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#### **INSIDEMASONRY**

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PHOTOS BY MICHAEL DEFILIPPO

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## CAMPUS CONNECTIONS CONTINUED FROM THE COVE

A church is more than a building. It is community.

When Central Presbyterian Church in Clayton, MO drafted a master plan for the modernization and expansion of its facilities, the congregation considered the impact on their residential neighbors. The church acquired adjoining property immediately to its south on Hanley Road for a parking garage, and to the west, two residential houses on a neighboring block for a new student center.

The construction of this classic limestone church in 1930 followed the 1925 development of the neighboring Davis Place subdivision of fine brick homes. Architect **Tyler Stephens** of **Core 10 Architects** put a great deal of thought into the optimal way to make the first upgrades to these blocks in over eighty years. Part of his intent was to use, blend and interpret the style and color of the different building materials in the existing structures in order to create a cohesive campus.

"Our task was to come up with the best use for the land the church acquired for its expansion. Originally the thought was to tear everything down and build new", said Stephens, principal at **Core 10 Architects.** "We decided to keep the houses on Biltmore Place, but connect them to the church to preserve the same street façade."

The variety of masonry work on this sprawling project required the skilled hands of expert craftsmen. Arnold Masonry joined this project in November 2013. The only work on the church itself involved the addition of an ADA compliant entrance ramp. The original steps connected to the church were removed and numbered for reassembly. An elevated entry terrace was built on the front of the church, widening the original entrance. This allowed the new ramp that approached the church from the south to tie into the structure. CMU walls with a full depth veneer of Eden limestone from Midwest Block & Brick framed the concrete slab of the new entrance as well as the handicapped accessible ramp. The walls are topped with precast capstones. The original steps were reconditioned and set back into place against the new concrete terrace.

This same treatment of limestone and precast caps continues in a crash wall surrounding the surface lot of the new underground parking garage. The only above ground structure visible indicating the presence of the parking garage is the stairwell tower that leads from the surface lot to the underground parking. The limestone veneer surrounding this structure visually ties it to the church. Inside the stairwell, dark charcoal blocks set in an Ashlar pattern hint at stylistic changes in the masonry.

"To lay true limestone and to get it to blend in well with an existing building that was built in the 1930's takes a lot of craftsmanship," said Stephens. "Getting the mortar to match the original is probably more important than the stone or brick material. It was important to make it look like the limestone on the handicapped accessible ramp has always been there. Mixing the right mortar is a true art form."

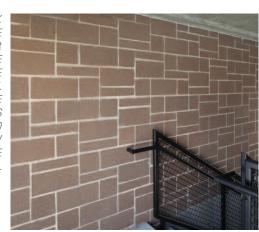


THE DIAMOND
PATTERN ON THE
NEW BRICK WALL
LINKING THE TWO
HOUSES OF THE
NEW STUDENT
CENTER MATCHES
AN ORIGINAL
PATTERN ON
ONE BUILDING'S
FAÇADE.

LIMESTONE VENEER
AROUND THE NEW ADA
COMPLIANT RAMP AND
CHURCH ENTRANCE TIE
THE NEW ADDITIONS
WITH THE ORIGINAL
STRUCTURE. BUILT IN
1930, THE STEPS
WERE REMOVED,
RECONDITIONED AND
THEN REPLACED ON
THE FRONT OF THE NEW
ENTRY TERRACE.



THE SAME BLOCK
USED IN THE
STUDENT CENTER
IS USED IN THE
STAIRWELL OF THE
PARKING GARAGE.
THIS IS ONE OF THE
TRANSITIONAL USES
OF MASONRY TO
INTEGRATE THE NEW
ELEMENTS OF THE
CHURCH CAMPUS.



THREE DIFFERENT COLORED BRICKS FOUND IN THE ORIGINAL HOMES ARE BLENDED IN THE NEW WALLS CONNECTING THE TWO NEIGHBORING PROPERTIES.



Work on the handicapped entrance occurred during a later phase of the project. The first stage involved the erection of the CMU walls of the new student center that would link the two existing residences purchased by the congregation. The architect designed an Ashlar pattern around three sizes of dark charcoal colored blocks set in a light mortar for the interior face of this space. This treatment mimics the light stone and dark mortar of the church, but in reverse. "There is a high degree of attention to detail that needs to be paid by the Bricklayers' Union Local #1 of Missouri when constructing a wall with an Ashlar pattern," said Stephens. "Arnold Masonry did a good job of puting thought into their work and making the pattern work out as they encountered changes around window openings and at corners."

This CMU block was not only selected for its aesthetics, but for its durability. The student center is designed as a multi-use facility with

THIS DARK CHARCOAL
BLOCK WITH LIGHT
MORTAR SET IN
AN ASHLAR PATTERN
WAS SELECTED
FOR THE WALLS
OF THE STUDENT
CENTER TO MIMIC
THE LIMESTONE
IN THE CHURCH.





lots of activity. The church has taken a long view regarding the life of this building, and masonry provides the best choice for a structure that will hold up over time. "Masonry anchors are the focal point for this entire project," said Tony Marlo, Project Manager for ICS Construction Services. "The parking garage is below deck level, but the first thing seen on Hanley Road is the new stone wall that sets the tone for the garage. As you move toward the youth center, we lose the stone and go to a brick blend with the intent of matching the two existing houses." Midwest Block & Brick provided three different colored bricks—Bostonian, yellow and traditional red—that were blended to match and merge the colors of the two houses incorporated into the student center construction. "We had to do a lot of restoration, rehab and tuckpointing

work on the buildings, as well as the new construction, to link them together," said **Jason Arnold**, owner of **Arnold Masonry**. "We were striving for continuity to tie the old and the new together."

One of the houses features a diamond pattern on its front. The architect used this diamond pattern on the brick front wall built to link the two houses together. Corbeled brickwork used on one of the houses was mimicked in the construction of the piers supporting a bridge connector from the parking garage to the student center. "I like the artistic variety of masonry. We can create so many looks," said Stephens. "Changing the mortar colors, the scale, the size of the pieces — you can really get a lot of texture and variety of design from using masonry materials."



LIMESTONE VENEER ON THE EXTERIOR OF THE PARKING GARAGE STAIRWELL TIES THE STRUCTURE TO THE LIMESTONE CHURCH.

hree hundred and fifty tons of limestone blocks make an impressive pile of rocks. When this buff colored stone is assembled into a custom home and barn on sixty acres of rolling pasture and woodland, it becomes an architectural treasure.

Designed by Lauren Strutman, Lauren Strutman Architects, and built by Roentz Homes, this rustic country lodge-style home derives much of its identity and charm from the extensive use of masonry, both inside and out.

The owners knew their dream retirement home would have an Old World feel. "We had a vision of what we wanted to do early on," said the homeowner, who prefers to remain anonymous. "We communicated our ideas to the architect,

who suggested a builder with a wonderful inventory of homes to serve as samples." A tour of an existing home built by homebuilder Gene Roentz confirmed the style the owners were looking to use for their new home in west St. Louis County. They fell in love with a style Roentz calls "Americanized Tuscan" because of its use of stone, brushed mortar joints, stucco and antique pine timbers topped with a steep faux-slate roof. The home's entire masonry veneer and all its fireplaces and barn are constructed entirely of EW Gold limestone from the Earthworks quarry in Perryville, Missouri.

While communication is critical in achieving the goals on a custom home, it also helps to have a solid relationship with the tradesmen executing the vision. Both the architect and builder share a history of collaboration with <code>Bricklayers'</code> Union Local #1 of Missouri of Spencer <code>Brickwork</code>. "The masonry and beautiful crafted rustic stonework was a wonderful complement to my design," said architect Lauren Strutman. "The workmanship exhibited by Spencer Brickwork was outstanding, as it always is. They were able to bring our design and ideas to life, leaving a beautiful home by working with the stucco and timber accents that were integrated with the stonework." The builder also praises the masonry work on this house — particularly in the execution of the mortar finish. Roentz is very specific about his preferences for mortar

joints on the houses he builds. "The mortar joints are brushed rather than struck, which adds to the Old World look of the house," said **Gene Roentz**. "**Spencer Brickwork** is the best at doing this type of work. They have worked for me for 25 years and never disappointed me. Their level of craftsmanship is second to none."

The masonry work on this house began in late winter of 2014.
The first task involved construction of the chimneys. Foremen Mike Gilbert and Larry Murphy of Spencer Brickwork oversaw the work on this project. "We usually



TOP: THIS RUSTIC COUNTRY LODGE-STYLE HOME DERIVES MUCH OF ITS OLD WORLD CHARM FROM THE EXCLUSIVE USE OF A VENEER OF EW GOLD LIMESTONE AND BRUSHED MORTAR JOINTS. ABOVE: FIREPLACES OF EW GOLD CARRY THE EXTERIOR FEEL INTO THE LIVING SPACE.

have one foreman start the project, get the chimneys done, and then another foreman comes in to veneer it," said John Spencer, owner of Spencer Brickwork. "When we build these large houses there are usually a couple chimneys that go up through the roof. We build the scaffolding tower and erect the chimneys. Then the carpenters come and swing in the roof trusses. That is the pressure part of the job. We have to get the chimneys done so we can keep the builder on schedule."

Fireplaces of EW Gold limestone carry the country lodge feel established in the exterior construction into the living space. Gene Roentz favors hearthstones cut from solid pieces of unfinished rock that he selects at the Earthworks quarry, based on the size, shape and texture. It is the same rock as the EW Gold used throughout the house, just raw and organic, like it was plucked from the base of a river bluff. "The intent is to give the impression that the fireplace grew out of the ledge stone," said Roentz. "The Bricklayers' Union Local #1 of Missouri did a great job of blending the hearth stone with the rest of the fireplace so it looks like one stone."

Weighing about 3,500 pounds, these stones can be fragile because of seams and cracks. They require special handling throughout the quarrying and through the installation process. These large,



ONE OF THREE FIREPLACES FEATURING HEARTHSTONES OF UNFINISHED LIMESTONE.



ABOVE: SHAWNEE FLAGSTONE LEADS THROUGH THE GARDEN WALL TO THE HOME'S FRONT DOOR. THIS PROJECT USED 35 TONS OF THIS SHAWNEE FLAGSTONE ON THIS HOUSE AND GROUNDS.

BELOW: A WOOD FIRED PIZZA OVEN ON THE PATIO IS A UNIQUE FEATURE OF THE HOME.



single stone slabs accent the fireplaces in the first floor great room and hearth room and the lower level recreation room. "The hearthstones add to the character and personality of the house," said Strutman.

A home entertainment center on the lower level features a stone ledge under the movie screen and around the speaker towers. This is constructed from EW Gold stones, with the same thick, brushed mortar joints used throughout the house.

Transition from the home's interior to the exterior pool deck and patio is achieved through an outdoor room. Shawnee flagstone tile provides the flooring. Thirty-five tons of Shawnee flagstone were used on this project. This provides a perfect complement

for the limestone. Spencer Brickwork foreman Mike Gilbert compared the process of laying the irregular shaped flagstone tiles to assembling a puzzle.

A limestone fireplace anchors the west wall of the outside room. The north and south exposures are framed open air space with automated, retractable screens. The flagstones continue to the pool deck and patio. A unique feature of the outdoor patio is a wood-fired brick pizza oven built into one wall of the home's exterior.

The house, including a guest suite and outdoor room, totals over 7,000 sq. ft. In addition to an attached three-car garage, there is also a barn made of the same combination of EW gold, timber and stucco used on the house. "The barn is built into a hill, so it is accessible on two levels. It is meant to complement the house," said architect Lauren Strutman.

CONTINUED ON BACK COVER

**Architect:** Lauren Strutman Architects

**Builder:** Roentz Homes

SAT A GLANCE... Mason Contractor: Spencer Brickwork

Supplier: Earthworks (Perryville, MO)

Craftworkers: Bricklayers' Union Local #1 of Missouri,

Eastern Missouri Laborers' District Council

MASONRY 21:1 PHOTOS BY MICHAEL DEFILIPPO

# Fire Departments Need New Houses... Masonry Responds

Ask anyone involved in building a firehouse, "What is your top choice for construction material?" The unanimous answer is "masonry" — for a variety of reasons. The modern firehouse provides more than an oversized garage and bunkhouse. It is a disaster relief center — built to withstand earthquakes and storms. It is a maintenance, training and fitness center where firefighters keep their gear, minds and bodies ready for rapid response. It is a community institution, built to provide an aesthetically pleasing and lasting structure to serve its citizens for generations.



"Construction requirements for a firehouse are more stringent on the structural aspects than many other type of buildings," said Mark Kamp, President of Wachter, Inc., general contractor on the new University City firehouse. While brick veneer is a popular finish on all of the new firehouses featured, the heavy-duty construction behind the brick is an important feature few see. "If an earthquake hits here, it's constructed to withstand the force, said Kevin Freeman, Project Manager for Swanson Masonry. "Not only is this building safe, it is also architecturally pleasing for the community," said David Crismon, University City's Assistant Fire Chief.

HISTORICAL NEIGHBORHOODS SURROUNDING THE NEW UNIVERSITY CITY FIREHOUSE SET THE TONE FOR THE STRUCTURE'S DESIGN. THREE COLORS OF BRICK WERE BLENDED AND SET IN A VARIETY OF PATTERNS INCLUDING HERRINGBONE AND A DOUBLE ROW LOCK

WITH TWO DOUBLE SOLDIERS TO ADD VISUAL INTEREST TO THE STRUCTURE. THE ENTRANCE TOWER FEATURES TWO PRECAST PANELS SET INTO THE BRICK.

AT A GLANCE: ARCHITECT - ARCHIMAGES; GENERAL CONTRACTOR - WACHTER, INC.; MASON CONTRACTOR - SWANSON MASONRY; BRICK, BLOCK AND SACK GOODS - MIDWEST BLOCK & BRICK; ACCESSORIES - IRWIN PRODUCTS; REBAR - AMERICAN STEEL FABRICATION; AIR BARRIER - L&L TUCKPOINTING; CAST STONE - MIDWEST CAST STONE; CRAFTWORKERS: BRICKLAYERS' UNION LOCAL #1 OF MISSOURI, EASTERN MISSOURI LABORERS' DISTRICT COUNCIL

### **Riverview Fire Protection District**

Firehouses come in a variety of sizes. The University City and O'Fallon, IL firehouses feature engine houses with five bay doors. The newest house in the Riverview Fire Protection District features a two bay engine house. Modern fire trucks outgrew the space offered by the original house that served for 60 years. The new firehouse may have increased in size, but the building lot



did not, making for a tight job site. "Patrico Masonry did everything in a timely manner, despite the tight site constraints," said Dino Pappas, Project Manager for United Construction. "This is a completely watertight building," said Vince Patrico. Fire Chief Joe Bommarito added, "This is a beautiful building. The fire department wanted a new brick building that would match the surrounding neighborhoods. We wanted to visually blend with the community, which we were able to accomplish."

THE RIVERVIEW FIREHOUSE, COMPLETED IN 2011, IS THE NEWEST ADDITION TO THE RIVERVIEW FIRE PROTECTION DISTRICT. THE ORIGINAL 1950'S ERA FIREHOUSE WAS TORN DOWN AND REPLACED BY A MODERN BRICK STRUCTURE THAT BLENDS WELL WITH THE RESIDENTIAL COMMUNITY SURROUNDING IT.

AT A GLANCE: GENERAL CONTRACTOR — UNITED CONSTRUCTION; ARCHITECT — ARCHIMAGES; MASON CONTRACTOR — PATRICO MASONRY; BRICK — MIDWEST BLOCK & BRICK; BLOCK — LEMAY CONCRETE BLOCK; ACCESSORIES — IRWIN PRODUCTS; MORTAR — RAINERI BUILDING MATERIALS; CAST STONE — CALIBER CAST STONE; CRAFTWORKERS: BRICKLAYERS' UNION LOCAL #1 OF MISSOURI, EASTERN MISSOURI LABORERS' DISTRICT COUNCIL.

#### Fire/EMS Headquarters | O'Fallon, Illinois

"We want to make these buildings long lasting with little maintenance," said architect **Jeff Williams**, of **Archimages**. "That is why we use brick and concrete block. The interior block is very resistant to the ravages of water." While the exterior's creative combination of brick, block and cast stone present a solid face to the community, the heavy duty construction of the block interior classify the building as a FEMA rated storm shelter. **Grant Masonry Contracting** constructed both the new Fire/EMS Headquarters and a headquarters and garage for the city's Parks Department's maintenance equipment. Concentrating on lasting

durability did not distract the construction team from the mission of creating a visually stunning building. "This building has a lot of trim pieces and capstone," said **Bill Grant**, of **Grant Masonry Contracting**. "There were a lot of different materials used here to achieve the look the architect wanted."

FIRE CHIEF BRENT SAUNDERS HAS HIGH PRAISE FOR HIS DEPART-MENT'S NEW HOME. "THE INNER PORTION OF THE BUILDING'S MASONRY CONSTRUCTION ALLOWED US TO CONSTRUCT A FEMA

RATED STORM SHELTER. THE DESIGN OF THE BUILDING INCORPORATING MASONRY WAS ECONOMICAL AND DELIVERS A SOUND STRUCTURE FOR DECADES INTO THE FUTURE," SAID SAUNDERS.

AT A GLANCE: ARCHITECT – ARCHIMAGES; GENERAL CONTRACTOR – HOLLAND CONSTRUCTION SERVICES; MASON CONTRACTOR – GRANT MASONRY CONTRACTING; BRICK – RICHARDS BRICK; CMU – MIDWEST BLOCK & BRICK; CAST STONE – MIDWEST CAST STONE; CAULKING – GEORGE MCDONNELL & SONS; REBAR – AMERICAN STEEL FABRICATION; CRAFTWORKERS: BRICKLAYERS' UNION LOCAL #1 OF MISSOURI, EASTERN MISSOURI LABORERS' DISTRICT COUNCIL.

Robertson Firehouse #2 Bridgeton, Missouri



THE NEW BRICK AND CAST STONE ADDITION OF TWO EQUIPMENT BAYS TO THE ROBERTSON FIREHOUSE BLENDS SEAMLESSLY WITH THE ORIGINAL BUILDING.

AT A GLANCE: ARCHITECT – FGM; GENERAL CONTRACTOR – PINNACLE
CONTRACTING; MASON CONTRACTOR – PATRICO MASONRY; BRICK –
MIDWEST BLOCK & BRICK; MORTAR – RAINERI BUILDING MATERIALS;
ACCESSORIES – IRWIN PRODUCTS; CRAFTWORKERS: BRICKLAYERS' UNION
LOCAL #1 OF MISSOURI, EASTERN MISSOURI LABORERS' DISTRICT COUNCIL.

## CAMPUS CONNECTIONS CONTINUED FROM PAGE 3

Eric Schmidt, Project Manager for Central Presbyterian Church, sings the praises of the new construction project. "The church has never had on-site parking or a dedicated youth center. Both are serving to significantly enhance our ministry," said Schmidt. "I am impressed by the way the stone and brick ties the new structures in with our existing buildings. The block laid in an Ashlar pattern provides a very attractive and economical wall construction. In addition, both the neighbors and the City of Clayton have been very complimentary of our expansion."

Architect: Core 10 Architects
General Contractor:

**ICS Construction Services** 

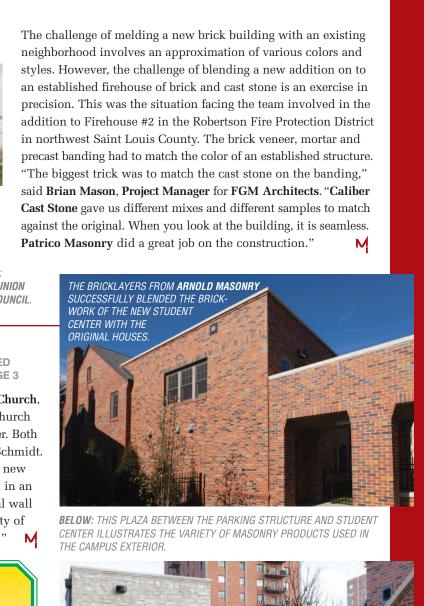
Mason Contractor: Arnold Masonry

Block, Brick, Mortar & Stone: Midwest Block and Brick

Insulation, Wire, Anchors, Rebar: Irwin Products

**Precast:** Caliber Cast Stone

**Craftworkers:** Bricklayers' Union Local #1 of Missouri, Eastern Missouri Laborers' District Council





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## Roentz, who draws much of his inspiration from visits to

European country homes, also praises the spare visual impact of the barn. "The barn is very plain and simple, but impressive," added Gene Roentz. The barn's upper story loft offers room to expand as guest quarters or studio space. There is no rush on that project, as the owners are enjoying retirement and settling into their new home.



A MULTI-LEVEL "BANK BARN" BUILT INTO A HILLSIDE COMPLEMENTS THE OLD WORLD FEEL OF THE HOUSE BY USING THE SAME COMBINATION OF EW GOLD LIMESTONE BLOCK, BRUSHED MORTAR AND ANTIQUE TIMBER THAT IS USED ON THE HOUSE.

#### THIS GARDEN WALL OF EW GOLD LIMESTONE SURROUNDS THE HOME'S FRONT ENTRANCE.

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