

Public Hearing
Grant County Public Safety Communications
System Construction Project

August 22, 2023

Public Meeting Minutes

The meeting and public hearing was called to order by Emergency Management Director Steve Braun at 6PM. Those attending in person who chose to sign in included: Dallas Dietzel, Gerry Oberbroeckling, Troy Trost, Steve Tranel, Charles Hrubes, Lynn Kirschbaum, Robert Keeney, Shane Drinkwater, and Steve Braun. Those attending online/virtually who chose to identify themselves included: Rick French, Cindy French, Tom Hoffman, and Doug Bartow.

Steve explained the purpose of the public meeting, noting that Grant County applied for and received a congressional appropriation in the amount of \$2,026,977 toward the construction of a public safety communications system. Steve explained that the funding is routed through the USDA Community Facilities Program, and that we are here tonight to explain the communications project proposal and to give the opportunity for public input and comment related to the project and the use of these federal funds.

Steve explained the current state of our public safety communications system in Grant County. He noted that radio communications are “line of sight” and that the unusually rugged terrain in our region causes problems with communications that are unique to our area and are not encountered to this extent in most parts of the state. Our river communities situated along the Wisconsin and Mississippi Rivers are particularly vulnerable to communications problems since they sit at the base of large bluffs that block radio signals.

Steve explained that Grant County has never had a true public-safety grade communications system, and a 2018 study identified a number of critical problems with our existing system including poor coverage, aging condition of the existing infrastructure, frequency of failures, lack of redundancy, and outdated/unsupported technology.

Steve explained that following the 2018 study, the county board determined that it was necessary to move forward with communications upgrades in phases. The first phase (Phase 1) was to replace the county’s dispatch consoles, which was completed in 2020. Phase 2 was to construct a new central tower site in Lancaster, in the proximity of the new Community Services Building which houses the new 9-1-1 communications center. This has also been completed. Phase 3A, which is currently in progress, involves constructing a high-capacity fiber-optic ring throughout Grant County to prepare for connecting future tower sites. Phases 3B and 3C, which are also in progress, involves the construction of radio towers at four locations near Boscobel, Fennimore, Muscoda and Platteville. These are the things that have been completed and are in progress and were not a part of the application to the USDA.

The application to the USDA included the next phases of the system. Phase 3D and 3E involved constructing radio towers at six additional locations near Millville, Bloomington, West (Glen Haven

area), Cassville, Potosi, and South (Happy Corners). The total estimated cost for this phase was \$3,364,013. Phase 3F involves the purchase and installation of land-mobile radio equipment for all 11 county-owned tower locations. The total estimated cost for this phase is \$2,180,644. The final phase, 3G, involves the purchase and installation 35 mobile and portable radios for the Grant County Sheriff's Office. The total estimate cost for this phase is \$246,706. The total estimated cost of the project at the time of application was \$5,791,363, with a projected federal contribution of 35% or \$2,026,977.

Steve outlined the expected benefits of the proposed project. The first benefit will be increased radio coverage. Initial system specifications show a mobile radio coverage of 98.2% throughout all of Grant County. Cities and Villages with a population of 1,000+ should have in-building portable radio coverage 95% of the time. Smaller communities should have reliable portable radio coverage outdoors. All agencies can also expect enhanced paging coverage for fire departments and EMS services. Steve displayed and explained coverage maps comparing the current and proposed systems.

Additional benefits will include increases system redundancy/resiliency as well as future improvements to rural broadband and cellular coverage.

Steve opened the meeting to questions and public comments.

Charles Hrubes asked how the system would improve Livingston's radio coverage and some coordination issues they have when responding to calls in neighboring Iowa County. Currently Hrubes says their department is unable to use handheld radios and must rely on mobile or base station radios which hinders them. Steve replied that they will see a dramatic improvement in their coverage on the Grant County system. Bob Keeney noted that the closest tower to Livingston will be just east of Preston which is much closer than the existing towers and will offer excellent coverage to their community.

Steve Tranel noted that the existing system has been growing worse as time goes on. There was discussion on cellular data coverage, which causes increasing interference with the current radio system.

Steve Tranel stated that paging is currently bad in Cuba City and that he misses pages while at work. He notes this is a significant problem for their community. There are people who don't get calls because the pagers don't go off. They also have poor radio coverage.

Lynn Kirschbaum with Glen Haven Fire Department commented that the system breakdowns are increasingly common, and asked if there would be a way to monitor the system to identify outages automatically. Braun replied that there would be a lot more monitoring in the system, so the service technicians know there is a problem before they are even noticed in the field. The fiber-optic link offers the ability to monitor equipment better so that we can tell when there is a problem with the radio system.

Lynn recounted a recent call on the Mississippi River where radio communications and cell phone coverage were not adequate and it hindered their response.

Troy Trost noted that they have frequent radio coverage issues throughout their entire district in Dickeyville which hampers their ability to respond.

Rick French noted that the current system can be heard all the way over in Dyersville Iowa, but he can't receive radio signals in his own village in Mount Hope. Steve explained that this is primarily due to Grant County's rugged terrain, and the existing system towers are not positioned right to get signals into

the valleys and where they need to be. The existing system wasn't engineered properly. With the new system there was a substantial amount of thought that went into the tower location. There were hundreds of iterations of the system that were drawn up to determine the optimal locations of the towers to ensure reliable radio signals get into the places they need to.

Troy Trost asked whether the Cassville tower site has been determined. Bob replied that Grant County and Cassville have signed a letter of intent to put a 140' tower at the Cassville Fire Station, and remodel their storage bay to serve as a shelter. There are still many details to work through though, including environmental and historical studies.

Gerry Oberbroeckling said that he felt the digital system would be an improvement. He was concerned that when digital doesn't work you don't even get a scratch or anything. He noted that he uses digital in his farm tractors and town trucks and it is crystal clear when it works, however when you're out of range there is a complete drop in signal. Steve noted that the new system will use Linear Simulcast Modulation, which actually has a better range coverage than analog. This is different from older digital technology which did not have as good of coverage range as analog. Tanner Metz elaborated further on digital technology and that the range of LSM is superior to analog. He noted that the technology is public safety grade and is different than you would use on a farm.

Bob asked Tanner to speak about the remote monitoring capabilities of the new system. Tanner noted that the new system design gives the ability for a monitoring center to electronically monitor all of the base stations at each site for failures.

Steve Tranel asked about the plan to move to digital for fire departments since there are quite a few departments who don't have digital-capable radios. Steve Braun noted that although the system will be digital-capable, initially the system probably will operate in analog mode until the fire departments and EMS services can get caught up on purchasing the appropriate equipment. Steve noted that the law enforcement channels will be digital from day one and all law enforcement agencies in Grant County had to purchase new radios that were also capable of encryption. On the fire side, Braun noted that we're working our best to get the fire department equipment up to date as quickly as possible. Communities can work with the USDA individually to upgrade equipment, but Braun felt that the Assistance to Firefighters Grant program has been and will continue to be an effective way for departments to upgrade to digital-capable radios. Braun noted he felt that we were about 40-50% digital compliant on the fire/EMS side and making good progress.

Charles Hrubes questioned how the transition would occur. Braun replied that the system would operate in analog mode, with departments still seeing a night-and-day improvement over the coverage of the old system. The transition to digital would come at a later date when the departments all have digital radios. When the system goes online—projected for the end of 2025, we don't know that all of the fire departments are going to be ready by then. If that's the case, we're going to have to set a date after that where the system is switched to digital operation.

Charles Hrubes asked about programming radios, since they got a recent grant for new radios. Steve noted that some reprogramming might be required when the system switches to digital, however RACOM has been addressing this proactively by programming a "digital" zone in the radios so all of that digital programming is already there. Agencies that program their radios in this way may be able to avoid another round of programming when the system goes live.

Cindy French asked if the hospitals will be switching over to digital communications as well. Steve replied that the hospital base stations work on the state EMS frequency which is an analog channel and will not change. Steve noted that just because a radio is digital-capable, not every channel in that radio has to be digital. When you use the radio to talk to the hospital it will know to operate in analog mode. This is also true of the MABAS fireground frequencies (red, white and blue) that are used on most fire scenes. Steve emphasized that all of the new digital radios will be completely compatible with these old analog channels.

Rick French asked a question about handheld radios—are the old radios still going to work on the new system for a while? Steve replied that the answer to that is yes, probably for a little while. The date hasn't been set yet for when the Grant County fire departments will have to switch to digital. Analog radios, however, will not be able to hear the Sheriff's Department channel once the new system starts.

Troy Trost noted that perhaps not all radios need to be digital. Steve stated that each department will need to decide how many portable radios will need to be digital capable. He noted that Lancaster Fire Department has a portable radio for every single seated position in every fire truck. He questioned whether all of those radios really need to be upgraded, since many are just used on the analog fireground channels and don't need to talk to the dispatch center or use the county system.

Cindy French asked if Steve felt that 4-5 digital portable radios would be enough to start out with. Steve replied for a fire department the size of Mount Hope that yes, 4-5 digital radios would probably be sufficient to start with. All mobile radios will need to be upgraded to digital. From there it's up to the fire department to decide who really needs a digital radio capable of talking on the county system.

Troy Trost noted that some existing radios are digital capable. Steve replied that many of the portable radios in circulation may technically be digital-capable. Most of the mobiles are not. Steve discussed using these old portable radios on the new system, comparing them to computers. He asked how long a desktop computer was good for. The response from the room was maybe 3-4 years. Steve said that this is how he feels for portable radios as well, which are similar to computers. Most of the P25 radios in circulation are more than 12-15 years old and Steve was skeptical about them working fully on an LSM system.

Cindy French asked if Jeff can tell if their portable radios are compatible with the new system. Steve said that he would be happy to come up and look at their radios and tell what their status is. The best practice is to replace anything out there is more than 5-10 years old. Although it is technically possible to use some of those older radios on the new system, it is probably not in your best interest. They also need to be firmware upgraded as well as tuned and aligned which is complicated.

Tanner noted that the coverage maps are based off of new radios because they know what receive sensitivities are. Departments who try to use other, older radios on the system may not experience those same levels of coverage.

Gerry Oberbroeckling asked if the system has been tested with new Kenwood Radios. Tanner replied that the system was designed on products that they were familiar with, primarily Tait radios. The coverage of a new Kenwood radio would likely be similar. Tanner's concern is that the older radios will likely not perform to the same specs as the newer radios when operating on an LSM system.

Doug Bartow thanked Steve, RACOM, and the County Board for all of the work that has been going into making this new radio system a reality. He encouraged everyone to do what they need to do to get their equipment up to speed.

Steve Braun asked several times if there were any other public comments or questions. Hearing none, Steve thanked everyone for attending and the meeting was closed as 6:46pm.