

Healing Beyond Housing:  
A Transitional Cohousing Complex for Survivors of Intimate Partner Violence

A practicum submitted to the Faculty of Graduate Studies of The University of Manitoba in partial fulfillment of  
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MASTER OF INTERIOR DESIGN

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## Abstract

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In the province of Alberta, Canada, instances of intimate partner violence (IPV) have risen far above that of other Canadian provinces. In particular, Aboriginal women experience violence at a significantly greater rate than non-Aboriginal women. Current resources, although instrumental, are simply not enough to respond to the need. This interior design practicum responds with a hypothetical, transitional cohousing complex for women and children. This housing complex allows women and children a safe environment to heal after experiencing violence and abuse. The interior design encompasses an expanded model of transitional housing which includes opportunities for social, therapeutic, cultural and educational activities to occur. This approach is informed by the overarching principles of community, supportive environments and human-nature relationships which are supported by Lifeboat theory, theory of Supportive Design, Biophilic Design and Restorative Environmental Design.

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## 1.0 INTRODUCTION AND CONTEXT

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1.1 Purpose and Typology

1.2 Key Terms

1.3 Project Goals

1.4 Research Questions

1.5 Design Inquiry

1.6 Biases and Limitations





## 1.1 Purpose and Typology

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*“The first sign of the physical abuse started not with hitting but pushing and grabbing. First came the apologies “I am so sorry I did not mean to grab you so hard but if you had only listened or did something right the first time we would have not had to go through that fight.” As time went on the abuse got worse and happened at a faster pace. He started punching and kicking and burning and cutting. I was hiding all this from people who loved me, so I had no one to turn to.”*

*(Rhia, n.d.)*

The above situation is an unimaginable scenario, but for hundreds of thousands of women around the world, this is a reality. These women are our mothers, sisters, aunts, caregivers, neighbours and co-workers. Violence against women does not discriminate against race, culture, age, or economic status. It has been occurring for hundreds, if not thousands of years and is still extremely prevalent to this day. For unknown reasons, the province of Alberta sees significantly higher rates of intimate partner violence (IPV) than any other province in Canada (Alberta Council of Women’s Shelters, 2008 p.9). As this unfortunate growth continues so does the need for safe housing, resources and a stronger commitment to seeking a more permanent solution to this crisis.

Currently, thirty-five emergency shelters are available throughout the province, however, not nearly enough to meet the demand. Each shelter is only able to provide a maximum of twenty-

one days of care, as mandated by the provincial government. After twenty-one days women are required to seek their own living arrangements, which can prove to be a difficult task. Even with the current emergency shelters throughout the province, nearly 30,000 women were still denied help due to lack of resources during 2006-2007 alone (Alberta Council of Women's Shelters, 2008, p.5). Although essential, emergency shelters are unable to provide long-term support for women building independent lives following abuse.

Recognizing the staggering statistics and insufficient resources, the Alberta Council of Women's Shelters banded together in 2008 to produce a document titled *Second-Stage Shelters: Closing the Gap* as a plea to the communities of Alberta to consider establishing second-stage shelters in addition to the existing emergency shelters. A second-stage shelter, or transitional housing complex, is different than an emergency shelter in that it provides housing and resources for up to two years following the initial twenty-one day government-mandated maximum in an emergency shelter. It provides safe and affordable housing for those seeking to leave a situation of abuse and begin the healing process. By building networks of community and support, these transitional housing complexes become an invaluable asset to women in need. For some, safe and affordable housing is the only need. Many women are able to continue their jobs and provide for themselves and their children, but require quick access to safe housing until they are able to secure more a more permanent solution. For others, the needs may be slightly more complex. Some may also require employment resources, childcare, life-skills or further education. Regardless of the degree of support and resources needed, a transitional housing complex allows women and

children the ability to work towards healing and eventually independent living, within a supportive, home-like environment.

The goal of this practicum is to design a hypothetical, transitional cohousing complex in Alberta for women and children affected by intimate partner violence. Located in a residential neighbourhood of Calgary, Alberta, the complex is intended to provide safe housing and varying degrees of resources to meet the diverse needs of the residents. The complex can house up to 20 residents at any one time, as well as 4 staff members during business hours. The transitional housing complex functions similarly to a cohousing complex, that combines private dwellings with shared amenities to establish a small community within itself (Cohousing Network, n.d). One floor is dedicated to these communal, socialization spaces while another floor provides all the private apartment style units, hereafter called home units. A licensed daycare is also included. The daycare provides childcare for children within the transitional housing complex and children in the surrounding neighbourhood. It allows the community of the transitional housing complex to reach out into the neighbourhood and provide an essential service.

Due to the high instances of intimate partner violence observed amongst Aboriginal women it is evident there is a need for incorporating and supporting the Aboriginal culture within the transitional housing complex. The beliefs, traditions and healing practices of this culture are unique and require different environments for these to occur. At any one time it is likely there will be a strong presence of Aboriginal women living at the transitional housing complex and it is therefore important to ensure that each woman has the necessary resources to assist along their individual healing journey (see Section 2.5).

The creation of community within the transitional housing complex instills notions of a stable environment for both women and children and helps to enable experiences that foster healing and growth while aiding in the transition from a life violence and abuse to one of independence and self-empowerment.

## 1.2 Key Terms

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For the purpose of this project, key terminology is defined as follows:

**Emergency Shelter:** A shelter providing immediate 24/7 accommodations and resources for women and children leaving Intimate Partner Violence situations for a period of up to twenty-one days (Alberta Council of Women's Shelters, 2008, p.5)

**Transitional Housing Complex:** Temporary long-term housing for a period of up to two years following the initial twenty-one day period of an emergency shelter (Alberta Council of Women's Shelters, 2008, p.5)

**Home Unit:** The private apartment-style residences located within the transitional housing complex.

**Well-being:** A state of positive existence measured by emotion, engagement, relationships, meaning and purpose, and accomplishment (Seligman, 2011).



## 1.3 Project Goals

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The project goals for the transitional housing complex are:

1. Supportive Environment

To design an interior environment that not only meets the essential needs of its users, but plays a prominent role in aiding the healing process.

2. Cohousing

To facilitate a supportive community environment that balances private, semi-private and public spaces.

3. Human-Nature Connection

To promote human interaction with nature, in both interior and exterior environments, as a means of stress reduction, promoting happiness, aiding the healing process and supporting Aboriginal culture.

4. Reconciliation

To promote and support the traditions and practices of the Aboriginal culture.





## 1.4 Research Questions

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The following questions guide the research and design of the project:

1. How can the interior environment and spatial relationships be shaped to facilitate a supportive environment?
2. How can the interior environment contribute to establishing independence and self-empowerment among residents of the transitional housing complex?
3. How can the inclusion of biophilic design features contribute to the process of emotional and psychological healing occurring within residents of the transitional housing complex?

## **1.5 Design Inquiry**

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Two methods of investigation were used within the research portion of the project: background and theoretical considerations and a precedent study. The theoretical considerations outline previous, current and relevant research in all topic areas. Previous research allows for insight into the foundation of the topic while current research highlights advancements that have been made. It helps to provide direction, substance and aids in the creation of the theoretical framework. All areas of the theoretical considerations were utilized as a means of informing the design of the transitional housing complex. The precedents studied were selected after reviewing several built examples that embody the project goals and theoretical framework. Many practical examples exist, however the ones selected are the most relevant to the overall holistic approach of the transitional housing complex. This aids in the creation of design guidelines and design approaches that are applicable to the design of the transitional housing complex.

### **1.5.1 Background and Theoretical Considerations**

Chapter 2.0 is comprised of five major topics: intimate partner violence, supportive environments, cohousing, human-nature relationships and Aboriginal culture. Although much literature and research exists surrounding each of the five areas of review, key authors were reviewed for their approach and relevancy to the transitional housing complex goals. These authors

helped to shape my personal views of each topic and inevitably influenced the final proposed design.

In the first section, an overview of intimate partner violence is provided (see 2.1 Intimate Partner Violence). This includes background, history, and the effects on both women and children. The prevalence of intimate partner violence amongst Aboriginal women is also presented. Key authors studied here include Barbara Appleford, Debra Umberson, Kim Anderson as well as the Truth and Reconciliation Commission of Canada.

Section 2.2 is focused on the creation of environments that foster healing. Roger Ulrich's theory of Supportive Design is the key work in this topic area. I also reviewed work by Esther Sternberg, who is an expert on place and wellbeing.

Section 2.3 examines the cohousing movement including work by key authors Kathryn McCamant and Charles Durrett. This includes an analysis of cohousing, its benefits and applicability to transitional environments. Joan F. Sprague's Lifeboat theory is then examined for introducing cohousing into shelter and transitional environments.

Biophilic Design and Restorative Environmental Design are examined in Section 2.4 which includes research by Edward O. Wilson and Stephen Kellert. These help to inform design strategies that facilitate the connection between human and nature within an interior environment.

Finally, the Aboriginal culture is studied to create a greater understanding of the needs of the housing complex's primary residents (Section 2.5). Significantly greater numbers of Aboriginal women experience intimate partner violence as compared to non-Aboriginal women and therefore

it is critical to understand the historical context of the violence as well as culturally appropriate traditions for healing. Due to the ways in which Aboriginal culture has been suppressed throughout Canadian history, this is important to ensure the complex supports and celebrates traditions and values (discussed further in Section 2.1.2.)

### **1.5.2. Precedent Studies**

Precedent studies are useful tools prior to beginning the design development stages of a project. They provide insight into built environments that have found new ways of addressing a problem or incorporating a design approach. Studying precedents allows for personal reflection as to whether the solution is successful or not. Aspects that are studied include: building form, geometry, design language, theoretical approach, programmatic design and user groups among others. The outcomes of precedent studies help to inform future projects, just as the three precedents here have helped to inform the transitional housing complex.

Chapter 3.0 provides an overview of the study of three precedents exploring the healing process through interior design, cohousing, supportive environments, temporary housing and biophilia. The Okimaw Ohci Healing Lodge exemplifies an environment for Aboriginal women and mothers. The Alexandra Ellis Caring Cabin displays a supportive transitional home environment for families facing traumatic health trials and the Mt. Hood Community College Childcare Center highlights examples of biophilic design features within an environment centered around children.

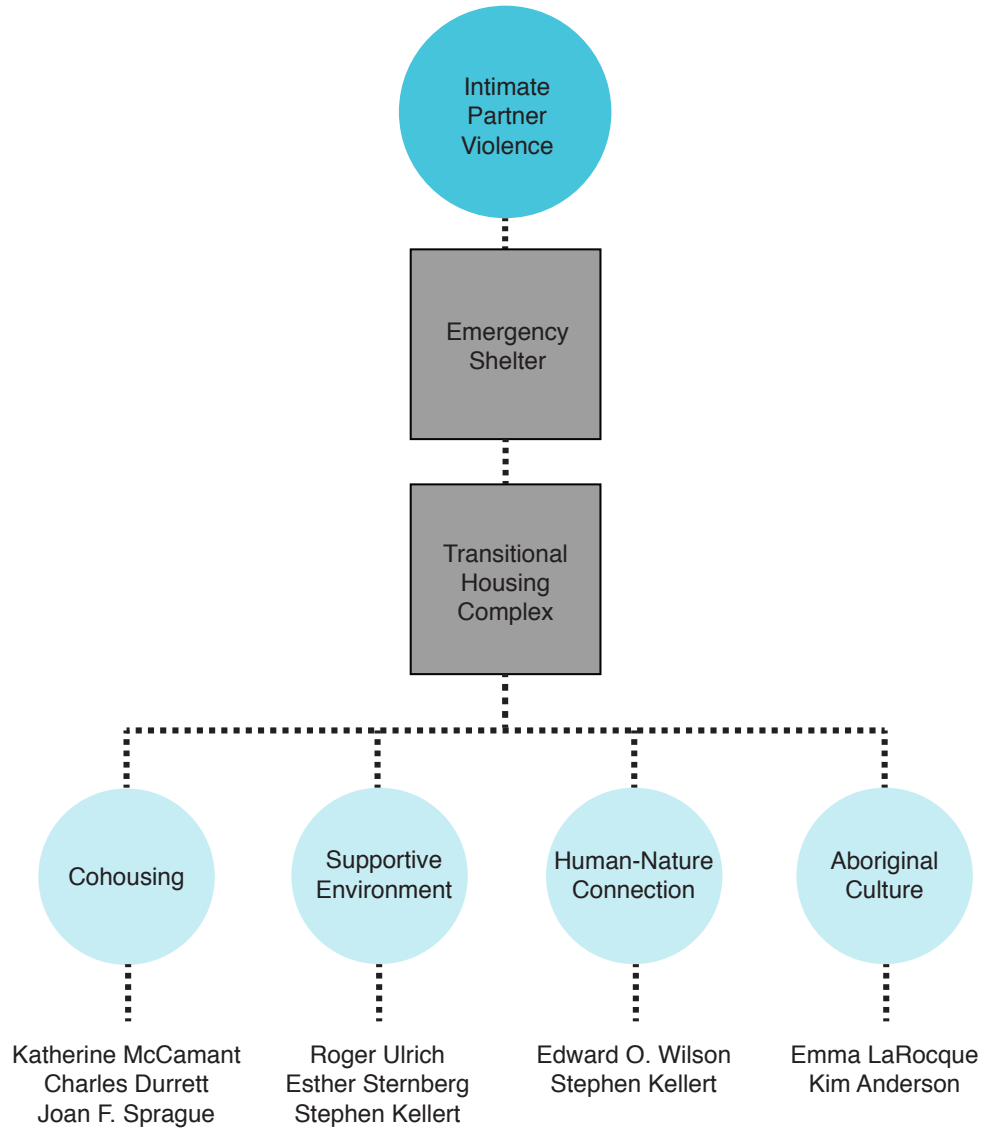


Figure 1- Theoretical Framework



## 1.6 Biases and Limitations

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Ideally, it would have been beneficial to meet with representatives with backgrounds in IPV and Aboriginal culture. This would provide another layer of insight and depth into the proposed design of the transitional housing complex and was not possible due to the limitations of this study.

To keep the design project to a manageable size, the program scope is limited to living quarters, common spaces and administration. Further investigation into early childhood development and childcare spaces would need to occur for full development of the daycare to take place.

Additionally, it is important to note that this is not the only solution for a transitional housing complex. There may be other design solutions that meet the required needs, however this one is specific to the province of Alberta and takes into consideration the Aboriginal culture through a design supportive of community.





## 2.0 BACKGROUND AND THEORETICAL CONSIDERATIONS

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2.1 Intimate Partner Violence

2.2 Supportive Environments

2.3 Cohousing

2.4 Human-Nature Connections

2.5 Aboriginal Culture

2.6 Chapter Summary and Conclusion

## 2.1. Intimate Partner Violence

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### 2.1.1. Introduction

Intimate partner violence is defined by the World Health Organization as “*any behaviour within an intimate relationship that causes physical, psychological or sexual harm to those in the relationship.*” (WHO, 2012).

This can include psychological, verbal and physical forms of abuse. Although the most common form is violence against a woman by a partner or ex-partner, males too can be victims of IPV. Statistics Canada estimates the ratio of female victims to male victims to be 80% to 20% respectively (2011). However, female victims are more likely to experience more severe forms of violence than male victims are and are therefore the sole focus of this practicum (Canadian Women’s Foundation, 2014, p.5).

Intimate partner violence has been occurring for centuries, often times behind closed doors. This secrecy has fueled the societal view that this is a

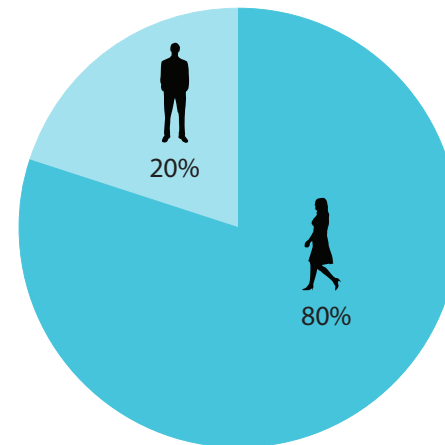


Figure 2-Percentage of Female and Male Victims Affected by IPV

private family matter (Appleford, 1989, p.4). Due to this belief, women who experience this violence often feel ashamed and avoid seeking help and assistance. Within Canada over 170,000 females report IPV to the police each year, however, that number is in fact likely to be much larger since thousands of cases are never reported (Statistics Canada, 2013, p.10). Statistics Canada (2014) estimates that around 70% of cases are never reported to authorities. This notion that violence is a private matter has become ingrained in the minds of both men and women, and has unfortunately played a role in deterring women from accessing the help they require. Of those reported to police in Canada, individuals aged 15-34 showed the greatest instances of IPV in 2011 (Statistics Canada, 2011).

Violence against women is a complex issue and cannot be explained using a formula or list of characteristics. Although certain situations such as a history of violence or poverty can play into the equation, IPV can affect a multitude of different women, from various backgrounds regardless of education or income (Statistics Canada, 2014). However, from a feminist perspective, gender discrepancies and inequalities between men and women play a prominent role in understanding why IPV occurs. The greatest inequality that exists between men and women in an intimate relationship is the distribution of power. Over time, society has accepted the notion that men hold greater power than women (Amaral, R. 2011). In fact, throughout history violence was often accepted as a social response to controlling and maintaining a household (Bergen, R. 1991, p. 178). Traditional rigid gender roles reinforce this notion and depict how society expects men and women to behave within an intimate relationship (Amaral, R. 2011). Based upon a hierarchical domination,

men are reinforced as the leader of the household and women are expected to submit and obey. Traditionally, this is how families and relationships existed and functioned according to gender roles. Even from childhood, children are inherently taught that boys are stronger and hold more power than girls do. This understanding is then carried through to adulthood and is reinforced, to this day, within cultural norms, politics, the media and the workplace (Canadian Women's Foundation, 2014, p. 4). It is not hard to understand then why a power inequality exists between men and women. Society, as a whole, is still largely under the false impression that males hold greater rank than females do, which promotes the inferiority and belittling of the female gender.

*“He told me what he expected from me. He told me that I shouldn't trust anyone in Canada because it is not safe: not to talk to anyone; not to lie to him ever; never ever cross him or question him about anything; and never try to manipulate him with my good looks and soft, sweet voice. On the top never, ever tell anything to my family members because it is our private matter and it is nobody's business. I should never step out of the apartment without him. If I followed his rules I would be a happy woman. He was only saying these things because he loved me and wanted to keep me safe.”*

(Nisha, 2013.)

Additionally, many men who abuse use violence as a tactic to gain, or reaffirm, a sense of personal control, as is evident in Nisha's story. Personal control, as defined by Debra Umberson, is

the “belief that one’s own intentions and behaviors can impose control over one’s environment” (as cited in Umberson, Anderson, Glick and Shapiro, 1998, p.443). Experiencing intimate partner violence has the ability to significantly decrease a woman’s sense of control, contributing to feelings of helplessness (Umberson at al., 1998, p. 443). Ironically, a quest for personal control by the abuser translates to a loss of personal control for the victim. When a perpetrator feels his sense of control is threatened he will often respond with violence in an attempt to regain or assert control over his partner (p. 444). This can be detrimental specifically when a woman is attempting to leave her violent partner. The act of leaving can be seen as a threat against the abuser’s sense of control and can cause the violence to continue, or in some cases, escalate.

### **2.1.2. Intimate Partner Violence and Aboriginal Women**

Intimate partner violence affects Aboriginal women at a significantly higher rate than non-Aboriginal women. Statistics Canada (2014) estimates that 40% of Aboriginal women are abused, compared to 29% of non-Aboriginal women. In fact, violence has become so expected that Aboriginal women who have not experienced abuse are seen as the exception (Anderson, 2000, p.55). The roots of this devastation are embedded in colonization and its subsequent effects on the Aboriginal population. Colonization refers to the arrival of Europeans to Canada, which resulted in the loss of land, resources and culture of the Aboriginal peoples (LaRocque, 1994, p.73). Colonization negatively affected Aboriginal populations across Canada, however, it arguably had the most detrimental effect on women (LaRocque, 1994, p.73).

Prior to Colonization, within an Aboriginal community, men and women held equal and balanced roles. Although men primarily worked as hunters, gatherers and providers and women primarily worked within the home, each respective gender learned and participated in each others roles whenever necessary (Anderson, 2000, p.59). This sharing of roles helped to fulfill the balance and harmony between men and women. Womanhood during this time was considered to be a sacred identity, one that was accompanied by a balance of power and position (Anderson, 2000, p.57). Women played an active role in their society, in politics and in decision making, a notion completely unheard of among European women at the time (Anderson, 2000, p.65). European society functioned in a highly patriarchal way, with men holding all the power and status and women holding little to none. When Europeans made the journey across to what is now Canada, their societal views of male dominated hierarchy also made the journey. In order to fulfill their quest for a new life on new land, they began to assert their power and control by revoking it from the Aboriginal women (Anderson, 2000, p.58). Not only did this allow patriarchy to flourish, but it also introduced racism and sexism into the equation (LaRocque, 1994, p.74). Women began to lose freedoms from traditional ways and in the process were objectified using the horrific term 'squaw' (LaRocque, 1994, p.74). This objectification made Aboriginal women vulnerable to violence, including physical, sexual and verbal (LaRocque, 1994, p.74). This began a downward spiral of the ultimate devaluation of Aboriginal women, which is unfortunately still evident to this day.

In the decades and centuries following Colonization, several additional events took place that further impacted Aboriginal peoples in increasingly negative ways. In the late 1800's the

Government of Canada partnered with Christian churches and created The Indian Residential School System. This school system's main purpose was to remove Aboriginal children from their communities, traditions and cultures and assimilate them into Canadian culture (Truth and Reconciliation Commission of Canada, 2012, p.5).

*“In order to educate the children properly, we must separate them from their families. Some people may say that this is hard, but if we want to civilize them we must do that.”*

Hector Langevin

(Truth and Reconciliation Commission of Canada, 2012, p.5)

Over the next 100 years, residents of these schools endured physical and sexual abuse, violence, separation from family, suppression of culture and even death at the expense of the government's desire for “civilization”. For many, entire childhoods were spent in these deplorable environments where violence was learned and experienced as part of everyday life. As a result, the ones who survived were burdened with the lasting impacts of the residential school system. (Truth and Reconciliation Commission of Canada, 2012, p.41)

The period from 1960 to approximately 1980 saw again devastation to the Aboriginal peoples across Canada in what is known as the ‘Sixties Scoop’. This saw thousands of Aboriginal children removed from their families and placed into foster care, where many were abused. Not only did this sever thousands of families, but it was another strong attempt by the government to

once again stifle the Aboriginal culture. Due to this twenty year period of removing children from their families there is a subsequent gap in the cycle of healthy and successful parenting and families (Truth and Reconciliation Commission of Canada, 2015, p.186).

*“...the effects of the residential school experience and the Sixties Scoop have adversely affected parenting skills and the success of many Aboriginal families.”*

(Truth and Reconciliation Commission of Canada, 2015, p.186)

These events have had a significant negative impact on Aboriginal culture and Aboriginal peoples. Although there were other negative relations between European settlers and Aboriginal peoples, these three events play a significant role in the devaluation of Aboriginal women that established their increased vulnerability to violence and abuse. The effects Colonization, residential schools and the Sixties Scoop had on Aboriginal populations, and particularly Aboriginal women, are extreme and long-lasting, with many still occurring today. By altering Aboriginal societies and traditions, Europeans, and subsequently Canadians, ultimately revoked the sacred identity of Aboriginal women and replaced it with an identity many are still fighting to shed.

### **2.1.3. Effects of Intimate Partner Violence on Women**

When a woman experiences intimate partner violence, either directly or indirectly, the consequences can be significant and long-lasting. Experiencing IPV does not affect just one aspect



of an individual's life, rather it has ripple effects inundating multiple aspects of an individual's life (Table 1). Effects can be physical, reproductive, psychological, social and financial. Many victims express feeling a loss of self-esteem, a loss of independence and worthlessness (Horrill & Berman, 2004, p.5). Some instances of IPV can be severe enough to induce Post Traumatic Stress Disorder (PTSD), a mental health condition triggered by witnessing or experiencing a terrifying event. According to Anderson, Renner & Danis as many as 80% of victims of IPV exhibit symptoms of PTSD (2012, p.1280). The impact of intimate partner violence can take multiple forms as is summarized in Table 1.

#### **2.1.4. Effects of Intimate Partner Violence on Children**

Children, of survivors of IPV, are equally, if not more so, affected by intimate partner violence. They can experience a host of repercussions similar to adults, including: aggression, antisocial behaviour, oppositional behaviour, anxiety, depression, withdrawal and low self-esteem (Stephens et al., 2008, p.149). This suggests that what is observed can have the same effects as what is experienced first-hand. Children are vulnerable and impressionable individuals and what they learn or witness in childhood has the risk of reoccurring later in life, as was the case for many Aboriginal children raised within the residential school systems. Whether a child experiences violence directly or indirectly, the seriousness of the repercussions warrant the need for specialized resources specifically for children, to reduce the risk of continuing a cycle of violence.

Often the focus of healing and recovery is placed heavily on the needs of the women with less emphasis on children involved. However, women's shelters can house more children than

**Table 1-Impacts of IPV (CDC, 2015).**

<b>Physical</b>	<b>Reproductive</b>	<b>Psychological</b>	<b>Social</b>
Asthma	Gynecological disorders	Anxiety	Restricted access to services
Bladder and kidney infections	Pelvic inflammatory disease	Depression	Strained relationships with health providers and employers
Circulatory conditions	Sexual dysfunction	Post-traumatic stress disorder (PTSD)	Isolation from social networks
Cardiovascular disease	Sexually transmitted infections	Antisocial behavior	Homelessness
Fibromyalgia	Preterm delivery	Suicidal behavior	
Irritable bowel syndrome	Low birth weight babies and perinatal deaths	Low self-esteem	
Chronic pain syndromes	Unintended pregnancy	Emotional detachment	Inability to trust others
Central nervous system disorders		Sleep disturbances	Fear of intimacy
Gastrointestinal disorders		Flashbacks	
Migraines			

women (Stephens et al., 2008, p.148). Understandably, economics play a significant role in the resources and programs offered by shelters as most rely on government funding and donations. Often it is the children's resources that get cut when funding becomes scarce (Stephens et al., 2008, p.151-152). However, with children directly and indirectly exposed to violence, resources should be equally distributed to include them.

When children visit an emergency shelter with their parent, many are lacking the full understanding of what has taken place. Some are too young to understand while others have been protected from the situation. This can create anger and confusion for these children who may feel as if they have been taken away from their home, and the life they have known (Stephens et al., 2008, p.152). Emergency shelter stays in Canada last only up to twenty-one days, which is not long enough to follow through on children's programming and counseling. The benefit of a transitional housing complex is that the duration of stay is much longer and therefore allows counseling or mentoring to occur, whether by therapists or Aboriginal elders. It also allows the formation of stable, trusting relationships to grow between child and therapist or between child and elder. If the cycle of violence is to be broken and lifelong recovery sustained, it is important to take into consideration the needs of everyone affected.

#### **2.1.5. Factors Associated With Leaving**

When analyzing intimate partner violence it is easy to ask the question "why wouldn't she just leave the situation to end the abuse?" However, leaving can prove to be a much more complex

task then it may seem. Several factors play into the decision of leaving and each has its own set of complications.

First and foremost, safety is the greatest concern for a woman in a situation of violence and abuse. The ultimate consequence of IPV is death, which is reason enough for many women to remain in the situation, despite the violence. Many fear the repercussions they might face if their partner catches them leaving. As was stated earlier, the act of leaving can also be seen by the perpetrator as a threat to his power as a man and he may use greater violence to regain control over the situation (Umberson et al., 1998, p. 444, Horrill and Berman, 2004, p.5). When children are involved in the equation, the decision becomes that much more difficult, as no parent wants to risk placing their children in any situation that compromises their safety. For many women, they feel it is safer to remain with their partner than to potentially face the repercussions of leaving.

Another prominent barrier that prevents someone from leaving a violent partner is income loss (Frisch & McKenzie as cited in Horrill & Berman, 2004, p.4). This also has the potential to bring with it the loss of additional health benefits (such as pharmaceutical or dental) which further increases the loss. This is even more critical to families relying on one income. If the source of income is removed so too is the means of supplying necessities. This alone is enough to convince some to stay, in particular, those with children to support.

Home loss is another factor in the decision to leave. If the individual does not personally own the home, the act of leaving can result in the loss of home. Understandably, losing a home can have a set back on emotional wellbeing as it is a personal place of refuge. It also removes a

necessity, shelter, from the equation. Almost immediately, an individual is faced with the task of finding living arrangements. Again, this becomes more critical for individuals with children to consider. In addition, if the home is removed from the equation, sometimes belongings such as clothing, furniture or personal items of sentimental value. Although many of these are possible to live without, it can have adverse emotional effects as it removes the familiar and personal items that help to comprise the feeling of home.

#### **2.1.6. Interior Design and IPV**

From the research investigated within this section it is evident there are gaps in the housing solutions available to women and children affected by intimate partner violence in Alberta. Many key authors identify factors relating to the problem of IPV, such as reasons why violence against women exists, however, many fail to identify ways in which to work towards a solution to the problem. The goal of the proposed design takes the “why change is needed” and translates it into “how change can be created.”

Conventional emergency and transitional housing often focus solely on providing safe accommodations (Sprague, 1991, p.45). Although this is a critical component, it fails to provide residents with an environment that facilitates a strong community of support. Due to the stigma associated with IPV and the societal belief that it is a private matter, many women become isolated. An interior design solution to this “why” is to create a transitional housing complex with multitudes of communal spaces for bonding, socializing and community development. These spaces then

provide the foundation for the walls of isolation to begin to be broken down. Likewise, creating spaces designed specifically for children addresses the concern raised by Nanette Stephens (Section 2.1.4.) that emergency shelters and transitional housing often lack resources tailored for children. This can be addressed through interior design with spaces that cater to creativity, exploration and play and environments that respond to the different age ranges of children.

### **2.1.7. Conclusion**

Although much has been done to bring resources to individuals affected by IPV across Canada, the province of Alberta sees higher rates than the rest of the country. Between 2006-2007 15,000 women and children were turned away from emergency shelters throughout the province, due to full capacity. Additionally, in 2015 Calgary police noted a 10% increase in reports of IPV from the previous year (CTV News, 2016). IPV is an ongoing problem in Alberta and is a snapshot of what is likely happening across Canada and around the world.

There is no one solution to this crisis against women and children, however, understanding how and why it happens is the first step. Understanding why Aboriginal women are at a greater risk for experiencing violence helps to form a foundation for a future built on reconciliation and cultural support. Understanding the challenges of leaving a violent relationship provides an understanding of critical resources that are needed to assist women and children when they do leave.

Understanding how intimate partner violence affects not only women, but children especially allows for resources and support to be specifically tailored for young and impressionable children.

Even in the face of the seemingly impossible challenge of bringing violence against women to an end, it is evident that resources and support are lacking for women and children who need a way out. Every child and every woman, from every race, culture, and background deserves the equal chance to live a life where safety is guaranteed, and not compromised. A life full of happiness and not fear. A life full of hope for the future. In Alberta in particular, these vulnerable citizens need more resources, more support and more long-term efforts to help them transition from situations of crisis to sustaining a new life, free of violence.





## 2.2 Supportive Environments

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### 2.2.1. Introduction

Through the previous analysis of intimate partner violence, it is evident the physical, emotional, and psychological injuries inflicted on individuals affected are severe and long-lasting. After the abuse has ended, survivors still face the daily task of recovering from what has happened. Research by Roger S. Ulrich, professor of architecture and expert of evidence-based healthcare design, suggests that it may be possible to mitigate the stresses of recovery and promote a healing and supportive environment. His theory of supportive design consists of a three-part framework of supportive interior environments. Each Ulrich's components play a role in connecting theories discussed later in this chapter, including biophilia and lifeboat theory (see Figure 3).

In the case of healthcare design, Ulrich (1991) found that a poorly designed physical environment can have adverse effects on patients by reducing overall positive well-being (p.97). When an environment is geared solely towards the function of the environment and fails to take into consideration the needs of the occupant it can become a source of stress that can bring about feelings of vulnerability, depression and even anxiety (p.97-98). Increases in stress levels can manifest as physical reactions including suppressed immune function, verbal outbursts, withdrawal, and in-activeness, all of which contribute to reduced well-being (p.98). The women and children living at the housing complex have experienced tremendous trauma, both physically and emotionally. To further reduce the well-being of these residents would contradict one of the

main purposes of the housing complex. In addition to providing safety, the transitional housing complex seeks to provide a positive and restorative environment for the healing process to occur. Therefore, the importance of Ulrich's findings are critical to ensure the environment created within the complex promotes, rather than hinders the healing and recovery process.

Although concentrated on healthcare applications, the evidence focuses primarily on creating interior environments that contribute to stress reduction as a means to improve well-being. For an environment to be considered stress reducing it should not produce any obstacles that cause stress or hinder stress-management. Victims of intimate partner violence, both women and children, have experienced significant physical, emotional and psychological stress, therefore, Ulrich's principles are beneficial in aiding the creation of a positive, supportive environment within the transitional housing complex.

Three factors comprise the theory of supportive design. Each of these individually, and as a whole, play a critical role in establishing a physical environment that contributes to the well-being of the residents. These principles include (Ulrich, 1991, p.97):

1. Sense of control
2. Access to social support
3. Access to positive distractions

### **2.2.2. Sense of Control**

According to Debra Umberson, personal control is the “belief that one’s own intentions and behaviors can impose control over one’s environment” (as cited in Umberson, Anderson, Glick and Shapiro, 1998, p.443). Providing residents with an environment that promotes healing and restoration is, in part, fulfilled by providing a sense of control. This contributes to developing a sense of ownership and feelings of self-empowerment. When control is absent, individuals are more likely to be depressed and inactive (Ulrich, 1991, p.100).

Having control over the environment is something the women within the housing complex are unlikely to have had. This is due to the previously mentioned power and control perpetrators use against their victims. Therefore, introducing women into an environment where they are given control, is important to promote independence and feelings of safety.

Temperature, lighting and furniture are design elements which, although well intended, can at times be an environmental stressor for individuals. Temperatures that are too warm or lights that are too bright can cause unnecessary stress if an individual is not able to personally manipulate them. For women coming from situations of violence and abuse, this could bring about negative feelings from the past where their perpetrator held all power and control.

Temperature controls, dimmable lights, mobile furniture, and security features all contribute to minimizing environmental stress within the housing complex. These design features are evident in the home units allowing each family to customize to their liking. In addition, home units are customized with artwork, bedding and decor selected by the residents upon move in.

This allows both women and children to create an environment that represents their personal definition and idea of home. Visual privacy, controllable televisions, accessible gardens, and areas that allow for personal hobbies are other instances that promote this sense of control (Ulrich, 1991, p.101-102). These design features may seem minor, but to individuals who have recently come from situations of little to no control, it can play a substantial role in rebuilding independence and feelings of safety.

A sense of control also manifests itself in the form of privacy. Within the housing complex, the personal control of privacy happens primarily within the home units. Social psychologist, Irwin Altman (1975) defines privacy as the “selective control of access to the self” (p.21). Altman’s Privacy Regulation theory (1975) helps to explain the connection between privacy and sense of control further. Privacy is a dynamic process dependent on different variables, particularly the environment (p.18). This can impact the promotion of self-empowerment and feelings of safety if privacy is allowed to be controlled by the individual. Within the home units, each family can allow, or not allow, other residents inside their personal retreat. Doors that lock from the inside provide residents with a barrier to create personal or family privacy as they see fit. Architecturally defined entryways, inward swinging entry doors to the home units and peepholes further add to the delineation between the public corridor and private home units which are also discussed later in Section 2.3.5.3.

In promoting social interaction among residents, it is important not to hinder one’s privacy (Ulrich, 1991, p.102). It is critical that balance is achieved between social situations and personal

privacy, which comes from the introduction of control as previously discussed. For some women, it is possible that social supports outside the complex such as family or friends, are not readily accessible or present. For those, the relationships formed within the housing complex become that much more critical.

### **2.2.3. Access to Social Support**

The second principle of Ulrich's theory of Supportive Design is providing access to social support, such as mentors, friends and neighbours. This embodies the aspect of community which establishes a clear link to both cohousing and Lifeboat theory (see Figure 3). A friendly conversation, interaction with a neighbour, or bonding among family and friends has the ability to reduce stress and improve well-being (Ulrich, 1991, p.101). Promoting stress-reduction and improved well-being within the transitional housing complex takes the form of the community zone. Inspired by the cohousing lifestyle of shared communal resources, a collection of extensive socialization and recreation spaces serve as the foundation for friendships to form and grow. To further encourage an active community of support is the addition of a communal kitchen. While residents are preparing, cooking or cleaning up, they have the opportunity to interact and socialize with others, further building and strengthening social bonds. Although each individual is unique, everyone who passes through the complex has experienced similar traumatic situations. Within Lifeboat theory, Sprague (1991) encourages residents to assist in providing mutual social support

(p.28). By removing hierarchies and promoting equality, women have the opportunity to learn from others by giving and receiving support.

#### **2.2.4. Access to Positive Distractions**

The final link in the theory of Supportive Design is access to positive distractions. A positive distraction is something that elicits positive emotions, reduces negative thoughts and captivates attention (Ulrich, 1991, p.102). Within Ulrich's evidence-based healthcare design research he found that patients tended to concentrate on negative, worrisome thoughts when positive distractions are absent (p.102). For women and children within the housing complex, focusing on negative thoughts could be similarly harmful to the healing progress. It is, therefore, essential to include distractions that have psychological and emotional benefit for both women and children. A potential source of positive distractions is nature and nature-based design features.

Biophilia, a term coined by Edward O. Wilson, is defined as “the innate tendency to focus on life and lifelike processes” and helps define a fluid connection between human and nature (1984, p.1). The benefit nature can have on humans is evident in its ability to elicit delight and promote relaxation. Biologically, human-nature contact benefits three systems – cognitive, psychological and physiological (Browning, Ryan, & Clancy, 2014, p.11). Fascinatingly, these mind-body systems correlate with the systems most affected by intimate partner violence. This suggests that a human-nature connection can play a role in healing the damage inflicted on both women and children affected by violence. Due to this correlation, the integration of nature is a critical component of the

spatial organizations and finish selections of the transitional housing complex.

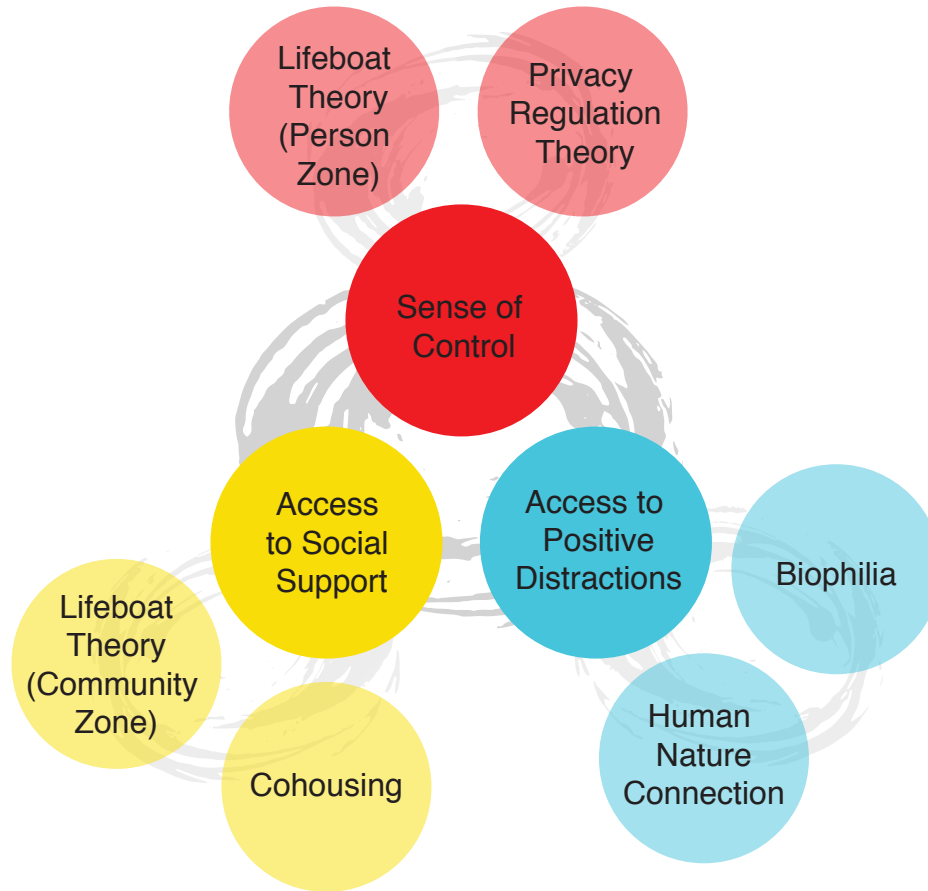
Although the greatest positive distraction is being physically immersed within nature, this is not always possible. In fact, there are three levels of nature integration including direct, indirect and symbolic. These three categories are covered in greater detail later in Section 2.4., however, it is important to understand the connection nature plays. Direct integration refers to immersion within nature as well as views from buildings into nature. Indirect integration encompasses second-hand images and references to nature such as artwork and textiles.

Artwork depicting landscapes, vegetation and animals have the ability to elicit the same positive effects that direct access to nature provides, including reduced stress levels (Ulrich, 1991, p.106) On the contrary, abstract art has the ability to increase stress levels and negative reactions, making it an inappropriate selection for the women and children within the housing complex (p.106). The final category of integration, symbolic representations, are experiential and take the form of wayfinding, places of refuge and attachment to place among others (Kellert & Calabrese, 2015, p.19)

### **2.2.5. Conclusion**

Although the target audience of Ulrich's research is healthcare related, his findings and design suggestions are easily transferable to the transitional housing complex due to the physical and psychological healing needs of survivors of IPV. Ulrich's recommendations help to establish a supportive, stress reducing, positive environment that fosters the healing process. By strategically implementing a sense of control through design features that offer choice the residents are able to gain independence, self-empowerment, and feelings of security. The strong community environment achieved through cohousing, as well as learning from one another, provides residents with social support. Finally, positive distractions take the form of direct, indirect and symbolic integrations with nature which have the ability to positively affect the women and children within the transitional housing complex.





*Figure 3-Theory of Supportive Design: Theoretical Connections*

## Summary of Theory

## Design Implications

Sense of Control

Lighting + temperature controls  
Mobile furniture  
Selection of artwork + decor  
Inward swinging doors  
Peepholes  
Lockable doors  
Key card access

Access to Social Support

Communal socializing areas of varying publicity  
Communal kitchen  
Pairing of doors to create neighbours

Access to Positive Distractions

Views to nature  
Secure access to nature  
Natural patterns  
Natural materials  
Natural finishes

## 2.3 Cohousing

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### 2.3.1 Introduction

Houses in North America are designed today much the same as they were decades ago, even though the families that inhabit them have changed drastically. Designed for a nuclear family of four, including a working father and stay-at-home mother, the typical single family detached home no longer aligns with the diversity of families today (McCamant & Durrett, 2011, p.4). The idea of family has adapted and expanded to include multitudes of dynamic household structures. As a result, many individuals and families are turning to the lifestyle of cohousing as an alternative housing model to better suit their needs. Cohousing is a combination of private residences and communal spaces that allow multiple families or individuals to live independently while reaping the benefits of an active community environment. The integration of common areas allow residents to socialize and share amenities and responsibilities.

Founders of the cohousing movement in the United States, Kathryn McCamant, and Charles Durrett became familiar with cohousing while studying architecture in Denmark. In their book *Creating Cohousing: Building Sustainable Communities*, McCamant and Durrett suggest five realities contribute to the decision of cohousing (2011, p.6):

1. Women's employment, particularly outside the home.
2. Fewer children per household.
3. More single individual households.

4. The desire for convenient, practical and social lifestyle.
5. The desire to live lighter on the planet.

### **2.3.2. History**

Cohousing is not a new typology. The first modern cohousing complex was constructed in 1972 outside of Copenhagen, Denmark. The driving force behind its development was the desire for a strong community environment (McCamant & Durrett, 2011, p.5). The complex is equipped with private residences as well as common spaces. The small homes allow each family to function on its own with sleeping quarters, a kitchen and a bathroom while the common spaces tie the facility together and lay the foundation for community, socialization, and sharing. The first modern North American cohousing complex was established in 1991, in Davis, California by McCamant and Durrett. As of 2011, there were over 120 cohousing complexes across North America (McCamant & Durrett, 2011, p.107). The success of this housing lifestyle is evident in the growth experienced over the last several decades. Participants of cohousing recognize its ability to simplify life, create strong social bonds and meet the needs of modern day families.

### 2.3.3. Goals of Cohousing

Establishing goals before construction or renovation begins plays a role in how successful the complex is at meeting user's needs. McCamant and Durrett (2011) examined case studies from 120 cohousing complexes throughout North America, the following characteristics reoccur throughout (p.111):

Expressing individuality	Encourage shared resources
Safety of children	Options for different energy levels
A place for large gatherings	Pleasant in winter
A place for rituals	Inclusive of generations
Places for conversations	Conducive to play
Balance of private + common spaces	Smaller private residences
Establish trust	Encourage indoor/outdoor flow
Inclusive of individuals	

#### **2.3.4. Implications for the Transitional Housing Complex**

Cohousing is a successful housing lifestyle based on the principle of supporting community. It also grew out of the desire for a lifestyle that better suits the needs of the ever-changing diversity of family. Within a transitional housing complex, both of these factors exist. One of the goals of the complex is to facilitate an active social community based on shared experiences, trust and friendship. Additionally, the families living at the housing complex will not have the traditional nuclear family of a father and a mother living under one roof. These factors combined make cohousing an ideal choice to guide spatial arrangements within the housing complex. Although participants of cohousing typically play key roles in the goal setting and design planning stages, this was not possible within the limits of this practicum project. However, a focus group consisting of volunteers with experience relating to IPV would be an invaluable resource to the design planning and design process stages of any future transitional housing projects.

For the purposes of this study the previously listed goals of cohousing, from McCamant and Durrett's *Cohousing: Building Sustainable Communities* were used, in addition to the literature on intimate partner violence to make decisions that will best suit the majority of residents. Interestingly, many of the goals of cohousing align with theories that are discussed within in this chapter including biophilic design (Section 2.4) and theory of Supportive Design (Section 2.2). The connection between transitional housing and cohousing will be further explored in the next section along with Joan F. Sprague's Lifeboat theory (Section 2.3.5).

## 2.3.5. Lifeboat Theory

### 2.3.5.1. Introduction

Accessing safe and affordable housing is a critical factor in a woman's success in leaving an abuser. Often an individual sacrifices their living accommodations when making the decision to leave an abusive relationship. Alternative living arrangements need to be secured, or homelessness can become a reality. Finding housing that is affordable can prove to be a tough task, particularly if the source of income has been removed or diminished. It is at this point, a transitional housing complex fills both the housing need and provides resources and support to make a fresh start. Joan F. Sprague's *More Than Housing* is a critical design resource for transitional housing and introduces

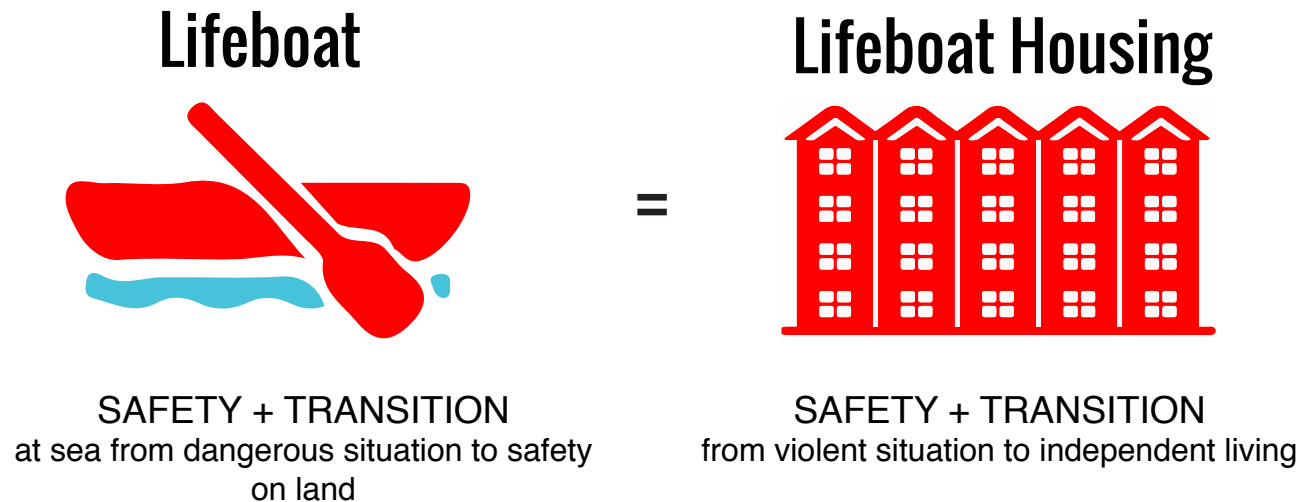


Figure 4-Lifeboat Theory

Lifeboat theory. The lifeboat is an analogy for temporary housing, such as a transitional housing complex, that functions much as a lifeboat does at sea. It provides safety during the transition between a dangerous situation at sea and safety on land. It is not a permanent solution, but it provides the necessities required immediately following the incident. Lifeboat housing, therefore, also provides safety during the transition from a situation of violence to self-sufficient, independent living. It also is not permanent, but it provides the necessary social and economic resources and support needed during the transition (Sprague, 1991, p.ix). What makes lifeboat housing successful is its stable home-like environment, provision of resources and creation of community through extensive communal spaces.

At the heart of Lifeboat theory are six theoretical zones, depicted in Figure 5, that extend out from each individual (Sprague, 1991, p.45-46). Helping to form spatial delineations and relationships, these zones can play a crucial role in the healing of residents living within transitional housing. By creating a structure based on the needs of vulnerable individuals, self-empowerment and independence fostered within the private and communal environments.

These zones consist of:

1. Personal zone
2. Household zone
3. Between household and community zone\*
4. Community zone
5. Between community and neighbourhood zone\*
6. Neighbourhood zone



*\*The two “between” zones occur occasionally, but not always, in lifeboat housing depending on spatial programming.*

### 2.3.5.2. Personal Zone

The *personal zone* encompasses environments where personal activities occur including sleeping, dressing, personal hygiene and contemplating (Sprague, 1992, p.47). It helps to delineate what is considered personal space for both women and children. This zone is critical as it allows individuals the opportunity for personal reflection and private time, away from a communal setting

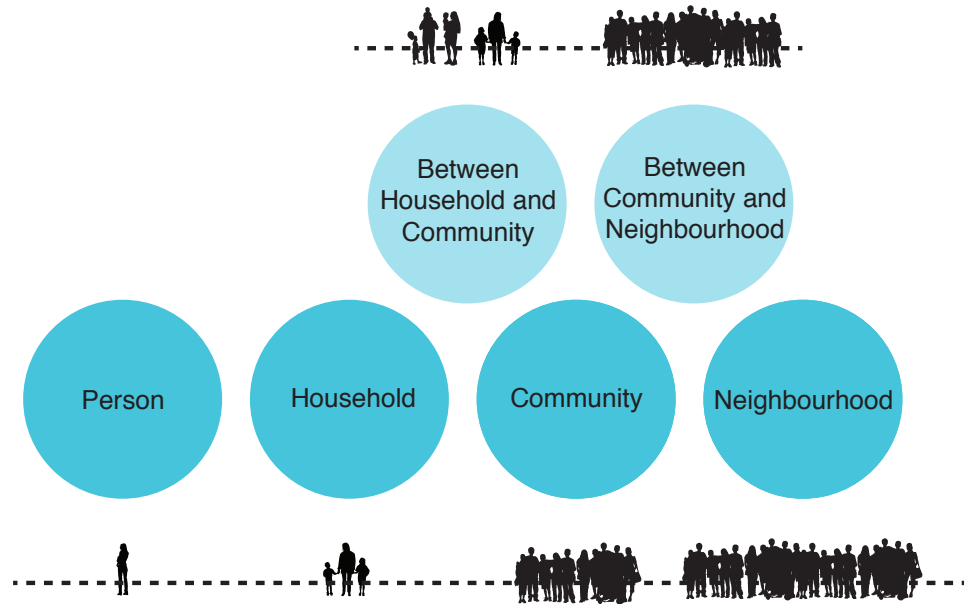


Figure 5-Lifeboat Zones

(p.48-49). In addition, the *personal zone* reinforces Ulrich's theory of Supportive Design component, sense of control, as it provides an environment the resident retains full control over.

#### **2.3.5.3. Household Zone**

The *household zone* consists of semi-private spaces for a family unit to exist and function together, away from other residents (Sprague, 1991, p.49). This zone can act as a retreat from communal and private areas, which further strengthens feelings of independence and ownership (Sprague, 1991, p.50). Spaces that fall within this zone include living rooms, small kitchens and dining areas. Typically, the *household zone* manifests as an apartment style unit ranging from 300 to 800 square feet (Sprague, 1991, p.50).

#### **2.3.5.4. Between Household and Community Zone**

Occurring in only some instances of lifeboat housing, the *between household and community zone* varies depending on the situation. Usually, these areas are shared amongst two or more families while limiting access to the rest of the housing complex community. (Sprague, 1991, p.53). A shared bathroom or apartment unit are prime examples of this between zone. In the same way that the household zone promotes family bonding, this between zone encourages bonding between residents who are not family within a semi-private shared space.

### **2.3.5.5. Community Zone**

The *community zone* plays a significant role in establishing bonds between residents within transition housing environments. This communal zone includes socialization spaces such as lounges, play areas and outdoor spaces, and communal areas such as kitchens and dining areas. These spaces provide the foundation for a social support system to be created.

In addition, the *community zone* provides the opportunity for residents to exchange knowledge and partake in informal learning, such as sharing a new recipe with residents in the kitchen (Sprague, 1991, p.56). For a single parent beginning to regain independence, this can be a valuable source of information. As with any shared space taking ownership and maintaining a standard of cleanliness can become an issue. Residents will be more likely to take ownership and maintain common spaces if they are home-like rather than institutional which impacts the material and finish selections of the transitional housing complex significantly (Sprague, 1991, p.58).

Sprague introduces the *community zone* and talks about its importance however, not enough emphasis is placed on this critical zone. This zone is often less emphasized within conventional transitional housing which removes the component of socialization and bonding. The *community zone* is essential in creating an environment that works at breaking down feelings of isolation and rebuilding a community based on support.

### **2.3.5.6. Between Community and Neighbourhood Zone**

The *between community and neighbourhood zone* encourages controlled and self-selected interaction with staff and the public. This can include administrative offices, social services, and small business's or essential services. According to Sprague (1991) the inclusion of a small business or service can help to bridge the gap between residents within a transitional housing environment and the surrounding neighbourhood (p.63). In particular, business's with heightened security measures, such as a licensed daycare, allows residents to interact with their neighbourhood in a secure, safe setting.

### **2.3.5.7. Neighbourhood Zone**

The *neighbourhood zone*, according to Sprague (1991) is the hypothetical equivalent of the harbor while the physical building itself is the lifeboat (p.65). A positive connection to the surrounding neighbourhood is critical for the lifeboat to stay afloat. In the context of the transitional housing complex, in this practicum, this zone consists of the surrounding neighbourhood of University Heights in Calgary, Alberta. Characteristics of a good neighbourhood include a stable population with good role models, stores that provide everyday necessities, opportunities for employment, playgrounds, a library, low crime rate, access to public transportation and strong community support (Sprague, 1991, p.65). Many of these amenities are found within the neighbourhood surrounding the housing complex and are discussed in more detail

in Chapter 4.0. Providing access to amenities creates the opportunity for women (and children) to establish a familiarity with their surroundings (p.65).

University Heights is a small residential community with an average population between the ages of 20 and 44 (City of Calgary 2014A), the same age group most affected by intimate partner violence in Canada (Statistics Canada, 2011). Immersing the housing complex within a safe community of a similar age group promotes bonding opportunities between residents and surrounding neighbours.

#### **2.3.5.8. Women's Advocates Emergency Shelter**

Aside from spatial zones, Sprague introduces case studies of lifeboat housing from across the United States. With a vast array of initial building typologies, numerous variations of housing have emerged across the country. With each typology comes unique challenges and learning experiences that contribute to the emerging body of knowledge surrounding transitional housing design.

In Minnesota, a prime example of lifeboat housing is the Women's Advocates Emergency Shelter. The conversion was complete after joining two residential homes together. Linking the two existing homes allowed greater square footage for communal space on the main floor with sleeping quarters and washrooms on the second floor. The shelter initially opened with a confidential address, believing this would provide its residents with the greatest amount of security. However, one year after opening the shelter felt confident in publicizing its address. The secrecy of location

was found to actually contribute to vulnerability amongst residents as many felt they were being hidden (Sprague, 1991, p.75). To keep the shelter running smoothly the residents also participate in tasks that keep the building up and running. Residents sign up to partake in cleaning, maintenance, yard work and child care which helps encourage responsibility (Sprague, 1991, p.75). Not only does this encourage ownership, but it also allows the residents to feel as though they are an important part of the shelter community as a whole. The creation of community is not restricted to just the communal areas of the shelter, it is also reinforced through the sharing of day-to-day tasks and functioning of the facility. Although this shelter is more temporary in nature than the transitional housing complex, it provides insight into successful instances of cohousing in a transitional environment.

#### **2.3.5.8. Design Considerations**

The idea of lifeboat housing is unique in that it takes on characteristics of a residential home, a detail that is often discouraged in mixed use buildings. Features such as identifiable front entryways and private outdoor play areas have been found to resonate this notion (Sprague, 1991, p.82). A building that physically represents the size and scale of the surrounding neighbourhood has also been shown to promote a greater acceptance by the surrounding community (p.40). The selected site for the housing complex in University Heights has been a part of the community since the 1960's therefore it is important to respect the history and integrity the physical building holds. Further explanation and exterior images can be found in Chapter 6.0.

Colour, furnishings and lighting play a significant role in creating a positive and comfortable environment, especially within the *community* and *personal zones* of the complex. A balance between durability and finishes that evoke feelings of home such as wood and tile floors, is critical to help to create an environment that appeals to residents. Within the transitional housing complex, industrial finishes have been avoided to prevent an institutional feeling. According to Sprague (1991) mobile furniture can play a significant role in reinforcing feelings of ownership (p.58). It allows for personalization as well as cultural and religious practices, such as prayers that require the user to be oriented in a certain direction. For those with cultural or religious ties this can play a significant role in reinforcing the sentiment of home.

### **2.3.5.9. Conclusion**

Framing the spatial organizations and relationships around Sprague's Lifeboat theory contributes to creating a positive, community-centered environment for women and children. Each of the spatial zones are critical to the physical functioning of the housing complex but also play a significant role in enabling independence and empowerment. In particular, the community zone is imperative to the success of the complex. Similar to cohousing, the community zone helps to reinforce the importance of the collective. The common spaces promote interactions and relationships at varying levels of energy and group sizes and provide a community of support and understanding. Residents are also given the opportunity to reinforce each other's sense of security by looking out for one another.

By building a foundation based on trust, friendships, community, and self-empowerment, residents of the complex have a greater chance of creating a successful life following abuse. It is this element that sets lifeboat housing apart from conventional transitional housing which is often absent of lasting resources and support and usually only includes the four spatial zones of person, household, community, and neighbourhood (Sprague, 1991, p.45). Although important, what is most lacking is the between community and neighbourhood zone. Even though it is classified as a between zone, its importance can not be understated. In keeping with the analogy of lifeboats, I imagine the between community and neighbourhood zone to manifest itself as a ship moored in the harbor. Providing stability and connection, the mooring prevents a boat from drifting away by itself. With this imagined, the housing complex, can reach into the surrounding community and form relationships and connections. The mooring prevents the complex from functioning as an entirely separate entity from its neighbourhood.

It is the hope that relationships formed both within the community and neighbourhood will continue and turn into lifelong friendships. For without the strong emphasis on building supportive relationships, the transitional housing complex's success would be compromised.



## Summary of Theory

## Design Implications

Creation of distinct spatial zones

Separation of private, semi-private and public spaces  
Architectural features to delineate privacies  
Varying sizes of furniture groupings to allow for different social interactions  
Mobile furniture

Prolonged length of care

Small housing units 300-800ft<sup>2</sup>  
Spaces for counseling, education, social and employment resources to occur

Emphasis on community

Different spaces for communal interaction  
Communal kitchen

Integration of home and childcare

On-site licensed daycare  
Interior connection and access to daycare

Integration with housing complex and neighbourhood

Maintaining visual identity of existing building

## 2.4 Human-Nature Connections

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*“... to the degree that we come to understand other organisms, we will place a greater value on them, and on ourselves.”*

(Wilson, 1984, p.2)

Roger Ulrich introduced the important role that nature plays in enhancing well-being within his theory of Supportive Design (Section 2.2). However, the notion of human-nature connections is not new. Humans have been aware of the importance of nature on well-being long before it was given a formal name. The term used to describe the innate connection between human and nature, *biophilia*, was coined by biologist Edward O. Wilson in 1979 (1984, p.1). He argues that due to inherent biological needs, humans are drawn to nature and natural processes (as cited in Kellert et al. 2008, p.3). Long before modern technology, our ancestors relied on the natural world to fulfill their needs, and as a result, an affinity for nature evolved (p.3). This is particularly evident within the Aboriginal culture that relies heavily on the spiritual connection to nature (see Section 2.5). Humans today are almost fully dependent on indoor built environments and continue to spend less and less time outdoors immersed within nature (Kellert, 2004, p.5). According to Judith Heerwagen, modern buildings exemplify this divide. Buildings absent of daylight, air, vegetation and natural materials do little to facilitate humans desire for a connection with nature (Heerwagen as cited in Kellert, 2004, p.5). Due to this phenomenon, Stephen Kellert, professor of social ecology, has

researched and studied the integration of nature and natural processes into built environments. This integration between nature and the built environment, is referred to as biophilic design.

### **2.4.1. Biophilic Design**

Biophilic design is a multi-faceted design approach to establishing a connection between human and nature through a built environment. The successful integration of biophilic design has the ability to positively affect three human body systems - cognitive, psychological and physiological (Browning, Ryan, & Clancy, 2014, p.11). As discussed earlier in this chapter (see Section 2.1.4) these body systems can also be negatively effected when a woman is abused. Therefore, integrating biophilic design into the transitional housing complex is important to help promote an environment that aids the healing process rather than hinders it. In addition to improving well-being, the integration of nature also has the ability to improve health, improve healing, promote relationships, reduce stress, improve work performance, improve intellectual performance and promote problem solving abilities (Kellert, 2005, p.12). Several research studies have investigated the beneficial effect nature has on human health and well-being. Nisbet, Zelenski, and Murphy (2011) found positive correlation between multifaceted connections to the natural world, including physical experience and direct views, and positive psychological health and well-being (p.321). Walking through nature within an urban environment and viewing images of nature have also been found to promote improved cognitive functioning (Berman, Jonides, & Kaplan, 2008, p.1211). Although these effects are beneficial to any human being, women and

children living at the transitional housing complex will particularly be able to benefit from the improvement of health and well-being, the promotion of relationships and reduction of stress. A reduction in stress has the ability to not only promote an individual's healing process, both physical and emotional, but it can also help to reduce physical manifestations such as withdrawal (Ulrich, 1991, p.98). Considering the potential emotional, psychological and physical effects the residents may be dealing with, an environment that fosters the healing process and reduction of stress is critical.

Biophilic design can be broken down into three categories - direct patterns, indirect patterns and symbolic patterns - each with their own subcategories of design elements (Browning et al., 2014, p.5). These can be incorporated into the interior and exterior environments to create an environment that embodies aspects of the natural world. Table 2 identifies the design elements of the direct, indirect and symbolic patterns.

#### **2.4.1.1. Direct Experience Patterns**

Direct experience patterns refer to the direct existence of nature. This includes sights, sounds, smells and feelings of natural elements. Vegetation, natural light, water features, green roofs, animal life and natural breezes all fall under this umbrella of direct experiences. The strength of these experiences comes from the direct contact, especially when facilitated through multi-sensory connections (Browning et al., 2014, p.9). Figure 6, Figure 7 and Figure 8 highlight examples of these direct nature connections. The sweet smell of the wildflowers and the soft mossy growth

on top of the rotten tree can be seen, touched, and felt on a direct level. In Figure 8, Casa Verne, the direct connection is the view to nature, which also brings in unfiltered daylight. Each of these, natural light, flowering plants, and vegetation can increase comfort, satisfaction, and enjoyment when experienced by humans (Kellert & Calabrese, 2015, p.11).

#### **2.4.1.2. Indirect Experience Patterns**

These patterns encompass the indirect existences of nature such as materials, shapes, patterns, colours and materials. Practical examples of these include furniture, decor, textiles, and finish materials (further explained in Table 2). For example, granite countertops are an indirect connection to the natural existence of granite rock, but have been removed from nature and significantly altered (Browning et al., 2014, p.9). Including elements such as these within a space introduces subtle connections between the user, nature, and environment. Figure 6 - Figure 8



*Figure 6-Wildflowers*



*Figure 7-Rotten tree and moss*



*Figure 8-Casa Verne*

highlight examples that showcase indirect experience patterns. Figure 9 at the Stayokay Hostel and Natuurpodium references the natural wood material through the hanging birch installation and the walk off mats designed to appear as if they are sections sliced from a tree. Figure 10 at the Tamedia Office Building uses structural wood details to bring an organic feel to the naturally day lit office. Finally, Figure 11, a DesignTex upholstery, references the pattern seen on leaves in nature. Each of these examples take the natural material, or pattern and apply it outside of its normal setting to instill notions of nature within an interior environment.

#### **2.4.1.3. Symbolic Patterns**

Symbolic patterns are the final category of biophilic patterns. These encompass the relationship humans have to space and place and architectural characteristics that emulate natural settings (specified in Table 2). Examples include culturally relevant design, points of refuge, clear and accessible paths of egress, wayfinding, clear transitions between spaces as well as spaces organized around a central focal point (Kellert & Calabrese, 2015, p.19). These help to create a more comfortable environment the user can connect with (Kellert & Calabrese, 2015, p.19).

Sternberg (2009) addresses the importance wayfinding can play in reducing stress within environments supportive of healing (p.138). Humans typically use two methods to wayfind: landmarks and grids (p.138). Landmarks elicit the brain's memory-making capabilities to orient within space while grids use a systematic approach such as north-south running streets and east-west running streets (p.138). However, both methods share the same goal of providing ease



*Figure 9- (Left) Stayokay Hostel and Natuurpodium  
Figure 10- (Middle) Tamedia Office Building  
Figure 11- (Right) DesignTex Upholstery Round Leaves*

and comfort for an individual to orient themselves. Within the transitional housing complex, a combined approach of landmarks and grids are employed. The play room acts as a landmark with its central location. Not only does this create ease of navigation but it provides mothers with direct sightlines to their children. The children, in essence, become the landmark in which communal activities radiate around. A simplified version of a grid is employed on all three levels of the complex. A horizontal corridor, with a similar location on each level, acts as the main circulation path. Using visual and systematic cues, the wayfinding methods employed aim to create an easily

accessible circulation system for women and children.

The National Centre for the Written Word in the United Kingdom shows both an example of organized complexity, as well as wayfinding (Figure 12). The organization of the interior atrium looks complicated at first glance, but it is simply a system of a staircase and pathways. It is easy for the eye to unravel the spiral and see the defined path of egress which can contribute to a sense of stress reduction to users (Kellert & Calabrese, 2015, p.19). Additionally, due to its size and central location, it functions as a landmark for wayfinding. Figure 13, at the 93/4 Bookstore + Cafe in Colombia is a prime example of prospect and refuge (Kellert & Calabrese, 2015, p.19). The hexagon shaped pods provide a sense of comfort and security by creating a shell around the user(s). Additionally, with the integration of height, the pod becomes a look-out for the user to observe what is happening around. Defined paths of egress and areas of prospect and refuge are a useful tool for creating an awareness of surroundings. Within the transitional housing complex, providing this awareness is extremely important to ensure peace of mind for women who have experienced



Figure 12- National Centre for the Written Word



Figure 13- 93/4 Bookstore + Cafe



significant trauma and abuse. This can include sightlines to children, and sightlines to entrances and exits. This enables residents to keep watch over their children and see who is entering or leaving the complex, promoting peace of mind and supporting feelings of security.

#### **2.4.2. Biophilic Design Elements**

Biophilic design patterns - direct, indirect and symbolic - can be broken down further into six categories that help in their classification: environmental features, natural shapes and forms, light and space, place based relationships and evolved human-nature relationships. Kellert (2008) identifies a total of 70 design elements that fall into these six categories (p.15). Table 2 identifies the 70 design elements.

The extensive classification identifies numerous ways in which an environment can be structured to promote human-nature relationships. The six categories allow for easier identification if a certain goal was being sought within an environment, however, the culmination of 70 attributes can be slightly difficult to follow and ultimately comprehend. In fact, many of the design patterns appear to fall under multiple categories, for example, the repetition of light and daylight. While many are relevant and applicable, Kellert's classification is a personal interpretation of strategies for integrating biophilic design.

Within the transitional housing complex environmental features, light and space and natural shapes and forms contribute most significantly to the interior environments. These categories encompass patterns of daylight, views, immersion within nature and natural materials

which represent the most well-known strategies for integrating biophilic design (Callaghan and Mallory-Hill, 2016, p. 7). The outdoor area contributes greatly to the integration of views and immersion within nature.

**Table 2-Biophilic Design Patterns**

ENVIRONMENTAL FEATURES	NATURAL SHAPES AND FORMS	NATURAL PATTERNS AND PROCESSES
Colour	Botanical Motifs	Sensory Variability
Water	Tree and Columnar Supports	Information Richness
Air	Animal Motifs	Age, Change and Patina of Time
Sunlight	Shells and Spirals	Growth and Efflorescence
Plants	Egg, Oval and Tubular Forms	Central Focal Point
Animals	Arches, Vaults and Domes	Patterned Wholes
Natural Materials	Shapes Resisting Straight	Bounded Spaces
Views and Vistas	Lines	Transitional Spaces
Facade Greening	Simulation of Natural Features	Linked Series and Chains
Geology and	Biomorphy	Integration of Parts to Wholes
Landscape	Geomorphology	Complimentary Contrasts
Habitats and Ecosystems	Biomimicry	Dynamic Balance and Tension
Fire		Fractals
		Hierarchically Organized Ratios and Scales

Light and Space	Place Based Relationships	Evolved Human-Nature Relationships
Natural Daylight	Geographic Connection to Place	Prospect and Refuge
Filtered and Diffuse Light	Historic Connection to Place	Order and Complexity
Light and Shadow	Cultural Connection to Place	Curiosity and Enticement
Reflected Light	Indigenous Materials	Change and Metamorphosis
Light Pools	Landscape Orientation	Security and Protection
Warm Light	Landscape Features that Define Building	Mastery and Control
Light as Shape and Form	Landscape Ecology	Affection and Attachment
	Integration of Culture and Ecology	Attraction and Beauty
Spaciousness	Spirit of Place	Exploration and Discovery
Spatial Variability	Avoiding Placelessness	Information and Cognition
Space and Shape and Form		Fear and Awe
Spatial Harmony		Reverence and Spirituality
Inside-Outside Spaces		

### **2.4.3. Restorative Environmental Design**

Another important goal for the transitional housing complex is to have a low environmental impact. It would be counteractive to design an interior that facilitates contact with nature without considering its effects on the environment. Restorative environmental design seeks to prevent a disconnect between built environment and natural environment by promoting a holistic relationship (p.93). It combines the principles of low environmental impact design with the principles of biophilic design. Therefore introducing reduction strategies is an important component of managing the transitional housing complex's environmental imprint. At the heart of restorative environmental design are two guiding principles:

1. To reduce the adverse effects the built environment has on the environment, natural resources and humans (p.93)
2. To facilitate human-nature relationships within the built environment (p.93)

Strategies that aim to reduce to impact the built environment has on the natural environment include solar energy collection, passive ventilation and low-flow fixtures and toilets. These contribute to reducing electricity and water demands. In addition, the majority of selected finishes and furniture are low-emitting, and where possible, Green Seal certified. This helps contribute to the indoor air quality of the transitional housing complex which in turn positively supports the health of the residents.

The facilitation of human-nature relationships within the built environment comes from the implementation of nature-based design features discussed previously in Section 2.4.2.

#### **2.4.4. Conclusion**

In summary, biophilic design encompasses many factors, strategies, and elements that enable human-nature connections. As research by Edward O. Wilson, Stephen Kellert, and others have shown, positive human-nature connections have significant benefit on human processes. By providing opportunities for humans to experience nature, even within indoor environments, the healing process is supported. As the transitional housing complex is an environment that provides safety during the healing journey of women and children, it is important for it to promote and foster health, healing, and positive well-being. This integration of nature-based design features is one method of achieving a beneficial and supportive environment.

While the housing complex employs strategies to reduce environmental impact, the focus is heavily placed on promoting the positive interactions between human and nature. In particular, biophilic design features such as: views, vegetation and natural daylight are at the forefront of the design to help residents feel comfortable and relaxed in their new home setting. Supplemented by natural colours, materials, shapes, patterns and geometries the connection to nature is further strengthened. By incorporating biophilic design through direct, indirect and symbolic means, the housing complex facilitates healthy and positive ecological relationships between humans and environment.

## Summary of Theory

## Design Implications

Facilitate positive human-nature connection

Low environmental impact

Create positive, nurturing, stress reducing environments

Direct experience patterns

Indirect experience patterns

Symbolic patterns

Natural ventilation  
Daylight  
Solar energy collection  
Low-flow fixtures

Views to nature  
Access to nature  
Access to natural ventilation

Natural materials  
Natural patterns and forms

Places of prospect and refuge  
Identifiable egress and wayfinding

## 2.5 Aboriginal Culture

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Aboriginal women are at a greater risk for experiencing violence at significantly higher rates than non-Aboriginal women. As a result, it is highly probable that at any given time there may be more Aboriginal women in the housing complex than non-Aboriginal women. Therefore it is important to establish an understanding of the culture, practices and traditions of the Aboriginal peoples. Considering the past suppression of culture throughout history, it is even more imperative that the housing complex be designed to be both culturally sensitive and supportive. Aboriginal peoples have inhabited what is now known as Canada, for thousands of years prior to colonization. There are six main geographical groupings of Aboriginal First Nations people that coincide with geographic regions of Canada. These include: Iroquois First Nations, Plains First Nations, Plateau First Nations, Pacific Coast First Nations, and the First Nations of the Mackenzie and Yukon River (Aboriginal Affairs and Northern Development Canada, 2013, p.7). Although there are many cultural differences between regions and individual tribes, there are shared traditions and beliefs that weave through the fabric of each of these First Nations.

Most notably is the respect and spiritual connection shared with the land and natural world. Aboriginal peoples learn from a young age the importance of living in harmony with nature, believing they are apart of the larger process of creation and life (Aboriginal Affairs and Northern Development Canada, 2013, p.17). Festivals, traditions and ceremonies all revolve around paying respect to different aspects of nature and the environment (p.18). Most interestingly, is

the realization and appreciation that they are nothing without the natural world. It provides the necessities of life including shelter, religion, values, food and medicine.

*“Because the regular seasonal pattern of life and movement of the animals and people was a continuous pattern, like a circle with no beginning and no end, the circle became a sacred symbol for First Nations people, the circle of life and renewal.”*

(First Peoples of Canada, 2007).

The deep rooted foundation of the Aboriginal culture in nature also aligns with the modern day evidence of the health benefits of nature-based design features. These include improved health, improved healing and stress reduction among others (see Section 2.4.1.) (Kellert, 2005, p.12). Not only does nature play a historic and sentimental role but it can contribute to improving the lives of all residents within the transitional housing complex.

The sacred circle is an important part of understanding Aboriginal culture. From migration patterns to plant and animal cycles, Earth and its processes can best be explained in a circular pattern, the circle of life. For myself, the last six words of the above quote are profoundly moving. “...the circle of life and renewal ” summarizes the process I envision occurring within all the women and children throughout their stay at the transitional housing complex. Even though they will come to this complex during one of the hardest seasons of life, it will provide safety, rejuvenation, renewal and the resources for personal growth to continue on through their own journey of life.



Additionally, the Medicine Wheel is used as a foundation of Aboriginal healing practices (Loiselle and McKenzie, 2006, p.11). Comprised of four quadrants and colours, each represents the sacred processes within the circle of life. The wheel categorizes the four seasons, the four directions, the four stages of life, the four sacred medicines and the four aspects of wellbeing. Due to this re-occurrence of the number four, it is of great importance to the Aboriginal peoples, particularly for its role in establishing balance and harmony.

The Aboriginal culture views life and its processes through a vision of balance, harmony and continuity with the natural world. Taking into consideration these fundamental aspects will be beneficial in supporting the diverse population of the housing complex. With a tainted past built on assimilation and colonization, it is critical to understand and support the culture and rights that have been taken from Aboriginal peoples and begin to rebuild the relationship on a foundation of support and reconciliation.

## 2.6 Chapter Summary and Conclusion

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This chapter began with an inquiry into the issue of intimate partner violence. Exploring the complexities surrounding IPV provided me with an understanding of the issue at hand, however, it left me with an unsettling feeling of anger. Violence against women can, and does, happen to anyone. No woman is immune to violence and there are no set characteristics or definitions of what constitutes a victim. The ways in which society has been groomed in regards to gender roles and male dominated patriarchy has paved the way for acts of violence to continue against women, and in particular Aboriginal women. I do not believe there is one simple solution to this issue, however, I do believe that educating, supporting, healing and reconciling are the beginning stages of moving forward. Especially for Aboriginal women, support for traditions and culture is desperately needed due to the long history of devaluation and objectification that has occurred. Discovering the vast array of effects that violence can have on women and children reaffirmed the need for a place where long-term healing and support can occur. The theories I examined within this chapter aid in the quest for education, support, healing and reconciliation to happen within the housing complex.

The theoretical approach to the transitional housing complex revolves around Roger Ulrich's three aspects of supportive environments: sense of control, access to social support and access to positive distractions. His framework explains the role these factors play in creating positive, stress reducing and healing environments and lay the foundation for cohousing, lifeboat theory, biophilic design and restorative environmental design.

Cohousing provides the basis for an active community environment to evolve within the complex, which emphasizes Ulrich's guideline of social support. Furthermore, exploring Joan F. Sprague's lifeboat theory allows for a deeper understanding of cohousing within a transitional environment, based on real-life examples. In particular, spatial arrangements that vary public and private areas shed light on the ways in which spaces can be designed to promote independence and self-empowerment, while communal spaces, inspired by cohousing, support the active social community. Lifeboat theory also emphasizes Ulrich's guideline of a sense of control within the person, household and community zones of the shelter. Mobile furniture, inward swinging doors, lighting and temperature control all provide this sense of control and in turn promote independence.

Stephen Kellert's restorative environment design approach supports Ulrich's guideline of positive distractions, by bridging the gap between low environmental impact design and biophilic design. The three components of biophilic design, direct, indirect and symbolic patterns and their design elements, help to weave the natural environment into the interior environment. Not only does this promote a human-nature relationship, but it supports and emphasizes the sacred role that nature plays within Aboriginal culture. By fostering human-nature relationships, residents receive an environment that is positive, stress reducing, and supportive of culture and diversity.

In conclusion, it is my hope that the transitional housing complex is able to bring healing and renewal into the lives of women and children and allow them the opportunity to continue on through their journey of life. Violence against women is too great of an issue to solve with one

housing complex, however, through its design and theoretical approach it has the ability to educate women and children and help to restore the self-worth and self-empowerment previously dissolved by societal gender expectations. By introducing and supporting Aboriginal culture, all women at the housing complex will be introduced to the idea of the sacred identity of womanhood. Regardless of culture, all women will be given the opportunity to benefit from a community environment that recognizes, supports, and empowers women as the sacred beings they are.

## 3.0 DESIGN PRECEDENTS

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3.1 Introduction

3.2 Okimaw Ohci Healing Lodge

3.3 Alexandra Ellis Caring Cabin

3.4 Mt. Hood Community College Early Childhood Center

3.5 Chapter Summary and Conclusion



### 3.1 Introduction

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In this chapter, three built environments are examined for their relevance to transitional housing complex design. Each is analyzed according to one or more of the theories covered in Chapter 2.0. To help inform design decisions and development, I have studied: a women's Aboriginal correction facility, a lake house retreat for families dealing with childhood cancer, and a childcare center that promotes interaction with nature. Although each differs in typology from the transitional housing complex, they provide insight into different elements such as spatial relationships, use of natural light and use of biophilic design elements.

The Okimaw Ohci Healing Lodge in Nakaneet First Nations provides a practical example of designing for women, designing for the Aboriginal culture and designing a cohousing environment. The culmination of these creates an environment that facilitates healing, mother-child relationships and independence.

The Alexandra Ellis Caring Cabin in Oregon combines cohousing, a transitional home environment and human-nature connections into one building that facilitates rejuvenation and socialization amongst families.

The Mt. Hood Community College Childcare Center highlights the importance of designing for children in an environment that facilitates interaction with nature. As the housing complex may at times house more children than adults, it is critical to recognize ways in which the design can reflect the important role the children play in the functioning of the complex.

## 3.2 Okimaw Ohci Healing Lodge

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Architects: Unknown

Location: Nakaneet First Nation, Saskatchewan, Canada

Area: Unknown

Completed: 1995

Capacity: 44



*Figure 14-Okimaw Ohci Healing Lodge Exterior*



*Figure 15-Okimaw Ohci Healing Lodge Interior*



The Okimaw Ohci Healing Lodge is a multi-level correctional facility for Aboriginal women in Saskatchewan, Canada. It is run similar to traditional minimum security correctional facilities that are found throughout the country (Correctional Service of Canada, 2014). However, the Okimaw Ohci Healing Lodge incorporates Aboriginal traditions and cultures to support Aboriginal women throughout their individual healing journey. The healing lodge has five principle goals it hopes to provide to the Aboriginal women who pass through their doors:

- “1. Restore pride and dignity as women and mothers.
2. Restore a sense of worth, dignity and hope.
3. Rebuild families and communities.
4. Build bridges between Aboriginal and non-Aboriginal societies.
5. Promote the healing of the Earth and all her creatures.”

(Correctional Service of Canada, 2004)

The vision of the Healing Lodge is rooted deeply in the Circle of Life and the Medicine Wheel. According to the vision statement of the healing lodge, the foundation of rehabilitation focuses on finding a spiritual path through healing, harmony, inner peace and the understanding of life and its processes.

*“The way to our Spirituality is the teachings of the Circle of Life. The Circle represents life as it is, as it can be experienced. Unity is the Circle, for there is harmony in unity. It represents the holistic belief of Aboriginal culture. The circle shows that we are only a small part of Creation. With Creation, we can discover ourselves. Through the teachings of the Medicine Wheel, all things are part of Creation. We begin with the Centre of the Circle of Life, the Creator, and the Creation. The Centre is also ourselves where we find Vision, our direction on the Spiritual Path in Life.”*

(Correctional Service of Canada, 2004)

The Healing Lodge is designed similar to a small campus, with different buildings housing different functions. There is a main lodge, a spiritual lodge, an elders’ lodge, a safe lodge, residential living units, a private family visit unit, a program building, two sweat lodges, a maintenance building and a horse barn (Correctional Service of Canada, 2004). Residents live in the residential units and work through their healing journey throughout the day within the various other buildings and facilities.

The residential living units function similarly to apartments with common living areas and individual bedrooms. The common living areas including a living room and kitchen and promote community bonding between residents as well as independence as women are able to prepare their own meals (Correctional Service of Canada 2004). Bedrooms are able to be personalized by each resident, promoting a sense of control and instilling notions of home. Each woman is given also given key to lock her own bedroom as she chooses. As one of the main goals of the healing

lodge is to restore pride and dignity as women and mothers, children are allowed to reside with their mothers in the residential units, as approved by the healing lodge. This facilitates mother-child bonding and keeps the family unit intact despite the circumstances for residing at the lodge. A daycare is also provided for children within the main lodge. As discussed in Chapter 2.0, the residential schools and the Sixties Scoop severely impacted Aboriginal parenting skills. Many women lack these skills simply because they were not able to be passed down from previous generations. Therefore, the allowance of children within the healing lodge and the presence of a daycare helps to restore the broken link in the chain of parenting. By keeping the family unit intact, women are able to be present as mothers and provide for their children in ways that would not be possible at a traditional correctional facility.

The Okimaw Ohci Healing Lodge also plays a role in the reconciliation process between the Government of Canada and Aboriginal peoples as it allows these women to be rehabilitated in a way that closest aligns with their tradition and cultures. This government sponsored support and promotion of culture is something unseen throughout Canadian history, which makes it a vital resource to Aboriginal women today.

Several valuable design strategies can be learned from this precedent. First and foremost, the healing lodge takes an unconventional approach to a correctional facility. Understanding that the traditional focus of incarceration within correctional facilities does not align with Aboriginal culture allowed for a more rehabilitative and healing approach to take shape. This raises the importance of investigating whether a better solution to the problem can be achieved. The healing

lodge also addresses the situation of motherhood within a correctional facility. Traditionally, mothers would not be able to have their children live with them or attend an on-site daycare. However, due to the cultural history that negatively affected Aboriginal parenting skills, children were included into the programming. Additionally, the Okimaw Ohci Healing Lodge incorporates traditional cultural symbols and forms into the built environment. The shape of the healing lodge, both interior and exterior reflect the importance of the circle within Aboriginal culture. Within the interior, the seating arrangements also follow this circular form which create a space for talking circles to take place. This again reflects the importance of balance and harmony by placing each individual on the same level as the rest of the group. These design strategies and implementations illustrate the importance of cultural understanding within interior design.

The goals, vision and practices of the Okimaw Ohci Healing Lodge align closely with those of the transitional housing complex. Although the typologies differ significantly, both are transitional facilities for women that value the importance of healing, culture and womanhood. The strategic campus style design allows the healing lodge to function as a small community, with shared access to amenities and resources, rather than like a conventional prison. Much in the same way, the housing complex seeks to function as a communal home, rather than a conventional women's shelter. Both the healing lodge and the transitional housing complex place a focus on rehabilitation, the healing process and the importance of culture within interior design. By embodying aspects of Supportive Design, Lifeboat theory and Biophilic Design - the theories which help inform the transitional housing complex - the Okimaw Ohci Healing Lodge lends several valuable design strategies to the design of the complex.

### 3.3 The Alexandra Ellis Caring Cabin

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Architects: TVA Architects, Inc.

Location: Pacific City, Oregon

Client: Children's Cancer Association

Area: 3900 ft<sup>2</sup>

Completed: 2006



*Figure 16- Caring Cabin Entry*

The Alexandra Ellis Caring Cabin is a lakeside retreat centre for families with children diagnosed with cancer. The retreat is meant to be an escape from the clinical hospital environment to allow an opportunity for families to relax and spend quality time together (TVA Architects, Inc., 2012). Although the typology differs from that of the housing complex, it is relevant for several reasons. The occupancy of the Caring Cabin is short term and offers design lessons about temporary settings that evoke a home-like atmosphere. The Caring Cabin is available for two families to use at once and therefore spatial organizations and relationships address the design of shared semi-private spaces. Finally, the natural location and large windows inherently create a biophilic atmosphere that provides users a positive and relaxing stay, despite the circumstances.

The Caring Cabin is comprised of several small connecting pavilions of public and private spaces that when organized together instill notions of a home-like environment (TVA Architects, Inc., 2012). Communal gathering spaces sit at the heart of the centre and include a gathering space similar to a living room with a large stone fireplace, a full kitchen and an area for dining and socializing (Figure 16 and Figure 17). These spaces are available for both families to utilize simultaneously. The fireplace seeks to function as a meeting point within the living room and provides a comfortable home-like atmosphere. Socialization is promoted amongst the two families by combining the living and relaxation spaces into a communal area while the multiple seating arrangements in the kitchen and living room offer users a choice.

Two separate pavilions house sleeping quarters for up to two families. The private and public pavilions are linked together through circulation paths that are defined under flat style roofs,



*Figure 17-Caring Cabin Stone Fireplace*



*Figure 18-Caring Cabin Entry Interior*



opposing the steep angles and pitches seen atop the pavilions. (TVA Architects, Inc., 2012). These two pavilions provide a balance of private space to the communal shared spaces within the main portion of the cabin.

The site and surrounding landscape play a key role in facilitating nature-based design features. Glass panels wrap around the corners of the pavilions to take advantage of the natural beauty and create direct views to the interiors. The lakeside setting helps to promote relaxation and a sense of retreat. The fresh air and vegetation provide a welcome playground for children and families whose recent exposure to nature has been through a hospital window. Running through the trees or laying in the warmth of the sun evoke subtle reminders of childhood, and life outside of the hospital.

The interior is finished in warm wood tones with natural colours that enhance the ample natural light brought in through the windows. Traditional materials including wood and tile flooring are used throughout to instill notions of a residential environment (TVA Architects, Inc., 2012). These finishes strongly contradict the institutional hospital environment and aim to provide the feelings of home. The children's sleeping area is finished with patterned bedding, artwork on the walls and an area for play, much like a child's bedroom would be finished in a home setting (Figure 20). For children used to a hospital room, this has the ability to bring about feeling of comfort.

The Caring Cabin allows families in crisis to escape for a period of time from the chaos surrounding the reality of childhood cancer (TVA Architects, Inc., 2012). The lakeside retreat instills notions of a traditional home to provide comfort, relaxation and stability through a trying time

(TVA Architects, Inc., 2012). The organizations of public and private space are successful at allowing more than one family to utilize the space at a time and support opportunities for connection and socialization. Balance is achieved by creating opportunities for varying levels of privacy and interaction within the communal areas of the cabin. Multiple seating and furniture arrangements provide users with a choice and allow more than one family to utilize the space at one time. The sensitive nature of the retreat could potentially be a hindrance to the communal gathering spaces, however, the spatial organizations and separations via circulation prevent this from happening. Although the retreat targets a different audience than the transitional housing complex does, the strong connections to nature and establishment of a temporary home-like setting are valuable design strategies.



*Figure 19- Caring Cabin Living Room*



*Figure 20- Caring Cabin Children's Bedroom*

### 3.4 Mt Hood Community College Early Childhood Center

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Architects: Mahlum

Location: Oregon, USA

Area: 22751 ft<sup>2</sup>

Completed: 2011

The Mt Hood Early Childhood Center is located at the Mt Hood Community College in Gresham, Oregon. The center provides childcare for students and staff attending the community college. Despite financial constraints, the vision for the center was to establish a strong connection to nature by blurring the distinctions between indoor and outdoor (Mahlum, 2014). This vision came to life through the organization of interior and exterior environments that facilitate creativity, play and exploration.

Within the interior, visual connections are established using windows and glass doors to promote safety and security by allowing caregivers to supervise children, even from different areas (Mahlum, 2014). In addition, the interior windows facilitate the feeling of connection and wholeness, allowing each space to be a part of the community of the center (Mahlum, 2014). Daylight and views are also brought in and allow the exterior environment to filter into the interior spaces.

Rich wood tones add warmth to the interior while bringing in aspects of the natural environment (Mahlum, 2014). Neutral white walls provide contrast to the wood tones and allow for the reflection of natural daylight. Built-in benches and window seats provide areas of both prospect and refuge, key components in biophilic design, and allow children little nooks to play, explore, or relax in. Areas with lowered ceilings provide a proportionate scale relationship with the key users, children. Areas with high, open ceilings facilitate larger areas for play and larger groups of children. The openness of the play areas promotes children to lead and design learning and play.

In keeping with the vision of the project, the outdoor area is designed to promote and enhance the connection between human and nature. The outdoor area facilitates play and exploration within a natural environment and encourages children to get outdoors. Small play-learn stations are strategically placed throughout the outdoor area that allow children to interact, explore and learn from their environment. A wet-play station, small ecosystems, garden areas and a musical station, as seen in Figure 26, all help to encourage these interactions. Varying textures and ground coverings help to distinguish zones as well as provide different mediums for children to explore.

As was learned in Chapter 2.0, often shelters, or transitional housing environments, lack environments and services dedicated solely to children. This makes the design of children's spaces within the housing complex that much more critical. The Mt. Hood Early Childhood Center highlights ways in which biophilic design can be used to enhance play-learn environments for children. Ample daylight, natural materials, transparency within the interior and strategically

designed outdoor areas all contribute to strengthening the human nature connection within the center. By providing environments conducive to play and exploration, children are given the opportunity to discover and learn from their natural surroundings.

**For images of the Mt Hood Community College Early Childhood Center please visit:**

<http://www.archdaily.com/547701/mt-hood-community-college-early-childhood-center-mahlum>

### 3.5 Chapter Summary and Conclusion

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The three precedents, although differing in typology, provide insight into how an interior environment can impact the individuals that inhabit it. Spatial relationships, design programming and material selections all play a role in the final experience of an interior environment.

The Okimaw Ohci Healing Lodge exemplifies the importance of designing for Aboriginal women in a way that embodies and supports culture and traditions. Through the use of communal shared facilities and individual private bedrooms, women are given the opportunity to be a part of a community while still being given independence. Instead of focusing on confinement or punishment, the healing lodge places a strong emphasis on the healing process. By incorporating facilities that promote the Aboriginal way of life, incarcerated women are given the opportunity to begin their healing journey with valuable cultural traditions and ceremonies.

The Caring Cabin in Oregon is an example of a small scale version of cohousing as well as biophilic design within a temporary home-like setting. By providing communal and private spaces, two families can reside within the cabin at one time. This creates opportunities for a network of support through shared experiences, while also promoting socialization and play. The spatial arrangements and finishes evoke a home-like atmosphere, one that is drastically different than that of a hospital, encouraging comfort and relaxation. Finally, the site integration, direct views and natural vegetation exemplify biophilic features, further contributing to the positive, relaxing environment of the cabin.

In Oregon, the Mt.Hood Community College Childcare Center revolves around the principles of biophilic design to establish strong connections between interior and exterior. Large windows and natural materials help to blur the transition between indoors and outdoors while the large outdoor area facilitates play, exploration and learning within a natural environment. The childcare center also provides a prime example of designing for children. Particularly, this is emphasized in scale relationships and environments conducive to play. This is beneficial to the complex, as children are equally supported and emphasized, something that is often unseen within conventional emergency housing environments.





## 4.0 SITE AND BUILDING EVALUATION

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4.1 Location and Context

4.2 Site Analysis

4.3 Existing Building



## 4.1 Location and Context

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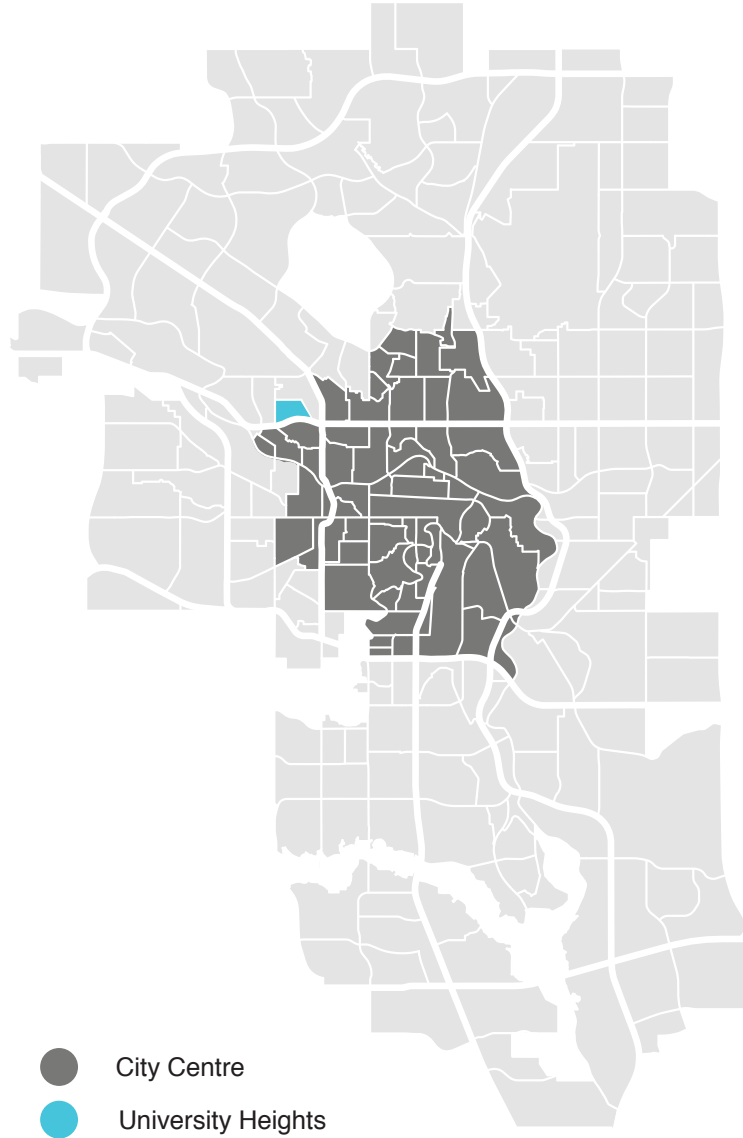
For the purposes of this project, it was imperative that a site be selected within the province of Alberta. The City of Calgary was ultimately selected for its urban location, ample amenities, access to post secondary education, beautiful landscape and finally for its current lack of second-stage housing. Currently Calgary only has three second-stage shelters to serve its population of over one million people, with none of them located in a safe residential community. According to Sprague (1991), for lifeboat housing to be successful it must be located in a safe, residential neighbourhood where residents are able to put down roots and integrate themselves into the greater community (p.65).

## 4.2 Site Analysis

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The selected site for the proposed shelter is Foothills Mennonite Church located at 2115 Urbana Rd NW, Calgary. The building sits on four city lots and is surrounded on all sides by residential houses. The site is located in University Heights in the North West portion of the city (Figure 281).

University Heights is home to over 400 houses (University Heights Community Association, n.d.). The University of Calgary borders University Heights to the North, Foothills Hospital to the



- City Centre
- University Heights

Figure 21-City of Calgary Districts Map



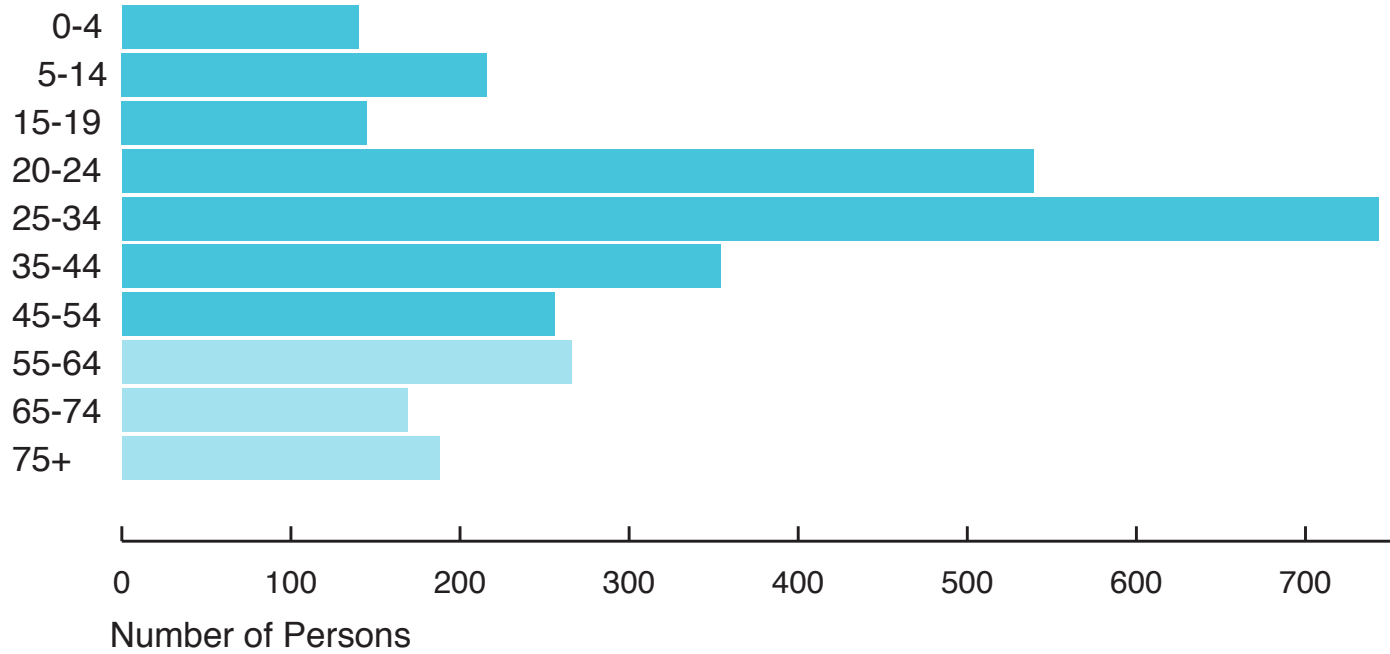
South, Foothills Athletic Park to the East and the Alberta Children’s Hospital to the West (University Heights Community Association, n.d.). The neighbourhood, established in the 1960’s, is home to hundreds of mature trees which create a park-like atmosphere down every street (Figure 22).

As of the 2014 Civic Census, the population of University Heights was 3,016 with the median age of this population being 31 (City of Calgary 2014A). Table 2 shows the population distribution by age category with the majority of the population between the ages of 20 and 44 (City of Calgary 2014A). This is critical to the success of the shelter as it integrates the users into a community of the same age range. Many children between the ages of 0 and 19 are also present within the community of University Heights which is equally as important as it provides the children of the shelter with neighbours and playmates of the same age group.

Within University Heights there are two schools: University Elementary (Figure 24) and Westmount Charter Mid-High School (Figure 23). Each of these schools is located within a four-block radius of the site, providing the children of the shelter with walking distance access to education. University Heights is also home to green space and recreation facilities including soccer pitches, baseball fields, a playground and walking paths. Most of these are located at the public schools which place them in proximity for children and adults to utilize. There are also nearby ice rinks, a volleyball center and an indoor pool located just outside of University Heights, directly north of McMahon Stadium.

Adjacent to the west of the community of University Heights is a large fenced green space with walking paths and a small pond (Figure 26). Walking distance from the site is approximately ten minutes. A smaller green space sits approximately five minutes southwest from the site off Uralta Rd NW (Figure 27).

**Table 3-University Heights Population Distribution by Age (City of Calgary, 2014A).**



#### **4.2.1. Opportunities of the Site**

Small residential neighbourhood will aid in lessening anxieties and fear of shelter residents

Access to elementary, middle and high schools

Access to recreation facilities

Large fenced green space with walking paths adjacent to community

Proximity to Stadium Shopping Centre

- Grocery store

- Convenience store

- Pharmacy

- Restaurants

- Gas stations

Proximity to two medical centres (Alberta Children's Hospital, Foothills Medical Centre)

Walking distance to transit stops

Abundance of mature trees and green spaces within the community

Proximity to University of Calgary

#### **4.2.2. Constraints of the Site**

Transit stops not directly adjacent to site

Lack of green space on site



22



23



26



27





24



25



26



28

Figure 22-Mature Trees

Figure 23-Westmount Charter Mid-High School

Figure 24-University Elementary School

Figure 25-Facing West in Uxbridge Dr NW

Figure 26-Fenced Green Space

Figure 27-Green Space off Uralta Rd NW

Figure 28-Stadium Shopping Centre

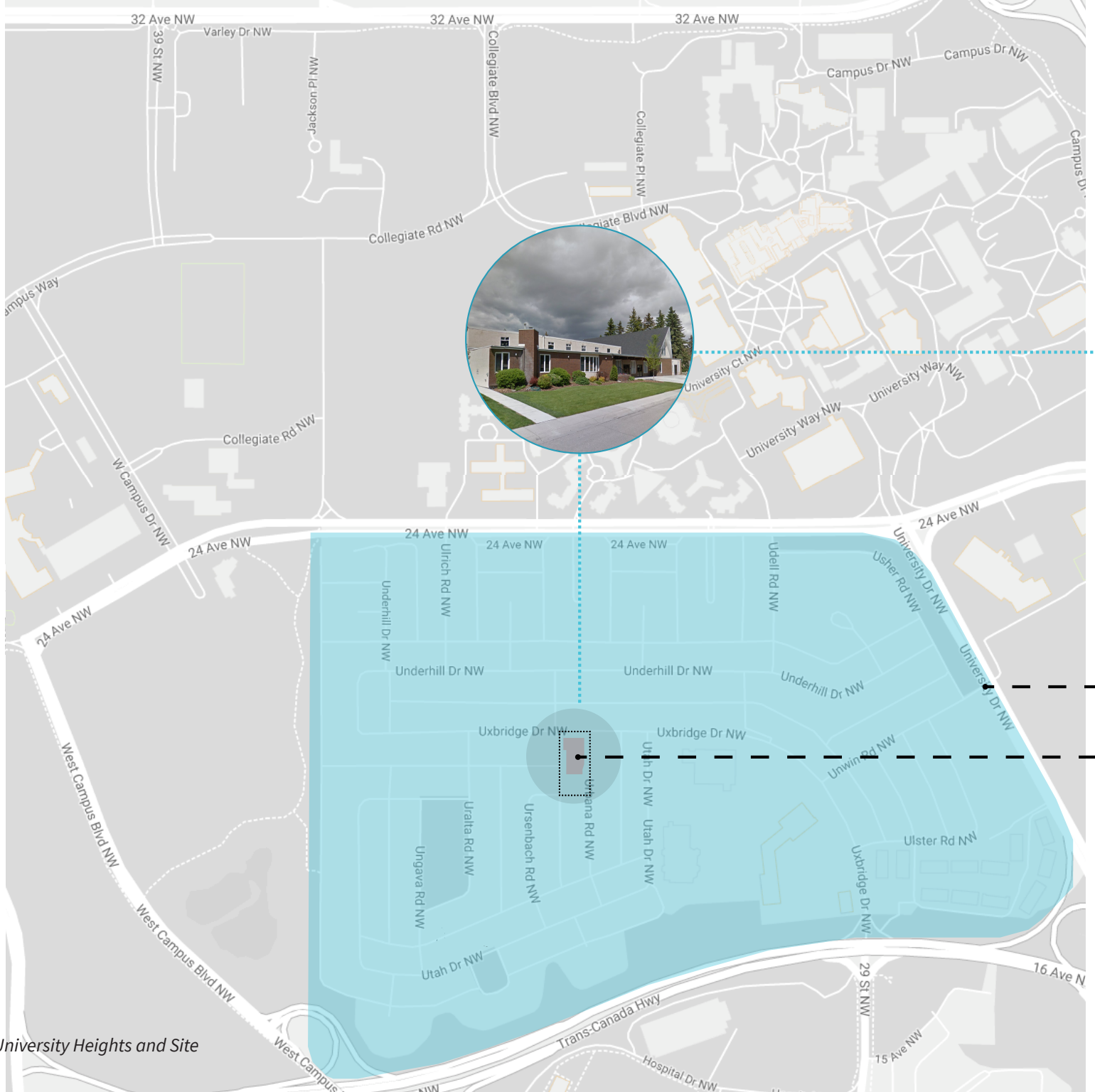
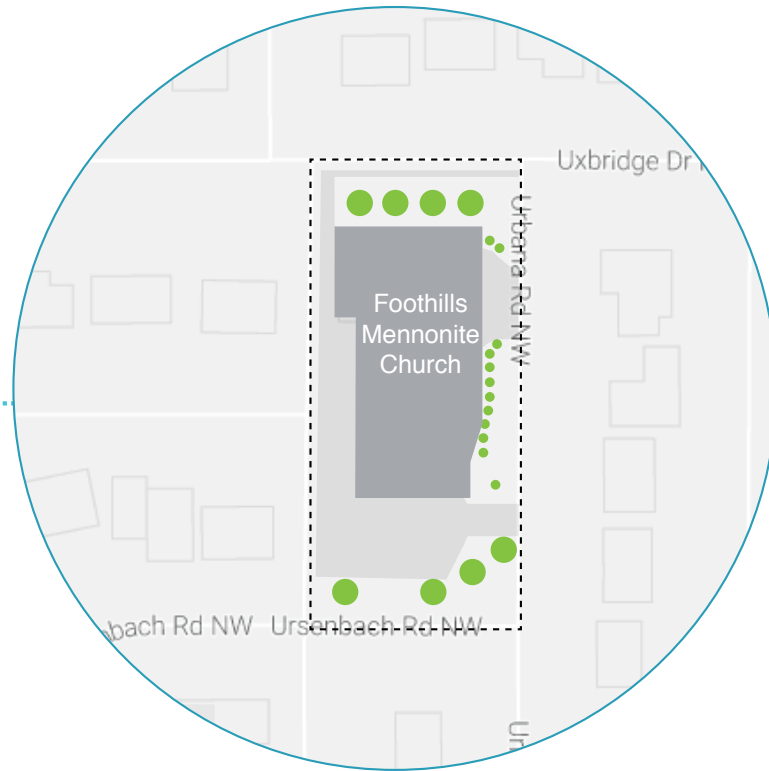


Figure 29- University Heights and Site



UNIVERSITY HEIGHTS



SITE

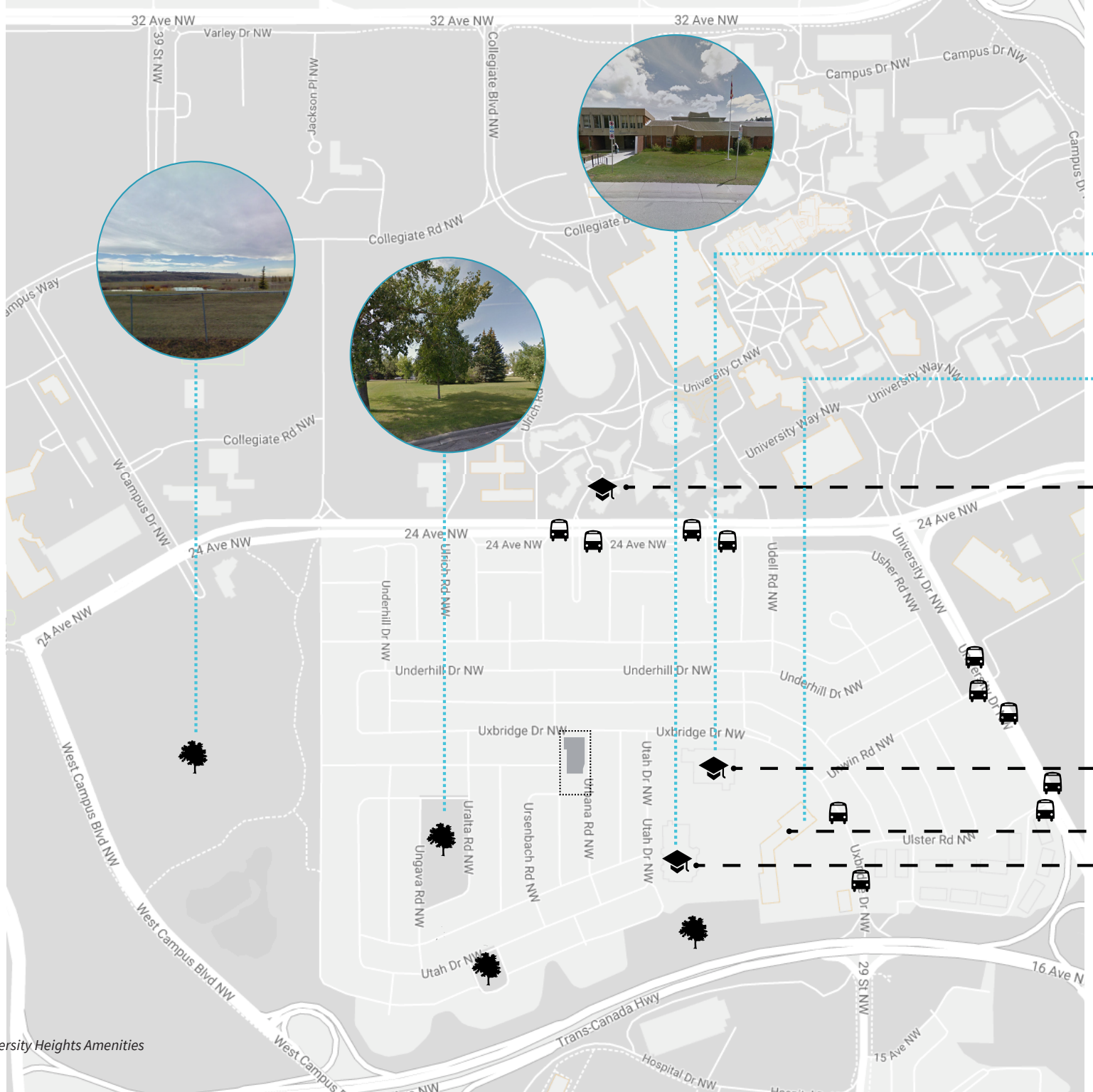


Figure 30-University Heights Amenities



--- University of Calgary



Site

--- Westmount Mid-High School

--- Stadium Shopping Centre

--- University Elementary School



Transit Stop



Education



Public Green Space

### **4.2.3 Climate**

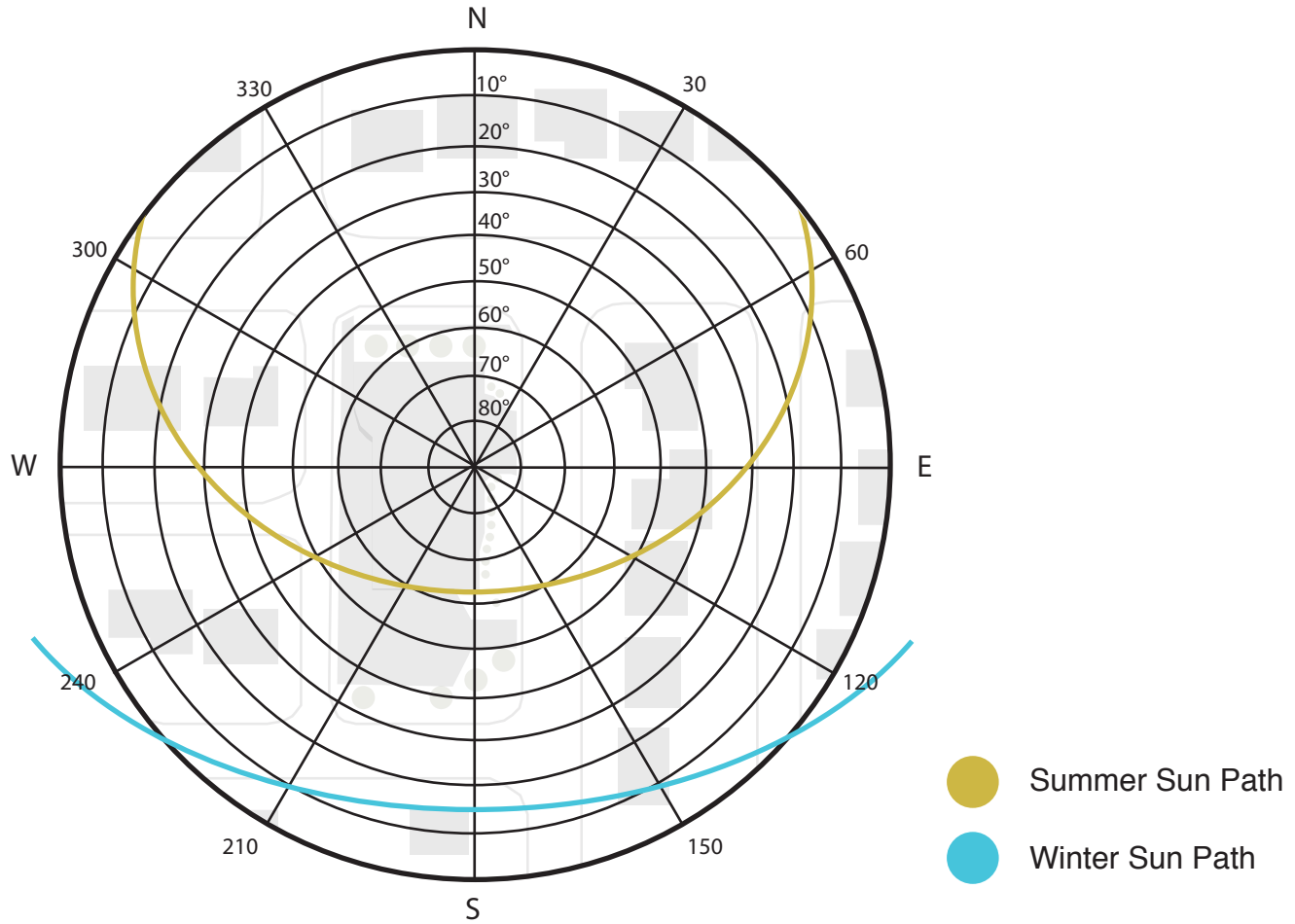
The city of Calgary sits approximately 80km east of the Rocky Mountains, and because of this, the city experiences rapid weather changes. These changes, called Chinooks, bring warm weather across the province and tend to result in slightly milder winters than the rest of the prairies. As seen in Table 4 the average December and January temperatures sit between -5°C and -10°C (Environment Canada, 2016). These temperatures are also affected by wind speed. Calgary has one of the highest annual average wind speeds of 14.2km/h which results in wind chill factors that cause the outside temperature to feel colder than it is (Current Results, 2010). Average summer temperatures sit slightly warmer than +15°C. However, temperatures do rise above +25°C on occasion (Environment Canada, 2016). From April to October, the average temperatures all sit above +5°C and therefore provide a slightly longer season for outdoor use than other provinces.

This will be of great benefit to the outdoor area of the shelter as it will be able to be utilized by the residents for slightly more than half the year. It is important to consider how the area will be used when temperatures are less than favorable during the months of November through to March.

The East, South and West facades of the shelter will receive the most sunlight during the summer months while the Southeast, South, and Southwest facades will receive the most sunlight during the winter months (Table 4) (Gaisma, n.d.). This is ideal to utilize these facades for natural daylight opportunities (as well as for the outdoor area).

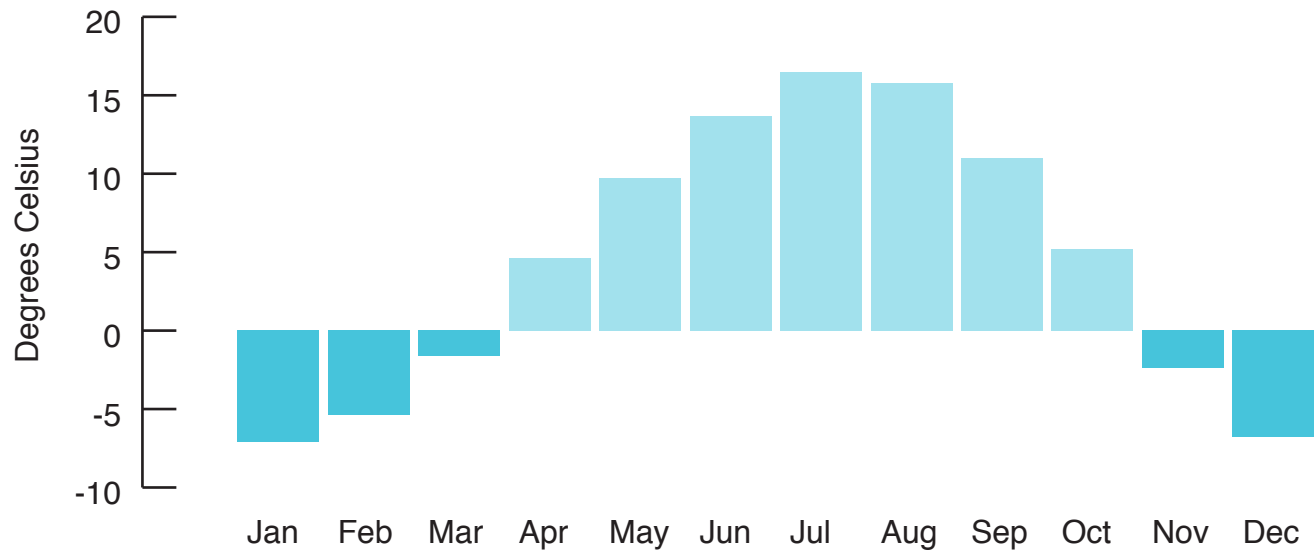
June receives by far the most precipitation out of the year with averages reaching 94mm (Environment Canada, 2016). December and January receive the least precipitation, around 10mm and 9mm respectively (Environment Canada, 2016). Providing protection from the elements is required, especially from rainfall, during the early summer months.

**Table 4-Calgary Sun Path Diagram**





**Table 5-Average Monthly Temperatures (Environment Canada, 2010).**



### 4.3 Existing Building

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The land Foothills Mennonite currently occupies was purchased by the church in the mid-1960's (Foothills Mennonite, n.d.). The church was constructed shortly after with many renovations and additions following, with the most recent addition being in 1997.

The existing church is approximately 13,000 ft<sup>2</sup> and is comprised of three levels. The basement holds storage and mechanical, offices, a commercial kitchen and a gymnasium. The first floor is made up of the sanctuary, offices, a nursery, washrooms, a reception and a foyer. The gymnasium penetrates the first floor and extends up to the underside of the second floor. The second floor is home to Sunday school classrooms, a small library, and a study. In addition to stair access, an elevator connects all three floors for universal access.

The exterior facade is a combination of brick and stucco that lend a slight residential feel to the building (Figure 31-32). As stated previously, according to Sprague (1991), a building with a residential looking exterior with features such as an identifiable entrance, as well as one that fits the size and scale of the neighbourhood evokes a greater acceptance of the complex by the surrounding neighbourhood (p.40). The church has been with the community of University Heights since its beginning therefore it is important to preserve the aesthetic integrity of the building exterior. This can greatly benefit the community's acceptance of the transition from church to transitional housing complex.



*Figure 31- Foothills Mennonite Church South East Exterior*



*Figure 32-Foothills Mennonite Church East Exterior*

The interior is divided due to the various additions and renovations. Three entrances exist off Urbana Rd NW to allow users into the church. The furthest south door brings users into the current staff and office area. The middle two sets of double doors bring users into the foyer while

the existing sanctuary, which was part of the original building, can be accessed with the furthest north double doors. Access to the sanctuary from the rest of the church is also available through two sets of double doors off the foyer.

The basement (Figure 33) contains a two-storey gymnasium. A mechanical room, washrooms and an elevator are located in the Northern area of the basement. A full commercial kitchen, stairs and three flex spaces comprise the Southern area of the basement with storage and a second stair completing the Eastern area of the basement. Much of the area on the first floor (Figure 35) is taken up by the double height gymnasium. A church sanctuary addition is on the North portion of the main floor (and is unexcavated underneath). Washrooms, storage, and an elevator sit directly on top of where the washrooms are located in the basement. A small foyer, reception, and offices run along the East part of the building, facing Urbana Rd NW. Entrances are located directly off the sidewalk into the sanctuary, into the foyer, and into the offices. Emergency egress is found off the West and South facades into the parking lot. The second floor (Figure 34) is separated lengthwise with a central corridor that divides a total of 12 classrooms, an office, and a library.

#### **4.3.1 Opportunities of the Building**

Residential looking exterior

Landscaped exterior with clearly identified entrance

Separate floors

Existing elevator access

Existing gymnasium

Separate sanctuary with separate access

Opportunity to extend second floor to the east onto existing roof structure

#### **4.3.2 Constraints of the Building**

Lack of windows in basement

Multiple level changes

Gymnasium occupying square footage on first floor

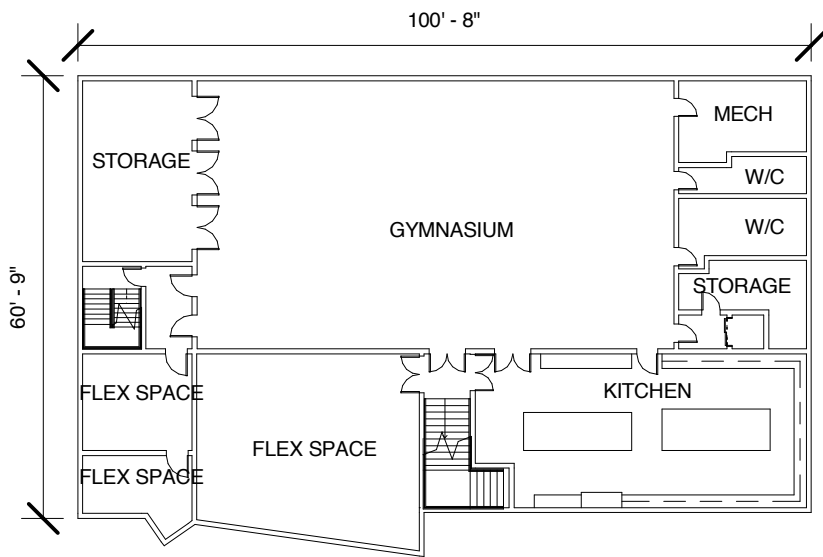


Figure 33-Basement Floor Plan NTS

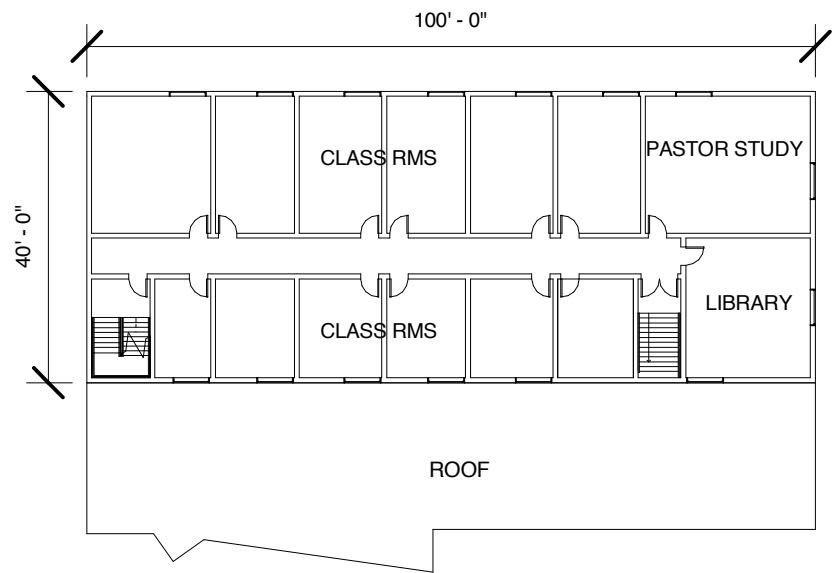


Figure 34-Second Floor Plan NTS



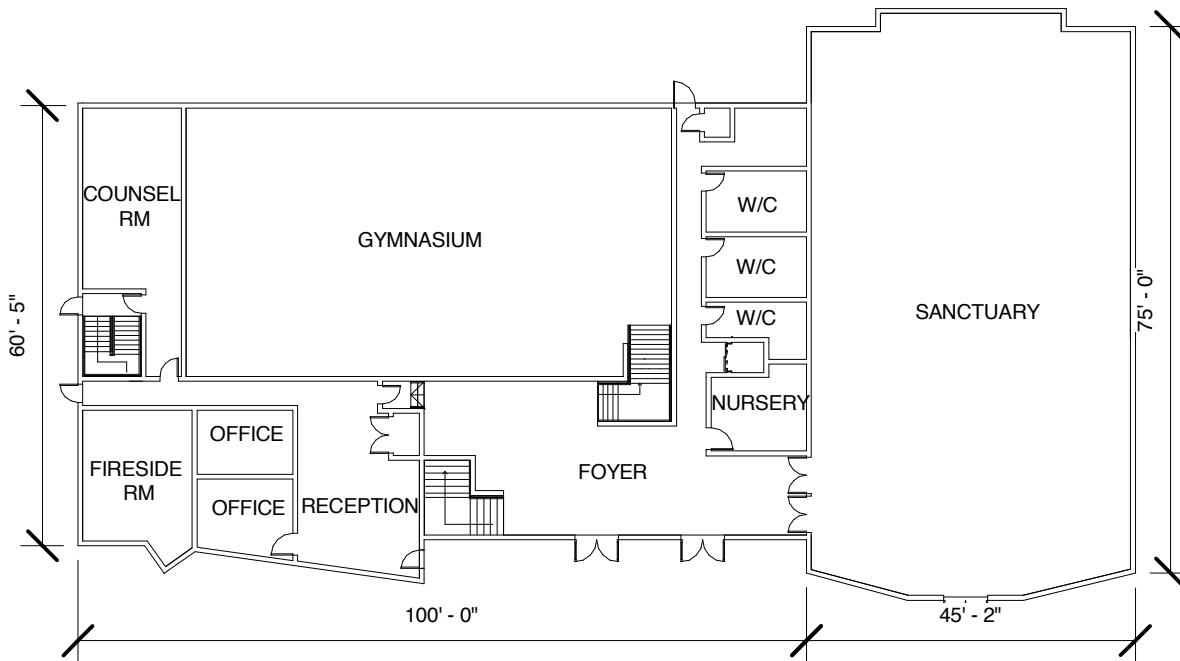


Figure 35-First Floor Plan NTS





## 5.0 DESIGN PROGRAM

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5.1 Design Program

5.2 Spatial Descriptions and Requirements

5.3 Facility Operation

5.4 Preliminary Zoning and Spatial Organizations

## 5.1 Design Program

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The program was developed in collaboration with the facts presented in *Second-Stage Shelters: Closing the Gap* and information gained through theoretical considerations and precedent studies.

### 5.1.1 Client Profile

The client for this project is an existing foundation in the city of Calgary. This foundation currently runs an emergency shelter that aims to assist homeless adults with children under the age of 18. This transitional housing complex is proposed as an expansion of services offered by the foundation. The creation of a second-stage housing complex will enable more individuals to heal and gain independence within a safe environment. The extension of care (up to two years) offered by the housing complex provides users with the time needed to find permanent housing, begin the healing process and learn to become independent, empowered members of society. The goals, values, and scope of care offered by the emergency housing facility align very closely with that of the transitional housing complex. These, in particular, exemplify what the complex aims to provide (Children's Cottage Society, n.d.):

- Finding safe and affordable housing
- Safe and nurturing environment.
- Private rooms equipped with furniture, linens and a bathroom.
- Childcare support
- Volunteer-driven recreation, education, and support services
- Support workers
- 24 hour, non-judgmental support and assistance (in person + telephone)

## **5.1.2 User Profiles**

### **5.1.2.1. Primary Users**

The majority of residents are females, over the age of 18 as this is the demographic most affected by intimate partner violence in Alberta, as discussed in Chapter 2.0. In addition, any children, 18 years and younger are also welcomed along with their primary caregiver. However, the housing complex does not ask any children to leave once they turn 18 as this could disrupt the family structure and impede the healing process. These situations are addressed on an individual basis, with keeping the family unit intact as the main priority. Male and female children are all welcomed with open arms. Allowing male children is an uncommon practice amongst other transitional housing facilities, however, this promotes the goal of keeping the family unit intact. It is also the belief that introducing young males into the safe complex community will, in fact, help other residents with fears or anxieties stemming from previous abuse by a male.

#### **5.1.2.2. Secondary Users**

Secondary users include all staff of both the housing complex and the daycare. These include administrative staff, therapists and Aboriginal elders. All individuals will be required to be 18 years of age or older. Staff occupy the housing complex during the daytime hours and will be available on call through the nights should an issue arise.

#### **5.1.2.3. Tertiary Users**

Tertiary users are non-resident adults utilizing the daycare for child drop-off as well as extended family and friends of residents. Childcare providers dropping off children for daycare will be allowed through the secure daycare entrance only, to protect the privacy and safety of the residents. Family and friends will be allowed into the shelter for visits with residents. All visits will be required to be scheduled and approved by staff.

**Table 6-Primary User Profiles**

<b>Primary Users</b>	<b>Quantity</b>	<b>Age</b>	<b>Gender</b>	<b>Spatial Needs</b>	<b>Psychological Needs</b>
Women	1-8	1+	Female	Secure facility Private sleeping quarters Accessibility Areas for relaxation Areas for recreation Areas for spiritual/cultural practices Access to outdoor spaces Areas supportive of technology Areas supportive of education Views and access to nature Storage for belongings Areas for childcare Access to basic necessities Areas for counsel and reflection Views and access to nature	Sense of security Independence Sense of control Sense of community Sense of belonging Comfort Sense of stability Psychological and emotional support Psychologically supportive environment
Children	0-18	0-18	Female Male	Secure facility Areas for play Areas for education + study Area for meals Area for sleeping Outdoor spaces	Sense of security Sense of belonging Stability Independence Sense of control Comfort Sense of stability Psychological and emotional support Psychologically supportive environment

**Table 7-Secondary User Profiles**

Secondary Users	Quantity	Age	Gender	Spatial Needs	Psychological Needs
Staff	4	18+	Female	Secure facility Efficient comfortable workspaces Areas for private, confidential work Accessibility Areas for private, confidential counsel Adequate storage and access to supplies Storage for personal belongings Sightlines Parking stall Views to nature Area for breaks/meals	Security Control (lighting, sound, thermal, furniture arrangement) Privacy Sense of community Respect Collaboration
Daycare Staff	4-6	18+	Female	Efficient workstations Areas for private meetings Accessibility Adequate storage and access to supplies Sightlines to all areas of play Area for meals and breaks Parking stall Views to Nature	Security Sense of community Control (lighting, sound, thermal, furniture arrangement) Respect

**Table 8-Tertiary User Profiles**

<b>Tertiary Users</b>	<b>Quantity</b>	<b>Age</b>	<b>Gender</b>	<b>Spatial Needs</b>	<b>Psychological Needs</b>
Volunteers	2-3	18+	Female Male	Efficient comfortable workspaces Accessibility Adequate storage and access to supplies Storage for personal belongings Sightlines Parking stall Views to nature Area for breaks/meals	Security Control (lighting, sound, thermal, furniture arrangement) Privacy Sense of community Respect
Non-resident parents of daycare children	20-40	16+	Female Male	Parking adjacent to daycare entrance Area to drop off and pick up child with seating and storage	Knowledge that child is safe and secure Knowledge that child is learning beneficial skills Efficiency
Friends and family of residents	5-10	0+	Female Male	Seating Storage for belongings	Security Privacy Comfort

## 5.2 Spatial Descriptions & Requirements

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To promote a sense of community, the housing complex revolves around communal areas and activities essential to its success. These include a large lounge, a communal kitchen, exercise facilities and child-friendly play spaces. Areas dedicated specifically for children will be integral to the success of both the complex and the residents. Outdoor areas cater to both adults and children and provide opportunities for activities, relaxation, and exposure to nature.

The building is divided into two parts to serve its residents in the best possible fashion: the housing complex and the daycare. The housing complex contains all amenities for living including areas for meals, recreation, exercise, socialization, education, and sleeping. The daycare is fully licensed with an entry separate from that of the housing complex.

Within the building, different floor levels provide residents with different ranges of privacy, informed by Sprague's Lifeboat Zones (1991, p.45-46). Communal recreation and relaxation spaces fall under the community zone and help to facilitate bonding and socialization while the household and personal zones are contained within the home units. The daycare falls under the between community and neighbourhood zone as interaction with the neighbourhood is selective.



### 5.2.1 Spatial Descriptions

*Room details are further summarized in Table 10 in Appendix*

**Resident Entry:** Located on the south facade, partially hidden from view, is the resident entry which requires key card access to enter. This provides residents access off Urbana Rd NW, without drawing as much attention as the main entrance does.

**Public Entry:** The front entry directly off Urbana Rd NW leads into a small reception area and is the only door that is open to the public. Any visitors, family, or staff can use this entrance, however they cannot get past the reception area without key card access or an escort by staff or a resident. This provides security to the complex and separates any public entry from everyday resident use. The door is open during office hours and locked for the remainder.

**Kitchen:** The communal kitchen is for residents to prepare meals together and socialize. The communal kitchen will be used for family style dinners on a daily basis and special events. The kitchen provides lockable storage pantries for each family to store grocery purchases.

**Dining:** The dining area is adjacent to the communal kitchen and provides residents with an area to partake in family style meals. Informal resident meetings, special events and other activities will

also be able to take place around the large dining tables.

**Lounge:** The lounge plays a crucial role in the socialization between residents. The visual connections to the dining area and play area provide an awareness of surroundings. Residents are able to relax, play, socialize and bond with their own family as well as with other residents.

**Play Room:** The play area allows children the freedom of play while being supervised from the kitchen, dining, lounge and tech lounge. This close proximity allows for freedom and peace of mind for the mothers as they can observe their child while cooking, eating or socializing.

**Tech Lounge:** This lounge space houses computers and other technology for both adults and children to utilize for recreation or education purposes. Soft seating also provides a casual seating area for socializing or casual work.

**Reflection Lounge:** This space functions as a quiet meditative room outside the walls of the complex. Located within the outdoor area, the lounge allows residents to utilize for personal healing or cultural practices. Meditating, reflecting, practicing yoga, praying or other cultural practices are all encouraged in this quiet space.

**Laundry:** Laundry facilities are used for personal laundering needs as well as any needs of the facility.

**Private Offices:** Two private offices serves as workspaces for counselor, Aboriginal elder and any other visiting professionals. The offices are not specific to one individual and are used on an as need basis. The private rooms will protect the confidential nature of sessions while the presence of a counselor and elder contributes to establishing a stable environment and trusting relationships.

**Home Units:** Each resident, and any children, will receive their own apartment unit with private bedrooms, bathroom and small living space as recommended by Sprague (1991, p.48). A total of 5 home units are included within the housing complex including one home unit with four separate bedrooms for residents with no children and four two-bedroom units for residents with children. This will contribute to privacy as well as promoting a sense of independence.

**Outdoor Area:** Outdoor areas cater to both women and children and provide opportunities for activities, relaxation and exposure to nature.

**Storage:** Various storage spaces are located throughout the complex. This includes storage for personal belongings from previous living arrangements, food and supply storage, mechanical storage and cleaning storage.

**Daycare:** Open to residents and non-residents in the community, a fully licensed daycare will provide many benefits. If the resident has current employment or schooling they will be able to utilize

the daycare to provide childcare during work or school. For women without employment, the daycare will provide an opportunity to gain experience in a safe and secure environment.

## **5.3 Facility Operation**

### **Welcoming New Residents**

The housing complex provides residence for women and children that meet the criteria of:

- 18 years or older
- Referral through emergency shelter (or other social service)
- Show desire to gain independence
- Complete meeting with director and counselor or Aboriginal mentor to discuss terms of stay, care plan and expectations.

Upon approval, residents will be able to move in immediately. Residents are allowed selection of home unit (depending on availability). In order to encourage personalization and customization residents will be able to bring in any personal belongings into their unit that they desire (as long as they fit to spatial constraints of the unit). Any other belongings will be able to be stored in the lockable storage units available to residents on the first floor. New residents will also be allowed to customize their unit with the housing complex's available decor pieces including artwork, accent pillows, bedding and rugs. All other furniture including beds, dressers, night stands, tables

and chairs will remain in the unit. This will allow women and children to customize their unit, in accordance with Ulrich's first aspect of theory of Supportive Design, sense of control, and create their feeling of home (Ulrich 1991, p.100).

## **Tasks**

The housing complex does not employ a caretaker and therefore the residents are required to keep the building clean and tidy. According to Sprague (1991), the absence of caretakers helps to encourage ownership and responsibility and instills the notion that each individual is a vital part of the community (p.75). In order to regulate cleaning and maintenance tasks required in the smooth functioning of the complex, a weekly schedule is created. Monthly meetings including all residents and children over the age of 12 will be held to sign up for and coordinate the tasks for each week of the month. Many tasks are able to be completed by residents beginning at age 12. This will instill notions of responsibility and importance of team work beginning at a young age. Children younger than the age of 12 will be able to assist with tasks at the discretion of the parent. Full task descriptions can be found in the Appendix.

Residents over the age of 18 will also be given the opportunity to work in the adjacent daycare on a part time basis. This will be offered at the discretion of the resident and/or emotional mentor. With the daycare being fully licensed residents will be required to complete all necessary steps required of working in a licensed day care. This includes:

- Background check
- Child abuse registry check
- CPR certification

All of the above will be able to be facilitated and coordinated through the housing complex administration to ensure each resident is allowed the opportunity to work, should they so decide. For women in need of employment experience, this can be a beneficial opportunity.

### **Expectations**

All amenities and services are available for residents to use as they would if it were their own home. This includes the kitchen, lounge, tech lounge, laundry and exercise facilities, outdoor area, play areas and reflection lounge. Providing self serve access helps to create feelings of independence in the women and will also help promote bonding opportunities among residents. The complex operates with a few simple rules including simple respect for property and other users, anger or violence toward other residents or staff will not be tolerated and a lack of help around the complex (i.e tasks) will not be tolerated as the housing complex is a community that requires everyone's full support to function.

### **Meals**

Breakfast and lunch meals are the responsibility of each resident while supper is observed as a communal nightly event to emphasize the importance of the community. Each resident has

full access to the kitchen for breakfast and lunch at their own discretion, as well as the kitchenettes within their home unit.

### **Emotional Support and Healing**

To assist in the healing process, the housing complex provides access to a therapist and an Aboriginal elder. The presence of an elder provides support and guidance for any women and children wishing to follow a traditional Aboriginal path to healing and spirituality. A private office is available for any private meetings as well as the reflection lounge for ceremonies, smudging or talking circles. A therapist is available for any resident working towards their journey of healing. The two private offices are located away from the communal space of the complex to protect the confidential nature of the sessions. The presence of a full time therapist and elder will contribute to establishing a stable environment and trusting relationships. Although private rooms are available for counseling purposes, sessions will be able to take place in any area of the complex the resident feels most comfortable. Small furniture groupings are placed strategically throughout the facility, both indoors and outdoors, to allow these conversations to happen in various environments, providing each resident a sense of control over the situation. Group therapy is also a part of the emotional support services offered at the transitional housing complex

### **Cultural and Religious Ceremonies**

Women and children are encouraged to participate in any cultural or religious ceremonies they feel are important. This can include Aboriginal celebrations, ceremonies, family gatherings, smudging ceremonies, prayers or meditation, among others. These activities are able to take place in any area of the complex the women see fit, including the kitchen and dining area for dinners or gatherings, the fitness area in the basement for dances or ceremonies, or the reflection lounge outdoors for smudging, meditation or prayers.

### **Employment Services**

Once a week a career counselor works at the complex, providing resources and workshops. The counselor works one-on-one and in group settings with residents who require the services to find employment.

### **Group Outings**

Twice a week residents have the option to partake in group outings. The housing complex provides the transportation service and residents decide where they need to visit. Common stops include the grocery store, clothing store and pharmacy. The group atmosphere helps those who don't feel comfortable venturing out on their own into the community which can help to build



confidence and independence in a safe group setting. If any resident is not comfortable yet leaving the complex entirely, their purchases can be made by a staff member or other resident in charge of the outing.

Once a month the housing complex offers special group outings. These can include activities such as picnics in the park, hiking, or ice skating. This also helps individuals to build confidence and experience venturing out into the community in a safe group setting. Residents are not required to join if they do not feel comfortable.

### **Fitness Classes**

Residents have the opportunity to take place in fitness classes offered in the exercise room at the housing complex, or outdoors within the open play area during summer months. Classes can be requested by residents, however, yoga and self defense are offered on a weekly basis to promote healing, independence and safety.

### **Gardening**

Raised garden beds occupy part of the outdoor space and allow for vegetable and flower gardens to be tended by the residents as a group activity for both adults and children. Residents will be able to learn how to care for the garden and use any produce in the kitchen to supplement grocery purchases. The four sacred herbs of the Aboriginal culture, sweet grass, cedar,

sage and tobacco can all be found within the garden beds to provide women access for ceremonies or smudging. The act of gardening has also been found to be a source of therapy for people who have experienced trauma and will therefore play a role in the healing process of the residents (Linden & Grut, 2002, p.11). The growth cycle also creates a unique symbolism of the rebirth beginning after abuse.

### **Housing Complex Culture**

As one of the housing complex's main goals is to facilitate a community environment, the complex is run in a manner that celebrates the past and present residents as a family. This helps to build and strengthen the bond between residents and celebrate each individual's importance in the family. Activities that support this include:

**Birthday Celebrations:** For every resident (adults and children) including meal and birthday cake of their choice.

**Family Gallery Wall:** Upon arrival each resident has their photo taken and added to the existing gallery wall which also holds photos of all other current residents. This symbolizes that they are now apart of a small family at the complex, and the personalization helps the new surroundings to feel more like home. Upon moving out, each resident moves their photo to the large gallery wall which holds the photos of every individual that has resided at the complex in the past. This moving

of the photos symbolizes the new life that they are beginning and also that they will always have family and friends at the housing complex.

## **Security**

To promote independence of the residents, the housing complex will not be monitored by security. Residents are given key cards that scan to open doors throughout the complex. In the case of a fire emergency the doors will automatically unlock for residents to exit the building. The only door open to the public is the front entry. To further enter the remaining portions of the building requires a key card.



## 5.4 Preliminary Zoning and Spatial Organizations

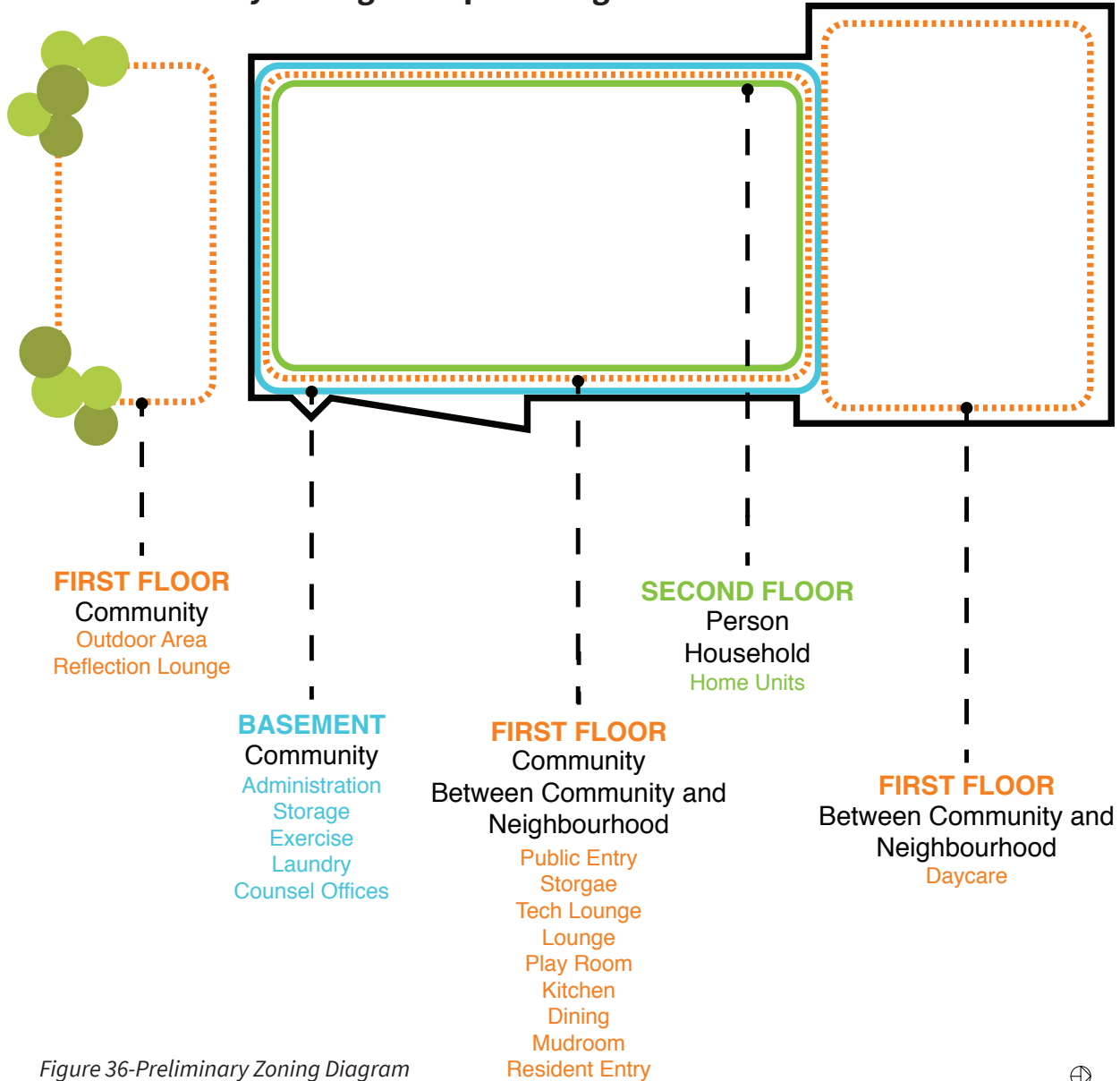


Figure 36-Preliminary Zoning Diagram



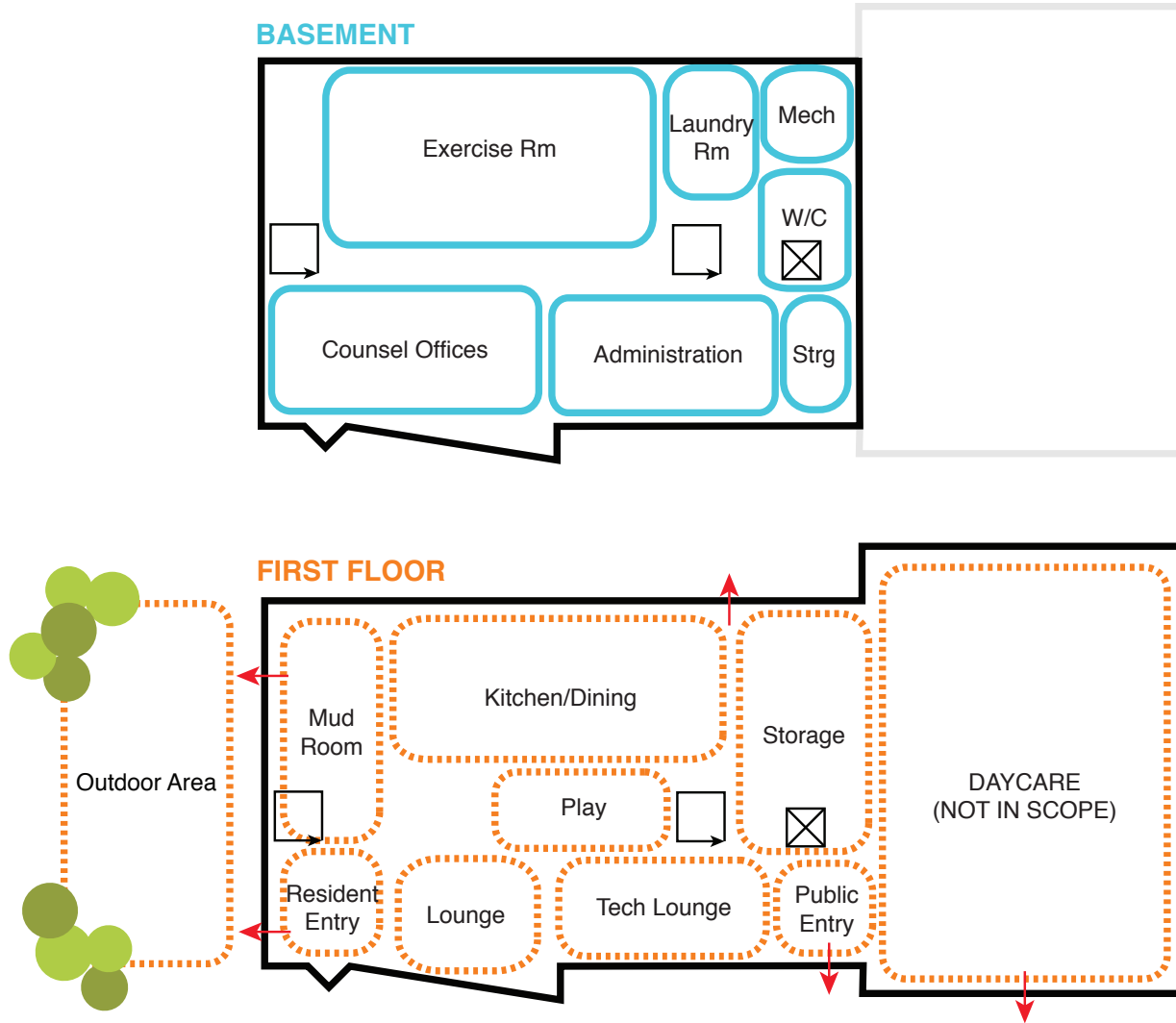
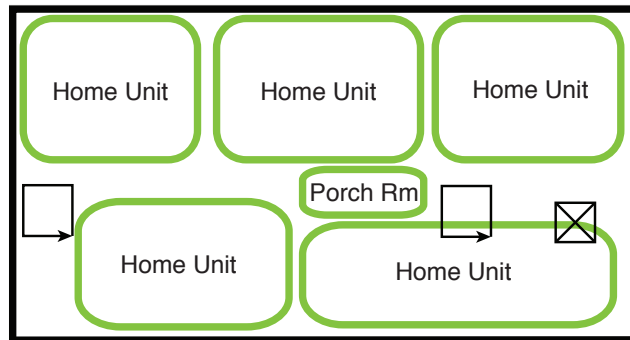


Figure 37-Preliminary Spatial Organizations



## SECOND FLOOR







## 6.0 DESIGN APPLICATION

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6.1 Introduction

6.2 Design Exploration

6.3 Overall Design

6.4 Basement Level

6.5 First Floor

6.6 Second Floor



## 6.1 Introduction

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This chapter includes my final design proposal for a transition housing complex for survivors of intimate partner violence. The primary goal was to design a space that provides women and their children a safe environment for healing and growth to take place after leaving a violent situation. Not only does it provide a safe transition but it facilitates community bonding, a strong connection to nature and an appreciation for the Aboriginal culture. The final design came together through an amalgamation of the literature review and precedent studies.

Before delving into design development I felt the need to express my vision for the housing complex into a visual representation. Combining everything learned and studied within the previous chapters I created the image below. Each colour, inspired by the importance of colour in Aboriginal culture, represents a different woman, a different resident of the housing complex. Each is unique and beautiful on her own, with her own voice, in her own circles of life. However, once combined together with other women, and other circles of life, a beautiful balanced and harmonized representation emerges. Individuality is supported and expressed within the complex however when those differences come together a strong community and family is created.

## 6.2 Design Exploration

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As discussed in Chapter 4.0, the existing three floor plans of the building are disjointed and do not allow for clear sightlines or views to nature. With multiple stair cases, entries and level changes it would be difficult for residents to navigate through the space with a clear sense of escape. The gymnasium protruding through to the first floor also poses a dilemma to the design as it limits the amount of usable floor area on the first floor. In response, I felt it was best to demolish the majority of the interior walls, however, keeping load bearing walls and structure in place to maintain the integrity of the building. The floor plate was also extended through the gymnasium on the first floor in an effort to gain floor area. This allows for the exploration of a new floor plan that better suits the needs of the residents. The second floor was also extended to allow for more home units. As the existing second floor occupied only half of the first floor roof, it made it feasible to extend it the full width of the first floor. This allowed more home units to be created, and more women and children a place to live.

After the interior walls were removed and the floor extended through the gymnasium, my next step was to create a plan that not only provides security, but facilitates a connection to nature and an atmosphere of community bonding. In an effort to provide a holistic connection to the existing building, I began exploring its structural language. Through sketches I was able to determine key lines that would provide a strong foundation for the new design. Although the building is not perfectly symmetrical, these horizontal and vertical lines highlighted the balance

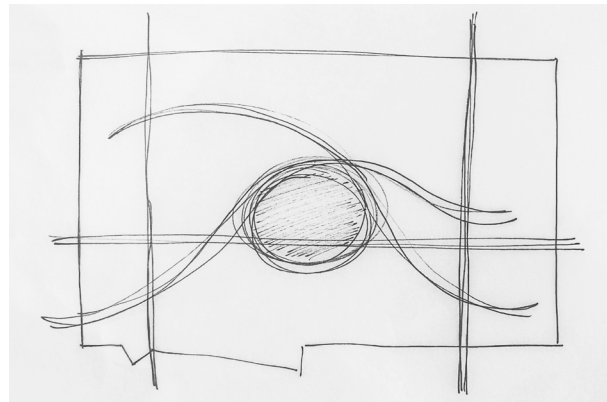


*Figure 38-Design Exploration Painting*

and harmony of the existing building. This was something I did not want to compromise within my design proposal, as it references the role of balance within the Aboriginal culture.

I also explored the importance of the center of the space and began to imagine how individuals would move through the space, as indicated by the curvilinear lines. The resulting studies led me to a design language that revolved around the centrally located space within the building. Within the first floor that central space took shape as the children's play room as it provides visual access to every adjacent space within that floor level. On the second floor the central space evolved into the porch room. Essentially this is where the home units open into, as if they are walking from their home out onto their front porch. This supports community, bonding, and notions of a residential home.

Following the design language exploration I was able to translate these into floor plans for the basement, first and second floor.



*Figure 39-Design Exploration Sketch*

## 6.3 Overall Design

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### 6.3.1. Exterior

As was mentioned within Chapter 5.0, it was important to maintain the visual integrity of the existing building. Slight alterations were made to the building to integrate the new typology, material palette and theories.

The second floor was extended, however, the original stucco colour and facade style were kept. A portion of the extended second floor roof was angled slightly to help integrate the sharp angles of the existing church roof line. This also allowed for clerestory windows to bring natural light into the center of the second floor. Wood cladding was added to bring visual interest, to integrate natural materials and to highlight the front main entrance.

The south parking lot was converted into an outdoor space for the women and children, and the back parking lot was kept for use by the residents and staff. Existing trees were kept and additional trees added to create an immersive natural environment steps from the housing complex. The trees and added foliage also help to filter noise and create feelings of privacy while the 8' wood clad fence promotes security and privacy for both the women and children.



*Figure 40-Exterior Rendering*

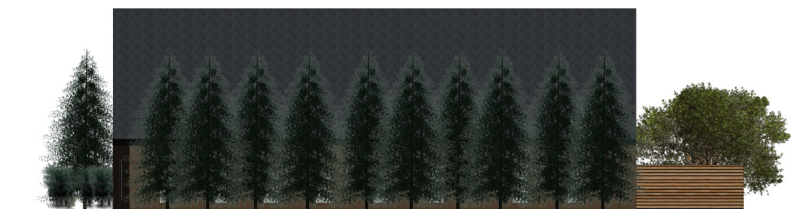


*Figure 41-East Exterior Elevation*





*Figure 42-South Exterior Elevation*



*Figure 43-North Exterior Elevation*



*Figure 44-West Exterior Elevation*

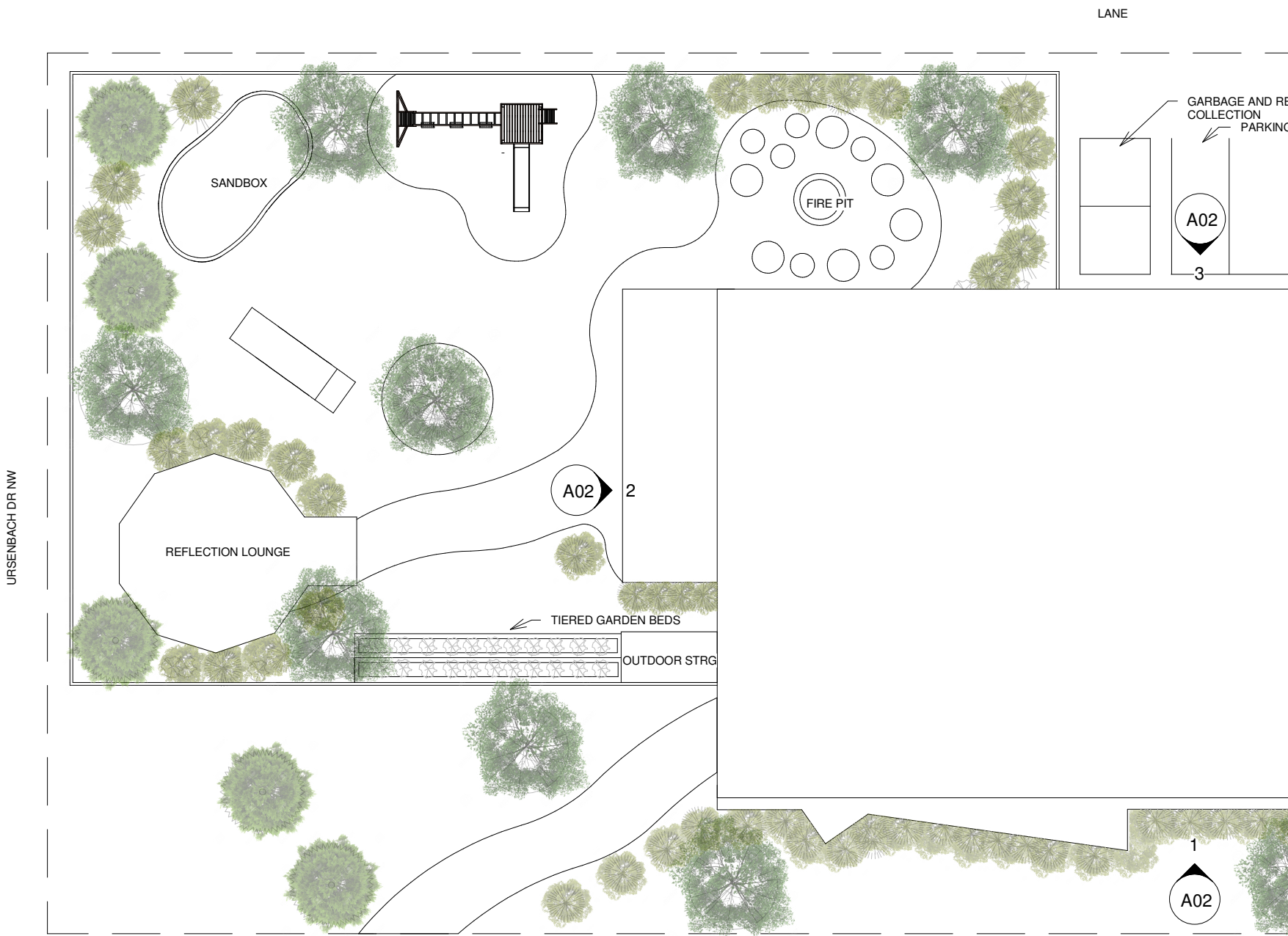


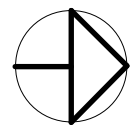
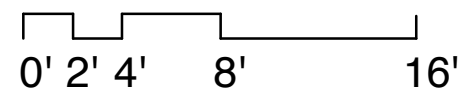
Figure 45-Site Plan NTS

RECYCLING  
STALLS

PROPERTY LINE

4 A02

LUXBRIDGE DR NW



## Outdoor Area

The outdoor area is a multi-functional recreation and relaxation space for both women and children. An 8' high wood fence encloses the space for safety and security reasons and also provides a natural backdrop for the surrounding greenery and foliage.

The reflection lounge can be found in the southeast corner of the outdoor space and serves as a quiet, meditative retreat for personal, religious or cultural practices.

Running the length of the east fence are tiered garden boxes for vegetables, fruits, flowers and sacred herbs. It allows women and children the opportunity to practice a favourite hobby, or perhaps learn a new one.

Outdoor seating, both tables and chairs, sofas and benches, are located underneath the extended roof line that provides shade during the warm summer months. Open grassed areas for play can be found parallel to the west fence.

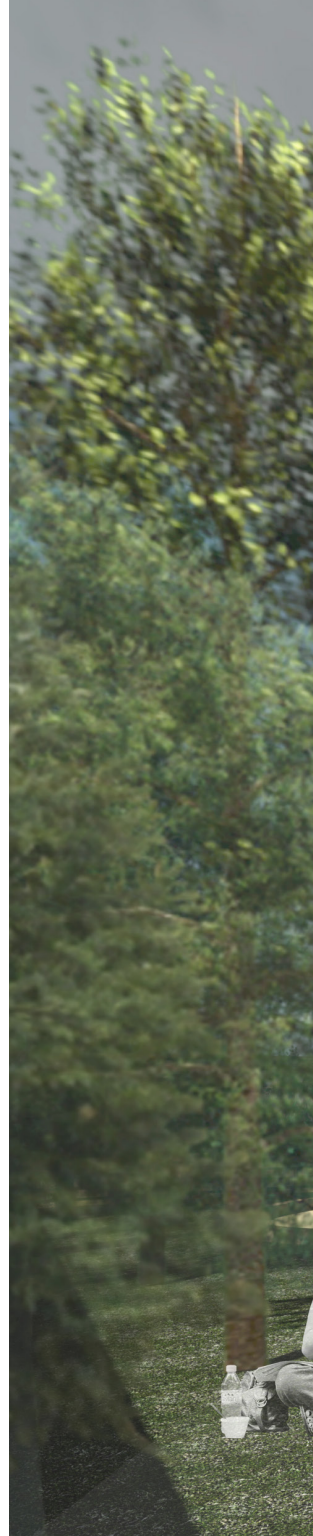








Figure 47-Outdoor Area

### 6.3.2. Interior

The interior spaces are largely influenced by the principles of nature-based design features, cohousing, Lifeboat theory and the traditions of Aboriginal culture. The original floor plan was reworked, keeping in place critical elements of the existing building to ensure structural integrity. The resulting floor plans focus on connecting key spaces, both physically and visually to support feelings of security and community within the residents. Each floor is designed with specific Lifeboat theory zones in mind. The basement floor encompasses the *community zone* and the *between community and neighbourhood zone*, due to the presence of administrative offices. The first floor also represents the *community zone* as it is dedicated to spaces that support community and socialization among residents. The second floor is dedicated to residential units and therefore represents the *personal zone*, the *household zone* and the *between household and community zone*. The delineation of zones helps to create areas that balance private and semi-private activities.



Drawing on notions of a residential environment also allows the complex to feel less like a commercial facility and more like a traditional home. Colour palette and material selections stem from the values, traditions and rituals of the Aboriginal culture. The integration of these nuances, including bold saturated colours- inspired by traditional ceremonial wear, warm wood tones, woven textures and circular forms, aim to support and respect the culture of Aboriginal residents.

The importance of natural light and views to nature is evident throughout each space within the complex. Larger windows were introduced where necessary, including clerestory windows on the second floor, a cantilevered glass window seat in the mudroom, and interior windows within the children's play room on the first floor. Each of these introductions help to support the connection between human and nature.

## 6.4 Basement Level

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The basement contains functional communal spaces as well as administrative spaces. On the west half of the basement can be found the exercise room with locker storage, a water fountain and separate area for exercise machines. Two entrances allow residents to access from either staircase or elevator without having to walk through the administration area. The laundry room is adjacent to the exercise room entry which provides easy access for exercise towels. The laundry room consists of three washers and dryers, an area for hanging clothes and a table and chairs for folding or waiting. The location of the laundry room on the basement level was intentional to provide staff the opportunity to utilize the room for any housing complex laundry without having to travel up to the more private second floor.

The administration area comprises the second half of the basement level. This includes the administrative offices, two private offices for counsel and mentor-ship as well as storage for files. The administrative office provides desk space for both the director and coordinator to work as well as a communal, central table for meetings. The two private offices are provided for the on-staff counselor and Aboriginal elder, or any other visiting professional, should they require a formal office for any meetings or sessions. These offices are not specific to any employee or professional as sessions are able to take place in any area of the complex the resident feels comfortable with, including the reflection lounge outdoors. Locating the offices and administration on the basement level separates them from the communal residential feel of the first floor and allows for added privacy.



Figure 48-Basement Floor Plan NTS

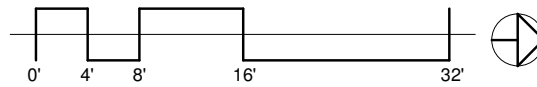




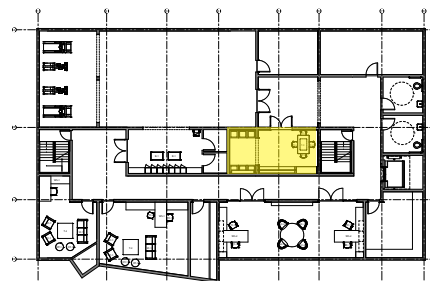


Figure 49-Laundry Room

## Laundry Room

The laundry room provides women and children a space to wash, dry, hang and fold clothes. Although this room is in the basement and receives no natural daylight or views, the green botanical wall covering brings in the feelings of nature and provides a fun and playful atmosphere to the space. The bright green wall provides balance and contrast to the white millwork, furniture and ceiling plane.

Ample storage is provided for hanging clothes and storing baskets and detergents. The table provides a surface for laundry to be folded but also introduces a space for socialization to occur.



## 6.5 First Floor

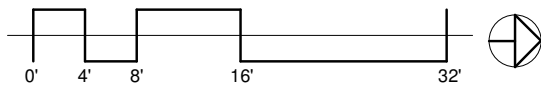
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The first floor of the housing complex contains the remaining spaces that facilitate the *community zone*, as informed by Sprague’s Lifeboat theory. Day to day tasks such as cooking, playing, relaxing and doing homework are facilitated throughout this floor. Multiple opportunities for connection and bonding are strategically placed throughout the first floor to give residents a choice in their desired level of interaction on any given day. The small cantilevered glass window seat off the mudroom, inspired by a similar feature at the Mt. Hood Childcare Center, allows women or children the opportunity to retreat into the “outdoors” and have a peaceful moment absorbing the sun’s rays while still being indoors. Small conversation groupings such as the ones directly adjacent to the kitchen and dining area allow women the opportunity to socialize, relax or have a conversation while participating in the communal atmosphere of the kitchen. Not only does this promote bonding, but it also supports a sense of control, inspired by the theory of Supportive Design.

This floor also provides residents with direct views to nature from almost every room through interior glazing, windows, glass doors and open concept design.



Figure 50-First Floor Plan NTS



## Resident Entry

Residents have access to all three secure entrance points throughout the complex, however, the entry located on the south facade is designed specifically for day to day use by residents. The door is only accessible by key card access, including the secondary glass door that leads into the complex as an added security measure. This entry contains mailboxes for each resident, a bulletin board for job postings, community events or general information as well as a bench for waiting or setting a car-seat down on. The mail counter provides a surface for writing and both garbage and recycling is located directly underneath.

The material palette is bold, yet calm with the introduction of light wood cladding while the dark wood of the mailboxes provides contrast and balance.

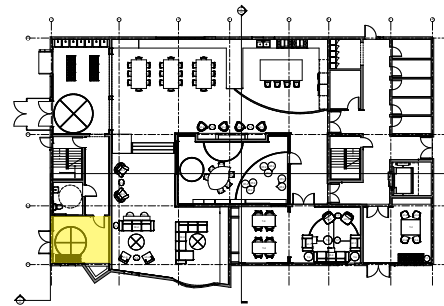






Figure 51-Resident Entry





Figure 52-Lounge

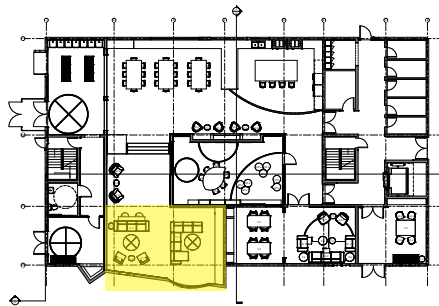
## Lounge

The lounge is designed to function as a traditional family room does within a residential home. This includes comfortable lounge style seating, a television for shows or movies, open display shelving and family photos on the wall.

Two furniture groupings provide ample seating for residents. The large sectional is fully mobile and can be reconfigured to provide flexibility and personal control.

An opportunity for contemplation and relaxation is facilitated with the inclusion of the window seat. Not only does it bring in ample natural light and views into the lounge but it allows for an experience of nature from inside the safety of the housing complex. It also provides an ideal location for indoor plants to thrive and contribute to the presence of biophilic design. Log shaped end tables and birch bark texture wall-coverings further contribute to these biophilic elements.

Circular forms including the light fixtures and coffee table pay homage to the Aboriginal culture, as do the combination of wood tones and the presence of the number four.



## Kitchen

The kitchen is an integral part of the *community zone*, informed by Lifeboat theory. It acts as a central hub for residents to cook, socialize and learn from each other. Two of each commercial appliances ensure cooking for large groups of people is convenient and efficient. The large island provides ample work-surfaces and the bar stools facilitate conversation and socialization.

A fireplace anchors the space and showcases one of the four earthly elements, fire. Locally sourced limestone and reclaimed wood create both visual interest and practicality with the creation of display shelving. The shelves on either side provide balance while creating an opportunity for displaying photos, artwork or mementos. Casual, soft seating facilitates another opportunity for conversation.

The warm wood tones are contrasted by warm white quartz countertops and basket weave tile flooring and back splash. Sage coloured walls allude to the herb's importance in the Aboriginal culture and helps to create an earthy atmosphere.

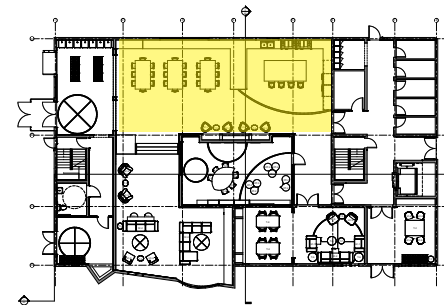




Figure 53-Kitchen





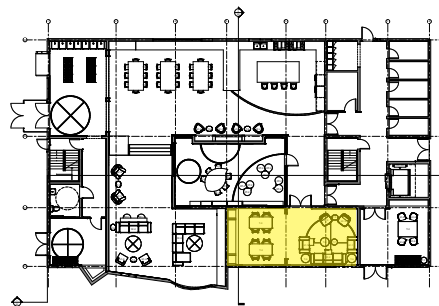
Figure 54-Tech Lounge

## Tech Lounge

The tech lounge is a multi-functional space for education, small presentations and socialization. Although this lounge is available for use by anyone in the complex, it is aimed at being a secondary lounge space for older children and teens.

The computer area is set up for recreational or educational use with large screens available for presentations or sharing. Small informal presentations for up to 8 people can also take place in this space. The sectional and arm chair are also fully mobile and reconfigurable to provide flexibility to the residents. Carpet tiles provide a soft area underfoot while the patterning and arrangement is inspired by the Aboriginal medicine wheel.

As a reflection of Aboriginal culture, the bold colours provide contrast and balance to the soft off white colour of the walls and ceiling. Warm wood tones are still present to create cohesiveness with the rest of the complex, however in smaller quantities. By creating a less sophisticated and more edgy palette, the room aims to appeal to the younger generation of residents.



## **Play Room**

The play room is a place for children living at the complex to escape the stresses and uncertainties of life and simply be a kid. Inspired by biophilic principles, the play room evokes feelings of being outside. The green carpet tiles resemble patches of grass while the wood cladding and dropped ceiling evoke feelings of a tree house. In addition, the dropped ceiling provides an opportunity for hiding acoustic treatment for sound absorption. The leaf shaped swing provides children with a place to relax or read a book while the slide facilitates exploration and play. Raindrop shaped mobile seating allows children soft surfaces to relax on and flexibility of space and play.

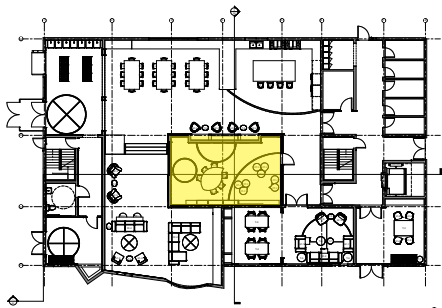
Ample storage at child height allows children independence to access toys, supplies and books. The custom leaf shaped table is a multi-functional work-surface for play, crafts, games and even homework. The inclusion of a television ensures that residents are able to watch what they please, either in the lounge or play room, at the same time. A full chalkboard wall allows children to colour, draw and express themselves on a large scale medium. Four easily changeable frames to display artwork also provide the opportunity to showcase individual talents.

Since security and peace of mind is important considering the nature of the complex, the play room provides visual access to the kitchen, dining, lounge, corridor and tech lounge through the integration of windows. This also provides the centrally located room indirect access to natural views and daylight.





Figure 55-Play Room



## Mudroom

The mudroom sits adjacent to the dining area and leads out into the outdoor area. The large glass doors and windows flood the space with natural daylight and provide direct views for mothers keeping an eye on their children playing outside.

The built in storage provides hooks, shelves and drawers for easy access to outerwear and shoes. Low upholstered benches give both children and adults a place to put on shoes, or relax for a moment.

The cantilevered glass window seat protrudes into the outdoor area immersing the user in sunlight and views of nature. It acts as a place of refuge for one to step away for a moment, or gives mothers the opportunity to relax and watch their children outside, from the comfort of the indoor environment.

Wood cladding is found on the ceiling and wraps down the south wall enveloping the space in natural warmth. The light wood tones are accented with the deeper wood of the built in storage and the bright off white walls of the dining area. The luxury vinyl flooring provides excellent clean ability and wear for a space that will see many wet and sloppy shoes come in from the outdoors. The circular accent of lighter luxury vinyl flooring represents the medicine wheel and provides visual interest at the floor plane.

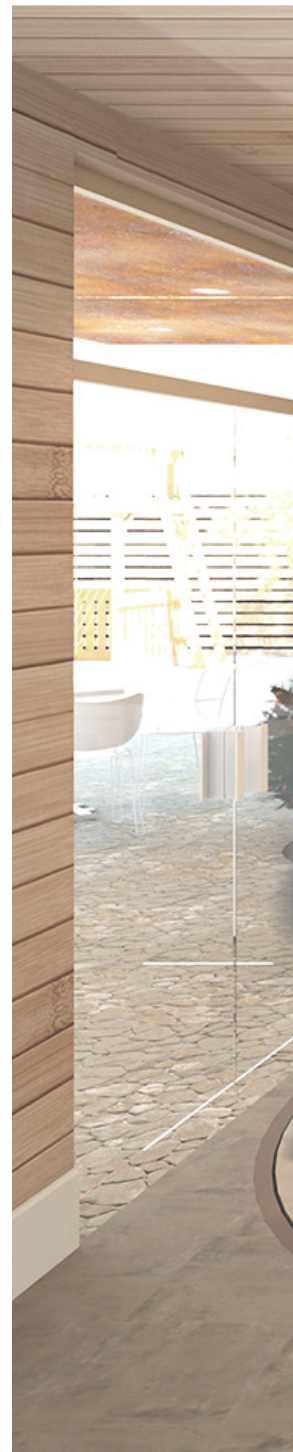
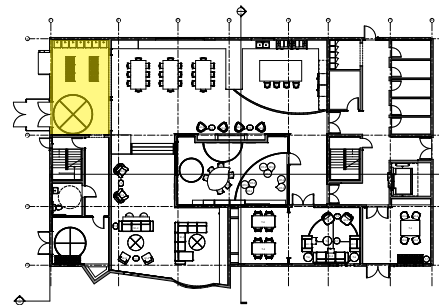




Figure 56-Mudroom

## 6.6 Second Floor

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The *household* and *personal zones* informed by Sprague's Lifeboat theory comprise the second floor. Five home units surround the only communal space on the second floor, the porch room. The porch room acts as a front porch in which residents can step out of their home and visit with a neighbour and strengthen the bond of community.

Two home units are intended for mothers with 1-2 children, two home units are intended for mothers with 2 or more children and one home unit is designed to accommodate women without children, or a large family. The home unit intended for single women is universally accessible with wide corridors and a large washroom. Each home unit consists of an open concept living area and kitchen, two bedrooms, a washroom and storage.

With the entire floor dedicated to personal and household bonding, residents are given the opportunity to retreat from the hustle and bustle of the communal spaces below. Individual family bonding and socialization is equally, if not more so, as important as community bonding, and the presence of private home units allow that to happen.



Figure 57-Second Floor Plan NTS

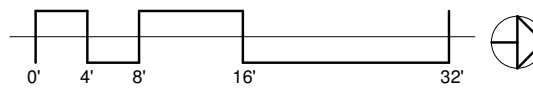




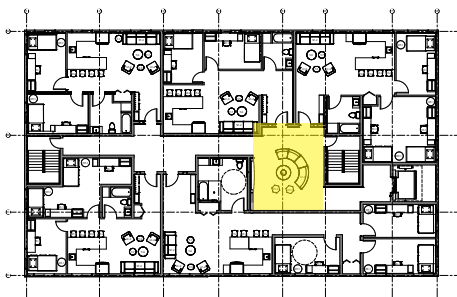
Figure 58-Porch Room

## Porch Room

The porch room acts as the transitional space between the community zone and the household zone. Just as front doors open onto a front porch in a residential house, home unit doors open onto the porch room. Neighbours can step out of their homes and share a friendly conversation or pop out to share morning coffee with a friend. The serene atmosphere is created by the presence of natural daylight, warm wood tones and fireplace.

Aboriginal culture is celebrated within this space. Traditionally, in Aboriginal communities, tepees would be set up in a circular pattern with the openings facing inward. This created a safe, communal space within the circle of tepees. The home units and their openings have been arranged to reflect this. In addition, a traditional tepee consists of a series of poles coming together and meeting in the middle, just as the wood ceiling details converge at the light fixture. The circular forms seen in the ceiling pattern, light fixture and furniture further help to celebrate the sacredness of the circle.

The majority of the space is kept light, warm and neutral in an effort to highlight the beautiful wood tones and stone texture of the fireplace. Reds and blues are introduced in the upholstery, but in amounts small enough so as to not distract from the natural serenity of the space.



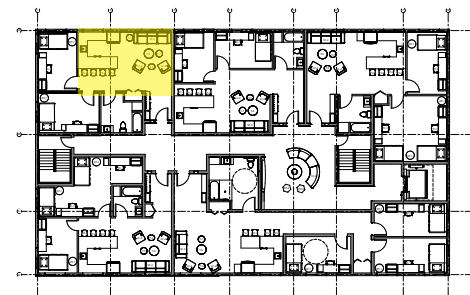
## Home Unit

The household zone within the home unit consists of a front entry, small living area, and kitchenette. Although small, so as to promote use of the communal spaces on the first floor, the open concept design helps to make the space feel larger.

Front entry storage is created with the built in shelving, drawers and hooks. As most outdoor wear will be stored in the mudroom for easier access, ample storage was not necessary within the home unit. A linen and storage closet can also be found adjacent to the bathroom.

The living area is furnished with two sofas that are completely mobile and reconfigurable. This allows residents to arrange their space in a way that best suits the needs of their family. The kitchenette features a microwave oven, sink and refrigerator for residents to prepare breakfasts and lunches. Dinners are served family style in the communal kitchen and dining area on the first floor.

The home units have been furnished with natural colour palettes of off whites, warm wood tones and soft sage colours. The neutral atmosphere allows women and children to decorate their unit with either their own personal belongings or those provided by the complex upon move in including art work, decor, throw pillows and blankets. Large sliding windows in the kitchen and living area bring in daylight and natural ventilation, and for some, views to the outdoor area.







*Figure 59-Home Unit*



Figure 60- Adult Bedroom



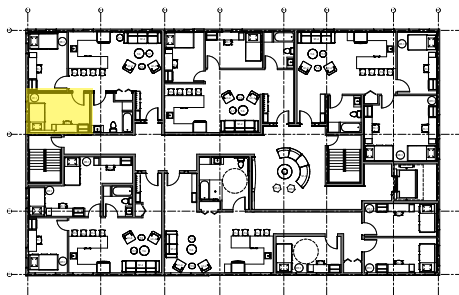
Figure 61-Child Bedroom

## Bedrooms

The bedrooms within the home units are small, yet practical and customizable. The children's bedrooms and adult bedrooms have been designed virtually identical, with slight height variations. Since the age ranges of children will vary significantly, neutral bedrooms prevent older children and teenagers from living in a bedroom designed for a much younger child. Warm, neutral wall colour allows for the resident's choice of colour palette to take center stage. Various colours and styles of artwork, vinyl wall decals, chairs, decor and bedding are all available for residents to select and furnish their own space upon move in. The two images of the bedrooms showcase how individuals might customize their room with personal belongings or selected items.

Storage is provided in a floor to ceiling wardrobe as well as underneath the bed. Linear floating shelves allow each resident to display their person items, photos or books. It also eliminates the need for damaging the walls to display artwork. The desk provides a work surface for homework, work or writing.

Each bedroom has large windows, with sliders for natural ventilation, window coverings and views to the outdoors. The natural wood flooring and ceiling tie into the material palette of the rest of the housing complex and add a sense of warmth. As the bedroom functions as the *personal zone* of Lifeboat theory, it is designed as a place of retreat, rejuvenation and serenity.





## 7.0 CONCLUSION

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7.1 Conclusion

7.2 Last Remarks



## 7.1 Conclusion

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The inspiration for this practicum project came from the first document I read after researching intimate partner violence. I was completely shocked to learn that women who visit emergency shelters in Alberta are given a 21 day limit on their stays at emergency shelters. It was unfathomable to me that any person under any circumstances would be able to get their life together in three short weeks, let alone someone coming from a severely traumatic situation. It was then I knew there had to be another way, there had to be a continuation of resources and support for these women and children. I began looking into second-stage shelters and the idea of up to two years of added support, resources and housing resonated with me. However, many second-stage shelters in Canada are simply a block of apartment buildings. Some have a communal outdoor play area for children but many do not. I felt there was a way to meld the typologies of a communal shelter environment with independent apartment style living.

The next step was to refine this idea of a typology using a theoretical framework. From the beginning I knew it was important to provide a home that supported the health and happiness of residents. To further support this I looked into Roger Ulrich's theory of Supportive Design which further iterates the importance of nature in a healing environment, as well as introduces the importance of providing users a sense of control and social supports. As I knew it was critical to incorporate a strong community component prior to exploring theory of Supportive Design, I began researching ways in which community is best facilitated. This led me to cohousing, which fit my

idea of a typology perfectly with its combination of private and communal areas. Lastly Lifeboat theory supported the inclusion of cohousing within a transitional environment. Interestingly, the ideas presented within theory of Supportive Design draw parallels to those presented in biophilia, cohousing and Lifeboat theory.

My knowledge of IPV and transitional housing prior to my research was extremely limited, however I did not realize how little I knew when I first began this journey. After deciding on the typology, I began looking into intimate partner violence more closely. This helped to develop an understanding of the families it affects. I was shocked to learn that it does not just affect one type of woman or that economic status and education do not factor into the equation. Even more surprising is that Aboriginal women experience intimate partner violence at higher rates than non-Aboriginal women, particularly from detrimental historical events that negatively impacted their culture. Uncovering this piece of information strengthened my project immensely as it challenged me to learn more about Aboriginal culture in Canada and its suppression throughout history. The importance of nature, the sacredness of womanhood and the circle of life added layers of depth to my project and helped it become a place in which Aboriginal culture is supported and celebrated.

The three studied precedents helped to provide insight into programming, design development, material selections and spatial relationships. The Okimaw Ohci Healing Lodge exemplified designing for the Aboriginal culture, for women and for mothers. The Alexandra Ellis Caring Cabin provided a wealth of insight into transitional home environments and cohousing. Finally, the Mt. Hood Community College Childcare Center helped shape the design of the childcare



spaces by exemplifying a childcare environment informed by biophilic design.

The site analysis was critical as it helped establish whether or not a transitional housing complex could be sustained within the selected neighbourhood. Mapping the area allowed a visualization of accessible amenities, education and recreation available to the residents of the housing complex. A study of the average population and ages gave vital information into the makeup of the surrounding neighbourhood. Examining the existing building itself through photographs and floor plans helped to establish an understanding of the existing spatial relationships as well as spatial constraints. The building, although large, was segregated and lacked openness and flow between spaces. Coupled with a large gymnasium that protruded through the first floor, the ways in which the chosen theories could transform the existing building into one with visual openness and exterior connections were put to the test. Biophilic design and the theory of Supportive Design aided immensely in this transition.

The final design of the transitional housing complex establishes a safe, supportive environment that allows women and children an opportunity to heal after leaving situations of intimate partner violence. The combination of large communal areas encourage bonding, community and relationships while the private home units and bedrooms allow for personal space, reflection and family bonding. Informed by Lifeboat theory, and theory of Supportive Design, these spaces of varying degrees of privacy provide residents with choice and control. The openness and visual connections within the first floor communal areas provides safety and an opportunity to integrate biophilic design principles. Large windows, both existing and new, allow for daylight,

natural ventilation and views to the outdoor area. Informed by theory of Supportive Design and biophilic design, the outdoor area provides women and children a safe outdoor to play, relax and socialize.

The material palette helps to further integrate both biophilic design and the Aboriginal culture. Inspired by the colours found in traditional Aboriginal ceremonial wear as well as natural materials and textures, the palette creates a serene, natural atmosphere accented by rich, saturated colours. As informed by the Alexandra Ellis Caring Cabin, the warm wood tones and natural stones help to create a familiar residential atmosphere, as do the integration of fireplaces. Circular and organic forms also contribute to the presence of biophilic design and the Aboriginal culture and can be seen in furniture, flooring, outdoor walkways and textiles.

Three research questions were used to guide the entire process from research to design execution. These questions were instrumental in shaping the final design of the housing complex and were as follows:

- 1. How can the interior environment and spatial relationships be shaped to facilitate a supportive environment?*

Particularly, the organization and varying degrees of privacy aid in the healing process of the women and children. As informed by Lifeboat theory and theory of Supportive Design, the degrees of privacy can contribute to feelings of empowerment by allowing a sense of control. In

addition, the integration and visual connection of the outdoor area allows for the benefits of nature to be experienced from various spaces throughout the complex. The positive benefits of nature, including stress reduction and improved happiness, can be experienced both indoors and outdoors due to the spatial relationships and visual connections.

*2. How can the interior environment contribute to establishing independence and self-empowerment among residents of the transitional housing complex?*

The inclusion of private apartment style home units allows women and children the opportunity to exist as a family unit outside the business of the communal areas. This allows for independence and privacy for women and mothers to grow and adjust to the changes in their life. In addition, residents are not required to leave the building if they do not feel comfortable. The complex provides all necessary amenities residents require, as well as means to access outside amenities for residents who wish to remain within the safety of the complex. This allows women to gain independence and self-empowerment within a safe setting before venturing out into the surrounding neighbourhood. The introduction of key card security system provides independence through the elimination of security guards. Security guards can contribute to institutional feelings, so by using key card access, security is not compromised and the environment remains as residential feeling as possible. As gender roles and expectations contribute to reducing self-empowerment among women, the housing complex aims to work against this by facilitating

relationships among women for encouragement, support and shared learning. Environments that encourage this include the communal kitchen, the lounges and the porch room.

*3. How can the inclusion of biophilic design features contribute to the process of emotional and psychological healing occurring within residents of the transitional housing complex?*

Through the literature investigation it was revealed that exposure to nature, both direct and indirect can have a positive impact on human beings. Within theory of Supportive Design, positive distractions are found as a key component of creating a healing environment. Within the Aboriginal culture, nature is the foundation in which life revolves around. By facilitating the integration of nature into the housing complex, particularly through biophilic design elements, residents are able to reap the benefits, physically, emotionally and culturally.

## 7.2 Last Remarks

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As I reflect upon this practicum, it is evident that there would be certain processes I would have liked to have completed, had there been more time. First, as stated earlier, it would have been beneficial to consult with individuals having personal experience with IPV, the Aboriginal culture or both. This would have added depth to the theoretical considerations and is something to consider for future projects. Secondly, what I learned specifically from this project that I consider invaluable is the importance of understanding history and culture. I believe undertaking the considerations of the Aboriginal culture impacted my project and it provided me with a greater understanding as to why trends of violence have continued.

In conclusion, through the past two years of research, exploration and learning this practicum project has evolved into a place for women to heal, to grow, to gain and to become. The culmination of the theories and precedent studies have helped to create a safe, transitional environment that does not put a 21-day limit on healing. The transitional housing complex is designed as a proposal to show what is possible within the province of Alberta. It shows how important the healing process is, how important the community environment is and how transitional environments like these do not have to be institutional in nature. With the design of the transitional housing complex, women and children are given safety, they are given support and they are given a home.



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Herman Miller Furniture Selections (ST-1) Retrieved from <http://www.hermanmiller.com>

Haworth Furniture Selections (TC-3) Retrieved from <http://www.haworth.com>



## APPENDIX

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Appendix A: Technical Drawings

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# Appendix A: Technical Drawings

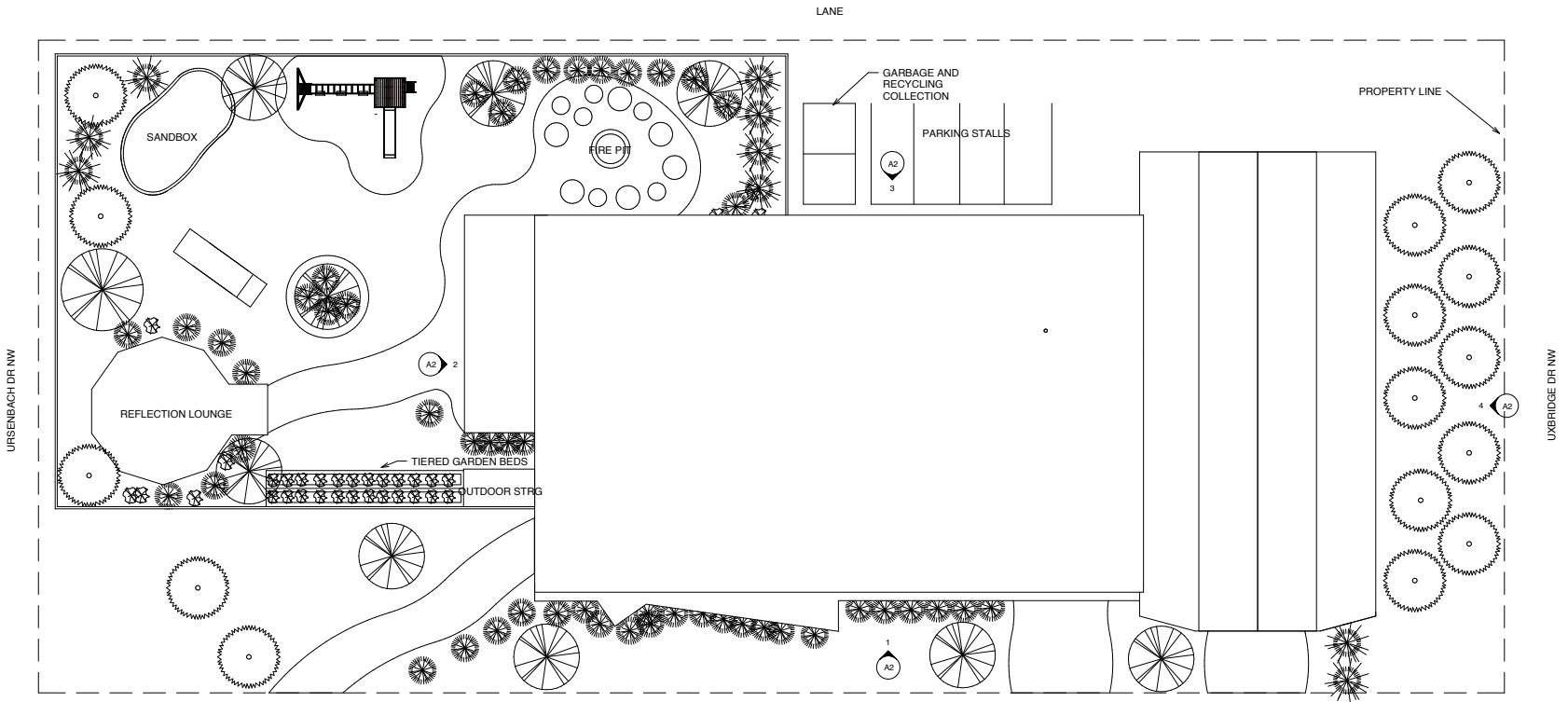
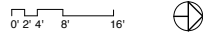


Figure 62-Site Plan NTS



URBANA RD NW



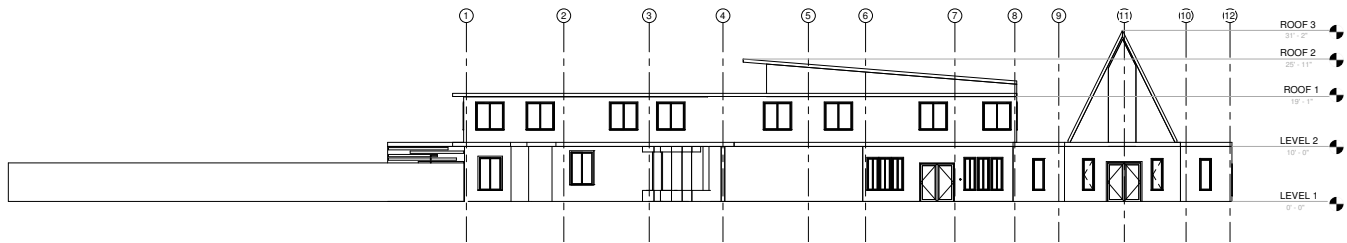


Figure 63-East Exterior Elevation NTS

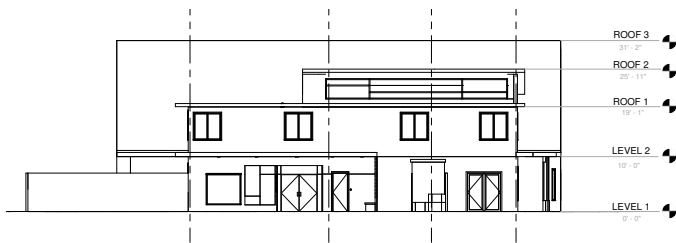


Figure 64-South Exterior Elevation NTS

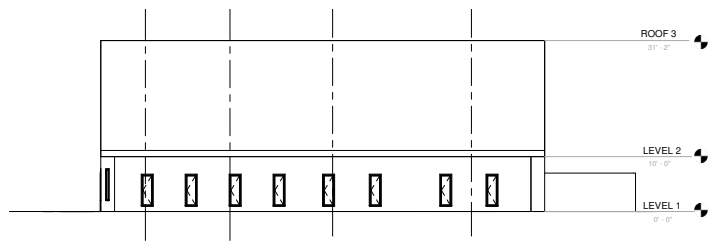


Figure 65-North Exterior Elevation NTS

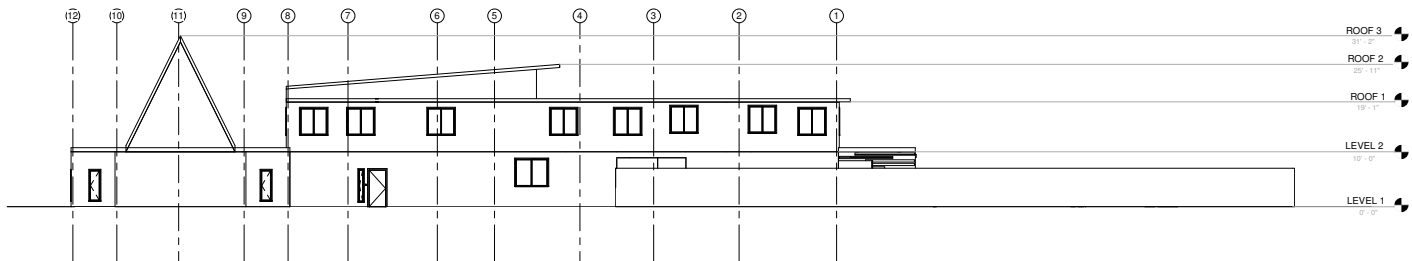
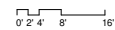
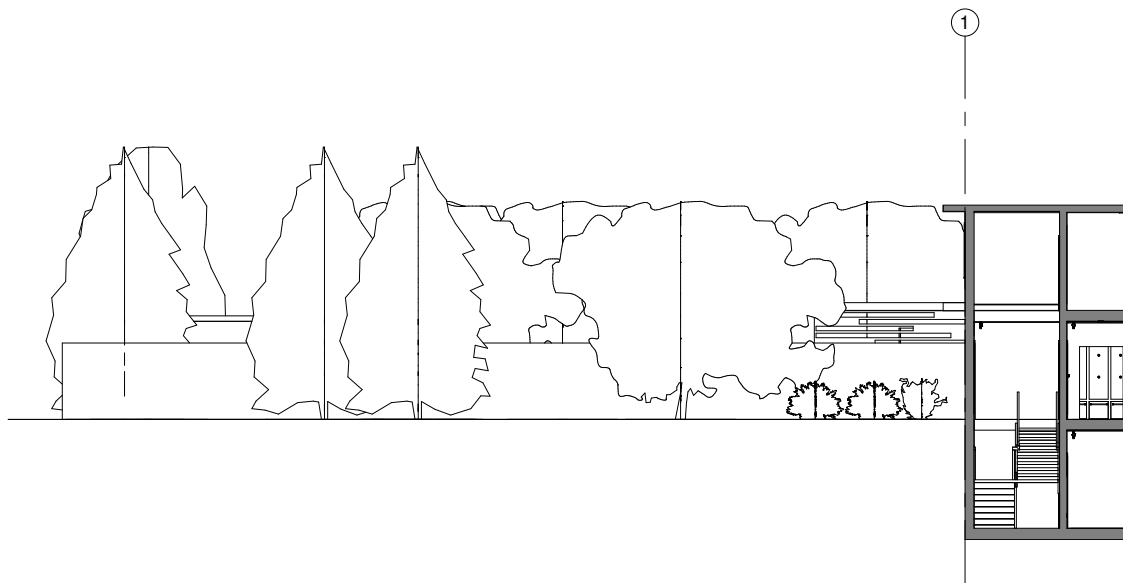


Figure 66-West Exterior Elevation NTS





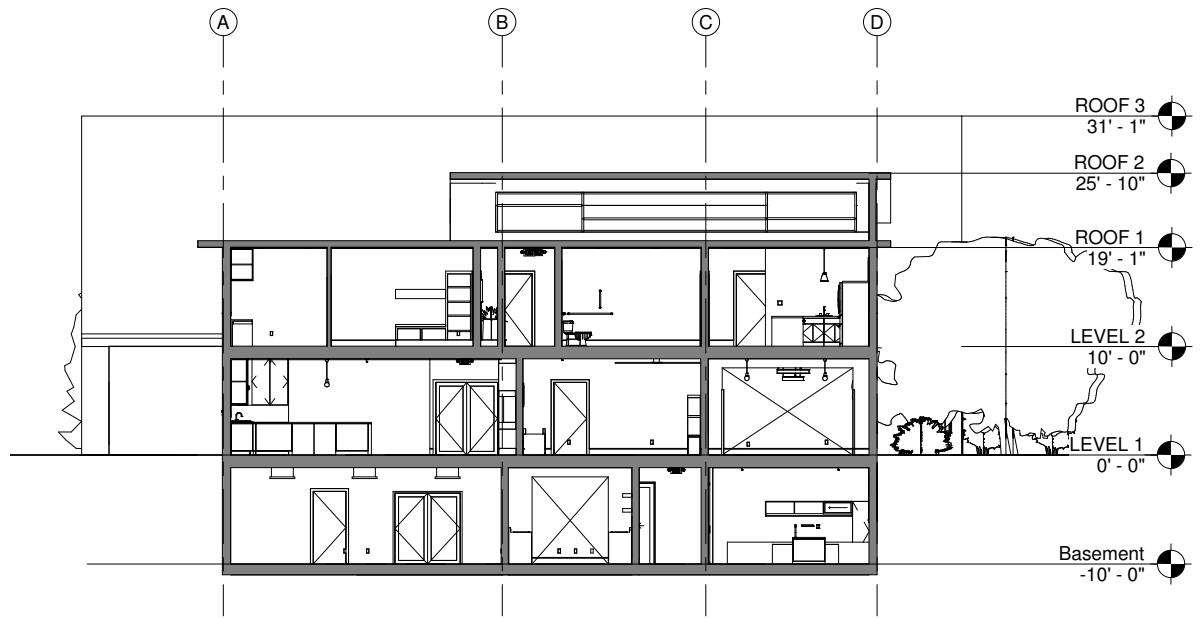


Figure 68-East West Section NTS

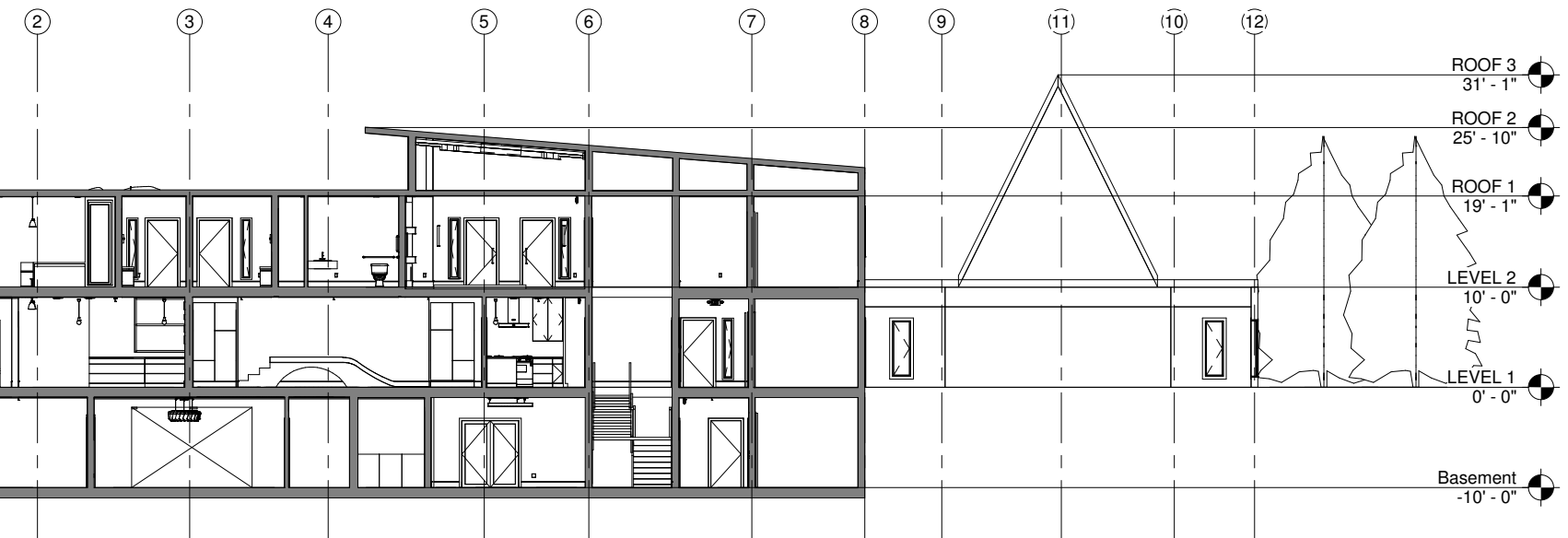
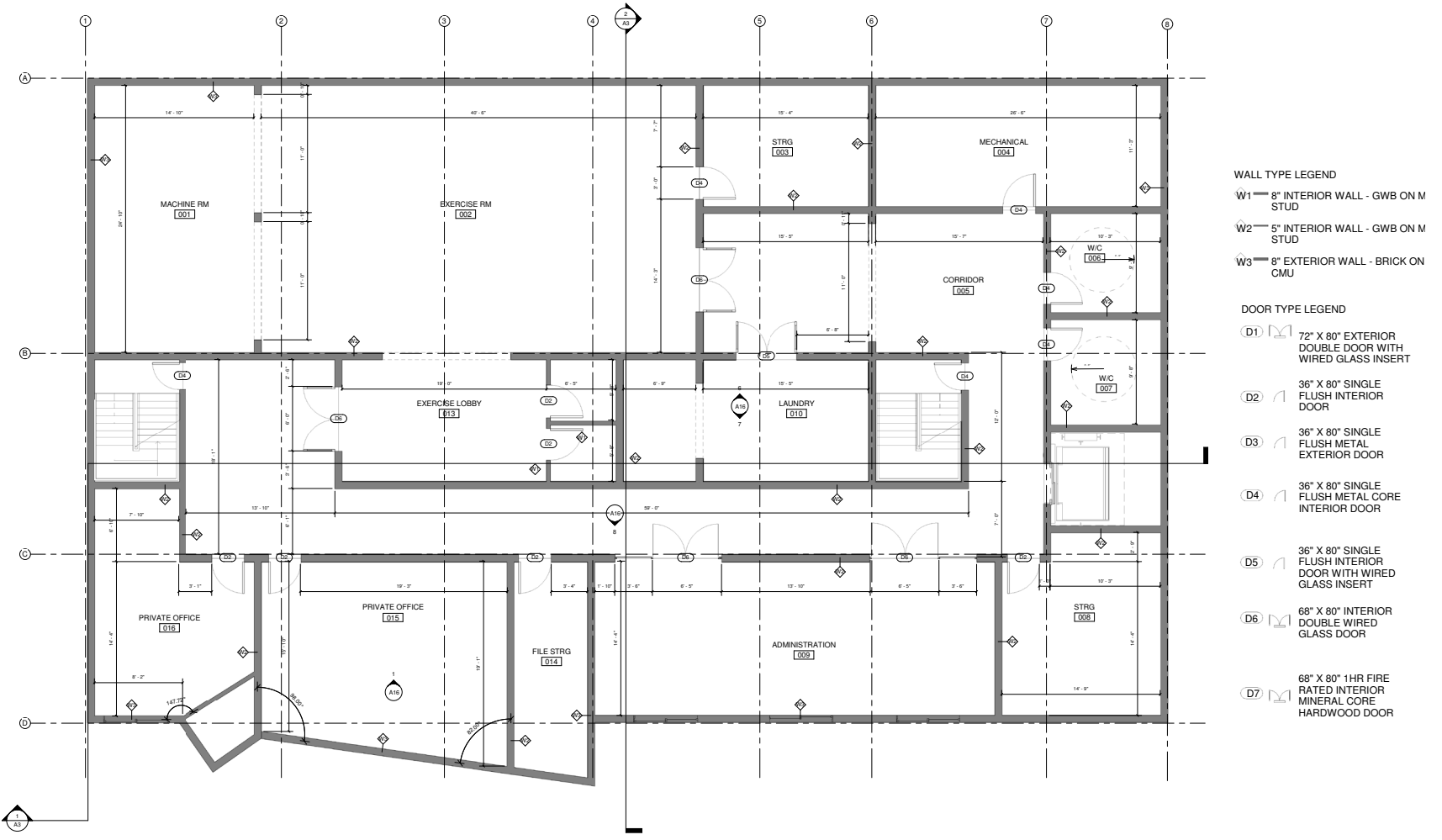
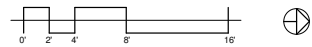


Figure 67-North South Section NTS



- WALL TYPE LEGEND**
- W1 8" INTERIOR WALL - GWB ON M STUD
  - W2 5" INTERIOR WALL - GWB ON M STUD
  - W3 8" EXTERIOR WALL - BRICK ON CMU
- DOOR TYPE LEGEND**
- D1 72" X 80" EXTERIOR DOUBLE DOOR WITH WIRED GLASS INSERT
  - D2 36" X 80" SINGLE FLUSH INTERIOR DOOR
  - D3 36" X 80" SINGLE FLUSH METAL EXTERIOR DOOR
  - D4 36" X 80" SINGLE FLUSH METAL CORE INTERIOR DOOR
  - D5 36" X 80" SINGLE FLUSH INTERIOR DOOR WITH WIRED GLASS INSERT
  - D6 68" X 80" INTERIOR DOUBLE WIRED GLASS DOOR
  - D7 68" X 80" 1HR FIRE RATED INTERIOR MINERAL CORE HARDWOOD DOOR

Figure 69-Basement Floor Plan NTS



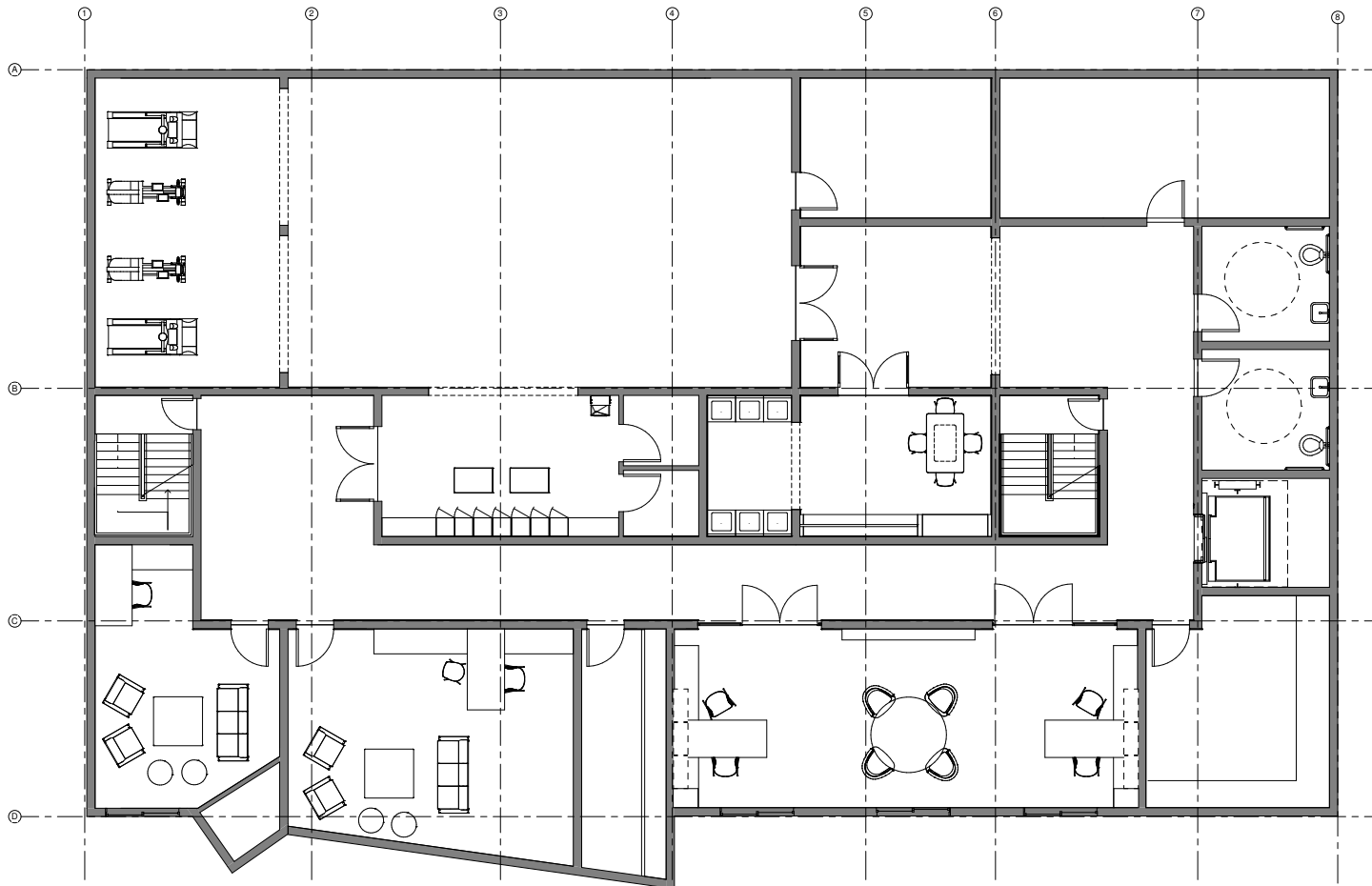


Figure 70-Basement Furniture Plan NTS



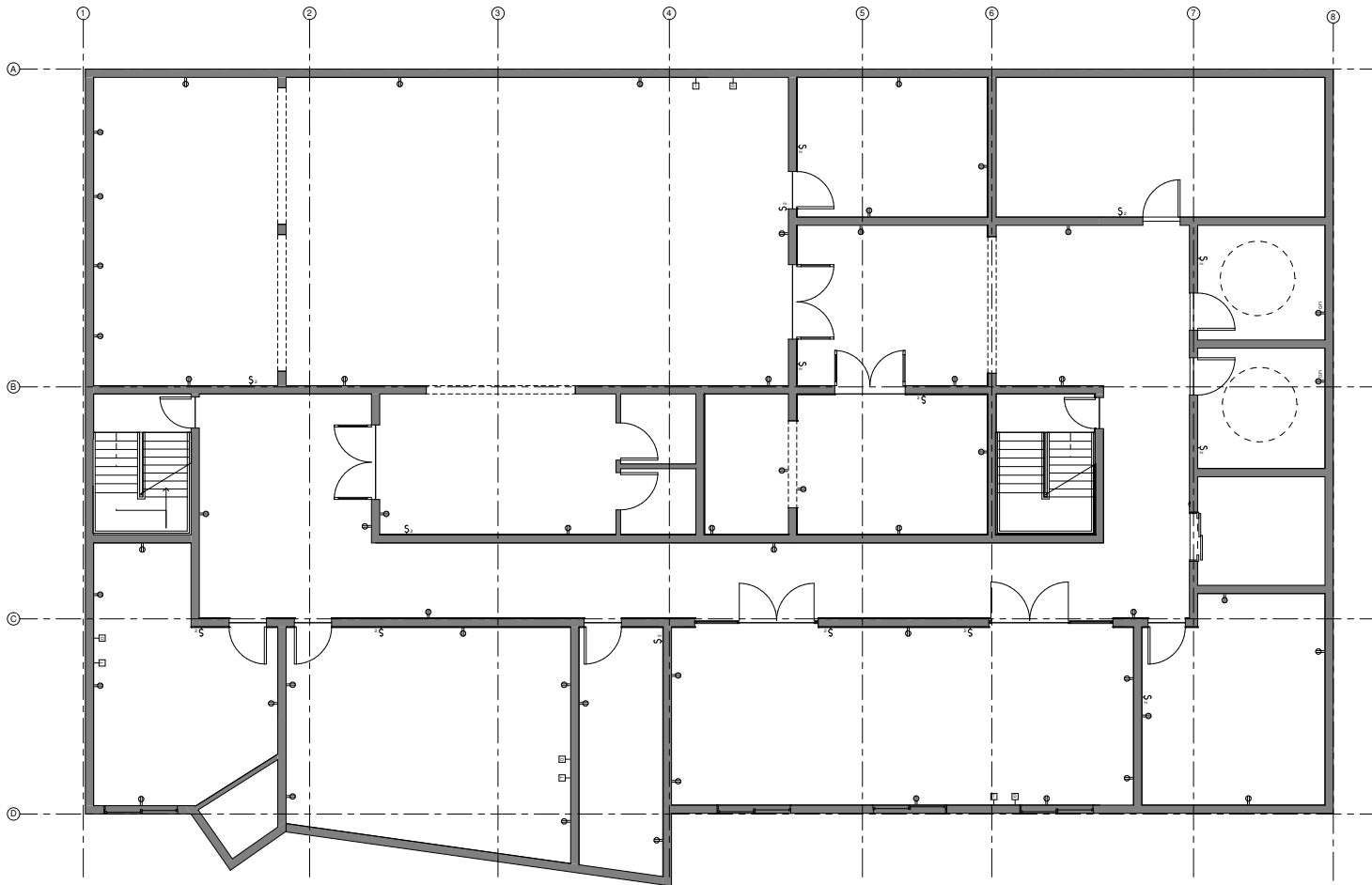
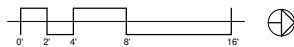


Figure 71-Basement Electrical Plan



- ELECTRICAL PLAN LEGEND
- OUTLET DUPLEX SINGLE
  - OUTLET TRIPLEX
  - OUTLET RANGE
  - OUTLET GFI SINGLE
  - SWITCH DOUBLE
  - SWITCH TRIPLE
  - DATA CONNECTION
  - TELEPHONE CONNECTION
  - KEY CARD ACCESS

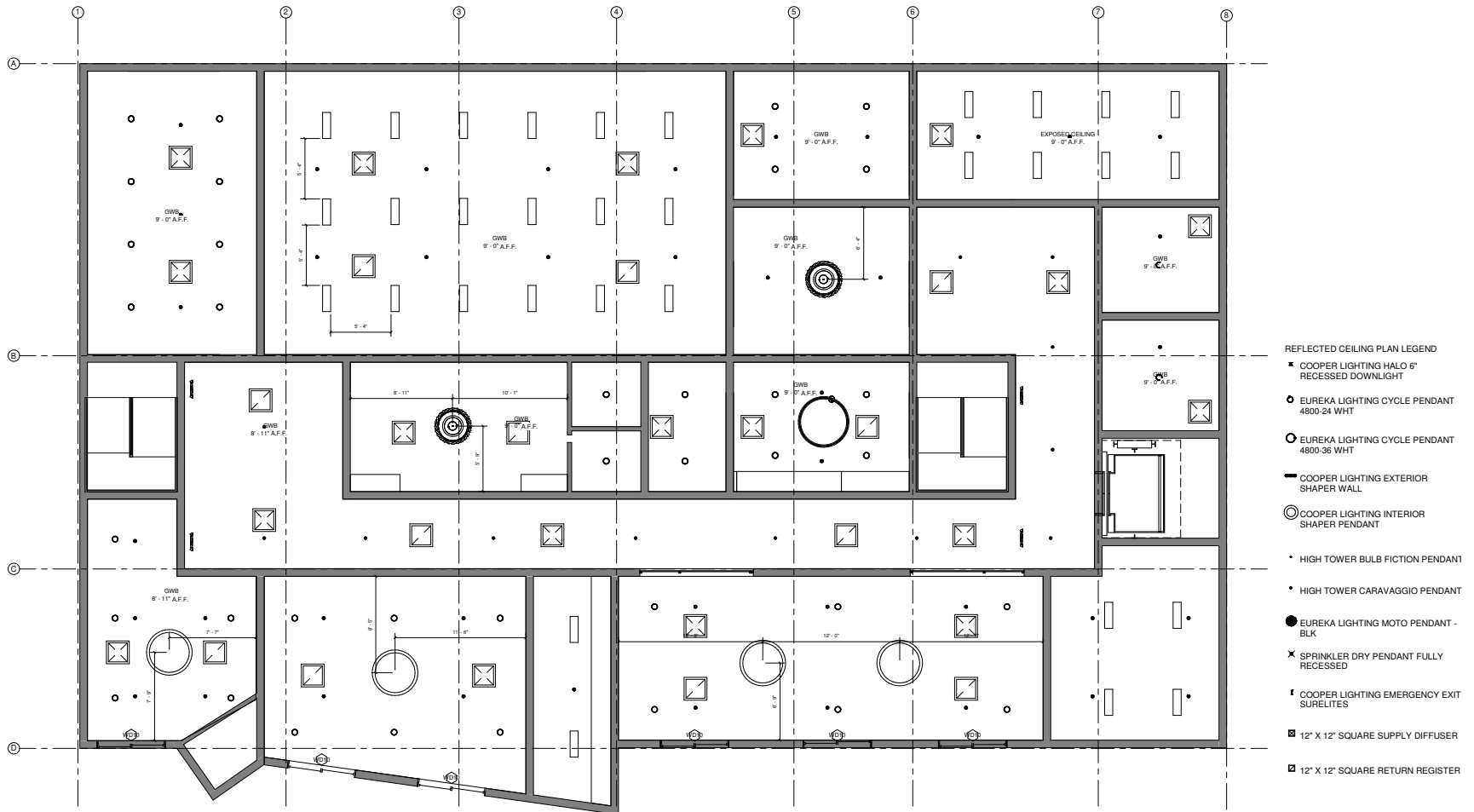


Figure 72-Basement Lighting Plan NTS

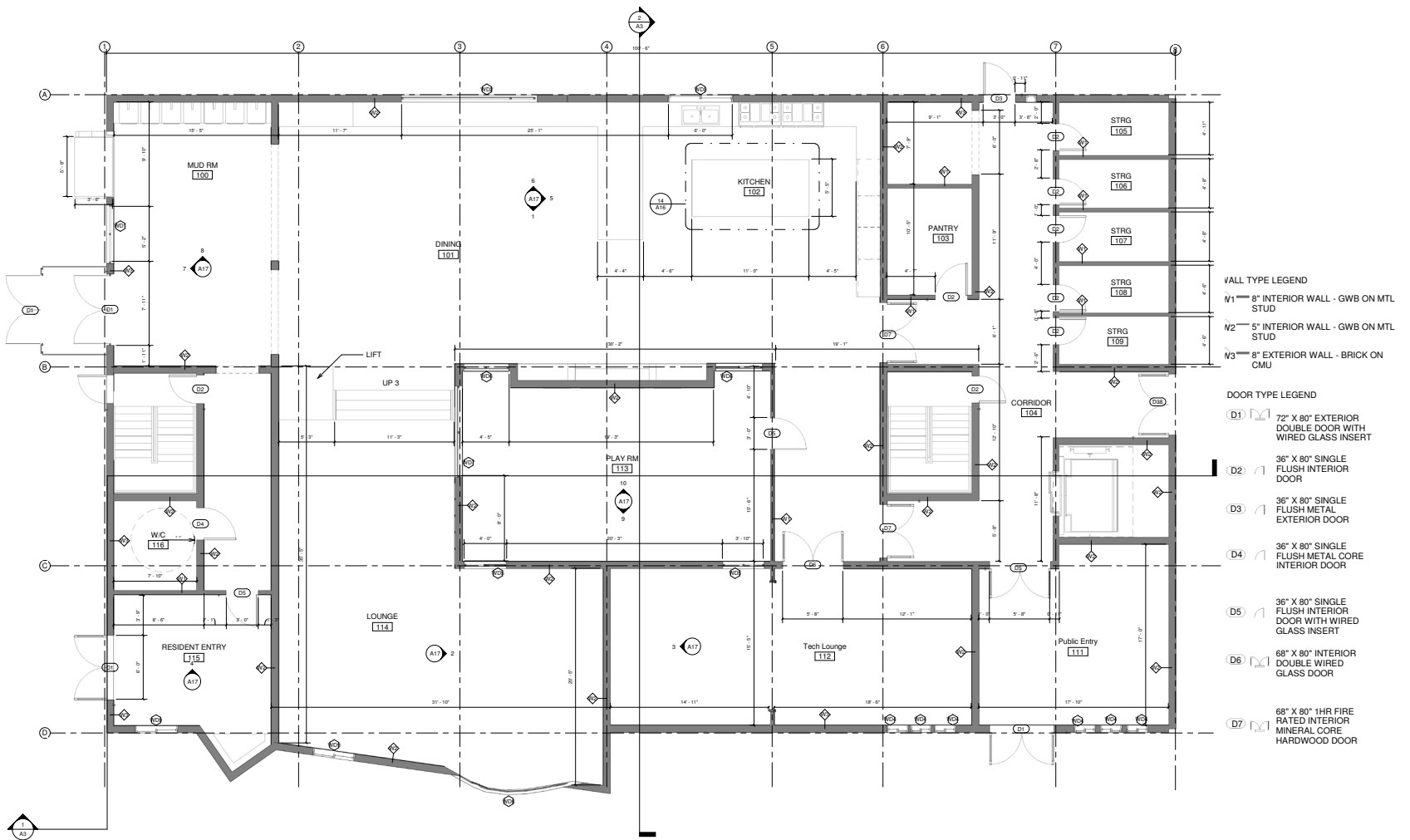
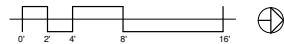


Figure 73-First Floor Plan NTS





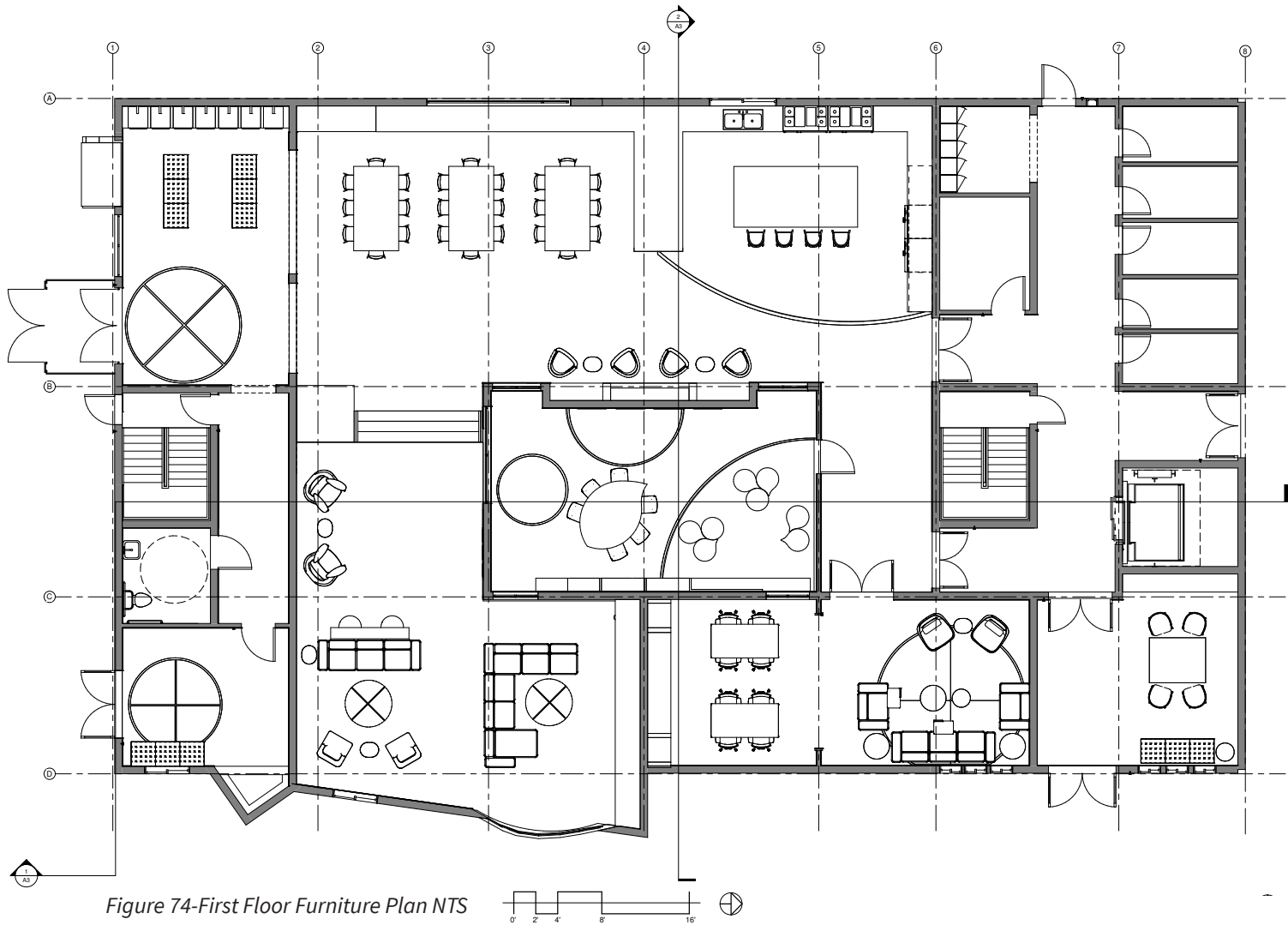


Figure 74-First Floor Furniture Plan NTS

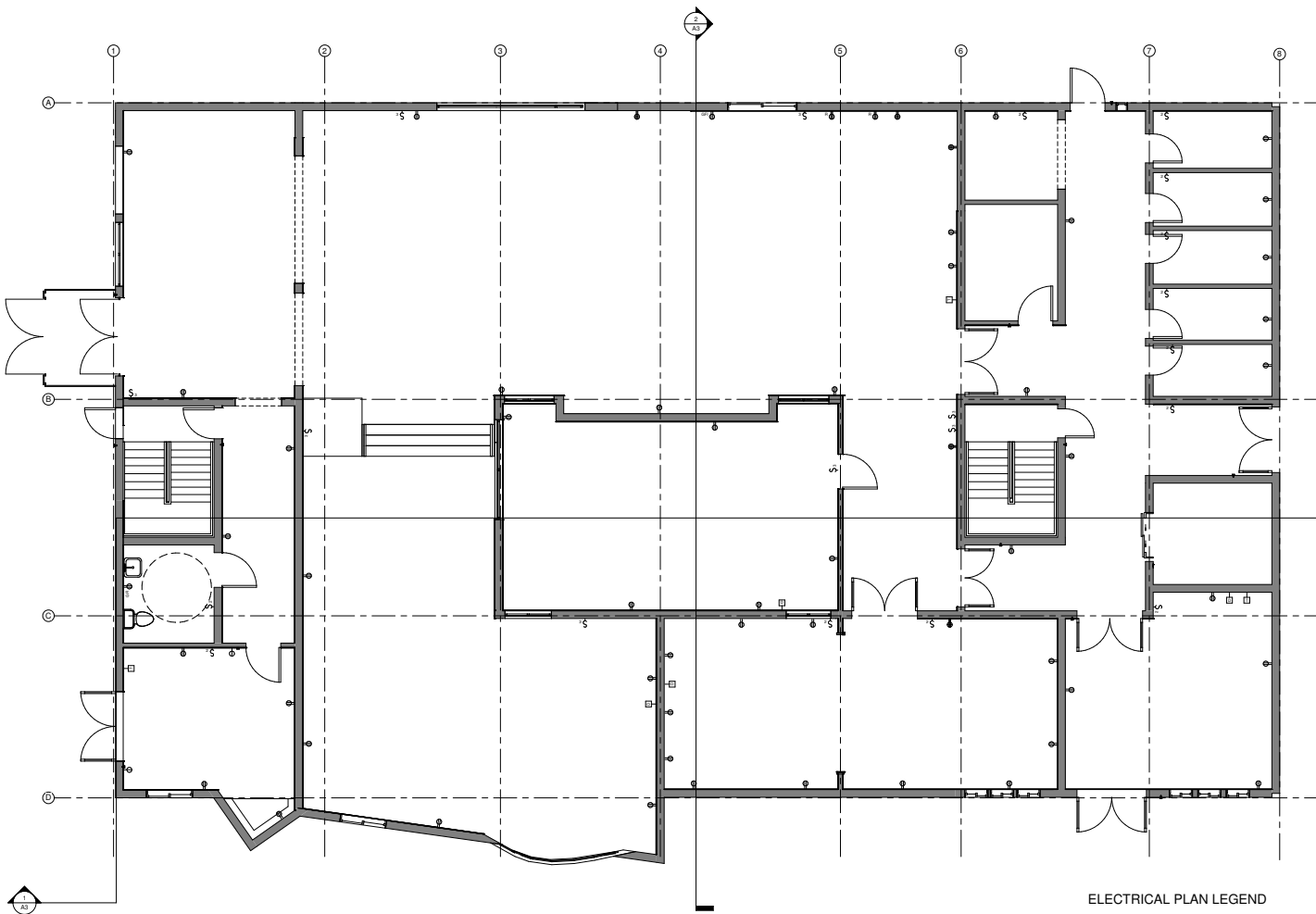
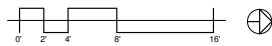











Figure 75-First Floor Electrical Plan NTS



ELECTRICAL PLAN LEGEND

-  OUTLET DUPLEX SINGLE
-  OUTLET TRIPLEX
-  OUTLET RANGE
-  OUTLET GFI SINGLE
-  SWITCH DOUBLE
-  SWITCH TRIPLE
-  DATA CONNECTION
-  TELEPHONE CONNECTION
-  KEY CARD ACCESS

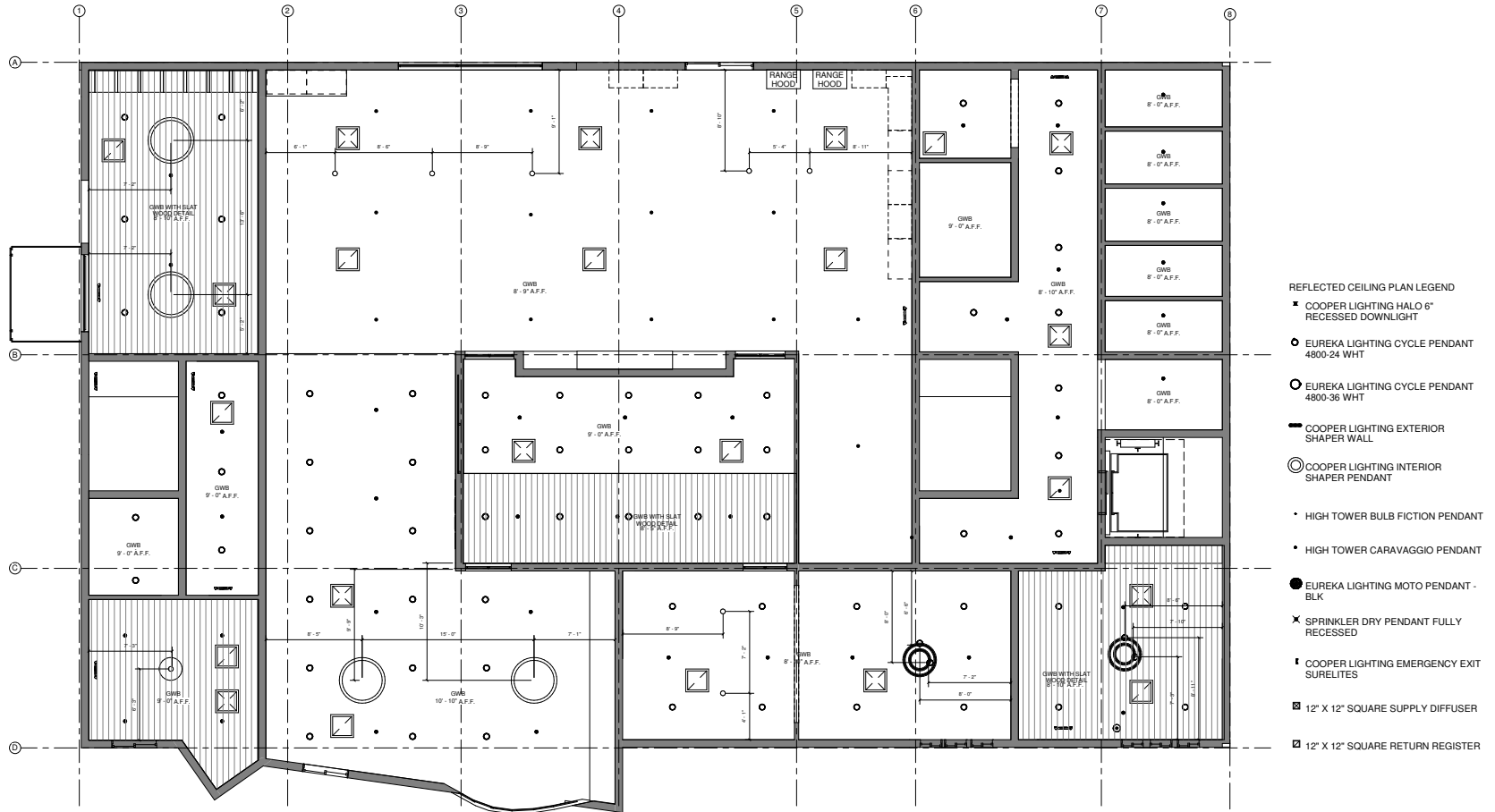


Figure 76-First Floor Lighting Plan NTS



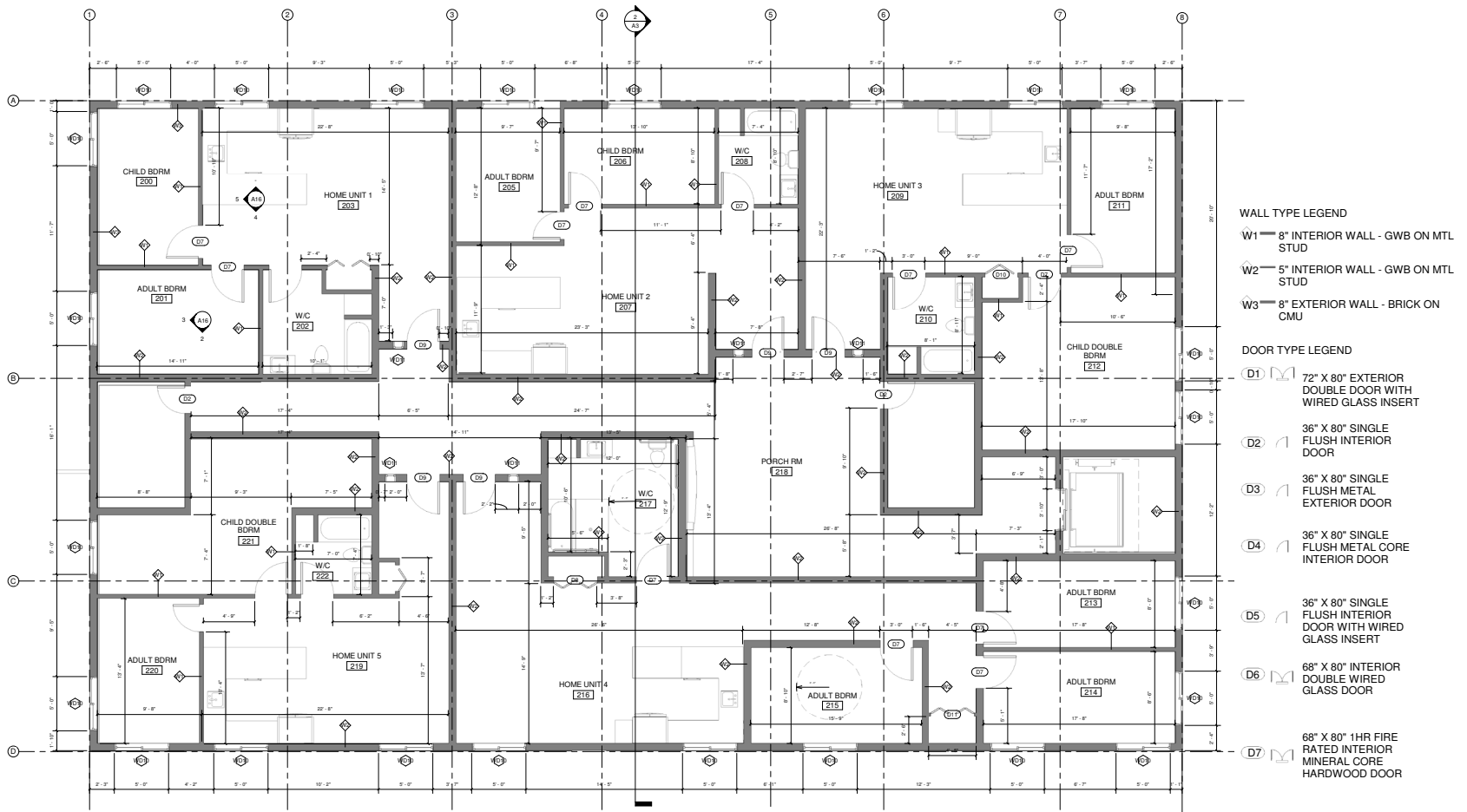
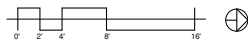


Figure 77-Second Floor Plan NTS



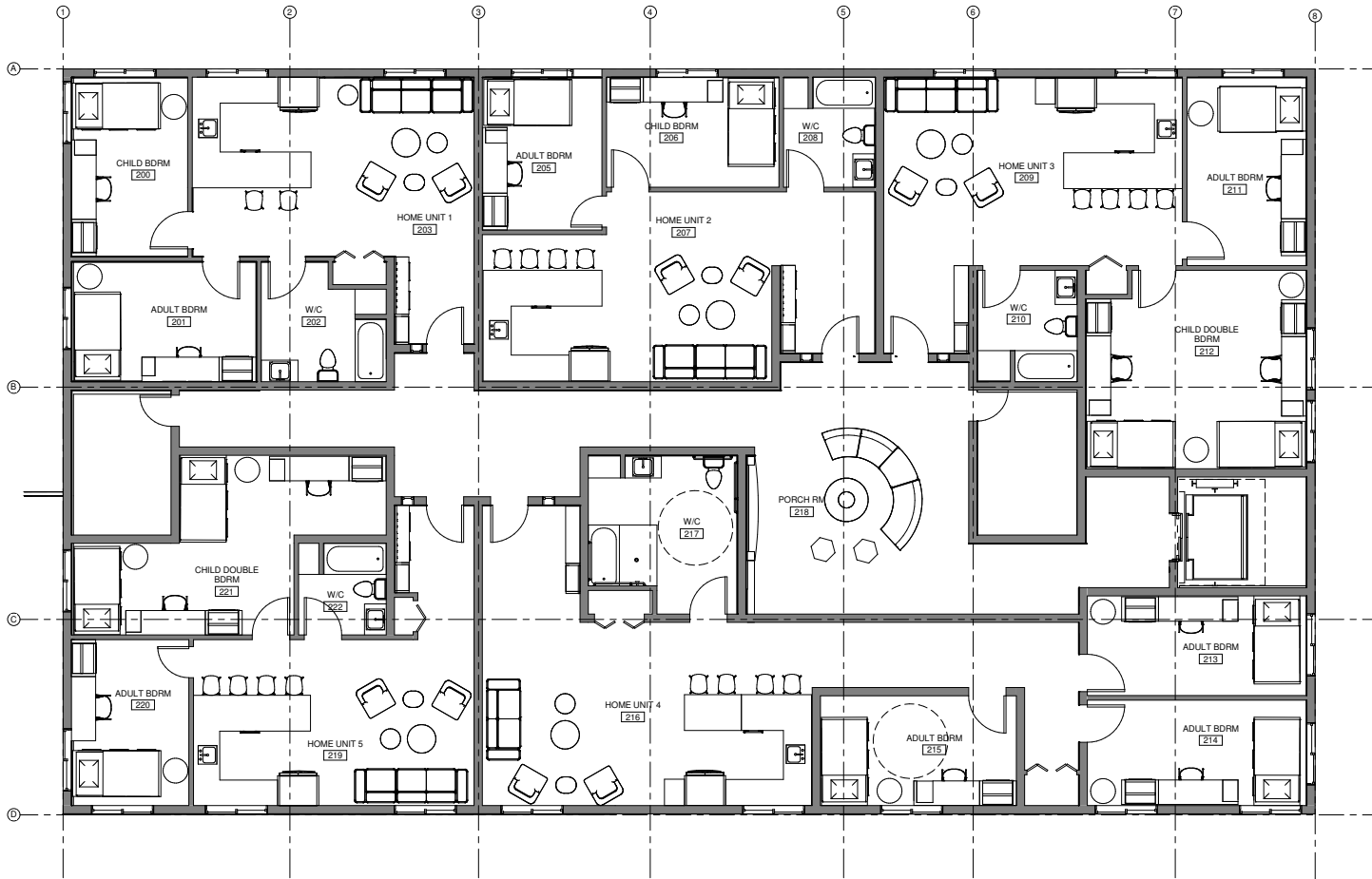
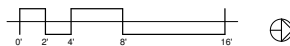


Figure 78-Second Floor Furniture Plan NTS



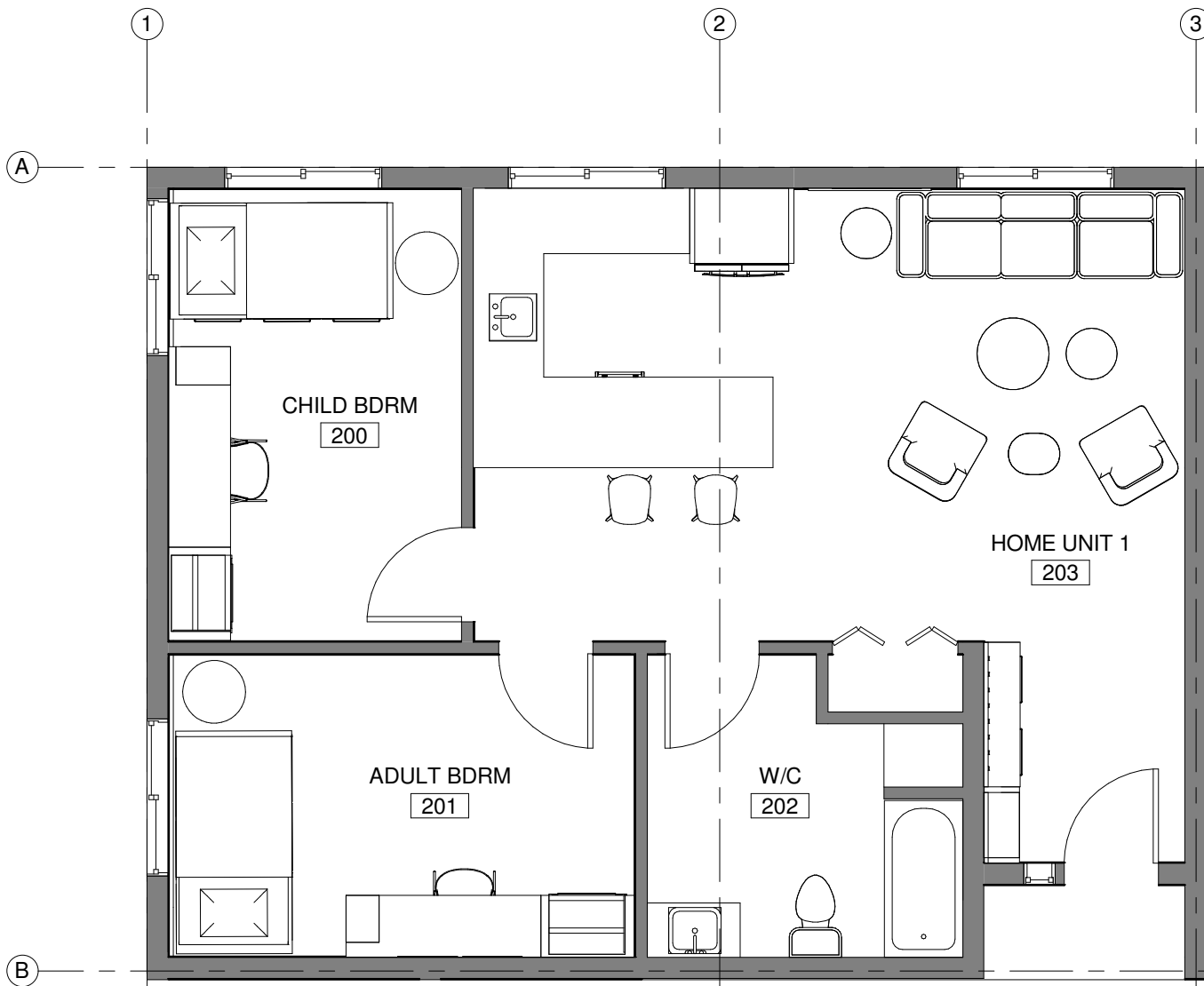
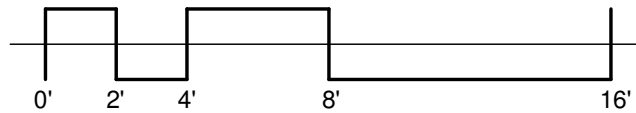


Figure 79-Enlarged Home Unit Plan NTS



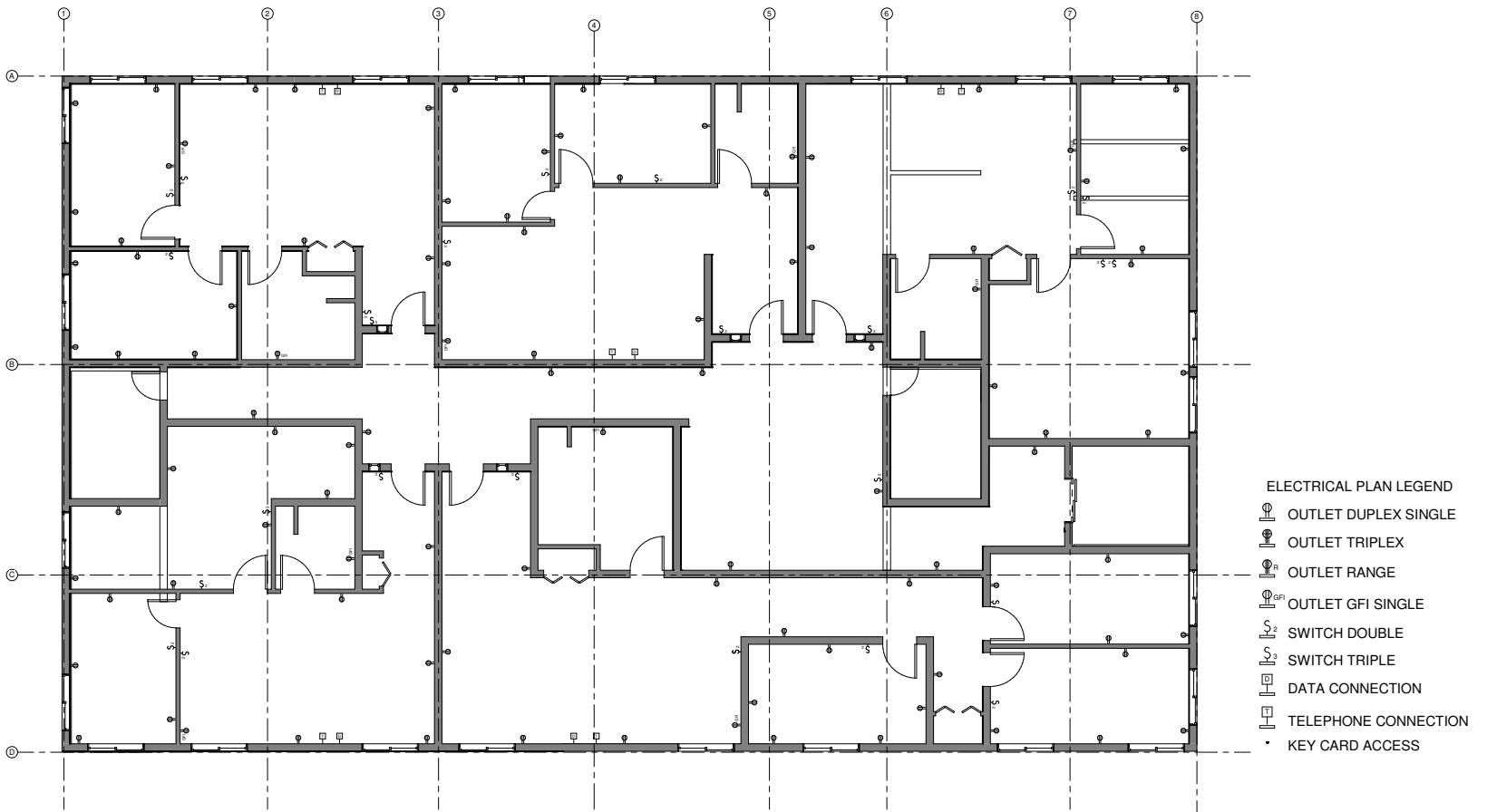
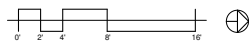


Figure 80-Second Floor Electrical Plan NTS



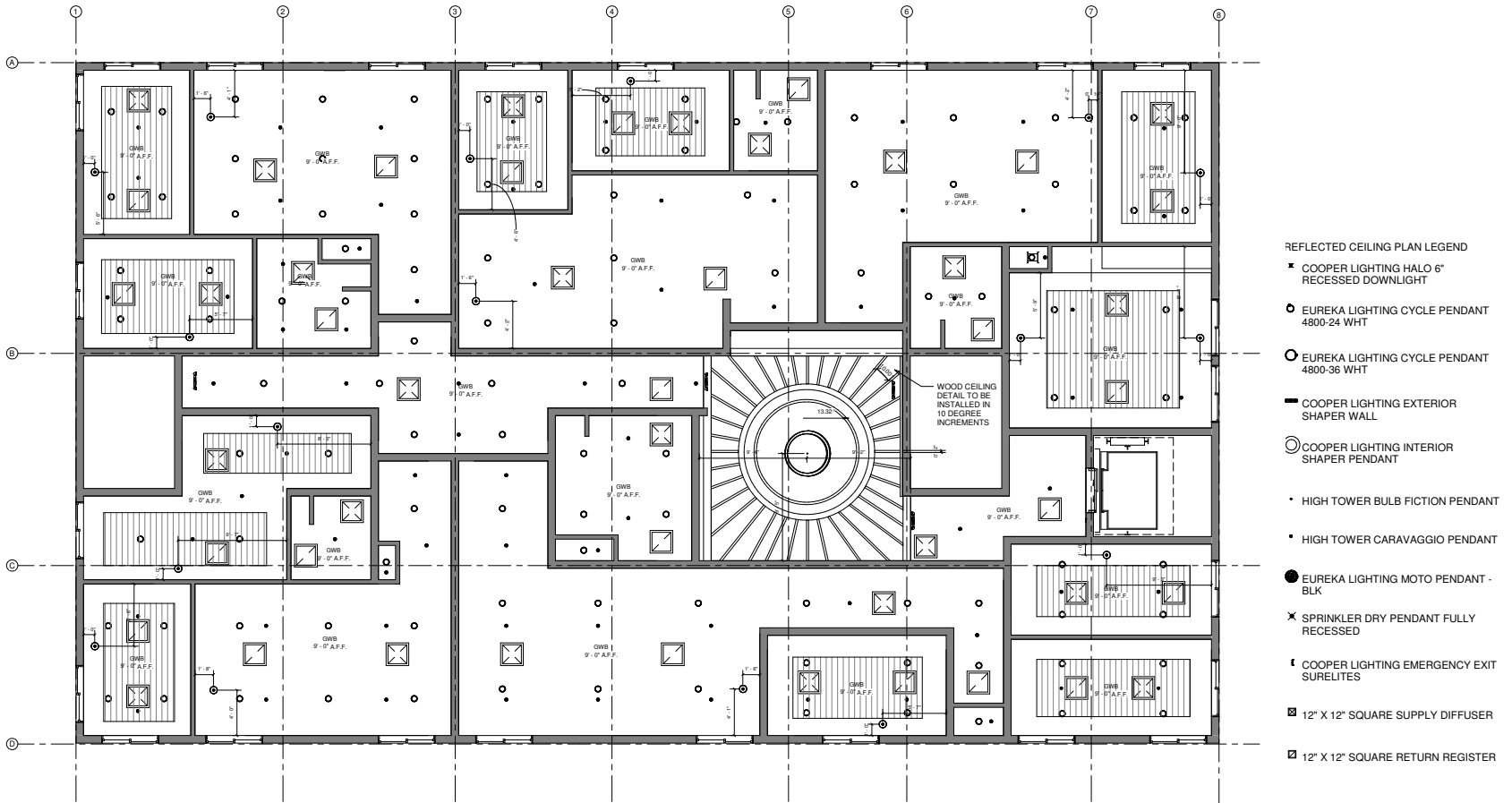
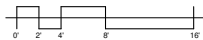


Figure 81-Second Floor Lighting Plan NTS





**Table 9-Room Finish Schedule**

ROOM FINISH SCHEDULE														
LEVEL	ROOM NO.	ROOM NAME	FLOOR	BASE		WALLS								CEILING
						NORTH		EAST		SOUTH		WEST		
			FINISH	MAT.	FINISH	MAT.	FINISH	MAT.	FINISH	MAT.	FINISH	MAT.	FINISH	FINISH
BASEMENT	001	MACHINE RM	LVT-2		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5
	002	EXERCISE RM	LVT-2		RB-1	GWB	P-4	GWB	P-1	GWB	P-1	GWB	P-4	P-5
	003	STORAGE	LVT-2		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	EX
	004	MECHANICAL	LVT-2		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	EX
	005	CORRIDOR	LVT-3		RB-1	GWB	P-1	GWB	P-2	GWB	P-1	GWB	P-1	P-5
	006	W/C	LVT-1		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5
	007	W/C	LVT-1		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5
	008	STORAGE	LVT-2		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5
	009	ADMINISTRATION	LVT-4		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5
	010	LAUNDRY	LVT-1		RB-1	GWB	P-6	GWB	WC-1/PT-1	GWB	P-5	GWB	PT-1/P-6	P-5
	011	CHANGE RM	LVT-2		RB-1	GWB	P-1	GWB	P-3	GWB	P-1	GWB	P-1	P-5
	012	CHANGE RM	LVT-2		RB-1	GWB	P-1	GWB	P-3	GWB	P-1	GWB	P-1	P-5
	013	EXERCISE LOBBY	LVT-2		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5
	014	FILE STORAGE	LVT-2		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5
	015	PRIVATE OFFICE	LVT-4		RB-1	GWB	P-1	GWB	P-1	GWB	P-2	GWB	P-1	P-5
	016	PRIVATE OFFICE	LVT-4		RB-1	GWB	P-1	GWB	P-1	GWB	P-2	GWB	P-1	P-5
FIRST FLOOR	100	MUD ROOM	LVT-2/LVT-1		RB-1	GWB	P-1	GWB	P-1	GWB	WD	GWB	P-4	WD
	101	DINING	LVT-3		RB-1	GWB	P-1	GWB	P-2	GWB	P-1	GWB	P-1	P-5
	102	KITCHEN	LVT-3		RB-1	GWB	P-1	GWB	P-2	GWB	P-1	GWB	PT-1	P-5
	103	PANTRY	EP-1		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5
	104	CORRIDOR	LVT-2		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5
	105	STORAGE	LVT-2		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5
	106	STORAGE	LVT-2		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5
	107	STORAGE	LVT-2		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5
	108	STORAGE.	LVT-2		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5
	109	STORAGE	LVT-2		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5
	111	PUBLIC ENTRY	LVT-2		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-4	WD
	112	TECH LOUNGE	LVT-3/CT-2		RB-1	GWB	P-1	GWB	P-1/P-4	GWB	WD	GWB	P-1	P-5
	113	PLAY RM	LVT-4/CT-1		RB-1	GWB	P-1	GWB	WD	GWB	P-1	GWB	P-1	P-5/WD
	114	LOUNGE	LVT-3		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5
	115	RESIDENT ENTRY	LVT-2/LVT-1		RB-1	GWB	P-1	GWB	P-3	GWB	P-3	GWB	P-1	WD
	116	W/C	LVT-2		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5
SECOND FLOOR	200	CHILD BDRM	LVT-4		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5/WD
	201	ADULT BDRM	LVT-4		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5/WD
	202	W/C	LVT-2		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5
	203	HOME UNIT 1	LVT-3		RB-1	GWB	P-1	GWB	P-3	GWB	P-1	GWB	P-1/PT-1	P-5
	205	ADULT BDRM	LVT-4		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5/WD
	206	CHILD BDRM	LVT-4		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5/WD

LEVEL	ROOM NO.	ROOM NAME	FLOOR	BASE		WALLS								CEILING
						NORTH		EAST		SOUTH		WEST		
						FINISH	MAT.	FINISH	MAT.	FINISH	MAT.	FINISH	MAT.	
SECOND FLOOR	207	HOME UNIT 2	LVT-3		RB-1	GWB	P-1	GWB	P-1	GWB	P-1/PT-1	GWB	P-3	P-5
	208	W/C	LVT-2		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5
	209	HOME UNIT 3	LVT-3		RB-1	GWB	P-1	GWB	P-3	GWB	P-1	GWB	P-1/PT-1	P-5/WD
	210	W/C	LVT-2		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5
	211	ADULT BDRM	LVT-4		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5/WD
	212	CHILD DOUBLE BDRM	LVT-4		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5/WD
	213	ADULT BDRM	LVT-4		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5/WD
	214	ADULT BDRM	LVT-4		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5/WD
	215	ADULT BDRM	LVT-4		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5/WD
	216	HOME UNIT 4	LVT-3		RB-1	GWB	P-1/PT-1	GWB	P-1	GWB	P-1	GWB	P-3	P-5
	217	W/C	LVT-2		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5
	218	PORCH RM	LVT-3		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	WC-2	WD
	219	HOME UNIT 5	LVT-3		RB-1	GWB	P-1	GWB	P-1	GWB	P-1/PT-1	GWB	P-3	P-5
	220	ADULT BDRM	LVT-4		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5/WD
221	CHILD DOUBLE BDRM	LVT-4		RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5/WD	
222	W/C			RB-1	GWB	P-1	GWB	P-1	GWB	P-1	GWB	P-1	P-5	

ABBREVIATIONS:

GWB Gypsum Board

WD Wood

**Table 10-Luminaire Schedule**

LUMINAIRE SCHEDULE					
TYPE	MANUFACTURER	DESCRIPTION / STYLE	MOUNTING LOCATION	WATTS / VOLTS / TEMP	NOTES
A	COOPER	6" HALO LED HOUSING	R	8W	
B	EUREKA	CYCLE 24	S	17W 3500K	WHITE
C	EUREKA	CYCLE 36	S	17W 3500K	WHITE
D	COOPER	SHAPER 674	WM	20W 3000K	
E	COOPER	SHAPER 143-P	P	40W 3200K	WALNUT
F	HIGH TOWER	BULB FICTION	P	100W 120V	
G	HIGH TOWER	CARAVAGGIO PENDANT	P	100W 120V	MATTE BLACK
H	EUREKA	MOTO	P	17W 3500K	BLACK

v

P PENDANT

S SUSPENDED

WM WALL MOUNT

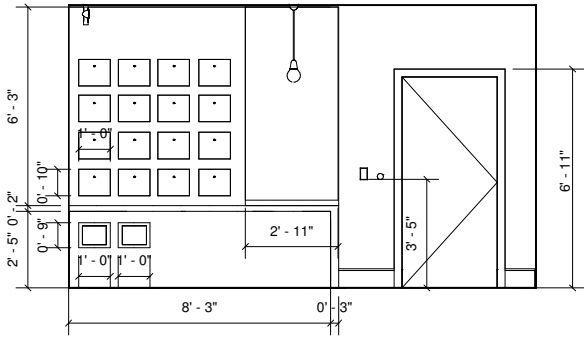


Figure 82-Resident Entry West Elevation NTS

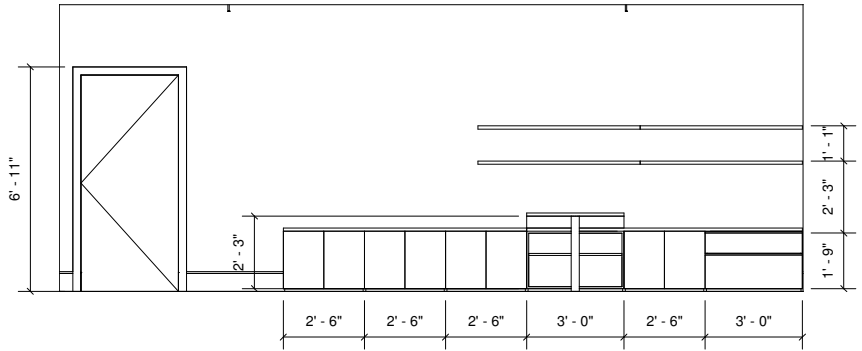


Figure 83-Private Office West Elevation NTS

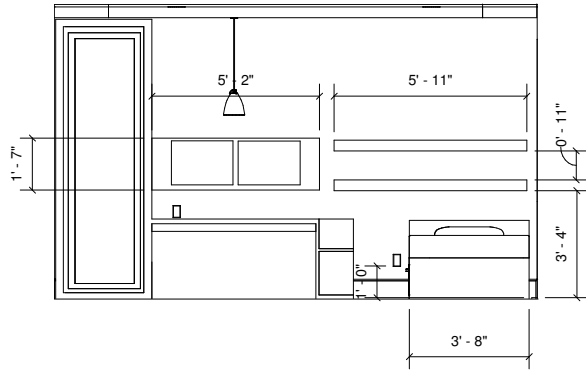


Figure 84-Bedroom East Elevation NTS

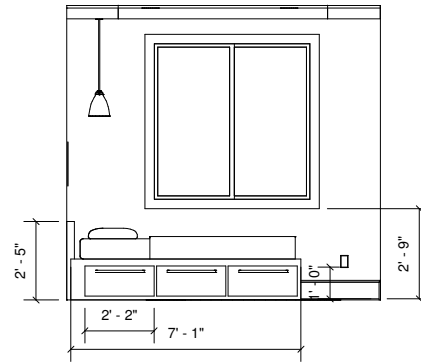


Figure 85-Bedroom South Elevation NTS

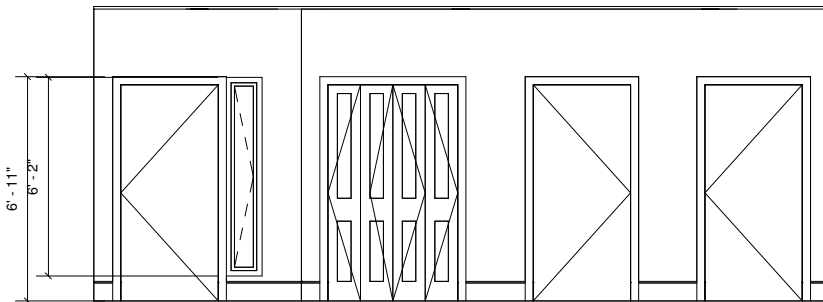
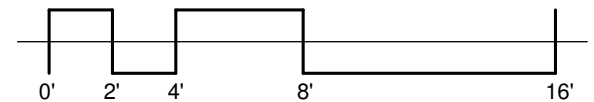


Figure 86-Home Unit East Elevation NTS



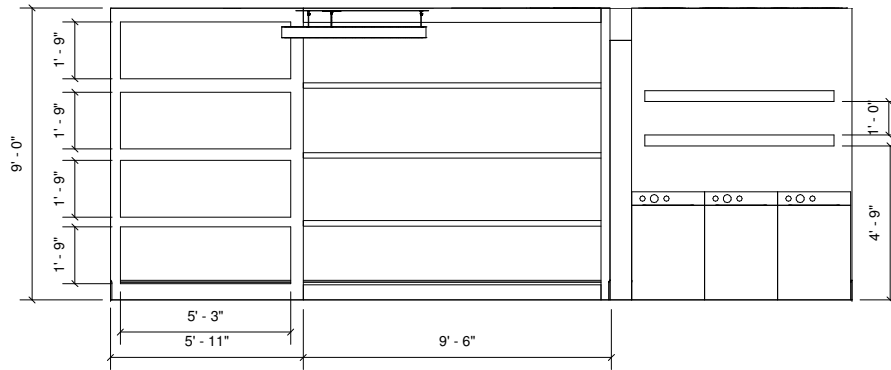


Figure 87-Laundry East Elevation NTS

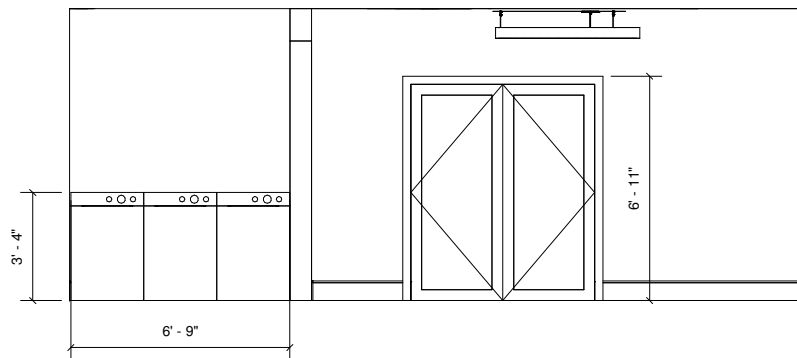
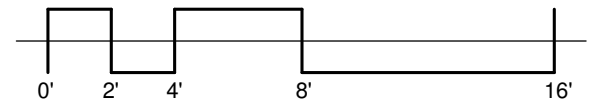


Figure 88-Laundry West Elevation NTS



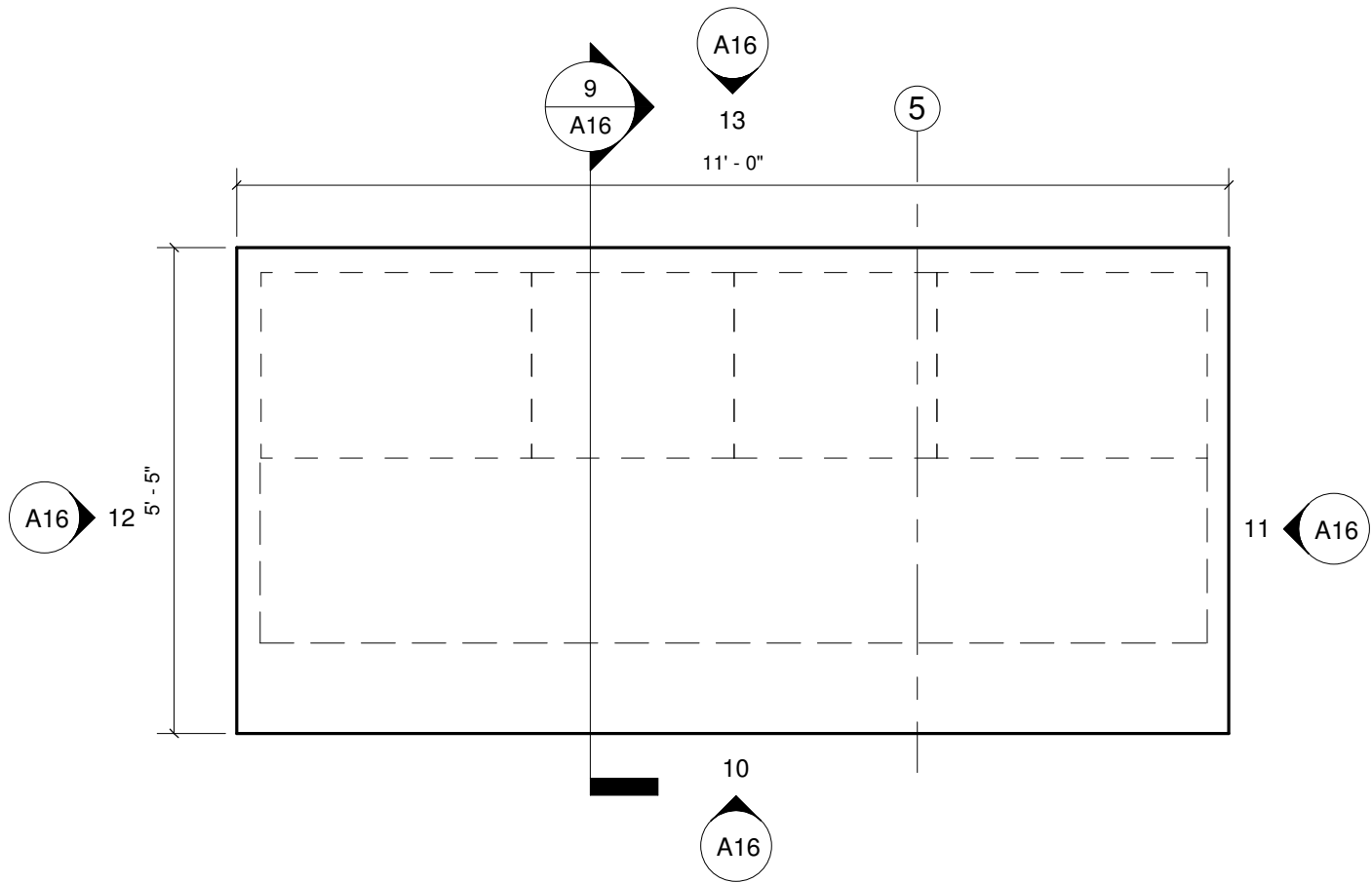
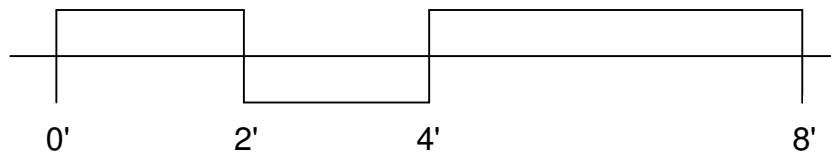


Figure 89-Kitchen Island Detail Plan  
 $1/2'' = 1'-0''$



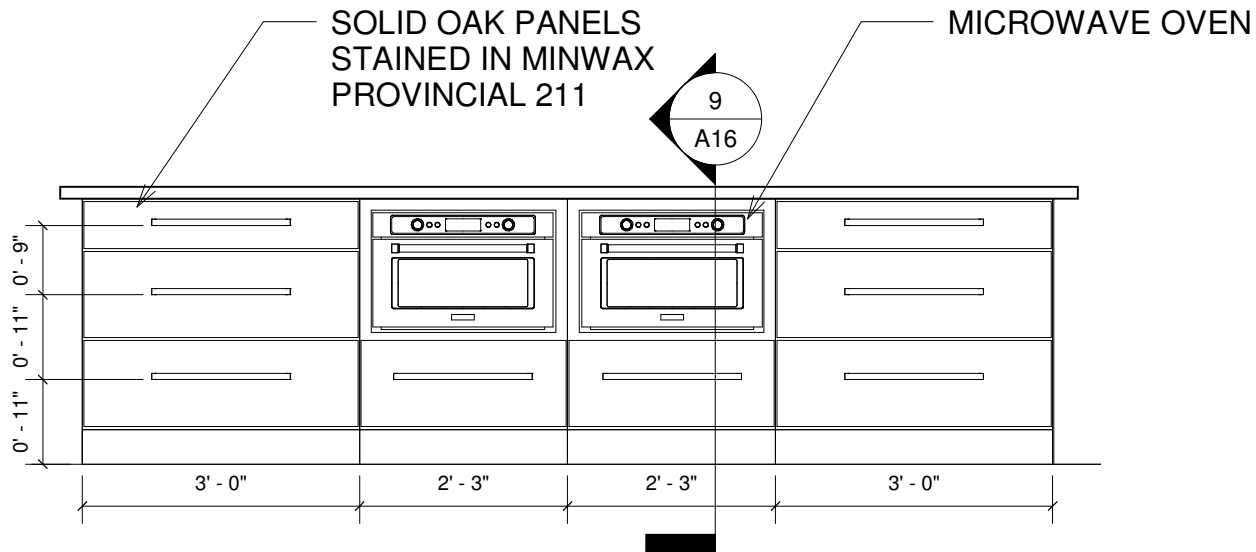


Figure 90-Kitchen Island West Elevation  
1/2" = 1'-0"

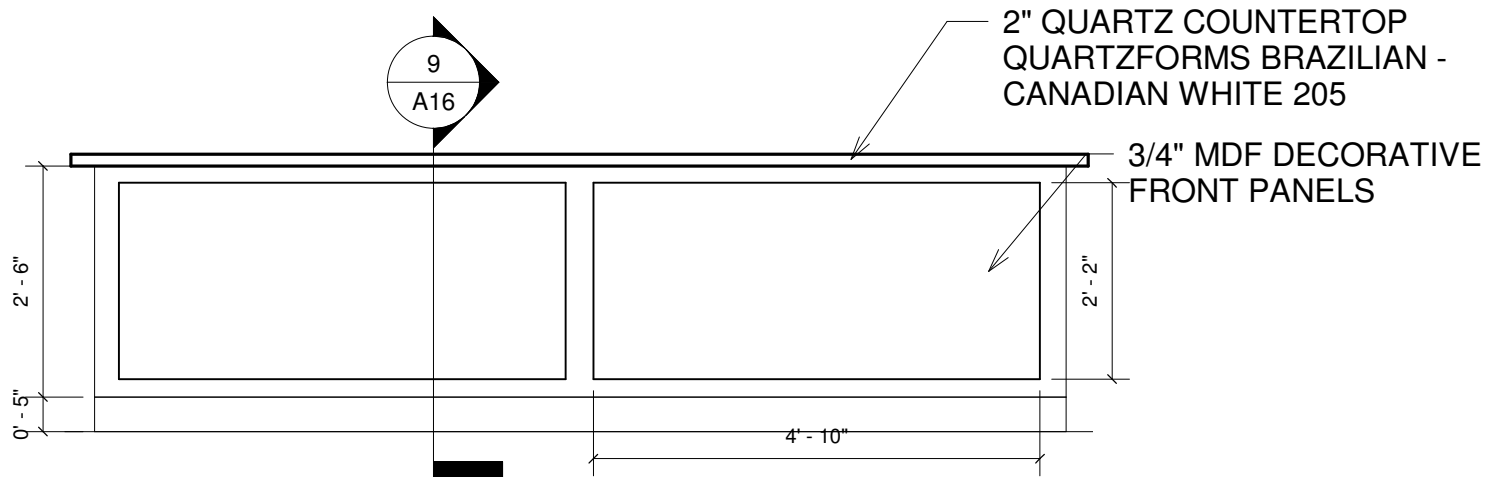


Figure 91-Kitchen Island East Elevation  
1/2" = 1'-0"

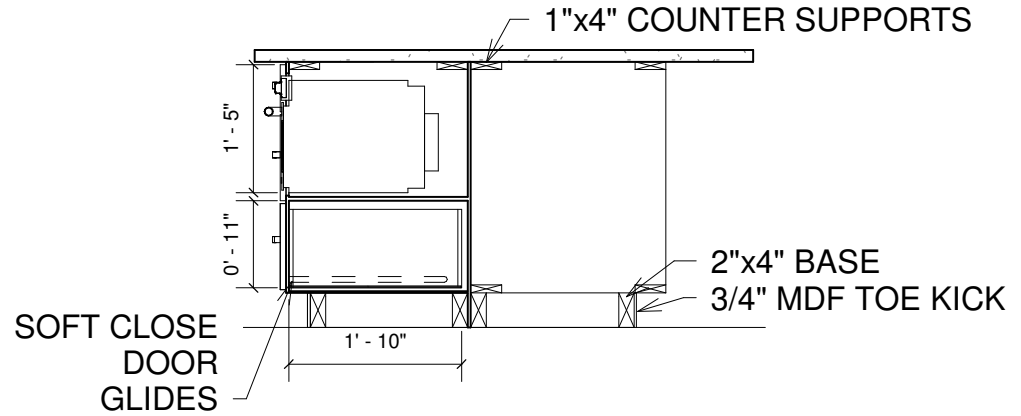


Figure 94-Kitchen Island Section  
 $1/2" = 1'-0"$

SOLID OAK SIDE PANEL  
 TO BE STAINED IN MINWAX  
 PROVINCIAL 211

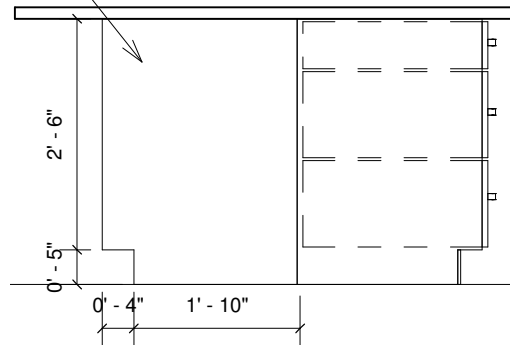


Figure 93-Kitchen Island North Elevation  
 $1/2" = 1'-0"$

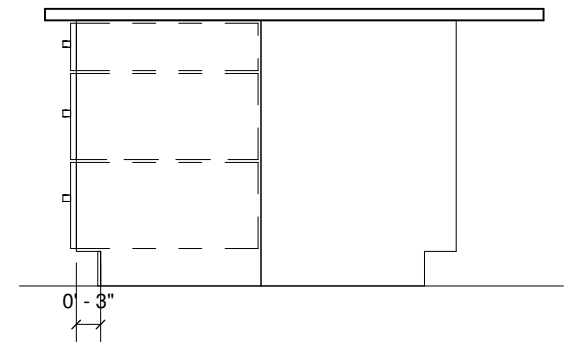


Figure 92-Kitchen Island South Elevation  
 $1/2" = 1'-0"$

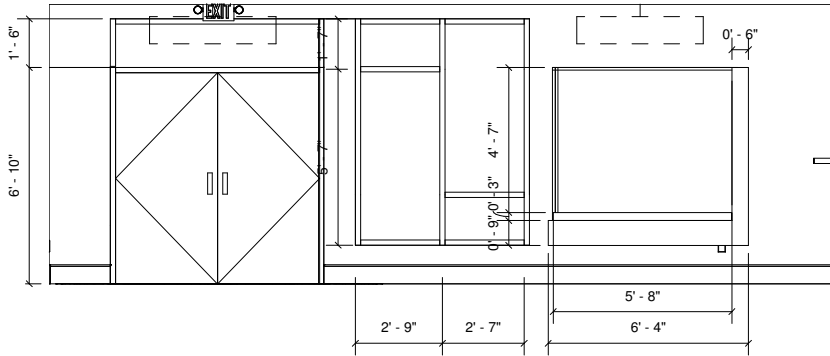


Figure 95-Mudroom South Elevation NTS

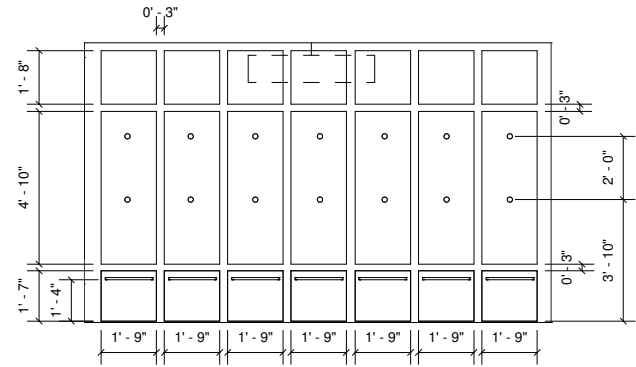


Figure 96-Mudroom West Elevation NTS

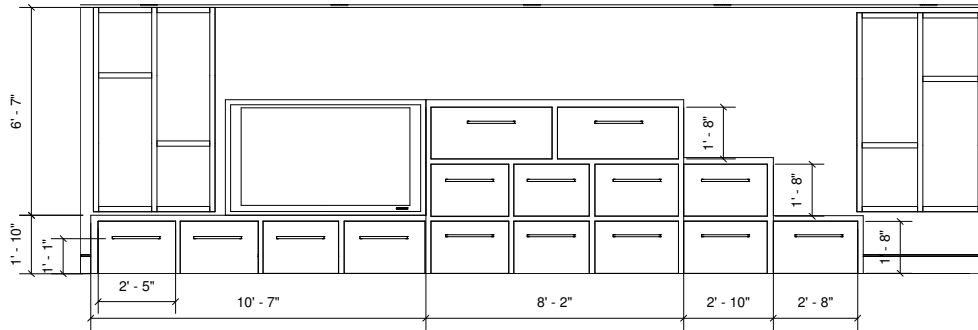


Figure 97-Play Room East Elevation NTS

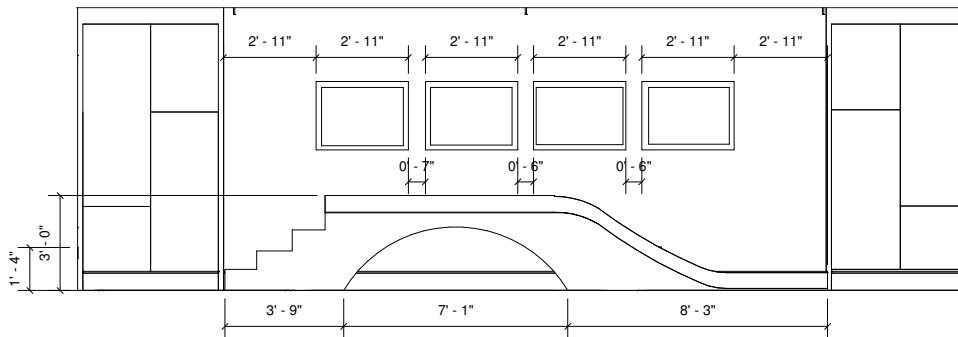
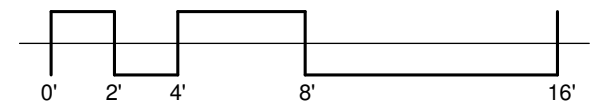


Figure 98-Play Room West Elevation NTS





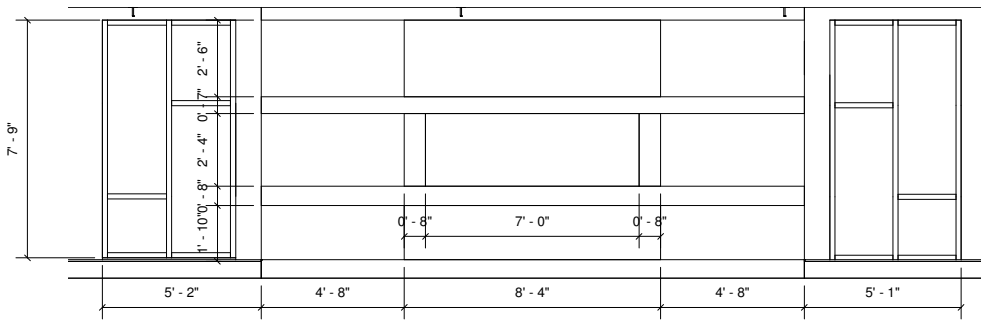


Figure 101-Kitchen Fireplace Elevation NTS

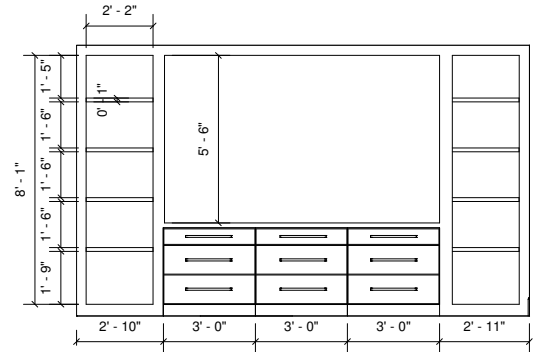


Figure 103-Tech Lounge South Elevation NTS

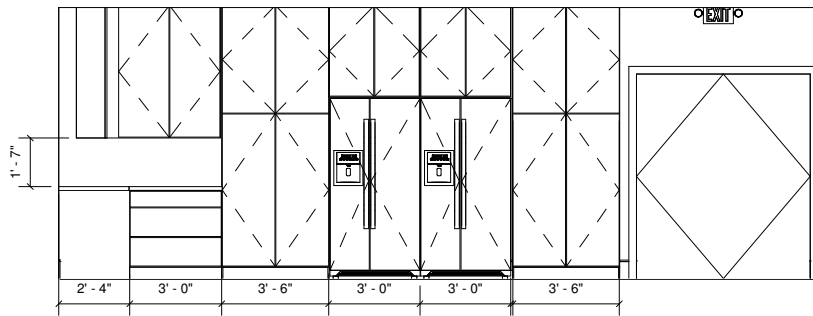


Figure 99-Kitchen North Elevation NTS

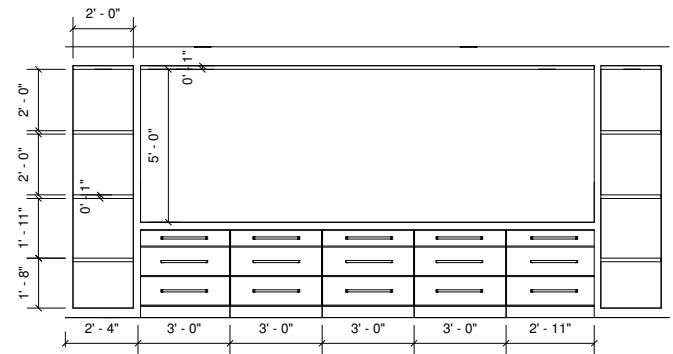


Figure 102-Lounge North Elevation NTS

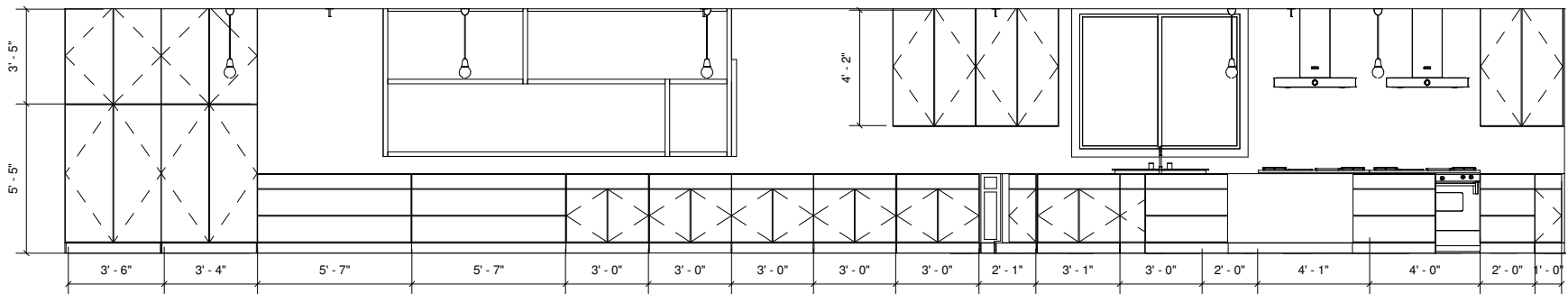
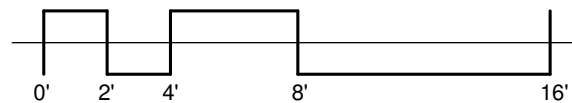


Figure 100-Kitchen West Elevation NTS



## Appendix B: Materials and Finishes

**Table 11-Furniture, Fixtures + Equipment**

FURNITURE, FIXTURES, + EQUIPMENT				
SEATING				
ABBREV.	TYPE	MANUFACTURER	COLLECTION / STYLE	NOTES
TC-1	Task Chair	High Tower	Bai Chair	
TC-2	Task Chair	Steelcase	Enea Lottus	
TC-3	Task Chair	Haworth	Zody	Height Adjustable
TC-4	Task Chair	High Tower	Four Cast	
ST-1	Bar Stool	Herman Miller	She Said Stool	High Height
ST-2	Bar Stool	High Tower	Nadia Bob	
SF-1	Sofa	Steelcase	Visalia	
SF-2	Sofa	High Tower	Kona	Three Seat
SF-3	Sofa	High Tower	Kona	Sectional
SF-4	Sofa	Steelcase	Circa	
LC-1	Lounge Chair	Steelcase	Visalia	
LC-2	Lounge Chair	Steelcase	Joel	
LC-3	Lounge Chair	Steelcase	Oculus Chair	
LC-4	Lounge Chair	Steelcase	Thoughtful	
LC-5	Lounge Chair	Steelcase	Hosu	Attached Lumbar Pillow
LC-6	Lounge Chair	High Tower	Nest	
TABLES				
T-1	Coffee Table - Circle	Steelcase	Circa	
T-2	Coffee Table - Large	High Tower	Brasilia	
T-3	Table	Steelcase	Lagunitas	36" x 57"
T-4	Table	High Tower	Linden	29"
T-5	End Table	High Tower	Log Table	
T-6	Occasional Table	High Tower	Breck Large	
T-7	Occasional Table	High Tower	Breck Small	
WORKSTATION				
WS-1	Workstation	Haworth		
WS-2	Workstation	Haworth		
MISCELLANEOUS				
OT-1	Ottoman	High Tower	Arroyo	
OT-2	Ottoman	High Tower	Nimbus Jr Point	
OT-3	Ottoman	High Tower	Nimbus Jr Round	
OT-4	Ottoman	High Tower	Prism	
B-1	Bench	Steelcase	Millbrae	Three Seat

**Table 12-Materials + Finishes**

MATERIALS + FINISHES					
ABBREV.	MANUFACTURER	COLLECTION / STYLE	COLOUR	PRODUCT CODE	NOTES
09 30 00 - PORCELAIN + CERAMIC TILE					
PT-1	Julian Tile	Alps	Mist Basketweave	AAMIMOSBW	12" x 12"
09 65 00 - RESILIENT FLOORING					
RB-1	Johnsonite	Rubber Base	WHITE	55.000	4" high
LVT-1	Interface	Textured Stones	Polished Cement	A00302	19" x 19"
LVT-2	Interface	Textured Stones	Cool Polished Cement	A00302	19" x 19"
LVT-3	Interface	Textured Woodgrains	Distressed Hickory	A00407	25cm x 1m
LVT-4	Interface	Textured Woodgrains	White Wash	A00407	25cm x 1m
09 68 00 - TILE CARPETING					
CPT-1	Interface	Monochrome	Asparagus	101857.000	19" x 19"
CPT-2	Interface	Street Smart	Back Street	105023.000	25cm x 1m
CPT-3	Interface	Whole Earth	Dove	104473.000	25cm x 1m
09 90 00 - PAINT					
P-1	Benjamin Moore		Edgecomb Grey	HC-173	
P-2	Benjamin Moore		Majestic Sage	1532.000	
P-3	Benjamin Moore		Vintage Claret	1364.000	
P-4	Benjamin Moore		Patriot Blue	2064-20	
P-5	Benjamin Moore		Cloud Cover	OC-25	
P-6	Benjamin Moore		Douglas Fir	2028-20	
UPHOLSTERY					
U-1	Maharam	Pebble Wool	Birch	457401.000	
U-2	Design Tex	Mingle	Poppy	3491-301	
U-3	Design Tex	Chromatic	Pool	3253-403	
U-4	Maharam	Vineyardi	Taro	466133.000	
U-5	Design Tex	Chromatic	Apple	3253506.000	
U-6	Design Tex	Chromatic	Azalea	3253-601	
U-7	Maharam	Stick Tree by Kvadrat	218	466368.000	
U-8	Design Tex	Delaine	Nasturtium	3249-701	
U-9	Maharam	Quay	017 Cascade	466390.000	
U-10	Design Tex	Bute Tweed	Lapiz	3804-409	
WALLCOVERING					
WC-1	Astek inc	FronD	Green		
WC-2	DMarieInterior		Birch Bark	NU-1650	20.5" x 36"



TC-1



TC-2



TC-3



TC-4



TC-5



TC-6



SF-1



LC-1



LC-2



T-1



T-2



T-3



T-4

Figure 104-Furniture Collage



SF-2



SF-3



SF-4



LC-3



LC-4



LC-5



LC-6



T-5



OT-2/OT-3



OT-4



B-1



maharam



edgecomb gray  
gris argile

HC173





Figure 105-Material Collage

## Appendix C: Building Code Analysis

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The National Building Code of Canada (2010) was used to ensure the proposed design followed national requirements and safety regulations.

### **Section 3.1. General**

#### **3.1.2.1. Classification of Buildings**

According to Table 3.1.2.1. the transitional housing complex, with residences, common spaces, administration and childcare facilities is classified as:

Group A (Division 2): Assembly occupancies not elsewhere classified in Group A

Group C (Division -): Residential occupancies

Group D (Division -): Business and personal services occupancies

#### **3.1.3. Multiple Occupancy Requirements**

Due to the multiple occupancy classifications listed above, all separations between occupancies are minimum 1hr fire rated.

#### **3.1.8.4. Determination of Ratings**

According to Table 3.1.8.4. with fire separation ratings of 1hr, minimum fire-protection rating of closures are 45min.

#### **3.1.8.6. Maximum Openings**

All openings in fire separations of the transitional housing complex are not greater than 11m<sup>2</sup>.

#### **3.1.8.11. Self-closing Devices**

All doors within fire separations are equipped with self-closing devices to return the door to the closed position after each use.



### **3.1.13.3. Bathrooms in Residential Suites**

All bathroom ceiling and wall finishes within the home units of the transitional housing complex have a flame spread rating not greater than 200.

### **3.1.13.5. Skylights**

All skylights within fire separated corridors of the transitional housing complex are not greater than 1m<sup>2</sup> and not less than 1.2m apart.

### **3.1.17. Occupant Load**

The occupancy loads for the various areas of the transitional housing complex are based on Table 3.1.17.1. and are as follows:

Basement:

- Assembly uses (9.30m<sup>2</sup>/person)
    - Exercise room = 16
  - Business and personal services uses (offices) 9.30m<sup>2</sup>/person
    - Administration = 5
    - Private office 1 = 4
    - Private office 2 = 3
  - Other uses (cleaning and repair goods) 4.60m<sup>2</sup>/person
    - Mechanical = 5
    - Laundry = 3
  - Other uses (Storage) 46m<sup>2</sup>/person
    - Storage = 2
- Total = 38

First Floor:

- Assembly (reading/writing/lounges) 1.85m<sup>2</sup>/person
  - Play Room = 24
  - Lounge = 40
  - Tech Lounge = 24

Assembly (dining/beverage/cafeteria)  $1.20\text{m}^2/\text{person} = 54$   
Other uses (Kitchen)  $9.30\text{m}^2/\text{person} = 7$   
Other uses (Storage)  $46\text{m}^2/\text{person} = 1$   
Other uses (public corridors intended for occupancies in addition to pedestrian travel)  
 $3.70\text{m}^2/\text{person}$   
Mudroom = 9  
Resident Entry = 7  
Public Entry = 5

Total = 171

Second Floor:

Residential uses (dwelling units)  $4.60\text{m}^2/\text{person}$   
Home units = 5 per unit  
Assembly (reading/writing/lounges)  $1.85\text{m}^2/\text{person} =$   
Porch Room = 35  
Total = 60

Grand Total = 269

## **Section 3.2. Building Fire Safety**

### **3.2.2.6. Multiple Major Occupancies**

“... in a *building* containing more than one *major occupancy*, the requirements of this subsection for the most restricted *major occupancy* shall apply to the whole *building*.” (NBC 2010, Division B 3-35)  
Therefore, the transitional housing complex complies with the restrictions of Group A.

### **3.2.2.10. Streets**

The transitional housing complex faces two streets, Uxbridge Dr. NW and Urbana Rd NW.

### **3.2.2.49. Group C, up to 3 storeys, Noncombustible Construction**

The transitional housing complex is noncombustible construction, with floor assemblies fire separated with minimum 1hr fire-resistance rating, and sprinklered throughout. All glass within fire separations is to be wired.

#### **3.2.4.1. Determination of Requirement for a Fire Alarm System**

A fire alarm system is required within the transitional housing complex as it is equipped with an automatic sprinkler system.

#### **3.2.4.6. Commissioning of Life Safety and Fire Protection Systems**

Commissioning of life safety and fire protection systems is required at the transitional housing complex.

##### **3.2.4.21. Smoke Alarms**

Each home unit is required to have smoke alarms in each sleeping room and in a location between sleeping rooms and the remainder of the unit.

#### **3.2.7.1. Minimum Lighting Requirements**

In accordance with 3.2.7.1. (1) the transitional housing complex provides an average level of illumination not less than 50 lx at floor/tread level, at intersections and at stairs and ramps.

#### **3.2.7.3. Emergency Lighting**

In accordance with 3.2.7.3. (1) the transitional housing complex provides an average level of emergency illumination not less than 10 lx at floor/tread level throughout the facility.

#### **3.2.8.3. Construction Requirements**

The building is required to be non-combustible construction.

#### **3.2.8.4. Sprinklers**

The transitional housing complex contains interconnected floor space and is therefore required to be sprinklered throughout.

#### **3.2.8.5. Vestibules**

In accordance with 3.2.8.5. (1) a vestibule is required at each exit that opens into interconnected floor space. These doorways are required to be not less than 1.8m apart and fire separated.

#### **3.2.8.8. Mechanical Exhaust System**

A mechanical exhaust system is required at the transitional housing complex “...to remove air from an interconnected floor space at a rate of 4 air changes per hour.” (NBC 2010, Division B 3-97).

### **Section 3.3. Safety Within Floor Areas**

#### **3.3.1.1. Separation of Suites**

Each suite is required to be fire separated from suites with a minimum 1hr fire -resistance rating.

#### **3.3.1.4. Public Corridor Separations.**

As the complex is sprinklered throughout, no fire separation is required between public corridors and the remaining storey.

#### **3.3.1.5. Egress Doorways**

With the exception of home units and rooms with an occupant load less than 60, rooms are provided a minimum of 2 egress doorways.

#### **3.3.1.9. Corridors**

Corridors are all required to be greater than 1100mm (3.6ft). Dead end corridors are not permitted if they are greater than 6m in length.

#### **3.3.1.22. Common Laundry Rooms**

The laundry room within the transitional housing complex is required to be fire separated, but is not required to have a fire-resistance rating as the building is fully sprinklered.

### **3.3.4. Residential Occupancy**

#### **3.3.4.2. Fire Separations**

Each residential suite is required to be fire separated from the rest of the building with a fire-resistance rating of 1hr, minimum.

### **3.3.4.3. Storage Rooms**

Storage rooms within the transitional housing complex are required to be separated from the rest of the building by a fire separation with a fire-resistance rating of 1hr, minimum.

### **3.3.4.4. Egress from Dwelling Units**

Direct egress is provided from each residential suite to public corridor, in accordance with 3.3.4.4.

## **Section 3.4. Exits**

### **3.4.2.1. Minimum number of Exits**

Every floor with occupancy is required to have a minimum of 2 exits.

### **3.4.4.1. Fire-Resistance Rating of Exit Separations**

Every exit is required to be fire separated from the rest of the building with a fire-resistance rating not less than 1hr.

### **3.4.5.1. Exit Signs**

Each exit door requires a sign above or adjacent to it.

### **3.4.6.1. Slip Resistance of Ramps and Stairs**

Ramps, landings and treads are required to have a slip-resistant finish.

### **3.4.6.2. Minimum Number of Risers**

“...every flight of interior stairs shall have not less than 3 risers.” (NBC 2010, Division B 3-127)

## **Section 3.7. Health Requirements**

### **3.7.1.1. Room and Space Height**

“The height of every room and space shall be sufficient so that the ceiling or ceiling fixtures do not obstruct movement or activities below.” (NBC 2010, Division B 3-145).

### **3.7.2.2. Water Closets**

Unisex water closets are provided in accordance with Table 3.7.2.2.A. and Table 3.7.2.2.B.

## **Section 3.8. Barrier-Free Design**

### **3.8.1.2. Entrances**

All entrances are designed to be barrier-free.

### **3.8.1.3. Barrier-Free Path of Travel**

All interior and exterior paths of travel are designed to be barrier-free.

### **3.8.2.3. Washrooms Required to be Barrier-Free**

At least one barrier-free washroom is provided per storey within the housing complex.

### **3.8.3.2. Exterior Walks**

All exterior walks at the transitional housing complex are required to be barrier free, in addition to having a slip-resistant finish, a continuous even surface, and a minimum width of 1100mm.

### **3.8.3.3. Doorways and Doors**

In accordance with 3.8.3.3. (1), every doorway in a barrier-free path of travel is required to have a minimum width of 800mm when the door is fully opened. In accordance with 3.8.3.3. (5) each door within a barrier-free path of travel is equipped with a power door operator, allowing a person to open the door from either side of it.

### **3.8.3.5. Passenger-elevating devices**

The elevator and lift at the transitional housing complex comply with CSA B355 “Lifts for Persons with Physical Disabilities.”

### **3.8.3.17. Bathtubs**

At least one residential suite has been designed with a barrier-free washroom including a barrier-free bathtub with hand-held shower, and also complies with 3.8.2.12.(1).

## Appendix D: Tables

---

**Table 13-Spatial and Functional Requirements**

Space	Activities	Area (ft <sup>2</sup> )	Qty.	FF&E
Kitchen	<ul style="list-style-type: none"> <li>• Preparing meals</li> <li>• Socializing</li> </ul>	600	1	<ul style="list-style-type: none"> <li>• Upper and lower cabinets</li> <li>• Countertop</li> <li>• Commercial Stove/Oven</li> <li>• Commercial Fridge</li> <li>• Commercial Freezer</li> <li>• Commercial Microwave</li> <li>• Dishwasher</li> <li>• Data</li> </ul>
Dining	<ul style="list-style-type: none"> <li>• Eating Meals</li> <li>• Socializing</li> <li>• Informal meetings</li> </ul>	500	1	<ul style="list-style-type: none"> <li>• Dining Table</li> <li>• Dining Chairs</li> <li>• High Chairs</li> <li>• Data</li> <li>• Open and closed storage</li> </ul>
Lounge	<ul style="list-style-type: none"> <li>• Socializing</li> <li>• Relaxing</li> <li>• Informal meetings</li> <li>• Watching movies</li> </ul>	350	1	<ul style="list-style-type: none"> <li>• Couches</li> <li>• Arm Chairs</li> <li>• Occasional Tables</li> <li>• Projector</li> <li>• Projection Screen</li> <li>• Data</li> </ul>
Play Area	<ul style="list-style-type: none"> <li>• Playing</li> <li>• Socializing</li> <li>• Bonding</li> <li>• Learning</li> </ul>	250	2	<ul style="list-style-type: none"> <li>• Open and closed storage</li> <li>• Child height table</li> <li>• Child height chairs</li> <li>• Soft seating</li> <li>• Toys</li> </ul>
Exercise	<ul style="list-style-type: none"> <li>• Exercising</li> <li>• Socializing</li> <li>• Group fitness classes</li> </ul>	1000	1	<ul style="list-style-type: none"> <li>• Treadmill</li> <li>• Elliptical</li> <li>• Free Weights</li> <li>• Yoga Mats</li> <li>• Data</li> <li>• Hard wired sound system</li> </ul>

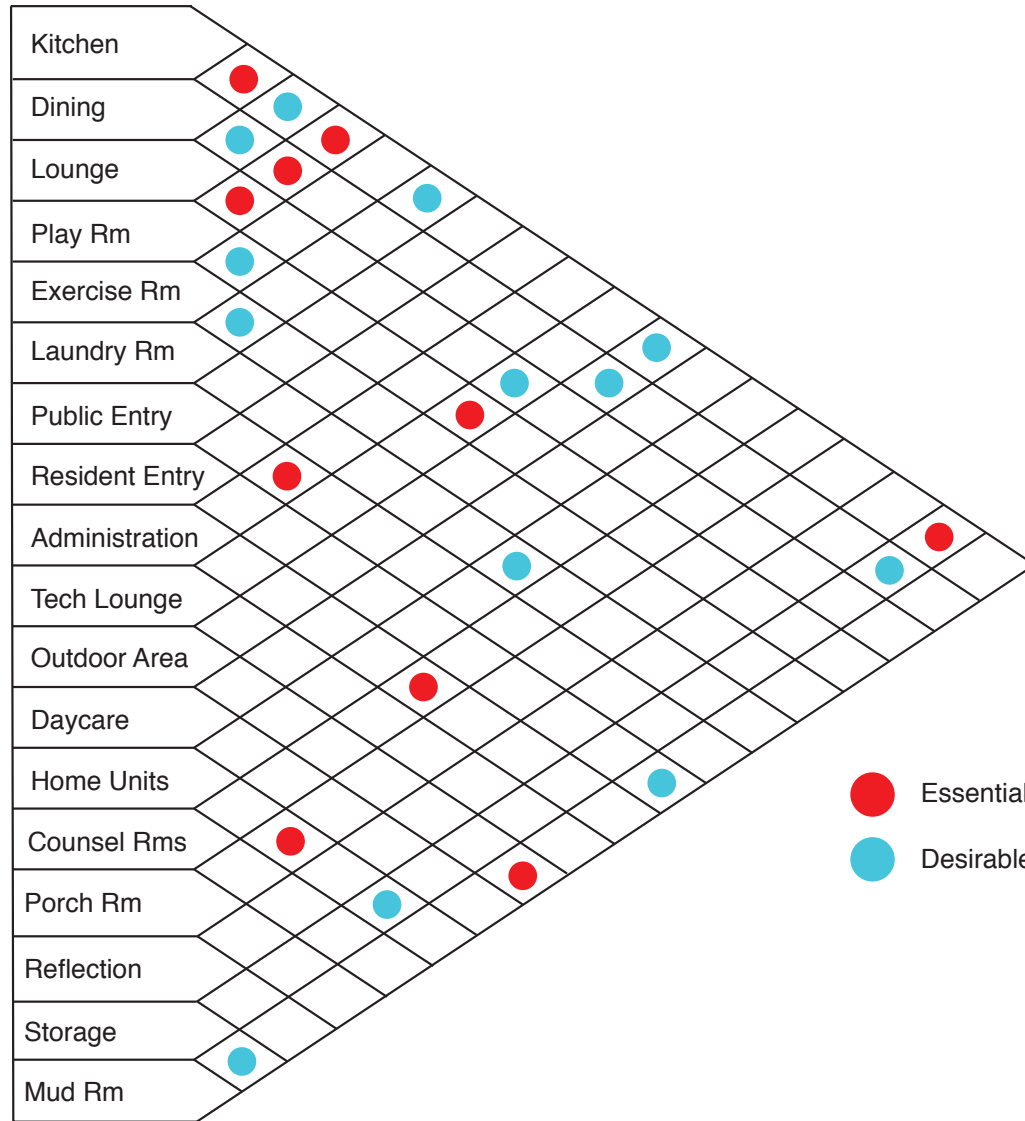
<b>Space</b>	<b>Activities</b>	<b>Area (ft<sup>2</sup>)</b>	<b>Qty.</b>	<b>FF&amp;E</b>
Laundry	<ul style="list-style-type: none"> <li>• Washing</li> <li>• Drying</li> <li>• Folding</li> </ul>	175	1	<ul style="list-style-type: none"> <li>• Washing Machines</li> <li>• Dryers</li> <li>• Counter space for folding</li> <li>• Ironing board</li> <li>• Laundry sink</li> <li>• Data</li> </ul>
Mudroom	<ul style="list-style-type: none"> <li>• Dressing for outdoors</li> <li>• Undressing from outdoors</li> </ul>	500	1	<ul style="list-style-type: none"> <li>• Built in storage</li> <li>• Hanging storage</li> <li>• Drawer storage</li> <li>• Benches</li> </ul>
Public Entry	<ul style="list-style-type: none"> <li>• Administrative tasks</li> <li>• Welcoming of residents</li> </ul>	800	1	<ul style="list-style-type: none"> <li>• Reception Desk</li> <li>• File Storage</li> <li>• Task Chairs</li> <li>• Arm Chairs</li> <li>• Computer</li> <li>• Telephone</li> <li>• Data</li> </ul>
Resident Entry	<ul style="list-style-type: none"> <li>• Collecting mail</li> <li>• Socializing</li> <li>• Entering</li> <li>• Exiting</li> </ul>	300	1	<ul style="list-style-type: none"> <li>• Mailboxes</li> <li>• Garbage</li> <li>• Recycling</li> <li>• Bulletin Board</li> <li>• Transaction surface</li> <li>• Bench</li> </ul>
Administration	<ul style="list-style-type: none"> <li>• Meetings</li> <li>• Administrative Tasks</li> <li>• Meals</li> <li>• Storing of personal belongings</li> </ul>	300	1	<ul style="list-style-type: none"> <li>• Office Desk (2)</li> <li>• Office chairs (2)</li> <li>• Lockable Storage</li> <li>• Soft Seating</li> <li>• Data</li> <li>• Telephone</li> </ul>



<b>Space</b>	<b>Activities</b>	<b>Area (ft<sup>2</sup>)</b>	<b>Qty.</b>	<b>FF&amp;E</b>
Private Office	<ul style="list-style-type: none"> <li>• Counseling</li> <li>• Mentoring</li> <li>• Paperwork</li> <li>• Filing</li> <li>• Socializing</li> </ul>	200	2	<ul style="list-style-type: none"> <li>• Office desk</li> <li>• Task chair</li> <li>• Soft seating</li> <li>• File Storage</li> <li>• Arm chairs</li> <li>• Occasional tables</li> <li>• Computer</li> <li>• Telephone</li> <li>• Data</li> </ul>
Tech Hall	<ul style="list-style-type: none"> <li>• Computer tasks</li> <li>• Education</li> <li>• Homework</li> <li>• Workshops</li> <li>• Learning</li> </ul>	300	1	<ul style="list-style-type: none"> <li>• Work surface</li> <li>• Task chairs</li> <li>• Computers</li> <li>• Soft seating</li> <li>• Data</li> <li>• Projector</li> <li>• Projection Screen</li> <li>• Smart board</li> </ul>
Outdoor Area	<ul style="list-style-type: none"> <li>• Socializing</li> <li>• Eating meals</li> <li>• Playing</li> <li>• Exercising</li> <li>• Gardening</li> </ul>	1500	1	<ul style="list-style-type: none"> <li>• Outdoor soft seating</li> <li>• Outdoor dining tables</li> <li>• Outdoor dining chairs</li> <li>• Raised garden beds</li> <li>• Benches</li> </ul>
Daycare	<ul style="list-style-type: none"> <li>• Playing</li> <li>• Socializing</li> <li>• Education</li> <li>• Eating meals</li> </ul>	3000	1	OUT OF SCOPE

Space	Activities	Area (ft <sup>2</sup> )	Qty.	FF&E
Home Unit	<ul style="list-style-type: none"> <li>• Sleeping</li> <li>• Family Bonding</li> <li>• Personal Hygiene</li> </ul>	500	6	<ul style="list-style-type: none"> <li>• Bed</li> <li>• Nightstand</li> <li>• Folded clothes storage</li> <li>• Hanging clothes storage</li> <li>• Arm Chair</li> <li>• Desk</li> <li>• Mobile soft seating</li> <li>• Kitchenette</li> <li>• Fridge</li> <li>• Entry storage</li> <li>• Coffee Table</li> </ul>
Reflection Lounge	<ul style="list-style-type: none"> <li>• Relaxing</li> <li>• Reflecting</li> <li>• Meditating</li> </ul>	200	1	<ul style="list-style-type: none"> <li>• Yoga mats</li> <li>• Soft seating</li> <li>• Open and closed storage</li> </ul>
Porch Room	<ul style="list-style-type: none"> <li>• Relaxing</li> <li>• Socializing</li> </ul>	300	1	<ul style="list-style-type: none"> <li>• Fireplace</li> <li>• Soft seating</li> <li>• Coffee Table</li> </ul>
Storage	<ul style="list-style-type: none"> <li>• Storing personal belongings of residents from previous living arrangement</li> <li>• Storing of shelter food and supplies</li> <li>• Storing of shelter maintenance equipment</li> </ul>	600	2	<ul style="list-style-type: none"> <li>• Open and closed storage</li> <li>• Shelving</li> </ul>
				<p style="text-align: right;"><b>Interior: 10 975 ft<sup>2</sup></b>  <b>Corridor Allowance (30%): 3292 ft<sup>2</sup></b>  <b>Total Interior: 14 267 ft<sup>2</sup></b>  <b>Total Exterior: 1 500 ft<sup>2</sup></b></p>

**Table 15-Spatial Adjacency Matrix**



**Table 16-Task Descriptions**

Task	Frequency	Number of residents required	Age
Meal preparation	1x/day	2	16+
Cooking	1x/day	3	16+
Meal clean up	1x/day	2	12+
Grocery shopping	1x/week	1	18+
Facility laundry	1x/week	1	12+
Vacuuming	3x/week	1-2	12+
Mopping floors	1x/week	1	12+
Reception	4hrs/day	2	16+
Cutting Grass	1x/week May-Sep	2	16+
Raking Leaves	As needed Sep-Oct	2	12+

**Table 17-Window Schedule**

WINDOW SCHEDULE			
TYPE	DESCRIPTION / STYLE	SIZE	TRIM FINISH
WD-1	CASEMENT WITH TRIM	6'-0" x 5'-6"	P1-5
WD-2	CASEMENT WITH TRIM	5'-6" x 12'-0"	P1-5
WD-3	SLIDER WITH TRIM	5'-1" x 6'-0"	P1-5
WD-4	EXISTING	EXISTING	P1-5
WD-5	CASEMENT WITH TRIM	5'-5" x 3'-10"	P1-5
WD-6	CASEMENT WITH TRIM	6'-0" x 3'-10"	P1-5
WD-7	CASEMENT WITH TRIM	4'-5" x 8'-6"	P1-5
WD-8	EXISTING	EXISTING	P1-5
WD-9	EXISTING	EXISTING	P1-5
WD-10	SLIDER WITH TRIM	5'10" x 2'-0"	P1-5

**From:** Stephen Cridland cridland@mac.com  
**Subject:** Re: Copyright Permission Request for Alexandra Ellis Caring Cabin Images  
**Date:** July 14, 2017 at 11:54 AM  
**To:** Katlyn Bailey umbaile5@myumanitoba.ca

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Hi Katlyn,

You have my permission to use the photographs I made of the Caring Cabin on the Oregon Coast. Please use a photo-credit that reads, Photograph courtesy of Stephen Cridland ©2006. You might also credit TVA Architects for the design. The Caring Cabin was built for children with serious cancer issues.

I have posted all of the photographs I have of the Caring Cabin project for your review. You are welcome to use any of this for your thesis.

<http://www.pixoasis.com/va.php?hash=bc5af614bdfc8ad406e3d1dd6c4dbcc>

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Good luck on you thesis!

Steve Cridland

