

# IMPACT OF A BUILT ENVIRONMENT

DESIGNING AFFORDABLE HOUSING FOR  
VETERANS AND THE COMMUNITY

A VICTORY MANOR CASE STUDY

**QUORUM ARCHITECTS, INC.**  
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Quorum Architects, Inc.





## DESIGNING AFFORDABLE HOUSING FOR VETERANS AND THE COMMUNITY

Homelessness is a persistent problem amongst returning veterans, largely due to the lack of affordable housing and access to supportive services [1,2]. The Housing Authority for the City of Milwaukee (HACM) and its development arm, Travaux, recognized this gap within the city. As part of its Westlawn Gardens development on the north side of Milwaukee, HACM invited Quorum Architects, along with Torti Gallas and Partners, to design affordable housing for homeless veterans and the community.

The Victory Manor, a three-story apartment building, is a project for veterans which demonstrates an innovative approach to financial, environmental, and social sustainability that pleases both residents and city planners. Providing stability to low-income and homeless veterans through safe, secure, and permanent housing is the overarching goal. The design addresses issues that affect veterans as a group, particularly the lingering effects of post-traumatic stress disorder (PTSD).

Quorum Architects designed environmentally friendly spaces aimed at reducing PTSD triggers and allowing for greater camaraderie and sense of pride among residents. Victory Manor is certified as a Leadership in Energy and Environmental Design® (LEED) GOLD rating as part of Westlawn Gardens, which is the first LEED-ND certified community in Wisconsin.

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Photo Credit: Housing Authority of the City of Milwaukee

## AN INTRODUCTION TO WESTLAWN GARDENS

Westlawn Gardens is Wisconsin's largest public housing neighborhood. The 75-acre site has transformed from an aged and stressed community into a vibrant, mixed-use and mixed-income neighborhood. Through an inclusive and participatory planning process, Westlawn Gardens is changing the perception of public housing by demonstrating that public housing can be attractive, sustainable and healthy.

In 2009, the \$82 million first phase created 250 new affordable housing units funded through the largest Low-Income Housing Tax Credit award in the state's history. The second phase of the redevelopment began in 2018 with the commencement of Victory

Manor. Phase two is estimated to be completed in 2021, doubling current available housing (958 units are anticipated) and providing additional market rate homes and rental units intermixed with public and affordable housing<sup>[3]</sup>.

westlawn  
gardens





# AN INTEGRATED PROCESS

Torti Gallas and Partners led the overall first phase design of the multi-acre project, then joined with Quorum Architects and Eppstein Uhen Architects as integrated team members for the second phase. The three firms worked together to develop an architectural pattern language to best serve the project and its residents.

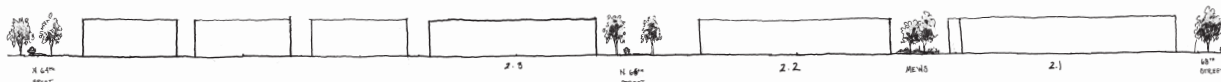
The three firms worked side by side on the multi-family buildings to develop common material palettes and color sets. They also toured multiple Milwaukee neighborhoods to help consider context, materiality, proportion, density and detailing when integrating the Westlawn Gardens Phase Two buildings into the neighborhood. The partners collaborated on the street edge multi-family buildings, as well as on the overall site plan, landscaping, hardscape and integration of public art.

Through a series of day-long charrettes, the firms pinned up their designs to demonstrate a continuous street elevation and made collaborative design adjustments to seamlessly integrate with the neighboring buildings.

After the charrettes, Quorum Architects took the ideal building massing and materials for Victory Manor into schematic design and eventually through construction documents.

As the building design progressed, live Building Information Models (BIM) were linked into a 3D environment so the design team could visualize the entire development to ensure the design flowed from one building to the next. This linked model also gave the team the ability to look at potential exterior spaces, which helped further develop the landscape and hardscape design.

Through BIM, the design team shared common building details, materials, and specifications to ensure the initial collaborative design would carry through to completion of the other Westlawn Gardens Phase Two projects.



### 3 ABOUT THE BUILDING



Victory Manor is designed to mark the corner of the Westlawn Gardens housing development as a three-story L-shape with 60 one-bedroom units and several public and semi-public amenity spaces. Of those 60 apartment units, 12 are ADA accessible. The other 48 are designed to the same standards with the flexibility to easily modify plumbing fixtures and countertops for enhanced ADA accommodations if needed. Six units are designed to be market-rate, which includes finishes and materials of a higher quality and a dishwasher in the apartment kitchen.

#### BUILDING FACTS

PROJECT NAME	VICTORY MANOR
OWNER	HOUSING AUTHORITY FOR THE CITY OF MILWAUKEE
ARCHITECT	QUORUM ARCHITECTS, INC.
LOCATION	MILWAUKEE, WI
CLIMATE ZONE	6
LEED V4 CERTIFICATION	GOLD
NUMBER OF UNITS	60
NUMBER OF FLOORS	3
COST OF CONSTRUCTION	\$12.8 MILLION







## FIRST FLOOR PLAN



## TYPICAL FLOOR PLAN



"We Recycle Buildings"<sup>SM</sup>

## KEY GREEN FEATURES

- Variable Refrigerant Flow System that allows for simultaneous heating and cooling.
- Increased insulation values
- Low-flow, WaterSense® certified plumbing fixtures
- Airtight construction
- Energy Star® appliances
- Cool roof to mitigate the heat island effect
- 37% less water use than typical building
- Home Energy Rating System (HERS®) Index rating of 46; 54% more energy efficient than standard home.



## SUSTAINABILITY

As the first LEED-ND (Neighborhood Development) certified community in Wisconsin, Westlawn Gardens is a champion for environmentally sustainable development. One home even served as a LEED Platinum case study. As part of the Westlawn Gardens community, Victory Manor is the first LEED v4 Multifamily building in Milwaukee, WI to be certified under the LEED for Homes certification. Quorum's design team implemented many sustainable design strategies which included limiting volatile organic compounds (VOCs) for all interior finish materials, energy-efficient lighting with daylight controls, low-flow plumbing fixtures to conserve water, high insulation values and energy-efficient windows.

Energy efficiency and sustainability were high priorities, given long Wisconsin winters. Residential units are built with durable, weather-resistant materials and insulation to prolong their lifespan and minimize maintenance and heating costs.

Victory Manor is certified to Energy Star v3 standards and was recently awarded LEED Gold achieving 72 points out of 110 possible. LEED certification guarantees an in-field tested and verified sustainable development.



# CONNECTING RESOURCES

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Victory Manor is designed to be Veterans Housing Preference, which means that any veteran or active military personnel who applies for housing with HACM is given preference over any non-military applicants. Additionally, the six market-rate units in the project have been signed under a master lease with the Center for Veterans Issues (CVI) and are to be used exclusively to house homeless veterans, under the CVI Transition-in-Place program.

HACM is also partnering with CVI to provide supportive services for the veteran residents. These services include education, training, employment assistance, case management, benefits assistance, temporary financial assistance, peer-to-peer counseling, other counseling (alcohol and other drug abuse, life skills and mental health), referrals, and on-site recreational activities to complement the services available at the nearby Silver Spring Neighborhood Center.

The group room offers space for 12-person peer-to-peer and group counseling sessions. A fitness center and adjacent wellness room allows residents to take care of their health and schedule time with a visiting nurse/wellness professional for physical therapy follow up. The business center provides computers and copy/printing resources. CVI also will provide resume writing, online job search and application assistance. Residents are permitted to use the business center for personal use, such as online education and personal finance.

"I love that I can wait in the lobby and visit with neighbors as I wait for the weekly shuttle to the VA for art class."

-CURTIS C.  
Victory Manor Resident and Veteran





Photo Credit: Housing Authority of the City of Milwaukee

## A GATHERING PLACE

Each apartment unit has a front door designed to provide a “front porch” or set back along the corridor. This space is defined by a built-in shelf near the door and a ceiling feature that is slightly lower than the corridor.

This design allows residents to give their units’ entry a personal touch. For some this is helpful to identify their door apart from many others. It was carefully designed to maintain uninterrupted sightlines, extending views past the exterior enclosure and providing a connection between exterior and interior. The idea was influenced by the team’s research into the needs of persons with PTSD<sup>[4]</sup>.

The main corridor on the first-floor acts as an interior front porch for the residents to encourage interaction, while also providing a space to see the comings and goings of the building – a popular activity for this community. Quorum Architects’ research indicated that it is important to encourage camaraderie among the veteran community and residents<sup>[4]</sup>. This can be achieved by providing more space for community areas, rather than to the individual apartment units.

Neighbor input indicated the importance of a large space for community events. The Community Room, a multi-purpose space that can accommodate up to 100 people, is designed to be available to the larger Westlawn Neighborhood Community. The space is flexible for a variety of functions, including the yearly HACM resident meeting, resident workshops, meals, job training and other supportive services.

Once within in the private residential areas, residents have access to floor-specific lounges such as a media space, library and game room. Across from the elevator at each floor is a public memory wall, where residents can display photos, items from their time in active duty, or community postings.

“The way you guys designed it is great. It’s so easy to access everything and easy to maintain.”

-CALVIN O.  
Victory Manor Resident and Veteran



## ELEMENTS OF DESIGN

A connection is created between the interior and exterior through various design elements:

- Stained wood is brought into the interior to bring warmth and natural texture to the seating area along the main corridor.
- The connection between the inside and outside is heightened through large glass doors and windows at the entry points.
- The main corridor allows for uninterrupted sightlines so residents can see who is approaching long before they pass through a door.
- The floor tile pattern in the main interior corridor mimics the stained concrete on the exterior, allowing the feature to visually reach beyond the physical thresholds.
- The finishes are styled in various shades of blues, greens, warm greys and wood tones, taking inspiration from nature and bringing the outside in.



The mural in the lobby of Devil's Lake State Park is by Wisconsin based photographer, Jarob J Ortiz. Jarob is an alumni of MATC, veteran of the US Airforce and has been a National Parks photographer since 2016.

The overall shape and materials used on the exterior of the building is representative of the uses within:

- Public spaces, such as the first-floor community room and service provider offices, are celebrated with large glass windows, large monolithic panels and oversized masonry brick.
- Residential areas are clad in traditional lap siding and standard brick masonry.
- The major building entries are easily recognizable by the repeated use of blue metal panels which fold to create a flag shape.
- Stained wood is used in the large sunshades on the west face of the building as well as at the drop-off area at the main entry.



## 9 MATERIALS MATTER



Victory Manor is meant to be comfortable for everyone, but especially for someone experiencing the effects of PTSD. Quorum Architects' research into this led to the selection of materials that dampen sound, choosing soothing colors in blue and green tones, and patterns in fabrics and finishes that are linear and have straight lines.

Quorum found that people often don't pay attention to mood lines in their everyday lives, but for someone with heightened senses or PTSD, they can

be a trigger. Straight lines (horizontal and vertical), continuous patterns and 90-degree angles, for example, convey a feeling of being stable, positive, bold and structurally strong. Angular lines or sporadic lines and patterns convey feelings of being unstable, erratic and confusing.

Architecturally, the blue flag element at the outside of the building entry conveys the structural and stable feeling.





This stability continues in the interior of the building with the horizontal, linear wood ceiling flag element in the main lobby, as well as the front porch ceiling soffit design and paint scheme at each individual unit entry. The flooring patterns are also linear.

The selection of a color scheme also is taken into consideration. Quorum knows that the colors in this environment should be calming and relaxing while also taking inspiration from nature. Various shades of blues, greens, warm greys and wood tones are used throughout in both finishes and furnishings. These natural tones and shades create a soothing sense of calm, which has been shown to help residents mentally and physically heal faster.

Through research, Quorum's designers found that using colors in red and orange tones can create a trigger for someone who might associate those colors with negative experiences either in their personal life or military duty. Paint application is used as wayfinding with various shades of blue and green are both the elevator and unit entries to help occupants associate that color to the floor they live on. The wood ceiling and wall element in the main lobby, as well as the use of wood in all furnishings is a way to warm up the various green and blue tones while also bringing in other elements of nature

The use and application of materials is also designed with heightened senses in mind. Throughout the main corridors on the residential floors, designers evaluated carpeting versus hard surface flooring. Cleanability and maintenance are factors for considering hard surfaces, as well as the ease of using a walker or wheelchair. In the end, carpeting was selected as a sound-dampening material to prevent loud, echoing noises that could be a trigger for PTSD occupants.







## DESIGNING FOR THE INDIVIDUAL

The principles of universal design are embedded throughout the building to allow full accessibility to everyone, no matter their ability. It is important to integrate accessibility elements in a thoughtful way so as to not call attention to them. Sometimes individuals struggle to accept their disability, are embarrassed or simply do not want it to be the focal point of their home.

Several residential units have gone beyond basic accessibility to also have roll-under bathroom vanities, roll-in showers with integral shower seat, and kitchen controls accessible at seated height. All these characteristics assist in creating an environment that feels stable and calm.







## CREATING SPACES OF OWNERSHIP

Quorum Architects' research found that veterans looking for housing, especially individuals who are homeless, want a space where they can regain their sense of value, pride and worth – things they are sometimes lacking after being away from home or overseas for long periods of time<sup>[4]</sup>. Veterans, and all residents, look for a place they can call their own, fill with their belongings and items they are proud of and begin to rebuild their lives.

Quorum's research also found that it is important to create personal space or "defensible space" – an area where individuals can gain ownership, display personal items and create a buffer between the public spaces and their private units<sup>[4]</sup>. At each unit entry a built-in shelf also can be used to display personal items or act as a usable space when bringing in groceries, bags or other belongings.



## 13 IN CONCLUSION

When designing for homeless veterans, Quorum Architects understands how important it is to think how building design can support healing and comfort for each resident. Communal living and recreation spaces within the public areas encourage a sense of community. Welcoming lobby areas encourage residents to mingle and create relationships with their neighbors. Bringing supportive service spaces into the building provides access that residents and veterans might not have had otherwise.

The Westlawn Gardens neighborhood, and the apartments within Victory Manor, is a thriving community, and each new development seamlessly integrates itself into the context, creating safe, comfortable housing for all.



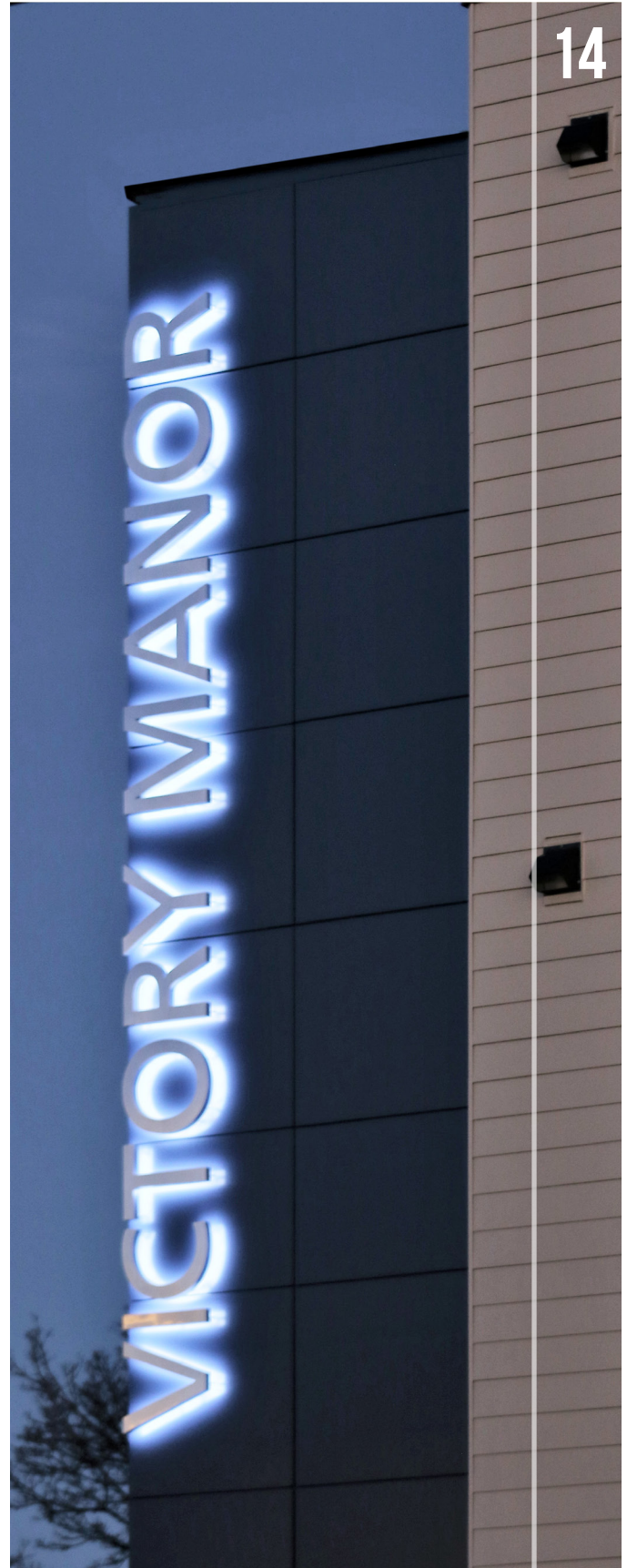


## TEAM

<b>Owner</b>	Housing Authority for the City of Milwaukee
<b>Urban Planner</b>	Torti Gallas and Partners, Inc.
<b>Architect and Interior Designer</b>	Quorum Architects, Inc.
<b>Structural and Civil Engineer</b>	raSmith
<b>Landscape Architect</b>	Ayres Associates, Inc.
<b>Electrical Engineer</b>	GRAEF
<b>Mechanical and Plumbing Engineer</b>	Thunderbird Engineering
<b>LEED Consultant</b>	Sustainable Building Solutions

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## ABOUT QUORUM ARCHITECTS

Quorum Architects, Inc. is an urban revitalization firm specializing in renovations to the existing built environment. We are a diverse group of 22 design professionals with six registered Architects, a Landscape Architect, and two Interior Designers. Quorum's strengths include the ability to listen carefully to our client's specific needs and adapt those needs to fit within the unique constraints of each building and site we encounter. We believe in a holistic approach to design, with all of the design fields working together in order to create a harmonious and unified finished product. Our commitment to meeting, and striving to exceed, our client's needs makes us fully qualified to participate in any type of project.



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