

Case Study: **Silvercreek Premier Retirement Living**

Software Configuration Meets Synchronization Requirements While Reducing Costs



Project:

Silvercreek Premier Retirement Living
Olive Branch, Miss.

Multi-Story Residential
(2) 3-Story Buildings
98 Apartments

216



Addressable Sounder Bases

193



Speakers, Speaker Strobes

29

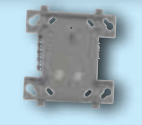


Duct Smoke Detectors

386



Smoke & Heat Detectors



Monitor & Relay Modules

With 98 luxury apartments, **Silvercreek Premier Retirement Living** will offer catered independent and assisted living opportunities to seniors.

Comprised of two interconnected three-story buildings, Silvercreek overlooks the Cherokee Valley Golf Course in Olive Branch, Miss.

Because it is a retirement facility catering to a senior community, the design of the fire system posed some unique challenges for **AlarmTec Systems** of Memphis, Tenn., designer and installer of the fire system. "Seniors are often less mobile and evacuations can pose a health risk, so the fire system had to limit unnecessary impact on the occupants while optimizing life

safety in the case of a fire event," says Mark Shipp, owner of AlarmTec Systems.

Specifically, the design called for an intelligent detection system that could provide appropriate levels of alarm and notifications, including instructions for occupants, based on the location and severity of the fire. For example, if smoke is sensed in only one living space, it would need to trigger a supervisory signal in that room only. In living spaces with more than one room, the sounders would need to be

Photo courtesy of Marsha Shipp

grouped such that any activated sounder in that living area would automatically synchronize the activation of the other sounders. If smoke is sensed in more than one living space, each instance would result in a supervisory signal synchronized across only those rooms in which smoke is sensed.

In a general alarm, voice messaging would provide guidance to occupants whenever fire is sensed in a common space or in the cases of sprinkler or pull station activation. Because of the population involved, in order to avoid a total evacuation, a fire detected in Silvercreek's East Building, for example, would result in speaker activation providing evacuation voice

sounders can be achieved using software at the panel, not physical jumpers or hardwired interconnections.

"When we first began this project, the B200S bases were not yet available," said Rob Duncan, AlarmTec's Lead Project Engineer for the Silvercreek project. The original plan called for the use of interconnect wiring between sounder bases to group the signals. However, AlarmTec came in one day to find that painters had finished all the ceilings, severely limiting access to the wiring. "We lost three days trying to find wires and work through that issue. Once we found out the **B200S bases** were available, we made a decision to switch those in and eliminate the

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— Rob Duncan, Lead Project Engineer, Silvercreek Project

messaging in that building while the West Building would receive a different voice message putting those occupants in standby. In this situation, voice messaging would instruct East Building occupants to evacuate to the West Building in order to prevent elderly and disabled occupants from having to go outside unless absolutely necessary. If conditions warrant evacuation of both buildings, a voice alarm message would then direct residents to evacuate to the outside.

Built on three addressable loops tied back to a NOTIFIER® NFS2 3030 Panel, one of the biggest challenges of implementing the fire system was the requirement to synchronize signals across multiple rooms in supervisory alarm. To achieve this, AlarmTec chose to mount intelligent smoke detectors, in newly available System Sensor B200S addressable sounder bases, in all the living spaces. Using the System Sensor synchronization protocol, these addressable sounder bases now enable installers to program a command set from the panel, including selection of volume, tone and grouping, to tailor the response to specific events. That means synchronization of the

use of the interconnect wires. They mounted to the same junction boxes. Software configuration only took us 2 to 3 minutes per device from that point and all of it was done from the panel. That decision saved us a lot of time and money."

In fact, the initial configuration was programmed to provide a continuous tone in local events. The local fire marshal asked that a Temporal-3 tone be used for local alarm communications, since voice communications would be provided for general evacuation instructions. In a hardwired system, that would have meant accessing each device and changing jumper positions, at a minimum. It could also have meant changing out complete units. Either scenario would have meant days of labor and disruption to the project schedule. But, with the B200S, a simple software change was made to modify the command sets, a task which took less than 10 minutes to accomplish.

Silvercreek Premier Retirement Living was fully commissioned and opened to residents in January of 2011.

For more information on System Sensor intelligent smoke detectors and sounder bases, visit systemsensor.com/products/intell.

Silvercreek **Cost Savings Estimate*** of Using B200S Sounder Bases

* Installation cost estimates based on national averages

B200S

Addressable Sounder

Initial Installation

216 units x 7 min each
= \$1,260.00

Rework to satisfy AHJ

1 hour service call to load a new panel program and test
= \$100.00

Total = \$1,360

B200SR

Sounder Base

Initial Installation

216 units x 8 min each
= \$1,440.00

Reversing relays, end-of-line relays and monitor modules and wiring
= \$940.00

Rework to satisfy AHJ

Removing heads, pulling jumpers and re-installing heads
216 units x 2 min each
= \$360.00

Total = \$2,740.00

B200S

Cost Savings

\$1,380.00



systemsensor.com/casestudies