"A SUBSTANCE ABUSE SHELTER FOR WOMEN: ARCHITECTURE FOR MORAL DEXTERTY"

Copyright 1996 by Kenneth O. Johnson, Jr.
I would like to thank those that inspired me along the way with their support and input.

The Lord God

My wife, Donna and our sons Zachery and Elijah

My family

Dale Stevens the director of the Muncie Liberty Center

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In this program, my intent is to design a facility for women who are former substance abusers. The focus is to provide an environment that allows for the continuation of clinical rehabilitation beyond a normal medical institution's detoxification center. With the rising numbers of women seeking treatment for substance abuse, the demand for accountable facilities rises.

In this particular facility, during their treatment there will be 10 to 15 female patients residing there on a temporary basis that will range from six months to a year. Each individual will also be required to fulfill certain obligations that are mandatory by the facility's clinical program. In addition, the facility will provide amenities regarding security for all its occupants to ensure a potential of self-fulfillment for every woman. With regards to the ongoing turnover of patients and the allotment of grants, the facility will also address issues relating to the longevity of the building and to the affordability of its construction. The objective is to provide for both the immediate occupant and for those who will utilize this facility in the future. The primary goal is to assert positive attributes to the individual through program credentials, facility regulations, and the architectural design.

In conclusion, I believe it is important as a designer to make a connection to the required social issues regarding a substance abuse shelter and the people involved. I think space provides an essential framework for thinking about the world and the people in it. Therefore, most of my emphasis will be applied to the design credentials of sociable spaces, construction materials, and the processes of construction.
"I've been in and out of places like this six times now."

"If I could have done better...I would have. I never really had a chance to finish school."

"Wrong friends, wrong crowds, wrong attitude."

"I never had much to begin with and I was in trouble a lot. So, it was really hard for me when first had to get help, but when I finally realized what I was doing and where I was headed, I was glad I could get help when I really wanted it. So I'm definitely in favor of rehab shelters."

"It's pretty bad when all your family members turn against you because you have chosen an addition over them."

"I finally woke in a hospital not knowing how I had gotten there."

"No one could trust me! I lied about everything and I lied to everyone."

"I didn't even know I was addicted at first, but after selling myself out for a fix over and over again. I knew I had to do something."

"I just decide that I couldn't live this way anymore!"

"My youngest kid found my stash and nearly died from an overdose. They must of seen me getting high to know how to do it."
Directory of Officials

Board Members

Facility Director

Clinical Staff and Facility Staff

Patients
With regards to the facility's architecture, I think the major design criteria deals with the facility's primary objective which is to rehabilitate each individual so that their life may be drug free. This is not an institution for repeat offenders which is why the facility will only be designed with temporary living accommodations in mind. It is not intended to have a home like identity that becomes a security blanket to the individual, but instead the intentions are for the patients to gain a personal awareness to drug rehabilitation that will help them with their drug free endeavors. Each individual will be expected to fulfill certain obligations of the facility's clinical program requirements while receiving rehabilitative treatment and obtaining medical care services provided by the facility to ensure good health for each patient. For those patients residing at this facility a physical health screening will be given to all individuals to ensure that the expectations of staff members does not exceed their professional training capabilities. With the clinical services of the facility, individuals who are not aware of basic health care techniques can become literate at maintaining their own good health. The clinic will ultimately provide medical treatment by a registered physician that may not otherwise be obtainable because of individual circumstances.
TOPIC:

My thesis statement is about my contribution to what I think is a positive role in society. I believe that space is an essential framework for thinking about the world and the people in it. Therefore, my thesis design is about a shelter where people, in this case women, can receive treatment for their drug addictions so that they may ultimately have a drug-free life with better opportunities for success. My thesis statement is: "To justify my intentions of designing a substance abuse shelter for women on the grounds of social attributes."

POSITION:

Thesis year has given me the opportunity to educate myself in any aspect of design. What most interested me was making a positive impact for society. Fortunately, I had the opportunity of meeting Dale Stevens, the director of the liberty center in Muncie, In. He was able to provide me with information on the basic formalities of dealing with local governments to the clinical program of a substance abuse shelter. He was also helpful in setting up visits with other facility directors across the state.

OBJECTIVES:

My primary objective was to design a facility that would serve as an institution where female drug addicts could receive therapeutic counseling. In addition, I wanted to create a very buildable structure that would address the issues of longevity because of the ongoing turnover of occupants and the affordability of the facility because of the political budgeting of funds.
This site is in Muncie, Indiana and it is located in the 3400 block of Bethel Avenue, bordering between residential and commercial zoned areas. The site offers a potential to the shelter that is necessary to the rehabilitating drug abuser. In light of the site's somewhat secluded orientation, it provides a contextual link to the social working world with small professional practices, restaurants and food outlets, retail stores, hotels, and recreational facilities that could provide part-time employment (which is a requirement of the facility's program that all clients work). In regards to the facility's clients, personal vehicles are not permitted. Therefore, the women will be relying on public transportation or services provided by the facility or walking to work. As for the site, it offers a close range of employment potential and public transportation.

Another positive impact the site offers is a coupling to an education. The facility's program requires that all women not yet receiving their high school diploma to do so. Fortunately, the site is located less than one miles from Ball State's campus where adult education classes are offered on the basis of demand.

With all its complexities, the site offers a link to a multitude of resources: public transportation, employment, education, security, recreations, and rehabilitation which clearly contributes to the rehabilitative processes of the facility's program. Therefore, it is my belief that this chosen site adds another dimension to the already complex directory of social and psychological therapeutic treatment expressed through the facility's clinical program.

I believe the site will enhance the facility's clinical success and serve as a valuable tool in teaching clients the responsibilities necessary to ensure productivity in their lives. Together, both contextual amenities and architectural design can holistically add value to the overall identity of the facility.
My research primarily started with meeting Dale Stevens. Through him I was able to make contact with other facility directors and eventually on to the discovery of writings by Leslie Weisman who wrote, “Healing this schism through new spatial arrangements that encourage the integration of work and play, intellect and feeling, action and compassion, is a survival imperative.” This led to other findings and it began to raise questions about what my thesis would be influenced by. Questions like: Is there a dichotomy in the way women and men structure space?

I believe the answer is yes. For example, the comparison of men and women in architecture, leads to Henry Atherton Frost, the man responsible for founding and running the first professional architecture school for women in America, the Cambridge School of Architecture and Landscape Architecture [1917-42], writes, “The women architect is interested in housing rather than houses, in community centers for the masses than in neighborhood clubs for the elite, in regional planning more than in estate planning, in social aspects of the profession more than private commissions...Her interest in her profession embraces its social and human implications.” I believe a consciousness to gender is imperative to my program requirements. Weisman writes; “The result is the creation of a symbolic universe that holds women privately responsible for the care, repair, and renewal of human life in a world they do not essentially control, and assigns to men the public responsibility for running the houses of government where they have become more concerned with the nuclear race than the human race.”

From my research I have found that it is important as a male designer to make a connection to the needs of women both in social and psychological issues dealing with drug rehabilitation, especially if the architecture is to be perceived as a part of the clinical program. Weisman writes; “In urban societies, the gender-based division of labor ensures that the housebound homemaker will not have the same image of the environment as her wage-earning husband who spends his day in a steel-and-glass building in central city.” She goes on to write; “There is, then, an ongoing dialectical relationship between social and religious belief.” From this a diversity of topics surface relating to social and psychological issues paralleled with contextual and programmatic requirements.

I think both social and psychological concerns are the driving forces behind my design considering the main goal is to provide for clinical counseling of drug offenders and to assure that all individuals are given the same opportunities from the facility’s resources. However, I also believe that it is important to focus on the realism of this type of facility design. The design will focus on the necessity of the program and the political aspect to obtaining such a program. This particular facility will deal with the construction means as well as the internal affairs. The design will ultimately be a male’s interpretation of a women’s architectural perception where social issues metamorphize architecturally into a variety of social spaces.

In conclusion, my research is to allow for a genial conception to fully encapsulate a diversity of program requirements where the architectural design and program requirements combine to parent an institution for social liberation in which the educational principles are founded from positive affirmations.
This is what took over my design process early in the beginning. I chose to design in a way that made things hard for myself later on in the design mode. I planned to create a process that would allow for me to design one piece at a time and then assemble all the individual components like a puzzle. What I found after designing a space for the front office, a space for the assistant directors, a space for the doctor's office and exam room, a space for socializing, and a circulation path was that I could not get all the different pieces to fit so that it was pleasing to the eye. With each piece, I had in mind a certain overall look. Especially since I wanted the overall design to be a positive part of the facility's psychological program.

At one time I literally had all kinds of varying shapes "crashing" into each other, trying to force usable spaces out of it. Then, after realizing that that was not working, I began a process of module spaces where I relied on a structural grid to form my spaces. This was the best thing I could have done because it allowed for me to create a very structural design plan.

As my design took shape, I still struggled with the one element that I had keep from the earliest conception, a curve. The curve was a strong element in the design and it dominated certain adjacent spaces surround it. Because I was not familiar with radial designs, I believe the curve dominated all my conceptual thoughts during the planning of spatial requirements. It was not until very late into the semester that I received some advice about my design. The advice was for me to get away from the curve because it would probably be a good idea, but not to make any changes to exterior plan.

I began thinking of the curve as a piece that would be an enhancement to a very practical design. This seemed to work very well and the "problem spaces" became efficient usable spaces. When my design development was final, I felt as though the overall design metamorphosed into a very functional facility in which its occupants could obtain full benefits both form the clinical program as well as the architectural design.

In conclusion, I feel as if I would have started my initial conceptions with a structural grid, I would have eliminated some of my timely struggles with spatial planning. However, I strongly believe that this particular design could be a step further with my new founded experiences with radial designs. I believe that a good understanding of the design type is a vital key for any preliminary designing. Secondly, keeping in mind of the potential building materials will allow allow for a good structural grid to be processed for spatial planning. Finally, to have a complete listing of all spatial requirements and their functional relationships will enable a good plan layout and eliminate timely struggles.
PICTURE OF MODEL, LOOKING WEST.
PICTURE OF MODEL. LOOKING NORTH.
PICTURE OF MODEL. VIEW OF ENTRY DRIVE.
**APPENDIX**

**SIZE**

500 sq. ft. total  
83 sq. ft. per person  
4-6 person kitchen crew

**ATMOSPHERE**

this space is to represent the idea of efficiency through its design. both natural and artificial lighting will be used to pronounce a lightness to the space in contrast to the heavy kitchen equipment. with the possibility of socializing in this space, a feeling of spaciousness will be brought into the holistic scheme to ensure the avoidance of violating ones personal space.

**ACTIVITIES**

all food preparations. during meal times this space is also where the kitchen crew socializes while preparing meals. it is also used for meetings by the kitchen crew.

**LIGHTING**

fluorescent tube lighting for ample lighting complimented with swiveling spot lights for special task areas. natural light will also be a part of the holistic lighting scheme. it will be implemented in the form of mixing clerestory lighting with overhead skylighting and contemporary windows to supply light, ventilation, and views of the exterior.
APPENDIX

the sink center's location be movement to each of the others usually between them. The refrigerator center is best located near the entry and the range center near the dining area.

ACOUSTICAL

the acoustical qualities will assure spacial separation so that kitchen sounds will be contained to its own space.

EQUIPMENT

the equipment requirements are for the needs of: dry storage areas, receiving areas, preparation areas, refrigerated and frozen storage areas, ware and pot washing areas, finish and holding plating areas, and a serving area for the dining.

- hand sink
- sink
- wall shelves
- worktables
- utensil racks
- portable worktables
- roll-in refrigerator
- under the counter drawers
- fryers
- mixers
- slicers
- fire extinguishers
- fire suppression system (sprinklers)
- mobile rack
- convction oven
- range
- griddle with oven
- spreader plate
- table top kettles
- portable dish truck
- high pressure steamer
- exhaust ventilators
- any other misc. equipment/appliance
**THERMAL AND SYSTEMS CONTROL**

This space is to be kept in between 68 - 72. In regards to the variety of temperature changes occurring at the various meal times, the system will effectively compensate for any exceeding temperatures outside of the desired range. Ventilators will also be integrated over all types of major cooking equipment to aid in the removal of heat, fumes, and smells.

**USER**

The kitchen crew will be the primary users of the space. However, it is available to all other facility members and any prearranged visits from outside cooks and nutritionist.

**TIME OF USE**

Use of the kitchen is 24 hours a day. However, meals are prepared during scheduled times.

**SUPPORT SPACES**

Dining room, pantry, vending area, corridor.
**APPENDIX**

**SIZE**

- 400 sq. ft. total
- 26 sq. ft. per person
- 10-15 person dining occupancy load

**ATMOSPHERE**

This space is to represent the idea of sophistication that will be attained by using intricate parts of the overall dining scheme. The idea is to create an atmosphere that is pleasant for both dining and conversing.

**ACTIVITIES**

This space will be for eating and conversing.

**LIGHTING**

Ceiling mounted light fixtures will be the primary source of lighting. In addition, wall mounted fixtures and adjustable track lighting will also conspire with the overall lighting scheme, complementing the primary light source. Furthermore, dimmer switches will be used in conjunction to the holistic plan to provide a variation of light intensities.

**ACOUSTICAL**

The acoustical qualities will assure ample conversational levels.
**APPENDIX**

**NOTES**

Round tables are usually recommended only for seating 6 persons or more.

Dimension "A" depends on the perimeter. 1'10" to 2'0" per person necessary to seat required number for cocktails. 1'8" is sufficient.

Tables wider than 2 ft. 6 in. will seat one at each end.

Minimum sizes are satisfactory for kid service. Parent sizes for food. Tables with widespread bases are more practical than four legged tables.

Tables and arrangements are affected by the type of operations and the style of service. The use of flaming trays, serving carts, high chairs for children, and hand-capped access must be considered.

---

**EQUIPMENT**

The equipment requirements are for the needs of all occupants dining:

- Square tables
- Padded chairs
- Plate carts
- Cabinets
- Serving station
- Soda fountain
- Water dispenser
- Cutlery

---

**THERMAL AND SYSTEMS CONTROL**

This space is to be kept in between 68 - 72. At meal times, it is expected that a medium size gathering will occupy this space at one time; therefore, this space will virtually self control its own environment without the direct involvement of its users. In regards to the temperature changes, the climatic system will compensate automatically for the differences in temperature that exceed the tolerated temperature zone.

---

**USER**

All facility member and prearranged guests.
APPENDIX

GENERAL DESIGN CRITERIA

Customer aisles: 30 in.
1. Table seating, 30 in. minimum between tables.
2. Rectangular seating, 30 in. minimum between centers of tables.
3. Wall seating, 30 in. minimum between wall and seat back.
4. Minimum of 30 in. for bus carts and handling service carts.

Customer aisles:
1. Refer to local codes for restrictions on requirements.
2. Wheelchair requirements, 36-44 in. aisle.
3. Wall seating, 30 in. minimum between walls and tables.

Tables:
1. Average 24 in. high
2. Allow space around doors and food service areas,

TIME OF USE

during scheduled meal times

SUPPORT SPACES

kitchen, corridor, foyer
**APPENDIX**

**SIZE**

1744 sq. ft. total  
(2) 2-person room each @ 250 sq. ft.  
(3) 3-person room each @ 290 sq. ft.  
(1) 2-person infirmary room @ 230 sq.ft.  
(1) 1-person director’s room @ 144 sq.ft.

**ATMOSPHERE**

this space is to represent the idea of comfort and security. However, a presence of territorial boundaries are established.

**ACTIVITIES**

this space will be for sleeping and changing clothes.

**LIGHTING**

the primary light source will be natural lighting when possible. Secondary lighting will be from both indirect lighting coming from the circulation corridor and from individual lamps and task lights placed in each sleeping area.

**ACOUSTICAL**

this space is to have acoustical qualities that will enrich its environment. Background noises will be dealt with to ensure desired audio levels that allow for sleeping and private conversations to occur without the disruption of the overall intent of the space.
EQUIPMENT

The equipment requirements are for the needs of all facility members temporarily residing there.

- bed
- desk top lamp
- dresser
- chest
- chair
- table top mirror

THERMAL AND SYSTEMS CONTROL

This space is to be kept in between 68 - 74. The primary thermal control in this space will be conventional heating and cooling. However, in addition, ceiling fans will be used to help in air circulation.

USER

All facility members temporarily residing there.

TIME OF USE

Whenever needed.

SUPPORT SPACES

corridor, bathroom facilities, laundry facility, media room
**APPENDIX**

**SIZE**

596 sq. ft. total  
39 sq. ft. per person  
15 person living occupancy load

**ATMOSPHERE**

This space is to represent the idea of spaciousness, paralleled to the primary design concept's, "open plan", this space purposely remains unfilled, but fully capable of providing all spacial amenities required by gatherings.

**ACTIVITIES**

This space will be for social gatherings, group meetings, and any other social facility events.

**LIGHTING**

The primary light source will be natural lighting when possible. Secondary lighting will be from both ceiling mounted light fixtures and free standing lamps and desk top lamps.

**ACOUSTICAL**

This space is to have acoustical qualities that will enrich its environment. Since the living area is open in plan, background noises will be dealt with to ensure desired audio levels that allow for ample conversations to occur without the disruption of the overall intent of the space.
EQUIPMENT

The equipment requirements are for the needs of all facility members temporarily residing there.

- sofa and chair seating
- misc. small furnishings
- desk
- table

THERMAL AND SYSTEMS
CONTROL

This space is to be kept in between 68 - 74. The primary thermal control in this space will be conventional heating and cooling. However, in addition ceiling fans will be used to help in air circulation.

USER

All facility members temporarily residing there, staff, and prearranged guest.

TIME OF USE

Whenever needed.

SUPPORT SPACES

Recreation area, foyer, corridor
APPENDIX

PANEL ENCLOSURE TYPE

The systems presented in this paper are designed for use in conjunction with new component panels. Each system consists of a prefabricated panel and enclosure. Components are being adapted to change in the performance of the enclosure and enclosure of the prefabricated panel. The design is to be developed to meet the requirements as demand for the system is increased.

SYSTEM ADVANTAGES

Appendix systems are designed to accommodate the needs of space, function, and economy. They offer advantages in stability and ease of repair. The system has the ability to accommodate different types of components and appearance to the system that may be necessary.

SIZE

20' x 29' = 580 sq. ft. total
38 sq. ft. per person
15 person occupancy load

ATMOSPHERE

This space is to represent the idea of a formal social area. It is designed to connect to the holistic concept of spaciousness while simultaneously providing privacy for its occupants. The space is to fulfill the needs of private conversations between those who use it.

ACTIVITIES

This space is for facility members and staff to use whenever necessary. Also, staff and facility members may use this space for private consultation.

LIGHTING

The primary light source will be natural lighting when possible. Secondary lighting will be from both ceiling and wall mounted light fixtures, also free standing lamps and desk top lamps will add additional lighting when required.
**APPENDIX**

**ACOUSTICAL**

This space is to have acoustical qualities that will enrich its environment. Background noises will be dealt with to ensure desired audio levels that allow for private conversations to occur and/or ample conversational levels.

**EQUIPMENT**

The equipment requirements are for the needs of all facility members temporarily residing there and staff.

- chairs
- tables
- lamps
- audio/video equipment
- projection screens
- computing services

**THERMAL & SYSTEMS CONTROL**

This space is to be kept in between 68 - 74. The primary thermal control in this space will be conventional heating and cooling.

**USER**

All facility members temporarily residing there, staff, and prearranged guest.

**TIME OF USE**

For outside visitors it is during scheduled visiting hours. For staff and facility members it is whenever needed.

**SUPPORT SPACES**

Office areas, associates lounge
**APPENDIX**

**SIZE**

635 sq. ft. total
(3) assistant director's offices each @ 144 sq. ft.
(1) director's office @ 203 sq. ft.

**ATMOSPHERE**

these spaces are to represent the idea of a formal business atmosphere in regards to the informality of the overall plan layout. In addition, the overall plan expresses efficiency that is conveyed through the office management and from the accessibility of desired work activities.

**ACTIVITIES**

this space is for authorized staff members to use during facilities hours. Staff and facility members may use this space for private consultation.

**LIGHTING**

the primary light source will be natural lighting when possible. Secondary lighting will be from both ceiling mounted light fixtures and free standing lamps and desk top lamps.

**ACOUSTICAL**

this space is to have acoustical qualities that will ensure spatial separation. Background noises will be dealt with to ensure desired audio levels that allow for private conversations and any office duties to occur.
**APPENDIX**

- To maximize efficiency and economy in the use of sufficient space for the office operation performed without overcrowding or wasting floor areas.

- To assure all office workers, as well as members of the public and visitors, of comfort and convenience.

- To establish efficient work flow patterns that are economical in application and that provide continuously balanced capability of equipment and personnel at each stage of work flow.

- To design work centers and individual workstations that are conducive to efficient work methods, are in keeping with work flow processes, and permit an adequate measure of worker supervision.

- To reflect thoughtful attention to interpersonal communication needs of all kinds.

- To establish flexibility in office layout for future rearrangement of work centers and workstations, including the expansion or contraction of space requirements.

- To create a favorable impression on visitors and customers.

- To coordinate all related environmental factors, e.g., heat, light, noise, color usage, and security, within the space management program in all aspects of office operations.

---

**EQUIPMENT**

the equipment requirements are for the needs of all facility members temporarily residing there.

- seating
- desks
- lamps
- computing service
- book shelves

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**THERMAL AND SYSTEMS CONTROL**

this space is to be kept in between 68 to 74. the primary thermal control in this space will be conventional heating and cooling. however, in addition ceiling fans will be used to help in air circulation.

---

**USER**

all facility members temporarily residing there, staff, and prearranged guest.

---

**TIME OF USE**

for outside visitors it is during scheduled visits, for staff and facility members it is whenever needed.

---

**SUPPORT SPACES**

conference spaces, associates lounge, secretary, file room.
APPENDIX

Office Spaces

RECEPTION AREAS
Planning Data: Receptionist’s Workstation

Proper design of the reception area is critical in communicating an organization’s desired corporate image. Reception spaces are both the first and last areas with which the visitor interacts and, accordingly, have considerable visual impact in communicating that image.

Not only must the reception space look attractive, but it must function properly as well. The two most important planning elements in this regard are the visitor’s seating area and the receptionist’s workstation or desk.

While most of the examples in this part are drawn from corporate interiors, the designer is urged to take into consideration the needs of special user groups who must interact with a receptionist. If small children are to communicate (or see or be seen), how high is the privacy wall? If a wheelchair-bound user is to approach the reception desk, is there room for the footrests to be accommodated? The designer must consider all user populations.

This part deals primarily with basic planning data relative to the design of a receptionist’s workstation and furniture arrangements of the seating area. Also included are related details derived from the working drawings of design firms.

For the purpose of privacy or security, the receptionist’s workstation is often an area physically separated by built-in furniture and/or partitions. Figure 1 shows a counter-height receptionist’s workstation. While the relationship of work surface to seat height is key, other anthropometric considerations are eye height and sitting height normal. The maximum height of the opening above the floor has been established at 78 in., or 198 cm. Sitting height and eye height are significant in providing unobstructed vision.

SIZE

300 sq. ft. total
receptionist desk area @ 88 sq. ft.
file room @ 66 sq. ft.
waiting area @ 146 sq. ft.

ATMOSPHERE

this space is to represent the idea of a center for information that is apart of the overall concept. by establishing boundaries that define spacial separation this space relies on it's design to connect it to the holistic concept of spaciousness.

ACTIVITIES

this space is for facility members and staff to use whenever necessary. it is the area in which secretarial duties will be performed.

LIGHTING

the primary light source will be natural lighting when possible. secondary lighting will be from both ceiling and wall mounted light fixtures, also free standing lamps and desk top lamps will add additional lighting for special tasks.

ACOUSTICAL

background noises will be dealt with to ensure desired audio levels that allow for phone conversations and any office duties to occur.


EQUIPMENT

the equipment requirements are for the needs of all facility members temporarily residing there.

- receptionist desk and chair
- phones
- misc. office equipment
- computing services

THERMAL & SYSTEMS CONTROL

this space is to be kept in between 68 - 74. the primary thermal control in this space will be conventional heating and cooling. however, in addition ceiling fans will be used to help in air circulation.

USER

all facility members and staff.

TIME OF USE

for outside visitors it is during scheduled visits for staff and facility members it is whenever needed.

SUPPORT SPACES

director's office, equipment room, waiting area, bathroom, lounge, file room.
**APPENDIX**

**RESIDENTIAL SPACES**

**FAMILY/RECREATION ROOMS**

Arrangements and Clearances

Recreational Activities

Indoor recreational activities invariably require definite spaces for equipment and clearances for using it. Not all games occupy floor areas indicated as necessary for those diagramed on this page. But all interiors are planned to accommodate large units of equipment such as that required for table tennis, and provide necessary paking clearances, spaces will be adequate for many other uses as well.

Dimensions of game equipment and floor areas required for its use are both subject to variation. Sizes noted here are comfortable averages, not absolute minima.

**SIZE**

1227 sq. ft. total
recreational area @ 1125 sq. ft.
dark room @ 102 sq. ft.

**ATMOSPHERE**

this space is to represent the idea of an informal activity room where its occupants can fulfill their desired levels of physical and emotional activities.

**ACTIVITIES**

this space is for all occupants to use for all recreational type activities.

**LIGHTING**

the primary light source will be natural lighting when possible. secondary lighting will be from both ceiling mounted light fixtures and free standing lamps and desk top lamps.

**ACOUSTICAL**

this space is to have acoustical qualities that will comply with code to ensure the proper audio levels in adjoining spaces.
**APPENDIX**

**EQUIPMENT**

The equipment requirements are for the needs of all facility members temporarily residing there.

- T.V., stereo
- Tables
- Sofa and chairs
- Ping-pong table

**THERMAL & SYSTEMS CONTROL**

This space is to be kept in between 68 - 74. The primary thermal control in this space will be conventional heating and cooling. However, in addition ceiling fans will be used to help in air circulation.

**USER**

All facility members and staff.

**TIME OF USE**

For staff and facility members it is whenever needed.

**SUPPORT SPACES**

Dining room, kitchen, vending, foyer
SIZE
126 sq. ft. total
(1) physician
(1) medical nurse

ATMOSPHERE
this space is to represent the idea of a medical office in which all medical endeavors by the physician will take place.

ACTIVITIES
this space is for the clinical physician to use whenever required.

LIGHTING
the primary light source will be artificial lighting from both ceiling mounted light fixtures and free standing lamps and desk top lamps.

ACOUSTICAL
this space is to have acoustical qualities that will ensure privacy.

EQUIPMENT
the equipment requirements are for the needs of all facility members temporarily residing there.

- desk
- chair
- exam table
- book shelves
- file cabinets
APPENDIX

THERMAL & SYSTEMS CONTROL

This space is to be kept in between 65-68. The primary thermal control in this space will be conventional heating and cooling.

USER

Clinical staff

TIME OF USE

Whenever needed by the clinical staff

SUPPORT SPACES

Exam room, bath room, corridor, equipment room,
APPENDIX

SIZE

154 sq. ft. total
(3) persons: doctor, patient, and nurse

ATMOSPHERE

this space is to represent the idea of a medical clinic in which all medical examinations will take place.

ACTIVITIES

this space is for the clinical staff to use whenever examinations are required.

LIGHTING

the primary light source will be artificial lighting from both ceiling mounted light fixtures and free standing lamps and desk top lamps.

ACOUSTICAL

this space is to have acoustical qualities that will ensure privacy.

EQUIPMENT

the equipment requirements are for the needs of all facility members temporarily residing there.

* privacy screen
* sink
* scale
* all other equipment
* exam table
**APPENDIX**

**THERMAL & SYSTEMS CONTROL**

This space is to be kept in between 65-68. The primary thermal control in this space will be conventional heating and cooling.

**USER**

Clinical staff and facility occupants

**TIME OF USE**

Whenever needed by the clinical staff

**SUPPORT SPACES**

Physician's office, bath room, corridor, equipment room,
APPENDIX

SIZE
891 sq. ft. total
main bath & shower @ 693 sq. ft.
(4) half baths @ 198 sq. ft. total

ATMOSPHERE
this space is to represent the idea of efficiency as well as to maintain privacy for its occupants.

ACTIVITIES
this space is for facility members and staff to use whenever necessary.

LIGHTING
the primary light source will be lighting from both ceiling and wall mounted light fixtures. also, natural light will be a part of the lighting scheme.

ACOUSTICAL
this space is to have acoustical qualities that will ensure spacial separation from adjacent rooms. background noises will be used to develop desired audio levels that allow for privacy
APPENDIX

EQUIPMENT

The equipment requirements are for the needs of all facility members temporarily residing there and staff.

- toilet stall units
- tub and shower units
- sinks and mirrors
- lockers
- counter tops

THERMAL & SYSTEMS CONTROL

This space is to be kept in between 68 - 74. The primary thermal control in this space will be conventional heating and cooling.

USER

All facility members temporarily residing there and staff.

TIME OF USE

For staff and facility members it is whenever needed.

SUPPORT SPACES

corridor
APPENDIX

**WASHER/EXTRACTOR SIZES**

<table>
<thead>
<tr>
<th>Capacity (lb)</th>
<th>Width</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>28</td>
<td>32</td>
</tr>
<tr>
<td>30</td>
<td>30</td>
<td>32</td>
</tr>
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<td>36</td>
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<td>36</td>
<td>44</td>
</tr>
<tr>
<td>42</td>
<td>46</td>
<td>40</td>
</tr>
</tbody>
</table>

Note: **A** - **E** sizes may vary with manufacturer. Minimum clearance: 18 in. sides, 24 in. back, and 36 in. front.

**TUMBLER SIZES**

<table>
<thead>
<tr>
<th>Capacity (lb)</th>
<th>Width</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>39</td>
<td>46</td>
</tr>
<tr>
<td>50</td>
<td>39</td>
<td>47</td>
</tr>
<tr>
<td>80</td>
<td>39</td>
<td>59</td>
</tr>
<tr>
<td>100</td>
<td>67</td>
<td>83</td>
</tr>
</tbody>
</table>

Minimum clearances: 24 in. behind door, 48 in. front.

**SIZE**

192.5 sq. ft. total

**ATMOSPHERE**

This space is to represent the idea of efficiency.

**ACTIVITIES**

This space is for facility members to wash and clean all clothing and miscellaneous items.

**LIGHTING**

The primary light source will be lighting from both ceiling and wall-mounted fixtures. Also, natural light will be a part of the lighting scheme.

**ACOUSTICAL**

This space is to have acoustical qualities that will ensure spatial separation from adjacent rooms.

**EQUIPMENT**

The equipment requirements are for the needs of all facility members temporarily residing there and staff:

- washer/dryer
- cabinets/counter
- utility sink
- ironing boards
this space is to be kept in between 68 - 74. the primary thermal control in this space will be conventional heating and cooling.

**USER**

all facility members temporarily residing there and staff.

**TIME OF USE**

for staff and facility members it is whenever needed.

**SUPPORT SPACES**

corridor
**APPENDIX**

**SIZE**
382 sq. ft. total
1-15 occupancy load

**ATMOSPHERE**
this space is to represent the idea of a multi-media center.

**ACTIVITIES**
this space is for facility members to gain knowledge and experience with multi-media.

**LIGHTING**
the primary light source will be lighting from both ceiling and wall mounted light fixtures. also, natural light will be a part of the lighting scheme.

**ACOUSTICAL**
this space is to have acoustical qualities that will ensure ample levels of audio.

**EQUIPMENT**
the equipment requirements are for the needs of all facility members temporarily residing there and staff.

- desk
- tables
- sofa/chairs
- computers
- book shelves
APPENDIX

THERMAL & SYSTEMS CONTROL

this space is to be kept in between 68 - 74 . the primary thermal control in this space will be conventional heating and cooling.

USER

all facility members temporarily residing there and staff.

TIME OF USE

for staff and facility members it is whenever needed.

SUPPORT SPACES

corridor
**SIZE**

280 sq. ft. total
assistant director's lounge @ 210 sq. ft.
director's lounge @ 70 sq. ft.

**ATMOSPHERE**

this space is to provide for the desires of a refreshment.

**ACTIVITIES**

this space is for facility members to use for snacking or eating lunch.

**LIGHTING**

the primary light source will be lighting from both ceiling and wall mounted light fixtures. also, natural light will be a part of the lighting scheme.

**ACOUSTICAL**

this space is to have acoustical qualities that will ensure ample levels of audio.

**EQUIPMENT**

the equipment requirements are for the needs of all facility members temporarily residing there and staff.

- water fountain
- refrigerator, microwave, & misc. items
**THERMAL & SYSTEMS CONTROL**

This space is to be kept in between 68 - 74. The primary thermal control in this space will be conventional heating and cooling.

**USER**

All facility members temporarily residing there and staff.

**TIME OF USE**

For staff and facility members it is whenever needed.

**SUPPORT SPACES**

Corridor
SIZE

1124.5 sq. ft. total
this includes all closets, storage rooms, utility rooms and closets, the mechanical room and any other misc. storage spaces.

ATMOSPHERE

this space is to provide for the necessary storage of misc. items and utilities.

ACTIVITIES

this space is for facility members to use for storing items.

LIGHTING

the primary light source will be lighting from both ceiling and wall mounted light fixtures. also, natural light will be a part of the lighting scheme.

ACOUSTICAL

this space is to have acoustical qualities that will ensure ample levels of audio.

EQUIPMENT

the equipment requirements are for the needs of all facility members temporarily residing there and staff.

• shelves
• counterspace
**THERMAL & SYSTEMS CONTROL**

this space is to be kept in between 68 - 74 ; the primary thermal control in this space will be conventional heating and cooling.

**USER**

all facility members temporarily residing there and staff.

**TIME OF USE**

for staff and facility members it is whenever needed.

**SUPPORT SPACES**

corridor
SIZE

2652 sq. ft. total
this includes all circulation paths horizontally and vertically.

ATMOSPHERE

this space is to provide for circulation throughout the facility.

ACTIVITIES

this space is for facility members to use.

LIGHTING

the primary light source will be lighting from both ceiling and wall mounted light fixtures. also, natural light will be a part of the lighting scheme.

ACOUSTICAL

this space is to have acoustical qualities that will ensure ample levels of audio.

THERMAL & SYSTEMS CONTROL

this space is to be kept in between 68 - 74. the primary thermal control in this space will be conventional heating and cooling.
USER
all facility members temporarily residing there and staff.

TIME OF USE
for staff and facility members it is whenever needed.

SUPPORT SPACES
all adjacent
**PROGRAM:**

- kitchen ........................................... 500 sq. ft.
- dining ............................................. 400 sq. ft.
- sleeping .......................................... 1744 sq. ft.
- living ............................................. 596 sq. ft.
- conference ....................................... 580 sq. ft.
- office ............................................. 635 sq. ft.
- reception area ................................... 300 sq. ft.
- recreation ....................................... 1227 sq. ft.
- clinic office .................................... 126 sq. ft.
- clinic exam ....................................... 145 sq. ft.
- bath ................................................. 891 sq. ft.
- laundry ........................................... 192.5 sq. ft.
- media area ....................................... 382 sq. ft.
- lounges ........................................... 280 sq. ft.
- storage ........................................... 1124.5 sq. ft.
- circulation ....................................... 2652 sq. ft.

**net total of usable space** 11,775 sq.ft.

**gross total of facility** 14,000 sq.ft.
<table>
<thead>
<tr>
<th>Item</th>
<th>Calculations</th>
<th>Sub-total</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building cost</td>
<td>14,000 gross sq. ft. x $80/sq. ft.</td>
<td>$1,120,000</td>
<td>$1,377,000</td>
</tr>
<tr>
<td>Fixed equipment</td>
<td>8% of building cost</td>
<td>$89,600</td>
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<tr>
<td>Site development</td>
<td>15% of building cost</td>
<td>$168,000</td>
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<tr>
<td><strong>Total construction cost</strong></td>
<td></td>
<td></td>
<td><strong>$1,377,000</strong></td>
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<tr>
<td>Site acquisition and/or demolition</td>
<td>actual or estimate</td>
<td>$120,000</td>
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</tr>
<tr>
<td>Movable equipment</td>
<td>9% of building cost</td>
<td>$108,000</td>
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<tr>
<td>Professional fees</td>
<td>7% of construction cost</td>
<td>$96,390</td>
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<tr>
<td>Contingencies</td>
<td>10% of construction cost</td>
<td>$137,700</td>
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<tr>
<td>Administrative cost</td>
<td>2% of construction cost</td>
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<tr>
<td><strong>Total budget</strong></td>
<td></td>
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<td><strong>$1,866,630</strong></td>
</tr>
</tbody>
</table>


10. The pictures I have chosen for this program are not directly related to the topic of this report. In fact, they are not related in any way.