A
CORPORATE RECREATION CENTER

The reasonings behind the needs for recreational and physical fitness facilities for today's corporate world.

ALLEN J. HERKE

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DEPARTMENT of ARCHITECTURE
COLLEGE of ARCHITECTURE and PLANNING
BALL STATE UNIVERSITY
MUNCIE, INDIANA
THESIS COMMITTEE MEMBERS

Chairman  Rod Underwood
Member     Dan Woodfin
Outside Critic  Kay Allen

CONTRIBUTING PERSONS

Mrs. Brenda Hamman  Former Mead Johnson Employee
Ms. Lisa Steele     Mead Johnson Employee
Mr. Elmer Redding   Mead Johnson Employee
Dr. Bud Getchal
Ms. Betsy Curry     Shaklee Centerra Fitness Center
Mr. Don Schnier     Cummings Ceraland Park
Mr. Mark Landgreen  Coca-Cola Health Management Program
Mr. John Fass       General Electric Employee Fitness Center
Nurse Shores        Ball Corporation
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My thesis deals with the growing awareness of physical fitness in the corporate world and how I feel it should affect architecture and architects. In this book I deal with what I learned from researching my topic through published articles and through direct contact with existing corporate health programs and facilities. My direct contact is through the use of a questionnaire and on-site visits to existing facilities. With the knowledge I gained from research I formulated several possible levels of involvements for corporations to chose from. I will present the research used to help me create a program for my final project. In this book I will present my final design and the criteria I used to obtain that design.
THESIS STATEMENT

THESIS:

With the growing awareness of the benefits of physical fitness, it is becoming evident that corporations of all sizes can afford a health fitness program.

PROVING MY THESIS:

I intend to prove my thesis by studying existing corporate health programs and facilities. I will also research different levels of health programs involving varying levels of physical involvement. I shall then evolve several programs for differing corporations based on physical needs, time allowed, and money available.

TESTING MY THESIS:

After showing the different possibilities for a health fitness program, I will select a specific corporation and design a health fitness program and facility to fit their needs.
INTRODUCTION

Leisure is a word with many meanings. To the Greeks it was a quality of life, to the Puritans it was wasted time and to a 20th century visionary it's a wave crashing over our shores. To most people though leisure is time. It is time left over after all obligations have been fulfilled. Leisure is a period we reserve for doing what we want to do, not doing what someone else wants us to do. It is during this leisure time that a growing awareness for physical fitness has developed.

More and more people are turning towards exercise and recreation as a way for keeping fit and trim, living longer and feeling better about themselves. Thus the growth rate of private spas and health clubs has been phenomenal in recent years. Large corporations have recognized this and they have adapted the attitude that good health is good for business. Thus my thesis is: With the growing awareness of the benefits of physical fitness, it is becoming evident that corporations of all sizes can afford a health fitness program.

In 1981, the United States spent an estimated $30 billion on health related goods and services with health clubs and corporate spas accounting for a $5 billion industry and these numbers continue to grow every year. In fact, large corporations have been investing over $2 billion a year in fitness programs. The reasons behind this spending spree for health consciousness are: (1) this growing
health kick is starting to halt the increasing costs of medical benefits paid by the employers, these health costs have escalated 800% in 25 years. (2) this growing fitness awareness is probably a reason for the decrease in premature deaths in the corporate world. (3) fitness programs are gaining as a positive recruitment strategy for hiring qualified personnel, people are starting to look at the availability of recreational facility as a viable fringe benefit. (4) but perhaps the biggest reason for the corporate push is the hope that the availability of health programs and recreational facilities will increase lagging productivity in the United States as it already has in Japan and West Germany.

Some of the nation's large corporations who have taken notice of these implications and started some sort of program for their employees are Pepsico which operates a fitness center at its headquarters in Purchase, New York; Xerox which is promoting a company wide health awareness program; Atlantic Richfield Company which makes use of a computerized employee service program; ROLM Corporation who installed a gymnasium, swimming pool and weight room at its Santa Clara, California telecommunications manufacturing plant and Cummings Engine in Columbus, Indiana which provides a employee recreational facility for its employees. Perhaps one company who has really taken this
The idea of physical fitness to heart is the Shaklee Corporation. In their new corporate headquarters in San Francisco, California they built a recreational facility they refer to as Centerra. Centerra occupies a predominant spot on the third floor encompassing 17,000 square feet and was installed at the cost of $1 million. The Centerra facility is utilized by 70% of the staff and operates on $300,000 a year budget. Shaklee is so satisfied with the results of their fitness center they installed vending machines which dispense free vitamins and fruit juices on every floor.

The purpose of my thesis was to study architecture as it related to a field that interested me. It also allowed me to study an area of possible specialization. The project I proposed as the vehicle for studying my thesis was a recreational health center for an existing corporation. The company I used to program and design a recreational center for was Mead Johnson and Company's Evansville and Mt Vernon operations. Mead Johnson and Co. is a nutritional research, development and production company. Their Evansville operations deals with the production and packaging of Enfamel, Prosobee and other milk substitutes for infants. Their Mt. Vernon plant deals with the production and packaging of sterile drugs. Approximately 3000 people are employed by Mead Johnson and Company.
I discovered several areas of criteria for designing a health spa. These criteria ranged from the choice of activities to different levels of competition to maintenance. In planning the need for choice I needed to look beyond the idea of providing facilities just to meet existing needs. I needed to try and provide for changing needs as well as unknown needs. The time of use of the center was also very important. Although Mead Johnson operates its production lines on 3 shifts almost 2/3 of its employees work the normal day shift. So the estimation as to time of use as well as the amount of users at all times figured heavily in the design. Because Mead Johnson employs a wide range of employees the, needs of the users varied greatly. The main problem was the possibility of different hours of available use due to the upper eschelon employees not wanting to associate and sweat beside the production line worker. Another problem along the same line was the skill level of different users. These skill levels vary based on age, sex, health factors and knowledge of the sport. The biggest group of users will be the recreational users who just want to have fun and are only interested in having a facility to work out in. The hardest group to please are the ex-athletes who are used to and demand a high quality standard for their exercise and play.

Understanding what a user would do at the center also helped in the organization and planning. Following the
types of users from arrival, to changing, to play, to socializing, to observing, to meeting, to changing, to leaving lead to a good understanding for the layout of the design for the recreational facility. Being able to get from point A to point B while avoiding a labyrinth is very important. An area that can sometimes make or break a design is maintenance, and it is especially important in a recreational facility. Since the building could be used upwards of 100 hrs a week, easy maintenance is a must. It would be far better to invest once in a stronger and more durable material than to employ a large maintenance crew. In programming the spaces for the recreational health center, it was viable to break down the technical and functional needs of the different sports. Each sport or activity you wish to include in a sports center should be broken down into: (1) how many people are needed to participate, (2) how much square footage is needed, (3) is special equipment needed, (4) is age and sex of participants important, (5) what skill is required, (6) how much time is needed for the activity, (7) and how much organization is needed. It would seem that the sport or activity that requires the least amount of people, little special equipment, is easy for any one to do, doesn’t take much time or require a lot of organization are the sports to incorporate into a recreational facility. While these sports most probably would be included, several sports that
don't fit these requirements should be provided to create a balanced recreational health center and to provide for the varied users of the spa.

The approach I took with my thesis can be broken down into the work I accomplished during the three quarters of my thesis year. During the fall quarter I researched existing recreational facilities and corporate health plans. I was trying to fully understand the benefits and drawbacks that a corporation runs into while operating a recreational health center. I also further formulated and finalized my stand on my thesis as well as gained an understanding of specialization in the field of recreational architecture. Towards the end of the fall quarter I had an understanding of the Mead Johnson's corporate structure and their needs in a recreational health center.

During winter quarter, I finalized the programmatic needs for the recreational health center as well as accomplished the majority of the schematic design. Spring quarter was spent finalizing the design of the health center along with the preparation for the final presentation and compilation of the thesis book.
In starting the research of my thesis I settled on three areas of study, the benefits of corporate physical fitness, the success of existing programs and facilities and a study of existing building types. In researching the benefits of a corporate sponsored health program I found a lot of agreement among the people involved. The issue is not whether exercise makes people more productive but rather that people who exercise are more productive and it's worth a company's investment to make a program available for employees who already exercise and to attract new employees.

Almost all of the corporations with existing facilities believed their benefits far outweighed their cost. The one stumbling block to these corporations making great claims of the benefits is the impacticality of gaining concrete data which would require immense research and control. Some of the benefits claimed by the corporations are decreased absenteeism among exercisers, a strong trend for exercisers to have fewer sick hours than non-exercisers, a positive relationship between exercise adherence, decreased absenteeism and reduced health care costs, fewer doctor visits, people quit smoking, people lost weight and higher morale. 6

In studying existing corporate facilities I discovered a wide range of facilities to meet varying needs. I found that a health program could operate out of a company's
hallways or out of a full scale recreational park. The size of the facility was usually related to the size of the corporation, financial ability of the corporation and availability of space. Some of the examples are: Ball Corporation in Muncie, Indiana which makes use of office space for meetings and uses local YMCA facilities for its fitness program, Shaklee corporation in San Francisco, California which makes use of a fitness center occupying the third floor of its corporate headquarters and Cummings Diesel in Columbus, Indiana operates an 800 acre recreational park.

In studying existing building types I found generally three types. The first type dealt mostly with the renovation and reuse of existing square footage on-site. This usually dealt with the cleaning out of an unused storage room or the reassigning of space use and the possibility of a suspended jogging track. This type of program also relied on the use of outdoor on-site space when available for running trails and game courts. The second type of program I studied was popular with small corporations and that was the use of existing public and commercial facilities such as the local YMCA or health spa. The third type dealt with construction of a recreation center or park by the corporation. While this type requires the greatest financial input it is usually the best because
the spaces are designed initially with recreation and fitness in mind and thus are most suited for the enhancement of the activities they house.

In studying these three building types it became apparent that the type of physical activities included in the program had a strong influence on the appearance of the final design, due to the varying demands of different sports in size, lighting and daylighting. What follows is a study of four building types similar to the expected needs and design of my thesis project.
CERELAND COLUMBUS, INDIANA

SPACES

30,000 Square Feet
2 - Gymnasiums
Conference Area
Meeting Room with Kitchen
Locker Rooms
Office
Weight Room
1/8 Mile Jogging Track

COST

$2 Million to build

DESIGN IDEAS

A non-flat roof sheds water before
the water can do any damage
Fenestration is minimal to control
lighting and reduce energy costs
From a distance the structure
resembles an immense twin vaulted
barn that hovers over green fields

14
SPACES

17,000 Square Feet
7 - Exercise Areas
Jogging Tracks
Exam Rooms
Locker Areas
Lobby

COST

$ 1 Million to build
$ 750 - 1,000 to operate per employee per year

DESIGN CRITERIA

Fitness Systems Inc. included a demographic study of the employee group, programming the configuration of the exercise area within the allocated square footage.

BENEFIT

Higher productivity
Higher morale
SPACES

32,000 Square Feet
Gym Facilities
Medical Clinic
Cafe
Juice Bar
Tanning - Bathing - Dressing Rooms

COST

$930,000 to build

DESIGN IDEAS

Showplace for Questar water weights
Public eating and meeting places need
separation from the more private
bench dressing and diagnostic areas
SPACE
58,000 Square Feet

COST
$2,945,431.00 to build

DESIGN IDEAS
Mercury vapor lights minimize energy use
Largest structure both heated and cooled by solar energy
Size and height of basketball court and hockey rink decided shape and size of building
The research most closely related to designing a program for my project centered on two areas. The first areas are existing health programs and facilities and the second areas are the relationships between the physical requirements of a job and the types of physical activities an employee needs to round out a fitness program. To get the best data on existing facilities I formulated a questionnaire aimed at getting answers to generate demographic design criteria. The areas I focused on were the equipment and spaces available, the types of people who worked for their corporation, and the benefits of operating their health program.

While the types of facilities and the types of people varied greatly between the corporations, their beliefs in the benefits gained were mutual. Following is the questionnaire I distributed. See the appendix for the corporations' responses.
The information I am looking for is:

1.) Describe the type of program you operate? __________

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

2.) Does your program require special facilities? ______
   If yes what kind? _____________________________

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

3.) What specific functional spaces does your program require? i.e. physicians office, weight room, aerobics, gymnasiums, pools, etc. _________________

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

What are the size requirements of the spaces included in your program? _________________

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

4.) What percentage of your employees actually make use of your program?

<table>
<thead>
<tr>
<th></th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>aged 25 and below</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aged 26 - 35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aged 36 - 45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aged 46 and above</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.) How much do these employees use the program? (hrs/week)

<table>
<thead>
<tr>
<th></th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>aged 25 and below</td>
<td></td>
<td></td>
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<tr>
<td>aged 26 - 35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aged 36 - 45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aged 46 and above</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6.) What was the initial cost of implementing your program and the date of implementation? 

7.) What does your program cost to operate per year?
   The program
   The facility
   Per employee

8.) Has it affected insurance costs?

9.) Has it attracted better qualified personnel to your company?

10.) Has there been a noticeable health increase among your employees?

11.) Has there been a change in productivity?

12.) Has the worker turnover rate been affected?

13.) Has the program affected the amount of sick days?

14.) Has the program affected absenteeism?

15.) What are your different job classifications and type of work if not apparent by job classification?

16.) How many people do you employ in each job classification?
In looking at the relationship between the types of job classifications and the needs of my program I discovered a relationship between the amount of physical activity required at work and the exercise needed to round out a fitness program. I discovered that the person who has little physical activity required in his work seeks a hard physical workout to compensate such as weight lifting, aerobics, lap swimming, rowing and stationary bicycles. A person who works a physically strenuous job prefers a more relaxing workout or the thrill of competition to round out his fitness program. The person who occupies a job that is in between these other two types or whose work routine changes daily tends to look for a workout that fits his own ideas on physical fitness. The third type is the hardest to design a fitness program for.

Thru my research I was able to design a program for my thesis project based on the types involvement and amount of resources available from the corporation I chose and the types of physical outlets deemed necessary for their employees. Following are two matrices, the first one details the different types of health programs available to the corporations, while the second matrix relates the type of physical output by Mead Johnson employees and the possible exercises to fit their needs.
# TYPES OF CORPORATE

<table>
<thead>
<tr>
<th>LEVELS OF INVOLVEMENT</th>
<th>AMOUNTS OF RESOURCES</th>
<th>HEALTH AWARENESS PROGRAM</th>
<th>ORGANIZED EXERCISES IN LITTLE SPACE</th>
<th>PARTIAL SUBSIDIZATION OF EMPLOYEE MEMBERSHIP AT SPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORPORATION A:</td>
<td>No space, few</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>employees, little</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>money</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CORPORATION B:</td>
<td>Little space,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>medium to large</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>numbers of employees,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>little money</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CORPORATION C:</td>
<td>Medium space,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>few to medium numbers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>of employees,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>medium money</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CORPORATION D:</td>
<td>Medium space,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>medium to large</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>numbers of employees,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>plenty of money</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CORPORATION E:</td>
<td>Large space,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>large numbers of</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>employees, medium to</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>plenty of money</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CORPORATION F:</td>
<td>No restrictions</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROGRAM PERFORMANCE**

- **CORPORATION A**: Develop an instructional program to make employees more aware of their own physical health and the possibility of the benefits of physical fitness. Includes check-ups in the workplace. Benefits are little start-up costs and few resource requirements.

- **CORPORATION B**: Develop an instructional program to make employees more aware of their own physical health and the possibility of the benefits of physical fitness. Includes check-ups in the workplace. Benefits are little start-up costs and few resource requirements.

- **CORPORATION C**: Develop an instructional program to make employees more aware of their own physical health and the possibility of the benefits of physical fitness. Includes check-ups in the workplace. Benefits are little start-up costs and few resource requirements.

- **CORPORATION D**: Develop an instructional program to make employees more aware of their own physical health and the possibility of the benefits of physical fitness. Includes check-ups in the workplace. Benefits are little start-up costs and few resource requirements.

- **CORPORATION E**: Develop an instructional program to make employees more aware of their own physical health and the possibility of the benefits of physical fitness. Includes check-ups in the workplace. Benefits are little start-up costs and few resource requirements.

- **CORPORATION F**: Develop an instructional program to make employees more aware of their own physical health and the possibility of the benefits of physical fitness. Includes check-ups in the workplace. Benefits are little start-up costs and few resource requirements.

**Light Corporate Involvement**

- **ORGANIZED EXERCISES IN LITTLE SPACE**: Enables corporations to start a program where they do not have enough resources to make a full-fledged program feasible. Affects only those employees who work on a flexible time. Benefits are little start-up costs and few resource requirements.

- **PARTIAL SUBSIDIZATION OF EMPLOYEE MEMBERSHIP AT SPA**: Enables corporations to start a program where they do not have enough resources to make a full-fledged program feasible. Affects only those employees who work on a flexible time. Benefits are little start-up costs and few resource requirements.

**Corporation A** allows for a corporation to start a program where they do not have enough resources to make a full-fledged program feasible. Affects only those employees who work on a flexible time. Benefits are little start-up costs and few resource requirements.

**Corporation B** allows for a corporation to start a program where they do not have enough resources to make a full-fledged program feasible. Affects only those employees who work on a flexible time. Benefits are little start-up costs and few resource requirements.

**Corporation C** allows for a corporation to start a program where they do not have enough resources to make a full-fledged program feasible. Affects only those employees who work on a flexible time. Benefits are little start-up costs and few resource requirements.

**Corporation D** allows for a corporation to start a program where they do not have enough resources to make a full-fledged program feasible. Affects only those employees who work on a flexible time. Benefits are little start-up costs and few resource requirements.

**Corporation E** allows for a corporation to start a program where they do not have enough resources to make a full-fledged program feasible. Affects only those employees who work on a flexible time. Benefits are little start-up costs and few resource requirements.

**Corporation F** allows for a corporation to start a program where they do not have enough resources to make a full-fledged program feasible. Affects only those employees who work on a flexible time. Benefits are little start-up costs and few resource requirements.
# INVOlVEMENT

<table>
<thead>
<tr>
<th>MEDIUM CORPORATE INVOLVEMENT</th>
<th>HEAVY CORPORATE INVOLVEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMBINE WITH SIMILAR SIZE CORPORATION FOR MORE RESOURCES</td>
<td>BUILD A RECREATIONAL HEALTH FITNESS CENTER</td>
</tr>
<tr>
<td>CONVERT EXTRA IN-HOUSE SPACE FOR USABLE RECREATIONAL SPACE</td>
<td>BUILD A RECREATIONAL HEALTH FITNESS PARK</td>
</tr>
<tr>
<td>This type of program is intended for use by corporations that can not afford facilities due to lack of space, employees or money. The combining of corporations result in the ability of these corporations to have a facility.</td>
<td>This type of program deals with the conversion of extra in-house space into recreational areas. By converting unused space or vacant production area into recreational spaces, it allows for flexible hour use by employees as well as being cost efficient for the corporation.</td>
</tr>
<tr>
<td>This type of program can range from an in-house facility to a new building, to an independent on-site building to an off-site building. The initial expense is great but it allows for exact wants and needs to be designed in. This program also allows for more flexibility and a higher percentage of use.</td>
<td>This type of program is where the sky is the limit. Whatever can be imagined can likely be incorporated into the design of this facility.</td>
</tr>
<tr>
<td>TYPES OF JOBS</td>
<td>ALMOST NONE</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>MANAGEMENT</td>
<td></td>
</tr>
<tr>
<td>PRIVATE SECRETARY</td>
<td></td>
</tr>
<tr>
<td>RESEARCHERS</td>
<td></td>
</tr>
<tr>
<td>SECURITY</td>
<td></td>
</tr>
<tr>
<td>ENGINEERS</td>
<td></td>
</tr>
<tr>
<td>OFFICE WORKERS</td>
<td></td>
</tr>
<tr>
<td>LINE INSPECTORS</td>
<td></td>
</tr>
<tr>
<td>FORKLIFT OPERATORS</td>
<td></td>
</tr>
<tr>
<td>LINE WORKERS</td>
<td></td>
</tr>
<tr>
<td>MAINTENANCE</td>
<td></td>
</tr>
<tr>
<td>WAREHOUSE WORKERS</td>
<td></td>
</tr>
<tr>
<td>TRUCK DRIVERS</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>TYPES OF PHYSICAL ACTIVITIES THAT CAN MEET THE EMPLOYEE'S NEEDS</th>
<th>Running</th>
<th>Saunas</th>
<th>Steam</th>
<th>Aerobics</th>
<th>Swimming</th>
<th>Rowing</th>
<th>Biking</th>
<th>Nautilus</th>
<th>Free weights</th>
<th>Aerobics</th>
<th>Weights</th>
<th>Running</th>
<th>Walking</th>
<th>Racquetball</th>
<th>Tennis</th>
<th>Calistinics</th>
<th>Leauges</th>
<th>Team sports</th>
<th>Swimming</th>
<th>Walking</th>
<th>Jogging</th>
<th>Tournaments</th>
</tr>
</thead>
</table>
# BUILDING PROGRAM

<table>
<thead>
<tr>
<th>SPACE</th>
<th>SQUARE FOOTAGE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INTERIOR</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lobby</td>
<td>1,500</td>
<td>1,500</td>
</tr>
<tr>
<td>Office Area</td>
<td>300</td>
<td>600</td>
</tr>
<tr>
<td>Refreshment Center</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Locker Area</td>
<td>4,000</td>
<td>4,000</td>
</tr>
<tr>
<td>Weight Room</td>
<td>3,000</td>
<td>3,000</td>
</tr>
<tr>
<td>Racquetball Courts</td>
<td>1,200/pair</td>
<td>3,600</td>
</tr>
<tr>
<td>Aerobics/Exercise</td>
<td>600</td>
<td>4,800</td>
</tr>
<tr>
<td>Gymnasiums</td>
<td>10,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Child Care</td>
<td>1,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Wellness Clinic</td>
<td>2,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Health Club</td>
<td>1,700</td>
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<tr>
<td>Multi-purpose</td>
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<tr>
<td>Jogging Track</td>
<td>1/8 mile</td>
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<tr>
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<tr>
<td><strong>EXTERIOR</strong></td>
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<tr>
<td>Recreation Field</td>
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<tr>
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<tr>
<td>Swimming Pool</td>
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<td>6,000</td>
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<tr>
<td>Running Area</td>
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</tr>
<tr>
<td><strong>EXTERIOR TOTAL</strong></td>
<td></td>
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</tr>
</tbody>
</table>
LOBBY

ACTIVITIES: Entry, Circulation, Waiting

SQUARE FOOTAGE: 1,500

ENVIRONMENTAL CONCERNS:

Medium lighting level
High noise suppression
High natural lighting
Warm temperatures
Low air exchange

FURNITURE AND EQUIPMENT:

Couches Waste containers
Chairs Ashtrays
Tables Information board
Plants

SPACE PERFORMANCE:

A centralized space leading from parking, a place for relaxing, waiting, meeting. Intended to be warm, welcoming and inviting.
OFFICE AREA

ACTIVITIES: 2 Administration Offices

SQUARE FOOTAGE: 600

ENVIRONMENTAL CONCERNS:

- Clean atmosphere
- Medium temperatures
- Natural lighting
- High sound prevention
- High to medium lighting level

FURNITURE AND EQUIPMENT:

- 3 Desks
- File Cabinets
- Chairs
- Shelving

SPACE PERFORMANCE:

This area is the administrative hub of the building. It has one office for the director and one office for his assistants. It should be in close proximity to the lobby and main entry.
REFRESHMENT CENTER

ACTIVITIES: Relaxing, Visiting and Snacking

SQUARE FOOTAGE: 500

ENVIRONMENTAL CONCERNS:

- Easy maintenance
- Cool to warm temperature
- High level lighting
- Natural lighting favored

FURNITURE AND EQUIPMENT:

- Snack machines
- Tables
- Chairs
- Waste containers

SPACE PERFORMANCE:

This area should be upbeat and bright. It will be used as an area for relaxing during workouts or between games. This area should be centrally located. This area should be easy to clean and easy to keep clean.
LOCKER AREA

ACTIVITIES: Showers, Changing room, Lockers, Storage

SQUARE FOOTAGE: 4,000

ENVIRONMENTAL CONCERNS

Very damp atmosphere
Medium light level
High air exchange
Warm temperature range
Natural lighting

FURNITURE AND EQUIPMENT:

Lockers    Toilets
Benches    Showers
Baskets    Sinks
Basket Racks  Sport Balls
Dryers    Nets

SPACE PERFORMANCE:

This area is where a person changes clothes before exercise, showers after the workout, and checks out equipment. This area needs adequate air exchange and moisture control, it also needs to be easy to maintain.
WEIGHT ROOM

ACTIVITIES: Weight lifting,

SQUARE FOOTAGE: 3,000

ENVIRONMENTAL CONCERNS:

Medium light level
High air exchange
Middle range temperatures
High noise absorption
Padded floor
Use natural lighting

FURNITURE AND EQUIPMENT:

2 Universal weight machines
1 Universal tension machine
20 Nautilus weight machines
Free weights and dumbbells
6 Stationary bicycles

SPACE PERFORMANCE:

The room needs large circulation areas between all machines for safety. The air needs to be circulated so it remains fresh. The air temperature needs to be middle range so a person doesn't become overheated during lifting or to cool between lifts.
RACQUETBALL COURTS

ACTIVITY: 2 Racquetball Courts

SQUARE FOOTAGE: 1,200

ENVIRONMENTAL CONCERNS:

2 Story Space
High level diffuse light
High air exchange
Quality Construction
No natural light

FURNITURE AND EQUIPMENT:

SPACE PERFORMANCE:

This space needs high quality construction and continuous walls. Because it is a closed space, air exchange is important.
AEROBICS/EXERCISE

ACTIVITIES: Aerobics and Exercise classes

SQUARE FOOTAGE: 600

ENVIRONMENTAL CONCERNS:

- Padded floor
- High air exchange
- Low light level
- High noise absorption

FURNITURE AND EQUIPMENT:

- Stereo system
- Mirrored walls
- Padded floor

SPACE PERFORMANCE:

This space is intended for use as an exercise room. The padded floor is to cushion during jumping and laying on the floor. The mirrored walls are used to make it easy to follow the instructor. Proper air exchange and temperature are also important.
GYMNASIUMS

ACTIVITIES: Basketball, Volleyball, Badminton, Soccer, and Tennis

SQUARE FOOTAGE: 10,000

ENVIRONMENTAL CONCERNS:

Cool Temperatures
Adequate air exchange
High level of lighting
Little natural lighting
Ceiling height 30' - 40'

FURNITURE AND EQUIPMENT:

Nets
Standards
Goals

SPACE PERFORMANCE:

A multi-purpose space with high ceiling, adaptable to several sports.
CHILD CARE

ACTIVITIES: Play area for children

SQUARE FOOTAGE: 1,000

ENVIRONMENTAL CONCERNS:

Floor to four feet primary design area
High lighting level
Warm temperatures
Medium air exchange
High use of natural light

FURNITURE AND EQUIPMENT:

Arcade machines  Toys
Games  Tables and chairs
Playground equipment  Storage cabinets

SPACE PERFORMANCE:

Provide a space that is bright and comforting to keep children entertained while their parents workout. The area near the floor needs main attention.
WELLNESS CLINIC

ACTIVITIES: Doctor's Office, Waiting, Exam Rooms

SQUARE FOOTAGE: 2,000

ENVIRONMENTAL CONCERNS:

Good air exchange
Warm temperatures
Germ control

FURNITURE AND EQUIPMENT:

File cabinets Medical equipment
Exam tables Office equipment
Cabinets Desks
Waiting chairs

SPACE PERFORMANCE:

This space should operate much like a regular doctors office. It is intended for physical exams and testing.
HEALTH CLUB

ACTIVITIES: Sauna, Whirlpool, Steam, Tanning

SQUARE FOOTAGE: 1,700

ENVIRONMENTAL CONCERNS:

Low light level
Warm to high temperatures
Natural lighting for whirlpool only
Privacy important

FURNITURE AND EQUIPMENT:

Saunas
Steam compartments
Tanning booths and beds
Whirlpools

SPACE PERFORMANCE:

This area is for relaxing and revitalization. It should be located very near the locker facilities. Privacy is another very important aspect.
MULTI-PURPOSE

ACTIVITIES: Meetings, Presentations, Banquets

SQUARE FOOTAGE: 2,500

ENVIRONMENTAL CONCERNS:

- Adjustable lighting level
- High sound absorption
- Dividing system
- Controllable natural lighting

FURNITURE AND EQUIPMENT:

- Audio - video hookup
- Tables
- Chairs
- Partitions

SPACE PERFORMANCE:

This space needs to function under many different circumstances. It needs to be able to accommodate more than one function at a time. It needs to be able to suppress varied noise levels.
JOGGING TRACK

ACTIVITIES: Jogging and Walking

SQUARE FOOTAGE: 1/8 Mile Length

ENVIRONMENTAL CONCERNS:

Medium temperatures
High air exchange
Medium light level
High natural lighting level
Track surface

FURNITURE AND EQUIPMENT:

Directional signs

SPACE PERFORMANCE:

This space is intended to act as an alternative for running under adverse weather conditions. This space should try to provide a pleasant atmosphere. The surface chosen for the track is very important.
RECREATION FIELD

ACTIVITIES: Football, Soccer, Rugby

SQUARE FOOTAGE: 50,000

ENVIRONMENTAL CONCERNS:

Orientation to the sun
Level playing surface
Maintenance

FURNITURE AND EQUIPMENT:

Goals
Benches
Lime

SPACE PERFORMANCE:

This space is intended for use as a multi-use recreational field. This field should be adaptable to many sports as well as any outdoor activity that requires a flat grassy surface.
SOFTBALL FIELD

ACTIVITIES: Mens and womens softball

SQUARE FOOTAGE: 75,000

ENVIRONMENTAL CONCERNS:
Orientation to the sun
Level field
Maintenance

FURNITURE AND EQUIPMENT:
Fencing
Bleachers
Benches
Bases

SPACE PERFORMANCE:
This area is intended for
recreational softball.
ACTIVITIES: Swimming, Diving, Sunbathing

SQUARE FOOTAGE: 6,000

ENVIRONMENTAL CONCERNS:
- High chlorine concentration
- High lighting level
- High natural lighting level
- Large excess water

FURNITURE AND EQUIPMENT:
- Lounge chairs
- Lane markers
- Diving boards
- Ladders

SPACE PERFORMANCE:
Provide an area for recreational and lap swimming and diving. Provide deep enough level for scuba lessons.
RUNNING AREA

ACTIVITIES: Running, Jogging and Exercise trail

SQUARE FOOTAGE: 1 and 2 mile lengths

ENVIRONMENTAL CONCERNS:

Outdoors
Well lighted
Track surface important

FURNITURE AND EQUIPMENT:

Exercise stations
Track surface

SPACE PERFORMANCE:

An outdoor space that provides tranquil running atmosphere.
The first step in the design process of my thesis project was the selection of a site. Since Mead Johnson and Company has a plant in Evansville and also in Mt. Vernon, Indiana I located a site that would relate to both plants. The site I chose is located on the southern side of Highway 62 which is the road that links Mead Johnson's two plants. The site is approximately forty acres in size and features existing woods, rolling typography and easy access. In developing the site I looked at noise level due to the highway, access from the roads bounding the site, drainage and typography. This created a land use zoning which I then further refined towards a comparison of actual built square foot coverage of the site.
After arriving at an acceptable schematic site design, I then started on the building design. I started with three possible schematic designs. The first schematic idea was based on a space volume and plan function where I started with an oversized cube and carved out the required square footage needs.

The second idea was based on the shopping mall theory. I used the gymnasiums and the main entry as anchor points and then spread the remaining spaces along a spine much like specialty shops in a mall.

The third schematic idea focused on an axial design sandwiched between the two gymnasiums. I then tried to develop each of these ideas a step further along with the site.
It was at this time that I decided to incorporate the lake into the site design. The addition of the lake to the site helped me to choose which schematic idea to continue with in the design development stage. Because of the axis between the beach area and the building site I chose to go with the axial plan between the two gyms. As more and more of the building design began to be resolved it helped to further resolve the site design. My final product is the result of refinement and input throughout the design development stage.
The main body of my building is located along an axis between the beach and the building site. While the two gymnasiums are located on the East-West axis providing a line of contrast. The main entry is located on the north side. As you enter through the main entry onto the concourse level you pass by the information desk and directors office. The north end of the concourse level is an informal leisure area intended for observing people at play while waiting for friends or for casual visiting. At the center of the concourse level is located the ice cream refreshment stand and the drink bar as well as seating for observing the activities taking place in the gymnasiums. At the south end of the main level is the formal dining area and access to the outdoor patio area. Vertical circulation is located near the center of the building.
The backbone of the building is located on the lower level of the building. On the lower level you have access to the locker rooms which feature an overnight locker storage area and an equipment check out room, six racquetball court for playing racquetball, squash or wallyball in and seven aerobics/exercise rooms with mirrored walls and padded floors for either individual use or class use. The weight room offers two Universal weight machines, one Universal tension machine and thirty Nautilus stations. Also featured in the weight room are separate areas for free weights, dumbbells and stationary bicycles. The two gymnasiums feature two high school size basketball courts and can be divided down to accommodate tennis, soccer or volleyball.

The wellness clinic, childcare center, indoor pool, saunas, steam rooms, whirlpools and tanning booths are also located on the lower level. The wellness clinic is provided to allow individual screening and set up of personal fitness programs. The childcare center provides a place for the children to stay while mom and dad are busy with their workout. The wet and dry saunas, the steam rooms and the tanning booths are present for working on the mental health after working out for the physical health. The indoor pool provides year round recreational and lap swimming. The lower level also has access to the exterior patio and pool area. patio.
On the upper level is the multi-purpose/banquet room and the 1/8 mile jogging track. The banquet room is designed to be used for formal meetings and receptions and also features viewing into the gymnasiums as well as viewing onto the concourse level. There is also possible access to the outside deck areas from the banquet room to allow summertime parties to spill outside. The jogging track is intended for use by walkers and joggers when weather conditions force them inside.
The structure of the building is of three different types. The lower level from the lockerooms north is constructed with load bearing block walls, while a 20' by 20' post and beam structure is used south of the locker area. The third system is a rigid steel beam structure featured in the gymnasiums. The materials used to construct the recreation center are a combination of structural steel, precast concrete panels, porcelain panels, block and poured in place concrete.
The final design for the site features four main areas: the general recreation field, the lake and beach area, the outdoor pool and the softball fields. The general recreation field is a multi-use area that provides a level surface for several outdoor activities. Because the two softball fields are intended for use by non-members during tournaments, they are located to the southeast corner of the site to semi-isolate the visitors to that area. Tying the recreation center, the recreation field and the softball fields together is a winding walking path leading from the main entry out through the parking area to the farthest softball field. The beach area acts as the terminus of the axis that the main body of the building lays on. The beach area features a drop-off area, shower house and a refreshment stand. The outdoor pool is a three level pool that uses slides, which resemble a natural river dam, to connect the different levels.

There are six fabric tension structure kiosks located about the site. The three kiosks by the softball fields are intended for use as vending booths during tournaments. The kiosk by the boat dock is a boat rental and bait shop that monitors use of the lake. The other two kiosks are used as picnic and shelter areas. The parking lots on the site are handled in three areas. The area to the north and east of the building is the main parking lot. The parking lot on the west side of the site is for beach parking and overflow from the main lot. The parking area near the ball fields is used for parking for events at the softball field.
Top view of building

View of building from the south
View of building from the north

View of building from the east
View of upper level.

View of main level.
View of lower level
View of the site from the north

View of the site from the east
View of the site from the south

View of the site from the west
View of building approaching site from the east

View of building approaching site from the west
Aerial view from south of the site

View of pool and beach house
CONCLUSION

Now that the thesis book is finished except for this page I can now look back and reflect on what I learned during my thesis year. As with any project a little more refinement could be carried out on my thesis project. There are three areas of the building I would concentrate further on. The exterior skin of the building could be further developed to tie the different shapes together. A further refinement of the integration of the third axis created by the jogging track and and the way the different geometries come together is possible. The third area is for further refinement is that of the sloped roof area. A possible solution to look into would be creating a flat roof and clerestory over the concourse level. I feel the site was fairly well resolved although the parking lots may need a little detailing.

I feel that my thesis project was very successful. From my research during fall quarter, through the design development to the final presentation, I feel my understanding of architecture grew immensely. With Rod Underwoods’s patient prodding I attempted things I’d never had tied before and this lead to my best project to date. I also learned that I really enjoy the area of recreational and physical fitness architecture and would consider the possibility of specializing in that area. My thesis definitely acted as a rounding out of my education at Ball State and hopefully it will also act as a springboard to continued growth and knowledge as I move on in life.
NOTES

1 "The Brief for Management," *Built Environment*, November 1972


3 Ibid

4 "The brief for Management," *Built Environment*, November 1972

5 Ibid

6 "New Fitness Data," *Optimal Health*, January/February 1985


"Warm Up Cool Down." *Progressive Architecture*. Sept. 84, 128-131


"In the Park." *Architectural Journal.*
13 Apr. 82, 48-50

"Corporate Action." *Interiors.*
Aug. 82, 65-71

"Recreation Center." *Architectural Review.*
Mar. 82, 42-7

6 Jan. 82, 50

"Healthy Development." *Interior Design.*
Jan. 82, 244-5

"Forms of Recreation." *Progressive Architecture.*
Dec. 81, 82-8

"Shooting the Works." *Interior Design.*
Oct. 81, 308-9

"Georgia Peach Shenendoah Solar Recreation Center." *Progressive Architecture.* Apr. 80, 158-161

"Tension and the Potter." *Studio Potter.*
8 No. 1, 52-4

"New York Health and Racquet Club." *Interiors*
Jun. 79, 120-3

"Bathing and Fitness Equipment." *Progressive Architecture.*
Aug. 78, 84-9, 92+
"Two Paths to a State Of Weightlessness." Design. Aug. 78, 54-5


"College Students Vote a Bond Issue Payable by Themselves." Architectural Record. Feb. 77, 35

"Building Type Study." Architectural Record. Feb. 77, 115-30


APPENDIX

SHAKLEE

The information I am looking for is:

1.) Describe the type of program you operate?

See attached

2.) Does your program require special facilities?
If yes what kind?

See attached

3.) What specific functional spaces does your program require? i.e. physicians office, weight room, aerobics, gymnasiums, pools, etc.

See attached

What are the size requirements of the spaces included in your program?

See attached

4.) What percentage of your employees actually make use of your program?

<table>
<thead>
<tr>
<th></th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>aged 25 and below</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>aged 26 - 35</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>aged 36 - 45</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>aged 46 and above</td>
<td>%</td>
<td>%</td>
</tr>
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Information is confidential. Unable to release.

5.) How much do these employees use the program? (hrs/week)

<table>
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<th></th>
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<th>Men</th>
</tr>
</thead>
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</tr>
<tr>
<td>aged 46 and above</td>
<td>hpw</td>
<td>hpw</td>
</tr>
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</table>

Information is confidential. Unable to release.
6.) What was the initial cost of implementing your program and the date of implementation? 
   Date of Implementation was 5/1/80. 

7.) What does your program cost to operate per year? 
   The Program: 
   The Facility: 
   Per Employee: 
   Unable to release financial information.

8.) Has it affected insurance costs? 
   Workmen's Compensation covers all employees. - NO - 
   using the facility.

9.) Has it attracted better qualified personnel to your company? 
   We believe so but have no facts to substantiate.

10.) Has there been a noticeable health increase among your employees? 
     -- Don't know. No facts to support this hypothesis.

11.) Has there been a change in productivity? 
     -- Don't know. No facts to support this hypothesis.

12.) Has the worker turnover rate been affected? 
     -- Don't know. No facts to support this hypothesis.

13.) Has the program affected the amount of sick days? 
     -- Don't know. No facts to support this hypothesis.

14.) Has the program affected absenteeism? 
     -- Don't know. No facts to support this hypothesis.

15.) What are your different job classifications and type of work if not apparent by job classification? 
     -- Don't understand this question.

16.) How many people do you employ in each job classification? 
     -- N/A
Shaklee Corporation has a firm commitment to support programs both internally and externally which promote physical fitness, nutrition and health. As part of this commitment, the company provides Shaklee employees with the opportunity to improve and maintain high fitness levels through use of a fitness facility called Centerra.

ABOUT THE PROGRAM
The Centerra program for all full-time Shaklee employees began in May, 1981 at Shaklee Terraces in San Francisco. The program is designed to enhance total physical fitness, emphasizing cardiorespiratory development through "heart-rated" exercise. The program is two-dimensional — the managed facility in San Francisco, and the self-implemented program, which is utilized at other Shaklee facilities. Centerra, which utilizes 14,000 square feet, features a variety of physiological testing and exercise equipment, showers and changing facilities, and all toiletries.

INDIVIDUALIZED PROGRAMS
Each Centerra participant receives an individualized exercise prescription based on his/her health and exercise history, fitness objectives, recreational interests and a series of physiological tests, including percentage of body fat, body strength, flexibility and heart rate response to mild exercise.

EMPLOYEE PARTICIPATION
Employee participation is approximately 70 percent, with continuing initial testing and program re-testing. The self-implemented program is expected to have at least 30 percent participation. Centerra is open 7 A.M. to 7 P.M., Monday through Friday. The company maintains a Flextime work schedule, thus enabling employees to utilize the facility during less crowded hours.

EQUIPMENT
- Keiser Cam II air compressed weight equipment
- Three-way master gym by Marcy
- Abdominal Boards by Marcy
- Dumbbells by Marcy
- Rowing Machine
- One Tredex treadmill
- Four Quinton Monark Stationary Bicycles
- One track (23 laps to a mile)
- 1500 Datapoint Computer

SUPPORT STAFF
Shaklee Corporation has contracted Fitness Systems, Inc., a Los Angeles-based company specializing in a wide variety of physical fitness services to business and industry, to implement and manage the Centerra fitness programs. Two full-time exercise physiologists provide professional and personalized guidance for Centerra participants.
The information I am looking for is:

1.) Describe the type of program you operate? **Our Program**

   IS PARK & RECREATION ORIENTED FOR CUMMINGS EMPLOYEES AND THEIR FAMILIES. OUR PARK IS 84 ACRES, WITH A THICKEN RECREATION FACILITY THAT WE PROGRAM WITH PROGRAMS FOR CUMMINGS EMPLOYEES. WE OFFER BASKETBALL, VOLLEYBALL LEAGUES, PALETA, AEROBICS CLASSES, CRAFTS CLASSES, SPECIAL TOURNAMENTS, BARMINTON LEAGUES. WE ALSO HAVE A NAUTILUS WEIGHT ROOM, AND A 400 METER RUNNING TRACK FOR THE EMPLOYEES TO USE.

   THE PARK HAS MINIATURE GOLF, BEACH VOLLEYBALL, CAGES, TENNIS COURTS, BALL DIAMONDS, TRAPS, APPLE RANCH, CAMPING AREA, GO-KART TRACK, PICNIC AREAS, AND POOL.

2.) Does your program require special facilities? If yes what kind? **Some of our Golf Leagues, Bocce Leagues, We use the local Allys & Golf Courses in the community for these programs.**

3.) What specific functional spaces does your program require? i.e. physicians office, weight room, aerobics, gymnasiums, pools, etc. **WE HAVE WEIGHT ROOM WITH NAUTILUS Equipment. WE USE OUR GYM FOR AEROBICS & KARATE CLASSES AND OUR LEAGUE FUNCTIONS.**

   What are the size requirements of the spaces included in your program? **WE HAVE TWO HIGH SCHOOL SIZE GYM FLOORS, BOTH CAN BE DIVIDED OFF TO HANDLE 2 VOLLEYBALL GAMES AT A TIME. OUR WEIGHT ROOM ABOUT 25 X 35, AND HANDLES 10 NAUTILUS MACHINES AND FREE WEIGHTS. OUR RUNNING TRACK IS 400 MILE IN LENGTH.**

4.) What percentage of your employees actually make use of your program?  

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 and below</td>
<td>5%</td>
<td>5%</td>
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<tr>
<td>26 - 35</td>
<td>30%</td>
<td>30%</td>
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<tr>
<td>46 and above</td>
<td>5%</td>
<td>5%</td>
</tr>
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</table>

5.) How much do these employees use the program? (hrs/week)  

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
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<td>2 hpw</td>
<td>2 hpw</td>
</tr>
<tr>
<td>26 - 35</td>
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<td>36 - 45</td>
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<td>10 hpw</td>
</tr>
<tr>
<td>46 and above</td>
<td>3 hpw</td>
<td>3 hpw</td>
</tr>
</tbody>
</table>
6.) What was the initial cost of implementing your program and the date of implementation?  
PARK WAS BUILT 1965, OUR RECREATION FACILITY OR GYM WAS BUILT IN 1981  
AND COST 217 MILLION DOLLARS WHEN COMPLETED.

7.) What does your program cost to operate per year?  
The program $20,000  
The facility $50,000  
Per employee $50,000  
TOTAL PARK OPERATION $200,000

8.) Has it affected insurance costs?  **YES**

9.) Has it attracted better qualified personnel to your company?  **YES**

10.) Has there been a noticeable health increase among your employees?  **YES**

11.) Has there been a change in productivity?  **CAN NOT ANSWER** DUETO LAYOFFS, THIS IS AT THIS TIME RAW TO SAY.

12.) Has the worker turnover rate been affected?  **AGAIN DUETO LAYOFFS, THIS IS AT THIS TIME RAW TO SAY.**

13.) Has the program affected the amount of sick days?  **NO**

14.) Has the program affected absenteeism?  **NO = REFUSE**

15.) What are your different job classifications and type of work if not apparent by job classification?  
**I AM A PROGRAM COORDINATOR; I PROGRAM RECREATIONAL ACTIVITIES, I ALSO ACT AS A PARK MANAGER DURING THE SUMMER MONTHS.**

16.) How many people do you employ in each job classification?  
**CUMMINS ENGINE COMPANY**

<table>
<thead>
<tr>
<th>Classification</th>
<th>Number of Employees</th>
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<tbody>
<tr>
<td>Office Manager</td>
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<tr>
<td>Shop Manager</td>
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<tr>
<td>Total Employees</td>
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The Park Employees:  
1. PARK MANAGERS  
2. PROGRAM COORDINATORS  
3. SEASONAL

93
The information I am looking for is:

1.) Describe the type of program you operate? 
- Comprehensive health/prisoner aspect that includes health education, physical training, personal hygiene, health program, health counseling, all types of exercise.

2.) Does your program require special facilities? Yes.
If yes what kind? (e.g. outdoor, indoor, etc.)

3.) What specific functional spaces does your program require? (e.g. physicians office, weight room, aerobics, gymnasiums, pools, etc.)

What are the size requirements of the spaces included in your program?

4.) What percentage of your employees actually make use of your program?

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>aged 25 and below</td>
<td>16%</td>
<td>18%</td>
</tr>
<tr>
<td>aged 26 - 35</td>
<td>15%</td>
<td>14%</td>
</tr>
<tr>
<td>aged 36 - 45</td>
<td>20%</td>
<td>23%</td>
</tr>
<tr>
<td>aged 46 and above</td>
<td>6%</td>
<td>9%</td>
</tr>
</tbody>
</table>

5.) How much do these employees use the program? (hrs/week)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>aged 46 and above</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Average: 6
24 hours/week
12 hours/month
2 months
6.) What was the initial cost of implementing your program and the date of implementation? **Jan 1985**

7.) What does your program cost to operate per year?
   The program
   The facility
   Per employee **Approx. $250**

8.) Has it affected insurance costs? **No known yet**

9.) Has it attracted better qualified personnel to your company? **Too early**

10.) Has there been a noticeable health increase among your employees? **Too early**

11.) Has there been a change in productivity? **Too early**

12.) Has the worker turnover rate been affected? **Too early**

13.) Has the program affected the amount of sick days? **Too early**

14.) Has the program affected absenteeism? **Too early**

15.) What are your different job classifications and type of work if not apparent by job classification?

16.) How many people do you employ in each job classification?
   **Increases**
   **Decrease**
**GENERAL ELECTRIC**

The information I am looking for is:

1.) Describe the type of program you operate? 

<table>
<thead>
<tr>
<th>Full medical examination including physical, psychological, eye, hearing, neurological, and psychological testing.</th>
</tr>
</thead>
</table>

2.) Does your program require special facilities? 

<table>
<thead>
<tr>
<th>Yes</th>
</tr>
</thead>
</table>

3.) What specific functional spaces does your program require? i.e. physicians office, weight room, aerobics, gymnasiums, pools, etc. 

| Aerobics area, weight room, classrooms, therapy areas, gardens, snack room, equipment, locker room, support staff. |

4.) What percentage of your employees actually make use of your program? 

<table>
<thead>
<tr>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>aged 25 and below</td>
<td>______%</td>
</tr>
<tr>
<td>aged 26 - 35</td>
<td>______%</td>
</tr>
<tr>
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<td>______%</td>
</tr>
<tr>
<td>aged 46 and above</td>
<td>______%</td>
</tr>
</tbody>
</table>

5.) How much do these employees use the program? (hrs/week) 

<table>
<thead>
<tr>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>aged 25 and below</td>
<td>______ hpw</td>
</tr>
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<td>______ hpw</td>
</tr>
<tr>
<td>aged 36 - 45</td>
<td>______ hpw</td>
</tr>
<tr>
<td>aged 46 and above</td>
<td>______ hpw</td>
</tr>
</tbody>
</table>

*Not available*
6. What was the initial cost of implementing your program and the date of implementation? 
NA
- $5,000 - May 1, 1985 - initial review.

7. What does your program cost to operate per year? 
The program [Amount] per year.
The facility [Amount] per year.
Per employee [Amount] per employee primarily involved.

8. Has it affected insurance costs? 
NA

9. Has it attracted better qualified personnel to your company? 
NA

10. Has there been a noticeable health increase among your employees? 
NA

11. Has there been a change in productivity? 
NA

12. Has the worker turnover rate been affected? 
NA

13. Has the program affected the amount of sick days? 
NA

14. Has the program affected absenteeism? 
NA

15. What are your different job classifications and type of work if not apparent by job classification? 

1. Entry Level
2. U.S. - Social Security, Health Plan
3. Other Entry -不可能看懂
4. Executive
5. U.S. -不可能看懂
6. Non-U.S. People
7. Testing People
8. Administrative Staff
9. Maintenance Work
10. How many people do you employ in each job classification? 

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BALL CORPORATION

The information I am looking for is:

1. Describe the type of program you operate?  
   _____________________________  
   Preventive Disease Program - Screening periodic physicals, health education, fitness program

2. Does your program require special facilities?  
   No  
   If yes what kind?  
   _____________________________  
   - colon cancer screening  
   - other classes

3. What specific functional spaces does your program require? i.e. physicians office, weight room, aerobics, gymnasiums, pools, etc.  
   Exam room, my office, 
   - Office  
   Also, some small exercise rooms that are necessary to program

   What are the size requirements of the spaces included in your program?  
   Not big enough to list  
   - Some are exercise equipment, 8 x 8

4. What percentage of your employees actually make use of your program?  
   _____________________________  
   aged 25 and below  
   _____________________________  
   aged 26 - 35  
   _____________________________  
   aged 36 - 45  
   _____________________________  
   aged 46 and above

   _____________________________  
   Women  
   Men

5. How much do these employees use the program? (hrs/week)  
   _____________________________  
   aged 25 and below  
   _____________________________  
   aged 26 - 35  
   _____________________________  
   aged 36 - 45  
   _____________________________  
   aged 46 and above

   _____________________________  
   Women  
   Men

98
6.) What was the initial cost of implementing your program and the date of implementation? 
   1960, $1.2 million

7.) What does your program cost to operate per year?
   The program:  
   The facility:  
   Per employee:  

8.) Has it affected insurance costs?  
   No.

9.) Has it attracted better qualified personnel to your company?  
   Yes, and continued some.

10.) Has there been a noticeable health increase among your employees?  
     No.  
     Support so, but, yes.

11.) Has there been a change in productivity?  
     For those individuals who make regular use of facility, yes.

12.) Has the worker turnover rate been affected?  
     Unknown.

13.) Has the program affected the amount of sick days?  
     Unknown.

14.) Has the program affected absenteeism?  
     Unknown.

15.) What are your different job classifications and type of work if not apparent by job classification?  
     Unknown.

16.) How many people do you employ in each job classification?  
     Unknown.
The information I am looking for is:

1. Describe the type of program you operate?
   - Recreation, Employee Service Events
   - Recently (1988) a full-time Phys Ed Instructor was brought on to run a new fitness program
   - Presently we offer a piece of exercise equipment for employees to use.

2. Does your program require special facilities? Yes.
   - Special facilities: Basketball, Volleyball, tennis, racquets, fitness center
   - In-house tournaments: Male tennis, Frequentall
   - Other activities: Basketball, Cardio, etc.
   - Employee activities: Cook, House, Beer, Wine, Bowling, etc.
   - Social events: Concerts, Picnics, Trivia Night, etc.

   - See above

4. What percentage of your employees actually make use of your program?
   aged 25 and below: Women %, Men %
   aged 26 - 35: Women %, Men %
   aged 36 - 45: Women %, Men %
   aged 46 and above: Women %, Men %

5. How much do these employees use the program? (hrs/week)
   aged 25 and below: Women _hpw, Men _hpw
   aged 26 - 35: Women _hpw, Men _hpw
   aged 36 - 45: Women _hpw, Men _hpw
   aged 46 and above: Women _hpw, Men _hpw
6.) What was the initial cost of implementing your program and the date of implementation? 1980 - for fitness
   program  Cost of (62 week) stress EEG (average)
   P. Gross, Chicago, person for 36 people

7.) What does your program cost to operate per year?
   The program  Approx. $100
   The facility
   Per employee

8.) Has it affected insurance costs? No $50

9.) Has it attracted better qualified personnel to your company?
   Rare cases, it's been a factor

10.) Has there been a noticeable health increase among your employees?
    Slight

11.) Has there been a change in productivity? Other factors
    Difficult to measure

12.) Has the worker turnover rate been affected? - probably not

13.) Has the program affected the amount of sick days? Not known

14.) Has the program affected absenteeism? Not known

15.) What are your different job classifications and type of work if not apparent by job classification?

16.) How many people do you employ in each job classification?