



Mithun

Maceo May Apartments

A Healthy Island Home for Formerly Homeless Veterans and their Families

Building Design + Construction, Residential

In 2017, Hilary Noll at Mithun and project owners at the non-profits Chinatown Community Development Center and Swords to Plowshares engaged the Association for Affordable Energy to build an affordable housing development on Treasure Island, San Francisco.

The team utilized the LEED Health Process throughout their multi-family residential housing design, construction and operation process to promote population health, well-being, and equity for formerly homeless veterans in the Bay Area.

On an artificial island in the middle of San Francisco Bay, two San Francisco non-profit organizations - Chinatown Community Development Center (CCDC) and Swords to Plowshares - partnered to create a safe and healthy home environment for California veterans who have experienced or are at risk of homelessness. With additional funding from the Veterans Housing and Homelessness Prevention (VHHP) Program and guidance from health and sustainability-promoting

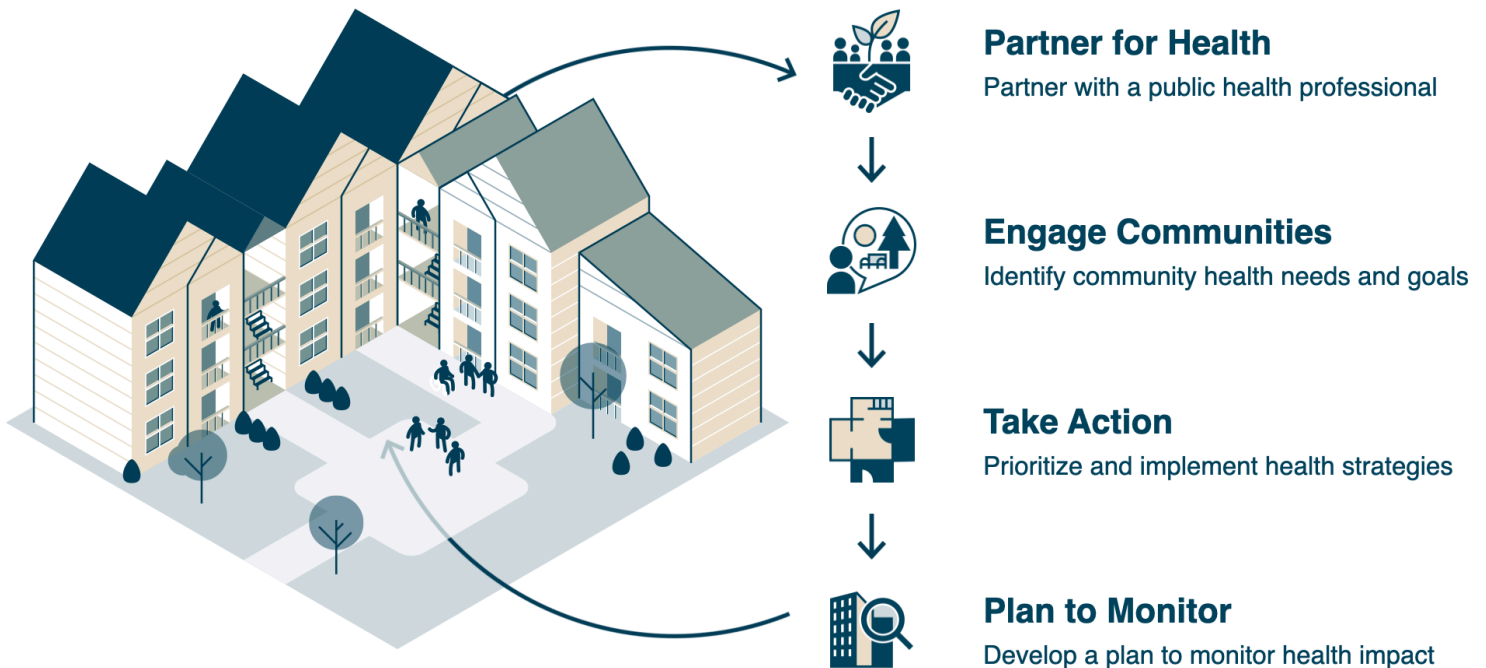
design organizations, the interdisciplinary team set out to build the Maceo May Affordable Housing Development.

Treasure Island was constructed in the 1930s just below the Golden Gate Bridge where it served as a naval base until 1997. When the base was decommissioned, the city of San Francisco (and Swords to Plowshares) set aside the old military units to be used as housing for homeless veterans. In 2016, it was announced that the island would undergo a 20-year, \$6 billion master redevelopment plan to create 8,000 new homes, 500 hotel rooms, 300 acres of parks and open space, 140,000 square feet of retail, and 100,000 square feet of office space, all certified by the LEED for Neighborhood Development rating system.

Maceo May, one of the many new mixed use housing projects currently underway on the island, was championed by the innovative architects at Mithun. The Maceo May team strove for peak performance in both sustainability and health and made the decision to pursue both a California GreenPoint Rated and Fitwel certification. As an affordable housing development specifically catering to formerly homeless veterans, the

project team deemed it crucial to prioritize the specific needs of the population in the housing design. The team decided to apply the LEED Health Process to guide their approach to health promotion and their selection of specific strategies within both the GreenPoint Rated and Fitwel programs.

The LEED Health Process



The LEED Health Process helps built environment project teams consider and promote population health and well-being as a formal part of their green building strategy.

The LEED Health Process is available as the **LEED v4 Integrative Process for Health Promotion pilot credit** and within the LEED v4.1 Integrative Process credit. The process is also aligned with 2020 Enterprise Green Communities Criterion 1.5, Design for Health and Well-Being. The Green Health Partnership, an initiative of the University of Virginia School of Medicine and the U.S. Green Building Council, developed the process in collaboration with Enterprise Community Partners and the Health Impact Project, a collaboration of the Robert Wood Johnson Foundation and The Pew Charitable Trusts.



Aerial render of Treasure Island, courtesy of Steelblue

“All of Maceo May’s resilient design strategies come back to clear health and quality-of-life benefits for residents.”

- Joanna Ladd, Associate Director of Housing, Chinatown Community Development Center

Partner for Health. Through the research and development partnership between Mithun and the Green Health Partnership, the Maceo May team was able to engage Daniel Lau, a public health professional with experience in community and economic development, as their health partner. Health experts can come from many professional backgrounds, be either internal or external to an organization, and can help teams apply a health perspective to their project. Given the team’s expertise in affordable housing, many team members had some experience working on health-promoting projects.

Daniel was able to use his public health background to facilitate deeper discussions on health and well-being and to encourage the team to apply more holistic definitions of health, often going beyond physical health to include the social determinants and mental health challenges most likely to affect the formerly-homeless veteran population.

PROJECT TEAM

The interdisciplinary Maceo May development team included stakeholders from the following departments and disciplines:

- **CO-OWNERS.** Chinatown Community Development Center (CCDC) and Swords to Plowshares.
- **ARCHITECT & LANDSCAPE ARCHITECT.** Mithun.
- **SUSTAINABILITY.** Association for Energy Affordability.
- **MECHANICAL & PLUMBING ENGINEER.** Engineering 350.
- **ELECTRICAL & LIGHTING ENGINEER.** Integral Group.
- **STRUCTURAL ENGINEER.** Structus.
- **HEALTH PARTNERS.** The Green Health Partnership.

MACEO MAY APARTMENTS PROJECT STATISTICS

LOCATION	PROJECT TYPE	CERTIFICATIONS	SITE USERS	UNITS	SQ. FOOTAGE	ARCHITECT
Treasure Island, San Francisco, CA	Multi-Family Affordable Housing, New Construction	GreenPoint Rated, FitWel, and LEED Health Process	Veterans experiencing or at risk of homelessness, their families.	105 (Mix of 2br, 1br, and Studios)	~ 114,850 sq. ft (Structure)	Mithun

Engage Communities. The Maceo May project has a unique intended audience as it is specifically being built as housing for formerly homeless veterans and their families living in a rapidly-expanding and gentrifying San Francisco. One of the non-profit project owners, Swords to Plowshares, has a mission specifically committed to improving the lives of veterans. The Maceo May team was able to leverage this owner's extensive knowledge and experience to appropriately assess the needs of the community and set goals for the project.

After engaging owners, stakeholders, and members of the intended community, a few key points about the health needs of the population became clear, the incoming residents would benefit from:

1. Improved community-building that encourages and fosters interaction between residents to reduce isolation and improve social cohesion, a determinant in both resilience and good mental health.
2. Improved opportunities for physical health and activity, and
3. Increased access to nutritious and healthy food options.

MACEO MAY SUSTAINABILITY GOALS

- LEED v4 Platinum ND (Treasure Island Neighborhood)
- All-Electric / Zero Carbon Ready
- Net Zero Energy for Common Area Loads
- Fitwel Certification
- GreenPoint Rated Platinum

There were also more targeted needs for the veteran population; notably, creating a safe and secure community for residents and their visitors. And, the project established a goal of helping the veteran residents age in place with support from Maceo May. In addition to health goals, it was important the project team maintain focus on their goals for both sustainability and resiliency, which would also contribute to an overall feeling of safety and security within the community. Treasure Island community development was already slated to be LEED v4 Platinum ND certified, and the team set explicit goals for all-electric, low-carbon operations, low embodied carbon, and increased resilience in the event of Bay Area natural disasters like heat waves and wildfires. Utilizing an overarching health process helped the project team take an integrated approach to considering its health goals alongside its sustainability goals.

MACEO MAY HEALTH GOALS

- Community-building that encourages and fosters interactions between residents.
- Improved considerations for resident mental health.
- Safe and secure community for residents and visitors.
- Improved physical health and activity.
- Improved nutrition and accessible healthy food options.
- Considerations for veterans - aging in place, designated and isolated smoking areas.
- Resiliency in the event of natural disaster.



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Take Action. Through their application of a health-promotion process, the Maceo May team designed a holistic plan of health and well-being promotion features for the housing development based on their established health goals. Many of these designs are acknowledged and rewarded in Fitwel, including features to improve physical activity (bike parking and accessible stairways) and connection with nature (a community garden). The unique needs of the veteran population required more creative design solutions, the Maceo May team addressed these needs by designing space for on-site resident services and programs that promote health, clinical offices for full time case workers, and communal gathering spaces for social interaction to address the resident mental health and isolation.

Indoor air quality strategies, like the installation of ventilators with MERV 13 filters to filter fine particulate matter and airborne debris, address health issues for residents with compromised immune systems in an area susceptible to wildfires. The team also implemented features specifically aimed to help residents age in place, like a modular kitchen design that facilitates the transition for residents who lose mobility or become wheelchair bound.

There were also more nuanced design challenges for the Maceo May team, such as how to address tobacco use. Labeling a building “tobacco free” is a LEED prerequisite and a common health design tactic, but the team understood the larger social and mental health role that smoking plays among veterans, many of whom are battling greater challenges like mental illness. After consideration, the project team prioritized resident ownership and autonomy by including an isolated and controlled area on the rooftop for smoking. An intentional health promotion process can help teams address difficult decision-making moments like this one and prioritize action according to the population’s most pressing health needs.

“During eco-charrette discussions with the owners, we learned that many of the residents suffer from PTSD [post-traumatic stress disorder] symptoms. One of the best evidence-based design strategies to help someone with PTSD to heal is to create conditions of continuity in daily life.”

- Hilary Noll, Architect, Mithun

Needs-Based Solutions at Maceo May

Health Need

Health Solution

A Safe Community

Design for Security and Resilience

Gated spaces, locks, and programming for community building create a sense of safety among Veteran residents. The Treasure Island building is also designed for resilience in the event of a natural disaster - for example, all-electric energy to prevent gas leaks and explosions due to seismic activity.

Reduced Hunger

Program for Accessible Nutrition

A benefit of building within a LEED ND community, Maceo May residents will have access to healthy food on Treasure Island. Gardens with culinary and food crops, healthy options in vending machines, and drinking water stations are all available within the development.

A Healthy Culture

Plan for Equitable Care

Utilizing both design and programmatic strategies, the Maceo May team sought to create a home environment where residents felt their daily lives were filled with meaningful, healthy activities. Opportunities for physical activity, connection with nature, and access to specialized healthcare programs were prioritized.





“Our efficient all-electric building and large solar array are an insurance policy against rising utility costs over time, which is huge for affordable housing developers with small reserves and operating budgets.”

- Joanna Ladd, Associate Director of Housing, Chinatown Community Development Center

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Plan to Monitor. A large portion of Maceo May’s monitoring and evaluation plan will focus on their strategies to build resilience and maintain building efficiency. Because the project intends to use all-electric power, solar, and will be NetZero Carbon Ready - meaning, no natural gas - the residents will benefit from both energy efficiency and protection from the risk of explosions and methane leaks caused by seismic activity in the area. The apartments will also be equipped with occupancy sensors and daylight dimmers to limit electricity consumption and monitor usage over time.

The success of Maceo May’s sustainability and health and well-being amenities like bicycle storage and repair, forested healing garden, playground and cookout area, childcare, and access to adjacent parks and trails plan to be monitored for resident and community usage. Monitoring utilization of such spaces will allow the owners to make any needed adjustments to programming to continue supporting a sense of community for residents of Maceo May and Treasure Island.

Conclusion. Upon its completion in 2022, the Maceo May Affordable Housing Development will be a part of a rapidly growing and vibrant San Francisco community that prioritizes health and sustainability in equal measure. Aligned with the health-oriented missions of its non-profit owners and designers and guided by a needs-oriented approach to health and well-being promotion, the Maceo May team implemented designs to address their targeted health goals for the project’s population of formerly homeless veterans and will provide a safe, equitable environment for all who live within the community.

The Maceo May project, and the collaborative team responsible for its design, demonstrate that even an informal application of a health promotion process can create value for a population beyond the standard built environment process. As the San Francisco skyline continues to rise and change around them, veteran residents of the Maceo May Affordable Housing Development can feel secure in their community knowing that their healthy, resilient homes were built just for them.

Maceo May's Application of the LEED Health Process

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- **HEALTH PARTNERS.** The Green Health Partnership.



Partner for Health. The Maceo May team used their own experience working with health-related projects and called upon GHP team member Daniel Lau to facilitate deeper discussions on health and well-being.



Engage Communities. The project team set health and well-being goals for Maceo May based on the needs of future residents and community members. Aging in place, resilience, clean air, and mental health were priorities.



Take Action. The team selected design and programmatic strategies - like physical activity-promoting features, community services, and temperature and acoustic control - that would address the health needs of the residents.



Plan to Monitor. The team at Maceo May will continue to monitor the effectiveness of their chosen strategies throughout the life of the apartment building. The health process will help them reassess their priorities in the face of new health challenges.

TIMELINE OF EVENTS

2017,
WINTER

Treasure Island community meeting to discuss the upcoming plans for the affordable housing development.

2018,
WINTER

Mithun hosts a sustainability, health, and well-being charrette with Swords to Plowshares and CCDC.

2018,
YEAR-ROUND

Bulk of future resident and community engagement - done by Mithun, Swords to Plowshares, and CCDC - takes place.

2018,
YEAR-ROUND

Mithun formally invites Green Health Partnership to participate in the development of the new veteran's affordable housing project.

2019,
FALL

Schematic design, permitting & financing, and design development take place between Mithun, Swords to Plowshares, CCDC, and Treasure Island developers.

2021,
FALL

Construction begins on Maceo May Apartments.

2023,
EARLY

Estimated project completion, new residents move-in.



Who we are

Founded in 2013, the Green Health Partnership (GHP) is an academic research and development group between the University of Virginia School of Medicine and the U.S. Green Building Council with funding from the Robert Wood Johnson Foundation. GHP utilizes the green building movement as a platform and blueprint for creating a self-sustaining, scalable market for health promotion within the real estate industry.

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