# Redefining Retirement:

## Guidelines for The Design of Seniors' Social Environments

By

Jodi Sapinsky

A Practicum

Submitted to the Faculty of Graduate Studies

In Partial Fulfillment of the Requirements for the Degree of

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THE UNIVERSITY OF MANITOBA

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# Abstract

Populations around the world are changing. The percentage of older adults is greatly increasing, creating a higher concentration of retired individuals in Canada and around the world. As times change, the activities and ways people choose to spend free time also change. Today's retired people are more interested in continuing their education and taking an active role in their communities, than sitting at home watching TV and playing shuffleboard and bingo. Although people are living longer, the physical, social and cognitive changes people go through as they age remain important issues to consider. Establishing environments which foster positive aging physically, socially, and cognitively is critical to the well-being of the coming greying generations.

A review of literature from different areas of study was conducted in order to identify the changing demographic. Understanding what these changes mean in terms of the percentage of aging people, as well as changing ideas of what it means to grow older and retire, is crucial to the development of social environments. To completely comprehend how things are changing, one needs to understand current and past ideas of the older generations. Case studies of existing seniors' centres were conducted to identify current activities and participation of seniors in Winnipeg. A comprehensive understanding of the physical aging process is also important as this information helps to determine which characteristics are prominent for the physical body in terms of minimizing or reducing physical deterioration. Information compiled through medical research was gathered to understand medical advances and how seniors can improve the quality of life in their later years. Research on the social and cognitive aging process was also obtained for information on what people need to live a longer, happier life. Issues concerning retirement are also very

important. Understanding these issues helps to determine which activities and services should be offered. Information on how people choose to spend the last third of their lives in terms of finances and activities is critical in determining what the new social environments could offer and where they should be located.

This practicum develops design guidelines for the establishment of social environments of the new senior population and others in the future. The guidelines will be applicable in various locations in Canada, North America, and the world. Adaptations would need to be made in some locations due to different cultures, beliefs, and interests.

To illustrate how they could be implemented, these guidelines were used to develop a design program for a seniors' centre in the Westwood region of Winnipeg, Manitoba. The location was carefully selected on the basis of demographic data, existing amenities, and accessibility.

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# Introduction

Today's society is not prepared for the dramatic increase of older adults. This lack of preparation is reflected in an apparent lack of social environments for seniors to gather and interact with others. This design practicum examines issues related to aging, states objectives, and develops design guidelines. A case study shows how these guidelines could be implemented.

These design guidelines will be of benefit to the interior design profession by creating a correlation between issues surrounding aging and the design of social spaces that best promote feelings of good health, safety, comfort, and self-worth. The guidelines are based on research from various areas of study, which include physical, social, and cognitive aspects of aging as well as trends in retirement, and concepts of seniors' social environments. This information is needed in order to design more effective social environments for seniors in today's changing society.

Making correlations between aging research and how they relate to interior design may lead to limitations or assumptions. Although the design guidelines were formulated with a systematic process, they are a subjective interpretation of the research gathered and analyzed through the literature review. There is an assumption that all seniors should be active and enjoy retirement. Although this assumption cannot be verified without extensive primary research of the designated population, it does reflect the ideas expressed by the majority of the population examined in the research.

# Limitations of the Study

This study is focused on the North American society in general, keeping in mind that small cultural groups exist within this society. Activity programming may be significantly different for various cultures. Therefore the guidelines outlining activity options may not be universally applicable. However, the guidelines concerning human comfort, wayfinding and accessibility describe optimal requirements for most situations.

# Literature Review

In order to understand the issues involved with aging and the design of seniors' social environments, information was analyzed from different areas of study. Demographic statistics were examined to understand the state of the aging population in Canada and the impact of this population on society. Various aging theories were also explored. These theories provide a basis for the concepts of physiological issues, retirement issues, and social issues. The physiological issues outline physical changes that occur to individuals as they age, and the positive effects of physical activities on the body.

Retirement gives rise to many changes in an individual's life in terms of income, socialization with friends, and available time McPherson, 1998). These issues as well as various retirement concepts will be further discussed. A description of what a seniors' social environment entails will also be discussed

in the literature review to provide a basic understanding and focus for the design practicum.

## Demographic Statistics

The world's demographics are constantly changing. Today's Canadian societies are growing older. There will be a significant increase of seniors in the coming years due to the aging baby boomers, a group of people born in the twenty years following the Second World War. The baby boomers will start to reach the age of 65 in the year 2011. By that time 23% of Canada's population will be age 65 or older (The Daily Statistics Canada, 2002b). "The number of people aged 65 and over is expected to double from nearly 4 million to almost 8 million by 2026. By 2051, the population of the seniors could reach between 9 million and 10 million" (The Daily Statistics Canada, 2002a, Enormous increase in seniors expected in next quarter

century section, ¶ 1) (Figure 1 — Proportion of population aged 65 and over between 2000 and 2051). These demographics show the urgency for developing social environment for older adults. Current facilities are very busy with the number of individuals using them today. Winnipeg is currently operating ten centres throughout the city which provide services and activities that consists of medical services, meal programs, computer classes, card and board games, billiards, dances, and fitness classes. They are open Monday to Friday from 8:30 am — 4:30 pm and are for individuals aged 55+ (Good Neighbours Senior Centre, 2002). Due to the interest in the centres, it is somewhat difficult to find a location that suits the functions and the amount of people. A population increase such as the one projected will overwhelm Winnipeg and even the most prepared communities.

**Proportion of population aged 65 and over could double between 2000 and 2051**
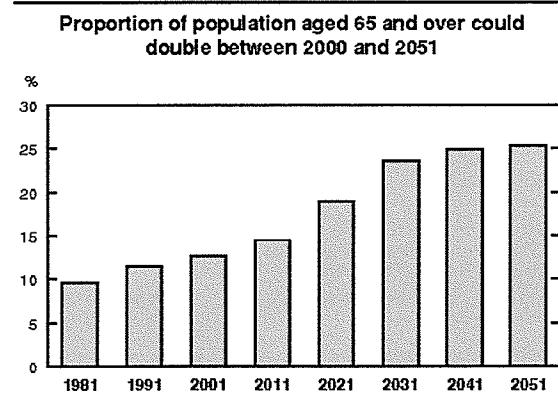


Figure 1 - Proportion of population aged 65 and over between 2000 and 2051.

### Aging Theories

Aging is a fact of life. It is process that changes one's life physically, socially, and mentally. There is no definite line when these changes occur. If one lives a long happy life without major disabilities it is said that they have aged successfully (Bearon, 1996). There are three very interesting theories about how to age successfully. The first theory states that activity is the key (Bearon). Individuals who participate in a wide range of activities and keep themselves busy age more successfully than those who are not active. These activities could range from volunteer work to physical recreational activities. It is this theory which led to the development of seniors centres in the

1960's and 1970's (Bearon). The second theory, the continuity theory, states, "those who carry forward the habits, preferences, lifestyles, and relationships from mid-life into late life" age most successfully (Bearon, 1996, ¶ 6). This theory believes that changes occur gradually over time, and not radically at one time. These changes occur due to life experiences and lifestyle changes, such as retiring, moving, divorce, marriage, etc. How an individual navigates through these difficult times is determined by their coping skills, which have been developed through past stages of their life.

The previous two theories are not mutually exclusive, but rather can be combined to create a well rounded theory of a healthy aging process. The third theory, the continuity theory, confirms the need for people to become active before retirement and carry on with these activities into their retirement years. Unfortunately, people tend to withdraw from social activities as they age. This is known as the disengagement theory (Bearon, 1996). As people age their bodies start to decline. This results in people losing the capability to engage in certain activities, and therefore they withdraw from activities. Personalities and interests also change which can lead to lack of participation (Bearon).

Aging is an issue important to everyone. Everyone would like to know what the secret is to living a long happy life. The demographic of Canada is in a constant state of flux but is currently on the verge of a major burst of retirement-aged individuals, due to aging baby boomers. These people are experiencing different changes in their lives, physically, cognitively, and socially. As well, their ideas on how they would like to spend their retirement years have changed from the generation before them (Freedman, 1999).

*Physiological Issues*

Aging also brings on physical changes in the body. Many of a person's senses diminish with age, such as the ability to see

close objects or small print in books (National Institute on Aging, 1995), a decrease in hearing (National Institute on Aging, 1996), difficultly in determining hot and cold relating to touch, and mobility (Broomfield, 2001). Other issues many people become concerned about are their actual physical appearance and how they feel. Even at a later age people want to look their best. One feels good when one looks good. Often older adults have trouble regulating a healthy body weight and composition. The body's metabolic rate changes with age. This makes it more difficult to stay in shape. High blood pressure can lead to heart attack and in many cases older adults feel fatigued and do not have the energy to participate in activities (Westcott, 2000). Many of these effects can be decreased through regular exercise. Strength training is a proven way of dealing with these effects in a positive manner. Wayne L. Westcott, Ph.D., has conducted a study and has made six conclusions which illustrate the need for older adults to participate in strength training. "Seniors can participate in a well-

designed and carefully supervised program of strength training" (Westcott, Discussion of findings section ¶ 2). This affirmation of seniors' ability to engage in strength training is the most important conclusion, because many individuals feel they are not capable of strength training or they will injure themselves. "Seniors can improve their body composition" (Westcott, Discussion of findings section ¶ 3). As individuals age their metabolic rate decreases. This means the body has difficulty burning fat and therefore it remains in the body. Strength training helps by raising the metabolic rate and burning the individual's fat. This closely relates to the next conclusion, "Seniors can decrease their fat weight" (Westcott, Discussion of findings section ¶ 4). The forth conclusion states, "Seniors can increase their lean (muscle) weight" (Westcott, Discussion of findings section ¶ 5). This is particularly important for establishing strength and stability. By increasing lean weight, one will have more energy to do other activities. They will not be carrying excess fat weight,

which makes people feel fatigued. The fifth conclusion states, "Seniors can reduce their resting blood pressure" (Westcott, Discussion of findings section ¶ 6). Reducing blood pressure is important because it minimizes the risk of heart attack. The sixth and final conclusion is "Seniors can develop physically active lifestyles, even after years of sedentary behaviour" (Westcott, Discussion of findings section ¶ 7). The old saying, "You can't teach an old dog new tricks," does not apply in this case. To be physically active is a mental decision.

Strength training is very beneficial, as one can see by the above findings, but is not enjoyed by everyone. The most important concept is that as a person ages, they should remain active. Older adults can also take part in walking or running, and a variety of other cardiovascular activities. Physical activity can also enhance a person's mood (Menec, & Chipperfield, 1997). Participating in physical exercise gives people a sense of control over their bodies. They feel good about themselves

because they look good. When people feel good about themselves, they convey a positive feeling to others around them. The types of activities and their benefits will vary from person to person (Active Living Coalition for Older Adults, 1999). For many, being physically active is much more enjoyable when it is done in the company of friends (Klein & Bloom, 1997).

In order to keep people young they need to feel young. Exercising the brain is very important in this regard. To keep people mentally sharp they need to challenge and stimulate their brains. Volz states, "do something that challenges and engages your mind, not because it's difficult, but because it's different from what you normally do" (2000, Banking on success section, ¶ 16). Variety is the spice of life. When one does something that is different it is positive whether one succeeds or not, just because one tried. If one does succeed, it is even greater because one learned something new about oneself. This outlook leads to the understanding that people

should be doing a variety of activities and experimenting with things they have never done before. A social centre should provide a variety of opportunities and experiences for many different types of people.

Joe Volz states in his article *Successful Aging: The Second 50,* "People do better if they continue to engage with life and maintain close relationships" (2000, Social support vital section, ¶ 2). It is also understood that people who do take part in social activities have better overall health. Staying connected with other individuals gives people a sense of meaning and self-worth. During difficult times it is important to have close relationships and friends to talk to (The Early Show, 2002). Having social support reduces the feeling of social isolation. Having friends and close relationships gives individuals feelings of connection to other people and the sense that their actions matter. Unfortunately, many aging adults tend to withdraw from activities and other people (The Early Show). It is very important to create a space that promotes

social activity, so that people feel they are part of a group and enjoy getting together with others (Champeau, 2002). These findings clearly indicate that social centres would make people feel comfortable interacting with others, and try new things. Being a part of something and having people rely on them gives individuals a sense of worth and makes them feel that what they are doing is important not only to themselves, but to others as well. People need to explore their special skills and interests and offer them to help others.

## *Retirement Issues*

Through time, ideas change in all aspects of life. In the past and for some people today retirement is seen as a "time to take it easy, take care of yourself, enjoy leisure activities and take a much deserved rest from work and daily responsibilities" (Freedman, 1999, pg 224). This is the outlook of only 35% of retired people today. The snowbirds are a good example of this group. These

people have permanent residences in Canada, but travel south for the winters to live in a warmer climate and relax in communities with other retired persons. Many of these communities include golf courses, swimming pools and other pre-programmed activities but are exclusive to these retired people. The activities provided give the individuals opportunities to fill their days, but in many cases, neither challenges them nor gets them involved in a greater community.

This way of thinking is changing. People are now starting to look differently at what they would like to do with their retirement years. The other 65% of retired persons see retirement as a "time to begin a new chapter on life by being active and involved, starting new activities, and setting new goals" (Freedman, 1999, pg 224). They feel a person's life can be broken up into three ages. The first age is represented by a person's developing and academic years. It starts at birth and carries on to the completion of high school or post-secondary education. The

second age is represented with an individual's working life. It starts at the completion of their academic career and ends at their retirement of their professional career. The third age is represented by a specific type of retired persons as outlined in the quotation above: individuals who are active and involved in their communities and starting new activities. The third age attitude is growing amongst older adults because people are living longer due to an increased interest in physical activity and advances in health, and medicine. The theory suggests that people want to live the last third of their lives to the fullest. It needs to be meaningful and the individuals must be self-fulfilled. People achieve this in different ways. Many older adults wish to continue the education process. Universities have recorded higher enrolment of older adults in their courses (Freedman). These individuals have chosen to obtain new degrees or simply attend classes of interest to them. Due to popular demand, third age universities were developed in England. The positive reaction

and interest around the world helped to establish other third age universities in Australia and the United States (Freedman). These education programs are open to retired persons and deal with issues of importance to the members of the program. Few programs have been developed in Canada to date. Establishing linkages from social centres to existing university programs may be a feasible option in many different cities. Creating these connections could expand existing programs through promotion in the centres and strengthen the community of individuals participating in the activities.

### Social Issues

Social aspects of life also change with the aging process. The friendships people have during their working lives could change due to people being at different points of their lives at different times. It is important to maintain all relationships, but at the same time, people must understand how their friendships could change. The friendships people have during their working lives sometimes change due to people being at different points of their lives at different times. For example, friends of similar age and occupation may be retiring at different times because of financial stability and other personal factors. Friends of different ages and occupations have other reasons for not retiring at the same time. The interests these friends share may change along with the amount of free time available to them.

It is due to physical, cognitive, and social changes that new social environments need to be developed. Aging adults need a place to meet other people and socialize with their friends. This is especially important when approaching retirement because the transition between an individuals' working life and their retirement life can be difficult (McPherson, 1998). In most cases, people's working lives consist of routine. One sees the same people everyday and does the same things. There is a feeling of comfort and stability with routine. Taking away the working component of the day

alters 1/3 of a person's time. Then the individuals must fill their day with new activities and experiences. This is a difficult change to work through because everything that has guided the day has changed. Individuals have the freedom to do what they want instead of what they need to do (Freedman, 1999).

Work has been such an integral part of one's life, but in many cases is not the only force that drives and makes one happy. "Work is of primary concern because it influences place and type of residence, income, social status, lifestyles, and friendships." (McPherson, 1998, 233). In many cases a person's profession determines how others view one as a person. One's income regulates how one lives and what one buys. These are the things that others see and help to create impressions. People tend to make friends with others with whom they have something in common (McPherson). This could be their occupation, which leads to similar income brackets and amounts of free time. Most

likely, these friends would have a similar education, understand each other's daily activities, and be able to speak at the same level. People tend to gravitate to others with the same interests.

Providing an environment which brings people together with different backgrounds and interests offers and opportunity for creating new friendships, and retaining old ones. Changes occur in all aspects of life when one retires. It is how each individual deals with the different changes which makes for a smooth transition.

The benefits of all these issues combined are reflected in a person's well-being and what he/she chooses to do with their retirement years. Many choose to volunteer or work and help others. Others choose to continue their education by taking university classes or seeing other parts of the word through travel (Freedman, 1999).

*What is a Seniors Social Environment?*

Leanse, Tiven, & Robb in *Senior center operation: A guide to organization and management* define senior centres as places where "older persons can meet together, receive services and participate in activities which enhance their dignity, support their independence and encourage their involvement in and with the community..." (1977, pg ix). It should fulfill social, physical, and intellectual needs (Jordan, 1978). The social environment fosters socially enriching experiences and enhances feelings of self-worth through interaction with others.

The concept of the social environment extends back to the historic agora in Greece. The agora, or place to gather, was the social hub of the community where people would meet to discuss daily activities and news. Social interaction has been an important factor for many centuries (Sternberg, 1971). These meeting places create a sense of community, and are a place to spend time with friends because of the common goal for social interaction.

The social environment exists for social, recreational, and educational purposes. It provides a location which gives opportunity to participate in activities, or watch others if individuals do not wish to participate themselves. The environment meets the needs of people with different personalities by providing a wide range of activities and services. Involvement in such an environment can also lead to participation in new activities with new people (Sternberg, 1971). The social environment is also a place which gives people the opportunity to help others through volunteer work and other community programs creating a stronger sense of community (National Institute on Senior Centers, 1976).

Changing ideas of what retirement means are causing society to reconsider what these social environments should encompass. Senior centres in Winnipeg today offer their services at various locations around the city.

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The Good Neighbours Senior Centre, for example, is a well-established centre which promotes physical and mental well-being through a variety of activities such as fitness classes, computer classes, card games, billiards, crafts, writing workshops, and breakfast clubs for both men and women (Seniors Resource Network, 2000). Other services occur at the centre at various times throughout the year, such as health fairs and clinics. With 950 members, this centre is one of the largest senior centres in Winnipeg. Space does prove to be a problem. In order to offer fitness classes the centre must rent space from the church adjacent to the centre. It is the lack of space that keeps the Good Neighbours Senior Centre from expanding and offering additional services which are requested by its members (Seniors Resource Network). A change in some of these services could bring more people to utilize the facility.

The Good Neighbours Senior Centre is located at 755 Henderson Highway in a former city of Winnipeg community office. The centre is governed by a board of directors but is operated primarily by volunteers.



Figure 2 - Front of the Good Neighbour Senior Centre
*http://www.seniors.cimnet.ca/cs?sit=19&st=50,1557, -1&lk=1587&li=45*

*Design Issues*

The design of the Good Neighbours Senior Centre was critiqued to understand existing design solutions. This information outlined the necessity for developing new design guidelines to create a more satisfactory social aging environment. The main entrance to the building is set back from the street making it difficult to drop off visitors at the front entrance. Drop-off is available at the back side of the building, but this entrance does not have automatic doors and is at a lower elevation than the rest of the building. This means visitors must go up a number of steps to enter the reception area. The building has two

levels. On the main level is the reception and waiting area, multi purpose room, canteen/games room, computer room, and the administrative offices. An elevator services the second level and houses two private conversation/medical services rooms and an art & crafts room. Fitness programs offered by the centre are located in the basement of the adjacent church which is wheelchair accessible.

### Furnishings

Flooring throughout the building is vinyl composition tile and, being a hard surface, does not hinder access to those with mobility aids and is low-maintenance. Unfortunately it is not slip-resistant and can cause glare from reflection from direct sunlight or lighting fixtures.

### Heating System

The building is heated with a convection system. Radiators are found in every room throughout the building.

The reception/waiting space is located at the front entrance, the central part of the centre. An L-shaped reception desk is located directly in front of the main entrance. Three seats are provided for waiting visitors and is limited visual access to the outdoors. The multipurpose and computer rooms are adjacent to the reception area. The reception area serves as a central location with various other spaces such as the administrative office and canteen radiating with narrow corridors.

The computer room contains twelve computers, two of which are Macintosh. Having both operating systems gives all individuals an opportunity to learn and use the computers. This space is lit with fluorescent fixtures. Large windows are located in the back of the room; therefore shades must be drawn during the day because the direct sunlight causes too much glare on the computer monitors.

Figure 3 - Computer room
*http://www.seniors.cimnet.ca/cs?sit=19&st=50,1557,
-1&lk=1587&li=45*

The multipurpose room is located on the front side of the building. North glazing provides visual access to the exterior and natural lighting, but the space still relies primarily on artificial fluorescent fixtures.

The administrative offices are located on the back side of the building and are accessed by a narrow corridor from the reception area. Because of the location the offices are not friendly for visitors to drop in and do not encourage socialization.

The eating / food preparation / games room, or canteen as it is called in this case, is accessed by a narrow corridor. It contains a small home-style kitchen for preparing soups and sandwiches. Vinyl padded seats with no arms are provided at six round tables, each seating four people. A pool table is also located on one side of this room. Windows on the east wall provide visual access to the exterior. Unfortunately, the view is to a back alley.



Figure 4 – Canteen
*http://www.seniors.cimnet.ca/cs?sit=19&st=50,1557,
-1&lk=1587&li=45*

The private conversation/medical rooms on the second level are open spaces with little furniture, two tables and wooden chairs. Windows are located on the east side of the rooms, providing good morning sun.

The services and activities provided at the Good Neighbours Senior Centre vary greatly from others in the Winnipeg area. The most common services include medical services (check-ups and clinics), meal programs, organized games (cards, board games, billiards), social dances, educational classes and

fitness programs. However, because of limited space, many of the fitness classes and other educational classes are not provided in this centre. This makes these activities less accessible to all the users.

The new seniors' social environment should include activities such as weight training, more extensive educational programming and social services to encourage members to be as independent as possible. Seniors today seem to be showing less interest in organized games. This space could be better utilized with programming that would be of greater interest to the current senior population.

The Canadian government sees health care as a high priority; therefore major funding should be at the federal level. Developing these seniors' social environments provides a form of health care for aging populations which has not been considered in the past. It is a form of proactive health care rather than reactive health care such as hospitals and personal care homes.

## *What are Design Guidelines?*

The purpose of creating design guidelines is to provide design professionals with information that will allow them to create the best overall environment possible for senior activity centres. Guidelines are written in the language of the users, as well as interior designers and should therefore "be clear enough to be understood by the public," (Watson, Introduction to design guidelines section, ¶ 2), and should be brief and consistent (Eldridge & Jordan, 2002). Examples and illustrations are therefore used to clarify and enhance key points. Design guidelines address common problems and issues and provide recommendations, rather than requirements (Zotti, 1991). There is a fine line between guidelines being so exact that they are rigid and stifling, and guidelines being so subjective they become hard to interpret and enforce," (Watson, Introduction to design guidelines section, ¶ 3). There are two types of guidelines. Prescriptive guidelines, inform the

designer what should be achieved in a specific situation. Descriptive guidelines give detailed information on how to achieve a certain outcome. Each form of guidelines can produce different outcomes to design problems. Descriptive guidelines may not allow for a particularly creative original design solution, where as prescriptive guidelines allow the designer to make his/her own decisions and are more flexible for addressing different locations and cultures. The designers make the final decisions. The guidelines are intended to assist the designers in making these decisions by making them aware of the design issues identified in this study.

The intent of this study was to develop prescriptive design guidelines which "allow more creativity and are adaptable to the conditions of the site," (Watson, Introduction to design guidelines section, ¶ 5) by extracting key problems associated with aging and retirement which were identified through research. By determining the objectives one

solves the humanistic problems in non-design terms. At the same time, solutions to the humanistic problems lead to design questions (i.e., what needs to be designed to solve the problem). Therefore the objectives translate aging and retirement problems into design problems. Possible design solutions can be determined by solving the objectives (design questions). Clarifying and expanding the possible design solutions led to the development of the design guidelines. The design guidelines can be used as a guide to assist designers in designing new seniors' social environments.

# Inquiry Process

A connection between aging issues and interior environments was established by reviewing and analyzing information found in books, journals, and magazines and by conducting a case study of an existing seniors centres. The information found focused on various areas of study such as changing demographics and new ideas on what it means to retire and live the last third of one's life in terms of what activities people take part in, their work and volunteer practice, and socialization preferences. Information was also obtained about the physical aspects of aging, from medical research. For example, the deterioration of the body and senses, and how this process can be diminished through physical, social, and cognitive activities were explored. As well, information was gathered on how individual's lives change socially and cognitively as they age and how these processes can be improved through heightened social interaction.

A case study on an existing seniors' centre in Winnipeg, Canada, was conducted to determine what activities are currently being offered and who is participating within these organizations. Programming information from other senior centres in Canada was also explored. At the same time questions were asked about how these services relate to today's aging population compared to previous aging populations.

Robert Kumlin's theory for architectural programming was adopted to analyze the literature. Following this procedure the information obtained from the literature review was analyzed paragraph by paragraph to extract key themes that describe the various aging issues. Analyzing by paragraph rather than by specific details was chosen to uncover general themes. It was important for the themes to be general in order to make

correlations between aging and retirement issues and to design issues, and to plan how to integrate the found information into a built environment. The extracted themes outlined issues and concerns leading into the third age of life regarding the aging process and retirement, Also found were the solutions to the issues or problems in relation to the topic at hand.

For example, the first problem was related to human comfort. *What considerations need to be made to create an environment which is thermally comfortable for seniors undergoing constant physical changes, slowing down or deterioration of the body?* The issues found in the literature review are the rationale which support the initial humanistic problems.

The objectives state the solution to this problem in non-design terms and also evoke questions of what needs to be designed. This is the transition stage which helps to turn humanistic problems into design problems and solutions. The objectives for this particular problem regarding human comfort are to

*provide a thermal environment which caters to the needs of seniors by providing appropriate thermal comfort in the various activity spaces with appropriate ventilation and moisture conditions; careful consideration of glazing and activity levels to optimize heat gains and losses, and to minimize glare.*

The next step was to translate this problem and its non-design solution into a design question. How does one design, or what does one need to design to alleviate the problem, and facilitate the solution? Possible design solutions are found by answering the questions posed in the objectives. In this case, the possible design solutions are *radiant heating systems for sedentary activity spaces, separate humidity and ventilation control systems for each activity space, and appropriate glazing systems to control natural daylight, as well as solar heat gains / losses.*

The design guidelines were then formed from the possible design solutions and stated in more generalized terms. The guidelines in this case are broken down into

four main subject areas; *heating systems,*

*cooling systems humidity and air quality*

*control.* (Table 1).

**?** **What is the problem?**
What considerations
need to be made to
create an environment
which is comfortable for
seniors undergoing
constant physical
changes; slowing down
or deterioration of the
body?

**How do you solve
the problem?**

**♀** **Objectives**
The issues for design, or
the design questions.

**How do you
achieve the
solution?**

**♀** **Possible Design
Solutions**
Answers to the
objectives

≈

**!** **Design Guidelines**
Human Comfort
Heating Systems,
Cooling Systems,
Humidity Control &
Ventilation systems

**⬇** **The Issues inform
the problem**
Human Comfort
Physical Body &
Environment

Table 1 – Inquiry process *Jodi Sapinsky*

This process was repeated for all problems extracted from the literature review, to produce guidelines which include Human Comfort (Heating Systems, Cooling Systems, Humidity and Air Quality Control Systems), Wayfinding and Accessibility (Lighting, Mobility and Circulation, Signage and Furnishings), and Activities (Recreations Services, Health Services, Social Services, Food Services, and Educational Services).

The design guidelines then used in the development of a design program for a Winnipeg case study to illustrate how they would be implemented to determine the types of services to be provided, required size of spaces based on furniture requirements and anthropometric data, lighting requirements, and material selection for flooring, wall finish and upholstery.

This method of gathering information and analysis was beneficial because information was drawn from various areas of study, therefore providing a well balanced, sound footing on which to base conclusions about the design guidelines.

# Results

Results have been formulated by organizing the themes or problems uncovered in the literature review. Three major problems were revealed when analyzing the literature. The first problem deals with human comfort issues: *What considerations need to be made to create an environment which is comfortable for seniors undergoing constant physical changes; slowing down or deterioration of the body?* The second problem deals with issues regarding wayfinding and accessibility: *What factors must be considered when designing environments which are safe and easy to negotiate for all seniors to access and participate without restriction?* The third problem deals with activity issues: *What considerations need to be made to determine which activities and services should be provided to enhance and promote socialization, education, and physical activity for seniors in a social environment to ensure successful aging?*

In the following chart each humanistic problem is outlined and supported with issues on the specific matter. As previously noted the problems were revealed through research of aging issues as discussed in the literature review. The issues inform the humanistic problem.

The objectives are ways to solve the problem, in non-design terms. The objectives serve as a catalyst for of thinking and translating the issues into design. Although the objectives are not in design terms, they elude impressions of design. In some ways they are the issues for design, or are the design questions.

The possible design solutions are the answers to the objectives. They are the illustrative examples of what should be / could be designed in order to solve the design problems (the objectives).

The possible design solutions are answers to the objectives, and the objectives are answers to the humanistic problem;

therefore the possible design solutions satisfy a human need, and are design solutions to a humanistic problem.

The design guidelines are a well-organized, refined version of the possible design solutions. Design guidelines are design recommendations. They are not specific requirements.

| Table 2. Results for Designing a Seniors Social Environment | | |
|---|---|---|
| Problem #1 Human Comfort | Objectives | Possible Design Solutions |
| ▪ What considerations need to be made to create an environment which is thermally comfortable for seniors undergoing constant physical changes, slowing down or deterioration of the body?<br><br>Issues<br><br>Physical Body<br>▪ The human body must maintain a core body temperature of 37°C<br>▪ The human body constantly generates excess heat (metabolism)<br>▪ Increasing activity level increases rate of excess body heat.<br>▪ Excess heat must be dissipated (perspiration cools the body) If the body can not dissipate excess heat because of excess air moisture will result in heat stroke<br>▪ Lack of blood flow to extremities (i.e. feet and hands) due to swelling<br>▪ Body temperature is lowest at the feet and warmest at the head | ▪ To provide a thermal environment which caters to the needs of seniors.<br>▪ "Ambient temperatures must always be lower than the skin temperature of the human body." (Feduniw, 2003)<br>▪ To provide appropriate thermal comfort in the various activity spaces with appropriate ventilation and moisture conditions.<br>▪ Careful consideration to glazing and activity levels to optimize heat gains and losses, and to minimize glare<br>▪ To balance heat exchange between body and ambient | ▪ Radiant heating systems for sedentary activity spaces<br>▪ Humidity and ventilation control systems for each space (RH)<br>▪ Ambient temperature appropriate for the activity level.<br>▪ Glazing systems appropriate to orientation activity and space materials |
| | | |

| Table 2 - Continued | | |
| --- | --- | --- |
| Problem #1 Human Comfort | Objectives | Possible Design Solutions |
| Environment<br>- Cold surrounding material surfaces will cause thermal discomfort even if the air in the spaces if warm<br>- Overly warm material surrounding material surfaces will cause thermal discomfort even if the air in the spaces is cool<br>- Environments where materials of a space that are heated or cooled are more comfortable than those where the volume of air is heated or cooled.<br>- An environment in which surrounding materials are at the appropriate temperature (MRT) for the activity level and the air is at a lower cooler temperature is invigorating. | - To address the thermal environment of each space according to activity level through mean radiant temperature (MRT) rather than by air temperature<br>- To condition spaces with MRT and a lower air temperature<br>- Raising or lowering the mean radiant temperature (MRT) is more effective in conditioning a space for thermal comfort than raising or lowering the air temperature | - Introduce systems that heat/cool interior surfaces materials to temperatures appropriate to the activity levels.<br>- Provide the appropriate air quality and temperature for the activity level.<br>- Specify glazing systems that optimize heat gains and losses<br>- Specify glazing systems that address day lighting issues.<br>- Provide the moisture level appropriate to the activity level. |

## Table 2 - Continued

| Problem #2 Wayfinding and Accessibility | Objectives | Possible Design Solutions |
|---|---|---|
| ▪ What factors must be considered when designing environments which are safe and easy to negotiate for all seniors to access and participate without restriction?<br><br>Issues<br><br>Physical<br>  ▪ Reduced ability to see close objects<br>  ▪ Eyes become sensitive to the light… do not respond well to bright light and darkness<br>  ▪ Loss of strength, grip, and balance<br>  ▪ Reduced physical reaction time<br>  ▪ "Stiffened joints and changes in the structure of bones may cause reduction of height, stooped posture and sometimes limitation in mobility" (Isbell, 1985).<br>  ▪ Bones are more brittle as calcium is withdrawn<br>  ▪ Connecting ligaments lose strechability in feet | ▪ Minimize glare<br>▪ Improve contrast while improving visual acuity and colour rendering.<br>▪ To provide a physical environment which is safe and easy to negotiate.<br>▪ To provide access to all seniors irrespective of physical limitations, (i.e., eye sight, mobility, other sensory deteriorations)<br>▪ To provide directional signage easily understood.<br>▪ To provide seating opportunities along path of travel. | Lighting<br>  ▪ Additional task lighting in spaces that require reading or detail work<br>  ▪ Appropriate high light levels<br>  ▪ Light levels should change gradually between spaces<br>  ▪ Redirect daylight to reduce direct glare<br>  ▪ Use of colour and texture to maximize visual acuity and depth perception<br>  ▪ Use dimming switches to control light contrast<br>  ▪ Use materials with matte finish and minimize the use of materials which cause glare<br>  ▪ Direct lighting down to emphasize clarity and safety in circulation areas<br>  ▪ Incandescent fixtures<br>  ▪ Lighting in parking and exterior spaces<br><br>Mobility and Circulation<br>  ▪ Slip-resistant flooring<br>  ▪ Railings in circulation spaces<br>  ▪ Well defined wide corridors<br>  ▪ Clear sightlines to different spaces<br><br>Continued on next page |

**Table 2 - Continued**

| Problem #2 Wayfinding and Accessibility | Objectives | Possible Design Solutions |
|---|---|---|
| Cognitive<br>■ Too much information causes confusion | | ■ Minimize obstructions in path of travel<br>■ Air lock to provide draft free entrance<br>■ Ample accessible parking spaces<br>■ Safe place to drop off / pick up visitors<br>Signage<br>■ High colour contrast signage<br>■ "Signage should be concise and easily legible. The printed word should be paired with an easily recognizable symbol" (Alfred, 1996)<br>■ "Signage should be located 12 to 15 feet from primary entrance and exit points." (Alfred, 1996)<br>Furnishings<br>■ Colour should contrast with the floor or surrounding surfaces<br>■ Furniture should be placed further than standard space planning dimensions to allow for people with physical disabilities<br>■ Seat height 17" to 18" above floor<br>■ Arms on seating selections; arm height 8" to 9" above seat surface<br>■ Seating at right angles for conversation<br><br><br>Continued on next page |

| Table 2 - Continued | | |
|---|---|---|
| **Problem #3 Activities** | **Objectives** | **Possible Design Solutions** |
| ■  What considerations need to be made to determine which activities and services should be provided to enhance and promote socialization, education, and physical activity for seniors in a social environment to ensure successful aging?<br><br>Issues<br>   Benefits<br>   ■  Regular physical exercise prevents heart disease, enhances mood, and increases metabolic rate<br>   ■  Strength training increases bone density<br>   ■  Group fitness classes promote socialization<br>   ■  Yoga, pilates, tai chi promote relaxation, increased blood circulation, improved posture and balance, enhance energy, injury prevention, and increased flexibility and mobility<br>   ■  Staying connected with other individuals gives people a sense of meaning and self worth<br>   ■  Social support and engaging the mind keeps people mentally sharp | ■  To provide a range of activities and services which appeal to the current and future population.  Based on the issues, the activities and services should focus on physical activity, continuing education, and socialization.<br>■  To provide recreational services which minimize physical deterioration<br>■  To provide health services which improve and maintain health of aging adults… prevention of illness and injury<br>■  To provide social services … communication with others… more interaction…. Meet new people… improve the quality of life through social interaction<br>■  To provide food services… promote better health, reduce isolation by being with other people "Nutrition offers the opportunity to continue participation in community activities through a merger of food and friendship." (National Institute of Senior Center, 1975)<br>■  To provide education services… expand educational opportunities … resource centre | Recreation services<br>   ■  Swimming pool<br>   ■  Fitness centre<br>   ■  Travel opportunities<br><br>Health Services<br>   ■  Medical Facility<br>   ■  Space for medical clinics and workshops such as injury prevention medical research lectures<br><br>Social Services<br>   ■  Space for social gatherings such as dances, music performances, public presentations<br>   ■  Group classes in fitness facility<br>   ■  Spaces for people to meet<br>   ■  Conversation spaces for social support<br>   ■  Assistance with finding employment / volunteer opportunities<br><br>Food Services<br>   ■  Space for people to gather and eat a meal or snack together<br>   ■  Space to prepare food<br><br> |

| Table 2 - Continued | | |
|---|---|---|
| **Problem #3** Activities | **Objectives** | **Possible Design Solutions** |
| ▪ Social activities promote better overall health<br><br>Range and Types<br>▪ People who participate in a wide range of activities age more successfully than those who are not active | ▪ To provide mental stimulus | Education Services<br>▪ Continuing education<br>▪ Space to read and supply reading materials... of interest to seniors...<br>▪ Reference materials for association with continuing education course in the city.<br>▪ Space for other educational classes such as cooking in a food preparation space or computer classes in a reference space<br>▪ |

## Design Guidelines

### Human Comfort

Building orientation plays a critical role in human comfort. The direction of prevailing winds and the sun are significant factors in determining heating and cooling systems. The systems chosen must appropriately address activity level and the rate of heat exchange between the human body and the environment. This can be complicated with different activity levels and temperature and moisture content in the air. As some people age they become more sensitive to these changes. Therefore, effective control of humidity, temperature and air quality is a very critical consideration (Canada Mortgage and Housing Corporation, 1987).

### Heating systems

The ideal heating system provides heat at the floor level where the human body is coolest and less heat at the head level where the human body is warmest (figure 5). Three conventional heating systems used today are:
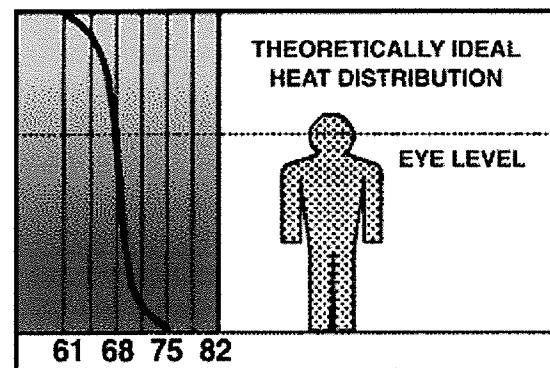
Figure 5 - Ideal heat distribution *Stadler Viega http://www.stadlerviega.com/html/radiant.html*
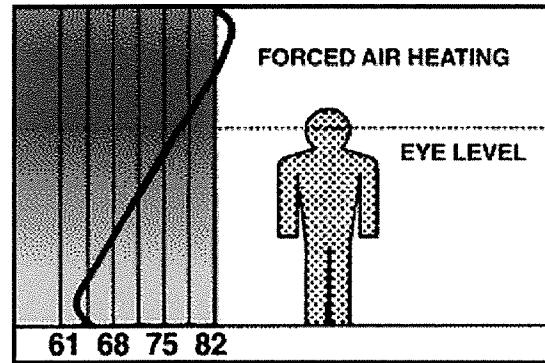
Figure 6 - Forced air heat distribution *Stadler Viega http://www.stadlerviega.com/html/radiant.html*

forced air, convective and radiant heat. (Stadler Viega, 2000).

Forced air systems heat a space by circulating heated air through a system of ducts inside the building envelope. Air becomes trapped at the ceiling level resulting in the reverse of the ideal heat distribution (figure 6)

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(Stadler, Viega, 2002). This system however facilitates air quality control of outside air to be brought into the building and inside 'stale' air to be exhausted (Feduniw, 2003).

Convection systems heat surrounding air which rises to the ceiling level forming a gentle air curtain. "As the air rises it cools as it moves over the building envelope wall and ceiling surfaces" (Feduniw, 2003, pg 3). The cooler air drops in a circular motion and cools resulting in the majority of the heat at the ceiling level and cooler temperatures at the floor level (figure 8) (Stadler Viega, 2000).

spatial temperatures are lower at the ceiling than at the floor resulting in the ideal heat distribution (figure 7) (Stadler Viega, 2000). It is possible to use this system for cooling but if materials are cooled to the dew point condensation will occur. This system works well to provide various climate requirements in different zones and can be easily "couples with solar heat gains" (Feduniw, 2003, pg 4). One drawback to a radiant floor heating system it it's slow heat up / cool down response time.
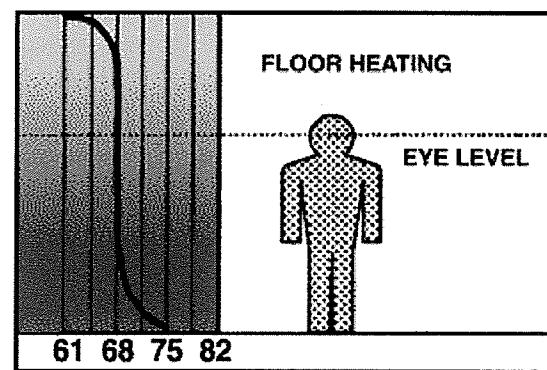


Figure 8 - Radiant floor heat distribution *Stadler Viega*
*http://www.stadlerviega.com/html/radiant.html*



Figure 7 - Convection heat distribution *Stadler Viega*
*http://www.stadlerviega.com/html/radiant.html*

Radiant floor heating systems radiate heat from the floor surface and warm the objects in the space rather than the air. The

*Cooling systems*

A solution for cooling a space is to offer operable windows to allow for cross ventilation. This means window placement and

operation needs to be designed to capture prevailing breezes. Incorporating an air-conditioning system may be necessary if the building is not fine tuned to the local climate (Canada Mortgage and Housing, 1987).

preparation and high activity level areas. Unfortunately, current sensors in automatic systems only read $CO_2$ levels therefore manual over ride controls are necessary for removing unpleasant odours.

### Humidity control

A system that will maintain a relative humidity of 50% in sedentary activity spaces is desirable. This is the most comfortable humidification level for most sedentary activities. A separate humidification system is be needed in areas which have higher activity levels to keep moisture content in the air at a lower level. This will allow users pf the space to dissipate their excess body heat more easily (Canada Mortgage and Housing, 1987).

### Wayfinding & Accessibility

The built environment ideally should be completely accessible to all people irrespective of physical limitations (i.e., reduced mobility and use of mobility aids, reduced vision, and hearing impairments). The design and layout of circulation paths should be clear and easy to understand so the user can make their way through the space safely and easily.

### Air Quality (Ventilations System)

Mechanical ventilation is required in areas without operable windows. Ventilation is needed to maintain proper air quality. Seperate ventilation systems are required in areas that generate odours due to food

### Lighting

Consistent high light levels should be used, but where light levels must be different, such as transitions from one space to another, the contrast should be a gradual change (Han, 2002). Indirect or diffuse daylight is preferred

wherever possible to reduce glare. Additional task lighting should be provided in areas where users are focusing on smaller print or reading materials.

There are three main types of lighting lamps: incandescent, fluorescent, and high intensity discharge (HID).

Incandescent lamps are not the most efficient, but are the lowest cost. 10% of the energy is converted to light, while the other 90% is emitted as heat. Because of its low cost, it is the most popular choice for a wide variety of applications, including commercial and residential applications (Trost, 1999). Incandescent lamps give a warm glow and create a friendly atmosphere.

Fluorescent lamps have higher illumination levels, a cooler surface, and are more efficient than incandescent lamps. The main drawback for this fixture is it has a flicker problem which causes headaches for many people.

High intensity discharge (HID) fixtures are intense light sources. They take a long time to warm up and sometimes will not light after a power outage due to the high temperature and pressure in the bulb. They are beneficial for large open spaces which require a high light level.

*Mobility & Circulation*

High traffic circulation spaces need to allow for physical limitations and to reduce the possibility of injury. Flooring which is slip-resistant or low pile roller traffic friendly carpet can be used because it does not restrict access to anyone. This type of flooring surface reduce glare and the possiblity of slipping (Brawley, 1997). As well, all materials should be low maintenance.

Wide corridors with variations in colour and textured floor and wall treatments may serve to identify different areas. This also helps with user orientation. Wide corridors also allow for sight lines into different spaces (Canada Mortgage and Housing, 1987).

Handrails should be located in all circulation spaces to help people with balance

and guide them through the space. The handrails should be easy to hold on to and secure enough to support an average sized adult (Canada Mortgage and Housing, 1987).

Ideally, all parking spaces should be accessible to facilitate all users of the centre. Due to the aging user population, more accessible spaces should be allocated than the minimum number specified in the Architectural Graphic Standards. As well, easily, negotiable pathways towards and into the buildings from the parking area are necessary for seniors to feel secure.

### Signage

Signage should be used as an aid to help people find their way through the building. Text on the signage should be supported by a commonly understood symbol and Braille with high colour contrast should be used to enhance visual acuity. Signage should be located 12 to 15 feet from the primary entrances. Giving visitors time to scan the environment as they orient themselves (Alfred, 1996).

### Furnishings

Furnishings play an important role in accessibility. The height of the seat and armrests are critical for making a seat easy to get in and out of for an older adult. The seating should have a seat height of 17" to 18" above the floor level, and the arms should be at 8" to 9" above the seat height. The furniture should be placed further apart than standard space planning dimensions to allow people with physical disabilities to manoeuvre. Seating should be arranged at right angles for conversation spaces. This makes it easier for individuals with hearing impairments to communicate (figure 9). The colour of the furniture should contrast with the colour of the floor or the surrounding surfaces so that it is easily visible for those with visual impairments (Alfred, 1996).

A swimming pool that facilitates group aquatic classes and individuals lap swimming would be most beneficial (figure 10).



Figure 10 - Swimming pool *Naumoff, 2000*
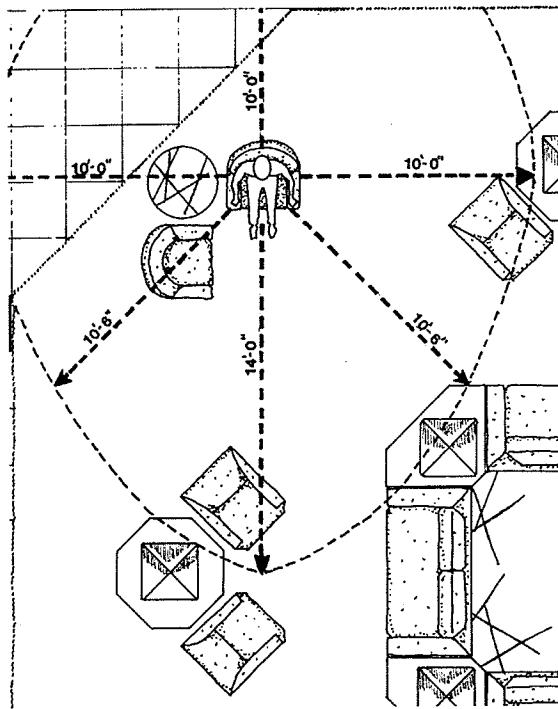


Figure 9 - Space plan seating arrangement *Alfred, 1996*

## *Activities*

### *Recreation Services*

The use of recreational services should reduce the rate of physical deterioration of the body. To achieve this reduction, several different types of recreational services should be provided to appeal to a wide range of individuals.

Swimming provides an option for cardiovascular fitness for those who cannot walk or have problems with joints, or arthritis.

A floor surface should be provided for group classes such as yoga, tai chi, pilates and aerobics. These classes promote relaxation, blood circulation (Penang Tai Chi, 1998), flexibility, mobility, posture (Triad Yoga Institute, 2003), and body image, as well as socialization through physical activity (figure 11).
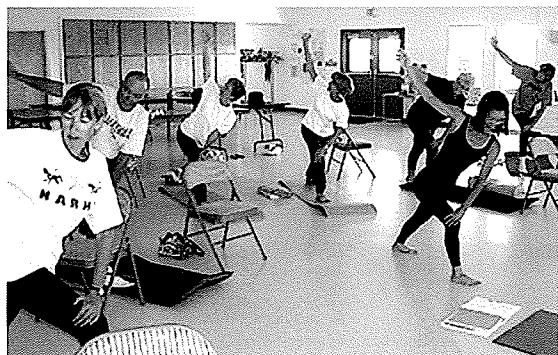
Figure 11 - Group fitness class floor
*www.sunsiter.com/community.html*
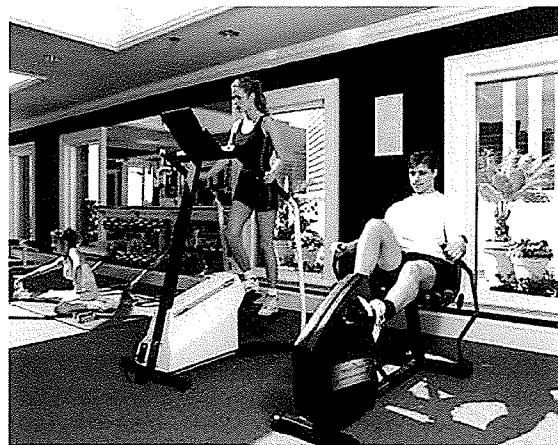


Figure 12 - Cardiovascular machines
*www.lepavillon.com/french/fitness.html*

Cardiovascular exercise with treadmills, elliptical trainers, steppers, stationary bikes, and rowing machines provides an option for cardiovascular fitness indoors. This type of exercise can "strengthen your heart, increase cardiovascular fitness, burn fat, firm the body, increase energy levels and add to your self image and esteem" (City of Lapeer, 2003, ¶ 1). Provisions should be made for a range of different equipment to appeal to a variety of individuals (figure 12).

Strength training both exercises and strengthens major muscle groups. A space should be provided to facilitate equipment which exercises the major muscle groups in the legs, back, abdomen, chest, and arms (Wescott, 2000) (figure 13).



Figure 13 - Strength training
*www.glenmoorcc.com/overnight_stays_spa_golf.htm*

*Travel Services*

Travel is an important recreational activity for many older adults (Freedman, 1999). A service should be provided which helps individuals plan vacations to different destinations.

*Health Services*

The health services should be designed to improve and maintain health of aging adults through education and medical check ups (National Institute of Senior Centers, 1975).

A medical facility provides a space and equipment for seniors to receive regular check ups, foot clinics, and blood pressure clinics.



Figure 14 - Medical facility
*www.sihb.org/tour_exam_room.htm*

*Social Services*

Providing a space for large social gathering such as dances, music performances, and public presentation is critical. Being able to participate in activities and events that appeal to a large number of people will promote socialization.

Group fitness classes promote socialization as well. Space should be provided to facilitate these classes (see recreation services).

Furniture arrangements in various locations throughout the building create places for people to meet. A major meeting place could be located at the entrances/exits, which are easily identifiable locations, possessing a visual connection to the exterior of the building. The entrance is a good place to orient oneself and stop to take a look around before one continues on one's way.

Private conversation spaces are important for people to discuss issues in their lives with friends or a professional. This space

should be comfortable with relaxed lounge seating.
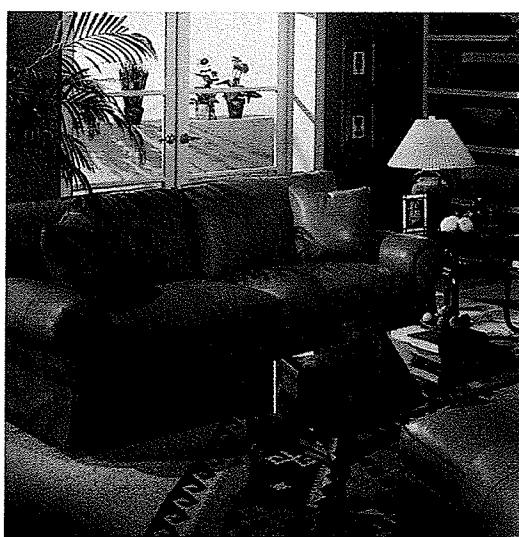


Figure 15 - Conversation space *UCC Total Home, 2001*

Socialization can also be promoted by providing assistance with finding employment and volunteer opportunities. This assistance encourages socialization outside the seniors' social environment.

*Food Services*

Food services can promote better health through the ingestion of healthy foods, and socialization through dining with other people. A seniors' social environment should therefore provide space to prepare food as well

as a place to eat a meal or a snack (National Institute of Senior Centers, 1975). Offering a choice of atmospheres (i.e., formal dining room, or informal coffee shop) should be considered.
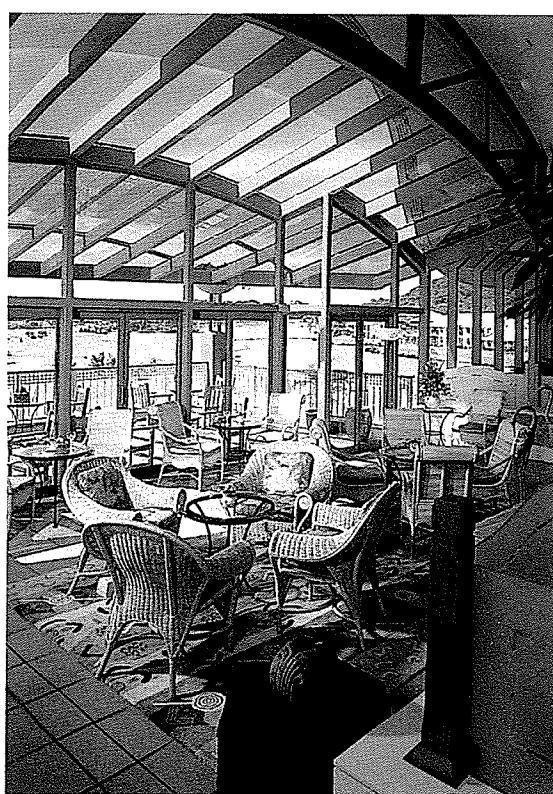


Figure 16 - Eating space *Wolff, 1997*

*Education Services*

Space should be provided to read and offer reading materials of interest to seniors for education and entertainment. Space for educational classes such as cooking (see food preparation space in food services),

woodworking, crafts, music, or computer classes should be offered (National Institute of Senior Centers, 1975).

Providing a space for public presentations allows for experts or specialists to visit and educate seniors about aging health issues. Storage for moveable seating and audiovisual presentation equipment is required.

# Summary

The main objective of this practicum project was to establish guidelines for the development and design of social environments for seniors. These guidelines, which have been developed from the analysis of research from various areas of study concerning aging and retirement, serve as recommendations for designers. The problems regarding aging discovered in the analysis, led to non-design solutions which in turn asked questions of how to design to solve the problems. It was the non-design solutions / design questions which led to possible design solutions resulting in design guidelines.

These guidelines are especially important in the area of interior design because they serve as a reference or checklist and are significant because they are based on information found in diverse areas of study such as physical, social, and cognitive aspects of aging, trends in retirement, and the preparation and planning which must be considered before retiring. The research explored past and present retirement trends in order to predict where ideas could be leading in the future. This research outlined major issues which must be considered when designing social environments for seniors. Issues concerning human comfort gave rise to questions about heating systems, cooling systems, humidity controls, and air quality control. Issues of wayfinding and accessibility raised questions on lighting design, circulation paths that increase mobility for all users, efficient signage, and what furniture should be selected to create an easily accessible environment. The final issue that was apparent in the research dealt with the types and benefits of the various activities that should be provided.

# Conclusions

This study is important because society is currently not well prepared for the increasing number of seniors and the changing needs of the greying generations. Designers need to expand their knowledge and learn from past and current research in this field. More importantly, they need to apply the knowledge they do have to bring. seniors' social environments into the future

This document therefore serves as a reference for the future development of social centres for aging populations. It should also help designers understand the underlying issues involved and how people think about retirement. These guidelines should significantly raise the standard of what a seniors' social centre should be and what it should include.

This study clearly indicates that recreation services, health services, social services, food services and education services should all be incorporated into the design of future seniors' social environments

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Appendix A - Design Program

# Table of Contents

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# Introduction

Designers need a starting point from which to base their design of a building. The starting point in this case was the design guidelines established through an extensive literature review based on research in a variety of subject areas surrounding and dealing with aging and retirement. Once the design criteria was identified, it became a matter of incorporating these criteria into a design that was spatially, and environmentally sound.

The following design program illustrates how these design guidelines could be implemented. The first step in the process was to analyze the site and surrounding environmental conditions, such as access on and off the site, parking, sun patterns, and wind patterns. Each of these elements plays a part in determining how the guidelines could be applied. Lighting strategies, entrance locations, and the relationships between one space and another are also determined from this analysis.

The concept and spatial character for the overall image of a centre varies with different site locations, but the underlying content of function, quality of lighting, furnishings, and atmosphere will remain the same.

The following case study illustrates how the design program developed through the guidelines was applied to an existing building located in the Westwood area pf Winnipeg, Manitoba location.

# Location
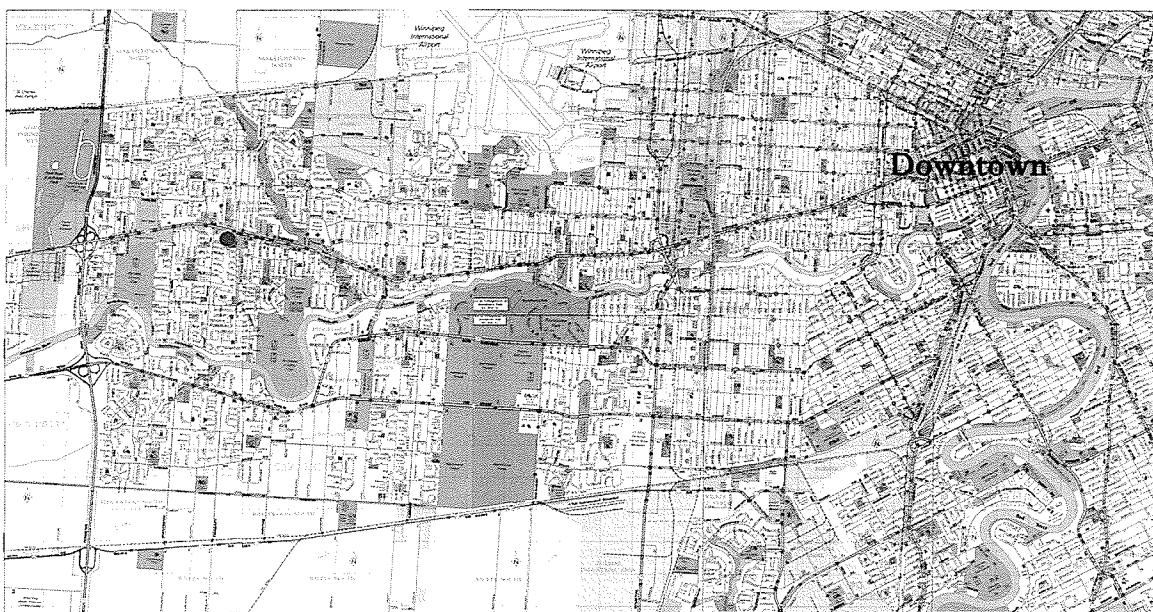


Figure 1 – Location of proposed site in relation to downtown Winnipeg. *Sherlock Publishing Ltd.,1999 pgs. 13-25*
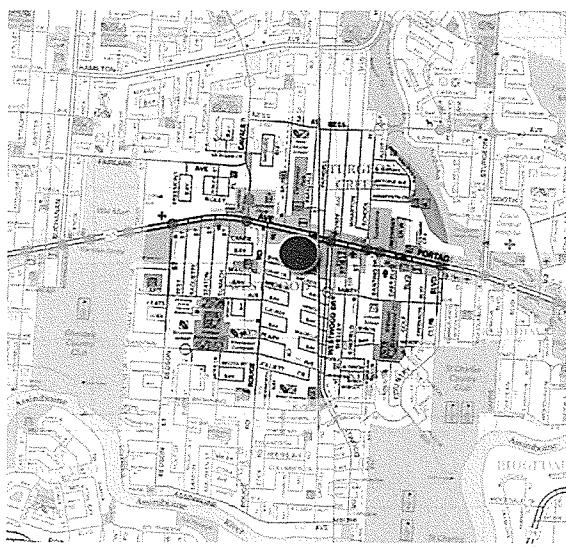


Figure 2 – Detail of surrounding area of proposed site. *Sherlock Publishing Ltd, 1999 pgs 13-25*

The number of seniors in Winnipeg as with the rest of the world is increasing. The city is in need of places for seniors to go to feel like they are contributing to the community and the city. In addition to being centres for activities these places also need to be places for continuing education, reaching out to the community, and, most of all, socialization.

For the purposes of this study, the St. Charles region (Westwood) of Winnipeg, Manitoba was selected for the location of a

seniors' social environment. The choice of locations was based on existing amenities accessibility for older adults and demographic composition. This area was also chosen because 22.6% of the population in the general area is 55 years and older, the second highest percentage in Winnipeg. The St. James area has the highest percentage of people 55 years and older, but a suitable location could not be found to establish this type of centre (City of Winnipeg, 2002). Also, the Westwood area of St. Charles is newer than St. James and the city is growing to the west. The chosen site is on the border of the adjacent areas of St. James and St. Charles. The St. Charles area exists within the boundaries of the Winnipeg city limits on the north and west sides, Wilkes Avenue on the south, and Sturgeon Creek / Community Row to the east (Sherlock Publishing Lit, 1999).

As identified in the research, the components of the seniors' social environment should include offices for administrative personnel, travel advisory, small medical facility, fitness facilities including weight room, cardiovascular equipment room/aerobics floor, swimming pool, change rooms, outdoor activity area, multi-purpose room(s) for dances, educational workshops, and evening activities, practice facilities for musicians, conversation rooms for support groups, food preparation area, eating area, quiet reading area including reference materials, restrooms, parking, and storage. Other programs for continuing education and some reference materials could be located in existing satellite facilities such as the University of Winnipeg, St. James Assiniboia School Division, and Fort Garry School Division. The approximate square footage of the centre is 38,600 sq ft.

# Human Aspects

*User Profile*

The target group for this project is made up of individuals age 55 years and older. Age 55 is considered retirement age for many occupations. It is therefore important to "plan for a gradual transition from work to retirement" (McPherson, 1998, pg 245). Beginning at age 55 allows for those individuals wishing to work until a later age to achieve this gradual transition, while at the same time not disregarding younger retirees. Table 1 identifies the various employment sectors in Winnipeg.
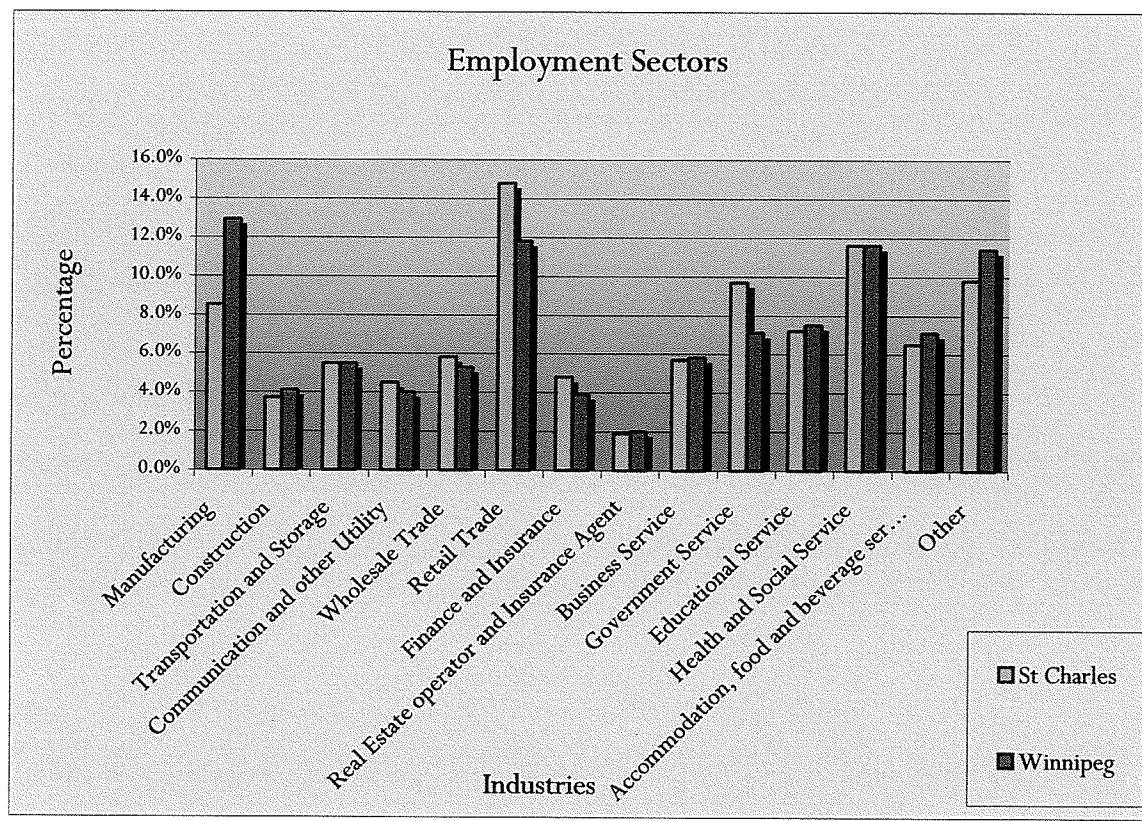


Table 1 - Employment Sectors *Jodi Sapinsky*

The centre is restricted to seniors who are mentally coherent and it addresses seniors physical challenges, such as visual, hearing, and mobility impairments. The individuals must be

able to perform daily tasks on their own or with very minimal assistance.

The majority of the seniors would likely be from the St. Charles and St. James regions but participation is not limited to these individuals. The average household size is 2.7 persons with an average household income of $55, 957 per year. This is slightly above the average for the city of Winnipeg at $44,937 per year (table 2). The major places of employment are retail trade (14.8%), health and social service (11.6%), and government service (9.7%) (City of Winnipeg, 2002). At the age

of 65 these individuals will have a reduced income comprised of Old Age Security (Resources Development Canada, 2002a) and in some cases Canada Pension Plan at age 60 (Human Resources Development Canada, 2002b). Individuals choosing to retire at age 55 will need to bridge this time frame with savings; therefore they will spend less time on leisure activities than they did while they were working. Most have their own vehicle transportation but on occasion rely on public transit.
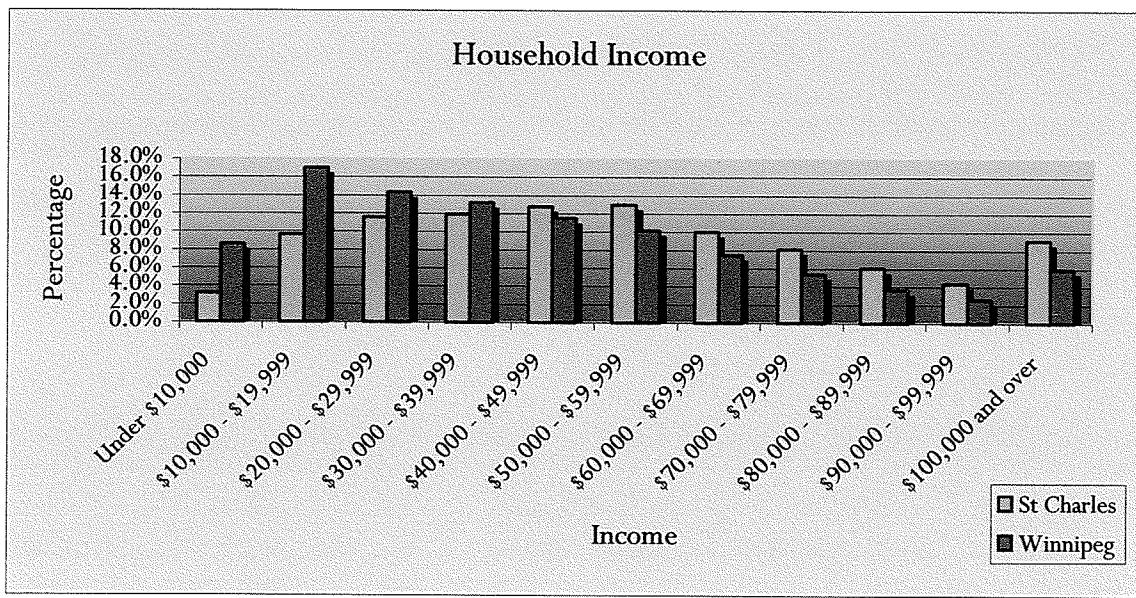


Table 2 - Household Income *Jodi Sapinsky*

Mr And Mrs Smith, and Mr And Mrs Jones are fictional characters that will help to describe user profile and situations.

Mr and Mrs Smith are both aged 55 and wishing to retire. They have been teachers for 35 years and have planned well, investing money in RRSP's and other funds to help them enjoy a financially stable retirement. On the other hand, many of Mr and Mrs' Smiths friends did not think ahead. The Jones are the same age as the Smiths but cannot afford to retire at age 55. They need to continue working at least to age 60 so that they do not have to bridge the gap between their working salary and Canada Pension Plan.

Regardless of retirement plans, all their friends are going to be associated with a seniors' social environment. The Smiths will be joining as a retired couple and taking on many roles in the community helping others. The Jones will also be joining but to a lesser extent. Because they are still working, they will not be able to partake in events during the working days, but they look forward to the events in the evenings and weekends. They feel it is important to be part of such an environment to ease the transition from work into retirement. At the same time, the seniors' environment provides an opportunity to be with their friends the Smiths and others with the same community values and love of life.
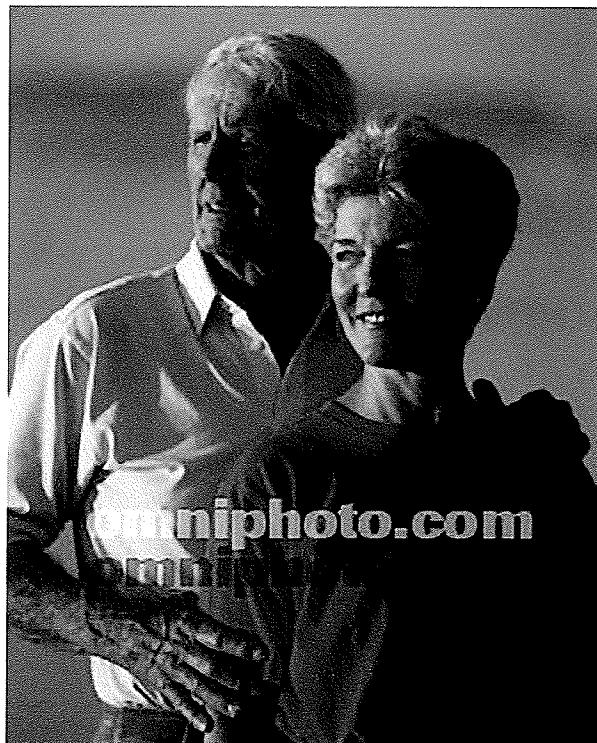


Figure 3 - Mr & Mrs Smith *www.omniphoto.com*

Other individuals involved with the centre may be singles looking for a place to meet and be with new people. Individuals with lower income status would also be welcome at the seniors' social environment. Their life

experiences would bring as much energy and positive effects to the centre as those with a higher income status and should not be disregarded.

### Activities

One approach to organizing the seniors' environment could be to have the centre governed by a board of directors made up of seniors. This group would make all major decisions about the centre. An administrative director or program director would work at the centre on a daily basis, and would be a trained professional who is educated in facility management. In this position, the director would be responsible for activity programming and would be a supervisor to personnel working in social functions, fitness services, food services, and education instruction. The board of directors would also hire the travel advisor and employment/volunteer advisor. Individuals who are trained in their respective fields should fill both of these positions. A receptionist and custodial staff are also required for efficient running of the centre and would be employed by the board of directors. Figure 4 shows the structure of the centre's organization.
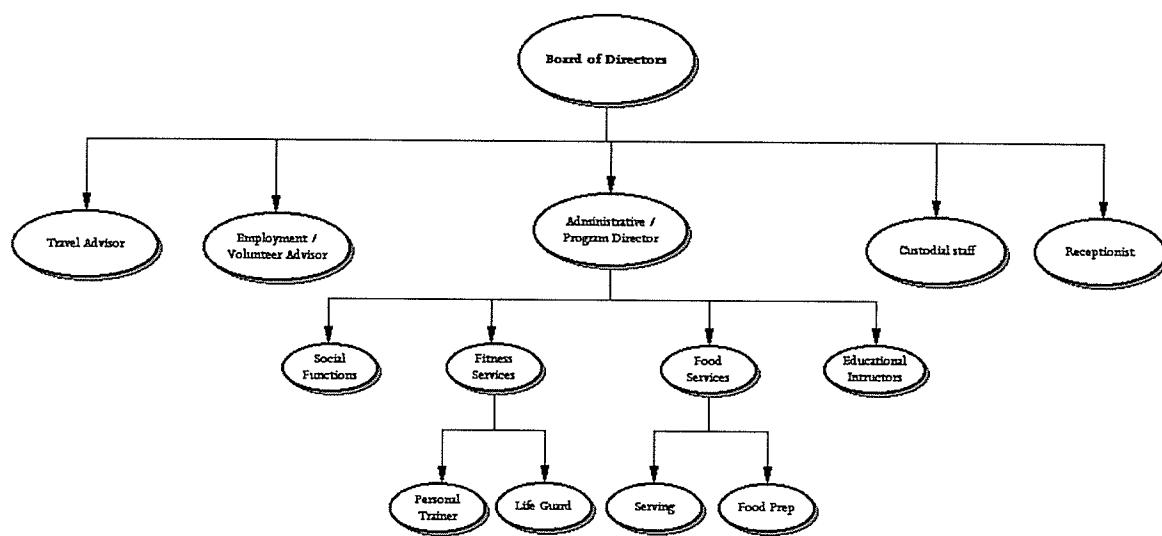
Figure 4 - Organization flow chart *Jodi Sapinsky*

All of the above positions would typically be paid because of the time commitment and professional expertise required. Additional assistance would be required to have the centre run smoothly. Volunteers and people in part-time paid positions would provide this assistance. Some of the tasks required of volunteers or part-time workers would be food services (preparation and serving), educational instruction (fitness, computers, cooking etc.), and social function programming.

Any of the positions at the centre could be filled by individuals of any age. It would be desirable to have an environment for seniors completely run by seniors. However, this is not necessary. Having people from younger age groups would add energy to the centre.

To best serve members of the seniors' social environment and to facilitate programs offered, the hours of operation should be Monday – Saturday 9:00am - 9:00pm, and Sunday 9:00am- 6:00pm. On evenings where special events are taking place (i.e., dances,

concerts), the centre could be open later. During these hours, activities, meetings, and community outreach programs could be offered for seniors, by their peers, both within the centre and from within the community at large. The social environment should provide activities and opportunities to keep members active and give them a sense of purpose and belonging in the community.

The seniors' social environment should also have satellite activities. This means opportunities should be offered outside the main centre, such as the University of Winnipeg. Continuing education is very important for those aging adults who want to expand their education and learn new things. At this time (2003) the University of Winnipeg has a program focussed toward seniors and offers non-credit courses to adults who are 55 years and older. Members of an advisory board select courses based on information given by students of the program. Course topics at the University of Winnipeg include social history, to the Internet, religion, to health matters, and

literature (The University of Winnipeg Continuing Education, 2002).

The St. James Assiniboia School Division and Fort Garry School Division also have continuing education programs. These groups offer programs in computer education, from basic introductory courses to those specializing in computer imaging (i.e., scanning images), e-mail, and the Internet. They also offer courses on financial planning specific to seniors and retirement-aged adults. These programs would help members to make informed decisions about investments and wealth management (Modern Earth, 2002). Connections with existing programs outside the centre help to create links with other parts of the city's communities and to diversify the population attending the courses. These connections also promote interaction with different people and have the potential to help members establish new friendships.

Continuing education for older adults provides a chance to engage and challenge the mind. "Third Age" Universities have been developed in England, Australia, and the United States. These universities offer lectures and seminars of interest to older adults and provide a place for individuals with different interests "to explore new ideas and make new friends." (The University of Texas at Austin, 2002). At the same time, exercising the brain through new learning reduces and/or slows down memory loss.
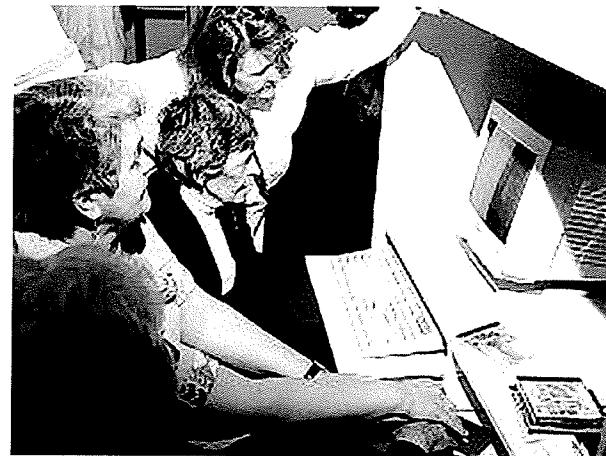


Figure 5 - Seniors taking a computer class
www.seniors.cimnet.ca/cs?sit=19&st=214,5068, 1,50,1545,-1&lk=1547&li=44

Within the centre different classes could be provided, such as cooking, dance, music, and computers. These topics are of interest to many people of all ages and generations, and can be understood and

enjoyed by a wide range of people. Various fitness opportunities, such as swimming, cardiovascular machines, yoga, Pilates, Tai Chi, and weights should also be offered. Older adults are spending more time participating in these activities and less time sitting and relaxing, watching TV (Freedman, 1999). As well, there has been a great deal of research which supports not only the need to participate in such activities for one's own health, but also the enjoyment and desire one experiences when participating in these activities (Wescott, 2000). These activities will help individuals regulate their body weight and composition, moderate their blood pressure, and maintain their overall health. At the same time they would be having fun by participating in activities and, in many cases, spending time with friends. If older adults do not have someone with them when to do these types of activities, the centre brings many people together; therefore providing the opportunity for meeting new people.



Figure 6 - Seniors taking an Aquasize class
*www.bodycheckfitness.com/conference_listings.htm.*

Older adults have a wealth of experience and information which they can pass on to younger generations through volunteering and teaching (Freedman, 1999). Opportunities are there for some classes to be given to younger people by senior members of the centre thereby engaging the
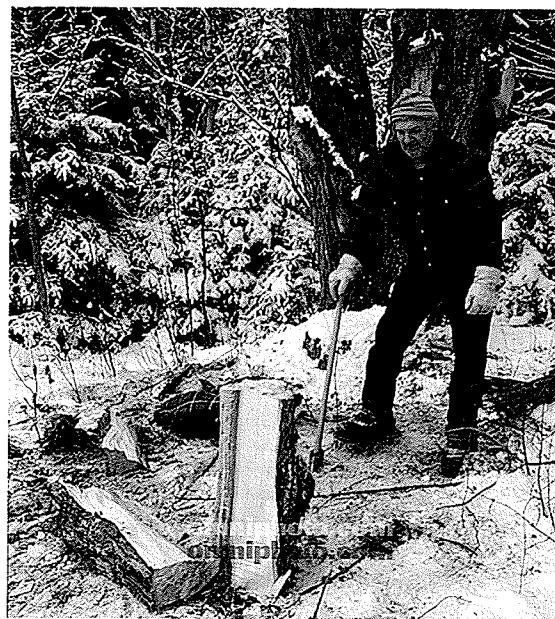


Figure 7 - Man helping to split wood
*www.omniphoto.com*

community and creating interaction between different generations. A volunteer / employment advisor at the centre can help to find opportunities for older adults to share time and knowledge to help other people in the community. This type of "work" is most often done not for financial gain, but to give the individual's life fulfillment and meaning (Freedman, 1999).



Figure 8 - Seniors dancing *www.omniphoto.com*

Socialization is a major component to living a long healthy life (Volz, 2000). Providing activities such as dances, concerts, and other large gatherings brings together large groups of people in a positive atmosphere. A multipurpose room is needed to house these types of events. Older adults can plan and anticipate dances and concerts. This anticipation can take the form of preparing snacks in the centre as well as decorating the multipurpose room, practicing musical instruments for a concert, or even simply deciding what to wear to the event.

People's lives change when they retire. The need for social interaction is great, especially when major changes occur, such as a death in the family or a separation of loved ones. Social support groups are important to help people through these difficult times (Champeau, 2002). The centre should provide a space for counselling sessions or a group of friends to gather and talk privately.

*Summary List of Activities*

Education Services

    Within the centre

- Computer classes

- Cooking classes

- Dance classes

- Music Classes

    Linked with the community

- University of Winnipeg

- St. James Assiniboia School Division

- Fort Garry School Division

Fitness Opportunities

    Strength training

    Cardiovascular machines

    Cardiovascular classes

- Yoga

- Tai Chi

- Pilates

- Aquasize

- Aerobics

Medical Clinics – check ups

Opportunities for employment

Dances

Musical performances

Counselling

*Behavioural Needs*

The seniors' social environment should be a place to socialize, learn new things, and be physically active. It is a place of a great deal of energy and vitality, while at the same time offering quiet places to read, meet with friends, or watch other people.

Members will become outgoing, feel healthier and happier living a physically active, social lifestyle, and serving their community. However, it is also important to balance, the activity spaces with quiet private spaces provided in the centre.

# Physical Factors

## *Site Description*

The proposed site is located in Westwood Village Shopping Centre at 3292 Portage Avenue, a former Canada Safeway. This site was chosen because of the dense population of seniors in the area, the visual and physical access from Portage Avenue and Westwood Drive, and the variety of transportation systems.

Portage Avenue is a major thoroughfare with excellent visual access. Driving down the street, it is easy to see the site of the seniors' social environment. The building is set back from the street with a large parking lot located directly in front. This provides a safe buffer zone between the busy street and the facility.

The major mode of transportation for individuals living in the Westwood area is driving, (75.3%) (City of Winnipeg, 2002). Ample parking currently exists in front of the building to meet this need. Additional parking is located to the sides of 3292 Portage Avenue in front of the adjacent amenities also located in the Westwood Village Shopping Centre. Access on and off the site is provided from both Portage Avenue and Westwood Drive. (See figure 9) Because Portage Avenue is a major street, morning rush hour, between 7:30am – 9:00am and afternoon rush hour, between 4:00pm – 6:00pm can be very busy with heavy traffic.

Locating the seniors' environment in this building provides easy access for all persons arriving by various modes of transportation at different times of the day. Other daily activities such as grocery shopping, dining out, medical check ups, and banking can all be done with ease in this area because of the existing amenities in close proximity.
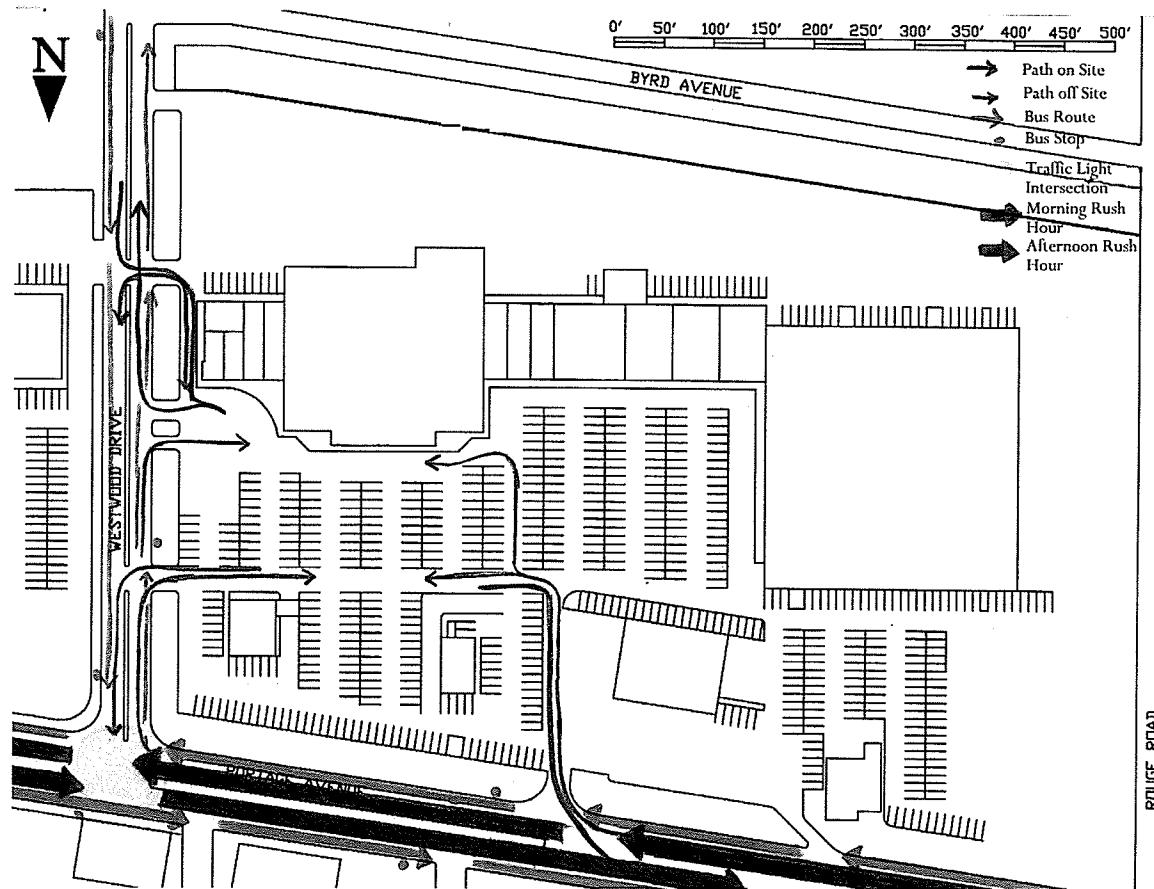
Figure 9 - Traffic patterns on and off the site. *Jodi Sapinsky*

The second highest mode of transportation in the Westwood area is public transit, (12.1%). Winnipeg Transit services this area with four routes, the 11 Portage, 21 Portage Express, 22 Assiniboia Express - Westwood, and the 82 Westwood (figure 10) This service offers transportation directly from downtown via Portage Avenue and other areas of the city with minimal connections. Bus service on Portage Avenue runs about every 10 minutes throughout the weekdays, with express service from 6:00am – 8:30am and 4:16pm –6:00pm. On weekends buses arrive every 15 minutes, but with no express service.
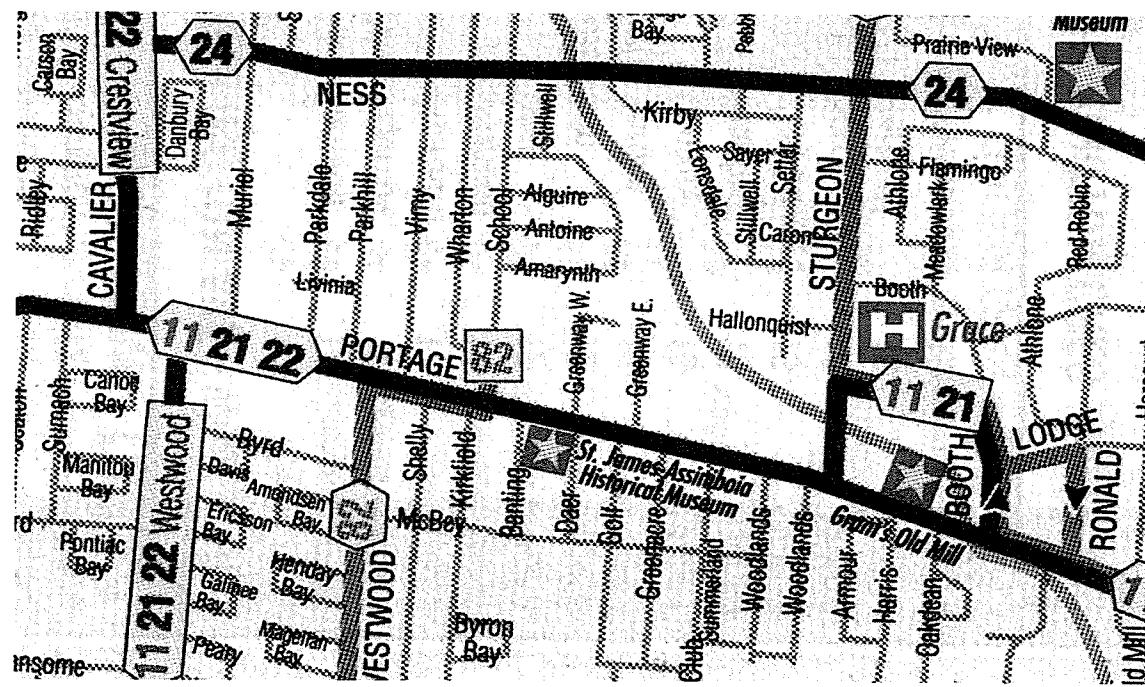
Figure 10 - Bus routes for the Portage/ Westwood area. *Manitoba Telephone System*

This location provides great opportunities for pedestrian access as well because residential areas surround it. Other public spaces such as churches, restaurants, banks, and retail stores are located within short walking distances.

The proposed site is situated in a retail strip mall. The building has other amenities on either side including two restaurants, a chiropractor's office, a barbershop, a dentist office, a drug store and various other retail shops. A gas service station, coffee shop, and bank have separate buildings on the same site.

Other banking institutions are also located on the periphery of the site. As well, another banking institution is located on the same site as a larger chain food and drug store located on the corner of Cavalier Drive and Portage Avenue, across the street. Still another food, drug, and home wares store is located in the next block to the east of the seniors' social centre, at the corner of School Road and Portage Avenue. These act as anchors to this community. Across Westwood Drive from the centre is another retail mall which includes various retail outlets, two hairstylists, a

drycleaners, and a motel. Also located on Portage Avenue within one block is a medical clinic, a pharmacy, a motor hotel, and the Assiniboia Christian Centre.

It is important to be close to other amenities so that seniors can complete several tasks easily, without having to drive a long distances. This is particularly important for those who rely totally on public transportation. Figure 11 shows the location of the amenities identified and their proximity to the centre.
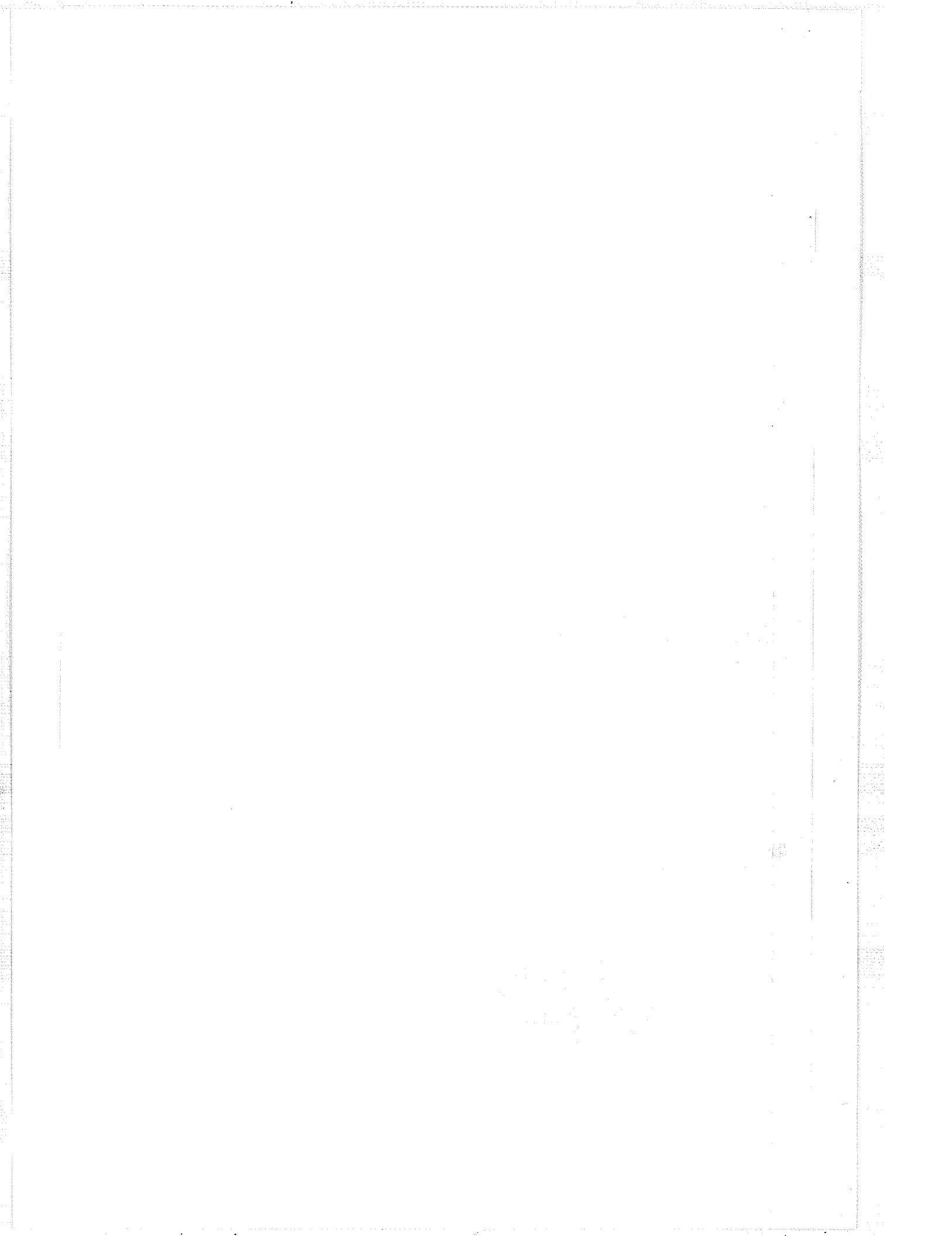
## Building Description

The main building on the site, formally a Safeway store, has been vacant for several years In addition to location, it was considered to be ideal for the centre because of it's large structure, uninterrupted volume of spaces, which lend themselves well to the spaces required of the seniors social environment. The building is single story with two entrances in the front of the building (figure 12). Both entrances are at ground level and have automatic openers. The Northwest entrance (figure 13) has an additional wall acting as a wind barrier. A loading dock is located in the back Southwest corner of the building. Another rear exit is located on the Southeast end of the building.
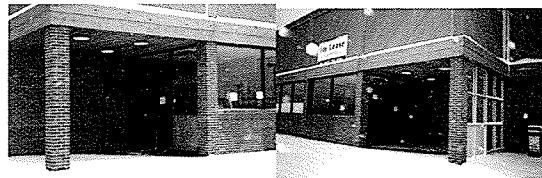


Figure 12 - Northeast    Figure 13 - Northwest
entrance *Jodi Sapinsky*    entrance *Jodi Sapinsky*

The front, (north) façade, (figure 14) has windows stretching the length of the building with views out into the parking lot and Portage Avenue. These are the only windows in the building.

The exterior of the building is clad in red brick on the lower portion of the front facing facades. The rear of the building is painted concrete block.

When exiting the building from the northwest there are views of a Hangers retail clothing store, a Petro Canada gas station and the backside and drive-through of a Tim Horton's coffee shop (figure 15). When exiting the building from the northeast there are views of the strip mall across the street, including Blockbuster Video, the Red Lion Inn, Also in view is a TD Canada Trust Bank (figure 16). The windows on the front of the building have views of the large open parking lot and Portage Avenue (figure 17).
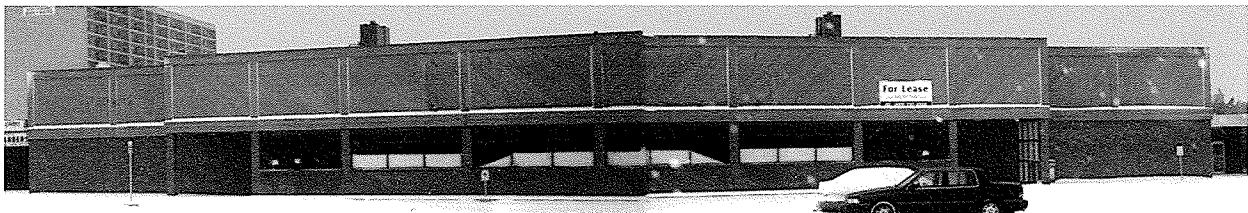
Figure 14 - Front / North facade  *Jodi Sapinsky*



Figure 15 - View from the Northwest exit.  *Jodi Sapindky*



Figure 16 - View from the Northeast exit.  *Jodi Sapinsky*
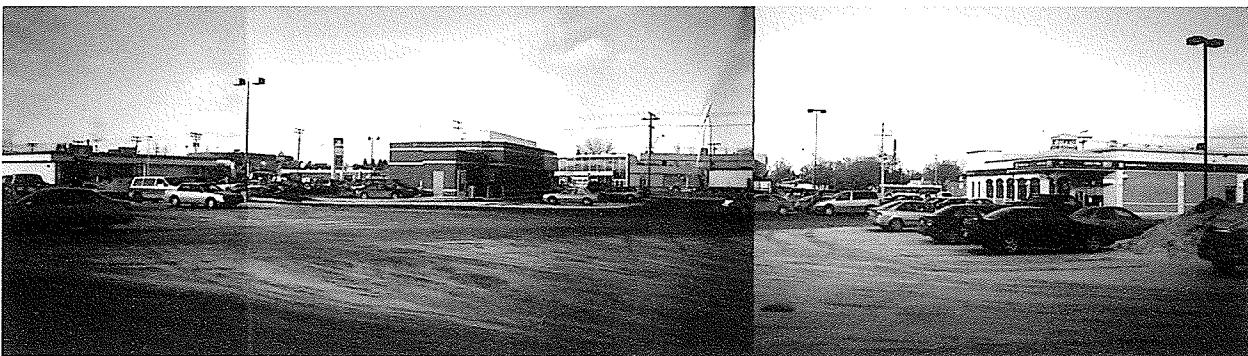


Figure 17 - View from the front of the building.  *Jodi Sapinsky*

The backside (south) of the building faces a large open area figure 18). A driveway stretches past the building to provide access to the backside of all the other amenities. Beyond this driveway is a large green space, which separates the building from the adjacent street. Single-family residences are located on the opposite side of the street (Byrd Ave.).

Figure 18 - View of the space behind the building

*Jodi Sapinsky*

The existing structures on the parking lot, the Tim Horton's coffee shop and the shopping centre, will help block some of the wind coming from the northwest in winter. However, an exposed large open area is still located directly in front of the building. Summer winds will come from the southwest, this being the back of the building. Figure 19 shows typical summer and winter wind patterns. The rear of the building also has an exposed area. Because the southwest side of the building is protected from the wind and has more direct sunlight, it would be beneficial to take advantage of this façade. Currently this side of the building is not being used.
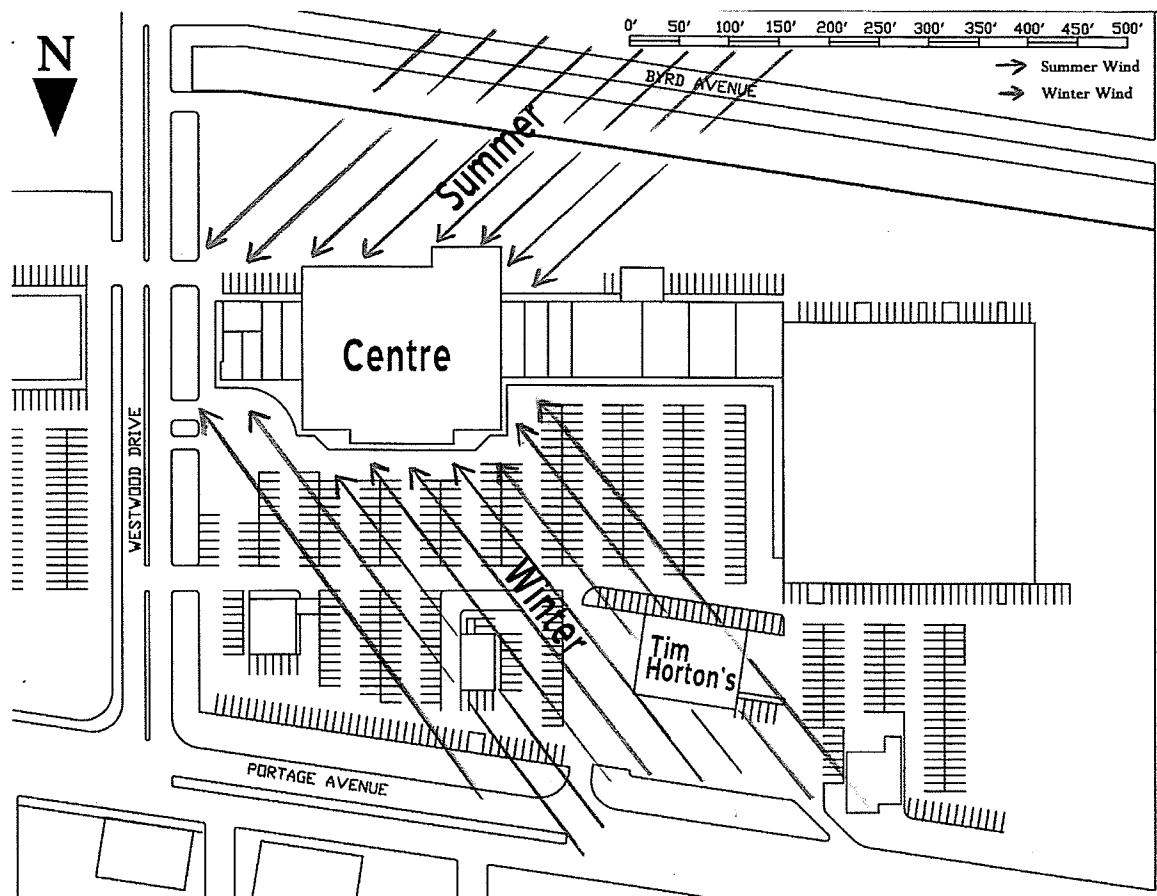
Figure 19 - Direction of wind and the impact on the building *Jodi Sapinsky*

The building faces north so direct sunlight will not be gained through the existing windows. More direct sunlight can be found on the backside/south side of the building. In winter the sun does not travel as far in the sky and is not up as long as in the summer. With this understanding, and other amenities attached to both sides of the building, direct sunlight is not realized in this building in it's current state, at any time of the year. Figure 20 shows the sun paths for June 21 and December 21.
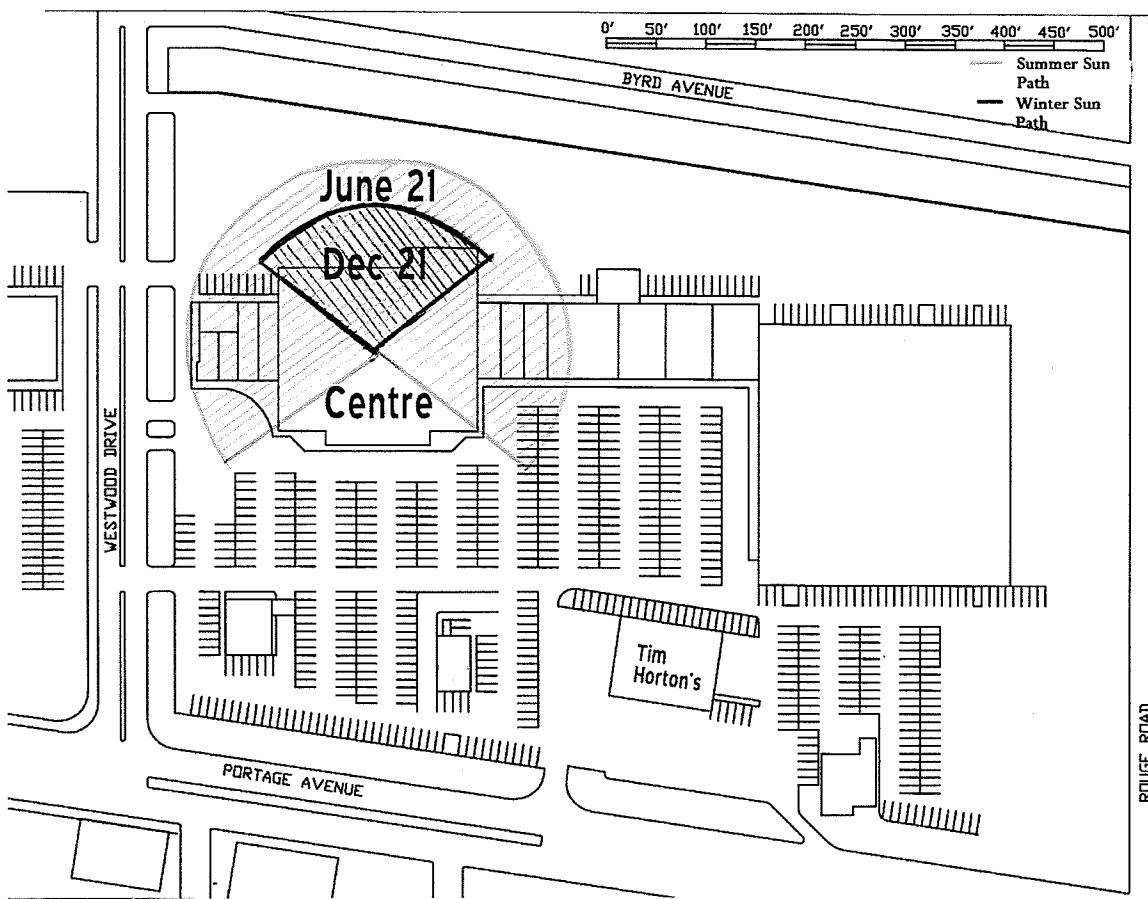
Figure 20 – Sun patterns for June 21 and Dec. 21, Lat.49° 54' (Winnipeg). *Jodi Sapinsky*

# Functional Requirements
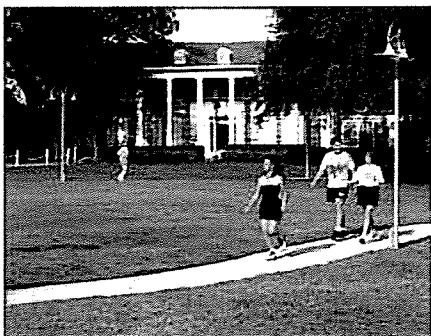


| Outdoor activity space | | |
|---|---|---|
| Furniture/ Equipment | Quantity | Dimensions |
| Seating (bench) | 8 | 60" x 18" x 28" |
| Table | 4 | 60" x 36" x 36" |
| Lighting | 10 | 6" x 6" x 14' |
| | | |
| | | |
| | | |

Figure 21 - www.cooperaerobics.caom/fitness/index.html

Outdoor facilities should be provided for running or walking on paths and gathering spaces located next to the paths for meeting people. This outdoorspace should also have tables and benches so that people can sit down and rest or have a bite to eat when the weather is acceptable. It should also have seating for people who are waiting to be picked up. This space should be located next to the entrance of the building and somewhat close to the parking lot, but can also be located on the back (south side) of the building for somewhat more private activity and less vehicular traffic.
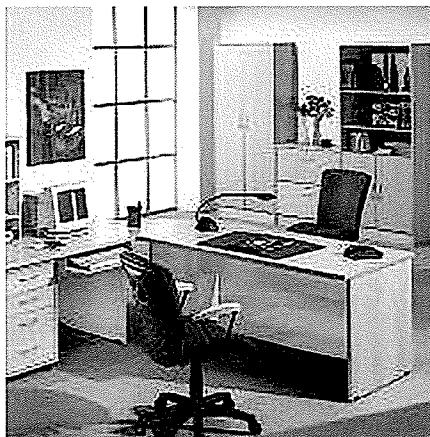
| Administrative workspace | | |
|---|---|---|
| Furniture/ Equipment | Quantity | Dimensions |
| Work surface | 2 | 60" x 30 x 28 |
| Seating | 3 | 26 ½" x 23" x 36 ½" |
| Monitor | 1 | 17" x 18" x 17" |
| Tower (CPU) | 1 | 7" x 16" x 20" |
| Keyboard | 1 | 21" x 8" x 2" |
| Mouse | 1 | 3" x 5" x 1" |
| Printer | 1 | 17" x 15" x 9" |
| Telephone | 1 | 6" x 9" x 3" |
| Storage | 1 | 36" x 52" x 18" |

Figure 22 - www.prbofficeinteriors.com/images/Office&Co.jpg

The administrative workspace should be designated for personnel to take care of daily operations of the centre, (i.e., hiring staff, paying bills, organizing programs). Meetings can also take place in this space. Because of the nature of the staff's duties the workspace must provide space for paperwork and computer work. Storage for paperwork and programming information must be provided.

Additional seating will be required for visitors. Square footage required for this space is 150 sq ft. This space should be located next to the reception because the two positions (administration and reception), will work closely together. The employment/volunteer advisor and the travel advisor could also be located next to this space, because they have the same requirements for noise level and function.
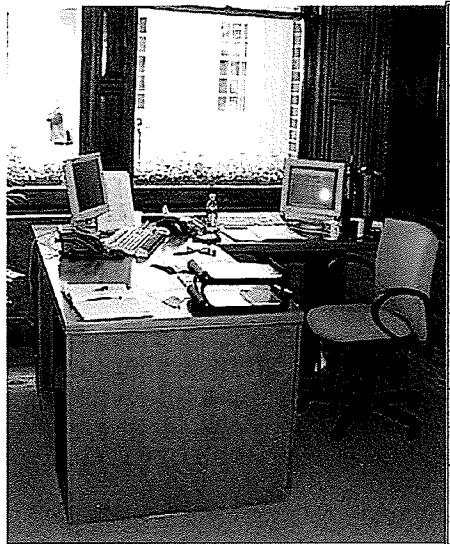
| Employment/volunteer advisor | | |
|---|---|---|
| Furniture/ Equipment | Quantity | Dimensions |
| Work Surface | 2 | 60" x 30 x 28 |
| Table | 1 | 60" diameter |
| Seating | 5 | 26 ½" x 23" x 36 ½" |
| Monitor | 1 | 17" x 18" x 17" |
| Tower (CPU) | 1 | 7" x 16" x 20" |
| Keyboard | 1 | 21" x 8" x 2" |
| Mouse | 1 | 3" x 5" x 1" |
| Printer | 1 | 17" x 15" x 9" |
| Telephone | 1 | 6" x 9" x 3" |
| Storage | 1 | 36" x 52" x 18" |
| Vertical Message Board | 1 | 48" x 36" x ½" |

Figure 23- www.furnituresolutions.co.uk/images/saicbot.jpg

The Employment / volunteer advisor workspace is designated for personnel to assist members with obtaining work opportunities. A computer with Internet access is important for information regarding opportunities found in the city. A telephone is also important to make connections with workplaces; as well, a system for posting job opportunities for members is essential. Additional seating and table would be required for visitors. Square footage required for this space is 150 sq ft. This space can be located next to the travel advisor administrative office and reception because they function at the same noise level.
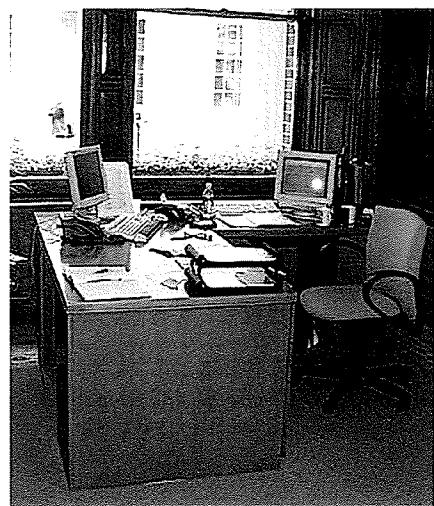
| Travel advisor | | |
|---|---|---|
| Furniture/ Equipment | Quantity | Dimensions |
| Work Surface | 2 | 60" x 30" x 28 |
| Seating | 5 | 26 ½" x 23" x 36 ½" |
| Monitor | 1 | 17" x 18" x 17" |
| Tower (CPU) | 1 | 7" x 16" x 20" |
| Keyboard | 1 | 21" x 8" x 2" |
| Mouse | 1 | 3" x 5" x 1" |
| Printer | 1 | 17" x 15" x 9" |
| Telephone | 1 | 6" x 9" x 3" |
| Storage | 1 | 36" x 52" x 18" |
| Brochure Display | 1 | 60" x 12" x 36" |

Figure 24 -  www.furnituresolutions.co.uk/images/saicbot.jpg

The travel advisor workspace is designated for personnel to assist members in individual and group travel plans and to organize special travel excursions. Because of the nature of the work, the advisor must have a space to display travel information, (brochures and booklets) and a computer for gathering additional information about different locations and for booking travel arrangements for members. Additional seating and a table would be required for visitors. Square footage required for this space is 150 sq ft. This space should be located next to the employment/volunteer advisor and the administrative office, because they have the same requirements for noise level and function.

| Reception / entry | | |
|---|---|---|
| Furniture/ Equipment | Quantity | Dimensions |
| Work Surface | 1 | 70" x 30" x 28" |
| Seating | 1 | 26 ½" x 24" x 36 ½" |
| Monitor | 1 | 17" x 18" x 17" |
| Tower (CPU) | 1 | 7" x 16" x 20" |
| Keyboard | 1 | 21" x 8" x 2" |
| Mouse | 1 | 3" x 5" x 1" |
| Printer | 1 | 17" x 15" x 9" |
| Telephone | 1 | 6" x 9" x 3" |
| Storage | 1 | 36" x 52" x 18" |
| Signage | 1 | 72" x 36" x 2" |
| Security panel | 1 | |
| Amplification system | 1 | |

Figure 25 - www.zdg.com/Downtown%20Milwaukee%20YMCA.htm
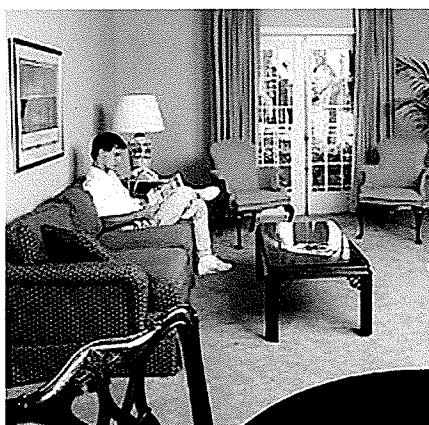


| Waiting | | |
|---|---|---|
| Seating | 1 | 24" x 32" x 30 ¼" |
| Seating | 3 | 80" x 32" x 30 ¼" |
| Telephone | 1 | 6" x 9" x 3" |
| Table | 1 | 24" x 24" x 28" |
| Table | 1 | 48" x 24" x 28" |
| Task Lighting | 2 | |

Figure 26 - www.cooperaerpbics.com/hotel/index.html

The reception / entry space welcomes the visitor to the centre. Here people will wait for transportation and friends find information about the centre and where to find different spaces within the building. The receptionist requires a computer to carry out daily tasks, and a large workspace to do paperwork.

Comfortable seating should be provided for people as they wait, as well as a courtesy phone for them to make local phone calls. Signage is important in the entry so that people know where different spaces are located throughout the building. Square footage required for these spaces is 1000 sq ft.

| Medical facility | | |
|---|---|---|
| Furniture/ Equipment | Quantity | Dimensions |
| Work Surface | 1 | 70" x 30" x 28" |
| Seating | 3 | 26 ½" x 24" x 36 ½" |
| Monitor | 1 | 17" x 18" x 17" |
| Tower (CPU) | 1 | 7" x 16" x 20" |
| Keyboard | 1 | 21" x 8" x 2" |
| Mouse | 1 | 3" x 5" x 1" |
| Printer | 1 | 17" x 15" x 9" |
| Telephone | 1 | 6" x 9" x 3" |
| Storage | 1 | 36" x 52" x 18" |
| Exam Bed | 1 | 72" x 30" x 36" |
| Electric Power Chair | 1 | 60" x 30" x 60" |
| Instrument Storage | 6 | 36" x 24" x 48" |
| Sink | 1 | 12" x 18" x 10" |

Figure 27 - www.stylecraftinteriors.com

The medical facility is a space for medical personnel to come into the centre for scheduled clinics throughout the year. The medical facility requires a great deal of secured storage accessible only by the medical personnel. These people would store many of their medical supplies, such as tongue depressors, cotton, soap, etc., so that they would not need to transport them in and out of the centre. A sink will also be needed within the space for sanitary reasons. Square footage required for this space is 1000 sq ft.

This space could be located next to the fitness facility to take advantage of the cardiovascular equipment. This equipment is needed when conducting physical examinations and setting up fitness programs.
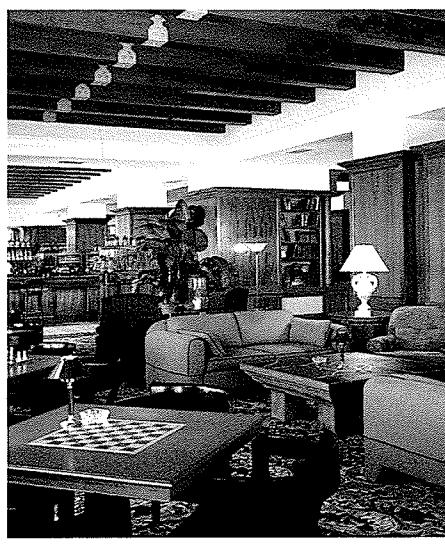
| Reading /reference room | | |
|---|---|---|
| Furniture/ Equipment | Quantity | Dimensions |
| Book shelf | 4 | 10' x 18" x 6' |
| Seating (Sofa) | 9 | 80" x 32" x 30 ¼" |
| Seating (Lounge Chair) | 18 | 34" x 32" x 30 ¼" |
| Table | 4 | 36" x 36" x 28" |
| Horizontal Surface | 19 | 10' x 30" x 28" |
| Seating (Chair) | 25 | 26 ½" x 24" x 36 ½" |
| Monitor | 13 | 17" x 18" x 17" |
| Tower (CPU) | 13 | 7" x 16" x 20" |
| Keyboard | 13 | 21" x 8" x 2" |
| Mouse | 13 | 3" x 5" x 1" |
| Printer | 1 | 17" x 15" x 9" |
| Task Lighting | 4 | |

Figure 28 - H. Wolff

The reading and reference room should have reading material of interest to the seniors. It should also contain reading materials needed in the continuing education courses at the University of Winnipeg, St. James School Division, and Fort Garry School Division. Reading material will also include fictional books and magazines for entertainment. Newspapers can be located in this space allowing members to keep up with the news. Internet access will be provided so that members can retrieve the most up to date information and keep in touch with friends and family through e-mail. Computer classes offered by the centre should be conducted in this space. Sufficient room needs to be provided around the computers for people to write down information. A variety of seating spaces will be provided to appeal to different people. Square footage required for this space is 1000 sq ft.
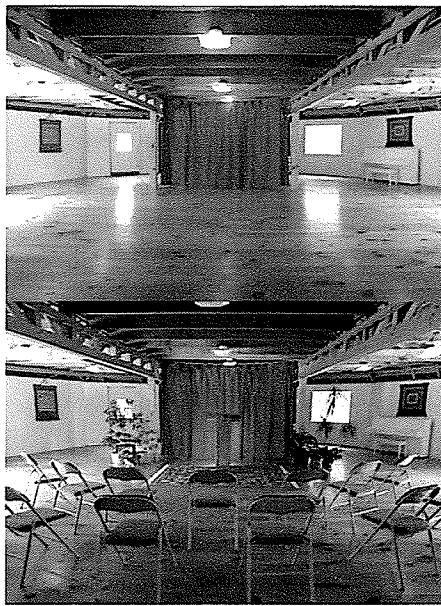
| Multipurpose room | | |
|---|---|---|
| Furniture/ Equipment | Quantity | Dimensions |
| Seating | 100 | 22.8" x 22.8" x 34.2" |
| Music stand | 20 | 18" x 8" x 48" |
| Piano (baby grand) | 1 | 58" x 68" x 38" |
| Speaker | 8 | 18" x 18' x 24" |
| Stereo System | 1 | 18" x 24" x 10" |
| Slide Projector | 2 | 12" x 13" |
| Projection Screen | 2 | 3 ¼" x 3 ¾" x 98" |
| Monitor | 1 | 17" x 18" x 17" |
| Tower (CPU) | 1 | 7" x 16" x 20" |
| Keyboard | 1 | 21" x 8" x 2" |
| Mouse | 1 | 3" x 5" x 1" |
| LCD Projector | 2 | 30" x 38" x 15" |
| Overhead Projector | 2 | 17" x 17" x 34" |
| Telephone | 1 | 6" x 9" x 3" |

Figure 29 & 30 - www.aryaloka.org/rental/photo-lecture.html

The multipurpose space should be used for musical performances, public presentations, dances, and other community events. The centre should provide presentation equipment so that presenters do not need to bring their own equipment. It should be large enough to seat 60-70 people comfortably. Due to the variety of functions in this space stackable seating would be required. Square footage required for this space is 2000 sq ft. Washrooms should be closely situated because events taking place in this space could last longer and involve more people.

| Practice space | | |
|---|---|---|
| Furniture/ Equipment | Quantity | Dimensions |
| Seating | 10 | 22.8" x 22.8" x 34.2" |
| Music Stand | 10 | 18" x 8" x 48" |
| Piano | 3 | 70" x 26" x 53 ½" |
| Drum Kit | 1 | |

Figure 31 - www.csulb.edu~music/Performance_Organization/Woodwind_Ensembles.htm

The practice space is a place where people can practice instruments or singing with some privacy. Three spaces should be provided. This allows for various groups to practice at the same time. Two spaces should be large enough for two people to practice together and should also have a piano. Square footage required for these spaces is 100 sq ft each. The third space will be much larger to accommodate small combos (4-6 people) and have a piano and a drum kit. Square footage required for this space is 300 sq ft. These spaces should be located close to the multi purpose room because of their function.
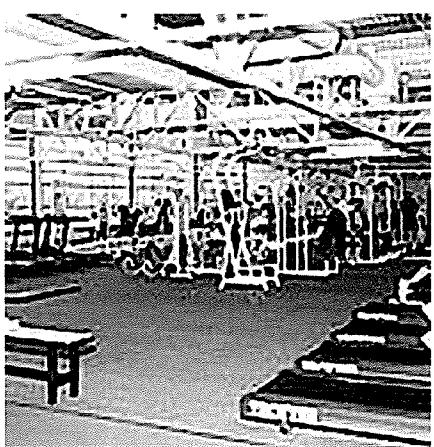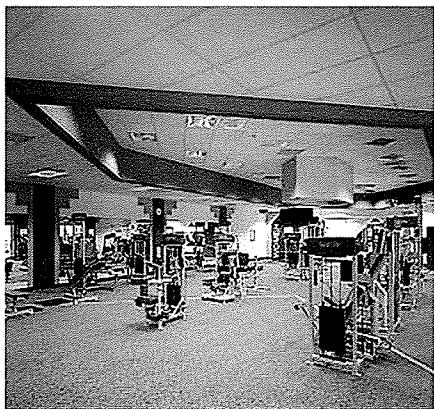
| Strength training | | |
|---|---|---|
| Furniture/ Equipment | Quantity | Dimensions |
| Free Weight Rack | 3 | 52" x 26" x 34" |
| Free Weights (Dumb Bells) | | |
| Incline Bench | 6 | 51" x 17" x 36" |
| Flat Bench | 3 | 42" x 17" x 19" |
| Plate Tree | 6 | 24" x 24" x 48" |
| Calf Raise | 2 | 50" x 24" x 30" |
| Leg Extension/Curl | 3 | 65" x 25" x 30" |
| Leg Press | 2 | 65" x 37" x 48" |
| 3-Way – Biceps, Triceps, Lats | 3 | 42" x 38" x 84" |
| Vertical Row | 2 | 57" x 38" x 80" |
| Cable Cross Over | 1 | 125" x 35" x 96" |
| Bench Press | 2 | 74" x 54" x 30" |
| Chest Press | 2 | 37" x 37" x 72" |
| Shoulder Press | 2 | 55" x 51" x 65" |
| Abdominal Crunch | 2 | 60" x 44" x 65" |
| Fitness Ball | 12 | 25 ½" |
| Ball Rack | 1 | 102 ½" x 25 ½" x 96" |
| Speakers (ceiling recessed) | 10 | |
| Stereo System | 1 | 18" x 24" x 10" |

Figure 32- www.fittsandgoodwin.com/interiors/6ncr.html    Figure 33 - www.jewishwinnipeg.org/htm#rady

The strength training space consists of equipment which focuses on major muscle groups. Various seating should be provided for people with different needs while exercising. Square footage required for this space is 1500 sq ft. This space should be located close to the cardiovascular activities and swimming because most often these programs are integrated.
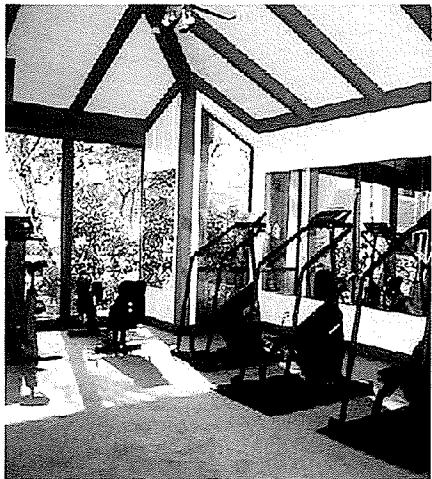
| Cardiovascular high intensity | | |
|---|---|---|
| Furniture/ Equipment | Quantity | Dimensions |
| Treadmill | 8 | 82" x 32" x 59" |
| Elliptical Trainer | 4 | 81" x 20" x 59" |
| Rowing Machine | 2 | 90" x 16" x 22" |
| Recumbent Bike | 6 | 60" x 24" x 48" |
| Upright Bike | 6 | 60" x 24" x 48" |
| Stepper | 4 | 38" x 26" x 55" |
| Speakers (ceiling recessed) | 6 | |
| Stereo System | 1 | 18" x 24" x 10" |
| TV | 6 | 40" x 26" x 21" |

Figure 34 - www.glenbrook-apartments.com/exercise1.html

This type of cardiovascular exercise includes equipment such as treadmills, elliptical trainers, steppers, exercise bikes (both upright and recumbent), and rowing machines. Square footage required for this space is 200 sq ft. The exercise space should be located adjacent to the medical facility for connections with personal trainers. This space should also be located next to the other cardiovascular spaces and the strength training space because these programs are often integrated.
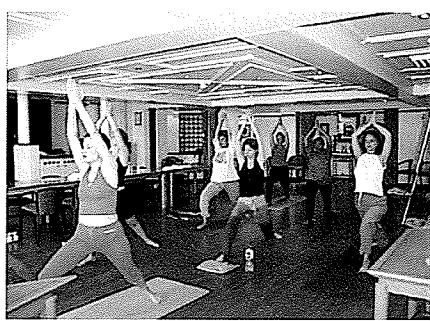
| Cardiovascular low intensity | | |
|---|---|---|
| Furniture/ Equipment | Quantity | Dimensions |
| Mat | 30 | 60" x 30" |
| Speakers (ceiling recessed) | 6 | |
| Stereo System (Amplification) | 1 | 18" x 24" x 10" |

Figure 35 - www.holisticescapes.com/YogaHolidays2.htm

This space accommodates activities such as aerobics, Yoga, Tai Chi, and Pilates. Floor surface area is the only major requirement for this space. Square footage required for the space is 2500 sq ft. This space should be located next to the other cardiovascular exercise spaces and the strength training space because these programs are often integrated
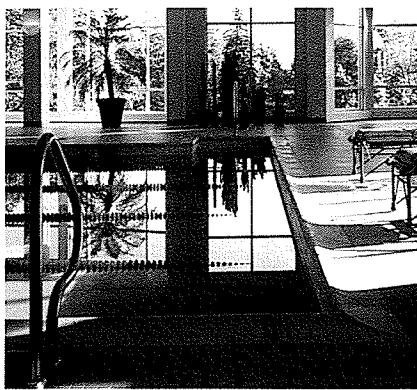
| Swimming | | |
|---|---|---|
| Furniture/ Equipment | Quantity | Dimensions |
| Pool | 1 | 50'-0" x 82'-1 ¼" |
| Lane Divider | 4 | 6" x 82'-1 ¼" x 6" |
| Storage (room) | 1 | 10'-0" x 10'-0" |
| Seating (bench) | 3 | 30' x 18" |
| Hot Tub | 1 | 6'-0" x 10'-0" |
| Sauna | 1 | 10'-0" x 12'-0" |
| Steam Room | 1 | 10'-0" x 12'-0" |

Figure 36 - Nicole Naumoff

Swimming provides an option for cardiovascular fitness for those who cannot walk or have problems with joints, arthritis, etc. There are different options for exercise in the pool. Swimming laps, water walking, and aquasize are a few choices. The swimming area should have a 3-lane pool with a zero clearance gradually sloping wading pool, hot tub, sauna and steam room. Square footage required for this space is 8,000 sq ft. This space should be located next to the other cardiovascular spaces and strength training because these programs are often integrated.
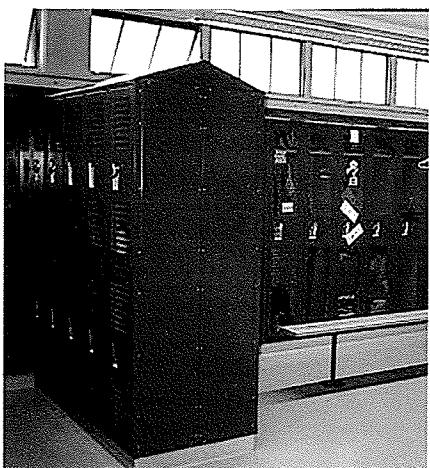
| Change rooms – Men | | |
|---|---|---|
| Furniture/ Equipment | Quantity | Dimensions |
| Personal storage | 56 | 12" x 12" x 30" |
| Seating | 1 | 16'-9"' x 12" x 20" |
| Toilet | 1 | 40" x 48" |
| Toilet – handicapped | 2 | 60" x 36" |
| Urinal | 2 | 29" x 18" |
| Sink | 4 | 16" x 18" |
| Hand dryer | 2 | 12" x 4" x 10" |
| Shower | 5 | 3'-6" x 3'-6" |
| Shower - Handicapped | 1 | 5'-9" x 36" |

Figure 37 - www.bu.edu/wcrew/Photo%20Gallery/Boathouse/pages/ Locker%20Room%202_png.htm
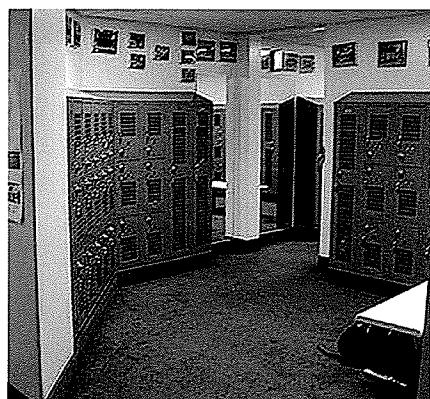


| Change rooms – Women | | |
|---|---|---|
| Furniture/ Equipment | Quantity | Dimensions |
| Personal storage | 56 | 12" x 12" x 30" |
| Seating | 1 | 16'-9"' x 12" x 20" |
| Toilet | 3 | 40" x 48" |
| Toilet – handicapped | 2 | 60" x 36" |
| Sink | 4 | 16" x 18" |
| Hand dryer | 2 | 12" x 4" x 10" |
| Shower | 5 | 3'-6" x 3'-6" |
| Shower - handicapped | 1 | 5'-9" x 36" |

Figure 38 - www.rtrlocations.com/IMAGES/Colleges/8173/8173.htm

The change rooms provide a place for members to lock up personal belongings while using the fitness facilities. Square footage required for these spaces is 1000 sq ft each. It is necessary to have direct access from the change rooms into the various fitness areas. These facilities should have showers and other areas for addressing personal hygiene needs. Enough space should be provided to allow for power wheelchairs.
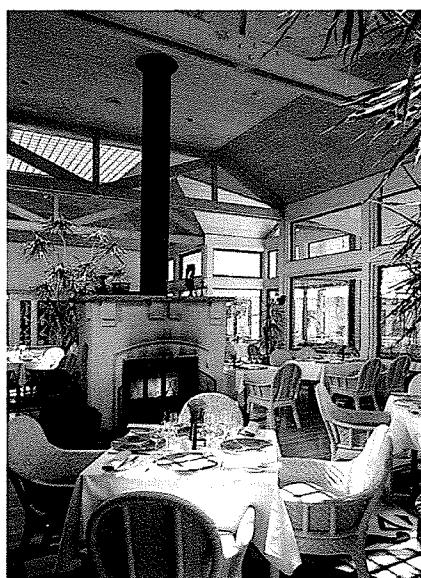
| Eating | | |
|---|---|---|
| Furniture/ Equipment | Quantity | Dimensions |
| Table | 19 | 48" x 48" x 30" |
| Seating (chair) | 96 | 22.8" x 22.8" x 34.2" |
| Table | 6 | 36" x 36" x 30" |
| Food counter | 1 | 43'-10½" x 24" x 4'-8" |
| Seating (High counter chair) | 8 | 16" x 14" x 48" |
| | | |

Figure 39 - H. Wolff

The eating space is a place where people can sit down and eat a meal or a snack. It could provide a variety of seating arrangements to facilitate different sizes of groups. Square footage required for this space is 3500 sq ft. It should be located next to the food preparation space so that food does not need to be moved a great distance. Restrooms should also be in close proximity, enabling diners to wash before and after eating.

| Food preparation | | |
|---|---|---|
| Furniture/ Equipment | Quantity | Dimensions |
| Food prep surface | 2 | 8'-2" x 3'-6" |
| Sink | 2 | 21" x 21" |
| Refrigerator | 2 | 72" x 32" |
| Refrigerator – walk in | 1 | 8'-9" x 10' |
| Freezer - Walk in | 1 | 8'-9" x 10' |
| Double Oven / Range | 2 | 24" x 24" |
| Microwave | 2 | 26 ¾" x 14 ¼" x 15 ½" |
| Fryer | 2 | 16" x 34" |
| Dish washing machine | 1 | 11'-3" x 7' |
| Coffee maker | 2 | 14" x 7" x 14" |
| Dish storage | 2 | 7' x 18" |
| Dish storage | 1 | 21'-3" x 27 ½" |
| Telephone | 1 | 6" x 9" x 3" |

Figure 40 - Mark Lohman

The **food** preparation space should be used for preparing food to be served in the eating area for breakfast, lunch, and supper. It will also by the location of cooking classes offered be the centre. As well, food prepared in this space could be brought out into the community with "Meals on Wheels". The food preparation space should be located next to the eating area for this reason and also to reduce the distance to carry food. Square footage required for this space is 800 sq ft. The food preparation space should be located fairly close to an exterior doorway / loading dock for ease of delivery of food items.
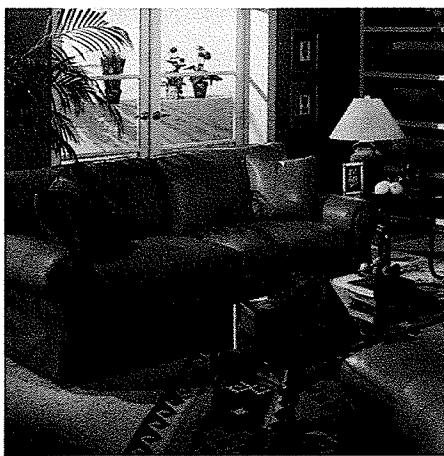
| Conversing / support meeting room | | |
|---|---|---|
| Furniture/ Equipment | Quantity | Dimensions |
| Seating (Sofa) | 2 | 80" x 32" x 30 ¼" |
| Seating (Chair) | 3 | 34" x 32" x 30 ¼" |
| Table | 1 | 48" x 36" |
| Table | 1 | 24" x 36" |
| Table/Floor lighting | 2 | |
| Telephone | 1 | 6" x 9" x 3" |
| | | |

Figure 41 - UCC Total Home

The conversing space provides a location for private or group meeting sessions. It can also be used as a private reading room. Square footage required for this space is 200 sqft. This space should be located next to the other more quiet spaces such as the offices or the reading room so that sessions are not disturbed due to loud activities.

| Restroom — Men | | |
|---|---|---|
| Furniture/ Equipment | Quantity | Dimensions |
| Toilet | 2 | 40" x 48" |
| Toilet — handicapped | 1 | 60" x 36" |
| Urinal | 2 | 29" x 18" |
| Sink | 4 | 16" x 18" |
| Hand dryer | 2 | 12" x 4" x 10" |

Figure 42 - www.dangfunny.com/90s/restroom.html
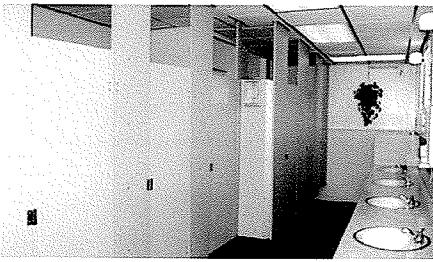


| Restroom — Women | | |
|---|---|---|
| Furniture/ Equipment | Quantity | Dimensions |
| Toilet | 4 | 40" x 48" |
| Toilet — handicapped | 1 | 60" x 36" |
| Sink | 4 | 16" x 18" |
| Hand dryer | 2 | 12" x 4" x 10" |

Figure 43 - www.amesbrook.com/photo_gallery.htm

Restrooms should be provided and located next to the eating space and the multi purpose room. These spaces could have the greatest number of people and could often be occupied for longer periods of time. Square footage required for these spaces is 300 sq ft each. These dimensions and the quality of fixtures are based on universal access standards requirements. The consultant should consult local authorities having jurisdiction to determine space allocation and qualities of fixtures in their location.
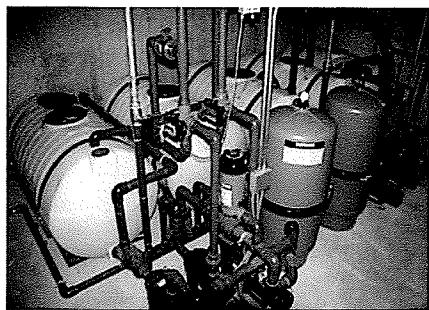
| Mechanical / utility room | | |
|---|---|---|
| Furniture/ Equipment | Quantity | Dimensions |
| HRV | 1 | |
| Air exchange unit | 1 | |
| Furnace | 1 | |
| Hot water tank | 2 | |
| Sink | 1 | |

Figure 44 - www.comfortableheat.com/mechanical_room.htm

The Mechanical / Utility room houses the heating and cooling system for the building. Cleaning supplies for the caretaker could also be located in this space. Square footage required for this space is 500 sq ft.



| Storage | | |
|---|---|---|
| Furniture/ Equipment | Quantity | Dimensions |
| Shelving | | |
| | | |

Figure 45 - www.usd.edu/phys/tour/building/room_114.html

A storage space is required to hold various equipment, and chairs used in the multipurpose room. Because of its contents it should be located next to the multi purpose room. Square footage required for this space is 1000 sq ft.

# Spatial Requirements

Parking

Outdoor Activity space

| | |
|---|---|
| Administrative Workspace | 150 sq ft |
| Employment / Volunteer Advisor | 150 sq ft |
| Travel Advisor | 150 sq ft |
| Reception / Entry | 500 sq ft |
| Waiting | 500 sq ft |
| Medical Facility | 1000 sq ft |
| Reading / Reference Room | 1000 sq ft |
| Multi Purpose Space | 2000 sq ft |
| Practice Space | 500 sq ft |
| Strength Training | 1500 sq ft |
| Cardiovascular High Intensity | 2000 sq ft |
| Cardiovascular Low Intensity | 2500 sq ft |
| Swimming | 8000 sq ft |
| Change Room – Men | 1000 sq ft |
| Change Room – Women | 1000 sq ft |
| Eating | 3500 sq ft |
| Food Preparation | 800 sq ft |
| Conversing | 200 sq ft |
| Restroom – Men | 300 sq ft |
| Restroom – Women | 300 sq ft |

| | |
|---|---|
| Mechanical Room | 500 sq ft |
| Storage | 1000 sq ft |
| | |
| Total | 28,550 sq ft |
| + 35% circulation | 38,542.5 sq ft |

A **matrix was** developed to determine where various spaces should be located within the building. It was important to understand the function and environmental qualities of each space in order to negotiate which spaces should be located in close proximity to others. Table 3 illustrates the varying levels ( i.e., not very close, somewhat close, and very close) of spatial adjacencies for the different spaces found in the seniors' social environment.

Legend: blank = Not necessarily close; S = Somewhat close (gray); V = Very close (black)

| | Storage | Mechanical Room | Restroom — Women | Restroom - Men | Conversing | Food Preparation | Eating | Change Room - Women | Change Room - Men | Swimming | Cardiovascular LI | Cardiovascular HI | Strength Training | Practice Space | Multi Purpose Space | Reading/Reference Room | Medical Facility | Waiting | Reception / Entry | Travel Advisor | Emp/Vol Advisor | Administrative Workspace | Outdoor Activity Space | Parking |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Parking | | | | | | | | | | | | | | | | | S | V | V | | | | | |
| Outdoor Activity Space | | | | | | | | | | | | | | | | | | S | S | | | | | |
| Administrative Workspace | | | S | S | S | | | | | | | | | | | S | | S | S | V | V | | | |
| Emp/Vol Advisor | | | S | S | | | | | | | | | | | | S | | S | S | V | | | | |
| Travel Advisor | | | S | | | | | | | | | | | | | | | S | S | | | | | |
| Reception / Entry | | | S | | | | | S | S | S | S | S | S | | S | S | | | | | | | | |
| Waiting | | | S | S | S | | | S | S | S | S | S | S | | | | | | | | | | | |
| Medical Facility | | | S | S | S | | | S | S | S | S | S | S | | | | | | | | | | | |
| Reading/Reference Room | | | S | S | S | | | | | | | | | | | | | | | | | | | |
| Multi Purpose Space | V | | S | S | | | | | | | | | | V | | | | | | | | | | |
| Practice Space | V | | S | S | | | | | | | | | | | | | | | | | | | | |
| Strength Training | | | | | | | | V | V | V | V | V | | | | | | | | | | | | |
| Cardiovascular HI | | | | | | | | V | V | V | V | | | | | | | | | | | | | |
| Cardiovascular LI | | | | | | | | V | V | V | | | | | | | | | | | | | | |
| Swimming | | | | | | | | V | V | | | | | | | | | | | | | | | |
| Change Room - Men | | | | | | | | V | | | | | | | | | | | | | | | | |
| Change Room - Women | | | | | | | | | | | | | | | | | | | | | | | | |
| Eating | | | S | S | | V | | | | | | | | | | | | | | | | | | |
| Food Preparation | | S | | | | | | | | | | | | | | | | | | | | | | |
| Conversing | | | | | | | | | | | | | | | | | | | | | | | | |
| Restroom — Men | | | V | | | | | | | | | | | | | | | | | | | | | |
| Restroom — Women | | | | | | | | | | | | | | | | | | | | | | | | |
| Mechanical Room | S | | | | | | | | | | | | | | | | | | | | | | | |
| Storage | | | | | | | | | | | | | | | | | | | | | | | | |

## Legend

| | |
|---|---|
| Not necessarily close | (blank) |
| Somewhat close | (gray) |
| Very close | (black) |

Table 1 - Spatial adjacencies *Jodi Sapinsky*

# Zoning and Circulation Studies

Applying the information formulated in the spatial adjacency matrix developed two different zoning and circulation options. Because certain space needed to be located in specific positions and very close to other spaces, there are few differences in the two options. The main difference between the two options was in the organization of the office spaces, reading room, and multipurpose room. In the first option the reading room is located in the front (north) side of the building, close to the entrance, where as it is located deeper into the central part of the building in option two. Option two placed the office spaces in the front to give employees and visitors of the centre visual access to the outdoors and natural light. The multipurpose room was placed more centrally in option two, minimizing the opportunity for natural light and a visual connection to the outdoors. An outdoor activity area was placed within the existing building envelope adjacent to the swimming space in option two but was not offered in this location in option one.

The final design further developed the zoning and circulation outlined in option one because of the primary, secondary, and tertiary circulation paths and desire for natural light for specific functions. Concepts such as the swimming space bleeding into an outdoor activity area in option two were integrated in a different form for the final design.

0'  50'  100'

OUTDOOR ACTIVITY

PARKING

FOOD PREP

SWIMMING

EATING

MECH

BEST WISHES CHINESE FOOD

SNACKER'S RESTAURANT

CHIROPRACTOR

BARBER

DENTIST

M&M MEAT SHOPS

AUTOPAC

LOW

TRAIN

HIGH

M

W

CHANGE ROOMS

M

W

OFFICES

W

T

A

MULTI PURPOSE

STORAGE

CON

READING

ENTRY/ WAITING

PRIMARY CIRCULATION

SECONDARY CIRCULATION

TERTIARY CIRCULATION

PARKING

OUTDOOR ACTIVITY
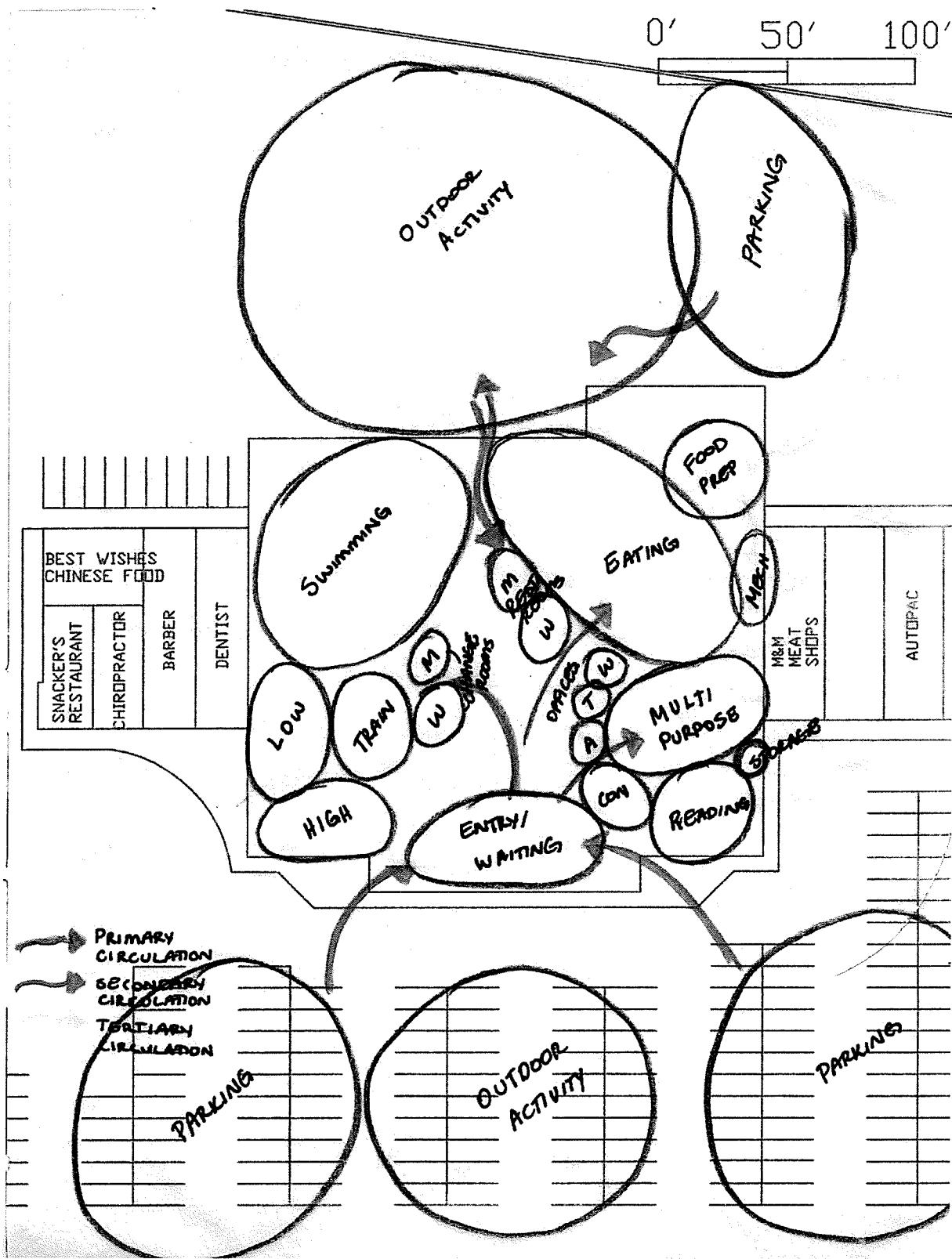
PARKING

Figure 46 - Zoning and circulation option 1 *Jodi Sapinsky*

## Zoning & Circulation Analysis (Option 1)

### Parking Lot

In this scenario parking is already provided in front of the building. More parking could be added to the backside (south) of the building to provide more options, and to allow access into another part of the building. It would be desirable to make the parking area more inviting. This could be achieved through vegetation, outdoor benches for waiting, and picnic tables for eating, thus encouraging more activity in this space.

### Entry / Waiting

The main entry should be located at the front, north side of the building, because it provides easier access for drop-off and pick-up of members. It also has good visual access to Portage Avenue and Westwood Drive. This entry would also provide good visual access to the parking area. It is in a central location and provides good physical orientation to other spaces in the building.

### Offices

The offices should be located off the entry. This is beneficial because there is a close connection in function and noise level with these spaces. This location also makes it easier for those dropping in to use only the travel or employment services.

### Multi Purpose Room

Locating the multi purpose room in the northwest corner of the building makes it possible to use the waiting area as an area to wait before attending a function in the multipurpose room or a place to congregate before a social function. The storage room houses audiovisual equipment and chairs used in the multipurpose room, so it is important to have this space connected to the multipurpose room.

### Reading Room

The reading room should be located off the waiting area. Such an arrangement would allow seating to bleed from one space into another, making seating arrangements more functional. Locating the reading room in this location provides an opportunity for visual access to the exterior and natural lighting during the day.

*Food Preparation*

The food prep area should be located on the southwest corner of the building next to the existing receiving entrance. At this location food and supplies could be brought directly into the food prep area. It would also facilitate bringing other supplies in through this space at low activity times.

*Eating Area*

The eating area should be located adjacent to the food preparation area. Access to this space is provided off a major circulation path from both the front main entrance and the back entrance. Some visual access to the

exterior could be provided in this space through glazing on the south wall.

*Restrooms*

The restrooms should be located adjacent to the eating area to allow for easy access to washing facilities before and after eating. It should also have close access to the multipurpose room. Both the eating and multipurpose spaces are used for activities which may require longer periods of time. This means members may need to access the restrooms for often from these spaces.

*Swimming*

The swimming space here faces south, so it would have the potential for excellent natural day lighting. This must be carefully considered to avoid problems with glare. There is potential to create a connection to the adjacent outdoor activity space. The swimming space should have direct access to the change rooms.

*Change Rooms*

The change rooms should have access to both the swimming and fitness areas. At this location the change rooms also have access from a central circulation path, so they can act as a secondary restroom if necessary.

*Fitness Facility*

The fitness facility is located on the north, front side of the building. A large amount of glazing would already be provided which could be beneficial for natural day lighting, without problems with glare. This would also provide good visual access to the exterior and get the attention of people walking past the centre.
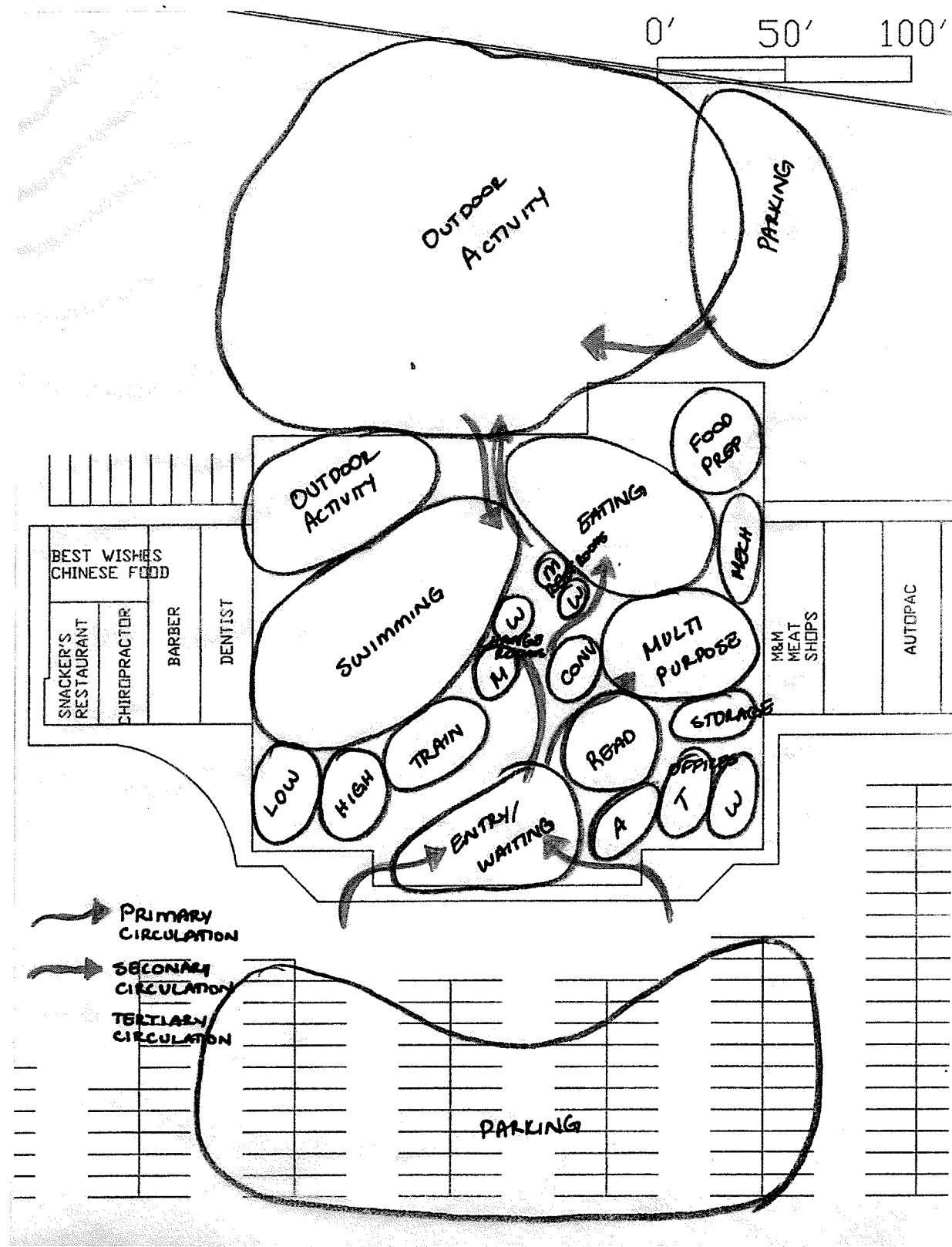
Figure 47 - Zoning option 2 *Jodi Sapinsky*

## Zoning & Circulation Analysis (Option 2)

### Parking Lot

Parking would already be provided in front of the building. More parking could be added to the backside (south) of the building to provide more options and access into another part of the building. The parking area would need to be made more inviting. This could be achieved through vegetation and having more activity taking place in this space.

### Entry / Waiting

The main entry should be located at the front, north side of the building because it provides easier access for drop-off and pick-up of members. It also has good visual access to Portage Avenue and Westwood Drive. This entry would also provide good visual access to the parking area. It is in a central location and provides good physical orientation to other spaces in the building.

### Offices

The offices should be located off the entry. This is beneficial because there is a close connection in function and noise level with these spaces. This location also makes it easier for those dropping in to use only the travel or employment services. Individuals working in the offices would have visual access to the exterior and be able to see people entering and exiting the centre.

### Reading Room

The reading room should be located off the waiting area. This would allow for seating to bleed out of one space into another, making seating arrangements more functional. The reading area is located in an interior space in the building with no glazing. This would be beneficial because there would not be any glare on the computer monitors and it would also be less damaging to the reading materials.

Individuals' focus would be more on reading than on gazing outside.

*Multi Purpose Room*

The multi purpose room could be located in a somewhat central location but would be accessed by a central circulation path. Locating it here provides good access from both the front and back entrances. Locating the multipurpose room next to the eating area could be beneficial because of the comparable noise levels. The multi purpose room would be used during the days and evenings but natural day lighting is not a necessity for the functions taking place in the space. The storage room houses audiovisual equipment and chairs used in the multipurpose room, so it is important to have this space connected to the multipurpose room.

*Food Preparation*

The food preparation area should be located on the southwest corner of the building next to the existing receiving entrance. At this location food and supplies could be brought directly into the food prep area. It would facilitate bringing other supplies in through this space at low activity times.

*Eating Area*

The eating area should be located adjacent to the food preparation area. Access to this space is provided off of a major circulation path from both the front main entrance and the back entrance. Some visual access to the exterior could be provided in this space through glazing on the south wall.

*Restrooms*

The restrooms should be located adjacent to the eating area to allow easy access to washing facilities before and after eating. It should also have close access to the multipurpose room. Both the eating and multipurpose spaces are used for activities which may require longer periods of time. This means members may need to access the restrooms for often from these spaces.

*Swimming*

The swimming space here faces south, so it would have the potential for excellent natural day lighting. This must be carefully considered to avoid problems with glare. There is potential to create a connection to the outdoor activity space located directly adjacent. The swimming space should have direct access to the change rooms.

*Change Rooms*

The change rooms should have access to both the swimming and fitness areas. At this location the change rooms also have access to a central circulation path, so they can act as a secondary restroom if necessary.

*Fitness Facility*

The fitness facility is located on the north, front side of the building. A large amount of glazing would already be provided which could be beneficial for natural day lighting, without problems with glare. This

would also provide good visual access to the exterior and get the attention of people walking past the centre.

# Spatial Character

The seniors' social environment should reflect a vibrant attitude yet feel comfortable and home-like. Visual access to most areas is important to draw people into the different activities and help with wayfinding through the centre. Spaces should be open with few narrow corridors, which restrict access due to mobility. Brightly lit spaces with high contrast help those with visual impairments to find their way through spaces. Natural lighting should be integrated into the building to allow for solar heat and lighting gains and to provide a natural dynamic interior environment.

# Materials

The centre should have high contrasting colours between planes to help with visual impairments and easier readability. The colours should also help to bring forth the character of the centre. Perceptible differences in texture should be used, because as people age, their sense of touch decreases, making it more difficult to tell the difference between various materials. Colour should be used to help wayfinding through the centre (Alfred, 1996).

Flooring materials should include both carpet and resilient flooring. Carpet has more visual warmth and is better for acoustics. Because so many people will use the centre, it is important to absorb some of the sound. Carpet is a softer surface and will provide some cushioning if someone falls. It also eliminates glare, which is a problem for wayfinding and for people with visual impairments (Brawley, 1997).

The carpet selection should be tested for high traffic areas, have a dense pile, and be rolling traffic friendly allowing for easy mobility for those using wheelchairs or other wheeled mobility aids. It should be impermeable; that is, it should have a vinyl moisture barrier back. This would prevent spills from penetrating through the carpet to the substrate. If however, where there is potential for water vapour to be trapped between the substrate and the carpet the carpet should be permeable enough to allow for its release. In addition, the carpet should have a nonleaching, antimicrobial treatment. This would prevent odours from forming from bacteria growth due to spills. Nylon carpet fibres are the best for this installation because they are strong and durable, have a smooth surface, and resist colour fading (Brawley, 1997).

Resilient flooring should also be used in the centre. These floors should be slip

resistant and have a non-reflective finish. There should be a smooth transition between the different flooring materials so people whom have difficulty walking or seeing do not trip on the flooring connection. Transition from one surface to another needs to be carefully considered for wheelchair access especially is high traffic areas as an abrupt noted change can be most annoying.

Most wall surfaces should be finished with paint. Latex paint is superior over alkyd because it resists cracking, flaking, chipping, and fading. These attributes mean repainting will not need to be done as often. Latex paint also has low odour, a fast drying time, and is easy to clean up with soap and water. An eggshell finish is important to reduce glare on the hard, solid surface. This finish will have less reflection than a gloss or a semi-gloss (Brawley, 1997). Doors and frames should, however, be painted with an alkyd paint because it is more durable. Vinyl wall covering is another option for finishing the wall surfaces.

It offers durability pattern and textural interest, but is more costly.

Fabric selection is critical for different seating options and window coverings. All fabrics in the centre should be stain-resistant, flame retardant, have fluid barriers to prevent spills from penetrating into the fabric, and antimicrobial finish to reduce the growth of micro-organisms in the fabric. Crypton is a good selection for fabric because it has all of these attributes and is also breathable, strong, and resists the growth of fungi and bacteria (Brawley, 1997).

With the increased use of natural lighting, glare could pose a problem. Materials with brushed finishes/ low lustre finishes or should be used to reduce the glare and reflections from surfaces (Brawley, 1997).

Materials should be durable and low maintenance to reduce the need for repair. Materials that are easy to clean help to keep the building clean at all times. It also reduces the cleaning time needed when the centre is closed.

# Lighting

General illumination must be higher than in applications for younger generations because the amount of light that reaches the eye decreases with age. It is important to have slight contrasting light levels to distinguish different spaces, but it is critical to have a balance between these spaces and transition spaces so that the light differentiation is not too great (Han, 2002). Fluorescent fixtures should not be used because they tend to have a flicker and hum which can cause headaches and irritate the eye. Incandescent fixtures should be used because of their warm colour and superior economy. Because incandescent fixtures often do not produce enough illumination, careful consideration needs to be given to the quantity of fixtures in each space (Han).

Day lighting should be used as much as possible, but should be controlled to ensure that direct sunlight will not hinder people's vision. Glare can also be a problem with direct sunlight. Much of the building will not have exterior walls so skylights could be integrated into the roof structure to allow for more day lighting throughout the building. Care must be taken in the swimming area to make certain that direct sunlight is not projected onto the water, causing reflection and glare.

The exterior spaces should be primarily lit with sunlight. Additional lighting should be provided on the walking paths and seating areas for use in the evenings. Also, lighting should be provided in the parking lot for visual access and security reasons. These exterior lights could have a sensor to turn them on and off when natural lighting levels are low.

Many spaces in the centre will require a high level of light to assist with daily activities and reading (National Institute on Aging, 1995). These spaces include the various offices, the waiting, and reading areas, the medical facility, the practice rooms, the fitness

facilities and the general circulation paths. The reception area may also need to have a higher light level. This is to highlight the space and draw visitors to the desk, as well as provide functional lighting for carrying out tasks. Additional task lighting could also be required in the waiting, reading, and office spaces. This type of lighting can be adjusted for each user and a supplement to other artificial lighting. Ceiling mounted fixtures should be located at intervals to maintain a more uniform light quality and to afford less risk of shadows and dark spots. Lights should be switched with linear slide controls to allow for a variety of lighting options, depending on the amount of natural light available through glazing.

Special lighting design considerations should be made for the multipurpose room. This space could facilitate a variety of activities at different times of the day; and therefore needs lighting to support the function. Spotlights should be able adjustable, allowing

change in direction and intensity. This lighting would primarily be used for evening performances. General, uniform, incandescent lighting on dimmer switches should also be provided to allow for different light levels. They should be wired in different series, so that certain areas can be lit while others remain unlit.

Change rooms, washrooms, and conversation spaces, do not need to have as high levels of light because they do not require focusing on reading or small print material. However, in certain areas of the change rooms, additional task lighting could be required for putting on make-up, styling hair and other grooming tasks.

Circulation paths should be bright enough to help people find their way through the centre. It will also help with reading of signs.

# Building Systems and Technology

A separate humidification system would be necessary for the swimming area. It is important to have a regulated humidity in order to regulate the temperature and thermal ambient conditions.

Additional ventilation would be necessary in the food preparation area. This area must be carefully located in the building. In some cases, food could be prepared and then sent off to other locations. Care should be taken to avoid exhaust from a delivery truck from getting into the building.

Heat recovery ventilators would help to reduce heating costs by capturing heat from the kitchen, and using it to heat the other spaces in the building.

In areas where more sedentary activities take place, radiant heating systems provide a much higher level of thermal comfort than forced air or convective systems. Radiant heated floors around the swimming areas would also help make the surface more comfortable.

The centre should have both audible and visual signals for fire alarms. In smaller spaces, visual alarms should be visible within 50 feet of the signal. In larger spaces all areas will be within 100 feet of the signal and there should not be any visual obstructions over 6 feet high (Hoke, 2000).

A water-based fire suppression system should be installed in most areas of the centre. In the ventilated food preparation area where fats are used for cooking, a wet-chemical based fire suppression system should be installed. Water-based systems could make fires worse in areas such as this. Manual pull stations should be located in each different space throughout the centre, as required by local codes.

As well as the two main exits at the front of the building, additional exits to the exterior should be located in the food preparation area (loading dock), a main exit in

the back into the exterior activity space, and an emergency exit placed in the swimming area. There should be two exits in the locker rooms, and two in the swimming pool area. There should be four exits from the exercise, and reading rooms combined. Some of these exits could be to other interior spaces, provided those spaces are on an emergency exit route.

The centre should be divided into different zones for heating purposes (i.e., Fitness area – Zone 1, Offices – Zone 2, Multi-purpose room – Zone 3, Eating area – Zone 4, Food Preparation – Zone 5, Reading/reference – Zone 6). Different zones have different activity levels, and therefore have different heating needs. Each zone should be controlled separately.

# Health and Safety Issues

Health and safety issues are very important in the design of a seniors' social environment. As people age, their mobility decreases. It is critical to make the building as easy to access and enter as possible. Therefore, the building and grounds must be designed so that there is equal accessibility to all that use the space. This way all people will be able to access the centre without difficulty.

Parking should be provided on the front (north side) of the building. 20% of the parking stalls should be accessible to those with disabilities and should be situated as close to the building as possible. Walkways from the parking area to the building should also be accessible (Hoke, 2000).

The parking lot should be lit to provide greater safety when going to and from one's car. In winter, precautions should be taken to remove snow and ice from major paths of travel and reduce chances of slipping and falling. The bus route should be altered to provide better access to the building. The new route should have a stop directly in front of the main entrance. This would also make it easier for those waiting for buses inside the building. A drop-off loop should be integrated into the design of the front of the building, making it easier to drop off and pick up people.

Entry into the building should be at ground level, and all main entries should have automatic doors. Signage should have high contrasting colours, be tactile and should also be written in Braille as well as English. Signs should be posted so that they can be read from Portage Avenue and Westwood Drive.

Interior and exterior pathways should be finished with a different material that highlights the edge of the path. This helps people who are visually impaired discern the edge of the path and know where they are going. Detectable warning surfaces should be located at the entrance/exit of the building, the

edge of the pool, change rooms, and any possible level changes.

Communication systems for people with different impairments should be provided. TTY are phones which can be used by people with complete hearing loss. These telephones should be located at different locations throughout the centre, be wheelchair accessible, and have volume adjustable telephones.

Items such as drinking fountains and telephones should be recessed into walls to minimize obstructions in pathways.

Railings should be provided on all interior paths of travel and any level changes.

Furniture in offices and the reception desk should be wheelchair accessible. The food prep area should have enough circulation space for wheelchairs as well as lower counters and cupboards throughout the space. At workstations there should be knee space under the counters so that those in wheelchairs can also take part in various cooking activities.

# Summary

- The design program illustrates how the design guidelines created from the research analyzed in the literature review can be implemented into an existing site, 3292 Portage Avenue in Winnipeg, Manitoba.

- The site was selected based on the demographic composition, surrounding existing amenities, and accessibility.

- The target group for this project is comprised of individuals age 55 years and older.

- The social environment should provide activities and opportunities to keep these individuals active, to give them a sense of purpose and belonging in the community.

- Activities and services the centre should offer are

  o Education Services

    ▪ Within the centre

      • Computer classes

      • Cooking classes

      • Dance classes

      • Music Classes

    ▪ Linked with the community

      • University of Winnipeg

      • St. James Assiniboia School Division

      • Fort Garry School Division

  o Fitness Opportunities

    ▪ Strength training

- Cardiovascular machines

- Cardiovascular classes

- Yoga

- Tai Chi

- Pilates

- Aquasize

- Aerobics

  o Medical Clinics – check ups

  o Opportunities for employment

  o Dances

  o Musical performances

  o Counselling

- Some of the components of the senior's social environment should be administrative offices, travel advisor office, employment / volunteer advisor office, medical facility, fitness facility (weight room, cardiovascular machines / aerobic floor), swimming pool, change rooms, multi purpose room, food preparation space, eating area, and reading / reference room.

- The centre should have high contrasting colours to help with visual impairments and create easier readability.

- Colour should be used to help wayfinding through the centre.

- Uniform lighting levels throughout the building. Contrasting light levels to distinguish different spaces with a balance transition space to reduce light level differentiation.

- Circulation paths should be wide and bright so individuals can find their way through the centre.

- Use dense pile, roller traffic friendly carpet to give visual warmth and help with acoustics.

- Use non-slip, resilient flooring with a non-reflective finish in other areas.

- Eggshell finish latex paint should be used because it produces less glare. It also has a fast drying time and is low odour.

- Fabrics for seating and window coverings should be stain resistant and flame retardant, and have fluid barriers to prevent spills from penetrating into the fabric, and antimicrobial finish to reduce the growth of micro-organisms in the fabric.

- The centre should have both audible and visual signals for fire alarms.

- Detectable warning surfaces should be located at the entrance/exit of the building, the edge of the pool, change rooms and any possible level changes.

- TTY telephones should be located at different locations throughout the centre, as well as being wheelchair accessible and having volume adjustable telephone.

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Appendix B - Furniture & Equipment

# Table of Contents

# List of Figures

# Furniture

**Figure 1**
Bernhardt – Graphica chair
(w) 34" x (d) 32" x (h) 30 ¼"
seat height 17 5/8"
arm height: 25 ¾"
*Bernhardt - Brochure*



**Figure 2**
Bernhardt – Graphica sofa
(w) 80" x (d) 32" x (h) 30 ¼"
seat height: 17 5/8"
arm height: 25 ¾"
*Bernhardt - Brochure*
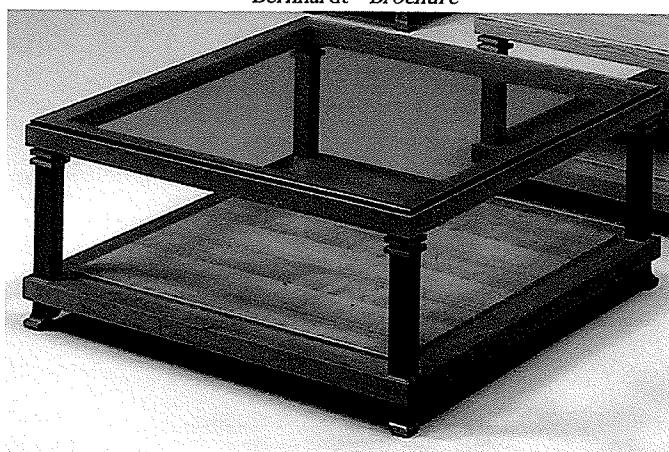


**Figure 3**
Cassina– Robie 2 small
(w) 18" x (d) 18" x (h) 24"
*Cassina - Brochure*



**Figure 4**
Cassina – Robie 2 large
(w) 36" x (d) 36" x (h) 24"
*Cassina - Brochure*

*Multi Purpose Room*
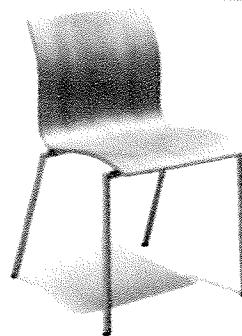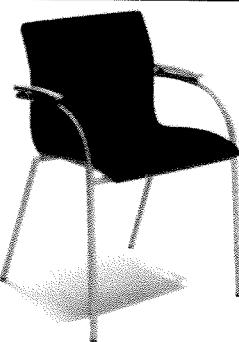


Figure 5
Sedus – WS 10 Meeting chair
upholstered shell
(w) 580 mm x (d) 580 mm x (h) 800 mm
seat height: 440 mm
*Sedus - Brochure*



Figure 6
Sedus – WS 10 Meeting chair
wood seat
(w) 580 mm x (d) 580 mm x (h) 800 mm
seat height: 440 mm
*Sedus - Brochure*

*Offices*
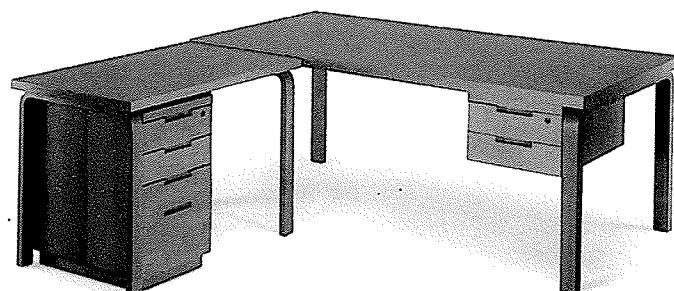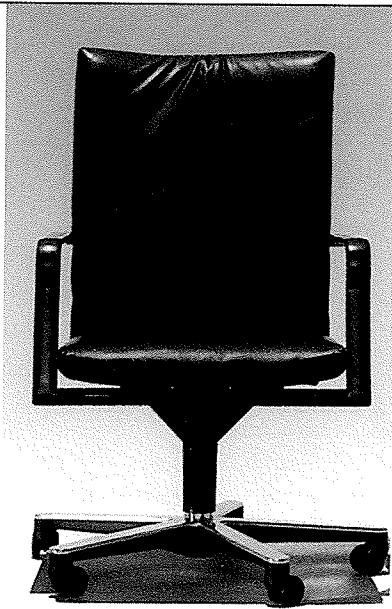


Figure 7
Fritz Hansen – Independence W61
(w) 62 cm x (d) 67 cm x (h)100-
109 cm
seat height adjustable: 45-54 cm
*Fritz Hansen - Brochure*



Figure 8
ICF Group – Aalto H-legged table
(w) 59" x (d) 60" x (h) 28"
*ICF Group – Brochure*

Figure 9
Bernhardt — Graphica chair
(w) 34" x (d) 32" x (h) 30 ¼"
seat height 17 5/8"
arm height: 25 ¾"
*Bernhardt - Brochure*
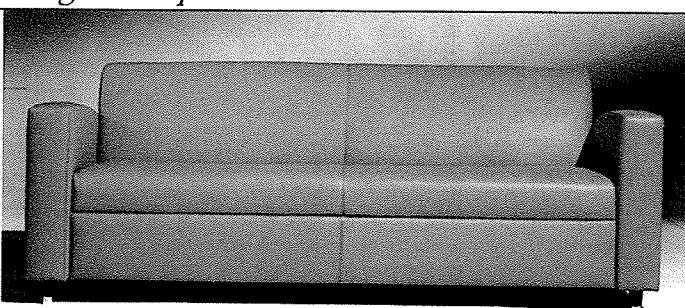


Figure 10
Bernhardt — Graphica sofa
(w) 80" x (d) 32" x (h) 30 ¼"
seat height: 17 5/8"
arm height: 25 ¾"
*Bernhardt - Brochure*



Figure 11
Cassina— Robie 2 small
(w) 18" x (d) 18" x (h) 24"
*Cassina - Brochure*
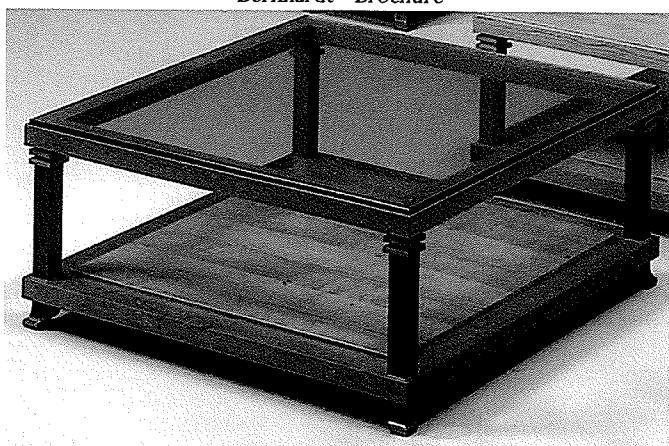


Figure 12
Cassina — Robie 2 large
(w) 36" x (d) 36" x (h) 24"
*Cassina - Brochure*
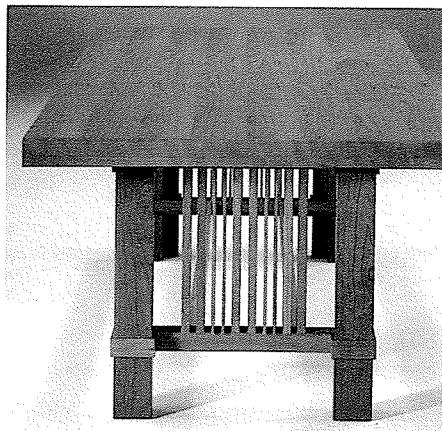
Figure 13
Cassina – Taliesin 2
(w) 98" x (d) 38.5" x (h) 27.5"
*Cassina - Brochure*

## *Dining Space*
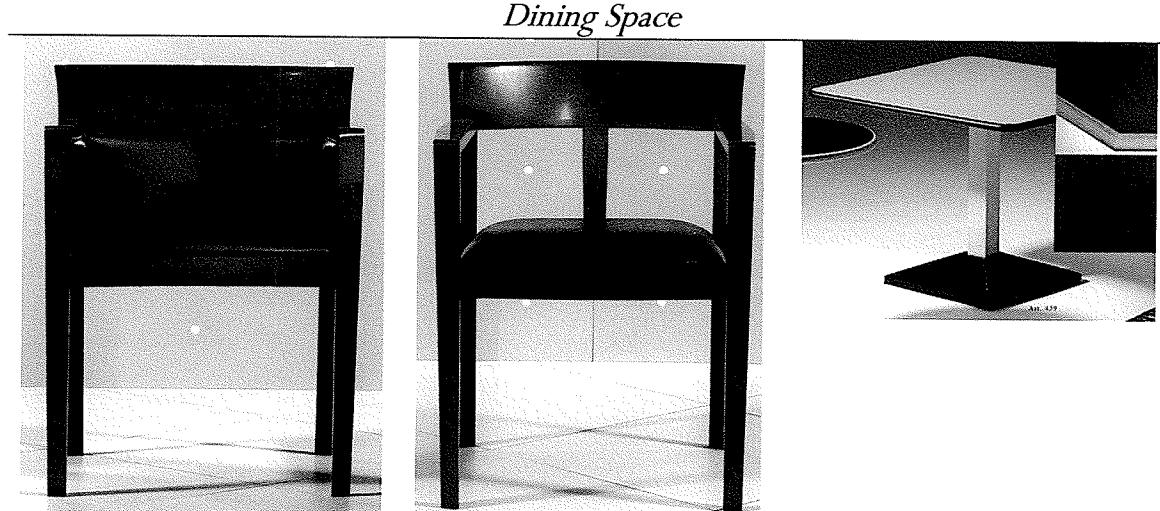


Figure 14
Bernhardt – Kane / Clinton
(w) 22 7/8" x (d) 22 ¼" x (h)
29 7/8"
seat height: 19"
arm height: 26"
*Bernhardt - Brochure*



Figure 15
Bernhardt – Kane / Clinton
(w) 22 7/8" x (d) 22 ¼" x (h)
29 7/8"
seat height: 19"
arm height: 26"
*Bernhardt – Brochure*



Figure 16
Sandler Seating – Art 439
(w) 110 cm x (d) 110 cm
60° ply edge
mahogany stain
*Sandler Seating - Brochure*

## Coffee Nook
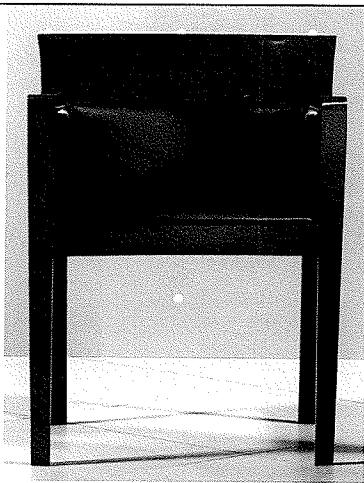


**Figure 17**
Bernhardt – Kane / Clinton
closed
(w) 22 7/8" x (d) 22 ¼" x (h)
29 7/8"
seat height: 19"
arm height: 26"
*Bernhardt - Brochure*
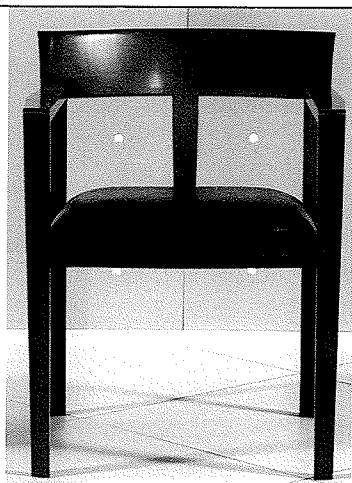


**Figure 18**
Bernhardt – Kane / Clinton
open
(w) 22 7/8" x (d) 22 ¼" x (h)
29 7/8"
seat height: 19"
arm height: 26"
*Bernhardt - Brochure*
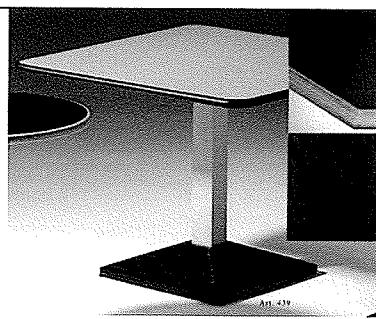


**Figure 19**
Sandler Seating – Art 439
(w) 90 cm x (d) 90 cm
60° ply edge
mahogany stain
*Sandler Seating – Brochure*

## Swimming / Spa
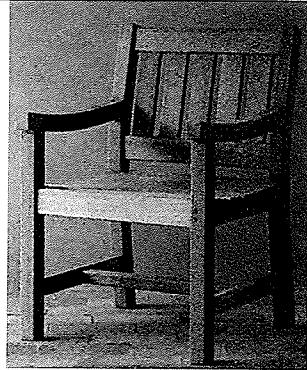


**Figure 20**
Berga Form
chair
*Berga Form - Brochure*
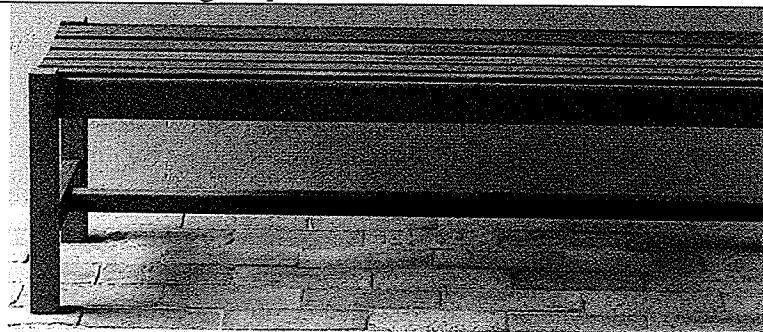


**Figure 21**
Berga Form
bench
*Berga Form - Brochure*

# Lighting

*Entry / Reception*
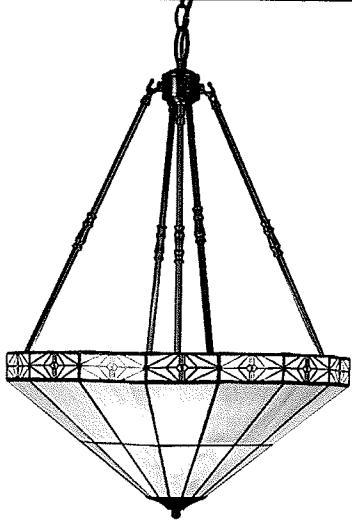


**Figure 22**
Kenroy – Sierra 3 light pendant
(h)30" x (d) 20"
2' Chain, 8' Wire
*Hunter Lighting – www.hunterltg.com*



**Figure 23**
Kenroy – Sierra 72"
torchiere
(h) 72" x (d) 13"
*Hunter Lighting –*
*www.hunterltg.com*
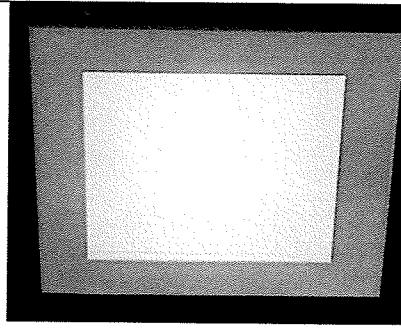


**Figure 24**
Delta Light – Carree+
83 cm x 83 cm
*Delta Light – www.deltalight-*
*worldwide.com*
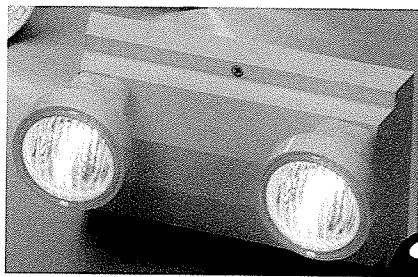


**Figure 25**
SPL – BE Series
Emergency Lighting
SPL - Brochure

*Central Corridor*
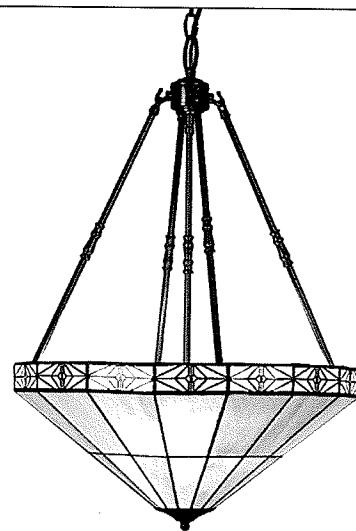


**Figure 26**
Kenroy – Sierra 3 light pendant
(h)30" x (d) 20"
2' Chain, 8' Wire
*Hunter Lighting – www.hunterltg.com*



**Figure 27**
Kenroy – Sierra 72"
torchiere
(h) 72" x (d) 13"
*Hunter Lighting –
www.hunterltg.com*
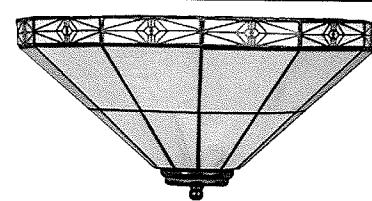


**Figure 28**
Kenroy – Sierra 1 light wall
sconce
(h) 7" x (d) 13"
*Hunter Lighting – www.hunterltg.com*
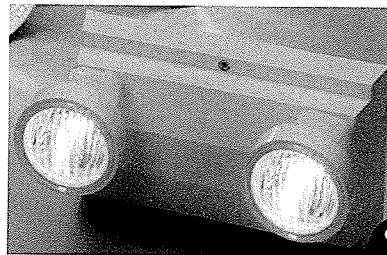


**Figure 29**
SPL – BE Series
Emergency Lighting
SPL - Brochure

*Multi Purpose Room*
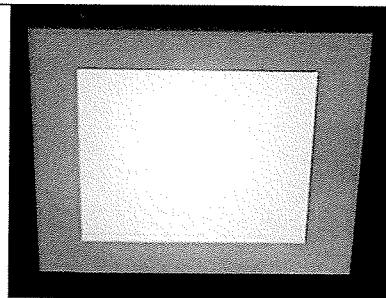


Figure 30
Delta Light – Carree+
83 cm x 83 cm
*Delta Light – www.deltalight-
worldwide.com*
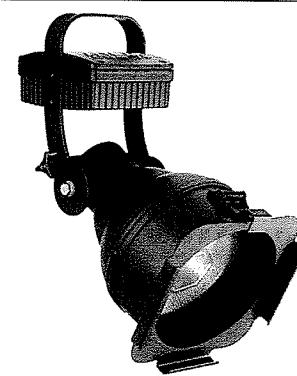


Figure 31
Altman Lighting Inc. –
Master –Par CDM
6 ½" x 9 ¼" x 10"
Altman Lighting - Brochure
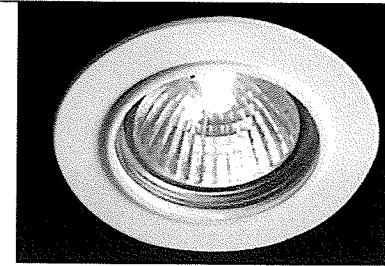


Figure 32
Delta Light – MB 50
(h) 55mm x (d) 80mm
Delta Light - Brochure
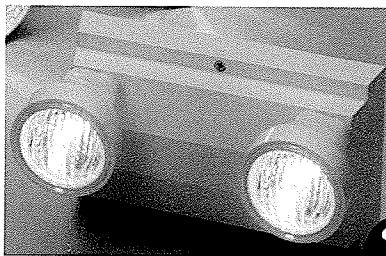


Figure 33
SPL – BE Series
Emergency Lighting
SPL - Brochure

## *Offices*
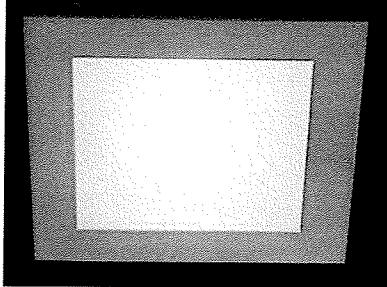
Figure 34
Delta Light – Carree+
83 cm x 83 cm
*Delta Light – www.deltalight-
worldwide.com*
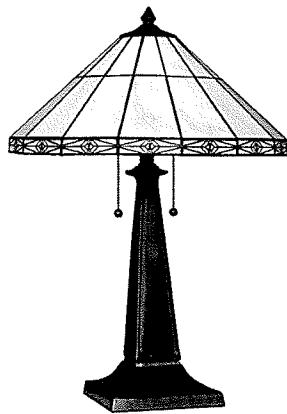
Figure 35
Kenroy – Sierra 24" table
lamp
(h) 24" x (d) 16"
*Hunter Lighting –
www.hunterltg.com*

## *Reading / Computers*
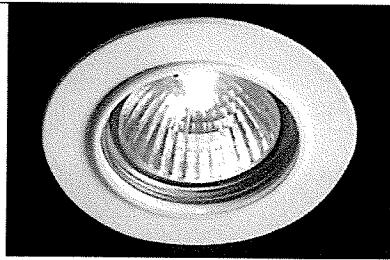
Figure 36
Delta Light – MB 50
(h) 55mm x (d) 80mm
Delta Light - Brochure
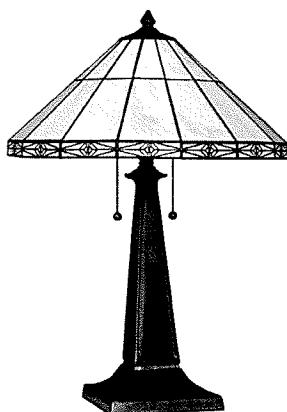
Figure 37
Kenroy – Sierra 24" table
lamp
(h) 24" x (d) 16"
*Hunter Lighting –
www.hunterltg.com*
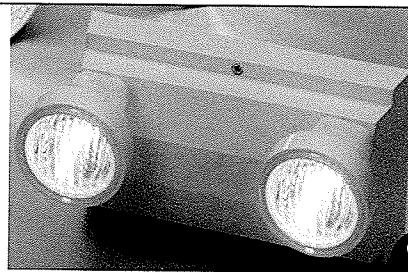
Figure 38
SPL – BE Series
Emergency Lighting
SPL - Brochure

*Dining Space*
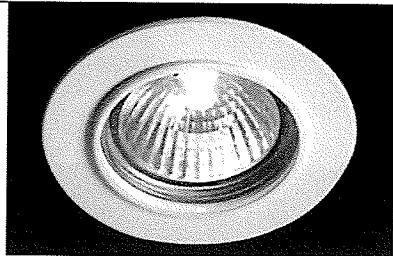


Figure 39
Delta Light – MB 50
(h) 55mm x (d) 80mm
Delta Light - Brochure
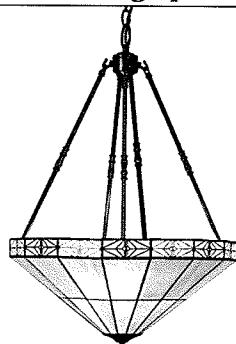


Figure 40
Kenroy – Sierra 3 light
pendant
(h)30" x (d) 20"
2' Chain, 8' Wire
*Hunter Lighting –*
*www.hunterltg.com*
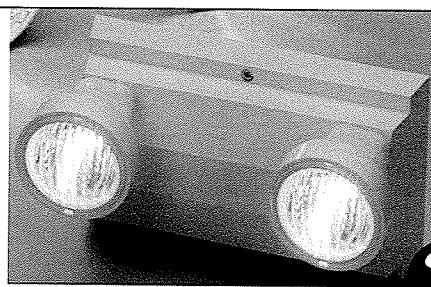


Figure 41
SPL – BE Series
Emergency Lighting
SPL - Brochure

*Swimming / Spa*



Figure 42
Holophane – Athena
(h) 11" x (d) 18 ¼"
*Holophane – www.holophane.com*
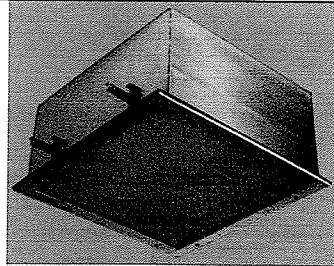


Figure 43
Paramount Industries Inc.
– Flange H.I.D. Wet
Location
24 7/8" x 24 7/8" x 20"
Paramount Industries -
Brochure
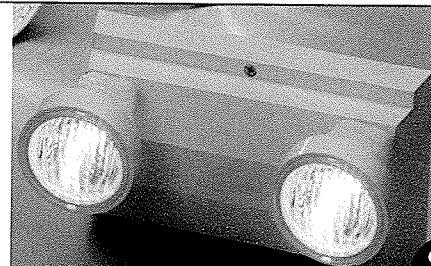


Figure 44
SPL – BE Series
Emergency Lighting
SPL - Brochure

*Fitness Facility*
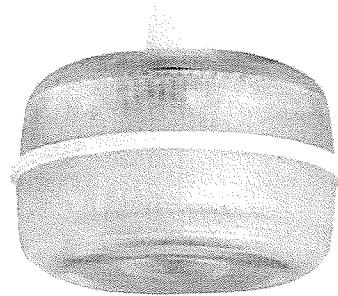
Figure 45
Holophane – Athena
(h) 11" x (d) 18 ¼"
*Holophane – www.holophane.com*
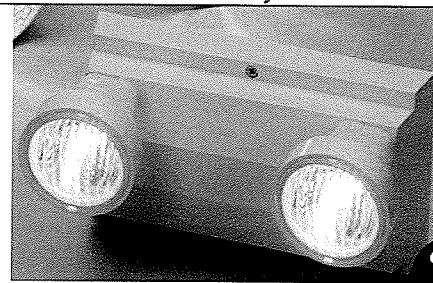
Figure 46
SPL – BE Series
Emergency Lighting
SPL - Brochure

*Outdoor*
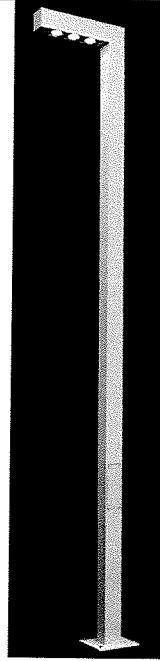
Figure 47
Delta Light – Statu T50
80 mm x 400 mm x 2740 mm
*Delta Light - Brochure*

# Fitness Equipment

## *Strength Training*

**Figure 48**
Incline bench
51" x 17" x 36"
*Mega Fitness*
*www.megafitness.com /*
*exercise*

**Figure 49**
Flat bench
42" x 17" x 19"
*Mega Fitness www.megafitness.com /*
*exercise*
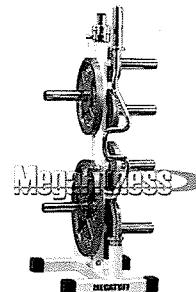
**Figure 50**
Plate tree
24" x 24" x 48"
*Mega Fitness*
*www.megafitness.com / exercise*

**Figure 51**
Calf raise
50" x 24" x 30"
*Mega Fitness*
*www.megafitness.com /*
*exercise*

**Figure 52**
Leg extension/curl
65" x 25" x 30"
*Mega Fitness www.megafitness.com /*
*exercise*

**Figure 53**
Leg press
65" x 37" x 48"
*Mega Fitness*
*www.megafitness.com / exercise*
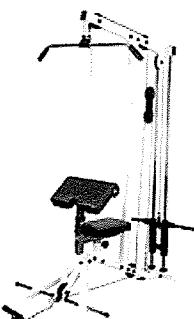
Figure 54
3-way - biceps, Triceps,
Lats
42" x 38" x 84"
*Mega Fitness*
*www.megafitness.com /*
*exercise*
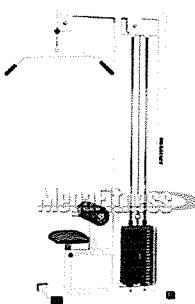
Figure 55
Lat pull down
59" x 24" x 92"
*Mega Fitness www.megafitness.com /*
*exercise*
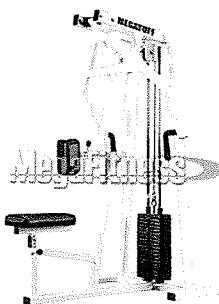
Figure 56
Vertical row
57" x 38" x 80"
*Mega Fitness*
*www.megafitness.com / exercise*
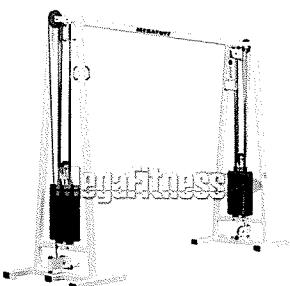
Figure 57
Cable cross over
125" x 35" x 96"
*Mega Fitness*
*www.megafitness.com /*
*exercise*
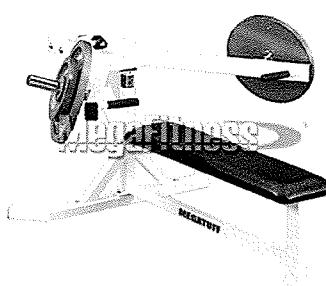
Figure 58
Bench press
74" x 54" x 30"
*Mega Fitness www.megafitness.com /*
*exercise*
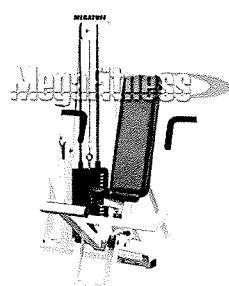
Figure 59
Chest press
37" x 37" x 72"
*Mega Fitness*
*www.megafitness.com / exercise*
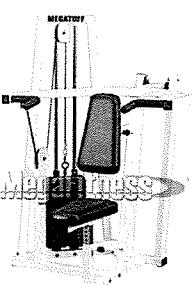
Figure 60
Shoulder press
55" x 51" x 65"
*Mega Fitness*
*www.megafitness.com /*
*exercise*
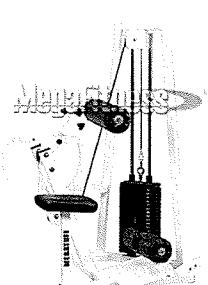
Figure 61
Abdominal crunch
60" x 44" x 65"
*Mega Fitness www.megafitness.com /*
*exercise*
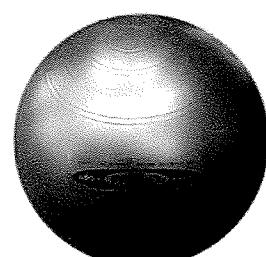
Figure 62
Fitness ball
25 ½"
*Mega Fitness*
*www.megafitness.com / exercise*
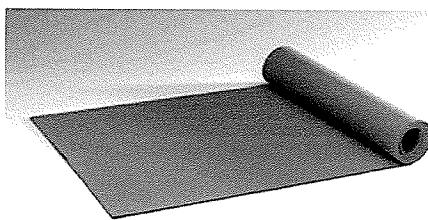
Figure 63
Yoga / Tai Chi / Pilates mat
60" x 30"
*Mega Fitness www.megafitness.com /
exercise*

## *Cardiovascular Machines*



Figure 64
Treadmill
82" x 32" x 59"
*Mega Fitness
www.megafitness.com /
exercise*



Figure 65
Elliptical trainer
81" x 20" x 59"
*Mega Fitness www.megafitness.com /
exercise*



Figure 66
Rowing machine
90" x 16" x 22"
*Mega Fitness
www.megafitness.com / exercise*



Figure 67
Recumbent bike
60" x 24" x 48"
*Mega Fitness
www.megafitness.com /
exercise*
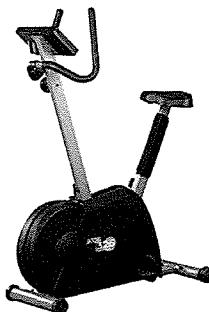


Figure 68
Upright bike
60" x 24" x 48"
*Mega Fitness www.megafitness.com /
exercise*



Figure 69
Stepper
38" x 26" x 55"
*Mega Fitness
www.megafitness.com / exercise*

# Kitchen Equipment
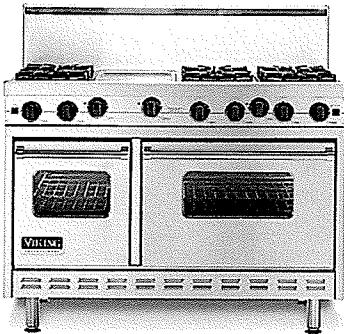


**Figure 70**
Oven / range
Viking - VGRC485-6QD
48" wide, six burners, 12"
wide char-grill, double ovens
*Viking – www.vikingrange.com*
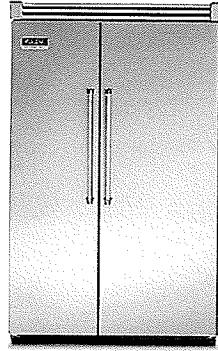


**Figure 71**
Fridge freezer
Viking – VCSB483
48" wide
27.4 cu. ft. total
18.5 cu. ft. refrigerator
8.9 cu. ft. freezer
*Viking www.vikingrange.com*



**Figure 72**
Microwave
GE
(w) 22 5/8" x (d) 19 7/8" x (h) 14
7/8" 1.5 cu. ft.
*GE*
*www.products.geappliances.com/Prod*
*Content/Dispatcher*
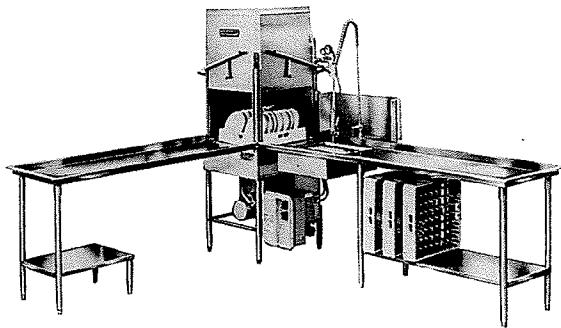


**Figure 73**
Dishwashing machine
Hobart
11'–3" x 7'
*Hobart – Brochure*
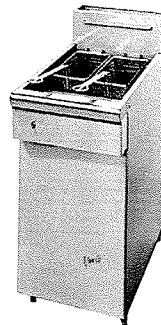


**Figure 74**
Fryer
Quest MV40
16 ¾" x 43 5/8" x 46 ½"
*Quest - Brochure*

Appendix C - Possible Design Solution

# List of Figures

Figure 1 - Site Plan *Jodi Sapinsky*

Figure 2 - Floor Plan   *Jodi Sapinsky*

READING ROOM

BOOK SHELF

LOCAL ARTWORK
DISPLAYED
ON WALL

COURTESY
PHONE

WOMEN'S

PRIVATE
READING/
CONVERSATION

BOOK
SHELF

MECHANICAL
ROOM

BENCH

MEN'S

MUSIC
PRACTICE
ROOM

MUSIC
PRACTICE
ROOM

MUSIC
PRACTICE
ROOM

EXAM BED

COAT AREA

AUDIO
VIDEO
EQUIP.
STORAGE

STORAGE

ELECTRIC
POWER
CHAIR

MEDICAL
FACILITY

MULTI PURPOSE ROOM

PERFORMANCE
ALCOVE

BENCH
SEATING

ADMINISTRATIVE
OFFICE

RECEPTION

EMPLOYMENT
OFFICE

CHAIR
STORAGE

WAITING

COURTESY
PHONE

TRAVEL
OFFICE

FRONT ENTRANCE

VIEW OF MAIN HALL

VIEW OF MULTIPURPOSE ROOM

STEPPING STONES
SENIORS' ENVIRONMENT
3292 PORTAGE AVENUE
WINNIPEG, MANITOBA

UNIVERSITY OF MANITOBA
MASTERS OF INTERIOR DESIGN

JODI SAPINSKY OCTOBER 2002

ENTRY & MULTIPURPOSE
ROOM DETAIL PLAN
SCALE : ⅛"= 1'-0"

Figure 3 - Entry & Multipurpose Room Detail Plan *Jodi Sapinsky*

Figure 4 - Reading Room & Eating Spaces Detail Plan   *Jodi Sapinsky*

S
E W
N

GUARD TOWER

BACK
ENTR.

POOL
STORAGE

HOOKS
FOR
LIFE
JACKETS

COFFEE
NOOK

GUARD TOWER

MEN

WOMEN

STEAM
ROOM

ZERO
CLEARANCE
WADING
POOL

BOOK SHELF

BOOK SHELF

WATERFALL WALL

SAUNA

PUMP
ROOM

100°F
HOT
TUB

100°F
HOT
TUB

SWIMMING
FACILITY

FIREPLACE

MIRROR WALL

SWIMMING AREA
DETAIL PLAN
SCALE : 3/32" = 1'-0"

SHOWERS

LOCKERS

LOCKERS

VIEW OF SWIMMING FACILITY

STEPPING STONES
SENIORS' ENVIRONMENT
3292 PORTAGE AVENUE
WINNIPEG, MANITOBA

UNIVERSITY OF MANITOBA
MASTERS OF INTERIOR DESIGN

JODI SAPINSKY   OCTOBER 2002

Figure 5 - Swimming Area Detail Plan  *Jodi Sapinsky*

Appendix C
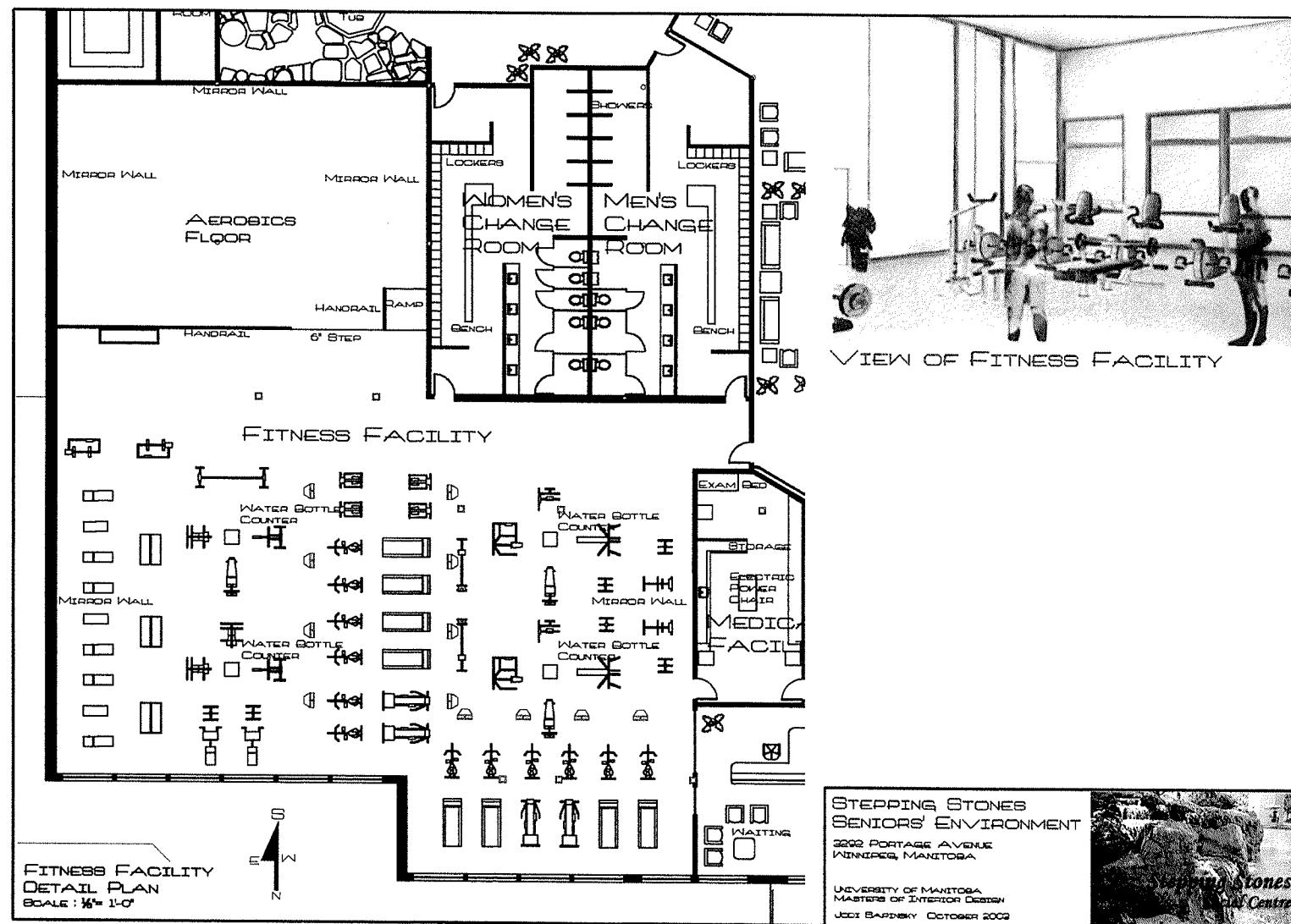
Figure 6 - Fitness Facility Detail Plan  *Jodi Sapinsky*

SECTION 1
SCALE : 1/16"= 1'-0"

SECTION 2
SCALE : 1/16"= 1'-0"

SECTION 3
SCALE : 1/16"= 1'-0"

STEPPING STONES
SENIORS' ENVIRONMENT
2292 PORTAGE AVENUE
WINNIPEG, MANITOBA

UNIVERSITY OF MANITOBA
MASTERS OF INTERIOR DESIGN

JODI SAPINSKY OCTOBER 2002
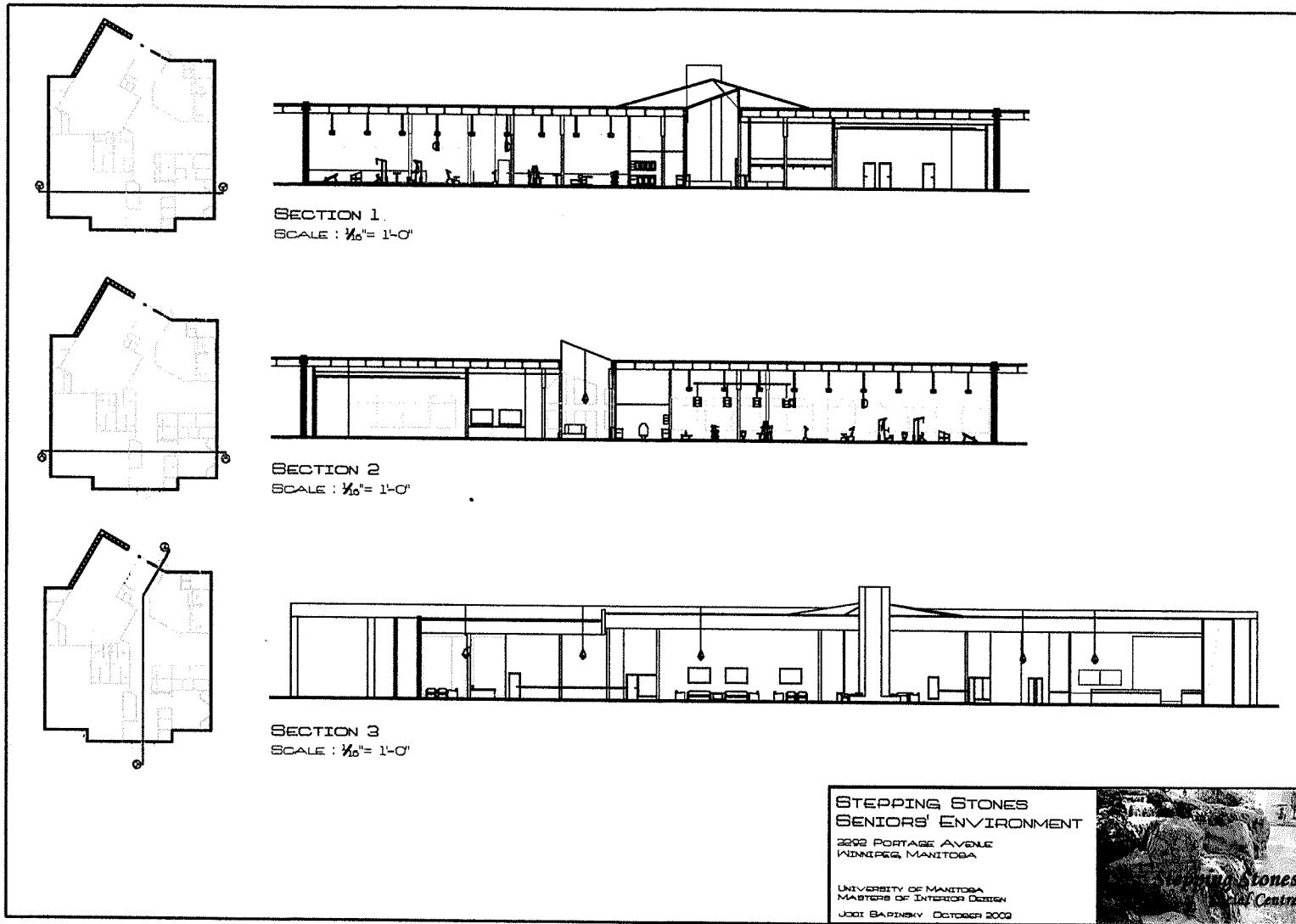
Figure 7 - Sections 1-3  *Jodi Sapinsky*

SECTION 4
SCALE : 1/16"= 1'-0"

SECTION 5
SCALE : 1/16"= 1'-0"

SECTION 6
SCALE : 1/16"= 1'-0"

STEPPING STONES
SENIORS' ENVIRONMENT
3292 PORTAGE AVENUE
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JODI SAPINSKY  OCTOBER 2002
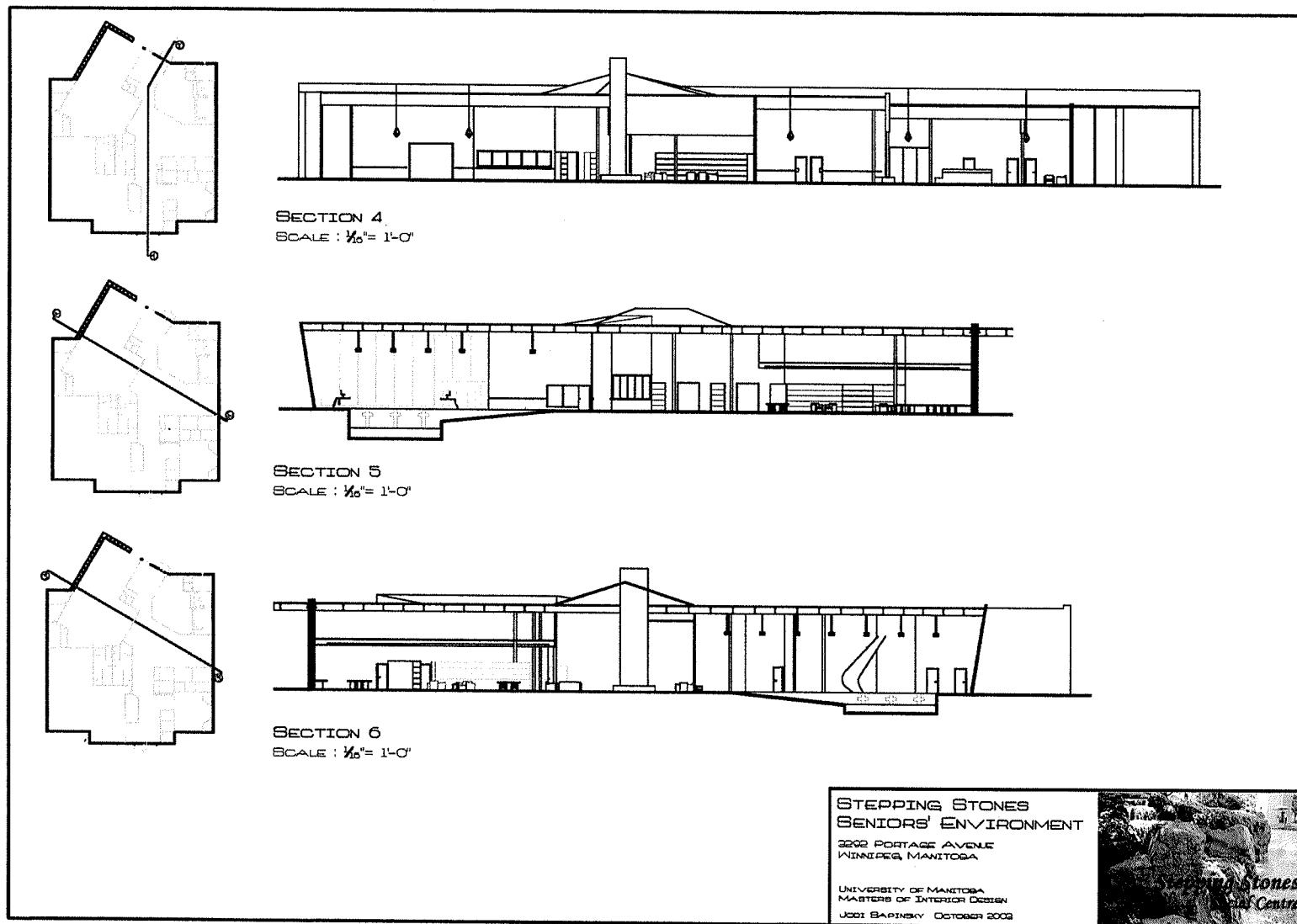
Figure 8 - Sections 4-6  *Jodi Sapinsky*
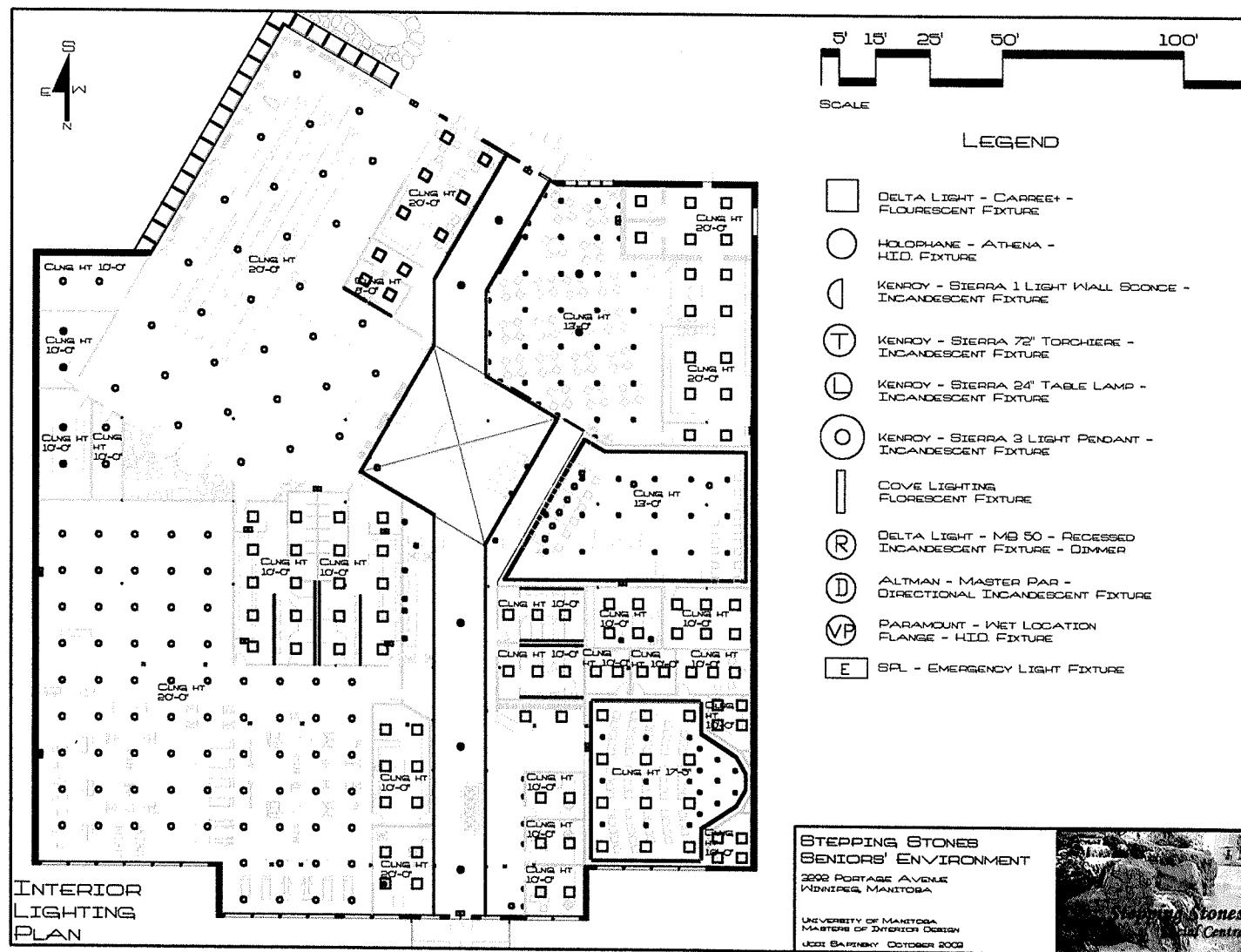
Figure9 - Interior Lighting Plan  *Jodi Sapinsky*
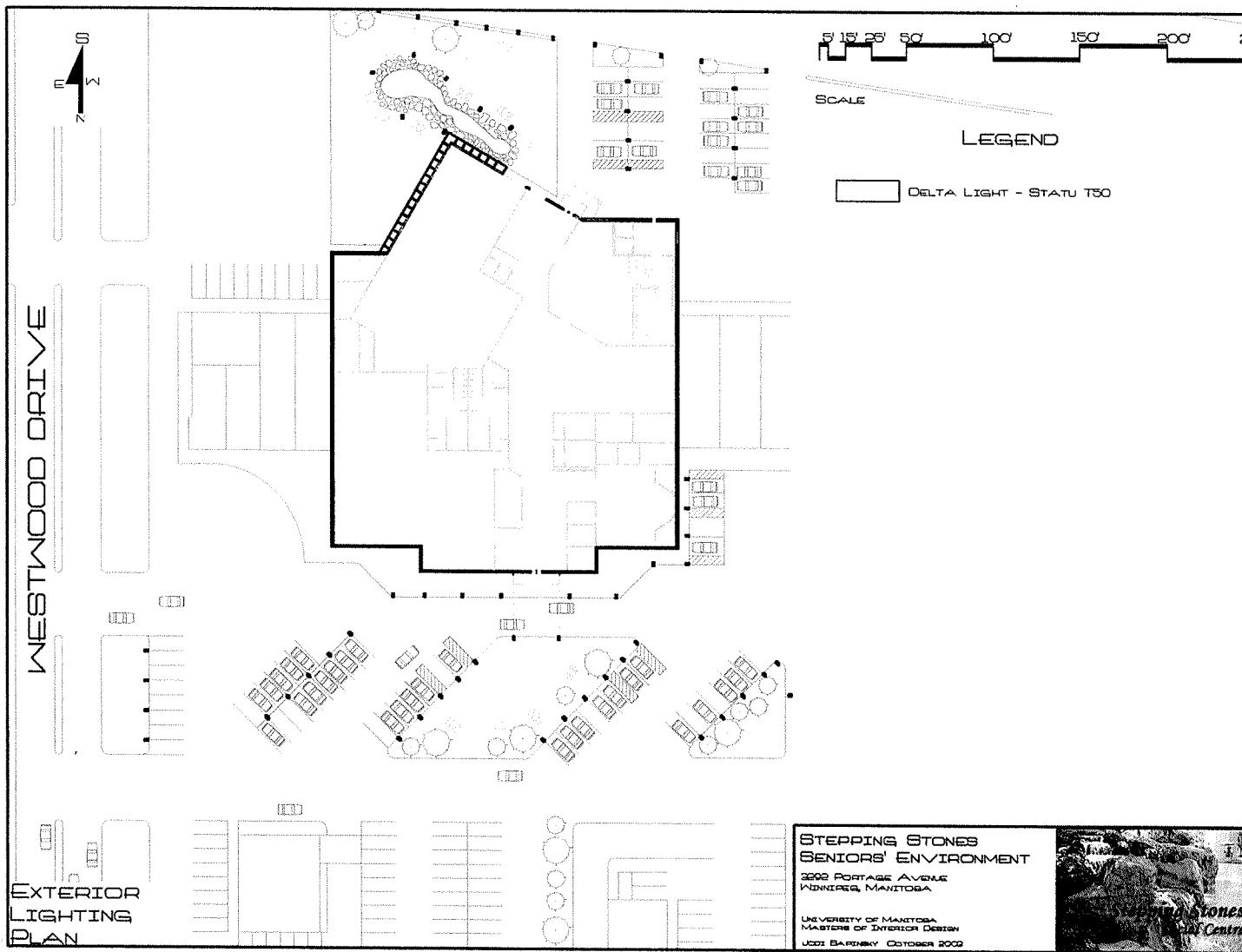
Figure 10 - Exterior Lighting Plan  *Jodi Sapinsky*

Appendix C

SCALE

5' 15' 25' 50' 100'

LEGEND

1. MAP TABLE
2. ADMINISTRATION OFFICE
3. EMPLOYMENT / VOLUNTEER ADVISOR
4. TRAVEL ADVISOR
5. MEDICAL FACILITY
6. MULTI PURPOSE ROOM
7. PRACTICE ROOM 1
8. PRACTICE ROOM 2
9. PRACTICE ROOM 3
10. A.V. EQUIP. STORAGE
11. CHAIR STORAGE
12. FITNESS FACILITY
13. MEN'S CHANGE ROOM
14. WOMEN'S CHANGE ROOM
15. AEROBICS FLOOR
16. MEN'S RESTROOM
17. WOMEN'S RESTROOM
18. READING / CONVERSATION / COMPUTERS
19. CONVERSATION ROOM
20. MECHANICAL ROOM
21. MEN'S CHANGE ROOM
22. WOMEN'S CHANGE ROOM
23. PUMP ROOM
24. SAUNA
25. STEAM ROOM
26. MECHANICAL ROOM
27. READING / CONVERSATION / COMPUTERS
28. SWIMMING / SPA
29. WOMEN'S RESTROOM
30. MEN'S RESTROOM
31. MAP TABLE

SIGNAGE PLAN

STEPPING STONES
SENIORS' ENVIRONMENT
3292 PORTAGE AVENUE
WINNIPEG, MANITOBA

UNIVERSITY OF MANITOBA
MASTERS OF INTERIOR DESIGN

JODI SAPINSKY OCTOBER 2002

Figure 11 - Signage Plan *Jodi Sapinsky*
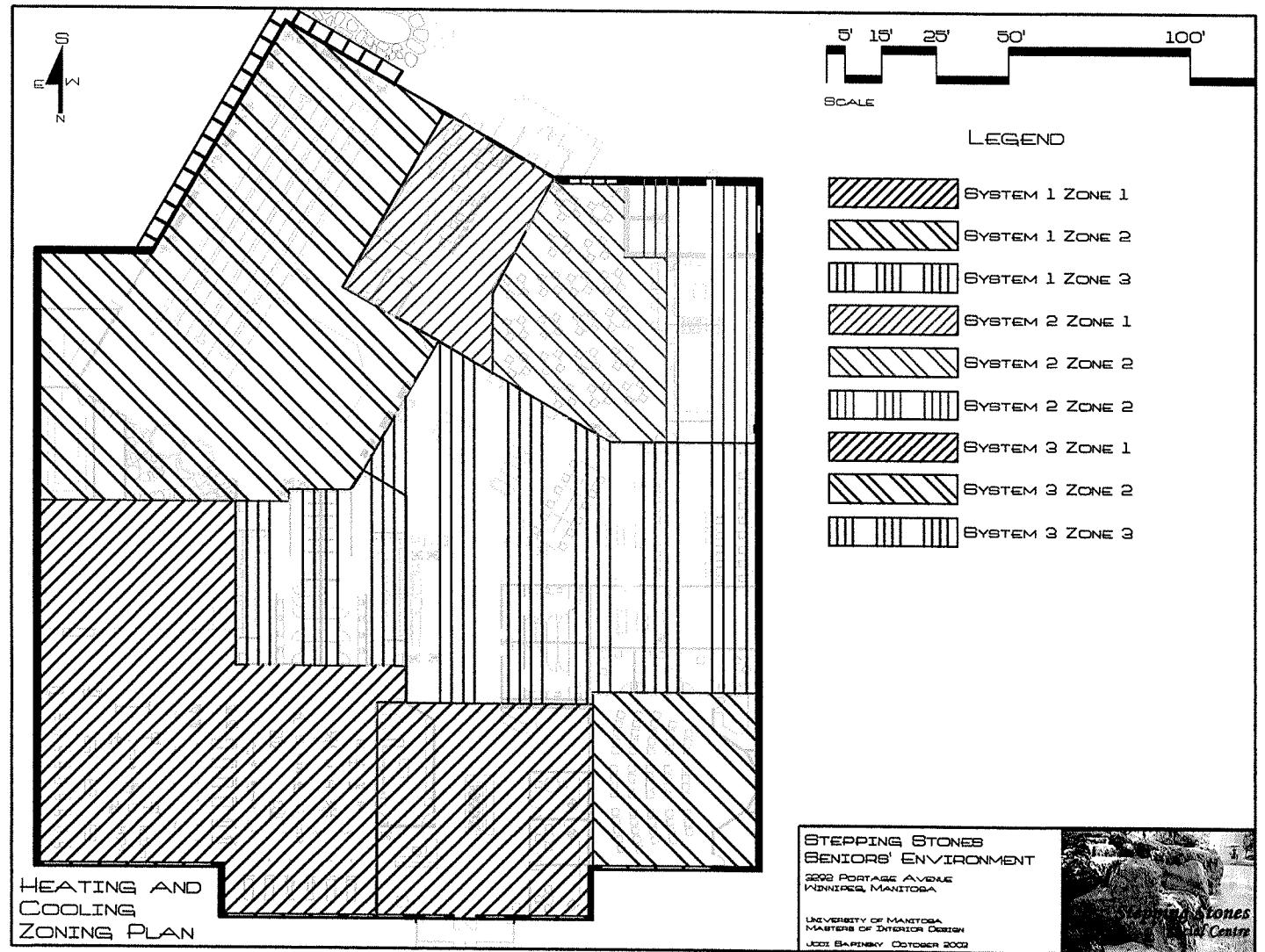
Figure 12 - Heating & Cooling Zoning Plan   *Jodi Sapinsky*
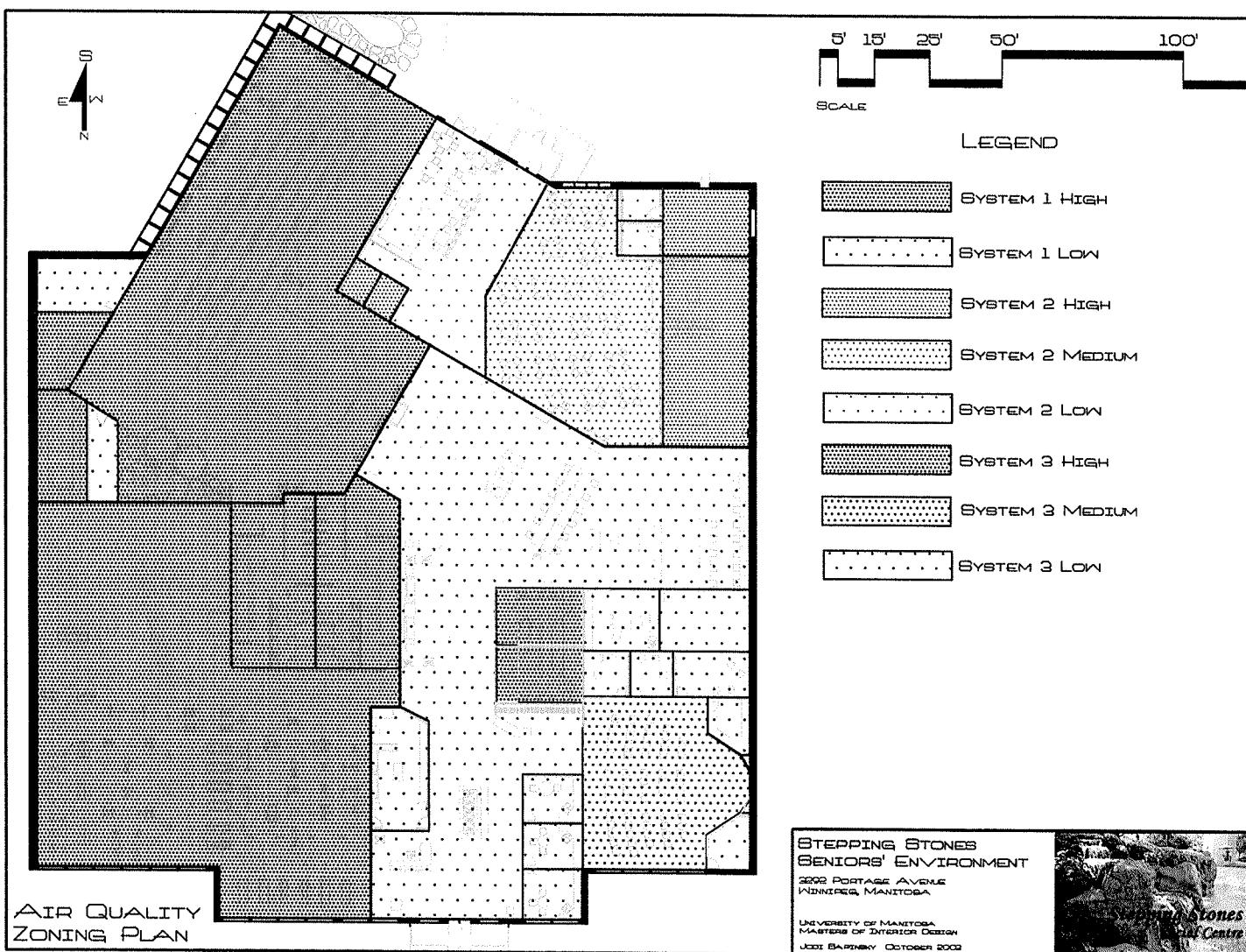
Figure 13 - Air Quality Zoning Plan   *Jodi Sapinsky*