

Waukee Public Safety Building

City of Waukee



Dual Use Facility Serves Growing Community & First Responders

A new headquarters for Waukee's police and fire departments will better serve both the community and the first responders who serve and protect the growing midwestern city.

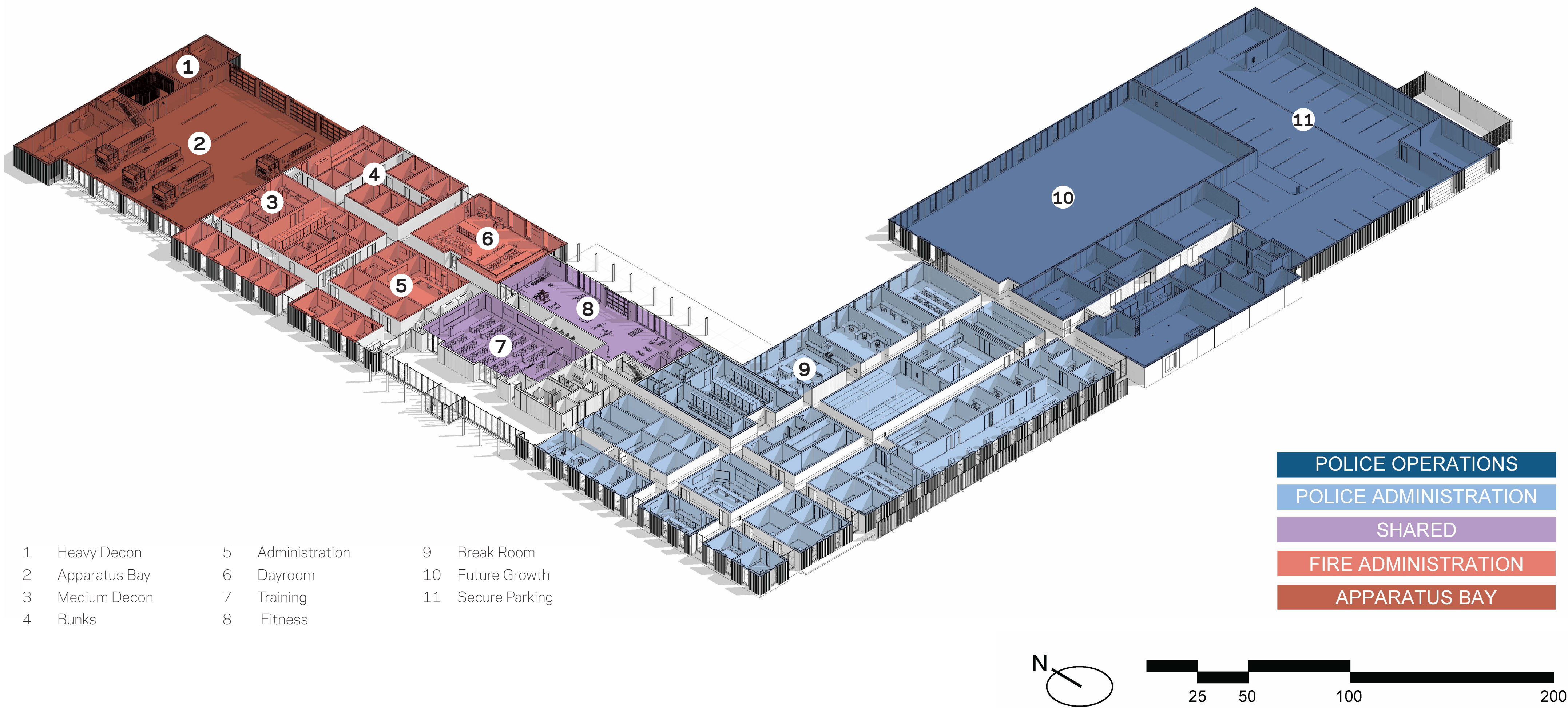
Health, wellness, and performance all drove the design of the single-story facility at the intersection of two major thoroughfares.

The site's grading as well as a need for efficient egress for fire apparatus pushed the building's location to the south with a retention pond for recreation as well as water and ice rescue training holding the intersection's corner. While the headquarters houses two distinct departments, it was important to the city that the building be unified and have a civic presence. Double height volumes establish visual hierarchy and draw daylight through the building. Wood elements connect exterior and interior spaces and provide continuity throughout public, shared, and private zones at police and fire department areas.

The building's programmatic areas are reinforced in the building massing and materials which are organized around direct and efficient circulation strategies to ensure rapid response times for police and fire. Clearly defined public and private zones are connected by pathways with direct connections to the exterior, supporting daylighting and wayfinding in a building typology often known for being closed-off and mazelike. An interior palette is common to functions for both police and fire, with durability and maintainability balanced by natural materials, such as wood, and access to views throughout to support biophilic principles.

Strategic sequencing of spaces, including a decontamination area, between the bays and the office and living areas mitigate exposure to fire and ash carcinogens to protect the fire fighter's health. The shared gathering and fitness spaces as well as outdoor areas provide respite and a healing connection to nature as do the site amenities that include the large pond for walking, biking, and fishing that connects to the Racoon River Valley Trail system.

The project, which meets the AIA 2030 challenge, incorporates the potential to reach net zero building operations through utilization of a geothermal approach to heating and cooling as well as being designed to include high-efficiency, nearly all-electric systems. To offset the electrical load, infrastructure for a photovoltaic (PV) array with a system size of up to 600 kW has been incorporated, with the ability to expand the array from 60% to 100% of the buildings need. Deep overhangs and wood slats provide shading at the public lobby, the fitness facility, and the apparatus bays to ensure daylighting balanced with energy use and comfort.





- 1 Native Bioswale
- 2 Public Parking
- 3 Retention Pond
- 4 Public Access Trail
- 5 Rain Gardens
- 6 Future Training Tower
- 7 Future Water Tower
- 8 Geothermal Wellfield

