

November 8, 2005 Bond Referendum

Project Name: Communications System and Facility

Project Location: Countywide Public Safety Radio System Project

Proposed Project: Replace the current public safety radio system and facility with a modern system and facility. The new system will incorporate current digital technology and improve reliability, coverage, system security, and the ability to communicate with other jurisdictions.

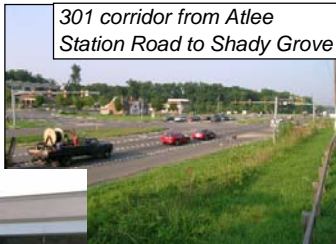
Why is it Proposed:

- The current system is at the end of its expected operational life. Because of its outdated technology, many replacement parts and components are no longer available.
- Hanover's communications system is used by law enforcement, Fire/EMS, school bus drivers, animal control and utility workers and is essential for all personnel who respond to emergencies and disaster situations. It currently handles about 160,000 calls per day among all users.
- The current system has "dead spots" throughout the County where emergency responders have no contact with the dispatcher. A goal of the new digital system is to eliminate "dead spots" and provide reliable transmission throughout the County, allowing emergency personnel to relay critical information.
- The new digital system will enhance the ability of Hanover's public safety personnel communicate "real time" with personnel in neighboring jurisdictions.
- Finally, the current communications facility has space constraints, and a new building is needed to be able to readily accommodate the new system. Pictures below illustrate issues.




There are multiple areas with radio transmission limitations:

- Area of intersection of Interstates 95 and 295
- Black Creek area
- Green Bay area


301 corridor from Atlee Station Road to Shady Grove




Inside many buildings, including Atlee High School, Hanover High School and Memorial Regional Hospital


Many replacement parts are no longer available




Transmitter equipment



Mobile radio



Portable radio

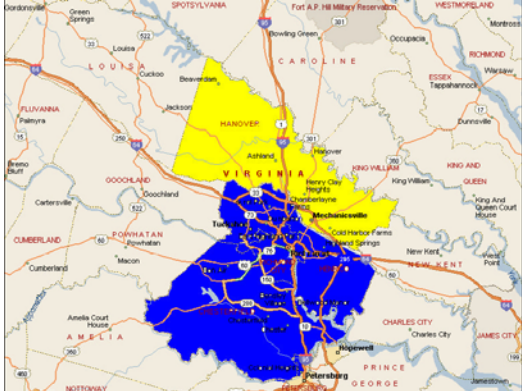


Transmitter equipment

Public Radio Systems are often referred to as the deputy's, firefighter's and EMS provider's lifeline.



Current system experiences external interference from other systems and has difficulty interacting with surrounding metropolitan localities.



Blue region = Henrico, Richmond and Chesterfield all have public radio systems that are interoperable

Yellow region = Hanover is on a different system

Pertinent Information: Year of current system: Purchased in 1989 and put into service in 1992 with 3 tower sites and an additional tower site was added in 1994

Current system: 800Mhz, 10-channel analog trunking system at four tower and transmitter sites

Proposed system: 12 Channel/12-site 800 Mhz "Project 25" Trunked Simulcast Network

Project is planned to be complete in Summer 2009. During construction coverage will not be affected.

Estimated Cost:	\$ 33,433,000	Proposed Funding Sources:	\$ 26,001,000 Debt
			7,432,000 General Fund
			<u>\$ 33,433,000</u>