

A Retail Tale – Shoppes at Mid Rivers

Masonry Construction Carries the Load

The new retail center constructed of load-bearing masonry stands up strong, demonstrating superiority over competing systems.



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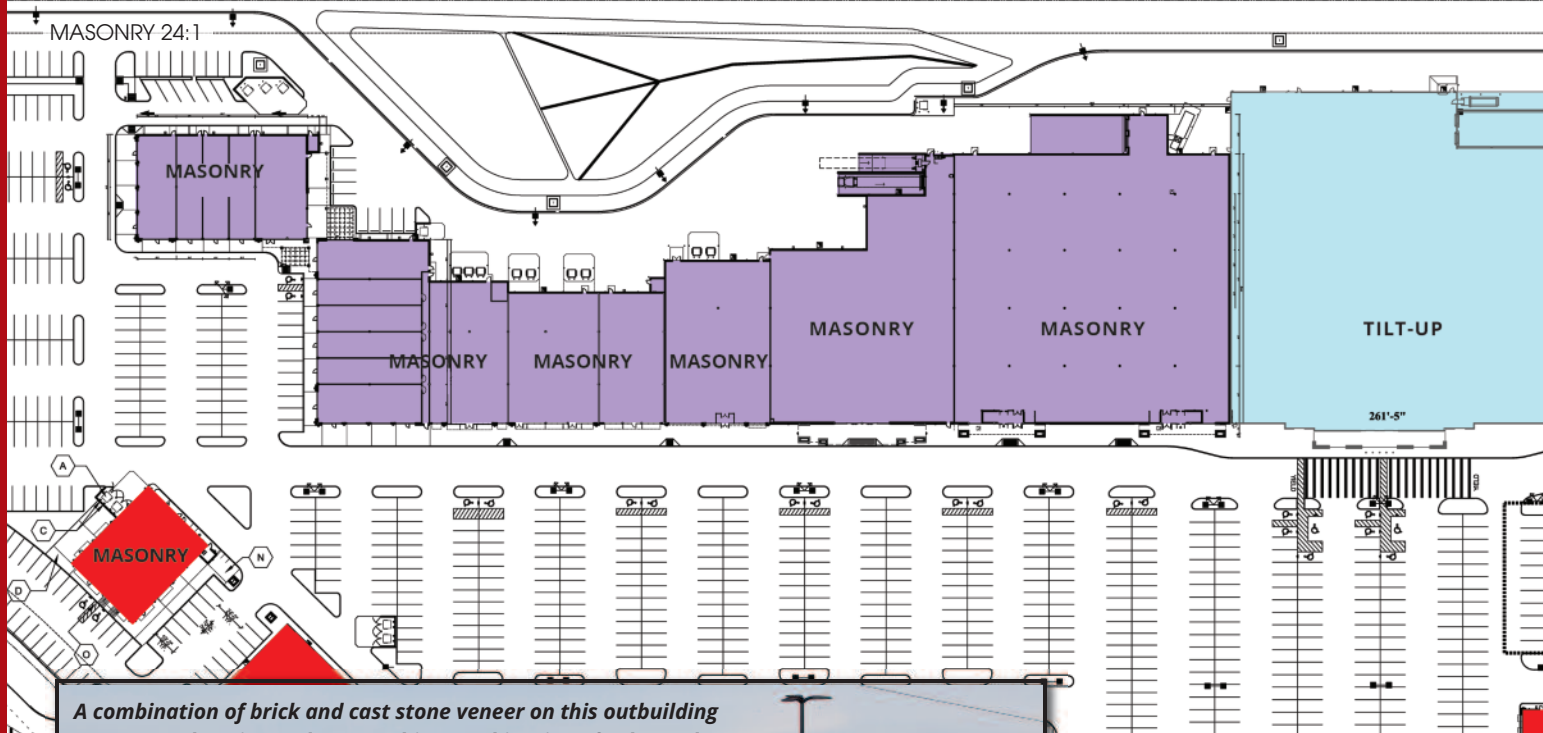
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A combination of brick and cast stone veneer on this outbuilding create a welcoming and eye-catching combination of color and textures that reinforces any brand.



"Our decision to use load bearing masonry on the majority of this project was based on cost per square foot."

Ivan Lozina,
Senior VP of Construction,
GBT Realty Corp of Nashville

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Load-bearing masonry walls went head to head with a tilt-up wall system in a new mall's construction. Masonry won – on time, on target, on budget.

The Shoppes at Mid-Rivers is the largest retail construction project in Saint Charles County in decades. This \$54 million, 270,000 square foot shopping center contains 14 stores on 28 acres.

Thirteen of the fourteen stores feature load-bearing masonry and steel construction, while only one store utilizes tilt-up wall construction.

"Our decision to use load bearing masonry on the majority of this project was based on cost per square foot," said **Ivan Lozina**, Senior VP of Construction for **GBT Realty Corp** of Nashville, TN. "We find that CMU with

steel is the more cost efficient option than a tilt-up wall system."

Academy Sports is the only tenant in the complex whose store features concrete panel walls. This choice conforms to the national chain's guidelines. However, even the tilt-up portion of this project benefitted from masonry construction.

"Without the masonry walls on its flanks, the tilt-up wall would require much heavier steel," said Lozina. "We find it more cost efficient to use the block wall adjacent to the tilt-up as a firewall."

Load bearing masonry provides greater flexibility than tilt-up, both during a project's construction and over its life.

"With masonry wall construction you can get partially into a job, take a break, do something else, and then come back to it," said **Adam Chamberlain**, Project

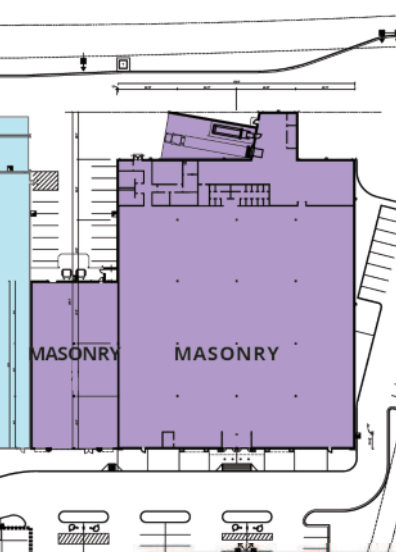
Grant Contracting Company built two of the outbuildings. These also featured load bearing CMU walls.



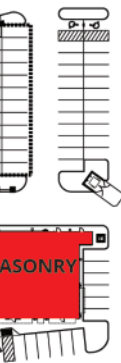
Creative uses of brick and block veneers create elegant and inviting stores for shoppers to explore.



Only Academy Sports, shown here in blue, used tilt-up wall construction. The rest of the project (in red and purple) relied on load-bearing masonry construction.



The speed and ease of concrete masonry block wall construction ensured that the mall would be completed and open in time for the holiday shopping season.



Even Academy Sports, the only store in the mall built using a tilt-up wall system, chose masonry for exterior column wraps. High traffic areas are also highly visible areas. This requires a durable, low maintenance material that is also visually pleasing.



Craft workers from Bricklayers Union Local #1 and the Eastern Missouri Laborers' District Council helped bring the project in on schedule.

Manager for General Contractor **Knoebel Construction**.

A masonry building will be well along in construction by the time tilt-up panels can be formed and poured.

"We were working on both sides of the tilt-up structure long before they started pouring their floor. We had a big portion of the structure done before they began tilting up their walls," said **Luke Seibert**, Project Manager for **Heitkamp Masonry**.

The flexibility inherent in masonry construction does not end when the building is complete. Tenants come and go in retail centers. Block walls are more adaptable to change.

"Cutting a new door and filling in an old door in a tilt-up concrete panel is much more difficult than it is with masonry," said Lozina.

A fast track project on this scale required a deep pool of talented mason

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At A Glance

Owner | GBT Realty
Architect | MJM Architects
General Contractor | Knoebel
Structural Engineer | Haines Gipson
Mason Contractors | Grant Contracting Co.,
 Heitkamp Masonry, JDS Masonry, Inc.,
 John J. Smith Masonry Co.,
Craft Workers |
 - Bricklayers' Union Local #1 of Missouri
 - Eastern Missouri Laborers' District Council
Block, Brick, Dry Goods, Mortar,
Grout, Stone | Midwest Block & Brick
Brick | Acme Brick
Dry Goods | General Material
Mortar, Grout, Accessories | Rainieri Building
 Materials
Accessories | Irwin Products, Inc.
Cast Stone | Caliber Cast Stone

Fired



The Northeast Ambulance and Fire Protection District serves seventeen small municipalities in North St. Louis County. Their new headquarters on Natural Bridge Blvd. features five apparatus bays, living quarters and administrative offices. Thanks to masonry construction, the building also serves as an emergency shelter for the community in cases of severe weather.

"This building was designed and constructed as a mission critical building. The masonry was important because it

"This building was designed and constructed as a mission critical building. The masonry was important because it was designed to withstand the 200 mph winds of an F3 tornado."

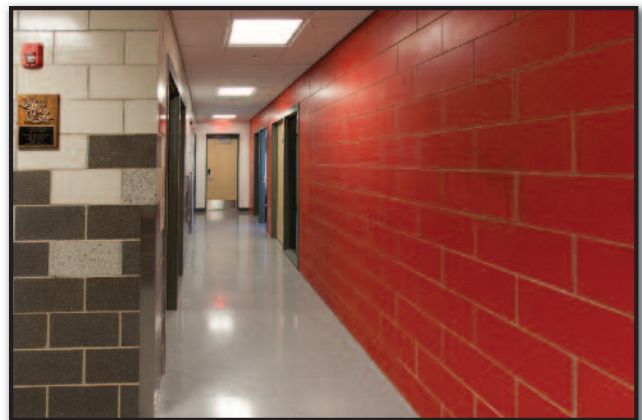
Quinten Randolph,
Fire Chief of the Northeast Ambulance
and Fire Protection District

was designed to withstand the 200 mph winds of an F3 tornado," said **Quinten Randolph**, Fire Chief of the Northeast Ambulance and Fire Protection District.

A distinctive tower clad in cast stone defines the building's main entrance on the northeast corner. Towers once



The use of reinforced concrete masonry block for the apparatus bay walls created a garage space that can double as an emergency shelter.



Additional emergency shelter space is created in these hallways, which are not only safe, but also striking in their combination of colors and textures.

Up For Masonry

Northeast Ambulance and Fire Protection District needed a new headquarters that was both mission critical and visually striking. Mission accomplished – thanks to masonry.

At A Glance

Owner | Northeast Ambulance and Fire Protection District
Architect | JEMA
General Contractor | Hankins Construction
Mason Contractor | JDS Masonry, Inc.
Structural Engineer | Alper Audi
Craft Workers |
 - Bricklayers' Union Local #1 of Missouri
 - Eastern Missouri Laborers' District Council
Block, Brick | Midwest Block & Brick
Accessories | Irwin Products, Inc.
Cast Stone | Caliber Cast Stone
Grout, Mortar | Raineri Building Materials



The architect selected a blend of multicolored brick and cast stone for the building's exterior veneer, tower, sills, wainscot and trim.

served traditional firehouses as places to hang their hoses to dry.

"The district liked the iconic idea of a tower," said **Steve Hoover**, Project Architect, **JEMA**. "We used three different textures of stone — smooth, hammered and rough — to make a pattern on the tower. We wanted the aesthetics of the tower to have some patterning."

Cast stone also wraps around the entire building's base as a wainscot and serves as sills and trim. The building's front veneer features a blend of three colors of brick. These material choices create a classically styled fire station that is well received by the community. The interior masonry construction is remarkable as well.

Single wythe walls of load bearing concrete masonry block, fully grouted and reinforced, create a vast open space for up

to five fire and rescue vehicles. Two of the bays have drive thru capability for rapid response.

JDS Masonry, Inc. constructed a space not only to house emergency vehicles, but also to shelter people during emergencies. The reinforced CMU creates a sturdy, durable structure designed to also double as a storm shelter if necessary. In addition to the garage, the load bearing masonry corridors on the first floor of the administrative side can also double as shelter. The use of a reinforced fire engine red Spectra-Glaze block on one wall and a blend of three colors of ground face block on the other walls creates a dynamic presentation for daily use that is low maintenance, sturdy and a reliable emergency shelter.

"We love this building. It is built to our exact specifications," said Fire Chief Randolph.



A Grand Entrance

Saint Louis University Builds a New Brick Threshold

Grand Hall, the newest building on the Saint Louis University campus, combines brick and cast stone with glass panels on its southeast corner. This creates a transitional structure worthy of its prominent place on campus and in the larger St. Louis community.



Masonry construction ties the sprawling **Saint Louis University (SLU)** campus together. The construction of DuBourg Hall on Grand Blvd. established the school's dedication to masonry for the past 130 years.

Grand Hall, the school's newest residence hall, echoes some of the design elements of Dubourg Hall, while establishing a new threshold for the southern approach to the campus. The interplay of brick and cast stone helps create a classic structure tied to tradition, while the glass panel design of the building's southeast quadrant projects a contemporary image.

"We wanted to be complementary to other structures on campus," said **Tom Anagnos**, Project Designer for **Hastings+Chivetta Architects**. "Our proximity to the residential towers of Griesedieck Hall set the tone for our color choices of the brick."

The seven-story, 237,000 square foot building contains 364,875 bricks and 5,000 pieces of precast stone. Home to 528 students, the building also contains a 740 seat dining hall, classrooms, lounges and an outdoor plaza. Masonry provides the perfect building envelope, as no side of Grand Hall is hidden from public scrutiny. In addition, a very tall



ABOVE: This bicentennial medallion is engraved into a set of granite pavers on the north approach to the building's courtyard.

LEFT: The building's use of cast stone at its base is a nod to historic Dubourg Hall, which is seen to the right in the background.

brick screen wall surrounds the utility area of the west side of the building to enhance aesthetics.

"The building's residential areas are defined by brick, while the cast stone corners define study lounges and community gathering spaces at the corners of the building," said Anagnos.

A cast stone wainscot wraps around Grand Hall's base, echoing the stone base of its neighbor, historic Dubourg Hall. Historic considerations aside, the cast stone clads the building in a beautiful, low maintenance, durable material that will last well into the next century.

Project Manager **Kelly Shrum** and Riding Superintendent **Brian Smith, John J. Smith Masonry Co.**, credit foreman **Bill Guidicy's** management of workflow and material to the tight and busy site, where the masons demonstrated their superior craftsmanship, bringing the project home.

The sheer volume of material needed for this building required precise coordination with suppliers for weekly material deliveries. Use of a forty-ton crane and electric scaffolds maximized efficiency on the project. Subcontractor **George McDonnell & Sons Tuckpointing and Caulking** used silicon caulking for a longer life expectancy on the critical building joints.



Brick and cast stone seat walls define this courtyard area outside the building's dining hall.

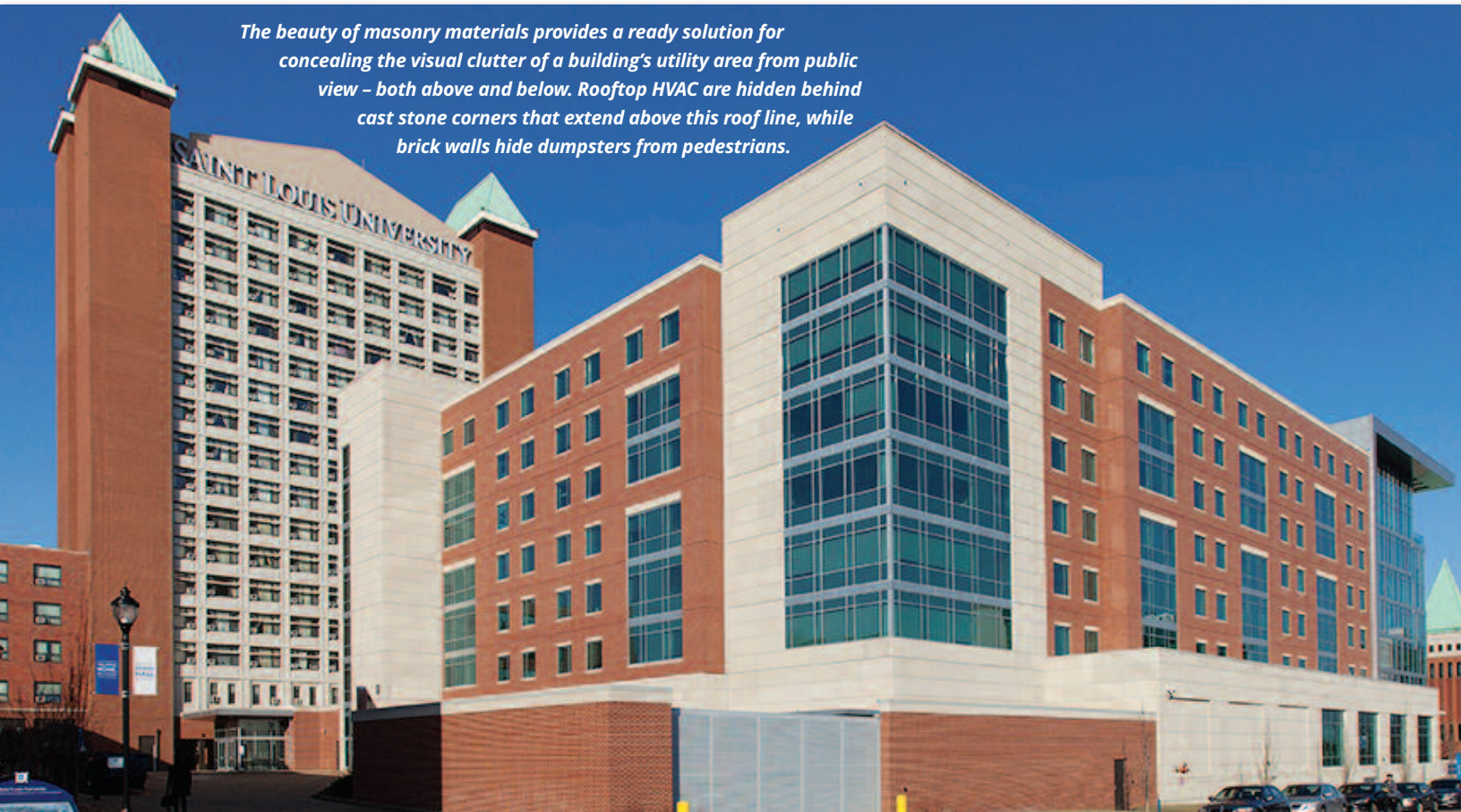
The SLU complex contains over 130 buildings. Many are masonry construction, while only Grand Hall has the prominence and position as the southern threshold of the North Campus.

"Masonry fits on every campus," said Anagnos. "Given the cost, durability and appearance it is a great material." **M**

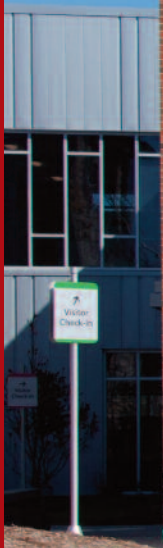
At A Glance

Architect | Saint Louis University
Architect | Hastings+Chivetta Architects
Structural Engineer | Alper Audi
General Contractor | Alberici Construction
Mason Contractor | John J. Smith Masonry Co.
Caulking | George McDonnell & Sons, Inc.
Craft Workers |
 - Bricklayers' Union Local #1 of Missouri
 - Eastern Missouri Laborers' District Council
Block | Lemay Concrete Block
Insulation | Irwin Products, Inc.

The beauty of masonry materials provides a ready solution for concealing the visual clutter of a building's utility area from public view – both above and below. Rooftop HVAC are hidden behind cast stone corners that extend above this roof line, while brick walls hide dumpsters from pedestrians.



Masonry Rounds Out the Great Circle Campus



Great Circle capped the final phase of an ambitious capital campaign with the construction of the John T. and Janet Baumstark Community Impact Center and Orthwein Fieldhouse.

"We're very pleased that the special masonry finishes serve two purposes – adding to the building's aesthetics and tying together with the existing architectural details of our other buildings," said **John Money**, Great Circle's Chief of Staff.

The architect was very conscious of the high standards of the Webster Groves

community and the campus history during the design process.

"The vernacular of the campus is consistently red brick, so the choice of red brick was set," said **Daniel Jay**, Principal and Architect at **Christner, Inc.**

Patrico Masonry served as the mason contractor for the first phase of Great Circle's capital campaign, allowing for a seamless transition to this project.

"The architect wanted the building to stand out with an accent that was different from all the other buildings on campus. They created a saw tooth

pattern of brick on the walls as a decorative feature," said **Vince Patrico**, Vice President of Patrico Masonry.

A large part of the multi-purpose building serves as a gymnasium. Concrete masonry block construction provided a solid choice for the heavy-duty daily use projected for this recreation space.

"We used block for cost and maintenance considerations. Block is a reliable, cost efficient and durable material," said Jay.

M



This limestone radius seat wall provides a visual link between the new John T. and Janet Baumstark Community Impact Center and the original 19th century rock house.



The Orthwein Fieldhouse relies on masonry material inside and out to provide a warm and welcoming space that is also resilient to the demands of an active campus.



The new community center adheres to the Great Circle tradition of brick construction.



Bricks set in a saw-tooth pattern serve as a pleasing decorative feature.



At A Glance

Owner | Great Circle
Architect | Christner, Inc.
General Contractor | BSI Construction
Structural Engineer | SSC Engineering
Mason Contractor | Patrico Masonry
Craft Workers |
 - Bricklayers' Union Local #1 of Missouri
 - Eastern Missouri Laborers' District Council
Brick | Richards Brick Co.
Stone | Earthworks, Inc.
Cast Stone | Caliber Cast Stone
Accessories | Irwin Products, Inc.
Mortar, Grout | Raineri Building Materials



The new gymnasium walls feature concrete block for its durability and easy maintenance.



Special Addition

The recent addition to Dayspring Baptist Church demonstrates the long-term benefits of masonry construction.



"The owner needed a building addition that looked like it belonged with the original, but still had some distinctive qualities to it."

David Mastin,
President, Saint Louis Design Alliance

"This project was called 'Generation to Generation', said **Chris Fillingham**, Senior Pastor, **Dayspring Baptist Church**. 'We chose brick to reflect the past generation that built the original building, as well as create something lasting for future generations.'"

The 4,200 square-foot addition includes education and office space and a new chapel. The chapel features the craftsmanship of **Toenjes Brick Contracting**, who erected brick veneer on the north and east walls to match the



The architect selected a brick veneer for the new addition's sides that are visible from the street.

color of the existing Neo-Colonial style church.

"Even with two decades intervening, we can come up with a brick that will

be compatible with the original," said **David Mastin**, President, **Saint Louis Design Alliance**. "The owner needed a building addition that looked like it belonged with the

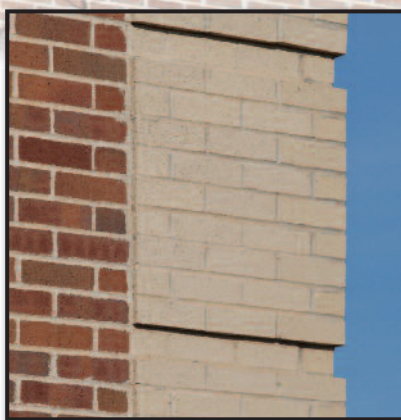


At A Glance

original, but still had some distinctive qualities to it.”

Mastin designed a circular window frame using a double row lock of brick on the top arc and a single row lock on the bottom. Four limestone keystones placed at each quarter form the outline of a cross.

“This is a detail that adds texture and interest to the design. Other materials are more limiting than masonry, they would not allow us to do this,” said Mastin.



A buff brick was used at the addition's corners to match the quoins of the original church.

Owner | Dayspring Baptist Church
Architect | Saint Louis Design Alliance
General Contractor | JHooker Construction Services
Mason Contractor | Toenjes Brick Contracting
Structural Engineer | Pillar Structural Engineering
Craft Workers |
 - Bricklayers' Union Local #1 of Missouri
 - Eastern Missouri Laborers' District Council
Brick and Limestone | Richards Brick Co.
Accessories | Irwin Products, Inc.
Mortar | Midwest Block and Brick



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contractors and craftsmen. The companies who were awarded phases of the project are **Grant Contracting Company, Heitkamp Masonry, JDS Masonry, Inc. and John J. Smith Masonry Co.**

"With the scope of this project, it could not go to a single contractor. This speaks to the depth of the talent of masonry contractors in the area. All four are very good reputable companies," noted Chamberlain.

"Our building systems are contractor friendly," said Luke Seibert of Heitkamp. "This project proves that our wall system can compete with any other wall system." **M**



Masonry pilasters, columns, column bases and wainscots provide charm and elegance to the mall's façade.

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