To promote positive sensory reactions to their surroundings, users of Rise + Run will be provided with regular opportunities to have personal control over various elements within their environments such as color, temperature, function, noise levels, and tactile experience.

The acoustical qualities incorporated into each individual space such as materiality, acoustic damping, echo reduction, and noise control will be directly aligned with the programmed activities and the level of concentration required of users during typical function.

Because Autism has a very close correlation with one's visual perception of their surroundings, the incorporation of frequent, mainly pictorial wayfinding elements throughout the program will increase safety, encourage the independent movement of users, and free staff to focus on tasks other than navigating users around.

Using proponents of this design theory, steps will be taken to integrate experiences that are both comfortable and challenging for users to promote healthy growth and progress at a pace that suits the individual.

Compartmentalization is an important principle to Sensory Design Theory that deals with defining and limiting sensory environments of each activity into compartments. This will be implemented by using strategic changes in flooring materials to provide users with sensory cues as to the expected level of focus and activity within individual spaces.

Designing inspiration from the stair, Rise + Run focuses on helping users move forward and upward at a comfortable pace. User success will be achieved by considering the perception of space through the eyes of someone with ASD as well as the effects their surroundings have on their daily achievements. Using concepts of Sensory Design Theory to maximize learning efficiency, occupants can develop skill sets necessary for a career and independent living. Design solutions including transitional material changes, pictorial wayfinding, and acoustical control encourage independent movement of users and opportunities for transition into normal ways of life over time.

Goals + Objectives

PERSONAL CONTROL: To promote positive sensory reactions to their surroundings, users of Rise + Run will be provided with regular opportunities to have personal control over various elements within their environments such as color, temperature, function, noise levels, and tactile experience.

APPROPRIATE ACOUSTICS: The acoustical qualities incorporated into each individual space such as materiality, acoustic damping, echo reduction, and noise control will be directly aligned with the programmed activities and the level of concentration required of users during typical function.

MODULAR COMPARTMENT: Because Autism has a very close correlation with one’s visual perception of their surroundings, the incorporation of frequent, mainly pictorial wayfinding elements throughout the program will increase safety, encourage the independent movement of users, and free staff to focus on tasks other than navigating users around.

SENSORY DESIGN THEORY: Using proponents of this design theory, steps will be taken to integrate experiences that are both comfortable and challenging for users to promote healthy growth and progress at a pace that suits the individual.

COMPARTMENTALIZATION: Compartmentalization is an important principle to Sensory Design Theory that deals with defining and limiting sensory environments of each activity into compartments. This will be implemented by using strategic changes in flooring materials to provide users with sensory cues as to the expected level of focus and activity within individual spaces.

Program Details

Sensory Room

Client Restroom

Mock Apartment

Flex Space

Training Kitchen

Multi-Use Space

Work Training

Occupancy Classification: Business Occupancy

Total Occupancy Load: 150

Maximum Exit Width: 3'-6" (1.01 m)

Maximum Distance to Exit: 100'-0" (30.48 m)
RESEARCH

DESIGNING INCLUSIVE EDUCATION SPACES WITH REFERENCE TO AUTISM

Inclusive educational spaces address the environmental factors that influence the performance of autistic individuals within educational spaces. Autism causes a number of learning issues for the individual such as engagement in repetitive activities, unorganized movement, resistance to change in environment or routine and unusual responses to sensory experiences. Current design standards do not properly consider the needs of users with autism. However, measures can be taken during the design process to produce a more universally built environment where autistic users can function more effectively. These measures are outlined below:

- **PROVING:** physical structure, visual instructions, opportunities for parent participation, opportunities for inclusion, generous space standards, visual instructions, accessibility, durability and maintenance
- **PROVIDING:** visual structure, future independence, safety, comprehension, accessibility, durability and maintenance

**RESEARCH**

**THINGS TO CONSIDER WHEN DESIGNING A SENSORY ROOM**

A sensory room is defined as a "specially designed environment that provides a positive sensory experience to people with various abilities." Benefits of sensory rooms include:

- **SENSORY STIMULATION**: Encourages exploration of one's surroundings can teach positive reactions to real world situations.
- **INCREASED LEARNING AND ACTIVITY**: Sensory stimulation engages different areas of the brain which can lead to better descriptions of information.
- **IMPROVED BALANCE, MOVEMENT, AND SPATIAL ORIENTATION**: Sensory spaces help develop users' visual processing abilities and motor skills which lead to better function in independent living environments.
- **REDUCING INDEPENDENCE SHIFTS**: Sensory rooms provide a moment of comfort and calm for overactive and distressed individuals as well as help inactive individuals feel better engaged.

**ARCHITECTURE FOR AUTISM: AUTISM ASPECTS IN SCHOOL DESIGN**

Although there is a large population of individuals with ASD dealing with altered perception of their environments, autism is not currently a part of universal design standards. Autistic behaviors are the result of ineffective sensory perception which has a direct correlation to interior environments. Sensory Design Theory deals with designing environments that are easily manipulated to adapt to the different sensory needs autistic individuals. This theory outlines seven principles that accommodate and consider general challenges that autistic users face regularly. Included are acoustics, spatial sequencing, escape spaces, compartmentalization, transition zones, sensory zoning, and safety.

- **SPACE PLANNING**: This plan was modified to better fit the square footage needs of each individual programmed space.
- **SPACE ATTITUDES**: This design has helped identify key elements and locations within the program.

**THE EFFECTS OF COLOR ON LEARNING AND BEHAVIOR**

Persons with ASD may experience a sensitivity to color that impacts success in the classroom. Because individuals with autism tend to have heightened sensory responses and strong visual processing abilities, color can be a factor in learning outcomes. Universal design must recognize that color can have both a physiological (scientific) and psychological (emotional) impact on users.

Color preferences are variable within the autism community and can be manipulated to adapt to the different sensory needs autistic individuals. This theory outlines seven principles that accommodate and consider general challenges that autistic users face regularly. Included are acoustics, spatial sequencing, escape spaces, compartmentalization, transition zones, sensory zoning, and safety.