As Grand Rapids continues to reinvent itself from a furniture producer to an economically diverse city of various industries, many owners, developers and city leaders are taking advantage of the building inventory already available and adapting it to fit the needs of the 21st century city. Rockford Construction has been involved in building or renovating more than 2.6 million sf in the downtown area in recent years, including the transformation of the Hekman Biscuit Company’s 48,000 sf bakery into Roosevelt Park Lofts, a mixed-use, three-story building of 21 loft-style apartments and 2,000 sf of retail space in the neighborhood located southwest of downtown.

Part of Michigan’s Cool Cities Initiative to revitalize urban areas and attract and retain young, talented residents, the Roosevelt Park Neighborhood Association had been strategizing its long-term development plan and, among other things, identified the need for quality, affordable multi-family housing opportunities. Lighthouse Communities bought the old biscuit company’s building, once housing the Dutch-settled neighborhood’s largest employer and later part of the Keebler Company, which had most recently been used as an assembly facility. Low income housing tax credits financed by the State allowed them to provide a good product in a desirable package to working class people in this walkable neighborhood along Grandville Avenue, a main downtown artery.

Sound Structure Allows for Reuse

Lighthouse Communities experienced a more lucrative method of restoration and renovation by maintaining as much of the existing shell as possible. The more than 90-year-old building has a load bearing multi-wythe brick structure which, after a condition assessment and inspection by structural engineer Progressive AE, was found to be structurally adequate for reuse. East and west enclosure walls were also deemed in good shape. The south wall’s exterior wythe was comprised of a soft, porous brick and mortar into which holes had been poked over the years. In addition to lead-based paint and less than ideal additions, patches and other alterations made, the north wall had suffered damage...
from decades of freeze-thaw cycles during harsh winters. In fact, it had shifted and become uneven. Bravo Architects decided the most cost-effective option with greatest aesthetic appeal was to reskin the north elevation with a new brick wythe anchored to the existing wall. With support and direction from Progressive AE, the mason contractor was able to straighten the piers and use the new brick to create a smoother, more uniform appearance. The ironspot brick was easily matched.

Benefits Outweigh Challenges

As Rockford Construction project manager Ed Wygnal is aware, working with an existing building is a much different process than new construction. There are often incomplete, limited or all together missing plans. This was the case with Roosevelt Park Lofts. Progressive AE engineer Erica Flannery made multiple field visits to gather information on the existing structure. Older buildings often have damage from wind, weather and other natural forces and from people. Unforeseen conditions arise in the field. Restoration and renovation projects usually have to be brought up to code, as codes have likely changed since the building’s inception. Challenges abound, but these projects are fulfilling because of the benefit of retaining something with cultural heritage and the positive response of the community.

Some of the challenges facing the Roosevelt Park Lofts project team included major life safety issues and smaller nuisance issues. Because fire ratings did not meet current code requirements, nor did the current layout comply with the Americans with Disabilities Act (ADA) standard of accessible design, two new CMU stair towers and an elevator shaft were constructed. This construction took place between existing heavy timber bays and floor structure. Performing dual roles, the new tower walls fulfilled the building code’s requirement of two separate means of egress and the ADA directives, code’s requirement of two separate the new tower walls fulfilled the building and floor structure. Performing dual roles, the new tower walls fulfilled the building code’s requirement of two separate means of egress and the ADA directives, code’s requirement of two separate

Century-old masonry had to be blended with new mid-wall, a creative challenge for the mason contractor. Lead paint was sand-blasted off the building, leaving the brick in good condition, but frequent graffiti tags during construction could have created delays. By sealing the masonry, graffiti was easily cleaned and the walls looked like new.

More than 6,000 brick were reused from the original structure in the renovation process, keeping costs low and minimizing the amount of new product that needed to be produced and transported. Both the owner and architect were interested in maintaining the historical and industrial character inside and out. Interior brick is left exposed and as is in many places for aesthetic value. Architect Genaro Bravo explains, “Our goal was to bring back the old knowing that the old brick would be irregular in color and texture.”

Renovating and adapting an existing building for a new use alone speaks to the building’s sustainability. The project team continued to build on environmentally beneficial decisions and contributions throughout the project. Locally manufactured CMU used on the stair towers, elevator shafts and as building accents contained 50% pre-consumer and 1% post-consumer recycled content. Mortar contained 5% pre-consumer recycled content of the cement portion and the rest of the bag is sand, a plentiful natural and local resource. Salvaged brick were reused and new brick came from within 500 miles.

Sustainable Masonry

All of the above would contribute to LEED points were they being sought, but it isn’t just meeting criteria of a rating system that determines a sustainable building. Masonry’s inherent qualities make it a flexible, beautiful and long-lasting wall system and an obvious choice for adaptive reuse projects. Masonry buildings are the only buildings with enough structural integrity and material resources to adapt for new life. There is no other building material that can seamlessly infill unnecessary existing openings and create new ones as well as masonry.

Renovating and adapting an existing building for a new use alone speaks to the building’s sustainability

Dave Erickson, sales manager with Michigan Certified Concrete, says to rely on masonry for its:

• Immediate availability
• Modularity for getting into tight pre-existing areas
• Mold resistance - not a food source
• Excellent fire ratings
• High system performance with single source responsibility
• Low life-cycle costs
• Low maintenance costs
• Low initial costs
• Durability
• No shop drawings required
• Effective anchoring system for stone and brick veneer
• Thermal resistance
• Thermal mass efficiency
• Sound resistance
• Moisture resistance
• Use of regional materials which reduces environmental impact of transportation and supports local economy and labor
Roosevelt Park Lofts

- No steel X-bracing required
- No complex foundations required

Erickson continues, “The community benefits by maintaining a consistent architectural structure which embodies its history and attracts businesses that want to be in that building for a long time to come. In addition to architectural presence, tenants create jobs and generate tax basis for the community.” From its service as a bakery, an assembly facility or a mixed use commercial/residential facility, this nearly century-old building will contribute to its surroundings into the next century.

Ken Bailey, executive VP Rockford Construction, has a broad range of project management, financial management and architectural design skills. Bailey is active in many organizations throughout the Grand Rapids community, including service as a board member of the Associated Builders and Contractors, Western Michigan Chapter. He has a BS in Construction Science and Management from Western Michigan University.

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A structurally sound building, the exterior required primarily aesthetic improvements. Structural enhancements were made to satisfy new occupancy requirements.