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Case Study Analysis of Clare Apartments

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CASE STUDY ANALYSIS OF THE CLARE APARTMENTS

A Thesis
Presented to
The Graduate School of
Clemson University

In Partial Fulfillment
Of the Requirements for the Degree
Master of Science in Architecture

By
Lauren Nichols Sandy
May 2010

Accepted by:
Dina Battisto, Ph.D., Committee Chair
Henrique Houayek, Ph.D.
Catherine Mobley, Ph.D.
ABSTRACT

The AIDS epidemic in the United States has killed upwards of 500,000 since 1981. New therapies introduced in the 1990’s, HAART (highly actively anti-retroviral treatment), have largely converted what was once a death sentence into a long-term chronic illness. Initial approaches to treating the virus included palliative care and treatment for secondary infections. With advances in therapies and disease management, supportive services have shifted from a primarily medical approach to one that encompasses programs that address long-term quality of life concern, including but not limited to counseling services for mental health, chemical dependency, self-sufficiency; housing services; and occupational training and therapies. Recent research has associated stable housing with lower rates of HIV transmission, the virus that causes AIDS (National AIDS Housing Coalition, 2007; National AIDS Housing Coalition, June 2009).

The goal of this study is twofold: a) to understand the special support and design of social spaces of Clare Apartments, an affordable high-rise apartment building in Minneapolis, MINNEAPOLIS, and b) to provide design recommendations based upon research findings from focus group and survey feedback, as well as investigator observations. Specifically, this case-study analysis will explore the ways in which supportive housing design can promote the personal control and competence of a special-needs target population. A site visit, survey and focus groups were conducted to qualify the perceived benefits from living in a building designed specifically to address the unique physiological and social needs of its residents.
DEDICATION

Thank you to my husband Allen and our children, Cale, Owen, and Camille Sandy; to my parents Lawrence Nichols, and Sandra P. Nichols; my sisters Alexandria Nichols Locigno and Celina Nichols; my grandmothers Gram and Nana; and my friends Annie-Bean, Rosie, Stephanie and Esther for their unstinting and patient support over the years. I will be eternally in your debt.
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My most important thank you goes to the residents of Clare Apartments for selflessly sharing their time and insight on Clare Apartments, their experiences, and life stories.
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The how and why I picked the subject of my thesis is rooted in the events that influenced me growing up in the 1980’s. I was deeply moved by the audacity of the arts during that time: dance, music, stage and visual arts. The overt themes of pain, hunger and lust as expressed thematically were brave and exciting to me. Then the artists started to die. Moreover, they died of what was then a mysterious illness that was eventually given a name, AIDS, the acquired immune system deficiency syndrome caused by the Human Immunodeficiency Virus (HIV). The epidemic started by first killing closeted and open homosexual men, but then soon exploded into all segments of society regardless of age, gender and sexuality. I found myself dumbstruck at the devastation this disease wrought on famous artists and performers of the day including Isaac Asimov, Amanda Blake, Alvin Ailey, Arthur Ashe, Eazy-E, Keith Haring, Rock Hudson, Frank Israel, Robert Mapplethorpe, Freddie Mercury, Rudolph Nureyev, and Howard Rollins, to name but a few.

What I first saw was the public recriminations about who started the epidemic and how it was spread. The more I read, the more I had to understand the disease, how it was transmitted and the physical toll on the body. I came to believe amidst the public hysteria and media frenzy that it did not matter how people contracted the disease so long as we knew how to treat HIV and those infected with it. My opinion was that all the finger-pointing about who was to blame for starting and spreading the disease was a distraction that kept medical professional, scientists and activists from focusing on the important issue of diagnosis, treatment and transmission prevention. What mattered was that no one else should have to suffer the
virus and devastating disease. What mattered was that those that were infected were treated compassionately and respectfully.

I grew up, went to college and spent nearly eleven years working on issues related to access to housing: fair housing, affordability and community development, but I wished there was a way I could in some way apply my knowledge and experience towards HIV/AIDS, but the way eluded me for years. I was deeply drawn to housing and community issues, but was also drawn to design, of which I had little knowledge. I enrolled in Clemson University’s School of Architecture in 2006, and worried I would have little opportunity to apply my new knowledge to my old passion for affordable housing. What I found was that Clemson professors have been extremely supportive of my goal of applying my architecture education to community development and affordable housing for all.

With this in mind, I felt a renewed focus and desire to take my past experiences, add my new knowledge and address the nagging feeling that quality of life issues for people living with HIV/AIDS was being ignored by the general public.

A lot has changed since the 1980’s and there are new therapies that have prolonged the life of many once fated to die. HIV infection is perceived as a chronic, treatable illness with no cure. But the disease still kills and still disables people today despite the general perceptions.
AIDS education and public media focus on the epidemic in the United States has waned. The disease has not disappeared, but the topic of HIV and AIDS is not discussed with the same urgency except in the case of the pandemic in African nations. I fear that others will become infected because we have been lulled into the false sense of security that new therapies can save us from what was once a fast, torturous death. And my concern remains the care of those living with HIV/AIDS.

And what of the long-term survivors and newly infected people living with HIV? It is to them that I turn my research efforts towards where and how they live; whether their housing situation can promote improved physiological and social well-being; and what design guidelines are associated with improved physical and mental well-being outcomes. I will never discover a cure for AIDS, but perhaps I can contribute to the dialogue and help remind people that many people, big and small, have died, and will continue to die right here in the United States and around the world from the effects of HIV. I do not want those people forgotten nor do I want people to forget the lessons learned and sacrifices made to try to prevent others from experiencing the devastation that occurred in the early years of the epidemic in the United States. It is to those that have died, and those that live with the virus that I dedicate this thesis.
CHAPTER ONE

INTRODUCTION

In 1981, the United States Centers for Disease Control and Prevention (CDC) issued the first warning about an emerging health threat primarily affecting gay men (Henry J. Kaiser Family Foundation, 2007). Rare cancers (Kaposi’s Sarcoma) and pneumonias (Pneumocystis Carinii) occurred within the young, gay male population. By 1982, the range of ailments that were caused by a damaged immune system was formally termed Acquired Immune Deficiency Syndrome (AIDS) (The BODY: The Complete HIV/AIDS Resource). The virus that causes AIDS was isolated and identified as the cause of AIDS, Human Immunodeficiency Virus (HIV) in 1985, as the virus that causes the destruction of the immune system of infected persons. By 1985, HIV had been found in nearly every part of the world, and had infected people from every group and class regardless of sexual orientation, marital status, age and gender (Henry J. Kaiser Family Foundation, 2007, 2009). According to the Henry J. Kaiser Family Foundation, 1.7 million people have been infected with HIV in the United states, 583,000+ people have died, but 21% of the people with HIV/AIDS have it and do not know it (Henry J. Kaiser Family Foundation, September 2009).

The initial treatment early in the United States for the AIDS epidemic was focused on the diagnosis and treatment of the virus and secondary infections. The treatment was narrowly focused on medical interventions and pharmaceutical
therapies. Due to the poor long-term health outlook and initial perception that the illness was terminal 100 percent of the time, public policy did not address the long-term needs of people that defied expectations and lived long after contracting HIV. Gradually HIV/AIDS activist organizations, such as the Gay Men’s Health Crisis and The Body, came to recognize and advocate for patient support in all areas of their lives including shelter and supportive services (skilled nursing, counseling, mental health and substance abuse programs), tools that are associated with the reduction in HIV infection transmission rates (National AIDS Housing Coalition, 2005, 2007; Henry J. Kaiser Family Foundation, 2005).

According to the National AIDS Housing Coalition (NAHC), research has shown there is a connection between housing and HIV transmission prevention (National AIDS Housing Coalition, 2005). The NAHC reports that HIV is a risk factor for homelessness and the transmission of HIV (National AIDS Housing Coalition, 2005). As stable housing has been found to be an effective tool in treating and slowing the transmission of HIV, advocates have been developing housing for people with HIV across the United States since the 1980’s. The scale of housing ranges from single-family communal assisted living environments to large-scale high-rise housing in cities with one hundred plus units with limited support services on site. Despite the efforts of housing advocates, there remains a dearth of dedicated housing for those living with HIV/AIDS (White, 1993) and if the housing is available, it may not adequately meet the specific support needs, as identified by advocates, for the targeted resident population (Lorber, July 2009). Those living with HIV/AIDS are living longer in a variety of housing but may need assistance to meet housing costs (National AIDS Housing Coalition, 2007).
At first glance, the needs of HIV positive resident population may be similar to those of elderly residents in assisted living facilities. Due to fluctuating accessibility needs, the housing for both populations should be designed to be universally accessible so the residents can function as independently as possible given the wide range of variable physical and mental health impediments that can include fatigue, physical impairment and mental health issues.

At the start of this research, important questions recurred such as “Why is housing for people living with HIV/AIDS important?” “Residents and staff occupying housing designated for HIV positive population believe that physiological and social well-being have improved for residents compared to residents living in non-HIV specific housing types?” The research question then is what type of housing is appropriate and how should it be designed to optimize health outcomes, well-being, and personal control? What services should be included on-site at a supportive housing development?

Understanding the perceived physiological and social well-being of the residents is an important first step. Likewise understanding residents and staff recommendations for support services within the facility is important. This background information can help with making planning and designing recommendations to positively affect behavioral, security, and aesthetic changes to benefit staff and residents.

Thus, this thesis is an inquiry into the house needs for people living with HIV so that purposely designed facilities for this population can be responsive to their particular needs and desire for individual control. The objective is to develop evidence-based design recommendations for architects, housing developers and building owners to use as they develop
supportive housing environments. As such, guidelines were developed based on the input from staff and residents of one case study, Clare Apartments in Minneapolis, Minnesota.

This thesis is not intended as a critique of Clare Apartments. Rather, it is an investigation of overall building satisfaction by the residents and staff of Clare Apartments to understand the strengths and limitations of the housing design. Residents and staff participants were asked to provide recommendations to share with designers how to create an environment that promotes self-sufficiency, independence and resident competency. The comments and suggestions of the staff and residents of Clare Apartments provided the foundation for general design recommendations to create supportive housing for people living with HIV.
CHAPTER TWO

LITERATURE REVIEW

Many of the on-going studies on HIV/AIDS include vaccines, treatment therapies, housing, support services, and transmission reduction and prevention. Health advocates and researchers have identified housing and homelessness as critical care issues facing those living with HIV/AIDS (Bunting, Bevier, & Baker, 1999, Cunningham & Anderson, 1999). Homelessness is a risk factor for HIV transmission, and conversely, HIV is a risk factor for homelessness (National AIDS Housing Coalition, 2007). The NAHC estimates that 3-10% of the homeless population is HIV positive, 10 times the infection rate of the general population. The National AIDS Housing Coalition reports that up to 60% of people living with HIV/AIDS report long-term housing instability and homelessness. Housing assistance prevents homelessness and provides access to medical intervention and support services, but is considered the greatest unmet need for people living with HIV/AIDS (National AIDS Housing Coalition, 2007).

Figure 1 Homeless man and dog.

Image Source: http://www.shutterstock.com/pic-3937862/
During the National AIDS Housing Summit III (2008), researchers and AIDS housing advocates reported on research and findings regarding the efficacy of stable housing in improving the long-term physiological and psychological health of people living with HIV/AIDS. The information was summarized in a policy paper (National AIDS Housing Coalition, 2008) that provided compelling evidence that the provision of housing was as important to the long-term care regimen for HIV positive people as medication. Findings reported that people living with HIV/AIDS in unstable housing or who are homeless experience worse physiological and mental health outcomes, are less likely to be enrolled in or adhere to medication regimens than those housed in stable housing. Furthermore, as many as 70% of people living with HIV/AIDS report homelessness or housing instability over their lifetime (National AIDS Housing Coalition, 2009). Up to 10-16% of HIV positive people are homeless in any community at any given time. Research has found that up to 32% of HIV positive U.S. veterans have been homeless, with 7% currently homeless (National AIDS Housing Coalition, 2008).

The BMC Public Health Journal conducted a five-year observational study of 676 HIV positive homeless people identified through the San Francisco AIDS Registry and found that obtaining supportive housing was independently associated with an 80% reduction in mortality (Schwarcz, Hsu, Vittinghoff, Vu, Bamberger, & Katz, 2009). The National AIDS Housing Coalition further stated that people housed in stable environments are more likely to know their HIV status and less
likely to engage in the risky behaviors that may contribute to the contraction and transmission of HIV (National AIDS Housing Coalition, 2007). Homeless youth are four to five times more likely to engage in risky behaviors such as high risk drug use and sex, thus putting them at elevated risk for contracting HIV (National AIDS Housing Coalition, 2008).

Funding to develop a new, affordable housing model is scant, as evidenced in 2007 publication from the National AIDS Housing Coalition (National AIDS Housing Coalition, 2007) that reported that housing assistance is unavailable to one in four low-income households in need. Funding to develop assistance programs and subsidized housing has decreased steadily over the years so that by 2007, $286 million was available, approximately $3.3 billion less than the projected $3.6 billion dollar annual need for FY 2008. Given this trend, it is anticipated that the need will continue to grow in proportion to the size of the funding gap.
Support Service Needs for HIV Positive Individuals

While housing is determined to be a critical care component for special needs populations in general, and HIV positive people specifically, little is known about how to meet the support needs of the population for housing designed specifically for HIV positive people. What is known is that the physiological (physical health) and mental health as expressed through social well-being can be hard to meet for a population that tends to be low-income, have unstable health, and sporadic adherence to medical regimen.

Individuals living with HIV/AIDS have needs that medical professional cannot address. There are attendant issues including, but not limited to, mental illness and substance abuse, that complicate access to medical care and medication regimen adherence. People living with HIV/AIDS who have also been diagnosed with mental illness and/or have histories of substance abuse are characterized as being dually diagnosed (Lieberman & Chamberlain, 1993). The percentage of people living with HIV that are dually diagnosed is unknown, but is understood to occur at higher rates than that which occurs within the HIV negative population. Many supportive housing environments for people with HIV/AIDS are being designed to include support services
that directly address the needs of the dually diagnosed (Lieberman & Chamberlain, 1993). Characteristics for these types of environments include substance abuse intervention, mental health counseling, and skilled nursing.

Mental illness and substance abuse in many ways are treated as greater concerns in HIV housing because it prevents people from procuring and maintaining stable housing and access to regular medical care. According to Lieberman and Chamberlain, “In most communities, the traditional mental health and chemical addiction systems have turned to the AIDS providers to pick up the responsibility for these ‘dually-diagnosed’ individuals” (Lieberman & Chamberlain, 1993). Amongst HIV positive women studied in research to document self-identified needs, the greatest reported need, above that of HIV treatment, was the need for psychological support (Bunting, Bevier, & Baker, 1999).
Institutional Settings for Ill Populations: Historical Precedents

Architectural precedents for present day specialized supportive housing can be found by studying historical building typologies such as leprosariums (leper hospitals), Pest Huis (plague hospitals), tuberculosis sanatoriums and insane asylums and Kirkbride hospitals. In order to protect the public and provide an environment to slow or halt the potential transmission of communicable disease or protect the public from feared diseases, hospitals were created apart from public and private hospitals to address the specific health issue.

The isolated housing model often began as wards within a hospital complex with multiple wards serving patients of all incomes and ailments. Over time, the hospital complex consisted of multiple detached buildings that were eventually constructed on the outskirts of towns to treat people afflicted with contagious diseases (Thompson, 1975). Characteristics of these early segregated models are that they were often within a walled community and the wall could take the form of stone, moat or large bodies of water in the case of island communities. These communities treated sufferers of the plague, leprosy, mental illness, tuberculosis and other diseases considered untreatable. Typically these communities maintained their own gardens, kitchens, morgues, cemeteries, hospitals and housing. It was thought at the time that this was the best model to protect the residents from public shunning and disease transmission. The basic philosophy of isolating those who are sick
has evolved very little since that time. Currently, special needs populations from the elderly, the mentally ill and HIV positive who live in supportive housing remain largely segregated from the larger populations.

At the nadir of the 19th century, the sanatorium movement, the precursor to today’s supportive/assisted housing movement, started for the purpose of protecting “public health by isolating those who were contagious and facilitate individuals by allowing the implementation of therapeutic regimens.” (McBride, 1998). Like the earlier detached ward hospitals, these hospitals were built on the outskirts of towns not only to protect the public from contagion, but for the therapeutic benefit of the residents. These newer models were designed to treat and help improve the physical health of the residents. Elaborate gardens were designed to provide maximum opportunities for residents to reap the benefits of fresh air. But as attractive as this model was, they became obsolete by the 1940’s as antibiotic therapies were developed that were effective in treating tuberculosis. The new medical regimen allowed people with tuberculosis to recover at their homes, and eventually the sanatoriums were abandoned.

Although sanatoriums in the U.S. are not fashionable, supportive housing for special needs populations can be seen as an evolutionary descendent of sanatoriums. Supportive housing today remains segregated with assisted living for the
elderly separated from mental health facilities and supportive housing for people with HIV/AIDS. With mental illness, it has been found that the mentally ill benefit from supervised integration in the general society, but housing for the elderly and HIV positive people still often remain isolated and segregated. The risks of isolation for many include depression and not adhering to medication care plans. Basically, residents feel there is a stigma attached to living in segregated housing. The Bailey-Boushay House, a noted supportive housing facility for people living with HIV/AIDS, published an article in a newsletter February 2010 stating that clients who visit their out-patient clinic often feel isolated and suffer from depression. While it is noted that if people who are served on an out-patient basis feel isolated then possibly residents who live in the segregated facilities probably also feel isolated. This question will be revisited in the resident survey and focus group comments within the case study. It should be stated that by saying the housing model is segregated is not a condemnation of special-needs housing. Instead, this study will examine resident isolation and propose ways to encourage socialization, a sense of community, and the promotion of resident competency and self-sufficiency. This is being explored through the provision of housing for the promotion of optimum health.
Housing for HIV Positive Individuals: Contemporary Precedents

One of the earliest models of supportive housing developed to provide comprehensive services in a residential setting was the Bailey-Boushay House, Seattle, Washington, which was founded in 1992. The model was unique at that time because most long-term housing provided up to that time with skilled nursing and support services for people living with HIV/AIDS was found in hospice care, hospitals and nursing home settings. Bailey-Boushay House provides comprehensive support services that include skilled nursing, therapy, counseling, education and case management, much as the subject of the case study, Clare Apartments, provides.

Very few comparable housing projects have been developed since that time. In fact, since 1999, there are a few notable examples of supportive housing developed for HIV positive individuals, but it appears that very few provide the level of comprehensive services that Clare Housing provides in its various housing types, or that is provided in the Bailey-Boushay House in Seattle, Washington. The range of housing and its supportive services includes the adaptive reuse 180-unit high-rise housing of Sunshine Terrace, Columbus, Ohio that provides homeless intervention in an apartment with a few units reserved for HIV positive men. The range extends to the

Figure 5 Sunshine Terrace, Columbus, Ohio, homeless intervention for men only provides a small number of reserved

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Shirley Bridge Bungalows in Seattle, Washington, providing an intimate housing experience with only six-units of affordable housing for HIV positive individuals.

An initial assumption was that the larger the supportive housing development, the larger the supportive services offered. In a cursory review, the largest housing projects developed since 1999 in fact had few services than programs with 90 or fewer units. Sunshine Terrace can refer any of the residents from their 180-units to support services outside the building, but assistance on-site is offered on a contracted basis only by outside organizations. Inversely, Clare Housing projects or those targeted to serve HIV positive women and children provided the highest number of on-site support services including but not limited to counseling, education and case management. Notable examples of the smaller projects that provide higher levels of support in smaller settings include The Family Program at Shafer Hall (30-units for single parent families only, East Harlem, New York) and Rebecca Johnson Apartments (90-units for women only, Chicago, Illinois). A cursory review of newer projects has shown that the Clare Apartments supportive housing model, as well as that of the Bailey-Boushay house, is unique and rare. What the review underscored was that although much is known about the population of people living with HIV/AIDS, very little is known about the best type of housing model(s) that are efficacious and promote the optimum physical and mental well-being of HIV positive residents.

The common characteristics of both the historical and modern housing precedents is that they share an institutional model where care in the supportive housing is standardized with little regard to personal preference, gender or the age of the
residents. Most patients follow similar schedules for case management, medication delivery or dispensing, or skilled nursing.

Supportive housing today is being developed to minimize or eliminate the institutional characteristics manifested in a lack of interaction between residents, residents and staff, the building and community at large. Several design guidelines have been shown to minimize the institutional characteristics of buildings and their residents. Design methods that encourage socialization for residents, include community spaces for socialization, and encourage residents to access support services on- and off-site to prevent isolation, have been shown to minimize the institutional mindset of the resident, expressed as apathy, and promotion of resident independence (Weinstein, 1982).

Lack Of Research About Role of Supportive Housing

It has been difficult to find research that actually has studied the design and efficacy of housing designed or adapted specifically for people living with HIV/AIDS. What is not known is how to design special-needs housing that promote the physiological and mental health of the residents. Are there particular design strategies being implemented that have been associated with improvements in resident health and competence? Do the designs merely assist in stabilizing the health of the residents or do they also promote resident competence and adaptability?

Of the available literature on post-occupancy evaluations of HIV housing, the available evaluations studied the utilization of spaces by residents, and resident/staff satisfaction with amenities and furnishings (Shepley & Wilson, 1999). In the post-
occupancy of the Bailey-Boushay House (1999), residents and staff reported that they believed that residents generally received better quality care than in other assisted living facilities. The study did not investigate whether residents and staff believed that resident physiological and social health improved from living in the Bailey-Boushay House (Shepley & Wilson, 1999), although the likelihood is that residents did improve due to specially trained staff that is able to identify and treat complex secondary infections associated with HIV infection. Secondly, the available literature identifies programmatic spaces found within supportive housing, but provides little guidance to address the built environment, how it develops resident competence, encourages positive social interaction with other residents and participation in day-to-day activities within a safe, stable and comfortable housing environment for the residents.

Post-Occupancy Evaluation

Over the course of the HIV/AIDS epidemic in the United States, activists have responded to improving quality of life for people living with HIV that extends beyond care by a physician to constructing contemporary examples of comprehensive supportive housing programs such as that provided by the Bailey-Boushay House and Clare Apartments. Current housing models range from scattered site single-family homes with skilled nursing to high-rise independent housing with dedicated...
units for people living with HIV/AIDS that provide no support services. The principal goal is to provide stable housing to HIV positive residents. Once in the housing, residents have the opportunity to focus their energy on receiving medical care and support for their HIV infection, self-sufficiency counseling and education; and dual-diagnoses treatment.

The existing supportive housing models make many assumptions about how design can promote optimum physiological and mental health of residents, but what does not exist is a large body of evaluations that quantify and qualify the efficacy of the housing model. A system for evaluating the housing design assumptions is critical to designing appropriate housing types of supportive housing.

Post-occupancy evaluations have existed as a formal research method since the 1960's. According to Franklin Becker, the initial post-occupancy evaluations were used as tools by building designers to understand what physical design assumptions did and did not work, and did not in existing buildings (Becker, 1989). The goal of these early evaluations was to indentify the successes and failures of building construction to more closely align programming and design decisions with occupant needs and expectations at the forefront.

The early evaluations expanded to include the impact of the building’s design on all end-users. Becker (Becker, 1989) stated that there developed a need “for some deliberate, systematic effort at assessing how well design actually worked for the occupant” (Becker, 1989). According to Dr. Wolfgang Preiser, the post-occupancy evaluation can be used to measure the successes and failures of buildings, and can also be used to as a constructive review to help designers develop
buildings that are more responsive and satisfactory to the end-users (NCARB, 2003). In the case of evaluating housing for people living with HIV/AIDS, any evaluation design seeks to measure how the built environment influences occupant behavior. Human Ecology theory of building evaluation studies this relationship, “the study of Man in his circumstance” (Machado, 1989).

**Theoretical Framework: Environment/Press Theory**

Supportive housing for HIV positive residents operates with the goal of having residents access and utilize support services to help them improve their physiological and mental health, but the mere provision of the services is not enough to engage residents in availing themselves of the programs. Residents must take an active role in using the services, so evaluation methods must also address the ways in which a building encourages or discourages residents to participate in support services and programming. The essence of the Environmental/Press Theory is that the building can either positively or negatively influence the behavior or its users, such as failing to access available services to improve physical and mental health. Buildings need people to validate their existence, just as people need buildings to address their specific needs (Lawton M., 1977). According to Lawton (Lawton M., 1977), “Environmental Press represents a limited aspect of the environment which has a potential demand character. That is, ‘Press’ are those aspects of the environment which are known to be behavior activating to some individuals.”
The case study evaluation of the Clare Apartments will use the Environment/Press theory to understand whether the design of the building activates residents' behavior to increase their competence through independence indicators; and whether or not residents and staff report that their physiological and social health has improved since moving to Clare Apartments, an affordable high-rise apartment complex located in Minneapolis, Minnesota.

Guidance on how to conduct the case-study of Clare Apartments is expressed by the Total Behavioral System, Quadripartite Concept, that was articulated by M. Powell Lawton (Lawton, 1983) as 1) behavioral competence; 2) psychological well-being of residents; 3) perceived quality of life; and 4) the objective environment. The four areas of the system operate as a holistic measurement of overall well-being of residents. The quadripartite concept was defined in relation to elderly residents in assisted living environments, but is applicable to the residents of Clare Apartments and those in other supportive housing models because of similar assisted living needs and physical ailments.

Behavioral competence is the idea of adaptability to change their behavior to the housing environment. An example would be a resident that arrives at Clare Housing unable to manage their medical care and daily requirements to feed, bathe and clothe themselves. Higher competence is demonstrated if the resident adapts their behavior to assume control for taking their medications, and eventually adapt by demonstrating independence by preparing their own meals, and bathing and clothing themselves. Residents who continue to have their medication administered by skilled nursing staff but are able to feed, bathe and clothe themselves demonstrate lower competence, but competence that is higher than they arrived to the
supportive housing. What is difficult to quantify is the role of the building design and/or the support services. According to the literature, the constructs of competence are not directly measureable except through behaviors (Lawton, 1983). The display of competence is therefore only measurable through behaviors, not through a directly correlation between the housing environment and increase competence. Thus, the housing environment connection can be implied or assumed, but not quantified. The caveat to the measurement of competence is that a choice made by a resident to not participate in social activities is not necessarily a measure of low competence. As Lawton notes (Lawton M. P., 1983), some people may not wish to interact with other people, while others may not be able to because of environmental barriers, but that should not be interpreted as an indicator of low competence.

Psychological well-being is a qualifiable (perceived) assessment of one’s own inner experience (Lawton, 1983). Like behavioral competence, the perception is measureable as a personal expression of satisfaction with an implied environmental influence. The assumption of an environmental connection is no less important than the ability to quantify the connection, but the perception of good psychological well-being when coupled with satisfaction in with the other three areas of the quadripartite concept strengthens the evidence of the efficacy of the environment. It has been found that satisfaction with the environment is a stronger determinant of psychological well-being over an objective indicator of domain quality (Lawton M. P., 1983). The unique and personal phenomena as experienced by each resident and satisfaction with their life and surroundings is the truest gauge of psychological well-being and it is not necessary to connect this to the efficacy of the
building. In essence, if the residents feel good mentally and they are happy with their social interaction, then they are good. Resident appraisal is an important measure.

Quality of the objective environment is found in the utilization pattern of specific programming spaces within a building. In the case of Clare Apartments, the building includes, social and support service spaces. Satisfaction with the objective environment, defined as the objective measurement of desirable and undesirable environmental qualities and its effect on psychological well-being, is measured if all or most of the building is being used by most of the residents as often as possible (Lawton, 1983). Lawton offered the example of the height of the building having an impact on how it is used. The taller a building is, the less the resident interacts with the neighborhood and its residents. Conversely, a building with a lower profile with a variety of interior and exterior spaces for congregating are more apt to partake of the variety of social offerings and express greater satisfaction (Lawton M. P., 1983). Satisfaction is a subjective perspective on an objective building. The objective and subjective cannot readily be reconciled as it has been found that there are only a few physical features in a building, such as more storage, a private yard or balcony, that have been linked to greater resident satisfaction (Lawton M. P., 1983). The subjective perspectives of the residents are not invalidated or made less important by this finding.
Figure 7 The Lawton-Nahemow graphic theory of environment-person fit.
The conclusions to be drawn from the quadripartitie concept is that taken alone, there is no one area that can be measured and quantified for an efficacy analysis, but investigated as a whole can be an accurate measure of building performance. When viewed holistically, the satisfaction in all four areas can be interpreted wholly as a strong indicator of satisfaction with the domain. It is the satisfaction with the whole domain that may be qualified as being efficacious.
CHAPTER THREE

CASE STUDY RESEARCH: CLARE APARTMENTS

The site of the case study is a 32-unit; four story rental apartment building in Northeast Minneapolis in the St. Anthony Main East neighborhood, in Minneapolis, Minnesota. The site is located on Central Avenue with quick, direct access to downtown Minneapolis. The building is adjacent to a city designated empowerment revitalization zone (City of Minneapolis, 2004) that encourages infill housing developments. Land for Clare Apartments was donated by the City of Minneapolis and is adjacent to a high-rise public housing building.

Figure 8 Clare Apartments, Minneapolis, Minnesota.
Residents and Staff

All residents of Clare Apartments are required to be low-income and HIV positive. The principal mode of referral for residency is for social services staff or medical to refer people at risk of homeless or homeless for possible admission at one of the sites owned by Clare Housing. According to information provided by Cynthia Wolterding, Supportive Housing Manager of Clare Apartments, residents must earn 30% or less of the area median income as determined for the metropolitan area by the U.S. Department of Housing and Urban Development. For a single person, they may not earn more than $17,600, an amount that may be adjusted annually.

Upon acceptance for residency at Clare Housing, residents are required to pay no more than 30% of their gross monthly income towards rent, or a maximum of $440 per month for a single person. In a representational sample survey of the residents conducted in February 2010, prior to living at Clare Apartment, the largest portion (22%) of the residents were homeless or living with friends/relatives, followed by those that came from assisted living to Clare Apartments (26%). Residents from transitional housing comprised 11% of the
population, and five percent of the population previously lived in owner-occupied housing.

Staff of Clare Apartments reported that from the thirty-one occupied units, there were only three employed residents (9.6% of the population). The population is racially mixed and has a proportion of male and female residents. At the present time there are no minor children residing in the building. Staff reported that as there are no facilities for children and many residents struggle with substance abuse issues, Clare Housing tenants with children tend to select scattered site housing over residing at Clare Apartments. Clare Apartments does not, however, discriminate based on family status.

As reported in the representational sampling of residents, the majority of residents (53%) have lived for three-years or more at Clare Apartments; thirty-seven percent have lived in the building for less than one year; five percent for one to two years; and there is one resident that has lived in the building for more than four years. Residents may live at Clare Apartments for as long as they desire, provided they are income eligible. Residents may choose to use a Housing Choice Rental Voucher (Section 8) as they become available, but focus group participants indicated they choose to remain at Clare Apartments because of the range of services available on-site that would not be available to them at a scattered site home. Additionally, they have declined to accept vouchers because of the location of available housing in neighborhoods with high crime rates.
Prospective residents of Clare Apartments are assessed by the Hennepin County Human Services and Public Health Department (Minneapolis, Minnesota) to determine if they are capable of living independently and at risk of needing to reside in a nursing home. Residents who are found incapable of independent living are provided assisted living services, which includes medication dispensing and skilled nursing. The goal is to provide a modicum of independence to residents.

According to Cynthia Wolterding of Clare Housing, enrollment in assisted living is voluntary and a resident can terminate it at any time without jeopardizing their housing or in-home health services provided by outside home health agencies. Clare Apartments is able to provide complete end of life care on site as needed.
Support Services And Program Activities

The comprehensive range of support services offered at Clare Apartments are provided by staff and partner agencies including but limited to the Minnesota AIDS Project (MAP); Open Arms and Aliveness Project food delivery program; and the Gay Men’s Health Crisis. Current services provided include:

- Assisted living with skilled nursing and medication dispensing
- Employment/occupational counseling and training
- Self-sufficiency support and counseling
- General social services case management
- Meal delivery
- Medication ordering and delivery
- AA/NA meetings
- Mental health counseling
• HIV/AIDS treatment, risk reduction and management education

• Massage therapy

• Resident social events (organized by Clare Apartments staff and/or residents)

Outside agencies also provide support services to resident clients. Often outside agencies provide their services as a convenience to residents at Clare Apartments. Most residents are unemployed and do not have regular transportation, so social service case management, mental health counseling and other education/training services are conducted at Clare Apartments for the convenience of the residents. Due to privacy concerns, some resident receive the same or comparable services off-site at their discretion.
**Physical Facility**

Clare Apartments occupies the eastern edge of the residential neighborhood and abuts an industrial area. The entrance to the building is turned away from the street and toward the rear of the high-rise. Clare Apartments staff indicated that this orientation was deliberate to share in the security and monitoring of the two buildings due to similar target populations (low-income) and shared security concerns. Both buildings monitor the shared parking lot and rear outdoor gathering areas for the residents of the respective buildings.

Approximately 2,148 residents live in this urban, historically blue-collar neighborhood as of the 2000 U.S Decennial Census (U.S. Census Bureau American FactFinder, 2000). As of 1999, 17 percent of the residents within the designated neighborhood were living below the poverty line; the median household income was $28,829 as compared to the national average at the same time of $41,994 (U.S. Census Bureau, American FactFinder, 1999). The percentage of homeowners is 35% for the neighborhood, in stark contrast to the 66% rate overall within the United States (U.S. Census Bureau.
American FactFinder, 2000). The low rates of homeownership that may have been a contributing factor behind the strong opposition to the original Clare Apartments multiple building, mixed-use designs that would not add any new homeownership opportunities to the neighborhood. Clare Housing reported they believed that the introduction of diversity of the HIV positive residents presented a threat to the historical all-white demographics of the neighborhood.

Construction on the approximately 33,000 building was completed late 2005 and the first residents moved in. Clare Housing offers a comprehensive array of support and social programming for the residents of the 32 apartments. The goal of the building is to provide stable, affordable housing to HIV positive individuals who are homeless or at risk of being homeless so that residents have the opportunity to achieve the optimum physical and mental health possible for each resident. At the time of the site visit, all but one of the 32 units were occupied.

The building was designed to provide affordable, independent living in an apartment setting, rather than an institutional dormitory or nursing home design. Attempts to minimize an institutional aesthetic included handicap accessible apartment entrances and egress, but a limited number of units with complete accessible to allow residents to bath, cook and care for themselves independently. The design was intended to foster relationships between residents, with staff and to encourage the use of on- and off-site support services to help residents achieve optimum physical and mental health.
CHAPTER FOUR

RESEARCH DESIGN AND METHODS

The case study analysis of Clare Apartments attempted to understand relationships between the built environment on the physiological (physical) and social well-being of the HIV positive residents of Clare Apartments through the reporting of resident/staff satisfaction with Clare Apartments. The study employed multiple data collection tools to understand the building design’s intended goal: “to provide safe, affordable housing, coupled with support services, residents are in place – many for the first time – to stabilize their health and learn the life skills necessary to securing employment maintaining housing, and increasing economic opportunities” (Clare Housing, 2009). To elaborate, the case study sought to understand if the facility promoted the physiological (defined as the physical health of the body) and the social well-being (defined as the emotional and mental health) of the residents as perceived by the staff and residents of Clare Apartments. Findings from the investigation provided the foundation for the development of general design guideline recommendations for architects, designers, developers and owners of a similar housing type.

Approval to conduct the research was sought and approved by the Clemson University Office of Research Compliance (commonly known as the Institutional Review Board [IRB]). Approval of the research methods and design was intended to protect the research compliance, integrity and participants subjects from potential harm. All associated
investigators were required to successfully complete training on conducting research with human subjects, albeit as part of an investigation with little to no risk.

To avoid biases and personal beliefs regarding the outcomes of the program, the research utilized an iterative process of qualitative research, so as to allow the data and beliefs of the staff and residents to be expressed by their agreement/disagreement with a range of statements about the building design and programming outcomes. This process was important as it helped to minimize investigator biases and permitted the entry of interrelated areas to focus the research. The initial focus of the research was limited to the efficacy of the building and support services on reported improvements in HIV infection.

The subsequent proposal expanded to include the overall physiological health and social well-being when it was discovered through the literature review and initial conversations with Clare Housing staff that mental illness and chemical addictions left untreated were great barriers to the health stabilization of HIV positive residents, and HIV transmission and risk reduction. The initial assumption was that the residents had been stable prior to HIV infection, and that through support and education, the residents would once again be able to achieve self-sufficiency and independence.

The literature review revealed that it was the housing and life instability that either precipitated HIV infection (homelessness, chemical dependency, mental illness), or the diagnosis of HIV infection and deteriorating health destabilized resident population of Clare Apartments. Simply put, without addressing the co-diagnoses of the resident population, HIV
transmission and risk reduction programs risk reduced efficacy. It was this awareness of correlational issues that provided the direction of the case study to measure the efficacy of the Clare Housing programs to improve the physiological and social well-being of residents.

The mixed method data collection plan studied the residents’ satisfaction and access to support service and program spaces; and qualified the perceptions of physiological and social well-being as expressed by the residents and staff of Clare Housing/Clare Apartments. All participants were required to be eighteen-years of age or older in order to participate.

**Procedures and Process**

**Study Location:** The field investigation was conducted at Clare Apartments, Minneapolis, Minnesota. There was one principal investigator who completed the two phases of the investigation.

**Sample:** The apartment building has only 32-units. The sample size was established by allowing one respondent from each of the apartments to participate in the resident survey and/or focus groups. At the time of the fieldwork, thirty-one of the thirty-two units were occupied. It was decided that it would be best to achieve a representational sampling of the residents (<50%) as the total number of eligible participants was low and insufficient to be representative of all HIV positive residents in supportive housing models.
Nineteen residents out of thirty-one completed the resident surveys (63% return) and eight of the ten (80% rate of participation) staff that worked directly with Clare Apartments residents participated in the staff focus groups. Ten of the thirty-one (32% rate of participation) residents participated in the two resident focus groups that were convened.

**Instruments:** The fieldwork investigation was comprised of two phases, a) observational method, and b) the focus groups and surveys.

**Investigation Length:** The field investigation was conducted over four weekdays, eight hours a day during February 2010. Investigator observations and focus groups were conducted during daytime hours between 10 am and 6 pm. An informational meeting to provide information to prospective resident participants was conducted during evening hours on the second night to include as many participants as possible who might be otherwise unable to attend the informational meeting during daytime hours due to job commitments, medical appointments or some other business that is normally operated during daytime hours.

**Investigation Administration:** The observation phase of the research was conducted on-site with one investigator. The investigator spent one to two hours at a time at either the Reception/Security desk or in the large Community Room during the hours of daily investigation. The observation portion of the research collected data on community and support service space usage, visits by residents and staff, the type of activity conducted in the respective spaces, and by whom. The
investigator took notes, photographs and completed sketch analysis to complete a content analysis of the activities and community spaces of Clare Apartments.

The second phase, the focus groups and survey administration, was again conducted by the investigator. The phase utilized two tools to recruit volunteer participants and collect data: the resident and staff focus groups, and the resident only survey. Both the focus groups and surveys utilized the same structured questions to collect data on satisfaction with the building, staff and program; and to document the resident participation in social and support activities. Volunteer participants were solicited via posters displayed in public and residential areas, and staff announcements, and investigator invitations.

Data Collection Methods

Prior to the two phases of the investigation, which shall be outlined below, a literature review was completed Spring 2009 to document the available body of research dedicated to studying the research findings of existing investigations studying support facilities for people living with HIV/AIDS. The case study of Clare Apartments included two phases: 1) Observations, and 2) Surveys and focus groups.
Phase 1: Observation Research Method

The purpose of the observation phase of the investigation of Clare Apartment was intended to document the public and support spaces of the building, who uses each space and for what purpose. Archival data, building plans, and program documentation were collected to define the critical community spaces in Clare Apartments, namely community and support service areas. No contact with residents was made at this stage in the case study.

Archival Data: Cermak Rhoades, the architect of record for Clare Apartments, provided the building floor plans. The investigator used observation notes, staff and resident comments, sketches and photographic evidence to complete the content analysis of how the community and support spaces were used, by whom, for what purpose, and when. Color-coded floor plans were created by the investigator to delineate the spaces analyzed. Data collected from the focus groups and surveys were used to complete the analysis and provide evidence-based design recommendations, found in Chapter Five of this thesis manuscript.

Procedures: During each of the four investigation days, the investigator took notes on investigator observations, took photographs of the spaces under investigator and sketched the design, arrangement of rooms and furniture, and amenities for each space. In addition to the on-site building analysis, the investigator completed programming graphics of the site, orientation, circulation, issues that informed the design recommendations made later in this text.
**Process:** During the on-site observation hours, the investigator visited the Reception/Security, Community Room and support services offices to observe how each space was used, what activities were conducted by whom, and when the spaces were used. Each observation lasted from one to two hours. The investigator rotated locations as none could be observed easily from the other. The Community Room had no visual contact with either of the two spaces used to conduct observations. The investigator also rotated from one location to another to minimize disrupting staff and resident activities.

Residents and staff who were present during the investigator observations provided general comments about the space and asked questions about the purpose of the research being conducted. The investigator used these opportunities to solicit resident and staff participation in the information meeting, focus groups and surveys. At the end of each day, the investigator removed all notes, sketches and data collection tools from Clare Apartments so that they could be reviewed and secured by the investigator during evening hours. Notes and findings collected during each day were analyzed provided the foundation for the following day’s plan of inquiry.
Phase 2: Focus Groups and Survey Methods

The intent of the focus groups and survey administration was 1) to gather data on staff/resident satisfaction with the building design, aesthetics, amenities and programs, 2) to gather information on resident satisfaction with staff, 3) to report on their perceptions of the physiological and mental well-being, 4) and identify the types of support services utilized on- and off-site by residents. The same questions were created for use on both the surveys and focus groups to provide a basis for comparison during the data analysis phase of the investigation. The two tools used for this phase of the investigation was the paper-based resident only survey, and the focus groups administered to either the staff or to residents. Survey responses were used to complete a descriptive analysis of data; focus group discussions were used to complete a content analysis.

Survey Purpose: A survey was generated to solicit resident feedback on their previous housing tenure; satisfaction with staff, programming, building design, aesthetics and amenities; and to report on the support services they use at Clare Apartments as well as whether they preferred to receive such services on- or off-site. There were 31 occupied units at the time of the survey administration. The investigator sought to gather a representational sampling of resident of 50% or greater response rate (15+ responses). Nineteen survey responses were returned for a rate of 63%, higher than the sought after 50% rate of survey returns.
The survey was paper based. One survey response was permitted per apartment unit. The goal of both the surveys and focus groups was to complete a representational sampling of fifty-percent or more of members from the respective groups. No photographs of residents were taken by the investigator, nor identifying information collected. It was paramount that the confidentiality of the staff and residents be protected at all times. No demographic data that might identify either party including name, age, race, gender or sexual orientation, were asked. Notes and surveys were collected by the investigator and kept in a locked box until they could be removed from the premises at the end of each day.

**Survey Procedures:** Surveys were assigned a random number that corresponded to the number of units of Clare Apartments. Random numbers were separately created twice in the event that a copy survey had to be distributed. Two random numbers were assigned, in order, to each of the 32 units of Clare Apartments, and retained on an Excel spreadsheet by the investigator alone. No resident names were associated with the apartment unit numbers, nor were they collected on the survey or focus group responses to protect the privacy and confidentiality of respondents.

Residents were invited to participate by completing the survey and/or by attending the resident focus group interviews. Clare Housing/Clare Apartment staff was offered the opportunity to participate in the staff only focus group interviews. Questions for surveys and focus groups were the same, with the exception of the question to the residents regarding the use of AA/NA meetings due to the confidential nature of the proceedings.
**Survey Process:** The investigator delivered one survey to each of the occupied units in an envelope. Residents completed surveys in the privacy of their apartment units. Resident respondents were provided with an envelope so they could seal their responses to protect the confidential nature of their answers. Each day during the hours the investigator was on-site, a locked box was placed in the Community Room so that staff would not be privy as to who returned the completed survey. All surveys were collected at the end each day by the investigator and taken off-site to be reviewed and secured.

**Focus Groups Purpose:** The intent of the resident-only and staff-only focus groups was to provide a basis for comparison with resident survey responses, and to solicit more in-depth data collected from resident survey responses. The same questions used on the resident surveys were used for the focus groups so that themes could be detected by the investigator during the data analysis portion of the investigation.

**Focus Group Procedures:** During the focus groups, the investigator provided each volunteer participant with a copy of the focus group questions, which were nearly identical to the resident surveys. Participants were instructed by the investigator to complete the paper-based questions as if they were taking a survey. During the time each focus group was administered, a general discussion was held to gather more in-depth question responses.

Eight staff members participated in the focus group discussion out of ten (80% participation rate); ten residents out of thirty-one participated on the resident focus group discussion (32% participation rate). Volunteers were solicited via posters
placed on community and resident public areas, personal investigator invitations, and informational meeting on the second evening, and via word-of-mouth.

**Focus Group Process:** Focus groups for staff were conducted at their respective work areas: Reception/Security desk, Support Service Offices and the Clare Housing meeting room for the respective employees. The two resident focus groups were conducted on the third day of the investigation in the Community Room where no staff was present, to protect the identify and responses of the participants. Focus group participants were asked to complete the paper-based focus group questions and to expound on their responses. During the focus groups, the investigator used a blank focus group, audio recorder and word document to collect participant responses for analysis at a later time. At the end of each focus group, responses and investigator notes were collected and secured by the investigator for removal from the premises at the end of each day.

In order to comply with IRB requirements for research on human subjects, all audio recordings and investigator notes will be destroyed at the end of one year from the completion of the on-site investigation. Notes are archived and maintained in a secure location off-site by the investigator to protect the confidentiality of the investigation participants.
Data Analysis

Survey and written component of the focus group discussions were collected and entered into the Qualtrics online survey software site by the investigator for tabulation and analysis. An initial report was generated by Qualtrics and was then downloaded to Microsoft Excel for further analysis by the investigator. Results from the respective participant group were not commingled (resident survey response, resident focus group and staff focus group responses, respectively). Responses for each participant group were ranked to detect patterns and themes from the findings. The frequencies of responses were ranked by the investigator, in descending order. Scaled responses of Agreement/Disagreement with question statements were ranked with the highest percentage of Agreement responses in descending order to the lowest Agreement with question statement. Ranked responses helped indicate the greatest areas of satisfaction with regards to overall physiological and mental well-being, satisfaction with staff, programs, building design, aesthetics and amenities. Ranked results from each participant pool were compared against each other to discern congruous or incongruous responses.

A descriptive analysis was completed by the investigator from the data collected during the observation phase of the investigation on the building design, aesthetics and amenities. Content analysis was performed on staff and resident responses from focus groups regarding resident physiological and mental well-being, as well as satisfaction with staff, support service offerings; and resident utilization of the services. The content analysis and descriptive analysis portions of the
analysis were entered into an Excel table so themes could be identified and analyzed as the foundation for the findings and recommendations detailed in Chapter Five of this thesis.

**FINDING KEY**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFG</td>
<td>Staff Focus Group</td>
</tr>
<tr>
<td>RFG</td>
<td>Resident Focus Group</td>
</tr>
<tr>
<td>RS</td>
<td>Resident Survey</td>
</tr>
<tr>
<td>IN</td>
<td>Investigator Notes</td>
</tr>
</tbody>
</table>

Key findings and recommend actions were collected and analyzed in response to open-ended questions on the surveys and focus groups, collected via audio recordings, investigator notes and requests for suggestions on surveys and forms. Responses were coded based upon the population that provided the comments or the investigators observations.

Findings were organized by the source of the comment and then analyzed to determine trends. Trends were determined if they recurred more than once, were made by multiple participant groups, and recommendations were made based upon the most frequently recurring findings.
Limitations

While the mixed methods of data collection and analysis offered rich data to understand the use and efficacy of Clare Apartments, there are limitations to the research design. As there was only one investigator on-site at Clare Apartments and funding was limited, a comparative analysis across multiple supportive housing environments was not completed. This study involved a single site. The physical site analysis was conducted over a short period of time, four days, during daytime hours. A more comprehensive site visit with 24-hour observations conducted for more days may have provided a more comprehensive understanding of building use.

Upon analyzing the survey and focus group responses, it became apparent that the language used in the questions could have been more precise. The lack of precision was due to an evolving understanding of the Clare Apartments services through focus group and survey responses that was impossible to anticipate prior to designing the questionnaire and completing the on-site investigation.

This study is not intended to be critical of the supportive housing model, but instead provides a snapshot view during a limited time frame. All recommendations and critiques of the built environment at Clare Apartments are not intended as a criticism of the designers, building owners or managers. Rather, the recommendations are intended to be used to improve supportive housing design in the future.
Clare Housing originally planned to construct several small, low-rise buildings of mixed-use in the original Clare Apartments plan. Due to neighborhood resistance, the planned programming, support services, office space for Clare Housing and residential units were all programmed into the single, high-rise this study is focused on. Many of the issues related to residents desiring more control may have been accounted for in the original plan, but compromises were made in order to have the design plans approved so that the development could proceed.
CHAPTER FIVE

RESEARCH FINDINGS AND RECOMMENDATIONS

Overall Satisfaction With Staff, Support Services And Building Design

Residents and staff of Clare Apartments were overall satisfied with Clare Apartments’ staff, support services and building design. The majority of respondents reported that resident physical health and mental well-being had improved during resident tenure at Clare Apartments. Staff and residents were satisfied with the overall building design, aesthetics and amenities. What the investigation uncovered was that residents report a persistent feeling of isolation and a lack of control over the living/working environment that should be addressed by designers in future buildings.

Findings for this thesis were generated from a representational sampling of residents via survey responses and staff or resident focus groups. Due to the larger survey sample (19 out of 31 residents (61%) survey response rate) quantitative respondent information was collected and analyzed from the survey responses. The staff focus group response was 66%. The resident focus 31% participation rate did not meet the target representation sample size, but their comments were important and are included in the building space findings.
Prior to moving into Clare Apartments, 58% of the current residents were homeless or residing in temporary housing; only 5% were previously in owner-occupied housing. Fifty percent of all current residents have been living at Clare Apartments for more than 2 years; 50% have been living at Clare Apartments for 2 years of less. The longest residents have lived at Clare Apartments since it opened in 2005. Seventy-two percent of residents were referred to Clare Apartments by a social worker or by referral from social service providers. Medical professionals referred Eleven percent, 11% learned of Clare Apartments from a friend or relative, and 6% were referred to Clare Apartments by a housing shelter.

Eighty-nine percent of Clare Apartments residents agree they are satisfied with the support services provided at Clare Apartments and 84% are satisfied with the level of social activities. Staff felt that only 66% of residents agreed they were satisfied with the support services offered, and 50% agreed they were satisfied with the level of social activities offered. Staff indicated they receive comments and complaints from residents regarding the building, services and activities; that residents would like to have more social activities organized by the staff during normal weekday business hours, on evenings and weekends.
COMPARISON OF RESIDENT SURVEY RESPONDENTS’ AND STAFF FOCUS GROUP PARTICIPANTS’ OPINION OF CLARE STAFF AND SOCIAL/SUPPORT SERVICES OFFERED.

CLARE APARTMENT RESIDENT SURVEY REGARDING SATISFACTION WITH CLARE APT./HOUSING STAFF AND PROGRAMMING*

<table>
<thead>
<tr>
<th>RANK</th>
<th>OPINION OF STAFF/PROGRAM</th>
<th>AGREE</th>
<th>DISAGREE</th>
<th>NEITHER AGREE/NOR DISAGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The Clare Housing staff is knowledgeable and supportive.</td>
<td>94%</td>
<td>0%</td>
<td>5%</td>
</tr>
<tr>
<td>2</td>
<td>Residents are satisfied with the support services offered.</td>
<td>89%</td>
<td>0%</td>
<td>11%</td>
</tr>
<tr>
<td>3</td>
<td>Residents are satisfied with the level of social activities offered at Clare Apartments.</td>
<td>84%</td>
<td>0%</td>
<td>16%</td>
</tr>
<tr>
<td>4</td>
<td>Staff is open to social activities/supportive services suggestions.</td>
<td>88%</td>
<td>0%</td>
<td>11%</td>
</tr>
</tbody>
</table>

* RESIDENT SURVEY RESPONSE

CLARE APARTMENT RESIDENT SATISFACTION WITH CLARE APT./HOUSING STAFF AND PROGRAMMING#

<table>
<thead>
<tr>
<th>RANK</th>
<th>AGREE/DISAGREE</th>
<th>AGREE</th>
<th>DISAGREE</th>
<th>NEITHER AGREE/NOR DISAGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The Clare Housing staff is knowledgeable and supportive.</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>2</td>
<td>Staff is open to social activities/supportive services suggestions.</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>3</td>
<td>Residents are satisfied with the support services offered.</td>
<td>66%</td>
<td>0%</td>
<td>33%</td>
</tr>
<tr>
<td>4</td>
<td>Residents are satisfied with the level of social activities offered at Clare Apartments.</td>
<td>50%</td>
<td>33%</td>
<td>17%</td>
</tr>
</tbody>
</table>

# STAFF FOCUS GROUP RESPONSE

Figure 14 Graph illustrating resident and staff perceptions of resident satisfaction with staff and program activities.
Both staff and residents reported that they agree that the Clare Housing staff is knowledgeable and supportive, an indicator of a positive relationship between staff and residents, and important indicator of well-being. Residents indicated they agree they are satisfied with on-site support services provided at Clare Apartments and they use them, as indicated in the figure below:

### RANK IMPORTANCE OF USE OF SOCIAL SERVICES*

<table>
<thead>
<tr>
<th>RANK</th>
<th>SUPPORT SERVICE</th>
<th>USE SUPPORT SERVICE</th>
<th>DO NOT USE SUPPORT SERVICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Social service case management</td>
<td>94%</td>
<td>7%</td>
</tr>
<tr>
<td>2</td>
<td>Resident Socials</td>
<td>87%</td>
<td>13%</td>
</tr>
<tr>
<td>3</td>
<td>HIV Transmission/treatment education and counseling</td>
<td>71%</td>
<td>29%</td>
</tr>
<tr>
<td>4</td>
<td>Skilled nursing</td>
<td>65%</td>
<td>36%</td>
</tr>
<tr>
<td>5</td>
<td>Meal Delivery</td>
<td>54%</td>
<td>47%</td>
</tr>
<tr>
<td>6</td>
<td>AA/NA Meetings</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>7</td>
<td>Medication dispensing</td>
<td>45%</td>
<td>56%</td>
</tr>
<tr>
<td>8</td>
<td>Self-Sufficiency support and counseling</td>
<td>44%</td>
<td>56%</td>
</tr>
<tr>
<td>9</td>
<td>Mental health counseling</td>
<td>33%</td>
<td>67%</td>
</tr>
<tr>
<td>10</td>
<td>Employment/Occupation counseling and education</td>
<td>31%</td>
<td>69%</td>
</tr>
</tbody>
</table>

* RESIDENT SURVEY RESPONSE  
Figure 15 Residents' ranking of support services they use with the most frequently used listed as #1.
Below is a chart that shows the ranked services used by Clare Apartments residents, where they use them, and where they would prefer to use the support services they use. Services are ranked in descending order with the most often service access on-site ranked number one.

WHERE CLARE APARTMENT RESIDENTS RECEIVE SUPPORT SERVICES, RANKED*

<table>
<thead>
<tr>
<th>RANK</th>
<th>SUPPORT SERVICE</th>
<th>ON-SITE</th>
<th>OFF-SITE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Resident Socials</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>2</td>
<td>Meal Delivery</td>
<td>75%</td>
<td>25%</td>
</tr>
<tr>
<td>3</td>
<td>Medication dispensing</td>
<td>71%</td>
<td>29%</td>
</tr>
<tr>
<td>4</td>
<td>Employment/Occupation counseling and education</td>
<td>67%</td>
<td>33%</td>
</tr>
<tr>
<td>5</td>
<td>Skilled nursing</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>6</td>
<td>HIV Transmission/treatment education and counseling</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>7</td>
<td>Self-Sufficiency support and counseling</td>
<td>40%</td>
<td>64%</td>
</tr>
<tr>
<td>8</td>
<td>Social service case management</td>
<td>36%</td>
<td>64%</td>
</tr>
<tr>
<td>9</td>
<td>AA/NA Meetings</td>
<td>33%</td>
<td>67%</td>
</tr>
<tr>
<td>10</td>
<td>Mental health counseling</td>
<td>33%</td>
<td>67%</td>
</tr>
</tbody>
</table>

* RESIDENT SURVEY RESPONSE

Figure 16 Ranked resident responses of support services they utilize at Clare Apartments.
The following chart provides information on where residents prefer to receive support services. The preferences are ranked in descending order with the services prefered to receive on-site ranking number one. The lower ranked listing is the service residents prefer to use off-site.
Data collected on the types of services used, where they are used and where residents prefer to use the services were sorted ranked according to the percentage they are used by residents, on-site at Clare Apartments. The three services that consistently ranked above 50% that appear to be of strong importance to residents are Resident Socials, Meal Deliveries, and Skilled nursing. Resident socializing is important for resident mental well-being and is of clear importance to residents. Meal delivery preferences indicate a preference to live independently instead of a full-service nursing home. The use of skilled nursing is indicative of a clientele that is willing and able to seek medical attention as needed. The ability and desire to

<table>
<thead>
<tr>
<th>RANK</th>
<th>SUPPORT SERVICE</th>
<th>ON-SITE</th>
<th>OFF-SITE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Resident Socials</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>2</td>
<td>Medication dispensing</td>
<td>86%</td>
<td>14%</td>
</tr>
<tr>
<td>3</td>
<td>Employment/Occupation counseling and education</td>
<td>75%</td>
<td>25%</td>
</tr>
<tr>
<td>4</td>
<td>Self-Sufficiency support and counseling</td>
<td>75%</td>
<td>25%</td>
</tr>
<tr>
<td>5</td>
<td>Meal Delivery</td>
<td>75%</td>
<td>25%</td>
</tr>
<tr>
<td>6</td>
<td>Skilled nursing</td>
<td>67%</td>
<td>33%</td>
</tr>
<tr>
<td>7</td>
<td>AA/NA Meetings</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>8</td>
<td>HIV Transmission/treatment education and counseling</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>9</td>
<td>Mental health counseling</td>
<td>33%</td>
<td>67%</td>
</tr>
<tr>
<td>10</td>
<td>Social service case management</td>
<td>25%</td>
<td>75%</td>
</tr>
</tbody>
</table>

* RESIDENT SURVEY RESPONSE

Figure 17 Ranked resident responses for the services they most prefer to receive on-site at Clare Apartments.
make decisions about health care and maintenance appears to be indicating level competence on the part of Clare Residents as they choose to access the provided skilled nursing.

In addition to the top three ranked social services detailed above, residents also expressed a preference for having their medication dispensed on-site and to receive employment or occupational counseling and education at Clare Apartments. The services that ranked the lowest were related to substance abuse (AA/NA), mental health, counseling and education. Given the research that shows a high rate of substance abuse and mental health issues amongst HIV positive individuals, it was surprising that residents did not rank access to AA/NA meetings and mental health counseling as high priorities. Upon further questioning, residents in the resident focus groups said they prefer not to have other residents know if they attend AA/NA meetings or receive mental health counseling. It is for this reason that the AA/NA question in the resident focus group questions was removed before residents were asked about their use and preferences for the services. In resident focus groups, residents were asked why they were less likely to utilize these services and they commented that these services typically are conducted confidentially and they do not want other residents to know their personal business with regard to these areas. They said that many do receive mental health counseling/therapy, and attend AA/NA meetings, but that the preference is to do so off-site where their confidentiality can be maintained.

Residents reported receiving HIV transmission reduction and treatment education/counseling on-site. Respondents in focus groups said they like having the education at Clare Apartments as a component in the education and counseling
support, but they also like receiving it from their personal health care provider at their off-site offices. A comment from the focus group shared by at least a couple of people was that they trusted their personal physicians more than they trusted the skilled nursing staff at Clare Apartments. The mistrust was with the nurses, not with the other Clare support staff. Residents stated their mistrust stemmed from their uncorroborated experiences with medication dispensing errors. Since the question of medication dispensing errors was outside the scope of the investigation, Clare Housing staff may want to survey residents about their experiences and perceptions of the skilled nursing services to discern if there is a problem that needs to be addressed.
Residents And Staff Are Satisfied With Building Design And Aesthetics

Overall residents and staff reported they are happy with the overall layout of the building and the aesthetics. Every respondent agreed that the location of the Community Room, on the upper split-level, is located in a convenient place. Furthermore, 100% of the residents and 94% of the staff reported they agreed the overall appearance of the room is attractive. The investigator and staff remarked that the flooring, although attractive, seemed ill suited for the building due to its severely scuffed appearance.

The only thing residents appeared to be dissatisfied with was the amount of privacy provided in the nursing/support space for patient appointments. 7% of residents and 17% of staff disagreed that there was adequate privacy for patient appointments in the nurse support offices. The following chart illustrates residents’ opinion of the building design, aesthetics, and amenities:
Figure 19 Graph illustrating resident opinion of Clare Apartments' design, aesthetics and amenities.
Clare Housing staff overall agreed that they were satisfied with the design and aesthetics of the social spaces and the general layout of the building. The areas where staff expressed dissatisfaction was with the location, overall appearance and privacy provided in the nursing/support and therapy spaces. The specific findings for each of the general support and social spaces will be discussed in greater depth, space by space.

**Post-Occupancy Evaluation of Clare Apartments**

The investigation of Clare Apartments was organized into three general areas to help aid the organization of the investigation by general use and principal user. The three areas are: Reception/Security and community social areas; support services and therapy; residential area spaces including apartment units, residential corridor sitting area, and the laundry/exercise rooms. Before these areas are discussed, findings pertaining to the overall building will be discussed.

**Clare Apartments General Building**

Clare Apartments building is approximately 33,000 square feet. The building was originally designed to be one of a series of detached mixed-use buildings. Due to neighborhood opposition, the plans were scaled back into the single, high-rise building of this study. Without a copy of the original schematic design proposal, an analysis of what was gained and lost in the design revisions cannot be completed.
The building was constructed on property donated by the City of Minneapolis, Minnesota, adjacent to a high-rise public house building. Initial findings indicate the building has been generally well received by the staff and residents. The only significant comments received concerned the orientation of the building. The building is oriented along the northeast/southwest axis which creates heat gain in the staff offices and residences on the east side of the building. Tinting was placed on the Clare Housing and Reception/Security spaces, but no tinting was applied to the glazing in the residential units. Residents and staff reported that the residential units windows are operable, but the windows for staff, support and social spaces are not. Heat gain and the inability to control the temperature individually was repeatedly mentioned during the staff and resident focus groups. A table with the findings follows:

**Figure 20 Clare Apartment facility technical information.**
Staff focus group findings indicate that staff would prefer the support services and social spaces be located on the same floor rather than the split-level plan, as it exists. They indicated that support services might be frequented more often if located in a more public and accessible space.

* Survey staff and residents about heat gain on Eastern side of building, which was an area of concern in staff and resident focus groups.
* Site support/counseling/therapy spaces in areas with adequate privacy and daylight.
* Work with architect to see if there are affordable ways to give staff and residents more control over their individual comfort (temperature, access to spaces, transportation)

Figure 21 Clare Apartments table with a building section and key findings.
**Clare Reception/Security**

Staff and resident access to the building occurs at the Reception/Security desk inside the front lobby. Staff maintains a presence 24-hours a day at the desk and reviews all visitors, accepts package deliveries, and makes and receives calls to people requesting information on Clare Housing. In addition, resident mailboxes are located between the Reception/Security desk and the elevator in the space. Only postal employees have access to the mailboxes. Packages such as medication delivered any way other than through the postal service are left with the Reception/Security staff at the front desk. There are no provisions for securing the packages at the front desk at this time.

The Reception/Security entrance (front desk) is staffed by people who double as security personnel as needed.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE/AREA</th>
<th>SQUARE FOOTAGE (APPROXIMATE)</th>
<th>PHYSICAL CHARACTERISTICS</th>
<th>FLOOR PLAN/DETAIL</th>
<th>PHOTO</th>
</tr>
</thead>
</table>
| Reception/Security | 985 | * 2-story high  
* Modern black tile on wall and floor  
* High Glazing behind reception/Securty desk | | |

*Figure 22 Reception/Security technical information.*
Residents and staff enter by entering a unique code, or using a key that unlocks the door from the lobby to the reception area. Visitors may enter the building by announcing themselves to residents via the call box or if front desk staff presses a button that unlocks the door and allows entry. All visitors are required to sign a guest log and provide picture identification for security purposes. Access after 11 pm is restricted and all people entering the building must be buzzed in by front desk staff.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE/ AREA</th>
<th>WHO USES SPACE</th>
<th>WHEN IS SPACE USED</th>
<th>WHAT IS SPACE USED FOR</th>
</tr>
</thead>
</table>
|            | Reception/ Security | * Security staff, duties as receptionist  
* Residents use to retrieve mail  
* Access to elevator and stairs down to Support and up to Community room | * 24 hour staff at desk  
* 24 hour access to bldg (via locked door) | * Entrance, security, mailboxes,  
* Medication delivery,  
* Receptionist (in-take phone calls)  
* Informal resident gathering space |

Figure 23 Reception/Security table indicating who uses the space, when they use it, and the purpose.
Although people may exit doors located away from the Reception/Security Area, entry is controlled and only permitted at the front desk.

The secondary function of the front desk is an informal gathering place for residents to collect mail, pick-up deliveries of medication, and to socialize with other residents and staff. Staff tries to discourage residents from congregating at the desk because staff conducts confidential phone calls at the front desk. During the site visit, residents only visited the Community Room during daytime hours for scheduled functions. They gathered at the front desk during the same time period where casual conversations and inquiries could be heard by the investigator.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>INTENDED USE</th>
<th>ACTUAL USE</th>
<th>ISSUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reception</td>
<td>Reception</td>
<td>* Reception</td>
<td>* Reception</td>
<td>*Security back to parking lot</td>
</tr>
<tr>
<td></td>
<td>Security</td>
<td>* Security</td>
<td>* Security</td>
<td>* Residents congregate at desk</td>
</tr>
<tr>
<td></td>
<td>Telephone inquiries</td>
<td>* Telephone inquiries</td>
<td>* Telephone inquiries</td>
<td>* Confidential phone calls conducted at desk</td>
</tr>
<tr>
<td></td>
<td>Mailboxes</td>
<td>* Mailboxes</td>
<td>* Mailboxes</td>
<td>* No privacy for phone calls</td>
</tr>
<tr>
<td></td>
<td>Elevator Access</td>
<td>* Elevator Access</td>
<td>* Elevator Access</td>
<td>* Medication left unsecured with security</td>
</tr>
</tbody>
</table>

Figure 24 Reception/Security space table of intended use.
The staff had a large number of concerns with the Reception/Security area due to the lack of privacy and orientation of the front desk. The front desk is located against a large window overlooking the parking lot. The intent of the space was to share parking lot monitoring with the public housing security team. The orientation of the desk positions staff with their backs to the window with no visual control over the parking lot. Staff expressed they feel insecure with their backs against the wall. One finding noted that security cameras should be placed more strategically to allow for more surveillance of indoor and outdoor spaces of concern for the security of the residents and staff.

The privacy issues pertain to the confidential phone calls staff conduct at the front desk and the investigator's observation that patient medications are left with staff, unsecured on the desk, for resident pick-up.
<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>CURRENT CONDITIONS</th>
<th>KEY FINDINGS</th>
</tr>
</thead>
</table>
|            | Reception/Security | ![Diagram](image) | * Rotate reception/security desk 180 degrees and place on East wall for maximum view of parking, support service, community room and entrance.  
|            |                 |                    | * Install secure cabinet for medication storage until pickup by residents.  
|            |                 |                    | * Install silent alarm button under reception desk.  
|            |                 |                    | * Provide clear instructions for announcing entry in to building.  
|            |                 |                    | * Install inter-building mail boxes for pickup/delivery (perhaps to place medication deliveries). |

Figure 25 Reception/Security current conditions space diagram and key findings.
Investigator observations during the investigation found that there are no provisions to protect privacy and confidentiality in the Reception/Security front desk. A concern is that resident medications are left at the front desk, in plain sight, with resident names visible to all. While no one can see the contents of the sealed bags, a cursory examination would reveal that the packages contain medication. It would take no effort for an unauthorized person to remove the packages from the front desk.

The confidentiality issue pertains to the confidential phone calls conducted at the front desk. During the course of the day, Reception/Security staff receives phone calls from people inquiring about housing and other resources for HIV positive individuals. Staff makes every effort to prevent residents and guests from lingering at the front desk, but the elevator, mailboxes and front door ensure that residents will always be found in the vicinity of the front desk and able to hear confidential details discussed between Clare Reception/Security staff and callers.
**Social: Community Room**

The Community Room is located one half level up from the entrance. Major and minor social and educational/meeting functions in this room. The Community Room primarily serves as a casual space for residents to socialize; the secondary function is planned educational and support programming. The room has three areas, defined through three cove uplight tray ceilings. The first space is arranged as a quiet social space. The space is furnished with bookcases, books, an upright piano and sofa seating. The second space has a kitchen on one wall and dining table and seating define the space as one for eating. The third space has a large screen television, radio/tape player, VCR and couches for television viewing.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>SQUARE FOOTAGE (APPROXIMATE)</th>
<th>PHYSICAL CHARACTERISTICS</th>
<th>FLOOR PLAN/DETAIL</th>
<th>PHOTO</th>
</tr>
</thead>
</table>
| **Community Room** | 2,645 | * Large, modern room  
* Scuffed tile floor  
* Cove, recessed and LFL  
* Room visually partitioned into through rooms via tray ceiling  
* Adjacent to patio  
* Tall glazing along rear wall |

*Figure 26 Community Room technical information.*
The room is open 24-hours a day and there is no attendant that oversees the room. The kitchen remains locked except for special occasions. Special occasions when the kitchen is unlocked include the weekly AA/NA meetings, neighborhood community meetings, education/training programming for staff and residents, and for planned social events.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE/AREA</th>
<th>WHO USES SPACE</th>
<th>WHEN IS SPACE USED</th>
<th>WHAT IS SPACE USED FOR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Community Room</td>
<td>* Residents</td>
<td>* Residents only in evening</td>
<td>* Social gatherings</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Healthcare educators</td>
<td>* Staff use intermittently</td>
<td>* Education</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Support staff</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 27 Community Room table indicating who uses space, when it is used, the use purpose.

During the on-site investigation, with the exception of the resident focus groups, the Community Room was not visited during daylight hours. Residents report that the room is more popular in the evenings and on the weekends for casual television viewing or resident parties. During the resident focus groups, it was reported that the room would receive more use if it had a DVD player or wireless Internet access. Staff reported that due to security concerns, more current electronic devices are not provided, nor is the kitchen left open, due to the potential for theft of appliances and cooking utensils.
Additional findings suggest that the room is overly large to be comfortable for casual socializing. Residents and staff expressed a desire to utilize the Community Room through more staff planned social events, art therapy and casual resident events. The roof was found to be attractive but under-utilized by all parties. The room is used, however, by outside groups for AA/NA and neighborhood meetings. There is no public bathroom adjacent to the space. Residents and guests either have to use a bathroom in a private residence, or travel to the basement to use a men’s restroom and a women’s restroom.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>INTENDED USE</th>
<th>ACTUAL USE</th>
<th>ISSUES</th>
</tr>
</thead>
</table>
| 69        | Community Room  | * Staff sponsored socials  
  * Resident sponsored socials  
  * Casual resident community room  
  * Television or reading  
  * Education/group meetings  
  * AA/NA meetings | * Resident casual evening use for television watching or Resident sponsored socials  
  * Weekly AA/NA meetings  
  * Infrequent staff sponsored socials  
  * 4x year (approx.) education programming | * Room receives little use during day  
  * Television only connected to VCR  
  * No wireless internet  
  * Not enough staff sponsored socials  
  * Room scale over large  
  * Kitchen is locked and only open during AA/NA mtgs or other events |

Figure 28 Community Room table of intended space use and issues.
<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>CURRENT CONDITIONS</th>
<th>KEY FINDINGS</th>
</tr>
</thead>
</table>
|            | Community Room | ![Diagram] | * Partition room and dedicate primary social/TV area in first bay.  
* Designate middle section as dining/food set-up tables for catering and larger events.  
* Designate third bay for a semi-permanent art therapy workshop room.  
* Create permanent storage space for art therapy supplies in Clare Housing office or in basement storage room.  
* Hire resident(s) to open kitchen and supervise use of kitchen during informal social events. |

**Figure 29 Community Room table with current conditions diagram and key findings.**
Social: Vending

The vending area is located outside the Community Room between the stairs to the residential floors, and the elevator.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE/AREA</th>
<th>SQUARE FOOTAGE (APPROXIMATE)</th>
<th>PHYSICAL CHARACTERISTICS</th>
<th>FLOOR PLAN/DETAIL</th>
<th>PHOTO</th>
</tr>
</thead>
</table>
| Annotation | **Vending**| 190                          | * Located on 1R near rear exit and elevator
* Tile floor
* Adjacent to Community Room |

**Figure 30 Vending area technical information.**

An analysis of the space is included because during the site visit observations, it was noted that residents and staff frequented the vending area approximately every fifteen minutes. Short, casual conversations were conducted at this site and it appears to be an informal gathering place where staff and residents can interact.
The space is public and available to staff and residents 24-hours a day. Although it was not designed to serve a social function, residents and staff have appropriated for irregular social conversations. The only suggestion staff and residents had for this space was to add a vending machine. After observing the casual socialization in this space, designers should consider unintentional uses of space, such as occurred in the vending area, outside the area of the formally programmed social space. Designers should anticipate unintended space use and plan accordingly. Most casual socialization conducted by residents and staff occurred where people were in transit or in between spaces, such as corridors, at the bottom of stairs, outside elevators, and on the way in and out of the building (Reception/Security area).

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE/AREA</th>
<th>WHO USES SPACE</th>
<th>WHEN IS SPACE USED</th>
<th>WHAT IS SPACE USED FOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annotation</td>
<td>Vending</td>
<td>* Staff</td>
<td>* 24-Hour Access</td>
<td>* Refreshment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Residents/Guests</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 31 Table of Vending area indicating who uses the space, when it is used, and the purpose of the use.
<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>INTENDED USE</th>
<th>ACTUAL USE</th>
<th>ISSUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>annotation</td>
<td>Vending</td>
<td>Refreshment</td>
<td>* Casual social gathering</td>
<td>* No change machine</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>* Refreshment</td>
<td>* Noise carries to Community Room, Reception/Security; up stairwell</td>
</tr>
</tbody>
</table>

Figure 33 Vending area table indicating the intended use and space issues identified through surveys and focus group responses.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>CURRENT CONDITIONS</th>
<th>KEY FINDINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>annotation</td>
<td>Vending</td>
<td></td>
<td>* Add change machine.</td>
</tr>
</tbody>
</table>

Figure 32 Vending area current condition graphic and key findings.
### Social: Patio

During the summer time, the Patio, located outside the Community Room on the west side of the building, serves as a popular social space for staff and resident organized social events.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE/ AREA</th>
<th>SQUARE FOOTAGE (APPROXIMATE)</th>
<th>PHYSICAL CHARACTERISTICS</th>
<th>FLOOR PLAN/DETAIL</th>
<th>PHOTO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annotation</td>
<td><strong>Patio</strong></td>
<td>1,725</td>
<td>* Concrete patio</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>* Outside community room</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>* Furnished with grill and patio furniture, including canopied swing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>* Adjacent to resident garden</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 34 Patio technical information.**

Residents and staff participate in gardening in the adjoining community garden. The patio has a covered swing, bench seating and grill that may be used by residents and staff of Clare Housing 24-hours a day.
<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE/AREA</th>
<th>WHO USES SPACE</th>
<th>WHEN IS SPACE USED</th>
<th>WHAT IS SPACE USED FOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annotation</td>
<td>Patio</td>
<td>* Staff</td>
<td>* 24-Hour Access</td>
<td>* Staff sponsored socials</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Residents/Guests</td>
<td></td>
<td>* Resident sponsored socials</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>* Casual socialization</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>* Resident community garden</td>
</tr>
</tbody>
</table>

Figure 35 Patio area table showing who uses space, when it is used and the purpose of the use.
Reception/Security has no direct visual control over the patio. Staff indicated that in the past they have had problems with residents committing illicit acts, such as drug use or sales on the patio. There is a low, decorative metal fence along the south side of the property, ostensibly for security and as a visual cue that the space is private and for the sole use of Clare Apartments staff and residents.
Both staff and residents reported enjoying the summer social activities held on the patio, and expressed a desire for more events.

**Support Services**

Support Services area is comprised of counseling, skilled nursing, and therapy for Clare Apartments residents. The approximately 2,500 square feet (total) is located on the level below the first floor entrance. Access is provided via stairs that can be visually monitored by the Reception/Security front desk, and by elevator. Support Services primarily consists of counseling and the apartment management offices. Space is shared with nursing and therapy, which will be discussed in the next section.

Overall, residents and staff are satisfied with the relationship between staff and residents. Residents stated in the focus groups that they are very comfortable talking to the counseling staff about any issue in their lives including needed services, health issues, employment counseling, and social services. Staff too agreed they have a positive relationship with residents who are encouraged to visit the offices at any time.

The office is open Monday through Friday during normal business hours and is available to all Clare Apartments residents. Services are funded through Clare Housing on behalf of Clare Apartments’ residents.
Two offices and an anteroom comprise Support Services. The anteroom houses literature for residents and general office administration equipment such as faxes and mailboxes for staff.

Figure 37 Support services offices technical information.
The space was designed to provide a space for residents to meet with staff in private for their physical and mental health care needs. Services not provided directly by staff, such as mental health counseling and social service case management, are provided in the Support Services office by outside agencies to all residents. Clare Apartments staff report that most residents meet with their county social worker on site.

**Figure 38 Support services table indicating who uses space, when it is used, and the purpose of the use.**

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE/ AREA</th>
<th>WHO USES SPACE</th>
<th>WHEN IS SPACE USED</th>
<th>WHAT IS SPACE USED FOR</th>
</tr>
</thead>
</table>
|            | Support/ Counseling | * Support staff  
* Residents | * Day time hours only | * Resident counseling/education  
* Property management administration |
While staff members are generally satisfied with the adequacy of the space, the location (in the basement) and the small inoperable windows in each office were frequently sited as issues they would change if they could. The rooms are on the east side of the building, the side that receives the greatest thermal gain. Staff stated it is difficult to maintain a comfortable temperature and they wish they could open the windows to allow fresh air into the space.

The single most frequently noted issue for both staff and residents was the perceived lack of privacy. Residents without telephone service may use a phone in one of the empty therapy rooms. Private telephone conversations can be heard by Support Services staff, and presumably, the inverse is true. The following table provides a more detailed list of Support Services findings:

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>INTENDED USE</th>
<th>ACTUAL USE</th>
<th>ISSUES</th>
</tr>
</thead>
</table>

Figure 39 Support services intended use table with space issues identified through survey and focus group responses.
<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>CURRENT CONDITIONS</th>
<th>KEY FINDINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Support-Counseling</td>
<td>[Diagram]</td>
<td>* Create single entrance to support services counseling, nursing and therapy for greater security.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>* Enclose hallway and have staff/residents enter through existing support services office door.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>* Place phone that residents use in the therapy room to nook beneath stairs in hallway, outside support services office to increase privacy for staff and support services visitors.</td>
</tr>
</tbody>
</table>

Figure 40 Support services current conditions graphic and key findings.
The Reception/Security staff has limited visual control of the Support Services offices. The front desk is able to view the stairs leading to the offices and the entrance to Support Services, but there is no direct line of sight to the offices.

Many of the findings cannot be addressed through design, but are included because they fall under the Support Services umbrella. Many issues can be addressed through plan modifications, which will be detailed in the recommendation section.
**Nursing Services**

Nursing Services are housed in the Support Services spaces. They are listed separately because their function is to provide skilled nursing care to the residents of Clare Apartments, as well as to residents in other Clare Housing properties.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE/AREA</th>
<th>SQUARE FOOTAGE (APPROXIMATE)</th>
<th>PHYSICAL CHARACTERISTICS</th>
<th>FLOOR PLAN/DETAIL</th>
<th>PHOTO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Support/Nursing</td>
<td>514 LARGE OFFICE 305 SMALL OFFICE</td>
<td>* Small, basement offices * carpeted, off-white paint * No sink in nursing offices * Small, high inoperable windows * Linear fluorescent lighting * Minimal daylight</td>
<td><img src="image" alt="Floor Plan/Detail" /></td>
<td><img src="image" alt="Photo" /></td>
</tr>
</tbody>
</table>

Figure 41 Nursing support service area technical information.
### Figure 42 Nursing support service table indicating who uses the space, when it is used and the purpose for the use.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>WHO USES SPACE</th>
<th>WHEN IS SPACE USED</th>
<th>WHAT IS SPACE USED FOR</th>
</tr>
</thead>
</table>
|            | Support/Nursing | * Support staff  
* Residents | * Day time hours only | * Skilled nursing  
* Assisted living medication dispensing  
* Resident HIV/AIDS education  
* Risk reduction |

### Figure 43 Nursing support services table indicating who uses the space, when it is used and the use purpose.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>INTENDED USE</th>
<th>ACTUAL USE</th>
<th>ISSUES</th>
</tr>
</thead>
</table>
|            | Support-Nursing | * Skilled nursing  
* Medication dispensing  
* Resident counseling  
* Risk reduction  
* Resident education | * Skilled nursing  
* Medication dispensing  
* Resident counseling  
* Risk reduction  
* Resident education | * Small, dark offices  
* Small, high inoperable windows  
* No sink in nursing office  
* Privacy/confidentiality concern  
* Resident use phones adjacent to office  
* Open during day but no secure access  
* Out of visual contact with security |
Nursing is available to resident 24-hours a day as needed. Normal operating hours are Monday through Friday during normal business hours. All residents may visit the nurse on-site for their medical issues. Residents that receive contracted assisted living have their medication dispensed by the nurses in the offices.

The intended use for the space is to provide skilled nursing care for residents. The nursing care can range from simple consultations, blood pressure checks, to wound care and end of life nursing. The findings in the Nursing offices are similar to the ones for Support Services: the small, high, inoperable windows in the offices, the variable temperature that is hard to keep at a comfortable temperature by the office occupants. The issue of the small windows appeared to be more acute in the nursing offices as it was noted that the lack of daylight can aggravate depression for the users of the spaces.

The nursing offices are of similar size as the smaller support services offices but lack sinks for staff and residents to wash their hands. Staff must travel outside of the Support Services office space to the public bathrooms in the hallway to wash their hands. Bathroom doors are left open so that staff can minimize touching contaminated door handles when returning to the nursing offices.
The Nursing offices are in closer proximity to the therapy room with the phone the residents use. Issues of privacy and confidentiality breaches appear to be more acute. Staff and residents both found that privacy was compromised in the Nursing Offices due to the presence of residents on private telephone calls.

The Nursing Offices are next to the other, but one is accessed via the Support Services office space, and the other open directly into the corridor leading to Support Services. There is no direct visual access from the Reception/Security desk to the Nursing offices. A detailed table of findings follows:
Figure 44 Nursing support services current conditions graphic and key findings.

Despite some of the physical space findings, staff and residents both found that the spaces were aesthetically pleasing and conveniently located.
**Therapy**

The Therapy room is housed next door to the exterior Nursing office. The room has an adjacent whirlpool bath if residents needed assisted bathing. The room is available to staff, residents and outside service providers for counseling, therapy or small private meetings.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE/AREA</th>
<th>SQUARE FOOTAGE (APPROXIMATE)</th>
<th>PHYSICAL CHARACTERISTICS</th>
<th>FLOOR PLAN/DETAIL</th>
<th>PHOTO</th>
</tr>
</thead>
</table>
| Support/Therapy | 430 INCLUDING WHIRLPOOL | * Small, basement office  
* Adjacent whirlpool bath (inoperable)  
* Carpeted, off-white paint  
* Small, high inoperable windows  
* Linear fluorescent lighting  
* Minimal daylight | | |

Figure 45 Support services therapy area technical information.
The room is currently used for periodic massage therapy provided to residents. During the site visit, with the exception of massage therapy being offered over the course of two days, staff or residents did not use the room.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE/ AREA</th>
<th>WHO USES SPACE</th>
<th>WHEN IS SPACE USED</th>
<th>WHAT IS SPACE USED FOR</th>
</tr>
</thead>
</table>
|            | Support/ Therapy | * Support staff  
             * Residents | * Day time hours only | * Periodic massage therapy  
             * Rare whirlpool bath use  
             * Private counseling/therapy sessions |

Figure 46 Support services therapy table indicating who uses the space, when it is used, and the purpose of the use.

The therapy space is located in the basement along the same eastern wall as the Support Services and Nursing offices. Like the two other spaces, the biggest complaint was that the windows were too small and high to provide much daylight. Additionally, staff commented that they wished the windows were operable for fresh air.
The room is used so infrequently, privacy and confidentiality were not listed as concerns for this space. Some residents seemed unaware of the existence of the whirlpool bath, which was out of service at the time of the site visit. The table of findings follows:

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>INTENDED USE</th>
<th>ACTUAL USE</th>
<th>ISSUES</th>
</tr>
</thead>
</table>
|            | **Support-Therapy** | * Counseling/therapy  
* Whirlpool spa  
* Massage therapy | * Monthly massage therapy  
* Private Counseling/therapy | * Small, dark office  
* Small, high inoperable windows  
* Adjacent to but unconnected to support services  
* Out of service whirlpool  
* Whirlpool unused due to being unknown |

Figure 47 Support services therapy table of intended use and issues.
The investigator observations noted that the sink within the restroom in the therapy room was functional. A sign indicating when the room is occupied would be helpful as the investigator entered unknowingly entered the room during a private massage at a time the staff believed the room to be empty.

**Figure 48 Support services therapy current conditions graphic and key findings.**

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>CURRENT CONDITIONS</th>
<th>KEY FINDINGS</th>
</tr>
</thead>
</table>
|            | Support-Therapy | ![Support services therapy current conditions graphic](image-url) | * Relocate therapy rooms to existing nursing offices adjacent to support services. As these rooms are infrequently used, they do not need to monopolize the only restroom in the area and can provide a buffer between visitors to support services counselling and skilled nursing staff for greater privacy.  
* Create single entrance to support services counselling, nursing and therapy for greater security.  
* Enclose hallway and have staff/residents enter through existing support services office door.  
* Place phone that residents use in the therapy room to nook beneath stairs in hallway, outside support services office to increase privacy for staff and support services visitors. |
Small Meeting/Therapy

Of all the rooms in the Support Services area, the small meeting room, used for therapy, is used the least. Located at the end of the corridor, next to the Therapy room, the small room had comfortable residential furniture and adequate lighting for small meetings and therapy.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE/ AREA</th>
<th>SQUARE FOOTAGE (APPROXIMATE)</th>
<th>PHYSICAL CHARACTERISTICS</th>
<th>FLOOR PLAN/DETAIL</th>
<th>PHOTO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Support/ Meeting</td>
<td>514</td>
<td>* Small, residential style meeting room&lt;br&gt;* Sofa, candles and upholstered seating&lt;br&gt;* Carpeted, off-white paint&lt;br&gt;* Small, high inoperable windows&lt;br&gt;* Linear fluorescent lighting&lt;br&gt;* Minimal daylight</td>
<td>![Floor Plan]</td>
<td>![Photo]</td>
</tr>
</tbody>
</table>

Figure 49 Support service therapy small meeting room technical information.

The Small Meeting/Therapy room is used by residents for private telephone conversations, social workers and private therapists. The room is locked during regular business hours except by special request.
<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>INTENDED USE</th>
<th>ACTUAL USE</th>
<th>ISSUES</th>
</tr>
</thead>
</table>
|            | Support-Meeting | * Resident Education  
* Social service site visits  
* Therapist visits  
* Private meetings | * Social service site-visits  
* Private therapist visits  
* Resident telephone use | * Small, dark room  
* Small, high inoperable windows  
* Room relative unused  
* Adjacent to but unconnected to support services  
* Resident use phone if none in units compromising confidentiality and privacy |

Figure 50 Support service therapy small meeting room table indicating who uses space, when it is used and the purpose of the use.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE/ AREA</th>
<th>WHO USES SPACE</th>
<th>WHEN IS SPACE USED</th>
<th>WHAT IS SPACE USED FOR</th>
</tr>
</thead>
</table>
|            | Support/ Meeting | * Visiting therapists  
* Visiting social workers  
* Residents | * Day time hours only | * Resident counseling  
* Social service site visit  
* Resident telephone use |

Figure 51 Support service therapy small meeting room table of intended use and space issues.
Similar findings of small, high, inoperable windows were noted in staff and resident focus groups. All respondents found the room aesthetically pleasing and easy to access. Temperature control was a recurring issue for staff, as was the minimal natural daylight. For a detailed list of findings, see the following table:

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>CURRENT CONDITIONS</th>
<th>KEY FINDINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Support-Meeting</td>
<td><img src="image_url" alt="Image" /></td>
<td>* Relocate small meeting/therapy room to existing nursing offices adjacent to support services. As these rooms are infrequently used, they do not need to monopolize the only restroom in the area and can provide a buffer between visitors to support services counseling and skilled nursing staff for greater privacy.</td>
</tr>
<tr>
<td></td>
<td>Support-Meeting</td>
<td><img src="image_url" alt="Image" /></td>
<td>* Create single entrance to support services counseling, nursing and therapy for greater security.</td>
</tr>
<tr>
<td></td>
<td>Support-Meeting</td>
<td><img src="image_url" alt="Image" /></td>
<td>* Enclose hallway and have staff/residents enter through existing support services office door.</td>
</tr>
<tr>
<td></td>
<td>Support-Meeting</td>
<td><img src="image_url" alt="Image" /></td>
<td>* Place phone that residents use in the therapy room to nook beneath stairs in hallway, outside support services office to increase privacy for staff and support services visitors.</td>
</tr>
</tbody>
</table>

Figure 52 Support service therapy small meeting room current condition graphic and key findings.
**Residential: Apartment Units**

The investigation of Clare Apartments residential units were not part of the original analysis, but resident focus group participants were invited to provide comments on the overall residential unit issues, particularly as they related to personal control.

The residential units are located on levels two, three and four. Units vary in size for the efficiency and 1-bedroom units.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE/AREA</th>
<th>SQUARE FOOTAGE (APPROXIMATE)</th>
<th>PHYSICAL CHARACTERISTICS</th>
<th>FLOOR PLAN/DETAIL</th>
<th>PHOTO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Units</td>
<td>1,445 NORTH END UNIT 1,600 SOUTH CORNER 1,445 WEST UNITS 1,335 EAST UNITS 900 EAST EFFICIENCY</td>
<td>* Efficiency and 1-bedroom units  * Resilient tile floor  * High, custom windows  * Lots of daylight  * modern units  * Units accessible</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Figure 53 Residential units technical information.*
Access to the residential floors is provided by an elevator or stairway. The apartments are arranged along a narrow, double-loaded corridor. The corridor is painted in two-tone paint to provide visual acuity assistance in locating residential unit doors from the corridor walls. Residents are permitted to have guests visit for stays of no longer than 14 days at a time and are responsible for the actions of visitors at all time.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE/AREA</th>
<th>WHO USES SPACE</th>
<th>WHEN IS SPACE USED</th>
<th>WHAT IS SPACE USED FOR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Residential Units</td>
<td>* Residents/Guests only</td>
<td>* 24-Hour access</td>
<td>* Private residences</td>
</tr>
</tbody>
</table>

Figure 54 Residential unit table indicating who uses the space, when the space is used and the use purpose.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>INTENDED USE</th>
<th>ACTUAL USE</th>
<th>ISSUES</th>
</tr>
</thead>
</table>
|            | Residential Units | Residential | Residential | * Big, custom windows prone to break  
* East side rooms hot in summer/cold in winter  
* Residents do not have individual thermostats  
* Inadequate ventilation; Residents air units into corridor  
* Scooters cannot enter unit |

Figure 55 Residential unit table of intended use and issues.
Residents provided information via the surveys and resident focus groups regarding the units. The most frequently cited issue concerned the large, custom windows. The large amount of natural light that entered the units was appreciated, but the window mechanisms were prone to breaking. The only operable windows are found in the residential units. The east side residential units suffer from the problem of thermal gain, the same problem with the staff offices on the lower floors.

Units do not have individual thermostat controls. Staff reported that residents often resort to opening their windows while operating the air conditioning in order to achieve a personally comfortable temperature in the east side units. Residents and staff reported there is no tinting on the windows in the residential units.

All apartment units are handicap accessible. Residents requiring tub cutouts may submit a request to Clare Apartments management. Staff said they did not provide cutouts in every bathroom as they were trying to avoid creating a hospital/institutional environment in the residential units. Residents reported that they would prefer having all the units fully accessible with tub cutouts, and devices for residents that are hearing and/or visually impaired. The complete list of findings are on the following page:
<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>CURRENT CONDITIONS</th>
<th>KEY FINDINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Residential Units</td>
<td>* Provide individual thermostat for greater personal control by residents.</td>
<td>* Provide individual thermostat for greater personal control by residents.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Provide better fitting screens on windows.</td>
<td>* Provide better fitting screens on windows.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Provide unit exterior ventilation to prevent fumes from entering public corridors.</td>
<td>* Provide unit exterior ventilation to prevent fumes from entering public corridors.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Survey residents to find if hearing/sight impaired individual needs are being met in their apartments (alarms, strobe lighting, etc.).</td>
<td>* Survey residents to find if hearing/sight impaired individual needs are being met in their apartments (alarms, strobe lighting, etc.).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Survey residents to discern if there is a greater demand/need for fully accessible units, i.e. scooters that cannot fit through units doors, tub cut-outs, etc.</td>
<td>* Survey residents to discern if there is a greater demand/need for fully accessible units, i.e. scooters that cannot fit through units doors, tub cut-outs, etc.</td>
</tr>
</tbody>
</table>

Figure 56 Residential units current conditions and key findings.
Residential unit issues that impacted neighbors and were found to be nuisances include residents that ventilate cigarette smoke from their apartment via the corridor, and noise emanating from the apartments.

**Residential: Residential Corridor Sitting Area**

On each residential floor, on the northwest side of the building, an open sitting area is located for residents to gather in casual conversation. The spaces are not being used presently by order of the City of Minneapolis fire marshal according to staff.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE/ AREA</th>
<th>SQUARE FOOTAGE (APPROXIMATE)</th>
<th>PHYSICAL CHARACTERISTICS</th>
<th>FLOOR PLAN/DETAIL</th>
<th>PHOTO</th>
</tr>
</thead>
</table>
|            | Sitting Area (Nook)       | 150                          | * Carpeted sitting area in residential corridors  
* Not furnished due to Fire Marshall  
* High, custom windows  
* Lots of daylight                                      |                   |       |

Figure 57 Residential corridor sitting area technical information.
The space analysis of the Sitting Areas is included because it was intended to provide an opportunity for residents to meet casually and develop social support networks. The space is warm and aesthetically pleasing. The spaces are intended for resident and guest casual social use, but no seating is provided.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE/AREA</th>
<th>WHO USES SPACE</th>
<th>WHEN IS SPACE USED</th>
<th>WHAT IS SPACE USED FOR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sitting Area (Nook)</td>
<td>* Residents/Guests Only</td>
<td>* Open space, 24-hour access</td>
<td>* Use Prohibited by order of the fire marshal</td>
</tr>
</tbody>
</table>

Figure 58 Residential corridor sitting area table indicating who uses the space, when it is used and purpose of the use.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>INTENDED USE</th>
<th>ACTUAL USE</th>
<th>ISSUES</th>
</tr>
</thead>
</table>
|            | Sitting Area (Nook) | *Residential Corridor Casual Social Gathering Area| Not in use | * Use prohibited by fire marshal  
* No seating  
* At different area in corridor from public laundry/exercise rooms |

Figure 59 Residential corridor sitting area table of intended use and issues.
The spaces are served by high windows that allow very good natural light to penetrate the space. Based upon a visual study of the space, it appears the issue that prevents the space from being used is a lack of fire suppression. The space is open to the residential corridors and it appears that is no system is in place to contain and ventilate smoke in the event of a fire. See the following research finding table for details on the space issues. Residents and staff indicated they would use the sitting areas if seating were provided.
<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>CURRENT CONDITIONS</th>
<th>KEY FINDINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sitting Area (Nook)</td>
<td>* Add fire-rated bulkhead (doorless) at ceiling threshold to room, and exterior ventilation in case of fire. This may mitigate any concern about fire safety.</td>
<td>* Add comfortable lounge seating and lighting in nooks for resident comfort.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* bulkhead could minimize conversation noise traveling into corridor.</td>
<td></td>
</tr>
</tbody>
</table>

Figure 60 Residential corridor sitting area current condition graphic and key findings.
Adjacent to the elevator, there are two laundry rooms (on levels two and four) and an exercise room on level three. Because the exercise and laundry rooms occupy the same space on different floors but have different programs, they will be analyzed in the same section as they have the same issues.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE/AREA</th>
<th>SQUARE FOOTAGE (APPROXIMATE)</th>
<th>PHYSICAL CHARACTERISTICS</th>
<th>FLOOR PLAN/DETAIL</th>
<th>PHOTO</th>
</tr>
</thead>
</table>
| Laundry Room | 550 | * Tiled, coin-operated laundry on 2,4th FL  
* No resident seating  
* Table to fold/sort clothing  
* High, custom windows  
* Lots of daylight  
* Event notices posted in laundry  
* Glazing to double-loaded residential corridor | |

Figure 61 Residential laundry room table of technical information.
**Figure 62 Residential exercise room table of technical information**

The rooms are for the sole use of residents and their guests. The rooms are open 24-hours a day and required no key for entry.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE/ AREA</th>
<th>SQUARE FOOTAGE (APPROXIMATE)</th>
<th>PHYSICAL CHARACTERISTICS</th>
<th>FLOOR PLAN/DETAIL</th>
<th>PHOTO</th>
</tr>
</thead>
</table>
|            | Exercise Room | 550                          | * Exercise equipped room on 3rd FL  
* No resident seating  
* High, custom windows  
* Lots of daylight  
* Event notices posted in room  
* Glazing to double-loaded residential corridor | | |

**Figure 63 Residential laundry room table indicating who uses the space, when it is used and for what purpose.**

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE/ AREA</th>
<th>WHO USES SPACE</th>
<th>WHEN IS SPACE USED</th>
<th>WHAT IS SPACE USED FOR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Laundry Room</td>
<td>* Residents/Guests only</td>
<td>* 24-Hour access</td>
<td>* Laundry</td>
</tr>
</tbody>
</table>

104
<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE/AREA</th>
<th>WHO USES SPACE</th>
<th>WHEN IS SPACE USED</th>
<th>WHAT IS SPACE USED FOR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exercise Room</td>
<td>* Residents/Guests only</td>
<td>* 24-Hour access</td>
<td>* Exercise and strength training</td>
</tr>
</tbody>
</table>

Figure 64 Residential exercise room indicating who uses the space, when it is used and for what purpose.

The laundry is provided not only for the convenience of residents to launder their clothing, but according to staff, they are also used to teach life skills that many residents may not have due to their housing instability prior to arriving at Clare Apartments. Support Services staff meet with residents, as needed, to assist in learning how to operate the machines and to launder the residents' clothing.
Figure 65 Residential laundry room table of intended use and issues.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>INTENDED USE</th>
<th>ACTUAL USE</th>
<th>ISSUES</th>
</tr>
</thead>
</table>
|            | Laundry Room | Laundry      | Laundry    | * No seating
|            |              |              |            | * Scooters cannot enter room |

Figure 66 Residential exercise room table of intended use and issues.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>INTENDED USE</th>
<th>ACTUAL USE</th>
<th>ISSUES</th>
</tr>
</thead>
</table>
|            | Exercise Room| Exercise     | Exercise   | * No room for seating
|            |              |              |            | * Small, cramped room
|            |              |              |            | * Scooters cannot enter room |
The only concern expressed by residents in the focus groups was that scooters are too wide for the doors, and that the doors are too heavy to open for some. The investigator observed there is no seating available in the laundry or exercise rooms. The rooms are located on the west side of the building and there were no reports that the rooms are too warm or too cold.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>CURRENT CONDITIONS</th>
<th>KEY FINDINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Laundry Room</td>
<td>* If possible, place seating within room.</td>
<td></td>
</tr>
</tbody>
</table>

Figure 67 Residential laundry room current conditions graphic and key findings.
<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>CURRENT CONDITIONS</th>
<th>KEY FINDINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exercise Room</td>
<td></td>
<td>* Advertise exercise room, perhaps by offering demonstrations.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>* Remove unused equipment to provide more space and incentive to workout.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>* Add mirrors and fans for user comfort.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>* Add chairs if possible.</td>
</tr>
</tbody>
</table>

Figure 68 Residential exercise room current conditions and key findings.
Residents Desire More Options For Personal Controls

In the analysis of the space findings outlined in the previous sections, the strongest theme that emerged was a desire for more control over the environment, for both staff and residents. The desire for control was expressed in findings regarding the lack of access to the Community Room kitchen, the need to be allowed entry by security staff after 11 pm, and the inability to control the temperature on demand in the staff offices and apartments.

A desire to have greater control that extended beyond the building was expressed as the wish that Clare Apartments would provide transportation to area grocery stores. Although residents can have food delivered at no cost to them through food delivery services, much like the Meal-On-Wheels program for the elderly or home-bound, the residents are communicating amongst residents and staff that they wish to develop greater competence and independence in their own lives by purchasing and preparing their own food, in the own apartment units.

As discussed in the Theoretical Frameworks portion of this thesis, a building’s success can partially be measured by how much of the building is being used by its inhabitants. The residents and staff of the Clare Apartments have been found to not only extensively use the existing public spaces for support and social needs, but they have found ways to include spaces not specifically programmed as support and social spaces, such as the front desk and the vending area.
It is not enough that the spaces are used or are currently satisfactory to the end-users; the spaces have to achieve a balanced fit to prove the greatest opportunity for residents to increase their personal competency. The desire for control expressed by the residents of Clare Apartments is a desire to raise their competencies. At this time they feel somewhat limited in the amount of control they have over their environment, but there are some fairly inexpensive changes that can be made Clare Apartments that would give residents, and by extension, the staff additional control. The recommendations that will be outlined in the next section can reduce the “pressing” environmental conditions and can encourage increased resident competence, for a good environmental fit.

What follows are general design guideline recommendations for architects, designers, developers and building owners of buildings of similar type to Clare Apartments (supportive housing). The recommendations specifically reference the spaces investigated in the Clare Apartments case study analysis to provide a frame of reference, but they are generalized for the supportive housing typology.
Translating Findings To Practice: Design Guidelines and Recommendations

The following design guidelines are organized into three general categories: Reception/Security and general community social areas; support services and therapy; and residential area spaces such as apartment units, residential sitting area, laundry and exercise rooms located on residential floors for the sole use of residents and their guests.

Clare Apartments General Building

The recommendations for Clare Apartments apply to all buildings in an effort to find ways to include options for user controls. Although there may have been financial and security issues that called for the lower floors to have inoperable windows, from a fire safety standpoint and provide the necessary fresh air into a building, designers should find a way to provide operable windows where it is reasonable. For windows where security is an issue, there are quick release security bars that allow users to release a lever and escape through a window in the event another entrance is blocked by fire or unsafe to use. For Clare Apartments, it would be appropriate to consider security for the basement windows if operable windows were installed. The windows are low enough to the group that they could be installed so as to fit the aesthetics of the building materials and design.
<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>EXISTING CONDITION GRAPHIC</th>
<th>INTENDED USE</th>
<th>ACTUAL USE</th>
<th>FINDINGS</th>
<th>RECOMMENDATIONS</th>
</tr>
</thead>
</table>
|            | Clare Apartment Building | ![Image]                   | Private Residential Units | Private Residential Units | * Inoperable windows in staffing areas/1st floor  
* Heat gain on east side of building makes personal temperature comfort difficult  
* Custom windows prone to breaking and are costly to maintain | * Survey staff and residents about heat gain on Eastern side of building, which was an area of concern in staff and resident focus groups.  
* Site support/counseling/therapy spaces in areas with adequate privacy and daylight  
* Work with architect to see if there are affordable ways to give staff and residents more control over their individual comfort (temperature, access to spaces, transportation) |

Figure 69 Clare Apartments key findings and recommendations.
The orientation of the Clare Apartments northeast-southwest direction has created one side of the building that experiences uncomfortable heat gain in the summer and cold in the window that makes the occupants uncomfortable. While Clare Apartments designers may have been constrained and limited in the direction they oriented the building, there are a number of technologies that can mitigate the hot/cold cycling that occurs on the east side of the building.

When possible, buildings should be designed in an east-west orientation, with the largest sides of the buildings facing north and south. Overhangs, covered patios and circulation can be placed along the south side of the building to provide a buffer to the business and residential support spaces. Spaces placed east to west along the north of the building would be in a position to maximize natural daylight into all spaces with large windows without the radically changing temperatures.

For Clare Apartments, turning the building is not an option and adding operable windows on the lower two floors is probably cost prohibitive. It may be feasible to consider the installation of tinting for all windows on the east where occupants report difficulty in maintaining comfortable temperatures. The tinting may provide heating/cooling cost savings if the fluctuating temperatures can be maintained at a steady temperature.

Clare Apartments was constructed on a major bus route to provide affordable transportation for the Clare Apartments residents, however they report that they are unable to travel frequently due to a lack of money for transportation or mobility issues. Residents have expressed a desire to have weekly transportation provided so that they may travel to area grocery stores. These comments indicate it is not enough to provide access to transportation, but that the transportation needs to be
accessible regardless of income of physical abilities. When possible, designers should work with building owners of supportive housing to provide a means to offer transportation services for residents, whether it can be provided by the building owner or through contract services with area agencies. The design should allow for van parking, pick-up and drop-off if feasible.

**Key Design Recommendations**

- Consideration for the orientation of the building needs to be demonstrated by appropriately orienting a building and/or including systems to mitigate excessive thermal gain, wind and other undesirable climatic issues;

- Staff should be afforded control over their environment by being provided with the means to achieve personal environmental comfort, or to ventilate their spaces. That being said, operable windows are a low technological way to accomplish part of this mission and should not be excluded;

- Provide window coverings that allow daylight to enter but minimize thermal gain.
Figure 70 Clare Apartments thermal gain current conditions with recommended brise soleil sun shading device for east side of building.
Clare Reception/Security

Clare Apartments architects designed the Reception/Security front desk to provide visual control over the front entrance, mailboxes, building circulation areas and parking lot. Unfortunately the staff desk is positioned so that staff faces away from the desk. The front desk is aesthetically pleasing but is not fulfilling the design intent of having staff provide security over the parking lot. Staff reports that they feel uneasy having their backs to the large front desk windows.

Designers should consider the program and design intent of the room before addressing the aesthetics of the space. A well designed space will naturally be appealing and can fulfill the intended design goal. If possible, Clare Apartments should consider relocating the front desk one hundred eighty degrees and putting it along the opposite wall from the present location. The change would provide direct visual access to the parking lot and greater visual control over the Support Services, Clare Housing offices and Community Room. Please see the following graphic for an illustration of the recommended change.
Clare Apartment staff said they wished the security cameras could be adjusted to be able to better monitor spaces. Designers should consider including in their contract a line item to visit buildings with security cameras to make any adjustments or changes to better meet the monitoring needs of the buildings owners.
Buildings placed in high crime neighborhoods and/or that have high-risk populations require greater security measures, but they should be installed as unobtrusively as possible so as not to alert unauthorized to their presence, and to minimize the institutionalized look of a jail or halfway house. Staff recommended that a silent alarm be installed under the desk in the event they feel threatened by a situation that would be aggravated by picking up the phone to contact police.

Buildings that have front desks, regardless of the status of the residents, should be designed with a secure place to keep packages for pick-up. It poses a security threat to staff and breach of confidentiality to have medications delivered and kept on an open desk top for later retrieval by the recipient. If a secure room cannot be created for non-U.S. mail deliveries, then perhaps a locked drawer under the front desk can be designated for medication safekeeping.

Clare Apartment staff stressed that they want to avoid an institutionalized aesthetic to the building and residents seem appreciate the care taken to design an attractive building that does not look community the socio-economic status or health status of the residents.
Key Design Recommendations

- Incorporate design features that maximize functions such as security and privacy;
- Security should be placed to maximize visual and active security monitoring functions;
- Consider separating private, confidential functions from public spaces.

Social: Community Room

The Community Room is a public room that provides the greatest opportunity for residents to express personal control over their activities, but it is not used as often as intended. Residents report that the large room does not include modern amenities, such as DVD players, cable television or wireless Internet access, that might draw them to use the room more frequently. Staff report that updated electronics are at risk of being stolen by residents and guests so there are no plans to add a DVD player to the television area.

The security issues are a valid reason for not updating the electronics. Adding wireless Internet access in the Community Room, and perhaps to the residential units, could be done in a manner that would protect the equipment and give residents access to the evolving technology that has become ubiquitous and a necessity in the lives of the general population.
One reason the room may not be more often is the large scale. The room is attractive and both staff and residents of Clare Apartments express they like the room and its location. It is clear that this room is an important feature, but the scale may be intimidating. A recommendation to reduce the room scale follows:

Figure 72 Community Room key findings, and graphics of current conditions and recommended changes.
In the case of Clare Apartments, if it can be done affordably, a way to bring the room into a comfortable would be to add folding partitions so that only a small, more intimate portion of the room could be used on a daily basis. The room could be opened up to more space as needed, then returned to the scaled down state.

Designers of supportive housing should continue to include rooms that remove the institutional aesthetic of assisted living environment of past through social program spaces, but the scale of such spaces should be adjustable if possible. Community Rooms should not be designed solely for maximum capacity, but rather as expandable spaces by dividing spaces for smaller groups that can be opened into successfully larger spaces. Residents would feel more comfortable in casual social spaces if it were of similar size as a typical residential living room space of 500-700 square feet.

To provide a more secure space and offer an opportunity for residents to take on a role in the management of their building, building owners can create room monitor positions for trustworthy residents to provide access and security in Community Rooms. They could maintain and check out updated electronics to residents, and provide access to the kitchen for resident socializing without fear of equipment theft.
**Key Design Recommendations**

- Design every day spaces, such as living room settings in appropriately scaled rooms. Livings room settings do not belong in conference room sized rooms;
- If there is limited space to create small, appropriately scaled rooms for different social programs, install room partitions when it not feasible to design multiple spaces of varying scales;
- Give users control over media and technology to promote individual independence and competency;
- Provide residential furnishings to promote a “home-like” setting.

**Social: Vending**

The vending machine area is another example of a space becoming an untended social program space. The machine is popular and visited regularly by residents and staff of Clare Apartments. In order to take advantage of the popularity of the space, there are only three minor recommendations that will be proposed at this time. The popularity of this space, right outside the door of the Community Room may be because the space is much smaller in scale and comfortable than the Community Room. One room was designed for resident socializing, but residents found another space they are more comfortable using for the same purpose.
It is hard to know if it is the space or the location of the vending machine that attracts informal conversations, but the same crowds could be enticed to use the Community Room more frequently by placing the vending machines in the Community Room.

If moving the vending machine is not an option, recognition of the unintended space should be acknowledged. Due to the unexpected popularity of this space for casual social encounters, perhaps seating could be installed to allow people to sit and talk next to the vending machines. In addition to the seating, residents and staff of Clare Housing both noted they wished a change machine had been installed adjacent to the vending machines, and it is recommended the change machine be installed if feasible for the convenience of staff and residents. The installation of change machines should not create a greater theft hazard than exists for the vending machines themselves.
<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>EXISTING CONDITION GRAPHIC</th>
<th>INTENDED USE</th>
<th>ACTUAL USE</th>
<th>FINDINGS</th>
<th>RECOMMENDATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vending</td>
<td></td>
<td>* Refreshment</td>
<td>* Casual social gathering</td>
<td>* Refreshment</td>
<td>* No change machine</td>
<td>* Noise carries to Community Room, Reception/Snack; up stairs: seating casual gatherings</td>
</tr>
</tbody>
</table>

**Figure 73 Vending area key findings and recommendations.**

The on-site investigation determined that the noise of the vending machine and the casual conversations that occur around the machines could be distracting to people using the Community Room and the Clare Housing offices. Designers should consider noise reduction flooring material to muffle the sound emitted from noise vending machines. Designers
should also consider the unintended and not only program for the intended but consider possible unintended space use and find ways to make it compatible with the original intention.

**Key Design Recommendations**

- Anticipate that people will make social spaces where none is intended and plan accordingly. Locate social spaces in naturally occurring circulation pathways and intersections;

- Include change machines to reduce resident dependency on staff for coins to purchase refreshments from vending machines;

- Design noise control measures to maximize harmony between adjacent spaces with incongruous noise tolerances.
Social: Patio

The popularity of the outdoor patio and adjacent garden is a clear indicator that the space is being used as intended. Recommendations to the site would be to include a variety of smaller spaces interspersed with paths. Patio seating is essential if designers want people to not only visit a space but also spend time in the location. If the site is located next to open space that includes a garden, such as that at Clare Apartments, designers can encourage exercise and use of the entire space by including paths and seating throughout the garden. The garden does not begin or end at its outermost edge but can extend as far as the property allows.

Residents and staff found the inclusion of the garden important and designers are encouraged to find opportunities to do the same in other similar housing settings. Residents reported it was relaxing to garden and meet other residents sharing the space. Gardening and social encounters are indicative of increased competence and positive social relationships, a goal of supportive housing.
<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>EXISTING CONDITION GRAPHIC</th>
<th>INTENDED USE</th>
<th>ACTUAL USE</th>
<th>FINDINGS</th>
<th>RECOMMENDATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Patio</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>annotations</td>
<td></td>
<td>* Formal/informal social gathering area</td>
<td>* Outdoor smoking area</td>
<td>* Low fence on one side does not serve as security barrier or provide privacy</td>
<td>* Provide privacy fence if desired or add path through decorative, low fence on south side of property.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Resident garden</td>
<td>* Intrequent formal socials</td>
<td>* Develop paths to encourage walking</td>
<td>* Provide visual control by reception/security</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Summer casual gatherings</td>
<td></td>
<td></td>
<td>* Advertise casual use for gardening and socializing</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>* Organize additional formal social events during evening/weekend times</td>
</tr>
</tbody>
</table>

Figure 74 Patio key findings and recommendations.
**Key Design Recommendations**

- Design public outdoor spaces to extend beyond the patio to the outer boundaries of the property;

- Design outdoor areas to encourage exercise and perambulation for people with disparate physical abilities.

- Outdoor social areas do not end at the end of the concrete patio pad. Try to find ways to extend the boundaries of the formal outdoor space with a mixture of paths and delineated social spaces.

**Support Services: Counseling, Nursing and Therapy**

Resident and staff feedback shows that Support Services play a large role in the daily lives of residents. Although the rooms function as intended, to provide access to counseling, skilled nursing and therapy, staff and residents of Clare Apartments both noted that the spaces are not as private as they would like. Of all the spaces, the findings from the staff feedback are the easiest to address and can provide an outline for how to program spaces in other buildings with similar functions.

Support Service space in Clare Apartments and any other building that provides similar programs should be secure and protect the confidentiality of the residents. It is curious that some of the program space is located within the Support Services office and other rooms are accessed from the public corridor. Staff that share duties should be able to travel
between offices within a single space. Clare Apartments should consider creating a single point of access through Support Services and enclose the corridor outside the nursing and therapy spaces into a Support Services. This change would provide greater security and privacy for staff to complete their functions. It is purely anecdotal, but it was reported in the resident focus groups that the whirlpool was out of service because of misuse by residents. Creating a single point of entry would allow staff better control of the use of the room.
Nursing offices should not be derived from general office space; they should be designed with the unique functions in mind. Specifically, nursing offices should provide the space and equipment for patient examinations, medication security and
hygiene. Nursing offices need sinks so that staff and patients can disinfect their hands without the need to travel outside of the office to do the same task.

Figure 76 Nursing support service key findings and recommendations.
It would be prohibitively expensive to add sinks to the existing Nursing offices but a simple reorganization of the space could provide the access to sinks that is lacking now, and ameliorate the issues related to privacy and confidentiality.

Clare Apartments should consider relocating the Nursing offices where the Therapy and Small Meeting/Therapy rooms are located presently. There is a restroom in the little used Therapy room that would be an asset to the Nursing office. As nurses are generally the ones that would be assisting residents with bathing, the nurses should have direct access to the restroom with the whirlpool. Staff would then be able to monitor the use of the whirlpool so that residents do not inadvertently damage the bathroom and plumbing. See the diagram on the following page for detail and an illustration of the recommended changes.
Figure 77 Therapy support services (including small meeting room) key findings and recommendations.

The use of the Small Meeting/Therapy room for resident phone calls appears to be an unintended uses that compromises staff and resident privacy and confidentiality. The phone is clearly needed by residents that do not have phones in their units, but the location of the phone would be more appropriate if placed in the Community Room or in the
unused space beneath stairs outside the Support Services offices. Presently staff reports that private telephone calls can be overheard in Support Services offices, and ostensibly, the inverse is true.

The larger recommendation to designers is that it is not enough to merely provide a space that can used for multiple functions; the space should be designed for each program and provide requisite amenities. Office space where medical care and confidential counseling occur should design to accommodate these functions specifically and avoid overlapping social meeting spaces with private office space.

**Key Design Recommendations**

- Spaces that require privacy and confidentiality should be protected from adjacent public spaces;

- Spaces where counseling and therapy are conducted should be afforded daylight and visibility to encourage use;

- Rooms with functions that include wound care, medication dispensing and other medical attention and require hygiene stations should have sinks and locked cabinetry included in the same room for staff and resident use.
Residential: Apartment Units

The recommendations for residential units are generalized for all residential apartment buildings and are not directly solely for Clare Apartments. The biggest recommendation to designers is to provide residents with options to control their environment to meet their individual comfort and tastes.

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>EXISTING CONDITION GRAPHIC</th>
<th>INTENDED USE</th>
<th>ACTUAL USE</th>
<th>FINDINGS</th>
<th>RECOMMENDATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Residential</td>
<td>* Residential</td>
<td>* Residential</td>
<td>* Big, custom windows prone to break</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Homeless prevention/intervention</td>
<td>* Homeless prevention/intervention</td>
<td>* East side rooms hot in summer/cold in winter</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Assisted living</td>
<td>* Assisted living</td>
<td>* Residents do not have individual thermostats</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>* Inadequate ventilation; Residents air units into corridor</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>* Scooters cannot enter unit</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Provide individual thermostat for greater personal control by residents.
* Provide better fitting screens on windows.
* Provide unit exterior ventilation to prevent fumes from entering public corridors.
* Survey residents to find if hearing/sight impaired individual needs are being met in their apartments (alarms, strobe lighting, etc.)
* Survey residents to discern if there is a greater demand/need for fully accessible units, i.e. scooters that cannot fit through units doors, tub cut-outs, etc.

Figure 78 Residential units key findings and recommendations
If a person is paying rent to live in an apartment, they rent the space and are ostensibly in control of their domain. Apartments should be designed with personal temperature controls if a person is paying rent and living independently. It was never discussed as to why that Clare Apartments residents are not provided with individual thermostats, but one can assume it to control the costs of heating and cooling the building. There are no individual utility meters for the apartments, just like in a hotel, but hotels still allow guests to adjust the temperature for personal comfort. Despite the lack of thermostats, one complaint that was repeated in the resident survey responses and focus groups was that residents would like more control over the heating and cooling of their apartments. Staff reported that residents on the warm east side of the building resort to opening their windows while their pre-set air conditioning is operating for additional cooling in the summer. This method is effective but wasteful. Window tinting on the east side of the building and individual temperature controls would be more energy efficient and would allow resident greater personal control over their private environment.

As was stated previously stated regarding custom windows in the General Clare Apartments Recommendations section, the large windows in the units are appreciated, but a standard size of large windows would be easier to maintain and repair when they break, because windows and window mechanisms break. Staff reported that window coverings are expensive to replace because of the custom size of the windows. Large, standard sized windows are available would perhaps be a cost-effective alternative that building owners would appreciate.
The Clare Apartments units are all handicapped accessible to some extent but residents that require full accessibility in the form of tub cutouts or equipment for the visually and/or hearing impaired may request accommodations be made in the form of alterations on a case by case basis. Clare Housing made the decision to not make all units completely accessible to avoid an institutionalized feel like in a hospital, but maintain a residential aesthetic while addressing the residents desire for greater accessibility. Accessible products are evolving and hospital units themselves are increasingly taking on a residential aesthetic to provide homelike comforts that can be soothing in an otherwise stressful environment. Natural flooring material, designed lighting applications, and window treatments such as curtains can minimize hospital like features and maintain a residential feel for spaces that should be adaptable to the evolving needs of the residents, particularly those of people living with HIV.

An example of residentialism (an expression coined by Stephen Verdeber, Ph.D.) in hospital settings can be found in modern birthing settings. Residentialism is an expression created to give a name to a medical facility design movement that seeks to recreate a homelike atmosphere in a medical setting to minimize patient stress and increase their comfort. Medical equipment in this type of setting is hidden behind artwork and comfortable furniture that is reminiscent of the kind found in living rooms, and beds are covered in comforters. Designers may be able to find inspiration by examining the residential design movement being implemented in modern hospitals. Additionally, modern hospices are thriving, and some of that may be attributed to the comfort that may provide comfort in an environment that is reminiscent of a home.
Key Design Recommendations

• Residents should be afforded controls in their apartment units to provide individual temperature control, personal comfort, and to encourage independence;

• Consideration for the orientation of the building to mitigate thermal gain should be taken into account and addressed accordingly. Orient the building, with the longest façade to the north and south, to minimize heat gain from east and west sun exposure.;

• Individual ventilation, lighting and temperature controls should be installed.
Residential: Residential Corridor Sitting Area

The inclusion of the Residential Corridor Seating Area was a good decision, but the execution rendered the space useless. By order of the fire marshal, the space is closed to residents and no seating is provided. It appears to be a missed opportunity that the staff regrets is not available to residents. If the problem was one of fire suppression and containment, it would not be nearly as attractive but a space with a fire door could be provided in future designs. A more attractive alternative that allow for the space to remain open but provide the requisite fire protection would be the installation of fire ventilation and sprinkler equipment, coupled with a fire rated bulkhead to minimize the amount of fire and noise that escapes into the corridor.

Designers should not abandon sitting nooks on residential corridors, but should find ways to integrate inconspicuous fire control into the design so avoid the experience of Clare Apartments. The casual sitting nooks provide an opportunity for social network building and casual encounters that support resident social and mental well-being.
<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>EXISTING CONDITION GRAPHIC</th>
<th>INTENDED USE</th>
<th>ACTUAL USE</th>
<th>FINDINGS</th>
<th>RECOMMENDATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sitting Area (Nook)</td>
<td></td>
<td>*Residential Corridor Casual Social Gathering Area</td>
<td>Not in use</td>
<td>* Use prohibited by fire marshal * No seating * At different area in corridor from public laundry/exercise rooms to maximize social opportunity * No fire suppression and ventilation * No noise containment design</td>
<td>* Add fire-rated bulkhead (doorless) at ceiling threshold to room, and exterior ventilation in case of fire. This may mitigate any concern about fire safety. * Add comfortable lounge seating and lighting in nooks for residents' comfort. * Provide noise containment system to keep social conversations from disturbing residents in their units * Bulkhead could minimize conversation noise traveling into corridor.</td>
</tr>
</tbody>
</table>

Figure 79 Residential corridor sitting area key findings and recommendations.
Key Design Recommendations

- Informal social areas should be included throughout the building and provide prime social networking opportunities;

- Open social spaces (corridor) should include unobtrusive fire control measures, ventilation and noise controls to avoid disturbing neighbors (public/private incongruity).
Residential: Laundry/Exercise Rooms

There are very few recommendations to be made regarding the laundry/exercise rooms. They serve an important function in the care and physical well-being of residents of Clare Apartments. Designers may have missed an opportunity for casual social encounters and learning between residents by not including seating and a larger space in both the laundry and exercise rooms. Clare Apartments staff shared that there are residents that arrive at Clare Apartments unable to wash their own clothes because they have not developed life skills that many people take for granted. Clare Apartments provide training on how to do laundry as needed, to improve resident competency and support self-sufficiency.

Residents currently congregate at the Reception/Security front desk for casual social encounters. Seating in the laundry/exercise rooms could provide an alternative with greater privacy for resident and staff conversations alike. Residents have expressed that they like the idea of a social space on each floor, but congregating in the corridor would create noise issues for people in their apartments. A compromise would be for seating to be added in the closed laundry and exercise rooms.
<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>EXISTING CONDITION GRAPHIC</th>
<th>INTENDED USE</th>
<th>ACTUAL USE</th>
<th>FINDINGS</th>
<th>RECOMMENDATIONS</th>
</tr>
</thead>
</table>
|            | Laundry Room | ![Laundry Room Diagram](image) | * Laundry  
* Resident life skills development | * Laundry  
* Resident life skills development  
* Casual resident socializing | * No seating for socializing  
* Scooters cannot enter room (not fully accessible)  
* Door too heavy to open for some residents | * If possible, place seating within room. |

Figure 80 Residential laundry room key findings and recommendations.
<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>SPACE AREA</th>
<th>EXISTING CONDITION GRAPHIC</th>
<th>INTENDED USE</th>
<th>ACTUAL USE</th>
<th>FINDINGS</th>
<th>RECOMMENDATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exercise Room</td>
<td><img src="image" alt="Exercise Room Diagram" /></td>
<td>* Resident exercise</td>
<td>* Resident exercise</td>
<td>* No room for seating for socializing</td>
<td>* Advertise exercise room, perhaps by offering demonstrations.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>* Health/wellness promotion</td>
<td>* Health/wellness promotion</td>
<td>* Scooters cannot enter room (not fully accessible)</td>
<td>* Remove unused equipment to provide more space and incentive to workout.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>* Casual resident socializing</td>
<td></td>
<td>* Door too heavy to open for some residents</td>
<td>* Add mirrors and fans for user comfort.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>* Small, cramped room</td>
<td>* Add chairs if possible.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>* Unknown to residents</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>* Too much equipment in room</td>
<td></td>
</tr>
</tbody>
</table>

Figure 81 Residential exercise room key findings and recommendations.
Key Design Recommendations

- Laundry and exercise rooms afford opportunities for casual social encounters and should be designed to include this activity with seating;

- Space beyond the initial programmed function should be included to take advantage of unanticipated casual socializing that occurs in laundry and exercise rooms;

- Laundry and exercise rooms should located in residential areas for maximum visibility and to encourage use by residents and guests.
CHAPTER SIX

CONCLUSION

According to Clare Apartments’ staff and resident investigation responses, the building provides an overall satisfactory environment where residents and staff report that resident physical and mental well-being has improved since moving to Clare Apartments. Residents have developed a strong relationship with staff and report staff are overall knowledgeable and supportive of residents, and have a positive professional relationship with residents. By that measure, the building and its programs are successful in meeting the intended outcomes of promoting the optimum physiological and mental well-being of the residents. Behind this report of satisfaction lies a desire of both staff and residents of Clare Apartments to have more control over the environment to meet their comfort, privacy and personal needs. Addressing this desire for quality could potentially increase staff and resident satisfaction and offer the means for residents to adapt to the space and become more independent, a measure of increased competency that is an indicator of an efficacious environment.

Clare Apartments staff expressed that the design goal was to provide homeless intervention in independent housing that eschewed an institutional aesthetic. Designers can unwittingly promote or undermine this principal if they do not understand the wants and needs of staff and residents. Evidence based design can provide documented, quantifiable evidence of design elements that are efficacious and promote personal competency amongst resident populations in
supportive housing types. In the case of Clare Apartments residents, residence expressed a desire for more control over their environment. This expression for greater control is indicative of the ability for greater personal competency and should be promoted by design solutions.

The demand for Supportive Housing will increase as the populating living with HIV/AIDS ages. The case study analysis of Clare Apartments shows that residents report improved physical and mental health, demonstrating that the intended outcomes of the building are being realized. However, the same case study indicates that resident desire and ability to increase their personal competence if they can be afforded greater control over their environment. At this time the building presses on the competency of residents, but that can be addressed through some minor building design and program changes such as relocating the Reception/Security front desk, enclosing the Support Services offices and providing casual seating on residential floors and the vending area.

Clare Housing’s goal to avoid an institutional feel for the building appears to be in line with current thinking on the form supportive housing should take in the future. But merely avoiding an institutional aesthetic does not remove the vestiges of institutionalization as manifested through a lack of personal control over apartment temperature, access to modern entertainment electronics and compromised privacy concerns. Designers have the skills and can gain the knowledge to help owner-clients provide the desired level of control to residents in an affordable and aesthetically pleasing manner that avoids not only an institutionalized look, but also the overall continued institutionalization of the residents.
At every opportunity focus groups and surveys should be conducted to evaluate intended and untended outcomes for each major design decision to see if it promotes or presses resident competency growth.
Next Steps

The immediate implications of offering more control to residents would be increased satisfaction with the building design, amenities and services. The only area where residents reported slightly lower positive mental well-being outcomes could be addressed by providing residents with more environmental control, and opportunities to increase self-sufficiency and independence (competency). It would be interesting to complete a comparative analysis of supportive housing design types built within the last ten years to discern what design assumptions are reported to support increased resident competence.

Following the publishing of this thesis manuscript, it is the investigator's intent to write and submit an article outlining the general findings and recommendations found within this document to provide evidence-based design guidelines to architects, designers, building developers and owners of supportive housing.

As it would be interesting to study designs that promote competency, a study should be completed that could determine what elements in a building suppressed resident competency, and which elements promote resident competency. Other case studies of comparable supportive building types should be conducted to:

- Measure overall satisfaction with building design, staff and programs;
- Document design elements that give residents personal control of their residential environment;
• Measure resident competency in the comparable buildings;

• Develop design guidelines that illustrate design elements that give residents control over their environment and can be associated with higher personal competency.

A series of diagrams comparing key findings across multiple case studies could reveal what design features promote or suppress competency for HIV positive residents living in supportive housing, illustrating design features that help achieve optimum competency. These findings could be developed with illustrations and shared with designers of supportive assisted living environments as evidence based design guidelines prior to beginning schematic design. Areas that emerged from this study to be addressed in a set of design guidelines include standardize windows, building orientation considerations, the inclusion of as many personal controls for residents and staff as possible, and casual community social areas of varying scales from living room sized to large conference sized room.
APPENDICES

Appendix A: Resident/Staff Focus Group Questions

Please indicate ☒ status of focus group participants

<table>
<thead>
<tr>
<th>#_______</th>
<th>#_______</th>
<th>#_______</th>
<th>#_______</th>
<th>#_______</th>
<th>#_______</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resident Only</td>
<td>Resident-Clare Housing Staff Member</td>
<td>Clare Housing Staff Member</td>
<td>Clare Apartment Building Management</td>
<td>Clare Housing Contract Employee</td>
<td>Other, please specify ______</td>
</tr>
</tbody>
</table>

INVESTIGATOR INITIALS:
DATE OF FOCUS GROUP:
FOCUS GROUP TYPE (Resident or Staff)
Please indicate □ your level of AGREEMENT/DISAGREEMENT with the following statements:

<table>
<thead>
<tr>
<th>OVERALL WELL-BEING</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESIDENT physical health improves upon moving to Clare Apartments.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RESIDENT mental health improves upon moving to Clare Apartments.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RESIDENTS have developed positive social relationships with other Clare Apartment building residents.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RESIDENTS have developed positive professional relationships with Clare Housing employees.</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Please indicate how OFTEN RESIDENTS use the following services, WHERE they receive those services, and where they PREFER to receive the services:

<table>
<thead>
<tr>
<th>CLARE SUPPORT SERVICES</th>
<th>How Often do RESIDENTS use the following support services?</th>
<th>Where do RESIDENTS receive this service?</th>
<th>Where would RESIDENTS prefer to receive this service?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Always</td>
<td>Sometimes</td>
<td>Never</td>
</tr>
<tr>
<td>Medication dispensing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skilled nursing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment/Occupation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>counseling and education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-sufficiency support and counseling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AA/NA meetings†</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resident socials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Health Counseling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meal delivery</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIV transmission/treatment education/counseling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Services case management</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

† Removed from Resident Focus Group Questions to protect the confidentiality of AA/NA members.
Please indicate ☐ your level of AGREEMENT/DISAGREEMENT with the following statements:

<table>
<thead>
<tr>
<th>SATISFACTION WITH STAFF</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Clare housing staff if knowledgeable and supportive.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>RESIDENTS are satisfied with the support services offered.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>RESIDENTS are satisfied with the level of social activities offered at Clare Apartments.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Staff is open to social activities/supportive services suggestions.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Please indicate ☐ your level of AGREEMENT/DISAGREEMENT with the following statements:

<table>
<thead>
<tr>
<th>SOCIAL/SUPPORT SPACE</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The location of the nurse/support offices is in a convenient place.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The overall appearance of the nurse/support offices is attractive.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The nurse/support offices provide adequate privacy for patient appointments.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The location of the large resident lounge is located in a convenient place.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The overall appearance of the large resident lounge is attractive.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>A working Internet connection is available.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Sufficient entertainment media options (television, video games, video players) are available to residents and guests</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The location of the small meeting/program rooms is in a convenient place.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The overall appearances of the small meeting/programs rooms are attractive.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Please indicate how often RESIDENTS use the large activity room to socialize:

<table>
<thead>
<tr>
<th>Never</th>
<th>Less than once a month</th>
<th>1-3 times a month</th>
<th>1 time a week</th>
<th>2 or more times a week</th>
<th>Not Applicable</th>
</tr>
</thead>
</table>

Please indicate how often RESIDENTS use the large activity room for non-social meetings:

<table>
<thead>
<tr>
<th>Never</th>
<th>Less than once a month</th>
<th>1-3 times a month</th>
<th>1 time a week</th>
<th>2 or more times a week</th>
<th>Not Applicable</th>
</tr>
</thead>
</table>
What support service would you like to see offered, if any, that are not currently available at Clare Housing? Please list your most important suggestion first, your second most important suggestion next, etc. If you have no suggestion, you may leave this section blank.

A. Suggestion:____________________________________________________________________________________

B. Suggestion:____________________________________________________________________________________

C. Suggestion:____________________________________________________________________________________
Appendix B: Resident Survey Questions

<table>
<thead>
<tr>
<th>Option</th>
<th>Number of Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 month</td>
<td>0</td>
</tr>
<tr>
<td>1 month – 12 months</td>
<td>1 – 12</td>
</tr>
<tr>
<td>Less than 1 year</td>
<td>13 – 36</td>
</tr>
<tr>
<td>1 – 2 years</td>
<td>37 – 72</td>
</tr>
<tr>
<td>3+ Years</td>
<td>73+</td>
</tr>
<tr>
<td>Other, please specify</td>
<td>Type your response here</td>
</tr>
</tbody>
</table>

CLARE APARTMENT CASE STUDY RESIDENT SURVEY

Please indicate how long have you been a resident of Clare Apartments:
Where did you live before moving into Clare Apartments?

☐ Owner-occupied home

☐ Rental

☐ Assisted Living

☐ Shelter

☐ Transitional Housing

☐ Efficiency/SRO

☐ Homeless

☐ Other, please specify

___________________________________________
How long were you living in your previous housing situation before moving to Clare Apartments:

- [ ] Less than 1 month
- [ ] 1 month – 12 months
- [ ] 1-2 years
- [ ] 3+ Years
- [ ] Other, please specify ________
- [ ] Not Applicable

How did you learn about Clare Apartments?

- [ ] Social worker/services referral
- [ ] Friend/family referral
- [ ] Shelter referral
- [ ] Doctor/Nurse referral
- [ ] Advertisement
- [ ] Online
Please indicate ☑️ your level of AGREEMENT/DISAGREEMENT with the following statements:

<table>
<thead>
<tr>
<th>OVERALL WELL-BEING</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My physical health has improved since moving to Clare Apartments.</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
</tr>
<tr>
<td>My mental health has improved since moving to Clare Apartments.</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
</tr>
<tr>
<td>I have developed positive social relationships with Clare Apartment building residents.</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
</tr>
<tr>
<td>I have developed positive professional relationships with Clare Housing employees.</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
</tr>
</tbody>
</table>
Please indicate how OFTEN you use the following services, WHERE you receive those services, and where you PREFER to receive the services:

<table>
<thead>
<tr>
<th>CLARE SUPPORT SERVICES</th>
<th>How Often do you use the following support services?</th>
<th>Where do you receive this service?</th>
<th>Where would you prefer to receive this service?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Always</td>
<td>Sometimes</td>
<td>Never</td>
</tr>
<tr>
<td>Medication dispensing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skilled nursing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment/Occupation counseling and education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-sufficiency support and counseling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AA/NA meetings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resident socials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Health Counseling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meal delivery</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIV transmission/treatment</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Please indicate ☐ your level of AGREEMENT/DISAGREEMENT with the following statements:

<table>
<thead>
<tr>
<th>SATISFACTION WITH STAFF</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Clare housing staff if knowledgeable and supportive.</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I am satisfied with the support services offered.</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I am satisfied with the level of social activities offered at Clare Apartments.</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Staff is open to social activities/supportive services suggestions.</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Please indicate ☐ your level of AGREEMENT/DISAGREEMENT with the following statements:

<table>
<thead>
<tr>
<th>SOCIAL/SUPPORT SPACE</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The location of the nurse/support offices is located in a convenient place.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The overall appearance of the nurse/support offices is attractive.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The nurse/support offices provide adequate privacy for patient appointments.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The location of the large resident lounge is located in a convenient place.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The overall appearance of the large resident lounge is attractive.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A working Internet connection is available.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sufficient entertainment media options (television, video games, video players) are available to residents and guests</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The location of the small meeting/program rooms is in a convenient place.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The overall appearance of the small meeting/programs rooms is attractive.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Please indicate how often you use the large activity room to socialize:

<table>
<thead>
<tr>
<th>Never</th>
<th>Less than once a month</th>
<th>1-3 times a month</th>
<th>1 time a week</th>
<th>2 or more times a week</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

Please indicate how often you use the large activity room for non-social meetings:

<table>
<thead>
<tr>
<th>Never</th>
<th>Less than once a month</th>
<th>1-3 times a month</th>
<th>1 time a week</th>
<th>2 or more times a week</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>
What support service would you like to see offered, if any, that are not currently available at Clare Housing? Please list your most important suggestion first, your second most important suggestion next, etc. If you have no suggestion, you may leave this section blank.

A. Suggestion:
____________________________________________________________________________________________

B. Suggestion:
____________________________________________________________________________________________

C. Suggestion:
____________________________________________________________________________________________

Thank you for taking the time to complete this survey.

Please place the completed survey in the attached envelope, seal it and return it to the secured box located in front of the kitchen window in the large activity room.
Appendix C: Clare Apartments Building Plans

Figure 82 Clare Apartments basement floor plan with support service and therapy areas highlighted.
Figure 83 Clare Apartments first floor plan with Reception/Security and the Community Room highlighted.
Figure 84 Second floor plan with residential apartment units, sitting area and laundry room highlighted.
Figure 85 Third floor residential floor plan with residential apartment units, sitting area and exercise room highlighted.
Figure 86 Fourth floor residential floor plan with residential apartment units, sitting area and laundry room highlighted.
CREDITS

9. Personal Image
10. Personal Image
11. Personal Image
13. Personal Image
14. Personal Image
15. Personal Image
33. Personal Image
34. Personal Image
35. Personal Image
36. Personal Image
37. Personal Image
38. Personal Image
39. Personal Image
40. Personal Image
41. Personal Image
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74. Personal Image
75. Personal Image
76. Personal Image
77. Personal Image
78. Personal Image
79. Personal Image
80. Person Image
81. Person Image
82. Cermak Rhoades Architects (floor plan), colorization by author
83. Cermak Rhoades Architects (floor plan), colorization by author
84. Cermak Rhoades Architects (floor plan), colorization by author
85. Cermak Rhoades Architects (floor plan), colorization by author
86. Cermak Rhoades Architects (floor plan), colorization by author

Data Collection and Analysis Tools

- Qualtrics Online Survey Software: http://www.qualtrics.com
- Random Survey Number Generator: http://www.randomizer.org/
- RefWorks Bibliography Management System: http://www.clemson.edu/library/allsubjects/refworks.html
BIBLIOGRAPHY

Articles


• Clare Housing: Partners in AIDS Care. (Spring/Fall 2009). HIV/AIDS: Prevention, Treatment & Housing. Clare Housing. Minneapolis: Clare Housing.


• National AIDS Housing Coalition. (June 2009). HIV/AIDS Housing: Breaking the Link Between Homelessness and HIV.


Books


**Journals**


Web Sites

- AIDS Housing Corporation: http://www.ahc.org/
- AIDS Housing of Washington: http://www.buildingchanges.org/
- American FactFinder: http://FactFinder.census.gov/home/saff/main.html?_lang=en
- Bailey House: http://baileyhouse.org/
- Centers for Disease Control and Prevention: http://www.cdc.gov/hiv/resources/
- Cermak Rhoades Architects: http://www.cermakrhoades.com/clare.html
- Clare Housing: http://www.clarehousing.org/
• Corporation for Supportive Housing: http://www.csh.org/

• Gay Men’s Health Crisis: http://www.gmhc.org/

• Health Service Innovations: http://www.kff.org/hivaids/

• The Minnesota AIDS Project (MAP): http://www.mnaidsproject.org/

• National AIDS Housing Coalition: http://nationalaidshousing.org/

• POZ Magazine: http://www.poz.com/

• The BODY: http://www.thebody.com/