The Carolinas Air Force Field is re-inventing an empty, rectangular, block building in Fayetteville, NC into a new Health and Wellness Center for the service men, women, families and veterans in the surrounding area. The design concept of the space is based upon the principles of air, flight and mobility. Curvilinear lines represent the fluidity of air around an aircraft wing, while glass elements bring a lightness to the design, symbolizing the weightlessness of air. Vertical elements signify one of the most important elements of flight: LIFT. The space is grounded with warm dark wood tones, creating a balanced and stable environment. All of these elements come together in order to form an uplifting space to facilitate in educating people with a holistic approach to health and wellness, echoing the HAWC’s mission statement, “Healthy and disciplined wholeness of the mind, body and spirit.”

Design Concept

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Research Summary

Post Traumatic Stress Disorder (PTSD)

The military is a very high-stress job that can often result in sudden feelings of anxiety, worry, and stress. This can make it difficult for people suffering from PTSD to function in day-to-day activities. In a study of the connection of PTSD and architectural design, Matthew Finn analyzed what a soldier must go through mentally while in a high-risk situation, which reveals how they perceive space around them. In combat, military personnel must be constantly analyzing their surroundings and, if in a building environment, they must tediously go through every space and declare each as “cleared” or “un-creased.” For this reason, being able to see what is in a room before entering is highly beneficial and less taxing mentally. The use of transparent glass walls throughout the wellness center provides connections to nature that suppress the immune system. Interaction with nature lower heart rate, muscle tension, as well as a release of hormones that suppress the immune system. Interaction with nature and elements that simulate nature has proven to reduce feelings of stress, worry and anxiety. The use of plants, wood textures, natural colors such as green and blue, and natural day-lighting in the wellness center provide connections to nature to create a stress-free environment.


Codes: ADA/Bariatric Users and Occupancy Load

In order to create a universal space that can be enjoyed by patrons with or without physical limitations, it is important to consider codes and furniture selections in the design of the wellness center. ADA guidelines and clearances for wheelchair users were followed throughout the building as well as rules for bariatric furniture and toilet stalls. Calculating the occupancy load of the building was used to determine the number of exits and plumbing fixtures.


Annotations

- Check-in kiosk center with two touchscreen monitors
- 0’-0” above chair turning diameter required for ADA accessibility (citing: Department of Justice, 2010)
- Refrigeration station with under-counter refrigerator, keurig coffee and healthy snacks
- Drop-down stations for reception/assistant with lowered accessible counters to per ADA requirements
- Computer education stations
- Movable folding slider that can be opened down the middle to create two classrooms
- Storage units to hold AV equipment
- Planter in kitchen Demonstration with fresh grown herbs to use in cooking lessons
- Fire extinguisher
- 0’-0” bariatric wheelchair turning diameter required for toilet stall (citing: npm, 2010)
- Television mounted to the wall across from testing suites that show sequences of nature scenes to reduce the patient’s stress (citing: Kromer, 2010)
- Implementing use of nature for relaxation and stress relief throughout the building (citing: Ojiakor, 2008 and Kromer, 2010)

Movable Wall Finish Key (keyed to floor plan, refer to finish schedule and board 3)

- Clear glass panel
- Glass with custom frosted pattern
- Glass sliding barn door
- White board with wood sensor below
- Wood sensor
- Wood sensor with clerestory window
- Systems acoustic fabric

Stress and the Environment

Stress can have a negative impact on health and wellness including symptoms such as higher blood pressure, increased heart rate, muscle tension, as well as a release of hormones that suppress the immune system. Interaction with nature or elements that simulate nature has proven to reduce feelings of stress, worry and anxiety. The use of plants, wood textures, natural colors such as green and blue, and natural day-lighting in the wellness center provide connections to nature to create a stress-free environment.


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Reflected Ceiling Plan

 SCALE: $\frac{1}{8}'' = 1' - 0''$

Kitchen Demonstration Perspective

**Adjacency Matrix**

- Reception/Hallway
- Office/Classroom
- Office/Space/301 Health/Conservatory
- Spaces
- Private Office/Waiting Area
- Garage/Storage
- Balcony
- Conference/Meeting Room
- Kitchen/Reception
- Hallway

- Tiered audience seating as well as TV monitor provide optimal viewing of cooking demonstrations. (Design/Inspiration inspired by the customer times around wing and vertical lift. Involved in flight.)

- Supersonic flight creates conical shaped sound waves behind the jet (image: http://www.airforce.com/learn-about/stem/#/supersonic-flight)

- Design concept inspired by the curvilinear lines around wing and vertical lift involved in flight. (image: http://www.airforce.com/learn-about/stem/#/forces-in-flight)

- Sound waves

- Design/Inspiration inspired by the customer times around wing and vertical lift. Involved in flight. (image: http://www.airforce.com/learn-about/stem/#/forces-in-flight)
North Classroom Elevation  SCALE: 3/8" = 1'-0"

(above) Wenge wood veneer finish for Haworth Enclose Architectural Walls.(left) Enea Stacker Chair with tablet by Coalesse in Classroom. (right) Elevation view of whiteboard wall in classroom with surrounding glass Enclose Walls. Custom frosted curvilinear pattern covers the middle of the panels, minimizing distractions while maintaining semi-visibility in and out of the space.

Relaxation Space Perspective

(custom water feature on North wall of the Relaxation Space to be constructed by a local artisan. Three vertical curving brushed aluminum metal panels tie into the design directive of air and flight by symbolizing fluidity and lift.

(below left) Bix Sled Lounge Chair with Arms by Coalesse in Relaxation Space.

(below center) Enclose Architectural Walls by Haworth are movable panels that provide flexibility and visibility for PTSD patients (citing: Finn, 2013).

(below right) Haworth Classic Systems Fabric in Drama used on Enclose walls in Relaxation and Massage spaces to provide more acoustical privacy.

Incredible White : SW7078
Agreeable Gray : SW7029
Anew Gray : SW7030
Mega Greige : SW7091

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Finish Schedule