

- 1. How high are light posts that are currently installed at the football stadium (so I have an idea of how much higher the proposed tower would be) also if known approximate the height of the trees closest to the tower (to help mask it)?**

Light poles on home side are 110 feet tall and 80 feet tall on visitor side. We have not performed a survey yet but estimate trees in the surrounding area to be between 60 and 80 feet tall.

- 2. Can there be "tree like branches" so it doesn't stand out as much?**

For this site, Milestone proposed and recommend a standard monopole – as it is sited within tall existing galvanized steel poles, which allow it to appear to be in context or fit in with surroundings when viewed on campus and off-site. In general, we suggest tree camouflage (also known as a treepole or monopine) for locations immediately set against a backdrop of trees. In our experience, that is where the treepole is the best design solution that blends in. In addition, the treepole style tower requires additional height – usually 10-12 feet – to allow for the addition of the crown, which provides the structure a tapered, natural tree shape.

- 3. Can Milestone Communications be required to plant trees around a proposed cellphone site which will grow fast and help "mask" the tower? Or would that make it difficult for maintenance? I expect if the trees are not right next to the tower, as they grow, they help mask the tower sticking up as a "sore thumb".**

Yes, Milestone will add trees and shrubs around the site to help screen the equipment compound from sight. The County will require a landscape buffer around the site. The final details will be coordinated with LCPS for their sign-off and approval.

- 4. Is it safe to put Telecommunications pole in a school? I thought such poles should NOT be placed in public areas like schools. Please rethink. Are they safe to kids' health and well-being? I think it is not a good idea. Can you please put the tower away from the school? Please do the research again.**

Milestone has partnered with several local school systems and municipalities to help improve and expand commercial and emergency communication capabilities in residential areas.

Often, public properties offer the best opportunity to best serve the area that needs these services, while also being large enough to offer siting options to minimize the visual impact to surrounding area.

As for safety, all of Milestone's sites comply with federal regulatory guidelines for radiofrequency exposure. These guidelines are in place to protect and ensure the health of the general population and are buffered by a significant safety factor. Through independent third-party monitoring, Milestone ensures all its sites are compliant with federal regulatory standards and are safe for the communities we serve.

Paul Dugan is an independent consulting radiofrequency engineer and much more knowledgeable on the topic of wireless technology and safety – Paul, can you weigh in on this topic for us?

The contribution of RF exposure from the proposed monopole under all upper limit assumptions is negligible and the proposed facility will comply with the federal safety standard by a factor of well over 100 at all locations in proximity to the monopole. I have measured the RF exposure at several school grounds where cell towers have been

constructed to demonstrate that the RF exposure does not elevate in proximity to these structures. The FCC standard has been reaffirmed to be more than sufficient for the diverse makeup of demographics including children and the current/next generation future deployment of low power wireless networks. The low power which these facilities operate and the substantial horizontal and vertical separation of the antennas from the school facilities should not be any basis for concern.

- 5. Please kindly advise what type of cellular tower it is. Can you share technical specification of the tower/components? Is it a mid-band cellular tower? What are the GHz ranges? What are the speeds?**

The proposed structure is a 140' monopole. Along with the monopole are six 8.6' panel antennas at a centerline height of 135', two antennas per side of a triangular platform, behind the antennas are an equivalent number of remote radio heads which are smaller than a breadbox. It will operate on multiple bands considered low band and mid band. Low band is 700 and 850 MHz. Mid band is 1900, 2100, and 2300 MHz. Data throughput speeds are in the order of 25-50 MBPS when devices are relatively close to the structure.

- 6. Since AT&T Antennas will be placed at 135 feet ACL, what frequencies are they planning to use? does AT&T Plans to use millimeter wave for 5G? Millimeter wave requires high power transmission since it's a line of sight communication, what is the maximum composite power that AT&T plans to radiate from this tower? Please specify ERP and EIRP values with the worst-case scenario meaning using Antenna with the highest gain and using maximum composite power from the Base band unit (not power per channel).**

As noted in response to #5, the planned frequencies are 700, 850, 1900, 2100, and 2300 MHz. There are no plans to use millimeter wave for 5G at this site. Please see response to #7 for information on maximum permissible exposure for this site.

- 7. What is the Maximum Permissible Exposure (MPE) values for General Public? please account for future service providers like (TMO/Verizon) that may be collocated on this tower. Are there plans to camouflage this tower so it blends with the light poles that are on the school playground? since there will be a constant RF being radiated from the antennas and kids will be there in the playground during school days and weekends, what if there is a cable cut at the base of tower and the RF gets radiated from the base of the tower instead of the top of the tower? will this impact safety of kids? also how do you secure the enclosure so kids cannot get inside the location where you will house your equipment?**

The % MPE at any location on school grounds is well below 1 % of the FCC General Population Guidelines. This will not change with up to 4 wireless carriers on this structure under all upper limit conditions. The actual exposure is more like 1/1000th of the MPE. I have never heard of cables being cut to cause emissions from the ground. Alternatively, the radios are designed so that virtually any type of radio malfunction will cause the radio to shut down. Further, all radio equipment is at the top of the structure at antenna height. No cabling cut at the base will cause RF emissions at the base. The compound is secured by a chain link fence with locked gate and privacy slats.

- 8. What is the radiation concentration at the following distances from the base of the tower: 100 feet, 500 feet, 100 yards, 500 yards?**

We have reviewed the proposed antenna configuration and operating parameters for this facility. From that information, at every distance, the exposure is substantially below 1 % of the federal safety standard. This would not change with up to 4 carriers considering future collocation. Note that the RF exposure anywhere on school grounds is extremely low due to the substantial horizontal and vertical separation from all accessible areas and the low power which these facilities operate.

9. What is the expected average radiation yield from the proposed tower assuming exposure at a center point at the high school?

Same answer as #8.

10. What is the radiation yield at the center of the high school football field?

Same answer as #8.

11. Was European Union findings that high-power cell towers may create adverse health effects provided to the school board?

We are not aware of any such report or findings published by the European Union. This facility is a low power cell tower serving a small geographic area, unlike high power broadcast towers.

Here are what two European sources say about cell towers:

The European Commission: "The results of current scientific research show that there are no evident adverse health effects if exposure remains below the levels set by current standards."

The U.K. Advisory Group on Non-Ionizing Radiation: "Exposure levels from living near to mobile phone base-stations are extremely low, and the overall evidence indicates that they are unlikely to pose a risk to health."

12. Will microwave dishes be installed at this pole for backhaul communication?

No microwave dishes are planned for this site.

13. What frequency and lower will be used for microwave dishes?

Not applicable; no microwave dishes are planned for this site.

14. What channels and bands will be used by RF antenna? will there be any tower mounted amplifiers too?

The RF antenna design and frequency information is provided in response to question #5.

15. What is the noise level that will be coming out of your base unit?

Aside from some minimal humming of electrical components, the only other equipment that emits audible sound is the back-up generator. The generator does not run 24-7 - it only runs in the event of a power outage and during routine self-check (which is usually 1-2 times a month). The sound is between 60 and 70 decibels, which is equivalent to or slightly louder than normal conversation levels.

16. Will the location of your tower equipment that will not be in the pole be easily accessible by kids in the school?

The equipment needed to operate the facility will be located at the base of the tower, enclosed by a locked gate and 8' tall chain link fence. Only Milestone and LCPS personnel will have access to the compound.

17. If any antenna falls down due to wind how fast is your response time to fix it?

The monopole is built to comply with all applicable building and structural codes, which factor in a significant wind tolerance. We have never had an incident of an antenna or tower falling. Milestone's policy is to respond to any maintenance incidents within 24 hours.

18. Is this for 5G? Can you 100% guarantee that there will be no adverse effects on people?

AT&T plans to use 5G on their existing 850 MHz band which has existed for 36 years. There are no plans for 5G mmWave at this site. The 850 MHz 5G emissions will be no different than from any other prior technology. Nobody can prove that something could not have a negative impact which applies to everything in our society so it is not possible to provide a guarantee. Thousands of studies have been performed over the past 40 years including 5G. RF energy has existed for over 100 years. The lack of any credible scientific evidence among various global agencies responsible for health and safety to prove a negative impact speaks for itself and I find no basis for concern having done my own work on the subject for 36 years. I also would refer anyone to review the FDA's report from February 2020.

19. What are possible negative effects of the tower?

Milestone and LCPS worked together to propose a location that would minimize any potential negative effects. The tower will not disrupt or impact any planned or future school operations, and the actual tower is proposed to be located in the interior of the property, over 1,000 feet from the closest residence. By locating it in close vicinity to existing tall light poles and far from residences

20. How did AT&T decide on choosing this particular area instead of others?

AT&T has radiofrequency engineers who monitor the network 24/7 and identify areas of sub-optimal performance, as well as collect data from customer complaints and dropped calls. Once they identify a low-performing cell, they look to improve it by first upgrading or modifying equipment on their existing sites. Then they look at collocating on existing wireless towers or tall structures. After those options have been evaluated and exhausted, they look to build a new site.

21. Will this meeting be posted on the LCPS website or any other publicly accessible site/program?

Yes, the meeting recording will be posted on LCPS' dedicated [Rock Ridge High School Cellular Tower Proposal](#) webpage.

22. I'm a student journalist at Rock Ridge High School and I was wondering if there would be any negative impacts to the community in order to build such a structure.

Milestone and LCPS worked together to propose a location that would minimize any potential negative effects. The proposed facility will not disrupt or impact any planned or future school operations, and the monopole location is within the interior of the property. We are minimizing potential visual impacts by siting the monopole proximate to existing tall light poles and over 1,400 feet from the closest homes.

23. What is the projected inauguration date?

There are still several steps to go in the process before this project can move forward, including briefings to the School Board Facilities and Finance Committee and full School Board. Once the project is authorized to move forward, Milestone will still need to go through the land use and permitting process with the County, which includes obtaining a Commission Permit, Site Plan approval, and Grading and Building permits. We estimate that approval process would be an additional 7-8 months. At that point, Milestone would coordinate with LCPS for execution of the site license and coordination of construction schedule.

24. Why would Rock Ridge [High School] be a prime location for this project and not any other different location in Loudoun County?

AT&T has radiofrequency engineers who monitor the network 24/7 and identify areas of sub-optimal performance, as well as collect data from customer complaints and dropped calls. Once they identify a low-performing cell – as was the case of the Rock Ridge High School area – they look to improve it by first upgrading or modifying equipment on their existing sites. Then they look at collocating on existing wireless towers or tall structures. After those options have been evaluated and exhausted, they look to build a new site.