

Frequently Asked Questions: Public Safety Radio Project – Tower Placement Updated February 23, 2026

What is the proposed tower for? Is it really necessary?

The County of Door is in the process of upgrading its aging VHF radio communications system to a modern digital UHF system. This system provides communications for all public safety agencies throughout the county, including Ephraim Fire and Rescue. The current system will reach its end-of-life in 2028, and the equipment is becoming increasingly difficult to support each year. This makes the upgrade and adherence to the project timeline critical.

The transition will improve communication quality and reliability throughout the county; however, UHF signals do not travel as far as VHF. As a result, additional tower sites are necessary to ensure adequate coverage – particularly in areas currently experiencing coverage issues, such as locations below the bluff in Ephraim *and especially downtown Ephraim*.

Tower placement is a key component of this upgrade, which impacts the effectiveness and reliability of the new system. The proposed location on German Road addresses issues with coverage in Ephraim found in earlier iterations and proposed locations.

Who is involved in the Public Safety Radio Project?

The project is being managed by the County of Door Technology Services Department along with their communications consultant, Omnicom Consulting Group (OCG). The County is also planning to partner with Vertical Bridge for tower construction and Nsight for tower co-locations.

The Village's Community Protection Committee has been following the topic closely and will continue to do so. After a lot of back and forth, progress on how the project will be funded and the coverage in Ephraim has been improved since the initial conversations. County project representatives have presented to the Village Board with progress on the project on a few occasions: [April 8, 2025](#), [November 18, 2025](#), and [February 10, 2026](#).

What is the timeline of the Public Safety Radio project?

The current system will reach its end of life in 2028. Tower locations throughout the County are being explored, along with that comes conversations about land agreements and acquisitions. While we do not have an exact go-live date at this time, once the agreements are in place, the County can move forward with all necessary site testing, and then construction. As the project progresses and a vendor is selected, the County will be able to firm up a go-live date.

Who is paying for the Public Safety Radio project?

The County will incur the costs of the initial purchase of the municipal public safety portables, mobiles, desktop control stations, and pagers (subscriber equipment). Along with the necessary subscriber equipment, the County is also incurring all of the infrastructure costs which includes, gear on the towers, within the shelters, at the dispatch center, and any software/licensing associated with the project. Vertical Bridge will build, own, and maintain the tower structure, with Door County and Nsight as proposed anchor tenants. There will be no cost to the Village to construct this proposed site or for the new equipment required on the site.

Going forward, municipalities will be responsible for a fee per device to cover biennial tuning of devices and for any replacement or upgraded devices.

When has this project been discussed by the Village?

The project was first presented to the Village Board on April 8, 2025. Initially, a sample costing model was presented that each municipality would be responsible for a portion of paying for the initial costs related to the project and new equipment (at the time, roughly \$300,000 for Ephraim).

The County Radio Project was on the Community Protection Committee Meeting Agendas on: [November 1, 2024](#), [September 5, 2024](#) (as part of budget discussion), [April 3, 2025](#), [May 1, 2025](#), [June 5, 2025](#), [September 4, 2025](#), [October 2, 2025](#), [October 30, 2025](#), and [January 28, 2026](#).

Why is the location on German Road being proposed for a tower?

With a UHF system/frequency, signals provide deeper penetration however, do not travel as far as VHF, requiring additional towers to provide the coverage that is needed around the County. The original system design included the use of an existing 400ft tower in Ellison Bay. Unfortunately, after structural assessments, it was determined that this tower cannot support the additional gear required for the upgrade. As a result, the County needed to adjust its system design. Working with their consultant, they were able to get an updated plan design, which includes the proposed German Road site, that meets the required coverage percentages while also taking into consideration the concerns voiced by the Village regarding coverage in key areas (e.g. below the bluff).

Have other tower locations in Ephraim been considered?

Yes. The Village Town Line Drive (Wastewater Treatment Plant and Maintenance Garage) property was also evaluated, but it does not provide sufficient coverage in key areas in Ephraim. The AT&T site in the Village was discussed, but it lacks the required height for microwave point-to-point communications.

The existing tower on German Road was reviewed, but is not viable due to the fact that it is already heavily loaded with equipment and lacks the space at the top to get the required height.

What are the parameters of the proposed tower and location?

The proposed tower is currently set for 180ft, keeping it below FAA lighting requirements. Height adjustments might be necessary once additional testing and studies have been completed. The proposed site would require an approximately 80 ft x 80 ft compound to accommodate the tower, generator, and shelter.

The proposed location on the German Road property needs to comply with setbacks from the former landfill and also not interfere with the current and future Village operation of boat trailer parking and brush dump. Three different locations on the property were considered, but the Village has asked that the County pursue the location in the furthest southeast location on the property.

Are the environmental disruptions (e.g., bird migration, NEPA, proximity to the former landfill, etc) and the proximity to the Ephraim-Gibraltar Airport being considered?

Yes. Once a location has been agreed to, engineers will come back to do additional testing to ensure that all of these important factors are incorporated into the design of the system. Testing will include all required archeological, geographical, and environmental studies to confirm the viability of the site. Along with all the necessary testing, FAA and FCC approval will be required. The engineers will report back to the County and to Ephraim once the testing is completed, which is expected by end of Summer 2026.

Have the implications to tourism been considered with the project?

Safety of our residents and visitors is the driving factor of the project. The proposed tower location on German Road provides the best coverage for Ephraim, more so than the other locations that have been explored.

Should we be concerned about emissions created from the proposed tower?

The FCC sets all the standards/requirements to regulate devices to ensure they do not exceed safe limits. All Public Safety Radio Vendors would be required to adhere to all of those standards. The more open space a radio wave has, the quicker the power and ultimately radiation dissipates. The antennas are also designed to project outward, where typical heavy exposure would come from standing directly in front of a device, like a Microwave Dish or antenna and not at ground level. Cellular and public safety radio frequencies emit non-ionizing radiation, which can't alter DNA, which is very much unlike gamma or x-rays so they in and of themselves are safer. Public Safety Radio Frequency (RF) gear typically produces less radiation than some home devices.

Can the Village control what other services are added to the proposed tower?

It depends on how the proposed tower is funded. The most fiscally and resource responsible for the County and its taxpayers is to have Vertical Bridge own and manage the tower. If that is the case, then we have little control on what else can be added to the proposed tower should there be space for additional equipment. If the County owns the tower, the Village can have more control over what goes on it through an intergovernmental agreement.

Where can I find more information on this topic?

Village Board Minutes and Packets (linked in the above Q & A sections)

Community Protection Committee Minutes and Packets (linked in the above Q & A sections)

[County Board](#)

[County of Door Communications Advisory Technical Subcommittee](#)

Should you have any remaining questions or concerns, please send them to office@ephraim.wi.gov.

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