER SR.

FOR:

FSTAN

Land Surveyors

1012 S 4th Street, Suite 101

Louisville, Ky 40203

Phone: (502) 636-5111

Fax: (502) 636-5263

SITE NUMBER:

OH0357

SITE NAME:

POWELL EAST

SITE ADDRESS:

BENNETT PARKWAY  
POWELL, OH 43065

LEASE AREA:

5,625.0 SQ.FT.

PROPERTY OWNER:

VILLAGE OF POWELL  
500 BENNETT PARKWAY  
POWELL, OH 43065

PARCEL NUMBER:

319-442-03-001-000

SOURCE OF TITLE:

O.R. 610, PG. 51

DWG BY:

CHKD BY:

DATE:

SNS

FSSR

4.27.2020

FSTAN PROJECT NO.:

19-10572

SHEET 2 OF 3

REVISIONS:

SHELTER & UTL. ESMT - 4.30.2020

CO-LOCATE

POWELL EAST  
OH0357

SITE ADDRESS: BENNETT PARKWAY  
POWELL, OH 43065

OWNER ADDRESS: 500 BENNETT PARKWAY  
POWELL, OH 43065







# Wireless Networks and Your Health: THE FACTS

## FACTS

- Wireless devices and facilities must adhere to radio frequency ("RF") emission guidelines established and enforced by the Federal Communications Commission ("FCC").

*See FCC, Second Memorandum Opinion and Order and Notice of Proposed Rulemaking, 12 FCC Rcd 13494*

- Under federal law, state and local governments may not regulate the placement, construction, and modification of wireless facilities on the basis of environmental effects of RF emissions if the facilities comply with FCC regulations governing RF emissions.

*47 U.S.C. § 332(c)(7)(B)(iv)*

- RF emissions from wireless facilities generally are significantly lower than permitted. According to recent studies, "RF exposures from base stations range from 0.002% to 2% of the levels of international exposure guidelines."

*World Health Organization, Electromagnetic Fields and Public Health, <http://www.who.int/mediacentre/factsheets/fs304/en/>*

- There is no credible scientific evidence that RF emissions from wireless base stations and wireless networks have adverse health or environmental effects.

## CONCLUSIONS

- The World Health Organization has conducted a review of all available studies and concluded that "there is no convincing scientific evidence that the weak RF signals from base stations and wireless networks cause adverse health effects."

*World Health Organization, Electromagnetic Fields and Public Health, <http://www.who.int/mediacentre/factsheets/fs304/en/>*

- The U.S. Food and Drug Administration has determined that based on all available evidence, there is "no increased health risk due to radio-frequency (RF) energy."

*U.S. Food and Drug Administration, Consumer Updates: No Evidence Linking Cell Phone Use to Risk of Brain Tumors, <http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm212273.htm>*

- The National Cancer Institute has concluded that despite the rise in cell phone use, brain cancer rates did not increase between 1987 and 2005.

*U.S. Food and Drug Administration, Consumer Updates: No Evidence Linking Cell Phone Use to Risk of Brain Tumors, <http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm212273.htm>*

- The FCC has concluded that "[t]here is no scientific evidence to date that proves that wireless phone usage can lead to cancer or a variety of other health effects, including headaches, dizziness or memory loss."

*FCC, Office of Engineering and Technology, RF Safety FAQs, <http://www.fcc.gov/oet/lrf/safety/lrf-faqs.html#Q6>*