

HomeSafe Inspections finding problems using high technology

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OXFORD —With the purchase of a home being the largest investment made by the average person, certainly the more information, the better. So imagine actually being able to see through walls when you are considering buying a new home, checking for problems with wiring, termites, moisture, insulation and structural defects.

Now an Oxford company has teamed infrared technology for seeing through walls with spinoff technology initially researched at the National Center for Physical Acoustics (NCPA) at the University of Mississippi for a service that can be used for comprehensive home inspections and to locate termite infestations in order to target their elimination.

“No one else is combining the two technologies,” said Kevin Seddon, president of HomeSafe Inspection, Inc., which is licensing its technology to home inspectors and termite extermination companies. “The ability to see and hear within the ‘other’ half of a home is extremely important. By incorporating this technology into home inspections, you can save a lot of money and avoid potential legal problems. You can find a water leak before it causes severe damage. You can find out if an electrical wire behind a wall is hot before it causes a fire. And you can find termites before they eat through the wall, creating major damage. Our infrared technology and powerful acoustic listening devices allow our technicians and our licensees to visually and acoustically confirm potential problems so they can be corrected before costly damage occurs.”

The company’s technology was developed by Peng Lee, who left employment at NCPA to commercialize ideas he had for using listening devices to find termites in walls. Lee’s device is a special listening probe and acoustic sensor that can be placed in walls or floorboards without damaging them. The device listens only for the sounds of termites, and is considered 97 percent accurate.

HomeSafe Inspection first does an infrared inspection of the house that picks up moisture and temperature differences caused by termite activity, structural flaws, water damage, leaking pipes, faulty wiring, heat/energy loss or roof, ceiling and ductwork problems. Once suspicious areas are identified, HomeSafe follows with an in-depth visual (traditional) inspection, paying special attention to the

suspicious areas to determine the problem's nature and cause. If an area suspected for termites is found, the listening device is inserted in the area.

“The device is extremely powerful, but only focuses on the range of sound that termites make,” Seddon said. “We have created pattern recognition software. The listening device picks up the sounds, which are immediately run through the software on a PDA (a hand-held computer). Then a message pops up on display to say, ‘Yes, it is termites,’ or ‘No, it is not termites.’ Our research shows we will find termites 2.5 times more efficiently than a traditional sight inspection.”

The more detailed home inspections allowed with HomeSafe's technology are not only beneficial to buyers, but to insurers and mortgage lenders. It helps identify potential problems so they can be fixed before causing extensive damage.

“Say there are no visible signs of problems during an inspection prior to a home being purchased, and a month later the ceiling collapses due to water damage,” Seddon said. “There are always possible issues with old water, fire or termite damage. Think of it from the standpoint of a banker or insurer. You can limit your liability from unseen problems.”

But the inspections don't kill a real estate deal, and may even help bring a deal together. Seddon gives an example of a home they inspected that had water stains all over the ceiling. A traditional inspector might have concluded the roof needed to be replaced. But using infrared showed there was no moisture, indicating the damage was old. The problem with the house, which has been vacant for two years, was inadequately insulated air conditioning duct work that cost only \$200 to repair.

“Our inspection probably saved that deal,” Seddon said. “We have never killed a deal. In fact, we have saved several because we can better ascertain what potential problems are and how they might be fixed. The more everyone knows early, the better. From real estate agents and lending institutions to home and pest inspectors and the home buyer or seller, everyone has told us that gathering all the information possible is important. Buyers want to know everything about a house before they make one of the most important investments of their lives. Sellers want to make repairs, if needed, prior to any negotiations. And, finally, the banks, real estate agents and inspectors want to quickly move the property and reduce the threat of any future litigation.”

Seddon is also working on a licensing agreement with Ole Miss and hopes to collaborate with the university in terms of further research and development of the technology. One possibility is to improve the technology to find and help rid a building of mold. Mold has become a huge issue because of some large lawsuit awards on mold contamination.

“We know we can find mold with this technology,” Seddon said. “We are looking to partner with the university and hopefully build upon and strengthen the technology in many areas.”

The advanced home inspections offered by HomeSafe start at \$300 for a house 2,000 square feet or

less. For more information on HomeSafe Inspection, visit the Web site at www.homesafeinspection.com..