

Fitness Center at MCAS Beaufort

A state-of-the-art fitness center opened at MCAS Beaufort, S.C., on Feb. 21, replacing an outdated 1950s facility, and providing the base community with the top-notch facilities and equipment that it deserves.

“With the need for physical fitness, and the demand that is put on Marines, the better their level of fitness, the better they are able to respond and react to stress,” says Health and Fitness Director Bill Brown. “They can move faster in their deployment, and their rehab and recuperation time is greatly accelerated by their level of fitness. A new facility with the newest equipment and methodology for training all go hand-in-hand in the overall readiness of a Marine and their family.”

The 48,000-square-foot facility cost approximately \$14 million, and was built to meet Leadership in Energy and Environmental Design (LEED) Gold certification standards, which were created by the Green Building Council to provide guidance for building more sustainably. The council requires certain standards to be met to earn a Silver, Gold or Platinum — the highest — rating. The Marine Corps requires that new con-



PHOTOS BY MARINE CORPS PFC. BRENDAN ROETHEL, MCAS BEAUFORT PUBLIC AFFAIRS





MCAS Beaufort Fitness Center At a Glance

Vital Stats

Opened: Feb. 21, 2013

Size: 48,000 square feet

Cost: Approximately \$14 million

Type: MILCON Project

Design/Engineers: NAVFAC Southeast, Public Works

Contractor: Hightower

Notable Aspects: Applying for LEED Gold certification

Equipment Lineup

Apex 7000 Challenge Circuit: Handicapped Accessible equipment

Biodex: Handicapped-accessible upper body cycle

Body Masters: Selectorized equipment (refurbished)

Concept2: Rowers

Cybox: ARC Trainers

Eldorado: Climbing wall (six-sided, 30-feet tall)

Equalizer 600: Handicapped accessible fitness apparatus

Freemotion: Dual-cable crossovers

Hammer Strength: Strength, free weight and Olympic weight-lifting equipment

Life Fitness: Cardio (treadmills, ellipticals, bikes) and selectorized equipment

MacGregor: Scoreboards

Microfit: Health/fitness analysis system

Mondo: Flooring

Nautilus: Stepmills

Nexersys: Martial arts training system (measures velocity of kicks and punches)

NSCA: Fitness certification

Precor: Elliptical machines

Primus RS: Fitness/range-of-motion evaluation system

PURMotion: Functional training system

Star Trac: Spinner NXT bikes

VersaClimber: VersaClimbers

struction projects meet, at a minimum, the requirements for a Silver rating.

According to Larry Hofmann, project manager with MCAS Beaufort Public Works/Engineering, the base is going to submit for LEED Gold certification once the construction crew finishes with the demolition of the old facility, because the recycling of the concrete is part of the LEED-certification process. "When they submit the final package to the Green Building Council, it will have an energy analysis done based on all of the LEED aspects of the design and construction process," notes Hofmann. "NAVFAC [Navy Facilities Engineering Command] Southeast were the engineers for the project, so this facility is government designed — completely in-house. In terms of overall energy usage, NAVFAC is shooting for a 30 percent reduction below baseline."

THE TOUR

The first floor of the facility houses an NCAA-regulation basketball court; selectorized and power-lifting equipment areas; a combined aerobics and High Intensity Tactical Training (HITT) room that can be divided into two rooms; men's and women's locker rooms (complete with saunas); a climbing wall; three racquetball courts; a post-rehab room; and an administrative area for Semper Fit staff member offices.

The second floor houses all of the cardiovascular equipment, which in some areas overlooks the strength area down below, as well as sight lines to the climbing wall. A multipurpose meeting room area is available on the second floor as well.

The fitness center features the most up-to-date fitness equipment (see *At a Glance for complete lineup*), from Life Fitness, Hammer Strength, Precor, Star Trac and Concept2, providing Marines and their family members — regardless of physical ability — a good workout, including those with physical limitations, or who are in a wheelchair.

In addition to smaller pieces of functional fitness equipment, such as dumbbells, kettlebells, battle ropes, plyometric boxes, etc., the HITT room has a functional training system from PurMotion, which is "a multiple-exercise system that has ropes, pull-ups and ladders — 64 different things that you can be doing on it," notes Brown. Other specialty equipment in the HITT room includes a Nexersys system that measures the force and velocity of a kick and/or punches.

The power lifting room on the first floor has Olympic-style platforms and racks from Hammer Strength and Star Trac Max Racks, and USA Olympic Weightlifting-certified personal



trainers teach proper form and provide guidance to Marines and sailors.

The Rehab room has a piece of equipment from Primus RS, which is used to evaluate and help improve an individual's range of motion and form when swinging a golf club, bat or tennis racket, for example.

PROGRAMMING

The aerobics/HITT room is a very active facility that is used for classes, training and programs. "Unit PT is available in the HITT room for active duty, and that is for both Navy and Marine Corps," Brown notes. "But we also do some family member classes in there as well. The nice thing about that is that the aerobic room and the HITT room are right next to each other, and we have a removable wall if we want to make it one big room. And if we still need more space, we can open the fire doors and spill out onto the basketball court. We can handle groups of up to 60-65, and if we need to, go up to 220 using the basketball court."

In the area of aerobics programs, Zumba and Tabata are very big, as well as Yoga and spinning. "Tabata is a very high-energy class, and every eight seconds you are changing to a different exercise," Brown explains. "It burns through a half hour in no time, so it is a high-paced class — the music is at 140-160 beats per minute. It is a tough class, but once you get started it seems like the class is done — it just goes by that quickly."

Incentive programs are offered, such as the 1,000-mile run club, where runners must run 1,000 miles within a year, and earn prizes at certain plateaus, including a T-shirt at the 100-, 250- and 500-mile marks, and then a jacket at 1,000 miles. "We also have some weight-loss classes and challenges — six- to eight-week programs where we have two groups of about 15 competing against each other in weekly challenges under the guidance of a personal trainer," Brown notes. "We also have a Warrior Challenge, where we set up eight to 12 stations, such as a tire flip, sled pulls, battle ropes, ammo can lifts/carries and speed-course challenges. It is real fun and we get a good turnout for that."

BUILDING SUSTAINABLY

According to Hofmann, there are a number of interesting sustainability aspects of the facility that make it stand out from the rest.

"When you come up to the facility from the mess hall side, you can see what looks like a big satellite sitting up on the

roof, which is the solar heating system that we use, and when the sun is cooperating, we save on the natural gas that would be required otherwise," he explains. "When you approach the facility from the south, the afterburner side, you'll see 25-kw photovoltaic solar panels on that roof, which provides natural energy to the facility. The building also uses rainwater harvesting, where we take the rainwater from the roof, run it through multiple layers of filters and then store it in a tank, which is used in the facility to flush the toilets, saving thousands of gallons of water per month."

Hofmann points out that the fitness center has a large requirement for outside fresh air and exhaust air, which was worked into the design. "We have an energy-recovery wheel where we run those two air streams by each other without mixing the streams, but we capture some of that energy that would be going out the window, and save it and put it back into the building. We also have energy-efficient light fixtures and other energy-efficient equipment, such as washers and dryers, throughout the facility."

The other big aspect with LEED is what the builder does with the waste materials during the construction process, notes Hofmann. "The contractor is going for 90 percent recycled, which is really good, so he is diverting 90 percent of the waste from a landfill to some sort of recycling plant."

The building was constructed using precast concrete construction, "which means they pour the 12-inch concrete panels off-site and deliver them and erect them onsite," he explains. "This is a unique process, but one that is becoming more common with new construction projects, and it is built very sturdy the way it is done."

The facility also has a lot of natural light coming in. "Day-lighting is a big deal with this building, and we use a Kalwall translucent wall panel system, and there is significant glass in the building as well," notes Hofmann. "That Kalwall walls in the gym area, for example, give off a warm glow in the morning before the sun comes up."

Overall, Brown says that support for the project was excellent, and everyone had a say in what should go in the facility. "Support has been phenomenal," he notes. "This has been one of the best projects I have been a part of. From concept to construction to the grand opening, it has been a team effort by all."

So far, the response from the base community has exceeded expectations. "Usage has gone up considerably," says Brown. "We are averaging anywhere from 75-100 more people in here a day, so the interest with the new facility has been a real boost — more than we had anticipated."

—GRF