



Design Details Ensure Fire Station Efficiency

By Rick Kremer, FAIA

With attention to a few crucial elements in the planning stage, municipalities can ensure a high degree of functionality of a new fire station, long before a site is selected.

Larger cities with fully staffed fire departments often bring a very detailed list of needs and ideas to the design table. However, small or rural community leadership often have little or no experience with regard to the unique aspects of fire station planning.

From our work on 15 fire station projects, we have developed a checklist of often overlooked design details that are essential for the effective, and safe, operation of fire stations.

Understand the Different Needs of Staffed vs. Volunteer Departments.

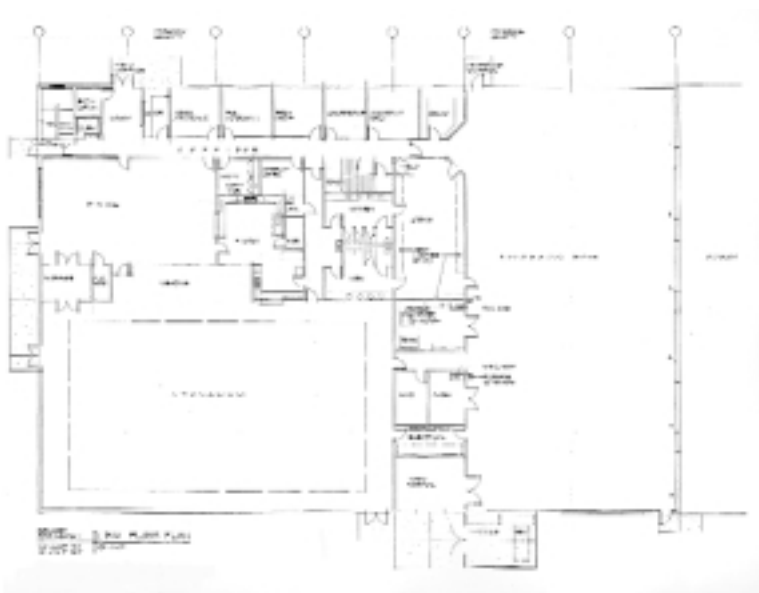
Many communities are served by an all-volunteer fire force. Unlike a fully-staffed department with firefighters who live and train on-site 24 hours a day, seven days a week, volunteer firefighters have other jobs and spend most of their time away from the station. For volunteer-staffed fire stations, living spaces for on-duty staff such as dormitories,

kitchens, lounges and recreational facilities are less important and usually are places where the budget can be trimmed.

Consider Community Activities at the Station.

When budgeting and designing a new fire

station, municipalities should consider alternative uses for the space to maximize the return on their investment. For smaller communities served by volunteer forces, the station may remain empty much of the time. These communities might wish to consider incorporating meeting rooms or recreational areas for local residents. Such activities at the



fire station can also be an effective means of recruiting new volunteers to the force, as prospects meet and socialize with firefighters.

Manage Water to Avoid Hazards.

One of the most important requirements of safe operations at a fire station is the need to manage water to avoid accidents. The designer must pay close attention to adequate drainage and surface finishes to minimize the risk of accidents that can occur in a high speed business due to standing water inside engine bays or on pavement.

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Optimize Traffic Flow.

Another important factor for safe operations at the fire station is traffic flow. This factor becomes even more critical for volunteer-staffed departments when firefighters converge on the station at high speeds in a short amount of time. The designer must plan for the flow of these vehicles into the compound without disrupting the exit of fire engines, while considering how to keep public parking adequately separated to avoid confusion in emergencies.

Optimize Site Lines Between Dispatch and Bays.

Another key to safe operations during a fire call, is to optimize site lines between the dispatch area and the fire engine bays. During an emergency, activity will be at a high level and confusion can be minimized if the dispatcher can monitor activity from an observation point and direct traffic and personnel accordingly.

Plan for Equipment Needs.

Fire stations have specific needs regarding equipment storage. New hose-drying equipment often requires a separate storage facility, while uniforms often are kept in a separate room to contain the odor of smoke and allow the protective outer gear to be hosed down after each use. Such rooms require adequate ventilation and drainage, and must be conveniently located to ensure quick access.

Ensure Proper Ventilation.

Good ventilation is essential throughout the fire station, from the bays which often hold idling fire engines, to equipment rooms which house smoke-laden equipment and uniforms. Also, heating and air conditioning needs differ throughout the station, from staff areas to fire engine bays which often are open to the elements. These needs also will vary for fully-staffed stations with round-the-clock personnel, versus volunteer-staffed stations which may be empty much of the time.

Know the Paving Requirements.

Heavy fire engines require specially-reinforced paving materials, both in the bay and on the entrance/exit ramps.

Plan for the Future.

Many municipalities often build a fire station that meets their current needs, without adequate consideration of what the future may hold. Plan for adequate facilities to accommodate bigger, heavier fire engines that may be acquired in the future, and carefully site the station to adequately serve the community as it grows.

Get Professional Expertise Involved as Early as Possible.

Enlist the help of a professional architect or firm with fire station design experience. These professionals bring a wealth of knowledge that can save you time and money, and ensure your satisfaction with the final project.

Rick Kremer, FAIA, is president of The Louis & Henry Group in Louisville, Ky.

Louis & Henry To Design New Louisville Airport Fire Station

The Louis & Henry Group has been selected by the Regional Airport Authority of Louisville and Jefferson County (RAA) to design a new fire station at Louisville International Airport.

The firm was awarded the contract in May for design of a nearly \$3 million facility. The Federal Aviation Administration will fund 75% of the project. Construction on the 16,000-square-foot building is scheduled to begin this Fall.

According to Louis & Henry project architect Richard Finnell, the station will be located directly beyond the terminal rotunda, between the airport's parallel runways and adjacent to the crosswind runway. This

improves response times to emergencies anywhere on the airfield.

The current fire station is 30 years old and was designed to service far fewer flights. The new fire station will be better equipped and better located to handle the current facilities and the significant increase in both cargo and passenger jet service.

“The new fire station marks another milestone in the airport’s growth,” said Bob Brown, director of engineering for the RAA. “We selected The Louis & Henry Group based on their qualifications and experience with fire station design.”

Church Selects Louis & Henry To Develop Master Plan

Ormsby Heights Baptist Church has selected The Louis & Henry Group to develop a master plan to map out the best options for new facilities to handle growth at the church’s property on Lower Hunters Trace in South Louisville.

The church first approached Louis & Henry with plans to build a Family Life Center. Early discussions about the optimum site for the Center highlighted additional needs such as expanded parking and enhanced traffic flow, among others.

“Rather than just decide where to locate this particular new building within the existing property layout, we are working with the church membership to carefully consider how their campus can grow for the long term,” said Keith Clements, project manager for The Louis & Henry Group.

To that end, Louis & Henry has coordinated a series of informational meetings with the membership to identify present needs and future goals to consider in the master plan.

“We selected The Louis & Henry Group because we knew they had the expertise and seemed to best understand what we needed to do,” said Frank Williamson, co-chair of the Church’s Building Committee. “We trust that from this planning process, we will have clear plans for how our campus will unfold and that in Phase One of construction, we will have a properly placed, properly functioning Family Life Center.”

Rick Kremer, FAIA Awarded Oberwarth Award

At its annual convention in October, the Kentucky Society of Architects awarded Rick Kremer, FAIA, the Oberwarth Award for his contribution to the advancement of the profession.



Rick Kremer, FAIA

The C. Julian Oberwarth Award is presented on rare occasions “to recognize and honor an individual member who has displayed a longstanding commitment to the betterment of the profession and the well-being of architects in Kentucky, and who has dedicated extraordinary time and talent to this end.”

Throughout his career, Rick Kremer has been an outspoken proponent of architects to be more proactive in initiating projects and expanding their services beyond design.

Rick has constantly expounded his belief that design is the architect’s primary talent, yet the achievement of the highest levels of design excellence are more readily accomplished through broadened and creative business practices. He has worked at all component levels of AIA to put forth this message.

He has served in all elected capacities of Central Kentucky Chapter AIA as well as AIA Kentucky including President. One of the lasting legacies of Rick's leadership and commitment is the introduction of Qualifications Based Selection into the State of Kentucky's architectural selection process. Rick led this effort as AIA Kentucky's Legislative Chairman in the early 1990s.

Rick's influence goes beyond Kentucky's borders. He has served as a member of the national AIA Board of Directors and currently serves as one of three National AIA Vice Presidents. As National Chair, Vice Chair and Advisor to the Construction Management PIA, he has encouraged other architects to expand their practice into the control of construction, and he co-edited the published by the AIA Press.

Title of Architect Conferred to Chris Cottongim



Chris Cottongim

The State of Kentucky licensing board awarded Chris Cottongim the

title of architect. Chris completed the required three-year internship and nine exams after graduating from the University of Kentucky with a degree in architecture.

Chris joined the Louis and Henry Group, in 1998. Chris' architectural focus has been in the design and construction of University buildings. He is currently designing projects for Lindsey Wilson College and the Children's Museum in Elizabethtown, Kentucky.

Chris is the son of Dale and Bettye Cottongim of Shelbyville, Kentucky.

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Contact **Tony Kleyer** for more information on how Louis & Henry can help bring your project in on time and within budget.

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