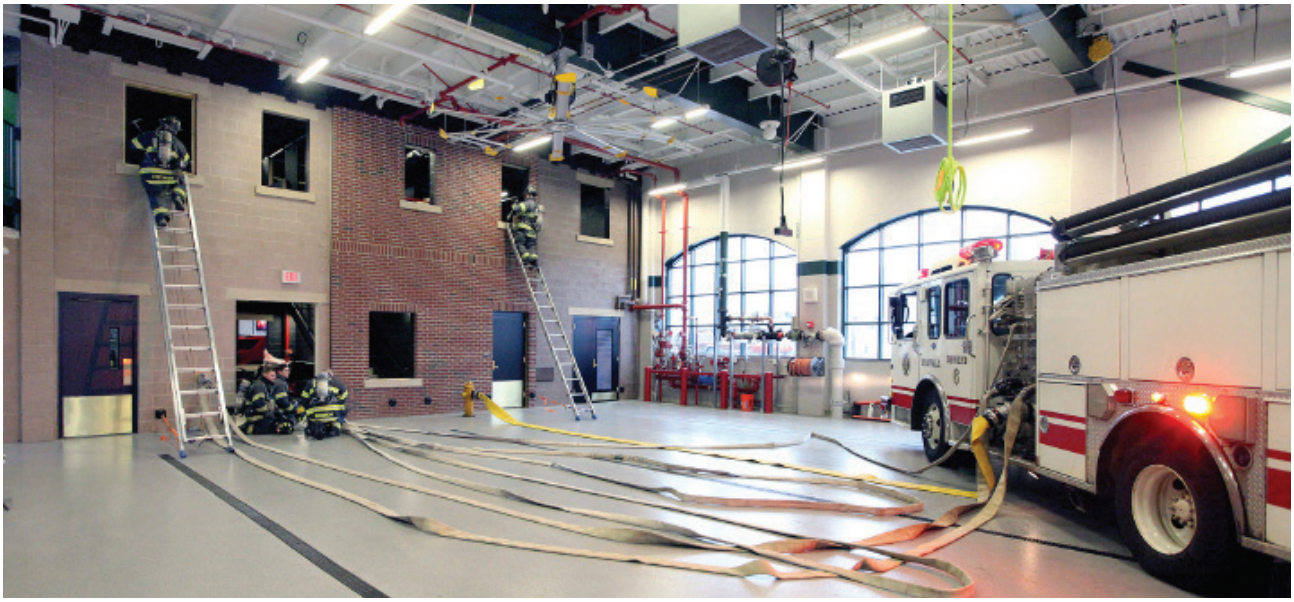
Norwalk Fire Headquarters
NORWALK, CT

How do you place 31,400 square feet of program on a prominent 60-foot-wide urban brownfield site wedged between I-95 and US Rt. 1? You plan carefully, construct vertically, design around the extremes and negotiate to utilize 15 feet of the I-95 ROW.

Explicit direction was given to design a "state-of-the-art station that looks like it's been here 100 years" that is fully sprinklered, environmentally responsive, clearly delineated by function, packed with integrated training, easy to maintain, and operationally correct for responders.

Norwalk combines six distinct functions: Main Fire Station, Fire Administration, Fire Marshal, Federally Funded EOC, Mission-Critical City IT and Integrated Training Center. They also operate an active school tour program that includes LEED education. Norwalk is the first LEED Gold HQ/EOC in Connecticut. Single-loaded corridors act as heat exchangers, provide buffers from interstate noise and pollution and permit daylighting into interior spaces. Polished concrete and bamboo floors along with double-heat-recovery HVAC system, photo-sensor controlled lighting, high-performance envelope and use of regional materials are a few LEED features.

Stone, traditional brick, true arches, steep peaked roofs, dormers, operable



windows with massing and materials reminiscent of the local vernacular add authenticity to the design. Existing fire poles and historic memorabilia were salvaged and reused along with the refurbished original station bell, which was hung in the public lobby.

The client requested advanced integrated "streetscape" training for on-site drills, exercises, regimens and classroom activities. Interior elements include windows sized specifically for each defined department drill, stair for hose advancement, standpipe and hydrant connection, forced entry, rope, rappelling, bail-out openings, mask confidence and smoke areas, blackout, maze, multiple built living environments, confined space and more. The state-of-the-art classroom is shared with the EOC, which has breakout and media spaces. All program requirements were met within budget.

Official Project Name: Norwalk Fire Headquarters
Project City/State: Norwalk, CT
Date Completed: Oct. 10, 2013
Fire Chief: Denis McCarthy
Project Area (sq.ft.): 31,393
Total Cost: $13,500,000
Cost Per Square Foot: $430
Architect/Firm Name: Pacheco Ross Architects, P.C.
Website: pra-pc.com
Design Team: Architect: Pacheco Ross Architects, P.C.; **Norwalk FD:** Fire Chief Denis McCarthy; Assistant Fire Chief Lawrence Reilly; Facilities Manager: Alan Lo; Michele DeLuca, Emergency Management; **Consulting:** James Hines, JMK Consulting; **Training:** Adam Markowitz; **CM:** Newfield Construction, Inc.; **Civil:** Tighe & Bond; **MEP:** RZ Design Assoc.; **IT:** Innovative Engineering Systems; **Commissioning:** Consulting Engineering Services

Sendero Ranch Fire Station 56

RANCHO MISSION VIEJO, CA

Fire Station 56 is a 9,543-square-foot facility built by the Orange County Fire Authority. The 1.0-acre site is located in a largely residential area known as Sendero Ranch. The station is designed to accommodate eight firefighters in an individual dormitory setting. Other station features include a three-bay, double-deep apparatus room, administrative office areas, kitchen, dining room, dayroom, physical training room, shop, medical supply storage, and the various support spaces required for a facility of this type. Circulation within the station is organized around a core of work and living spaces intended to maximize daylight opportunities for more traditionally occupied areas.

Site features include secured firefighter parking, fuel station, emergency generator and an open patio area.

Stylistically, the station was required to be designed in an architectural style that has come to be associated with Irving Gill. Characteristics of the style include simple massing and roof forms, a unity of materials, archways and minimal details. A single shade of white plaster is used for the entire facility. Tile roofing is used in selected areas along with parapet walls designed to conceal mechanical equipment.

Official Project Name: Sendero Ranch Fire Station 56
Project City/State: Rancho Mission Viejo, CA
Date Completed: July 1, 2015
Fire Chief: Jeff Bowman
Project Area (sq.ft.): 9,543
Total Cost: $4,500,000
Cost Per Square Foot: $472
Architect/Firm Name: WLC Architects, Inc.
Website: wlcarchitects.com
Design Team: WLC Principal in Charge: Kelley Needham, Architect, AIA; **Designer:** Simon Chang, Architect; **Project Manager:** Shih-Jing, Architect; **Orange County Fire Authority:** Christopher J. DeCoursey; **Construction Manager:** HMFIC; **Contractor:** Erickson-Hall Construction Company; **Project Manager:** Nathan Complin

STATION DESIGN AWARDS FIREHOUSE CAREER BRONZE

North County Fire Protection District
BONSALL, CA

Fire Station No. 5 is an 8,931-square-foot facility built by the North County Fire Protection District. The 2.7-acre site is located in a largely rural area of San Diego County.

The station is designed to accommodate seven firefighters in an individual dormitory setting. Other station features include a three-bay, single-deep apparatus room, administrative offices, kitchen, dining room, dayroom, physical training room, shop and the various support spaces required for a facility of this type.

Circulation within the station is designed around core work and living spaces in order to maximize daylight opportunities for more traditionally occupied areas. Site features include visitor parking, secure firefighter parking, an aboveground fuel station, a hose-drying rack, an emergency generator and a covered patio area. A small storage building was also included in the project.

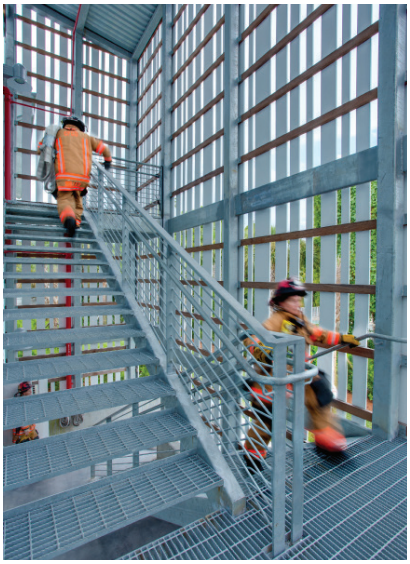
The station was designed using a combination of plaster and stone veneer in keeping with the dominant materials of the adjacent homes. Simplified Craftsman detailing was added in selected areas to help reduce the scale of the building. Sloped roof forms were used in conjunction with parapet areas designed to screen mechanical equipment.

Official Project Name: North County Fire Protection District
Project City/State: Bonsall, CA
Date Completed: Jan. 26, 2015
Fire Chief: William Metcalf
Project Area (sq.ft.): 8,931
Total Cost: $4,727,000
Cost Per Square Foot: $530
Architect/Firm Name: WLC Architects
Website: wlcarhitects.com
Design Team: WLC Principal in Charge: Kelley Needham, Architect, AIA; **Architect/Designer:** Simon Change; **Architect/Project Manager:** Shih-Jing Yen; **NCFPD:** Division Chief Steve Marovich, Deputy Chief Jon Torchia; **Contractor:** Keeton Construction; **Project Manager:** Robert Kelley

Captiva Island Fire Station
CAPTIVA ISLAND, FL

Captiva Island is located in Lee County, FL, just offshore in the beautiful waters of the Gulf of Mexico. As a barrier island that has been impacted by a number of hurricanes, Captiva was seriously damaged in August 2004, when the eastern eyewall of Hurricane Charley passed over the Island. The Captiva Fire Station, located in the historic district, serves as an emergency operations center for before, during and after these intense storms.

The Captiva Island Fire Control District had two mandates for the new fire station: 1) a building able to blend into the historic district and 2) strong enough to withstand the hurricanes. The design aesthetic is based on the island's vernacular style of neighboring buildings, some dating back to the turn of the century. The design team broke down the scale of the new station, which is more than double in size in relation to its historic neighbors. Exterior materials for the new fire station included lap siding, board-on-board siding, standing seam metal roofing and an assortment of trellis work and sunshade devices that draw from the past, but are used in new contemporary fashions.



This 9,155-square-foot, two-story fire station includes three back-in apparatus bays with administration offices on the ground floor. Above the bays are the living quarters with bunkrooms that accommodate six firefighters. Also included in the new building is a fitness room, dayroom, report-writing office and kitchen with a dining area. The site houses a generator that's capable of powering the entire facility. Other site features include underground storm water and septic system.

Sweet Sparkman Architects worked through the initial design concepts with physical models and three-dimensional graphics to gain support from the local neighborhood groups, Fire District Board, Captiva Civic Association and Lee County Commissioners.

Official Project Name: Captiva Island Fire Station
Project City/State: Captiva Island, FL
Date Completed: June 3, 2015
Fire Chief: Rich Dickerson
Project Area (sq.ft.): 9,155
Total Cost: $2,201,800
Cost Per Square Foot: $240.50
Architect/Firm Name: Sweet Sparkman Architects
Website: sweetsparkman.com
Design Team: Architect of Record: Todd Sweet, AIA, LEED AP; **Project Manager:** Gwen Leroy-Kelly, Associate AIA; **Production Designer:** Kim Lam, LEED AP, Associate AIA

STATION DESIGN AWARDS
FIREHOUSE
CAREER NOTABLE

City of Columbus Mitchell J. Brown Fire Station No. 3

COLUMBUS, OH

Rejuvenating a deserted training site, the Mitchell J. Brown Fire Station No. 3 was designed as the gateway to the south side of the city. Its iconic tower, reminiscent of a historic hose dryer tower, features backlit red panels and the Division of Fire logo as it looks over the community. Historical features from past fire stations—a bell, original signage and firemen's creed—were also incorporated.

Being the busiest station in the city, this firehouse not only accommodates Station No. 3 but also the dive team, a bomb squad unit with canine support, and temporary housing for Station No. 2 while its station is being rebuilt. With much of the building flooded with natural light, physical energy is promoted and aids the firehouse as it seeks LEED Gold certification through the USGBC.

The lower level of the building is mostly dedicated to educational and training activities. Physical training is provided through onsite fitness equipment, instructional education takes place in the multi-purpose area, and self-learning kiosks are provided for distance studies. Additionally, the bomb squad takes advantage of the lower level for equipment maneuverability practice and canine explosive material training.

Housing many different functions, an efficient use of space was imperative. The building's design accommodates these challenges by limiting cross traffic during an emergency call to duty. To create an effective flow on the main floor, the common areas were positioned in the center of the building with the sleeping and work spaces flanking the center volume. Having three apparatus bays on each end, there is ample space for the dive team boat, bomb squad truck, EMT vehicle and the engines, ladders and rescues. This simple organization of spaces allows the firefighters, divers and bomb squad easy access to the apparatus bays in an emergency, yet still fosters camaraderie in the common spaces.

Official Project Name: City of Columbus Mitchell J. Brown Fire Station No. 3
Project City/State: Columbus, OH
Date Completed: June 23, 2015
Fire Chief: Kent C. Searle
Project Area (sq.ft.): 27,020
Total Cost: $8,225,400
Cost Per Square Foot: $304.41
Architect/Firm Name: M+A Architects
Website: ma-architects.com
Design Team: Project Principal: Jim Mitchell; **Project Architect:** Dan Pease; **Project Manager:** Kyle Miller; **Construction Administrator:** Steve Yaczo; **Interior Designer:** Kim Frencho; **Specification Writer:** Brian Bode; **LEED Administrator:** Jacqueline Langhals; **Graphics Artist:** Doug Clay; **MEP:** Advanced Engineering Consultants; **Structural:** Jezerinac Geers; **Civil:** Sands Decker; **Landscape Architecture:** Edsall & Associates; **Commissioning:** Heapy Engineering

Dallas Fire Station No. 32
DALLAS, TX

Located on the edge of a residential neighborhood and across the street from a school, the 60-year-old fire station was under-sized, under-equipped and could not be renovated cost effectively. BRW worked in collaboration with the city and the neighborhood to design and build a replacement station that doubled the size of the original building and dramatically improved the way the fire department delivers services to the community.

The four-bay, 12,604-square-foot station has muscular brick forms balanced with the decorative qualities of exposed structural beams. Large panes of glass provide abundant interior natural light, which complements the low-maintenance ventilated rain screen façades that bring a defined sense of character to the site. The apparatus bays feature four-fold doors, which reduce response time and maintenance, increase productivity and save energy. Decontamination and disinfecting rooms have deep sinks and an extractor to keep contaminated gear and equipment separate from the living quarters.

The station accommodates approximately 16 firefighters, with three four-bed suites and separate lieutenant, captain and battalion chief suites. An open kitchen and dining area encourages socializing and camaraderie, while the adjacent dayroom is acoustically separated. Additional features include a private outdoor courtyard and secure fire department parking.

The USGBC has awarded the station LEED Gold certification. Many energy-reduction design strategies were incorporated into the station, including a ground-source heat pump system. Twenty eight, 250-foot-deep geothermal wells reject heat into the earth in the summer and extract heat in the winter to provide air conditioning and heating year round. Energy models show that this facility will reduce energy consumption by 35 percent, thus meeting the city's goal to conform to the 2030 Challenge by reducing fossil fuel consumption by 60 percent.

Official Project Name: Dallas Fire Station No. 32
Project City/State: Dallas, TX
Date Completed: Nov. 1, 2014
Fire Chief: Louie Bright, III
Project Area (sq.ft.): 12,604
Total Cost: $4,000,000
Cost Per Square Foot: $317.36
Architect/Firm Name: BRW Architects
Website: brwarch.com
Design Team: Principal-In-Charge: Gary DeVries, AIA, LEED AP BD+C; **Project Designer:** Chris Sano, AIA, LEED AP BD+C; **Project Manager/CA:** Fred Clifford, AIA; **Project Architect:** Abby Hiles, AIA

Danville Fire Department Station #1

DANVILLE, VA

On September 11, 2014, the City of Danville, VA, dedicated a new fire station headquarters rich in symbolism and displays of their local department, the site and the community. The project illustrates how the integration of memorials, museums and historical content within a fire station can foster relationships, tell the story of a department and community, and honor the firefighting profession—all while being cost-effective.

The project site contained one-and-a-half city blocks of crumbling buildings formerly occupied by the Danville Lumber Company in the Tobacco Warehouse District, which was bisected by a city street and contained two exposed stream channels. Cobblestones, hidden below the asphalt in the abandoned section of Colquohoun Street, were used as hardscaping material for exterior sidewalks and the interior floor of a glass box museum within the Fire Department Headquarters. Colquohoun Street, an anomaly in the city's street grid, was replicated in the angle that the glass box museum protrudes from the front face of Station #1 and provides enhanced views for vehicles or pedestrians along Lynn Street.

Stream channels were left exposed to compliment the lawn and green spaces enjoyed by current firefighters on the rear patio. Reclaimed timber framing was used to create the grid ceiling in the museum and main central corridors of the station while reclaimed brick were used as the base for the curving front reception desk.

The exterior aesthetic features of Station #1 reflect design elements and principals found in the surrounding buildings of the Tobacco Warehouse district while the interior of the station contains all the spaces and features of a state-of-the-art fire station. The project has been a catalyst for other redevelopment projects in the district that re-purpose former tobacco auction warehouse buildings into residential condos and apartments.

Official Project Name: Danville Fire Department Station #1
Project City/State: Danville, VA
Date Completed: Sept. 1, 2014
Fire Chief: David Eagle
Project Area (sq.ft.): 27,389
Total Cost: $5,532,578
Cost Per Square Foot: $202
Website: scn-architects.com
Design Team: Architect of Record: Stewart-Cooper-Newell Architects; **Construction Manager:** Blair Construction, Inc.; **Civil:** Dewberry; **P/M/E:** Cheatham & Associates; **Structural:** Taylor & Viola

Grand Prairie Fire Station No. 1

GRAND PRAIRIE, TX

This new station replaced the historic Fire Station No. 1, which was built in 1949. The station features four-fold style apparatus bay doors, which open more quickly and will allow for faster truck exiting than the traditional garage-style doors. The facility also includes sleeping quarters for up to 10 firefighters and three officers, individual shower and toilet facilities, a kitchen, dining area, laundry room, work room, dayroom, workshop and emergency treatment area.

A tile mosaic mural was commissioned to create a visual tribute honoring the Grand Prairie Fire and Rescue Department, utilizing photos from the city's archives of actual Grand Prairie firefighters in action.

The station site also includes a new public art sculpture, Colorful History, composed of glass and steel. The sculpture's glass panels are used to display a city timeline featuring a representation of Grand Prairie throughout the decades beginning with frontier days until now.

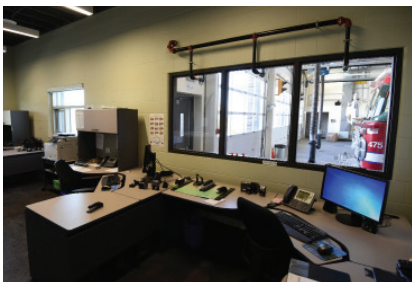
Official Project Name: Grand Prairie Fire Station No. 1
Project City/State: Grand Prairie, TX
Date Completed: Nov. 11, 2014
Fire Chief: Robert Fite
Project Area (sq.ft.): 14,285
Total Cost: $4,074,515
Cost Per Square Foot: $341
Architect/Firm Name: Komatsu Architecture
Phone: (817) 332-1914
Website: komatsu-inc.com
Design Team: Project Manager: Les Edmonds, AIA; **Interior Design:** Amy Sibley, RID; **CADD Technician:** Ryan Brantley; **FF&E:** Anne McBurnett, RID; **Principal-in-Charge:** Karl A. Komatsu, AIA; **Structural:** R.L. Woods & Associates; **MEP:** Summit Consultants; **Civil:** Pacheco Koch; **Landscape:** CDG Landscape Architects & Planners

Heritage Valley Fire Station
EDMONTON, ALBERTA, CANADA

The Design Team of Johnston Davidson Architecture + Planning Inc. and Architecture | Tkalcic Bengert were commissioned to design a fire station for the developing Heritage Valley Town Centre Neighbourhood. The future planning for this area played a significant role in the orientation of the apparatus bays. The site area (1.5 acres) is large enough to accommodate a typical three tandem bay layout with apparatus bays that are deep enough to load fire hoses inside the station during the winter months and a front apron that is big enough to handle the department's ladder truck.

The building is designed to meet with the climactic characteristics of Edmonton and will protect occupants from the extreme winter elements as well as provide significant shaded open space for use during summer. The space program includes a kitchen, lounge, showers, washrooms, dorm rooms, fitness room, offices, a separate turn-out gear room complete with an independent mechanical ventilation and exhaust system, workshop, hose-drying tower and a training room.

It is the first civic building within this growing residential community and will serve as an anchor point for the emerging urban fabric planned for the area. The site design combines public seating and open green space adding to the pedestrian scale of the area and the interest of the whole street.



The site design and building are based upon providing the Edmonton Fire Rescue Services (EFRS) with a project that will provide excellent response and suppression coverage for the area. In addition to meeting the programmatic requirements, the project is designed to obtain an LEED NC Silver certification and the post-disaster requirements of the Alberta Building Code. The new Heritage Valley Fire Station not only sets the tone for future buildings in the area but also meets the principles of good urban design.

Official Project Name: Heritage Valley Fire Station
Project City/State: Edmonton, Alberta, Canada
Date Completed: May 31, 2015
Fire Chief: Ken Block
Project Area (sq.ft.): 15,490
Total Cost: $7,500,000
Cost Per Square Foot: $484
Architect/Firm Name: Johnston Davidson Architecture + Planning Inc./ Architecture | Tkalcic Bengert
Website: jdarch.ca
Design Team: Johnston Davidson Architecture + Planning Inc. – Kimberly Johnston, Principal, Design Architect; **Architecture | Tkalcic Bengert** – Brian Bengert, Principal, Architect of Record; **Read Jones Christoffersen** – Structural Engineer: Frank Cavaliere; **Hemisphere Engineering** – Trevor Uitvlugt, Mechanical Engineer; **Electrical Engineer:** Charlie Wilson; **Earthscape Consultants** – Garth Bell, Landscape Architect; **Stantec Consulting** – Hector Anaya, Civil Engineer

Malibu Fire Station 71
MALIBU, CA

Fire Station No. 71 is a new 6,000-plus-square-foot facility built by the County of Los Angeles for the Los Angeles County Fire Department. The station is designed to accommodate six firefighters in an individual dormitory setting. Other station features include two drive-through apparatus bays, command vehicle bay, administrative offices, kitchen, dining room, dayroom, physical training room and the various support spaces required for a facility of this type.

The design of the facility utilizes the apparatus bays as a buffer between the areas of the station more typically accessible to the public and those areas dedicated to the day-to-day living activities of the firefighters. Site features include dual return access, secured firefighter parking, storage building and an aboveground fuel station.

Sloped-roof forms are used in conjunction with parapet areas designed to screen mechanical equipment. Standing seam metal roofing is used in a series of angled planes intended to accentuate the massing of the facility as well as conceal mechanical equipment.

Official Project Name: Malibu Fire Station 71
Project City/State: Malibu, CA
Date Completed: Nov. 1, 2014
Fire Chief: Daryl Osby
Project Area (sq.ft.): 6,278
Total Cost: $4,700,000
Cost Per Square Foot: $750
Architect/Firm Name: WLC Architects, Inc.
Website: wlcarchitects.com
Design Team: WLC Principal in Charge: Kelley Needham, Architect, AIA; **Project Manager:** Shih-Jing, Architect; **County of Los Angeles Project Manager:** Luis Ramirez; **Los Angeles County Fire Project Manager II:** Renolds Cairncross; **Contractor:** Erickson-Hall Construction Company; **Project Manager:** Nathan Complin

Montgomery County Emergency Services District No. 8, Station 11-3

OAK RIDGE NORTH, TX

The two-story, 30,000-square-foot station was designed to replace the original station (c.1975) and relocate the department's main fire station services into the new facility. The new station's exterior wall is composed of masonry, which will help keep maintenance costs low over the life of the building. The overall exterior color scheme is striking, juxtaposing a traditional red "fire station" brick with an indigenous Texas white limestone.

The station includes three double-depth pull-through bays and one maintenance bay, allowing the district to effectively serve the growing community with an ISO Class 1 Fire Department. Bay doors are four-fold rapid-opening doors in the traditional fire engine red color with fully segmented glazing, which allows natural light to penetrate the bays. Large sweeping stone arches are placed over the tops of the apparatus doors, again, harking back to tradition. The arch detail is also expressed in the second floor and entry tower windows.

The new station provides staff with individual sleeping quarters, dayroom, kitchen, safe room, fitness area/weight room, turn-out room and tool/laundry area. All crew functions are placed on the first floor off of the bay while administration is located on the second floor. If a crewmember is on the second floor, a slide pole is provided for quick response in the event of a call. Additional program areas include administrative offices, ESD board room, conference space, storage/mechanical rooms, 100-foot monopole antenna tower, and pump test pit for apparatus.

The station also provides a training facility for all district fire staff, which includes a burn tower, five-story training tower, and 30-person training room. The training tower has a fully grouted masonry wall, providing the most durable construction for various training exercises.

As a key emergency facility for the department, the station is equipped with 100 percent emergency backup power.

Official Project Name: South Montgomery County Fire Department - Montgomery County Emergency Services District No. 8, Station 11-3
Project City/State: Oak Ridge North, TX
Date Completed: April 1, 2015
Fire Chief: Robert M. Hudson, M.S., CFO, EFO, MIfireE
Project Area (sq.ft.): 30,000
Total Cost: $8,327,434
Cost Per Square Foot: $278
Architect/Firm Name: PGAL
Phone: (713) 622-1444
Website: pgal.com
Design Team: Architecture, Interiors & Civil Engineering: PGAL; **Structural:** Henderson Rogers; **Landscape:** M2L Associates Incorporated; **MEP:** Jones Engineering

North Valley Fire Station 7
LOS ANGELES, CA

North Valley Fire Station No. 7 is a replacement station built by the City of Los Angeles to meet the current and future growth of the surrounding community. It is situated north of the city and provides coverage for the North Valley area of Los Angeles.

Designed to be home to both male and female firefighters, the building can flex to accommodate various gender ratios. Additionally, the station is part of the Los Angeles Fire Bond Program and fulfills those requirements including obtaining a LEED Silver Certification.

The 1.9-acre site is located in a predominately residential neighborhood of single-family and multi-tenant housing. The site includes parking for visitors as well as secured parking for fire personnel. An expanded concrete paved area is large enough to accommodate future training activities, and can serve as exterior storage for fire vehicles and equipment or act as a staging area for local wildfire response. Other site amenities include an emergency generator, aboveground fueling and a hose-drying tower.

The two-story 16,000-square-foot fire station is comprised of living areas, office space, apparatus bays and support areas. The 18-bed living area has a separate captain's quarters, locker/shower facilities, dayroom, weight room, racquetball court and a kitchen/dining area with an adjacent covered outdoor patio. The office areas are comprised of administrative offices, a large conference room and a lobby with accessible restrooms for the public. Apparatus bays flank each side of the building and are sized to contain three light-duty and three heavy-duty vehicles.

The design of the building recognizes its context by borrowing elements from the surrounding vernacular. Those elements were then manifested in exaggerated form, construction and color to provide a unique and playful presence. The result is a design that assimilates with the immediate area yet distinguishes itself as an individual facility.

Official Project Name: North Valley Fire Station 7
Project City/State: Los Angeles, CA
Date Completed: May 1, 2015
Fire Chief: Ralph Terrazas
Project Area (sq.ft.): 16,000
Total Cost: $8,785,000
Cost Per Square Foot: $350
Architect/Firm Name: WLC Architects, Inc.
Website: wlcarchitects.com
Design Team: Principal in Charge: Kelley Needham, Architect, AIA;
Designer: Simon Chang, Architect;
Project Manager: Bernhard Wassink;
LAFD: Curt Klafla, Battalion Chief; Patrick Valenzuela, Captain II;
Contractor: Sinanian;
Project Manager: Rafi Mouradian

Orange Central Fire Station
ORANGE, TX

Official Project Name: Orange Central Fire Station
Project City/State: Orange, TX
Date Completed: March 19, 2012
Fire Chief: David Frenzel
Project Area (sq.ft.): 21,874
Total Cost: $4,784,582
Cost Per Square Foot: $218.73
Architect/Firm Name: Brown Reynolds Watford Architects
Website: brwarch.com
Design Team: Mark E. Watford, FAIA, LEEP AP BD+C; Ray Holliday, AIA, ASLA, LI; Daniel Pesek, AIA; Justin Dreyer; Nicole Dyll; Robertson Engineering; O'Malley Engineers LLP; Jordan & Skala Engineers, Inc.

The City of Orange, located near the Texas coast, is a beautiful city full of history and local charm. In 2008, the city was devastated by the storm surge of Hurricane Ike. With grants from the Texas Department of Rural Affairs and from the Bush-Clinton Foundation as well as monetary and artifact donations from the neighboring Stark Museum, the city was able to rebuild a state-of-the-art fire station that embodies the history of the community and fire department.

The new Central Station is located on its original site in the heart of historic downtown Orange across from City Hall. An arcade of columns, private balconies with detailed wrought iron work, multi-paned windows, decorative brackets and detailed brickwork with a belt course all tie this new facility into its historical surroundings.

After losing the beloved Central Fire Station, extensive measures were taken to ensure the new building would not only withstand future hurricanes but also remain operational. In order to resist storm surge and 110-mph winds, the structure is composed of concrete and steel on top of a foundation with over 80 piers, up to 42 inches wide and 38 feet deep. The first floor is designed to flood, while the 30-person EOC, administrative offices and living quarters on the second floor remain operational.

The seven bay, 21,874-square-foot facility houses six firefighters, fire administration and a child-friendly fire museum complete with an interactive classic fire engine. To preserve the department's rich history and the staff's memories of the old station, artifacts from the historic station are housed within display cases made from the original watch-room windows and station doors. Other reclaimed elements—such as copper signage, original bricks, and copper scuppers—were designed to be incorporated in the museum and throughout the rest of the station.

STATION DESIGN AWARDS
FIREHOUSE CAREER NOTABLE

Pasco County Fire Rescue Station No. 30

NEW PORT RICHEY, FL

Pasco County Fire Rescue Station No. 30 includes three drive-through bays with living and operations areas for nine shift personnel.

The 8,368-square-foot building is highly energy efficient, hurricane wind and wind-borne debris resistant, and environmentally sustainable. The standing seam aluminum roof is completely recyclable and effectively reflects solar radiation to reduce the cooling load. Full brick and concrete block cavity wall construction requires minimal maintenance and resists heat transfer. A solar hot water system helps reduce electrical consumption along with the high efficiency lighting.

Extremely low maintenance finishes are used throughout the station including porcelain paver tile and synthetic quartz countertops. Private bunkrooms feature built-in trundle beds, four lockers and a built-in desk.

The station was constructed on an environmentally sensitive site in New Port Richey, FL, roughly four miles from the Gulf of Mexico. Site development required wetland mitigation as well as floor plan compensation.

Official Project Name: Pasco County Fire Rescue Station No. 30
Project City/State: New Port Richey, FL
Date Completed: July 22, 2014
Fire Chief: Scott M. Cassin
Project Area (sq.ft.): 8,368
Total Cost: $1,969,100
Cost Per Square Foot: $235.31
Architect/Firm Name: John Cutler Kelly, AIA/FleischmanGarcia Architecture
Website: FleischmanGarcia.com
Design Team: Principal-in-Charge: John Cutler Kelly, AIA; **Project Manager:** Jeffrey E. Pelszynski; **Civil:** Paul Manuel, PE; **Structural:** Michael M. McCarthy, PE; **MEP:** Josh S. Wides, PE

Rogers Fire Station # 2
ROGERS, AR

Official Project Name: Rogers Fire Station # 2
Project City/State: Rogers, AR
Date Completed: June 26, 2015
Fire Chief: Thomas Jenkins
Project Area (sq.ft.): 12,411
Total Cost: $2,234,684
Cost Per Square Foot: $180.06
Architect/Firm Name: Don Spann AIA, Architect
Phone: (479) 636-2552
Design Team: Project Architect: Don Spann; **Project Manager:** Tim Patterson; **MEP:** HP Engineering; **Structural:** Tatum Smith Engineers; **Civil:** Core States Group; **Contractor:** CROSSLAND Construction Company; **Project Manager:** Scott Wuerdeman

The new station replaces a 50-year-old substation located in an adjacent residential neighborhood. The location has become central due to growth of the city in relation to the site. Program dictated a drive-through station on a compact site, resulting in a two-story design.

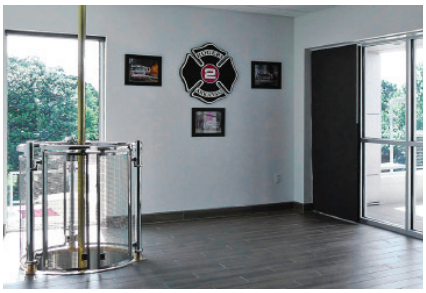
Strategic planning elements were:

- Deployment along a major east-west corridor.
- Capacity for additional firefighters and fire companies for one of the fastest growing cities in the United States.

Program objectives were:

- Room for multi-company operations that extend the capability of what has become the department's busiest facility.
- Provide living quarters above apparatus bays. Separation of business and living functions was stipulated.
- A drive-through apparatus bay.
- Private bathrooms and bedrooms
- Adequate exercise and workout facilities.

The work consisted of site development, parking, paving, landscaping, utilities, grading and drainage. The new building is a two-story structure of approximately 12,411 square feet. Materials are steel frame structure, masonry veneer and composite metal panel exterior, steel stud and CMU walls. There is a sloped built-up roof on steel bar joists and a metal deck. The building is fire sprinklered throughout. Building houses apparatus bays, offices, residential living quarters and support spaces.



Unique station features include fast operating bi-fold apparatus bay doors and a slide pole access to apparatus, both reducing response times. Upper living area includes an outdoor patio for cooking and recreation.

USC Fire Station 15
LOS ANGELES, CA

In the fall of 2011, the University of Southern California (USC) found itself in the unusual position of having to build a replacement for Fire Station 15 in the City of Los Angeles. The new station is located on a one-acre parcel at the southwest corner of West 30th Street and Hoover Street. The site is adjacent to McAlister Field, which is the home of USC's NCAA women's soccer and lacrosse teams.

The two-story station is designed to meet the requirements of the Los Angeles Fire Bond Program. Site features include a visitor parking area, secured firefighter parking, emergency generator, above-grade fueling and a hose-drying tower. A new restroom facility for McAlister Field was also included in the project.

The building includes apparatus areas for both light- and heavy-duty fire vehicles, administrative offices, kitchen, dayroom, weight training room, racquetball court, dormitories and the various support spaces required for a fire station of this type. The station can accommodate a staff of 17 with specific areas designed for both men and women.

The building exterior was designed using a combination of brick veneer, plaster and precast concrete elements. Stylistically, the new station is in keeping with the Romanesque style of the University.

The station achieved a Silver LEED rating in keeping with the sustainable goals of the University and the City of Los Angeles.

Official Project Name: USC Fire Station 15
Project City/State: Los Angeles, CA
Date Completed: April 21, 2015
Fire Chief: Ralph Terrazas
Project Area (sq.ft.): 17,000
Total Cost: $12,000,000
Cost Per Square Foot: $708
Architect/Firm Name: WLC Architects, Inc.
Website: wlcarchitects.com
Design Team: Principal in Charge: Kelley Needham, Architect, AIA; **Designer:** Simon Chang, Architect; **USC:** Joe McIntyre, Executive Director Capital Construction Development; **LAFD:** Curt Klafta, Battalion Chief; Patrick Valenzuela, Fire Captain II; **Contractor:** Erickson-Hall Construction Company; **Project Manager:** Nathan Complin

Wolf Trap Fire Station No. 42
VIENNA, VA

Official Project Name: Wolf Trap Fire Station No. 42
Project City/State: Vienna, VA
Date Completed: Jan. 26, 2013
Fire Chief: Richard R. Bowers, Jr.
Project Area (sq.ft.): 14,603
Total Cost: $5,271,744
Cost Per Square Foot: $361
Architect/Firm Name: Hughes Group Architects
Website: hgaarch.com
Design Team: Hughes Group Architects: Wayne Hughes, AIA, Principal; **ADTEK Engineers** – Russ Smith, PE, Senior Civil Project Manager; **Ehlert/Bryan, Inc.** – Jim Leeuwrik, PE, Structural Engineer; **Summit Engineers, Inc.** – Jeff Delo, PE, Principal – MEP Engineering; **Brinjac Engineering** – Philip Wright, PE, Commissioning; **Milestone Construction** – Keith Whitine, General Contractor

Wolf Trap Fire Station No. 42 is a 14,600-square-foot facility with four drive-through bays, administrative offices, bunkrooms, kitchen, dayroom, dining room and exercise room. The station provides emergency and fire response to the greater Fairfax County area and was built in anticipation of future demand created when a new metro station begins operating.

The station's architecture balances a strong civic presence with the local forms and materials of the surrounding residences. Pitched roofs and covered porch entries reflect the character of the neighborhood, while careful detailing and assemblage of these features develop the station's unique identity.

The interior layout was developed to reduce firefighter response time. Administration and residential spaces are consolidated on one side of the building and organized around a central corridor, which runs the length of the building. This central corridor is crossed by two lateral corridors, providing firefighters direct access from the occupied spaces to the apparatus bays. Multiple smaller bunkrooms replace the traditional single, large bunkroom.

Designed to achieve LEED Silver certification, the station features energy-conserving building envelope technologies, energy-efficient lighting, occupant-sensing controls, a high-efficiency HVAC system, operable windows and sustainable materials.

The project's success was also heavily influenced by Fairfax County's effective project management. Their collaborative and focused approach has resulted in a landmark building that will serve the community for years to come.

STATION DESIGN AWARDS FIREHOUSE SATELLITE GOLD

Houston Fire/EMS Station No. 84

HOUSTON, TX

Located in an industrial area of Houston with neighboring glass high-rise buildings and commercial strip shopping centers, the Houston Fire/EMS Station No. 84 was designed to respond aesthetically with modern qualities. Natural light is abundant throughout the facility, delivered to the interiors of the living and work spaces through large areas of glazing and clerestory windows above. Private outdoor spaces were created to allow for outdoor activities such as fitness, grilling and dining.

The new 14,717-square-foot station achieved USGBC LEED Silver certification and includes five bays to house fire and EMS apparatus. Walk-up visitors requiring EMS attention are treated in an evaluation room adjacent to the public lobby.

Living quarters accommodate approximately 16 firefighters per shift and include a modern kitchen and dining area, dayroom, an indoor-outdoor fitness area, six two-bed sleeping rooms, and separate captain and lieutenant suites. A separate locker room keeps wardrobes out of the sleeping rooms, thereby limiting personnel disturbance during shift change. A "Clean Room" keeps contaminated gear and equipment

Official Project Name: Houston Fire/EMS Station No. 84
Project City/State: Houston, TX
Date Completed: April 1, 2015
Fire Chief: Terry A. Garrison
Project Area (sq.ft.): 14,717
Total Cost: $6,181,734
Cost Per Square Foot: $420.04
Architect/Firm Name: BRW Architects
Website: brwarch.com
Design Team: Principal-In-Charge: Gary DeVries, AIA, LEED AP BD+C; **Project Manager:** Jeffrey Choyce, AIA, CSI; **Project Architect/CA:** Larry Watkins, AIA, LEED AP BD+C; **Project Designer:** Chris Sano, AIA, LEED AP BD+C; **Intern:** Darryl Rubscha

separate from the living quarters, while walk-off mats at living quarter entry doors limit debris entry.

The facility was designed not only to meet specific Station No. 84 program requirements and the Houston Fire Station Design Manual, but also to incorporate many environmentally conscious strategies. The palette of materials is consistent inside and out, providing a balance of color, texture and scale. A number of LED light fixtures provide longer life, less maintenance and more energy savings. In order to improve the efficiency of heating and cooling the station, a ground-source heat pump mechanical system is projected to cut energy costs in half by rejecting heat into the earth in the summer and extracting heat in the winter.

STATION DESIGN AWARDS

FIREHOUSE

SATELLITE SILVER

Portland Fire & Rescue, Fire Station 21

PORTLAND, OR

The design of Station 21 reflects the collective integration of the complexities of this waterfront LEED Gold facility. The extremely tight site resides directly below an elevated state highway, is constrained to the east by a riverfront esplanade, to the west by the river embankment historically prone to flooding, to the north by a park and to the south by the Hawthorne Street Bridge. These significant constraints informed the schematic layout and two-story station configuration, which doubles the size of the existing station. The project required the deconstruction of the existing station and the design of a new 8,400-square-foot rapid-response fire and rescue facility and boathouse to support river and land operations. The new station was elevated above the flood plain requiring over 300 feet of shoreline stabilization using injection grouting in addition to pile to support the station.

Key programmatic technical goals were to design a seismically strengthened, durable, low maintenance, gender-neutral facility with access to the river for marine rescue with improved security and reduced turnout times. Innovative lighting design was used for all building façades, including materials, openings, lighting levels on the interior and exterior to minimize the potential for accidental strikes from migratory birds commonly found in the area.

The required percentage for the arts was integrated into the design and provides a catwalk for viewing and monitoring river activity, window washing and sunshade on the western exposure. The artwork supports this effort by providing a screen comprised of a series of undulating metal panels inspired by ripples on the waterways and rainy weather that distinguish the environment of the Pacific Northwest. The work reflects the powerful elements of water, which is considered to be the antidote to fire and is yet the adversary to persons in need of rescue on the river.

Official Project Name: Portland Fire & Rescue, Fire Station 21
Project City/State: Portland, OR
Date Completed: Nov. 1, 2014
Fire Chief: Erin Janssens
Project Area (sq.ft.) 8,400
Total Cost: $3,700,000
Cost Per Square Foot: $440
Architect/Firm Name: TCA Architecture Planning Inc.
Website: tca-inc.com
Design Team: Fire Station Design **Specialist:** TCA Architecture • Planning Inc.; **General Architecture:** Whelton Architecture; **Structural Engineer:** KPFF; **Civil Engineer:** KPFF; **Mechanical Engineer:** Interface Engineering; **Electrical Engineer:** Interface Engineering; **Landscape:** 2.ink Studio; **Cost Estimating:** JMB Consulting Group

STATION DESIGN AWARDS FIREHOUSE SATELLITE BRONZE

Spring Fire Station No. 78
SPRING, TX

Fire Station No. 78 resulted from a collaborative approach between the design team, fire department leadership and the emergency services district, which funded the project.

The team approach among these three groups produced a fire station project that began as a repeat design of prototype plans from previous stations, and ended up as a truly unique facility in terms of exterior aesthetic and use of second-floor mezzanine space for functional programs, while maintaining the positive aspects of the prototype plan such as the large, open-concept of the dayroom and kitchen area, as well as the visual access all the way through the building, from the dining area to the apparatus bay.

To reach the final design, the design team produced numerous variations represented through digital 3D modeling and rendering. These images and video animations were shared interactively with leaders from both the fire department and the emergency services district to gain cooperative feedback and direction about the building composition, the site layout, the durability of materials and the overall aesthetic as enhanced by custom lighting design and accent paving areas.

Key aspects of site development include:
- Simple and efficient site layout and circulation complement the structurally efficient layout of the building.
- Naturally day-lit second-floor exercise area gives personnel the opportunity to momentarily find a quiet and semi-private space to relax and improve physical conditioning.
- Unique structural column design at building entry.

Enhancing features include:
- Restroom areas provide gender-equal, single-use facilities for flexibility in staffing and privacy for staff.
- State-of-the-art vehicle bay exhaust system, emergency generator and hurricane force rating.

Official Project Name: Spring Fire Station No. 78
Project City/State: Spring, TX
Fire Chief: Scott Seifert
Project Area (sq.ft.) 15,144
Total Cost: $4,232,354
Cost Per Square Foot: $280
Architect/Firm Name: Joiner Architects
Website: joinerarchitects.com
Design Team: Carl Joiner, AIA; Ricardo Martinez, AIA; **Construction Administration:** Chad Joiner; **General Contractor:** Brookstone; **Civil:** Jones and Carter; **MEP:** DBR Engineering Consultants; **Structural:** Matrix Structural

STATION DESIGN AWARDS FIREHOUSE SATELLITE BRONZE

Georgetown Fire Station No. 5
GEORGETOWN, TX

Georgetown's Fire Station No. 5 and Training Facility is the first step in a master plan to develop a public safety complex on a 20-plus-acre site within the recharge zone of the Edwards Aquifer, which is one of the world's most prolific artesian aquifers and that serves 2 million people and is home to many endangered species. Inspired by the Texas Hill Country vernacular, the design incorporates locally quarried limestone, stained Hardie lap siding, metal roofing and a covered front porch lined with stone columns. Elements such as curved roofs, steel brackets and red aluminum storefront windows give the station a refined yet comfortable look that sets the tone for future development of the site.

The design team worked diligently to meet the challenging requirements of the Texas Commission on Environmental Quality to protect the aquifer while strategically meeting city regulations. Several site layouts were explored to balance cost, maximize functionality and preserve the site's 80-plus Heritage trees while planning for maximum flexibility for the city's future complex.

The 8.4 acres of developed area consists of the 12,137-square-foot fire station, a 2,838-square-foot indoor/outdoor training classroom building with additional storage bays, a 1,799-square-foot four-story fire simulation burn tower, and large sand filtration and detention ponds to filter storm water.

The three-bay, pull-through station features an open kitchen/dining/dayroom, library, weight room, shop, individual bedrooms and private bathrooms. In addition to serving two officers and eight full-time firefighters, the station is designed to temporarily accommodate fire administration for 3-5 years until the Public Safety Building is built on the remainder of the site. Once vacated, the administration portion of the station will be converted to include a third officer's suite, a dedicated turnout gear room and a first-floor weight room, all with minimal renovation costs.

Official Project Name: Georgetown Fire Station No. 5
Project City/State: Georgetown, TX
Date Completed: Sept. 26, 2012
Fire Chief: Robert Fite
Project Area (sq.ft.): 16,774
Total Cost: $4,217,000
Cost Per Square Foot: $251.40
Architect/Firm Name: Brown Reynolds Watford Architects
Website: brwarch.com
Design Team: Principal: Mark E. Watford, FAIA, LEEP AP BD+C; **Project Architect:** Ray Holliday, AIA, ASLA, LI; **Architectural Designers:** Daniel Pesek, AIA, Hector Ochoa, Diana Smith; **Communications Coordinator:** Laura Pivonka, IESNA; **Civil:** O'Malley Engineers, LLP ; **MEP:** Jordan & Skala Engineers, Inc.; **Structural:** Gessner Engineering, LLC

Manhattan Fire Department Station 5

MANHATTAN, KS

Because "The Little Apple"—Manhattan, KS—continued to experience rapid growth, the Manhattan Fire Department needed to open two new fire stations. These stations were strategically placed to optimize coverage to underserved areas.

Station 5 was built in response to growth on the city's western edge and serves as the regional hazardous materials response team for the State Fire Marshal's Office. Station 5 was designed to respond aesthetically to the prominent master-planned golf course community where it is located. Many of the material selections and building forms are designed to reflect the quality of the buildings and upscale homes surrounding it.

The interior was designed to be warm and comfortable for the firefighters who live there. A trendy dayroom provides living space for crewmembers, along with a state-of-the-art kitchen, sleeping quarters for six, three private bathrooms, an exercise room, laundry equipment and personal storage areas. Other, more utilitarian components of the station include a decontamination room, a compressor room, a tool shop, an EMS storage room, a storage mezzanine and outside storage rooms—all with direct access to the apparatus bays. The building is also protected by a diesel generator backup power system, and the station has a sprinkler system. Additionally, Station 5 was designed to allow for expansion of the apparatus bays as well as the bunkrooms in the future.

Station 5 was designed with sustainability in mind. The main structure is a post-and-beam system with an envelope of structural insulated panels, creating an extremely tight, thermally efficient envelope. The building also incorporates efficient lighting strategies and controls, as well as a geothermal HVAC system.

Both new Stations—5 and 3—were designed in collaboration with Action Pact Design (formerly Anderson-Knight Architects). Stewart-Cooper-Newell Architects provided programming and schematic design consultation.

Official Project Name: Manhattan Fire Department Station 5
Project City/State: Manhattan, KS
Date Completed: Aug. 1, 2012
Fire Chief: Jerry Snyder
Project Area (sq.ft.): 11,400
Total Cost: $2,490,000
Cost Per Square Foot: $218.42
Architect/Firm Name: Action Pact Design and Stewart-Cooper-Newell Architects
Website: fire-station.com
Design Team: Architect of Record: Anderson-Knight Architects; **Consulting Architect:** Stewart-Cooper-Newell Architects; **Construction Manager:** Murray and Sons Construction Company; **Civil:** SMH Consultants, P.A.; **P/M/E:** LST Consulting Engineers, P.A.; **Structural:** BSE

Richland Fire Station No. 74
RICHLAND, WA

Perlman Architects collaborated with Architects West, providing full design services for the new Richland, WA, Fire Station No. 74. The project was the first Design-Build Delivery Method Project for the City of Richland. The Perlman/AW Team worked very closely with the contractor, subcontractor, sub-consultants and client representatives, creating multiple design options to ensure that the city and fire department had both functional and aesthetic options while providing flexible construction cost alternatives to ensure that the aggressive project budget was adhered to.

Major project challenges included: 1) coordination of site design with existing and future parking areas, roadways and utilities; 2) master plan for an integrated future training tower; 3) cohesive architectural vernacular integration with the adjacent existing Public Works Municipal Center and surrounding neighborhood, while maintaining its identity as a fire station; 4) extensive VE process/design options to help realize a fourth apparatus bay within the original proposed three-bay project budget; and 5) design and rough-in for future dispatch/communication system upgrades.

Efficient site/floor plan design, simple massing/material selections and efficient/sustainable building systems assisted in improving response times, increased durability and lowering maintenance cost while creating a prototype fire station design that is simple yet dynamic.

The new Richland Fire Station No. 74 represents the best in the Design-Build Delivery Method. True collaboration and open communication by all stakeholders was instrumental in achieving the city's budget expectations while enhancing the day-to-day function/operations and living environment for their firefighters for decades to come.

Official Project Name: Richland Fire Station No. 74
Project City/State: Richland, WA
Date Completed: June 15, 2015
Fire Chief: Thomas Huntington
Project Area (sq.ft.): 11,648
Total Cost: $2,640,000
Cost Per Square Foot: $227.00
Architect/Firm Name: Design Architect: Perlman Architects of AZ, Inc.;
Website: perlmanaz.com
Design Team: Design Architect/ Programming/Design: Perlman Architects of AZ, Inc., Ken Powers/ Erik Thomsen; **Architect of Record:** Architects West, Inc., Marcus Valentine

STATION DESIGN AWARDS

FIREHOUSE

VOLUNTEER/COMBINATION GOLD

Westlake Volunteer Fire Station

KATY, TX

The Westlake Volunteer Fire Department, comprised of 71 volunteers and 26 paid employees, serves the Houston suburb of Katy, TX. The department wants to encourage volunteers to participate in the day-to-day activities of the department; however, the existing station couldn't accommodate staff or additional fire apparatuses. Knowing their service area was built out, when land came up for sale across the street, the department decided to build a station that would be home to the entire fire family and community.

The 4-acre site features secured staff parking with covered and electrically powered command vehicle stalls. Natural daylight illuminates the six double-deep bays, which are fully equipped with exhaust fans integrated into the alerting system, specialty cord reels, air hoses, truck fills, commercial trench drains and maintenance-free floors. The first floor, open to the public, consists of administration spaces, a 165-person training room, and a break room with pass-through window to serve banquets from the lobby. Living spaces are located on the second floor.

Administration wanted a place where the volunteers and their families would be welcome, as they're devoting precious free time to serve the community. The kitchen and balcony patio can host large groups while others relax in the dayroom or play pool in the game room. A watch office provides quiet space for paperwork, overlooks the bays through fire-rated windows and doubles as an independent command center during

emergencies. The two large bunkrooms solve gender issues and accommodate volunteers overnight, while the hallway has individual lockers for all the staff.

Additionally, unlike the old station, this station meets all ADA standards, allowing the department to be an active partner within the neighborhood by encouraging daily interaction with the public and allowing the community to utilize the facility for meetings/ banquets.

Official Project Name: Westlake Volunteer Fire Station
Project City/State: Katy, TX
Date Completed: May 9, 2014
Fire Chief: Mark Palmer
Project Area (sq.ft.): 23,320
Total Cost: $5,950,000
Cost Per Square Foot: $255.14
Architect/Firm Name: Brown Reynolds Watford Architects
Website: brwarch.com
Design Team: Principal: Mark E. Watford, FAIA, LEEP AP BD+C; **Project Architect:** Ray Holliday, AIA, ASLA, LI; **Project Manager:** Jennifer Bettiol; **Architectural Designer:** Dianne Jones; **MEP & Communications Coordinator:** Laura Pivonka, IESNA; **Civil Engineers:** O'Malley Engineers, LLP; **MEP Engineers:** Jordan & Skala Engineers, Inc.; **Structural Engineers:** TMBP I Click

Fairfax County Fire and Rescue Station No. 10

BAILEY'S CROSSROADS, VA

Bailey's Crossroads Volunteer Fire Station No. 10 is a 16,000-square-foot four-bay fire station in Fairfax County, VA, which replaces a fire station that was severely damaged when its apparatus bay roof collapsed during the blizzard of February 2010. Rising up from the rubble, the new fire station is constructed on the existing station site and provides 20 bunks, living and dining accommodations, four apparatus bays (with two drive-through bays), administrative offices, a physical training room, a training classroom, and a dual-purpose tower for hose-drying and training.

The tight 1.2-acre site presented numerous challenges. The design was restricted by an existing 130-foot-tall communications monopole and associated support structures that remained intact and operational throughout the course of design and construction. Further, a major underground utility corridor combined with significant yard setbacks and landscape buffers to constrict all edges of the property and reduce the buildable area by nearly half to 0.69 acre. Finally, the client directed the architects to provide a single-story design solution. The resulting design is a highly efficient layout that utilizes every square foot of usable site area.

The building is targeting LEED Silver Certification. Sustainable design strategies include site selection, water use reduction, regional materials, recycled content materials, high solar-reflectance roofing materials and low VOC interior finishes.

Official Project Name: Fairfax County Fire and Rescue Station No. 10
Project City/State: Bailey's Crossroads, VA
Date Completed: July 1, 2014
Fire Chief: Richard R. Bowers Jr.
Project Area (sq.ft.): 16,676
Total Cost: $5,500,000
Cost Per Square Foot: $329
Architect/Firm Name: LeMay Erickson Willcox Architects
Website: lewarchitects.com
Design Team: LeMay Erickson Willcox Architects; **Civil Engineer:** Bowman Consulting Group, Ltd.; **Structural Engineer:** Ehlert Bryan, Inc.; **MEP:** Global Engineering Solutions, Inc.; **Peer Review/Commissioning:** Brinjac Engineering, Inc.; **Cost Estimators:** Downey & Scott, LLC

Qualicum Beach Firehall

QUALICUM BEACH, BC, CANADA

Johnston Davidson Architecture + Planning Inc. and its team of consultants were commissioned to design the new Qualicum Beach Firehall located in the Township of Qualicum Beach on Vancouver Island. The new firehall consists of an 18,000-square-foot two-story building designed to incorporate many sustainable initiatives, including British Columbia's "Wood First Policy" and integration of a 90-panel photovoltaic field. It has achieved an FCM-GMF grant of $464,467 for achieving a 72 percent reduction in the energy usage of the ASHRAE 90.1 (2010) standard.

The new facility has eight truck bays (four tandem drive-through bays) to serve the volunteer suppression crews and career headquarters staff. The project includes a suite of rooms at the entry of the hall that can be secured from the remainder of the hall to allow the public to use the reception, meeting room and barrier-free washroom. Beyond this point, there are administrative offices, open workstations, a fitness/exercise room, a dayroom, a kitchen and dining room and an association room to serve the fire department and town.

The operational areas consist of a decontamination apparatus bay washroom, gear storage, utility/gear washer, washdown/deluge shower, workshop, SCBA room, rip and run, hose tower and gender-neutral washroom facilities. The hall also has a training room large enough to divide successfully into two functional rooms to be used as an integral part of the ongoing training process and the backup town Emergency Operations Centre. In addition to achieving a 72 percent increased energy efficiency above the new ASHRAE 90.1 (2010) standard, this project integrates the use of solid timber (LVL panels) for the roof and floor structures. This is the first time in Western Canada that this product has been used to this extent in a post-disaster building.

Official Project Name: Qualicum Beach Firehall
Project City/State: Qualicum Beach, BC, Canada
Date Completed: Aug. 15, 2015
Fire Chief: Darryl Kohse
Project Area (sq.ft.): 18,000
Total Cost: $5,500,000
Cost Per Square Foot: $305
Architect/Firm Name: Johnston Davidson Architecture + Planning Inc.
Website: jdarch.ca
Design Team: Principal Architect: Kimberly Johnston/Johnston Davidson Architecture + Planning Inc.; **Structural Engineer:** Sean Herold, P.Eng./Herold Engineering Ltd.; **Mechanical Engineer:** M. Asif Hussain, P.Eng./Flow Consulting Group Inc.; **Electrical Engineer:** Bruce Campbell, P.Eng./Roy Campbell Ltd.; **Landscape Architect:** Victoria Drakeford/Victoria Drakeford Landscape Architect

Dundee Fire Station

DUNDEE, OR

Nestled in the heart of Oregon's wine country, the Dundee Fire Station satisfies the needs of both the growing fire department staff and the greater Dundee community. Designers were tasked with designing a new station that would reflect the character of the community, encourage maximum workspace efficiency and accommodate their anticipated growth over the next 30 years. In addition, designers were tasked with developing a solution that would allow the city's existing fire station to remain operational during construction and worked carefully with the city to determine a building location and site design that would address this request.

The station consists of 17,500 square feet of space, including expanded living accommodations with dedicated bunks, gender-neutral toilets (single occupancy) and an improved kitchen, as well as dining and dayroom areas. In addition, a large multi-purpose room was created to serve the needs of the city, fire department and surrounding community.

The new apparatus bay is significantly larger than the previous bay space. The station also features skylights and clerestories in the bays to provide extensive, natural daylighting and an adjacent stair tower for training as well as access to the mezzanine. The design allowed for a phased construction process to accommodate the existing station operations through the entire construction process. A Structural Insulated Panel System (SIPS) design with a masonry veneer was used in the construction. This innovative building design is resilient, energy efficient and cost-effective.

Designers initially worked with the City of Dundee on a space needs assessment for the fire department to determine the requirements and associated costs for multiple development scenarios for the new station that would encourage growth over a 30-year period. With the design team's assistance, the City of Dundee successfully gained voter approval for a general obligation (GO) bond in the May 2012 election.

Official Project Name: Dundee Fire Station
Project City/State: Dundee, OR
Date Completed: Nov. 11, 2014
Fire Chief: John Stock
Project Area (sq.ft.): 17,500
Total Cost: $2,900,000
Cost Per Square Foot: $165
Architect/Firm Name: Mackenzie
Website: mcknze.com
Design Team: Mackenzie – **Principal:** Jeff Humphreys; **Architect:** Scott Moore; **Designer:** Chad Daarud; **Job Captain:** Jack Claros; **Civil Engineer:** Ryan Suarez; **Structural Engineer:** Landon Harman; **Landscape Architect:** Ron Heiden; **SDC – Electrical:** Jeff Davis; **HVAC:** Bruce Meyers; **Plumbing:** Robert Lewis; **Cost Estimator:** Construction Focus

East Putnam Fire Station

PUTNAM, CT

The new fire station designed for the East Putnam Fire District offers improved emergency services to residents in Putnam, CT. The department has 30 volunteer members who respond to 275 calls per year, providing fire, EMS, heavy rescue, hazmat and water rescue. They cover 18 square miles and 4,000 residents. The new station is located on a 21-acre parcel that's more centrally located and has space for outdoor training and recreation.

Putnam is a traditional 1800s New England mill town. In keeping with the "traditional" look, the building's design uses brick and architectural concrete masonry units. At the same time, the design addresses a 21st-century focus on energy efficiency and low maintenance. The airtight building has R-24 walls in the apparatus bays, R-29 walls in the living/office spaces, R-38 roof, and high performance Low-E Glass. The design utilizes 96 percent efficiency condensing boilers with heat recovery ventilation. Ventilation is proportional to the building occupancy based on measured CO_2.

There is no municipal water system in Putnam. An under-building water storage system allows topping off of trucks and was intended to feed a fire sprinkler system. The building went to bid just as construction prices increased during the great recession and came in over bid. The Commissioners decided not to go back to the voters for more money. Instead, they took advantage of a low-cost USDA loan and used value engineering to bring down costs. Economizing maintained essential operations but forfeited the station's planned sprinkler system. The one-story 13,062-square-foot facility is compact, with circulation that is only 6.5 percent of the total area. The mezzanine provides training features that include a bailout window, a manhole for confined space exercises, and space for mazes.

Official Project Name: East Putnam Fire Station
Project City/State: Putnam, CT
Date Completed: Aug. 15, 2014
Fire Chief: Abram Walker
Project Area (sq.ft.): 13,065
Total Cost: $3,533,700
Cost Per Square Foot: $270
Architect/Firm Name: Mitchell Associates Architects
Website: mitchell-architects.com
Design Team: Architect-in-Charge: Robert Mitchell, AIA; **Project Manager:** Peter Signorelli, AIA; **Structural Engineer:** Craig Maloney; **Mechanical Engineers:** Plum Excel Engineering; **Civil Engineers:** Messier & Associates, Inc.; **East Putnam Fire Department Building Committee:** Scott Belleville; Douglas Cutler, Jr. and Fire Chief Abram Walker

East Whiteland Township Volunteer Fire Association

FRAZER, PA

Official Project Name: East Whiteland Township Volunteer Fire Association
Project City/State: Frazer, PA
Date Completed: Feb. 1, 2015
Fire Chief: Ken Hurley
Project Area (sq.ft.): 17,450
Total Cost: $3,285,000
Cost Per Square Foot: $188.25
Architect/Firm Name: Bernardon
Website: bernardon.com
Design Team: Architect: Bernardon; **Structural Engineer:** Bala Consulting Engineers, Inc.; **Mechanical/Plumbing/Fire Protection/Electrical Engineer:** McHugh Engineering Associates, Inc.; **Civil Engineer:** Chester Valley Engineers, Inc.; **Construction Manager:** IMC Construction

After 50 years in their station, growth in the service area, the evolution of firefighting technology and the integration of volunteer and career staff put enormous pressure on the East Whiteland Township Volunteer Fire Association (EWTVFA) facility. In 2009, the search for a new home commenced, and a site was chosen for a new facility that would be more centrally located and allow them to better serve the local community.

The station is designed for maximum comfort, health and safety, and includes a spacious dayroom with modern kitchen, training room, fitness room and dorm rooms that are large enough to accommodate both career staff and volunteers. The building plan provides a direct flow from the dayroom through the gear room and into the double-sided apparatus bays, allowing for faster emergency response time.

The northwest corner is the landmark feature and ceremonial entrance to the building. A distinctive two-story tower lobby echoes traditional fire station forms. As a tribute, a steel beam salvaged from the tragic events at the World Trade Center on September 11, 2001, is on display directly opposite the visitor entrance.

The natural stone veneer is a key element of the exterior design that contributes to the long-term performance of the building. All the stone is sourced locally, including about 25 percent extracted directly from the project site during excavation, an elegant solution to a rocky site that might in other cases have slowed construction.

In addition to the locally quarried natural stone, other sustainability features that will help the building achieve the desired LEED Silver certification include a building envelope with insulating values up to 40 percent higher than code requirements and an underground rainwater collection cistern.

The new station will make the EWTVFA a more responsive and efficient operation, reliably serving the community for the next 50 years.

STATION DESIGN AWARDS

FIREHOUSE VOLUNTEER/COMBINATION NOTABLE

Laytonsville District Volunteer Fire Department

LAYTONSVILLE, MD

The Laytonsville District Volunteer Fire Department consists of an extensive interior renovation and 3,200-square-foot addition to the existing operations, living and administration spaces. The project was completed while the station was fully occupied. The original station, built in 1966, no longer provided sufficient space or functionality for the department. Shortcomings of the old station included fitness equipment being located in the kitchen. The growing demand for service called for larger and more efficient operations and living spaces. Minimal upgrades were required for the existing apparatus bay, consisting of a new vehicle exhaust system and a new roof.

The completed building features a prominent lobby displaying the department's historic fire equipment, visible to the passing community and visitors entering the station. Special attention was paid to the overall form and proportion of the completed design by using low, shingled roofs to tie into the historical context of the community.

New spaces include an inviting kitchen and dining room with commercial appliances, outdoor patio, a dayroom designed to comfortably seat 13, and a conference room for 18 people. The design also accommodates two operations offices, restrooms, watch office/command center, fitness center, lockers, four private showers with janitorial storage, and space for 14 bunks and four private dorm rooms. Spaces were carefully organized around existing bearing walls and structural components to create safe and efficient response paths to the apparatus bay while maintaining station privacy and security.

This newly configured space serves the career and volunteer members of the department by providing a more efficient

space for daily operations and emergency response. The completed addition ties into the existing apparatus bay façade, which was modified several years ago, to create an 11,500-square-foot fire station for the town of Laytonsville, MD, and Montgomery County Fire Rescue.

Official Project Name: Laytonsville District Volunteer Fire Department
Project City/State: Laytonsville, MD
Date Completed: Nov. 30, 2014
Fire Chief: Buddy Sutton
Project Area (sq.ft.): 6,000
Total Cost: $1,380,000
Cost Per Square Foot: $230
Architect/Firm Name: Manns Woodward Studios, Inc.
Website: mwsarch.com
Design Team: Principal Architect & Lead Designer: Robert Manns/Manns Woodward Studios; **Project Architect:** Emily Ratzlaff/Manns Woodward Studios; **Contractor:** Ken Wingate/North Point Builders

STATION DESIGN AWARDS

FIREHOUSE

VOLUNTEER/COMBINATION NOTABLE

Roslyn Highlands Hook & Ladder, Engine & Hose Fire Company – Fire Station No. 2

ROSLYN, NY

Nestled within the community of Roslyn Heights, the Roslyn Highlands Fire Department's Station 2 firehouse was an outdated, cramped volunteer substation that had been outgrown by its staff and its modern firefighting equipment. With an eye on expansion, the client was looking to demolish the existing building and retained h2m to design the new firehouse from the ground up. Through a series of workshops, h2m worked hand-in-hand with the client to develop a design that would cost-effectively fit everything into an efficient footprint.

The project's primary challenge was to incorporate the surrounding community's aesthetics into the firehouse design. The building, which is constructed entirely of masonry, is clad in cementitious siding, providing a more residential appearance. Other exterior design elements include a pitched roof, which adds to the building's residential look, as well as doors at the front and back of the building so trucks are able to pull into the building through the rear, as opposed to backing in from the street. Within the interior building design is an equipment mezzanine for mechanical equipment and storage and bailout windows along the mezzanine for training purposes.

Completed within the client's budget, the finished project has won over a once skeptical community, garnering positive feedback from area residents as well as local politicians.

Official Project Name: Roslyn Highlands Hook & Ladder, Engine & Hose Fire Company – Fire Station No. 2
Project City/State: Roslyn, NY
Date Completed: April 1, 2013
Fire Chief: Bill Trottier
Project Area (sq.ft.): 8,250
Total Cost: $3,300,000
Cost Per Square Foot: $400
Architect/Firm Name: h2m architects + engineers
Website: h2m.com
Design team: Architects: Danny Tanzi, Kevin Medler, Adam Post;
Civil Engineers: Michael Keffer, Charles Beckert: **Structural Engineer:** Michael McKeown; **Mechanical Engineers:** Joseph Manzella, Paul Foerth;
Plumbing and Fire Sprinkler Engineers: Joseph Manzella, Joseph Tutrone;
Electrical Engineers: Ernest Iannucci, Anthony Kim

Vineland City Fire Station No.1

CITY OF VINELAND, NJ

The existing Fire Station Co. #1 had been closed and demolished as part of a city redevelopment project for the historic Landis Avenue Theater. This necessitated the fire department to build a new fire station at the nearby 8th Street and Chestnut Avenue site that the city acquired as part of the redevelopment. This has allowed the Vineland City Fire Department to keep emergency response time to a minimum.

Because this site is located in a hybrid commercial/residential zone, the station must blend into the fabric of the existing building types present. Similar materials and scale elements have been incorporated into the design of the new facility while still maintaining the look and function of a traditional fire station.

The building is carefully sited on the lot that fronts both a wide commercial Avenue (Chestnut) and a smaller residential street (8th). Because existing corner properties had to be maintained, creative orientation of the apparatus wing has allowed fire trucks and equipment highly desirable drive-through access from back to front. The parking is off of the secondary access road and first responders' parking is adjacent to the apparatus bay entrance.

The fire station design accommodates four fire trucks. The four-bay apparatus room has an adjacent control room with full view of apparatus room and all four bay doors. The administrative spaces include an office and meeting room on ground level and additional office space on the upper level. A dayroom, kitchen and pantry along with additional storage space complete the first-floor layout. Access to the upper level is by elevator or the stairway. Additional upper level spaces include bunkrooms, fitness room and male and female locker facilities. The third level is used for much needed station storage and mechanical space.

Official Project Name: Vineland City Fire Station No.1
Project City/State: City of Vineland, NJ
Date Completed: Jan. 31, 2014
Fire Chief: Robert Pagnini
Project Area (sq.ft.): 11,430
Total Cost: $2,400,000
Cost Per Square Foot: $200
Architect/Firm Name: Rodier Ebersberger Architects
Phone: (856) 875-2792
Design Team: Rodier Ebersberger Architects; **MPE Engineer:** SunRose Engineers; **Civil/Structural Engineer:** Keith E. Conroy Engineers

Whitney Fire Department
SPARTANBURG, SC

Bobbitt Design Build completed a 7,571-square-foot addition for the Whitney Fire Department located on Bryant Road in Spartanburg, SC, making the overall station approximately 12,777 square feet in size.

The single-story addition provides a modern station designed to effectively accommodate full-time staff and expanded operations. The structure includes sleeping quarters for up to 10 members, offices for all paid personnel, and gender-specific areas for female volunteers. The structure also includes a large open plan dining/kitchen/day room providing a comfortable living environment for its members. The facility also includes a large exercise room to promote firefighter health and wellness. Whitney Fire Department hosts numerous training classes in conjunction with other stations, so a large training room which seats approximately 25 was included in the design. A smaller conference room was included for private conversations and to accommodate training on a smaller scale if necessary.

The building is designed to complement the neighboring school and other local surroundings. A brick façade covers the entire structure with accent brick and stucco to highlight the curves of the new station and give the building a clean, modern image. The existing apparatus building is capped with a new cornice clad in the same stucco material as in the new building, providing design continuity among both the existing and new structure.

Possibly the largest challenge in designing the new station were site constraints. The site was very narrow and deep, proving to be a challenge for placement and layout of the new station. By keeping the apparatus bays intact, Bobbitt effectively located the addition to minimize the impact on the site. Architrave, Inc., delivered the design plan, and the project was implemented successfully, even with these limitations.

Official Project Name: Whitney Fire Department
Project City/State: Spartanburg, SC
Date Completed: Aug. 20, 2014
Fire Chief: Shawn Petras
Project Area (sq.ft.): 12,777
Total Cost: $1,738,331
Cost Per Square Foot: $136.05
Architect/Firm Name: Bobbitt Design Build LLC/Architrave Inc.
Website: bobbitt.com
Design Team: Whitney Fire Department – Chief Shawn Petras, Captain/Fire Marshal Cody Pucetas; **Design Builder:** Bobbitt Design Build; **Architect:** Architrave; **Civil Engineer:** DH Hagins & Associates; **Structural Engineer:** K&P Engineering; **Mechanical Engineers:** MECA; **Electrical Engineers:** ETI

STATION DESIGN AWARDS
FIREHOUSE
RENOVATION GOLD

Middleburg Volunteer Fire Station

MIDDLEBURG, VA

Located on a tiny, hilly site in the heart of Virginia's rolling horse country, the 35-year-old Middleburg Volunteer Fire Station was a severely undersized and outdated facility compromised by a structurally failing roof and regular water damage in the apparatus bays. A complete overhaul and expansion was needed while the station remained in operation.

The compact 16,000-square-foot design demolished the cramped residential wing and replaced it with a new two-story wing, providing expanded staffing for 14 using semi-private bunk-

rooms. Direct and efficient, the travel paths deliver responders into the bays at the front, rear and middle, allowing swift movement among the pieces within the bays. With the bunkrooms on the second floor, the main level is dedicated to operational spaces and a shared training/community room. The apparatus bays were retained and expanded with new bay support spaces and a training mezzanine. The exterior character of the building benefits from a simple, yet carefully considered palette of residential materials intended to blend into the neighborhood, while subtly announcing its presence as a civic building.

Secure all-weather protection of the apparatus was needed throughout the construction period. To do so, new roof framing (columns and beams) were inserted through the existing bay roof and tied to the existing masonry wall piers. New roof trusses could then clearspan the bays above the existing roof and provide new watertight closure for the apparatus. Additionally, bay height was increased to 18 feet by carefully removing the existing roof structure from below once the new roof was in place.

The building is LEED-certified. Sustainable design strategies include low Solar Reflectance Index (SRI) roof, water use reduction/native plant species, cistern capture tanks to recycle water for training exercises/engine fill, regional materials, and recycled content materials.

Official Project Name: Middleburg Volunteer Fire Station
Project City/State: Middleburg, VA
Date Completed: May 15, 2014
Fire Chief: W. Keith Brower, Jr.
Project Area (sq.ft.): 16,000
Total Cost: $4,306,000
Cost Per Square Foot: $269
Architect/Firm Name: Paul R. Erickson/ LeMay Erickson Willcox Architects
Website: lewarchitects.com
Design Team: Civil Engineer: Bowman Consulting Group, Ltd.; **Structural Engineer:** Ehlert Bryan, Inc.;
MEP Engineer: Brinjac Engineering, Inc.;
Cost Estimators: Downey & Scott, LLC

STATION DESIGN AWARDS
FIREHOUSE
RENOVATION SILVER

The Woodlands Fire Station No. 2
THE WOODLANDS, TX

The renovation and addition to Station No. 2 came as a result of a comprehensive cost-benefit analysis conducted jointly among the design team, The Woodlands Township and its fire department. Options in the analysis included a minor renovation, two schemes of major renovation and an addition, as well as a site and building re-design. Each option was thoroughly explored through detailed cost estimates, programming and staffing studies, site drawings, building layout variations and 3D computer modeling.

The facility's final design included complete renovation of interior living spaces, as well as new construction building area for additional dorms, updated and enlarged restroom facilities, an open-concept day room and kitchen area, and naturally day-lit exercise area. The storage and utility aspects of the apparatus bay area were also redesigned for functionality to meet the changing needs of the station's personnel.

Key aspects of site development include:

- Dramatic overall aesthetic improvement to the existing structure including a new entrance tower, increased glazing area and introduction of new but complementing building materials.
- Improved site circulation.
- Cooperative compliance with The Woodlands Township's high standard of design guidelines, including its vegetation preservation program.

Enhancing features include:

- Renovated restroom areas provide gender-equal single-use facilities for flexibility in staffing and privacy for staff.
- State-of-the-art vehicle bay exhaust system, emergency generator and hurricane force rating.
- Sustainable building strategies, including building mechanical automation systems, site and building re-use, and natural day-lighting.

The Woodlands Fire Department's new Station No. 2 makes a lasting statement to the community that the Township and the fire department are committed to being trusted stewards of public funds by choosing to renovate an existing structure—reducing project costs while improving the community's visual landscape and ability to respond to local emergencies.

Official Project Name: The Woodlands Fire Station No. 2
Project City/State: The Woodlands, TX
Fire Chief: Alan Benson
Project Area (sq.ft.): 9,576
Total Cost: $1,804,261
Cost Per Square Foot: $188
Architect/Firm Name: Joiner Architects
Website: joinerarchitects.com
Design Team: Carl Joiner, AIA; Ricardo Martinez, AIA: **Construction Administration:** Chad Joiner; **General Contractor:** Durotech; **Structural:** Matrix Structural; **Civil:** Jones and Carter

STATION DESIGN AWARDS

FIREHOUSE

RENOVATION BRONZE

Lutherville Volunteer Fire Company

LUTHERVILLE-TIMONIUM, MD

The Lutherville Volunteer Fire Company consists of a 9,000-square-foot addition to its existing fire station, and complete renovation to the existing 15,000 square feet. The addition provides two additional apparatus bays, additional gear storage and interior training features that satisfy the growing demands of the fire company. The dayroom, kitchen, office and administrative areas were renovated and reorganized to improve response efficiency while also allowing connection to a new conference room and fitness area that overlook the new apparatus bays. Adjacent to and overlooking the new bays is a new training center containing a large assembly space with associated support spaces, such as a warming kitchen, storage and restrooms.

The existing site presented significant grade, ADA accessibility, and visitor access issues. As such, the public entrance was clearly re-defined at the rear of the building near existing parking. Because the first-floor elevation is significantly below grade, a terraced sunken courtyard was created to provide an identifiable approach and communal space. This strategy defines a unique outdoor space for the station personnel by creating an amphitheater-like setting inclusive of a built-in grill and firepit, which are immediately adjacent to the newly renovated dayroom and kitchen. The street side façade was completely overhauled to better blend into the context of the historic masonry community.

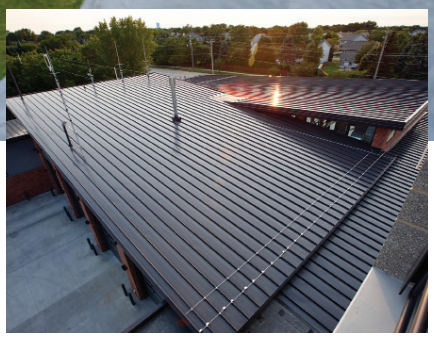
The central stair tower provides a focal point with a standing seam roof and clerestory windows, giving rhythm to a challengingly long façade comprised of many different floor elevations. The training wing steps back subtly, and the landscaping is allowed to curl into the building's base. Metallic accents of white and dark grey blend with the masonry and engage the cooler gray splitface of the courtyard, bringing unity to a complex composition.

Official Project Name: Lutherville Volunteer Fire Company
Project City/State: Lutherville-Timonium, MD
Date Completed: May 31, 2015
Fire Chief: Mike Huber
Project Area (sq.ft.): 24,000
Total Cost: $4,200,000
Cost Per Square Foot: $175
Architect/Firm Name: Manns Woodward Studios, Inc.
Website: mwsarch.com
Design Team: Principal Architect & Lead Designer: Robert Manns/Manns Woodward Studios; **Principal Architect & Lead Construction Administrator:** David Woodward/Manns Woodward Studios; **Project Architect:** Eric Bond/Manns Woodward Studios; **Project Manager:** Pete Sutcliffe/Mullan Contracting Co.

STATION DESIGN AWARDS FIREHOUSE SHARED FACILITIES GOLD

Rochester Fire Station No. 2

ROCHESTER, MN



Rochester Fire Station No. 2 was old, small and inappropriately located. Council agreed to a new facility if the fire department included the police department's PSAP and the emergency management department's EOC.

The nine-acre relocation site was at the intersection of two major roadways. The city planned to sell the most valuable portions for retail use, so a new street was planned bisecting the property to enable development. The new road had to align with existing curb cuts, follow the roadway design guidelines and avoid ravines. The only leftover parcel was a 2.44-acre steeply sloping site.

The north portion of the building serves as the public entrance and contains a museum, conference room and restroom. There are four drive-through apparatus bays, an EMS supply depot, the arson evidence room and a specialty shop that conducts hose/ladder testing. For peace and quiet, the living spaces face away from the future retail. The eat-in kitchen and patio have dramatic southeast views. There are four firefighter and two officer dorm rooms with windows opening onto a wooded area.

The steep topography allows a separate lower-level entry for the access restricted EOC and PSAP. Since the EOC will be used for city training when not activated, access is restricted between the levels without impeding emergency egress.

The station is planned to house firefighters fresh from the academy, so it includes many training features for continued learning. There is study space in each

bunkroom. A five-story tower contains rappelling tie-offs inside and out, roof access, "windows" at the second through fourth floors, removable railings, stair runs with removable treads, a manhole and a standpipe with sprinkler head. A mezzanine off the tower provides access to a balcony, doors to the apparatus bay for drills during inclement weather, and space for obstacle props.

Official Project Name: Rochester Fire Station No. 2
Project City/State: Minneapolis, MN
Date Completed: April 27, 2015
Fire Chief: Greg Martin
Project Area (sq.ft.) 31,220
Total Cost: $7,785,099
Cost Per Square Foot: $249.36
Architect/Firm Name: BKV Group
Website: bkvgroup.com
Design Team: BKV Group: Craig Carter, Brady Halverson, Margaret Lafferty, Tom Olson, Meaghan de la Rosa. Bruce Schwartzman; **McGhie & Betts:** Dave Morrill, Bill Tointon; **MEP Associates:** Alan Mennecke, Gary Olson, Lee Tapper; **WSN:** David Kane, Bruce Meadows; **Rochester Fire:** Chief Greg Martin, Curt Pronk, Vance Swisher, Ken Jones, Firefighter Advisory Committee

Conway, SC, Public Safety Facility

CONWAY, SC

The new Public Safety Facility in Conway, SC, showcases the region's "low-country" style and character, while giving the city a state-of-the-art fire and police complex. Additionally, site considerations were paramount to the design of this facility. Great care was taken to preserve the heavily wooded lot of old-growth live oak trees, including designing the facility to wrap around and showcase these beautiful trees.

The new two-story structure houses the police department headquarters on the second floor, and the fire department headquarters on the first floor. Combining the two departments into a single public safety facility, allows for a joint use of common areas such as training rooms, conference rooms, day room, physical fitness area and communications. Additionally, the shared facility utilizes a joint public entrance and lobby. The design helped the city to save a considerable amount of money and space over having two separate facilities. This fire department houses five truck bays with a work shop and a mezzanine for equipment storage.

The city owned a large and beautiful site that was the home of a dilapidated hospital that needed to be demolished to make way for the public safety facility. The site also contained a large number of old-growth live oak trees that would need to be preserved. During the design process it was decided that the new structure would need to closely mirror the L-shape of the original hospital in order to preserve the natural beauty of the site.

The building design is representative of the low-country style and character. Due to its coastal location, the structure is designed to withstand 130-plus mph winds and has impact-resistant glazing and hardened exterior walls to resist damage by hurricanes. The elevation of the site was raised to prevent the possibility of flooding.

Official Project Name: Conway, SC, Public Safety Facility
Project City/State: Conway, SC
Date Completed: Nov. 1, 2014
Fire Chief: Rick Baker
Project Area (sq.ft.): 26,963
Total Cost: $4,703,965
Cost Per Square Foot: $174.46
Architect/Firm Name: Stewart-Cooper-Newell Architects
Website: fire-station.com
Design Team: Architect of Record: Stewart-Cooper-Newell Architects; **Construction Manager:** Chancel Builders; **Civil:** DN Engineering, Inc.; **P/M/E:** Optima Engineering; **Structural:** Kyzer & Timmerman Structural Engineers

STATION DESIGN AWARDS

FIREHOUSE

SHARED FACILITIES BRONZE

Brambleton Public Safety Center

BRAMBLETON, VA

Loudoun County, VA, is located in close proximity to Washington, D.C., and is experiencing exponential growth. The Public Safety Center located on five acres is a key component to the transformation of this community. This facility is the home of Loudoun County Fire and Rescue #9, Arcola Volunteer Fire Department and the Fire Marshal's office.

The firehouse consists of a three-bay drive-through with bi-fold exit doors and sectional overhead return doors. All dirty work areas, workshops, decontamination area, hose storage and PPE storage areas are placed remotely from the living quarters. The PPE storage is designed with a self-contained HVAC system that directs cool supply air up and through the gear and is exhausted through a heat exchanger. A training tower is included as part of the design to allow for upper level extraction, rappelling station, high rope rigging, and stair training for hose work.

The bunks are divided into separate spaces that coordinate with the specific apparatus being used by the personnel, to allow for localized station alerting.

The Fire Marshal's office contains both plans review/inspection services and arson investigation, including the bomb squad. Areas include apparatus bay space for secure storage of specialized equipment and vehicles, evidence storage, explosives storage (remote from building), interview and investigation offices. The facility also includes administrative offices, bunkrooms, and a K9 kennel and runs for the detection dogs.

The central entrance to the building leads to a large meeting room for use by the fire service, volunteers, and is open for community use. A covered rear parking area is used by the volunteers for their child seat-installation program.

Designs to achieve LEED Silver certification the facility includes geothermal heating/cooling, radiant floor heating in the bays, water harvesting for use in training and vehicle wash-down.

Official Project Name: Brambleton Public Safety Center
Project City/State: Brambleton, VA
Date Completed: Dec. 12, 2014
Fire Chief: W. Keith Brower Jr.
Project Area (sq.ft.): 22,000
Total Cost: $6,517,972
Cost Per Square Foot: $296.27
Architect/Firm Name: Bignell Watkins Hasser Architects, PC
Website: bigwaha.com
Design Team: Architect/Interiors: Bignell Watkins Hasser Architects; **Structural Engineer:** Adtek Engineers, Inc.; **MEP Engineer:** RMF Engineering; **Civil Engineer:** Stantec Consulting Services

Community VFD Training Center
HOUSTON, TX

The new emergency response Training Center for the Community Volunteer Fire Department is a shared-use facility providing community space, training for fire and EMS personnel, and an EMS apparatus bay, all located on an existing fire station site, allowing for shared use of the communication tower, generator, fueling station and other amenities.

The original fire station, which was designed by the same design team over a decade earlier, also received interior and exterior renovations to synthesize its exterior aesthetic with the new structure, provide solar shading to existing glazed areas, and modernize security and building systems.

Key aspects of site development include:
- Increased parking and developed landscaping area
- Improved site circulation, including vehicular access behind the existing fire station to access both adjacent streets on the corner lot
- Addition of accessible fueling station for emergency response apparatus

Enhancing features include:
- State-of-the-art driving simulator
- Highly integrated technology delivery of audio/visual systems in both the large and small conference rooms areas
- Flexible arrangement of large conference space through movable partition and flexible furniture
- Two-story volume pre-function space acts as lobby and circulation core to accommodate various functions, capacities and programs, including community organizations and events

Official Project Name: Community VFD Training Center
Project City/State: Houston, TX
Date Completed: April 21, 2015
Fire Chief: Steve Fowler
Project Area (sq.ft.): 12,270
Total Cost: $4,487,306
Cost Per Square Foot: $366
Architect/Firm Name: Joiner Architects
Website: joinerarchitects.com
Design Team: Carl Joiner, AIA; Joby Copley, AIA; **Construction Administration:** Chad Joiner; **General Contractor:** Durotech; **Civil:** Jones and Carter; **Structural:** Matrix Structural Engineers; **MEP:** DBR Engineering Consultants

The Community Volunteer Fire Department's new addition to its existing flagship fire station and administrative offices provides a regionally accessible training center that is designed and equipped to provide 21st-century training in a variety of formats and settings to emergency response personnel on a single site with separate fire and EMS stations.