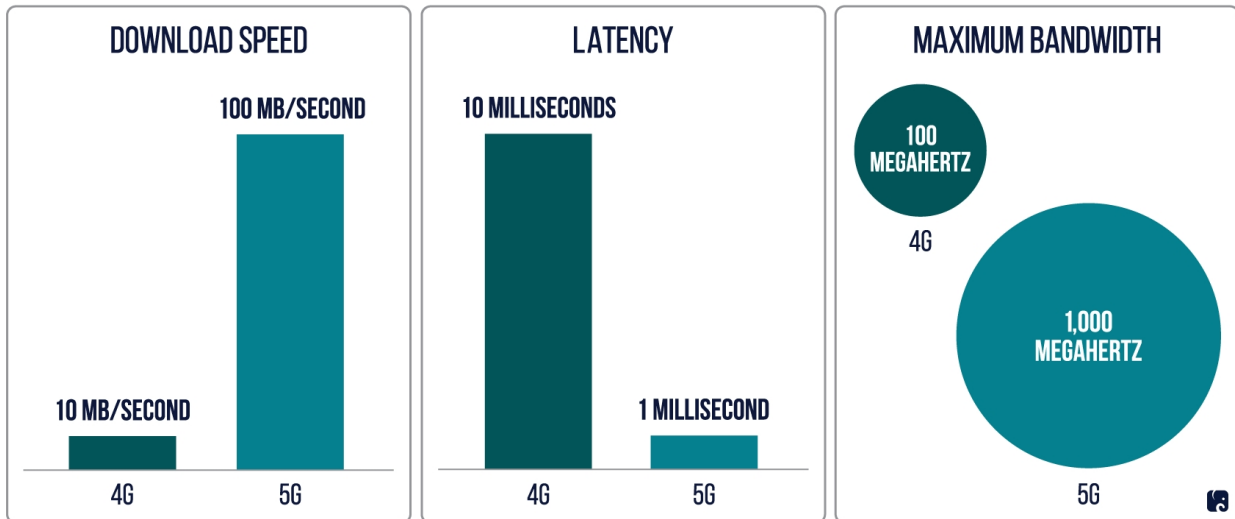
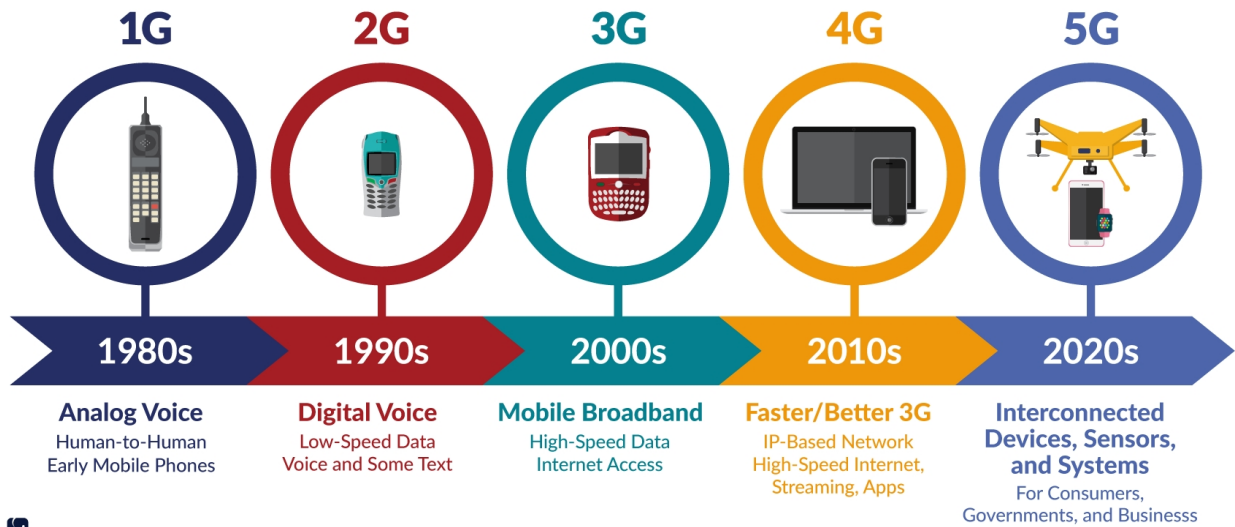


## Small Cell Wireless (5G) Deployment FAQ

### WHAT IS 5G?

The fifth generation of cellular technology (5G) is the next great leap in speed for wireless devices. This speed includes both the rate mobile users can download data to their devices and the latency, or lag, they experience between sending and receiving information. 5G aims to deliver data rates that are 10 to 100 times faster than current 4G networks. Users should expect to see download speeds on the order of gigabits per second (Gb/s), much greater than the tens of megabits per second (Mb/s) speeds of 4G.



## **HOW DOES 5G WORK?**

In part, this increased speed and capacity will be achieved through improvements to 4G networks and by using higher radio frequencies (frequencies in the 30 to 300 gigahertz range), which have not been used for mobile radio communications previously. The use of higher frequencies requires mobile service providers to install new infrastructure and equipment. In previous generations of mobile technology, a 200-foot tower was typically sufficient to serve a single city because lower-frequency waves can travel longer distances and through buildings and other objects. In contrast, the high-frequency waves used for 5G can travel short distances and cannot easily penetrate objects. Consequently, rather than a single tower, the 5G network employs numerous, smaller cell sites placed close together to relay signals across longer distances and around obstacles. These are referred to as “small cell sites” or “Small Wireless Facilities.” These small cell sites can be as small as a backpack and can be installed on structures such as street lights, utility poles, or buildings.

## **HOW IS 5G DEPLOYMENT REGULATED – WHAT RESTRICTIONS HAVE BEEN PLACED ON CITIES?**

Michigan's 2018 PA 365, MCL 460.1301 et seq. (“Act 365”) was passed late in 2018 and became effective March 12, 2019. Act 365 requires the City to act within certain time limits upon applications that it receives for new small wireless facilities seeking to deploy within the City’s public Rights-of-Way (ROW). Act 365 also strictly limits the City’s ability to impose requirements on the applicants and caps the fees the City can charge. Similarly, the Federal Communications Commission (FCC) in September 2018 released FCC Order No. 18-133 (Order 133), which, under federal law, (1) preempted, to a large degree, what local authorities are able to regulate in regard to small wireless facilities, (2) imposed short timeframes for the City to respond to applications, and (3) capped the fees the City can charge for use of the public rights of way. Because of these parallel actions taken at the state and federal levels, the City’s ability to regulate how small wireless facilities operate in the public ROW within the City has been sharply limited.

## **HOW IS THE CITY PROCEEDING WITH 5G DEPLOYMENT?**

The above legal situation has left the City with two options – to either abandon all attempts to control or regulate access to the City’s rights of way by small wireless facilities, or else to exercise the regulatory authority it has left. Because doing the former would likely result in the placement of these facilities wherever wireless providers desired, perhaps without regard to competing uses of the rights of way or to general public safety, the City has chosen to exercise the authority it has remaining by means of a permit system.

Although the City cannot deny access to the rights of way to small wireless facilities in a blanket way (such as through a moratorium), the City does retain the authority to issue permits for the placement of these facilities. The requirements the City is allowed to include in these permits are defined under the state and federal laws referenced above.

We are also concerned that these facilities are consistent with other uses of the rights of way, and with residents' uses of surrounding property. Thus, while we cannot ban small cell antennas from specific areas of the City, we can and do encourage them to collocate on existing poles or other facilities, and to minimize their visual impact by adopting low-profile designs.

Thus, the City cannot legally ban small cell devices from the public rights of way, nor can it impose environmental or public health requirements related to RF emissions that are in excess of those put in place by the FCC. The City can, and has chosen to, require applicants to obtain a permit before installing any such facilities, and the City is thereby able to exercise some degree of control over the location and appearance of these facilities, as well as to require that they do not interfere with other uses of the public rights of way, including public safety and emergency response uses.

### **CAN LOCAL AND STATE GOVERNMENTAL BODIES ESTABLISH LIMITS FOR RF EXPOSURE?**

Among the matters that the City cannot regulate under those laws are the radio-frequency (RF) emissions of these wireless facilities, as long as they are in compliance with FCC rules. What the City is allowed to do is to require that providers show that they are in compliance with the FCC's RF requirements. Imposing additional RF requirements would likely place the City in violation of both state and federal laws. Specifically, the Telecommunications Act of 1996 contained provisions relating to federal jurisdiction to regulate human exposure to RF emissions from certain transmitting devices. In particular, Section 704 of the Act states that, "No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions."

#### Additional Information:

<https://www.fcc.gov/engineering-technology/electromagnetic-compatibility-division/radio-frequency-safety/faq/rf-safety#Q5>

### **WHAT ADDITIONAL STEPS IS THE CITY TAKING REGARDING REGULATORY POWERS?**

- The City is an active member of PROTEC ([www.protec-mi.org](http://www.protec-mi.org)) - a coalition of several Michigan cities interested in protecting their citizens' control over public rights-of-way, and their right to receive fair compensation from the telecommunications companies that use public property. PROTEC has represented jurisdictions of all sizes through coordinated lobbying efforts at both the state and federal level.
- The City will consider financially supporting legal challenges and petitions that protect local control of public rights-of-way.
- The City will continue to proactively work with providers to achieve the best possible outcomes for the community.

### **WHAT CAN CITIZENS DO?**

Concerned citizens should contact their state representatives and congressmen regarding the preemption of local control via the Michigan Small Wireless Communication Facilities Deployment Act (Small Wireless Act) and FCC Order of September, 2018.