



DESIGNING COMMON SPACES FOR WOMEN-CENTERED SUPPORTIVE HOUSING

A Practical Application of Intersectional Feminist Analysis

Erika Sagert
Professional Planning Project
UBC's School of Community and Regional Planning (SCARP)

April 2017

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
SECTION 1 - INTRODUCTION.....	2
SECTION 2 - METHODS	5
SECTION 3 - APPLYING INTERSECTIONAL ANALYSIS TO SUPPORTIVE HOUSING FOR WOMEN.....	7
Section 3.1 - Understanding the Needs of Users.....	9
Health and the Built Environment	9
Coping and the Built Environment	10
Section 3.2 - Designing Common Spaces	12
Privacy	12
Play Space.....	13
Green Space.....	14
Design Recommendations Emerging from the Literature	16
SECTION 4 – A GLIMPSE OF SORELLA.....	17
SECTION 5 – FINDINGS & DISCUSSION.....	20
Survey Results: Single Units	20
Survey Results: Family Units	22
Interviews.....	23
SECTION 6 - CONCLUSIONS AND RECOMMENDATIONS.....	26
Directions for Future Research	29
APPENDICES.....	32
Appendix A: Survey Questions for Family Units	32
Appendix B: Survey Questions for Single Units.....	34
Appendix C: Interview Questions	36

LIST OF TABLES AND FIGURES

Figure 1. Map of Sorella on the corner of Abbott Street and Pender Street

Figure 2. Direct and indirect (hard and soft) ways in which housing can affect health

Figure 3. Technical drawing of Sorella's largest garden (provided by Atira)

Figure 4. Examples of a Single Unit in Sorella (provided by Atira)

Figure 5. Examples of a Family Unit in Sorella (provided by Atira)

Table 1. Demographic information for single unit survey respondents

Table 2. Survey questions and responses for single unit survey respondents

Table 3. Demographic information for family unit survey respondents

Table 4. Survey questions and responses for family unit survey respondents

Table 5. List of Recommendations

All photographs owned and provided by Atira Women's Resource Society

ACKNOWLEDGEMENTS

I would like to thank Atira, namely Janice Abbott, Niki Antonopoulou, and the Sorella staff for their unwavering support and guidance over the course of this project. I would also like to thank all of the women at Sorella who gave their time and knowledge to this project – it would be nothing without their contributions and stories. Thanks to Leonora Angeles at SCARP for being my tireless supervisor and providing me with her words of wisdom whenever I needed them.

Executive Summary

Non-profit supportive housing plays a critical role in the housing spectrum by providing resources and shelter for those who may struggle to thrive in the private market either long term or temporarily. To ensure the viability of the supportive housing model over the life of a building, housing providers need to contend with the complexity of current and future residents and develop housing that supports diversity and ever-changing needs.

This report delivers insights into the development of women-centered supportive housing through an investigation into the livability of one of Atira Women's Resource Society's buildings in Downtown Vancouver called Sorella. Specifically, this report focuses on the ability of Sorella's common spaces to support the women and children who live there.

Drawing on one of Atira's primary values, inclusive feminism, this report applies intersectional feminist analysis to an examination of the building's design. Intersectionality is the recognition that race, class, and gender produce complex sites of marginalization that lead individuals to experience the world around them in distinct ways, something which can and should be applied to the world of design.

Ultimately, this report offers recommendations for designing women-centered supportive housing that can be taken into consideration by other housing providers looking to apply intersectionality to their supportive housing project. By combining a literature review with lessons learned from the lived experiences of women in supportive housing, the following recommendations were developed:

1. Ensure common spaces are flexible. Allowing common spaces to be changed at will, depending on the user's needs, will guarantee that they stay useable over the long term.
2. Make use of different forms of privacy creators. Users require different levels of engagement with social spaces. Privacy can be created in supportive housing by providing functional private rooms/units which offer necessary privacy from the common spaces.
3. For the accommodation of children, allow for accidental supervision of play spaces and ensure play equipment provides play stimulation for a variety of ages. Mothers are more likely to let their children use the play spaces when they perceive them as passively watched and age-appropriate.
4. Confirm that play spaces are protected from outside harms such as strangers or traffic. This will also increase the likelihood of their use.
5. Bring nature into the common spaces. Natural elements have proven to have real physical and emotional benefits for individuals in many different life circumstances. This means facilitating access to both 'tailored' and 'raw' nature.
6. Design natural elements to be taken in actively and passively. Not all residents will be able to or want to engage with nature in the same way but passive contact with nature can still be beneficial. Those with mobility issues benefit from spaces easily accessible within/from the building.

Section 1 - Introduction

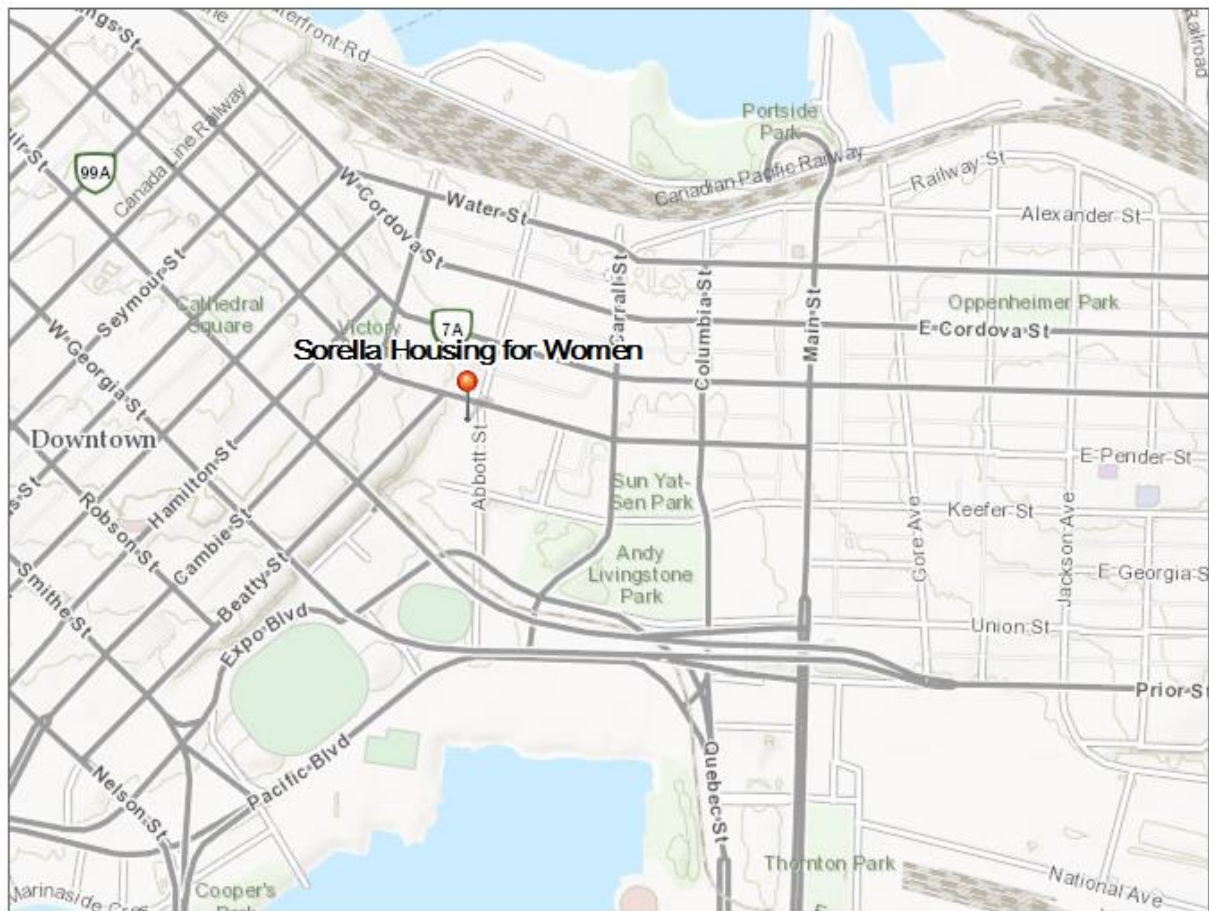
Historically, the Downtown Eastside neighbourhood and adjacent neighbourhoods have been the focus of attention by governments and the public mainly due to their reputation as the City of Vancouver's epicentre of poverty, homelessness, and drug use. These neighbourhoods present both challenges and opportunities for those looking to end Canada's housing and homelessness crisis. This area's relationship to the planning field, within this space of diverse and challenging needs, is particularly critical as one finds many housing and service providers looking to deliver care and support to some of the region's most vulnerable populations. Consequently, understanding and evaluating how these providers are able to adequately support those they serve is integral to the sustainability and prosperity of the city of Vancouver.



With the intention of assessing some element of this critical space within the city, in the summer of 2015, UBC's School of Community and Regional Planning approached Atira Women's Resource Society (Atira) about potential opportunities to work with the society on projects that could offer valuable insights into their organization. Out of this initial meeting came the desire for students to work with residents and staff to assess the livability of two of Atira's buildings and see if the design of spaces has been able to adequately support the women who live there. One of these two projects formed around Sorella, a supportive housing building for women and their children located just southwest of the Downtown Eastside neighbourhood (see figure 1). Supportive housing takes on many forms but is broadly defined as "affordable housing that also provides access to support staff [who]... help tenants stabilize their lives, enhance their independent living skills, and reconnect with their communities" (City of Vancouver, 2016). Sorella operates under this model, providing services and support staff as well as housing units to their women residents. The principal

aim of this project was to work with Sorella and offer an answer to the question: how can women-centred supportive housing be best designed to support changing, unique, and complex residents?

Figure 1. Map of Sorella on the corner of Abbott Street and Pender Street



City of Vancouver, Bureau of Land Management, Province of British Columbia, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA, AAFC, NRCan

Accordingly, this Professional Planning Project Report investigates how housing providers like Atira can better design their buildings to support the women within them. Specifically, this report utilizes intersectional feminist analysis as a lens to evaluate the design of common space in supportive housing for women. Intersectional analysis was chosen as the underpinning theory of this report for a multitude of reasons, most importantly, because intersectionality and inclusive feminism are part of Atira's core values and form the foundation of the work they do championing feminism across the region (Atira Women's Resource Society, 2017), something this research report intended to capture. As such, using a feminist lens, ensuring the process was women-centred, and understanding the role of harm reduction and innovation in Atira as an organization were all critical pieces of designing this study. Furthermore, intersectional analysis offers a more nuanced understanding of women's lived experiences in comparison to other contemporary evaluative theories and/or tools, which is critical when thinking about designing spaces for unknown/future residents, but rather short in capturing multidimensional aspects of people's lives.

The powerful confluence of race, gender, and class, the foundation of intersectional analysis, results in a variety of design implications for women and can offer meaningful insights to women-centered supportive housing complexes. Theoretically, effective design considers how many different users may utilize one space simultaneously; in the same way, intersectionality

encourages researchers to consider how a group of seemingly similar users may be affected by a space very differently. This is a vital consideration when one contemplates how the diverse and complex lived experience of women in social or supportive housing has largely been ignored in the world of design. Combined, these observations offer an interesting opportunity for post-occupancy evaluation of social housing designed for women. To start, by recognizing the ineffectiveness of a Eurocentric “one size fits all” model to meet the diversity of needs found within supportive buildings, housing can be better designed to meet a variety of collective and individual requirements that accompany supportive housing users (Greene, Chambers, Masinde, & O'Brien-Teengs, 2013, p. 118).

The literature-based research in this paper will ultimately be applied to study more deeply the lived experience of women residing in Sorella. Rather than focusing on an elaboration of the theory of intersectionality itself, which has been discussed in depth in the field of feminist studies (e.g. McCall 2005, Bowleg 2008, Christensen & Jensen 2012), this report offers a practical application of the theory to the field of supportive housing design, specifically utilizing the knowledge that has already been gained by intersectional scholars and adapting it to the context of building design.



Intersectional analysis explores how race, gender, and class function as systems which mutually construct and support one another. In terms of its application to design, it can be utilized by putting to use knowledge born out of those intersections, hopefully producing something far more reflective of the user's needs and challenges. Common space has been selected as the specific area of interest within the building because it is the space where societal dynamics emerge and social bonds are forged or broken.

Following the introductory section of this report, Section 2 outlines the methodology used to gather insights into designing common spaces for women in supportive housing. Next, Section 3 explores the diversity of challenges that are often studied among women in living in social or supportive housing and then reflects on how they may be taken into consideration in terms of supportive housing design. Section 3 concludes with considerations for the key users of common space in a building like Sorella, namely its residents, revealing both tangible and intangible concerns resulting in a series of recommendations for designing common spaces for women and their children living in supportive housing. Section 4 lays out the context of Sorella, while Sections 5 and 6 of the report discuss the findings of the survey and the interviews that were arranged within the building, offering insights into how lessons learned from the literature can be paired with the lived experience of the women in the building. Ultimately, this report illuminates how race, gender, and class may influence the daily lives of women living in supportive housing; it provides the means for planners to adopt a more nuanced understanding of the population residing within supportive housing with the hope that better, more reflective design choices can be made.



Section 2 - Methods

Intersectional analysis calls on researchers to draw out complexities rather than bury them and as such presents as many challenges as it does opportunities when creating meaningful and thorough methodologies. The research presented in this report combines a literature review of work surrounding women's diverse experiences with housing, focusing on the intersections of gender, race, and class, with primary data gained through two surveys and two interviews which were deployed in Sorella Housing for Women in fall 2016 and winter 2017.

Intersectional theorists like McCall (2005) note that, historically, surveys/interviews that have been deployed to investigate particular experiences or populations primarily utilize categories in order to test hypotheses; for example, how certain genders experience a space differently (McCall, p. 1773). A problem then arises for theorists who choose to investigate hypotheses through the lens of intersectional analysis because the field itself seeks to dispel myths about the ability of one-size-fits-all categories to adequately represent diverse experiences. Intersectional analysis seeks to deconstruct social and economic categorization as it inherently recognizes that categories themselves may produce marginalization.

As such, in order to produce research that both challenges the status quo and still maintains the possibility of relatability to other studies, a balance must be struck. Through an investigation of intersectional methodologies, McCall offers a solution to this problem with what she terms the "categorical approach" to intersectional analysis (2005, p. 1784). This approach is described as:

“the observation that there are relationships of inequality among already constituted social groups, as imperfect and ever changing as they are, and takes those relationships as the center of analysis. The main task of the categorical approach is to explicate those relationships, and doing so requires the provisional use of categories” (McCall, 2005, pp. 1784-1785).

The survey crafted for this research utilizes the categorical approach by gathering some categorical information from study participants but only as a means to gauge how many and what kind of intersections are at play in the building of interest, rather than merely to determine how one common intersection across many individuals may create a unified experience. In other words, in this study, socioeconomic categories are used to explore how many different experiences are significant in one building, rather than to prove that one commonly held intersection of race, class and gender (whatever it may be) may lead a single group to experience the space in a similar manner. Simply put, the goal of this research is to allow all the building's inhabitants to tell their own stories, not to find one common story.



Using those theoretical underpinnings, two paper surveys were created and deployed in Sorella by the researcher and two follow up interviews took place as a means to gather deeper insights into issues raised in the survey results. The first survey (Appendix A) was targeted at women who reside in single apartments with no other long-term cohabitants. The second survey (Appendix B) was crafted for the mothers in the building who occupy the family apartments. The majority of questions in the surveys were the same for the sake of comparability, the only difference is that the mothers' survey contained 2 additional questions

concerning the children who also live in the units (one on perceptions of child safety, the other on bedroom suitability). The reason for the creation of two separate surveys was simply to keep the surveys as short as possible and to avoid inclusion of questions that were irrelevant for particular study participants i.e. women without children living in their unit. The interview questions (Appendix C) were designed to be open-ended to allow the women to guide conversation. The building has 108 units in total and the study received 18 surveys of the single unit population and only 2 surveys filled out by those in family units, for a total response rate of 18.5%. A total of 2, hour-long additional interviews also took place.

There are two major limitations associated with the data collected. The first obvious limitation was low levels of study participation for the surveys in the single unit residents and the family unit mother occupants. Survey participation was entirely optional and as such, many residents opted not to participate. Considering the women of Sorella are often repairing certain aspects of their lives (their health or relationships) or are recovering from some form of trauma (e.g. abuse, homelessness), understandably, it was a challenge to gather a large quantity of survey responses. Whether this was because potential participants did not see the use of the survey or they did not have the capacity to fill it out is unknown. The consequence of this challenge is the inability of the data to be generalized; alone it represents the experience of the 20 women who participated.

The second limitation was the format of the qualitative component of the research: the survey itself. While all qualitative questions in the surveys included a section where women could opt to elaborate on their answer (and many did), there was not room for issues outside of the survey to be thoroughly explored. To counter this, two interviews were conducted in the months following the survey. Importantly, this allowed the researcher to delve deeper into topics that were merely touched upon in the surveys. It allowed the nuance behind the 'yes or no' questions on the survey to be drawn out. The two women who were interviewed were selected from the two different groups in the building. The first participant lives in a single unit and the other is a member of the family program at Sorella, offering two distinct views into life at Sorella.

Section 3 - Applying Intersectional Analysis to Supportive Housing for Women

Intersectional analysis was born out of tensions in the United States women's movement where black feminists were not hearing their voices represented in white feminist discourse (Christensen & Jensen, 2012, p. 109). The analysis has come to be used in fields across the research spectrum to allow for a more nuanced understanding of identity. In its essence, intersectional analysis elucidates that no collection of experiences is felt equally by different individuals merely due to common life positions; it is the understanding that every intersection in a person's life leads to a different experience of the world around



them and that common intersections of race, gender, or class, do not necessarily equal common experiences. It is also the understanding that constructed categories (such as gender or race) do not simply add together and create levels of oppression, i.e. an individual who is "Caucasian and lesbian" cannot simply be declared as "more marginalized" than another individual who is "Caucasian and straight" (Bowleg, 2008, p. 313). Consequently, intersectional analysis encourages researchers to allow for complexity in their process and open commonly used categories to criticism to allow research to "mirror the complexity of social life" (McCall, 2005, p. 1772).

Notably, intersectional analysis has allowed scholars to understand why government housing in Canada which was designed for the white lower to middle class has not been able to adequately support all potential users, who in reality, represent a diversity of life positions/backgrounds. Evidence that women as a particular subset of the population face explicit and implicit discrimination and marginalization in the realm of housing is well documented (Galster & Constantine, 1991). However, a deeper understanding of the issue, i.e. gender-based discrimination and marginalization, recognizes that not all women have the same experience with housing. On the outset, we must acknowledge that the women living in social and supportive housing "have intersecting identities that result in multiple sites of marginalization and oppression, and that this can have a detrimental impact on their housing experiences" (Greene, Chambers, Masinde, & O'Brien-Teengs, 2013, p. 131). These intersecting identities are not always easy to describe.

While many authors offer different explanations for why women's needs are not met through the current housing model, Greene, Chambers, Masinde and O'Brien-Teengs (2013) explain how intersections of life circumstances actually offer the best explanation as to why the current housing model is falling short. In their paper, *A House is not a Home: The Housing Experiences of African and Caribbean Mothers Living with HIV*, the authors explore

how HIV-positive women of colour living in poverty experience differently the world of housing in the City of Toronto. Through their examination of the lived experience of 30 women and the service agencies that support them, they illuminate the multitude of barriers faced by HIV-positive mothers. While these experiences are unique to the women who have these conditions, there is one overarching lesson which is useful for our purposes and provides a foundational rule for designing supportive housing for women: the building's design must be flexible in order to adapt to diverse and changing needs.

"Some people have mental health issues... and everyone's going through something or has been through something, and everyone's just got to recognize it and respect that."

Participant B talking about the different women who use the common spaces

Greene et al. (2013) note that women experiencing poverty who are facing health challenges also deal with economic and social barriers which, "in the Canadian context, ... are exacerbated by a national housing policy that has shifted away from the provision of social housing toward market approaches" (p. 116).



Specifically, for the women in that study, this meant that supportive housing which is designed to meet all their needs was in short supply, resulting in many women left seeking housing in the private housing market and accessing services outside their home to manage their unique health requirements. While governmental housing policy recommendations are outside the scope of this paper, it is important to note that the buildings which are designed to be supportive and exist in the social realm, need to be built to house women for the long-term or at least built within a networks of

housing options. Transitioning to market housing is simply not an option for many women who find themselves in supportive housing. As a result, if buildings are being designed for long-term use for tenants who have shifting and varied needs, the buildings must be flexible to grow and change with those who live there. Thus, flexibility in crafting spaces is the first key concept for designing supportive housing for women. The capacity of a building to stay relevant over the long-term rests in its ability to adapt to common life changes that its residents may experience, such as shifts in income, mobility or age.

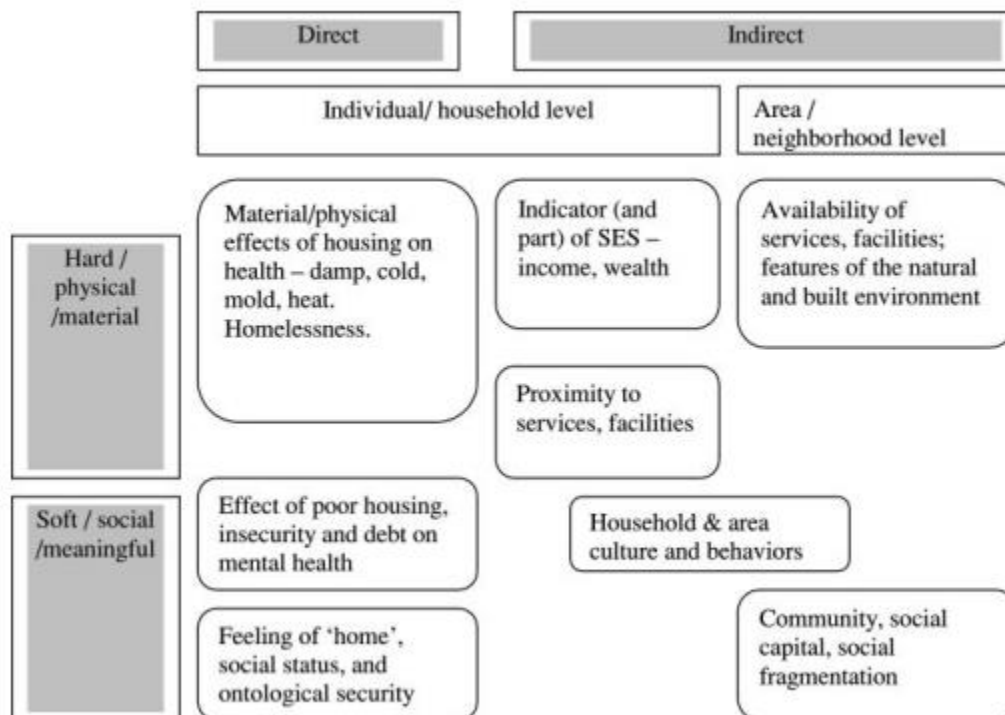
Section 3.1 - Understanding the Needs of Users

With this notion of flexibility in mind, this section focuses on two major realities for many women in supportive housing which may affect how that flexibility must function. While there are many other dimensions of these women's lived realities, such as recreation, education, employment, social networks, and spirituality, among others, here we explore primarily the concepts of health and coping as they relate to the built environment, and how design may help relieve some of the challenges women in supportive housing may face every day. How actual conditions are experienced on an individual level varies immensely, but being cognisant of how individual situations may differ can offer even further insight into design opportunities.

Health and the Built Environment

There is wide recognition in the literature that women (or any gender identification) experiencing poverty face stress in many forms (Saugeres, 2009); physical, emotional and economic stress are all the result of existing within the intersecting spaces of marginalization and oppression.

Figure 2. Direct and indirect (hard and soft) ways in which housing can affect health



Source: Shaw, 2004, page 398

The concept of pressure on physical and emotional health experienced by those in precarious housing circumstances has been explored quite extensively in literature. There is a plethora of literature around the benefits of perceived tenure security in terms of basic levels of health. Notably, works like *Housing and Public Health* (2004) by Mary Shaw outline the broad and complex manner through which housing can either support or hinder physical and mental health. As seen in Figure 2, there are direct and indirect housing circumstances that can affect an individual's physical and mental wellbeing. Direct conditions, like the quality of one's physical house, to more intangible items, like one's mental connection to a concept of 'home'

can have direct health outcomes. As Suglia, Duarte, and Sandel (2011) explain in a more holistic way:

“housing is inextricably linked to health. While the physical structure of the home provides shelter, housing is more than just a shelter: it provides comfort, privacy, and a sense of security, and our home... defines our neighborhood environment, both structural and social... Inadequate housing conditions are associated with both physical and mental illness through direct and indirect pathways. Structural features of the home (i.e., mold, pest infestation, and peeling paint) directly impact health, while location (accessibility to services and facilities), neighborhood-built environment (recreation, parks, and walkability), and as social connectedness to a community can indirectly impact health.” (Suglia, Duarte, and Sandel 2011: 1105-1106; emphasis supplied)

When one considers the underlying social determinants which affect those tangible and intangible items, it is clear why women living under impoverished circumstances often find themselves in precarious housing environments and may experience multi-faceted barriers to health and well-being.

The lived experience of complex intersections of marginalization mixed with social determinants of health have been explored in a multitude of ways. For example, studies around the physical and mental health of mothers receiving low incomes have illuminated the ways that housing instability is doubly impactful on pregnant women (Carrion, et al., 2014). Carrion et al. (2014) investigated low birth weight in women who reported housing instability in New York City across 14 community hospitals and health centres (defined by number of moves in one year). Their work showed that housing stability is a critical underlying factor for supporting infant health “before, during and after pregnancy” (Carrion, et al., p. 1).

Complementary to this study, Suglia et al. (2011) looked at maternal mental health in women experiencing housing instability and found housing to have a significant impact on mental health among women and children. A less clear but equally commanding form of stress experienced by women in poverty is emotional. Arising from the world of trauma in its multitude of forms, emotional stress often accompanies those who live in supportive housing like Sorella (Bassuk, et al., 1996). Whether trauma is a result of a direct experience like abuse or more generally arises from a circumstance like homelessness, there are many mental stressors that affect women’s health and thus greatly impact women in supportive housing.



“We get together, we talk, we laugh, we cry, you know we do things... we’re all just learning too.”

Participant A refers to new friendships after moving into Sorella

Coping and the Built Environment

Emerging from the convergence of physical and mental stress is the concept of coping. Coping with one’s circumstance can come in many forms and some of those forms can be used to

guide design choices. Importantly, coping often takes on a social form, something which has implications for common space design in supportive housing.

Social support, defined as the perception of being “reliably connected” (Letiecq, Anderson, & Konlinsky, 1998, p. 415) to other people and community networks can be critical for women living with low incomes (Reid, 2012). As some researchers have found, it can quite literally be the difference between being homeless and remaining housed (Bassuk, et al., 1996); having a social network to fall back on in times of need keeps women safe and housed. It is clear that in the most foundational sense, social and service networks allow women to adapt to challenging life circumstances. For example, in an investigation into the economic model of low-income mothers, Mistry, Lowe, Benner and Chien (2008) found that “alternative resource pools” were accessed through family and friends to supplement income or government provided assistance, and these sources of additional monetary support rely on social networks and allow women the flexibility to make ends meet (p. 198).

Significantly, social and support networks can have deeper impacts as well. In a study looking at low-income mothers attempting to find and keep affordable housing, Clampet-Lundquist (2003) used the concept of social capital to explain how women with low income access housing. By tapping into the relationships in their lives and by feeling connected to a community, women are able to cope with a variety of circumstances, for example, by living with other women or friends and pooling resources or by using neighbours they connect with to feel safe in an affordable but dangerous neighbourhood (Clampet-Lundquist, p. 126).

“The people at the front desk are really good and the family program workers are great. They remind me of things, they are on you without being overbearing – you know?”

Participant B speaks about Sorella staff

Another study by Letiecq, Anderson and Koblinsky (1998) used a comparison of the coping processes of homeless mothers and housed mothers to explain that “villages of support” (p. 420) help redevelop the social supports that women in poverty may have lost leading them to their current situation. Organizing events that allow women in supportive housing to connect with one another provides the space for community to form.

Section 3.2 - Designing Common Spaces



Design strategies for common spaces in supportive housing/social housing is a relatively under-explored research area, more so research around designing common spaces in supportive housing/social housing explicitly for women. As such, there is an opportunity to develop both research areas and to draw common space design implications for examining the lived experience of women in supportive housing using an intersectional lens. Building on the challenges that were discussed in Section 3 of this report, common spaces are necessary for redeveloping social supports but do require a great deal of flexibility. By looking at a variety of studies around the use of common space, open space, and social space, there are three areas associated with good design that can be applied to the situation of women in supportive housing to optimize the experience of residents should they desire to socialize. These elements include: privacy, green space, and play space.

Privacy

Looking at the broader literature around common spaces/open spaces in housing complexes, the first consistent concern of those designing social spaces which have a communal impact is the relationship between those common spaces and individual zones (Lindsay, Williams, & Dair, 2010). While social connections can be deeply beneficial for women in supportive housing, women must have the ability to choose to utilize social spaces and engage with other residents,

primarily because some women in supportive housing may choose to enter or not to enter social spaces, given their various life circumstances, and they may or may not be capable of socializing at different points during their tenancy. As such, privacy becomes an important consideration.



Day (2000) found that all residents in their study (i.e., those living in townhouses and single family houses) took issue with privacy. Through the exploration of what elements affect one's perception of a satisfactory home, Day's major findings point to the importance of landscaping and fencing as tools for optimising outdoor privacy (Day, 2000, p. 270). As Sorella has a series of common spaces that are outdoors, understanding and designing these in relation to the building

interior is important. In accepting that no single form of communal to individual space connector will be optimal, items providing privacy should be designed to be moveable, flexible, or changeable. If residents prefer to sit alone, they should be able to find a space which provides them with solitude. Conversely, if a larger group of residents opt to be social, the space should be adaptable to allow for a group to gather.

One solution for that type of design is offered by Greig (1980) who interviewed 80 different townhouse dwellers and found that a balance between social and private space could be achieved through flexible fencing systems. Specifically, people were most satisfied with spaces with clear boundaries and changeable materials (Greig, 1980, p. 112). In this case, modules with a mix of solid and lattice materials provided a user's choice of privacy. In a supportive housing building with common space, this concept can be applied as a design basis for units bordering common space and also within the common space for users who prefer to sit alone next to areas with more social use. Physical and moveable barricades can make an open space usable by multiple users simultaneously. Some researchers have cautioned that the often forgotten key element of privacy is physically defining spaces. For example, Galen Cranz and Charlene Young (2006) note that people are warier of using a space if they are not sure how to do so, therefore, designing a clear distinction between what is private and what is the flexible common space is critical.

Play Space

Unique spaces for mothers, especially those with young children, are also particularly important in buildings like Sorella which does house an outdoor play space. Children who live in social or supportive housing buildings are the other prime users of common space and their ability to flourish has an impact on other users of that space as well. Literature around designing space for children is much more robust than the other two areas of interest and the central design feature for the purposes of this report is safety/supervision.

In a supportive housing environment, where a mother is looking after herself and her child, having community support around raising her child may be useful. Therefore, a common space where she feels comfortable letting her child play alone and amongst other residents can be vital. Studies around parent's perceptions of the spaces where their children play have revealed that a parent's perception of the space often has a greater impact on the amount of time it is used by children than how the children perceive it themselves. For example, a Dutch study around environmental determinants of children's outdoor play concluded that social and physical elements of a play space influence how well the space is used (Aarts, Wendel-Vos, van Oers, van de Goor, & Schuit, 2010, p. 218). The study found that perceptions of social safety and social cohesion encouraged or discouraged parents from allowing their children to use a play space more than any other factor (Aarts, Wendel-Vos, van Oers, van de Goor, & Schuit, 2010, p. 218).

Similarly, design experiments around the popular Dutch 'woonerf,' a traffic calmed neighbourhood design with no distinction between sidewalk, street, and driveway (Kraay, 1986), have shown that if a space is perceived to be safe and protected from cars and traffic, children tend to spend more time outdoors playing freely (Biddulph, 2010). In a study of 110 low-rise public housing buildings in Chicago, sightlines for "accidental" supervision were also observed to be helpful in allowing organic play to occur. In that case, the author described it in levels of accessibility to adults, with partial access being more than adequate for safety of young adults and more intense visuals needed for younger children (Taylor, Wiley, Kuo, & Sullivan, 1998). Those two items considered, it is critical that common outdoor spaces in supportive housing are designed to be open enough to have accidental eyes supervising play and also closed off enough to ensure safety from harmful outdoor elements like traffic or strangers.



Green Space

While the other two design elements are more reflective of how common spaces can support socializing, green space is a more personalised component, as it has more to do with supporting individual physical and mental health, but does have implications for play space and social connectivity as well. Grinde and Patil (2009) reviewed more than 50 empirical studies around positive health impacts from interactions with nature, known as biophilia, and found that there is substantial evidence supporting the notion that nature is a powerful tool for maintaining individual and social health. Making a clear distinction between potted plants or pictures of nature and the actual outdoors, the study found merit in the argument that proximity to, or engagement with, nature can positively affect one's physical and mental state. Thinking again about intersectional analysis, this of course has implications for supportive housing users who may be recovering from some sort of mental or physical ailment or have a disability. Because

supportive housing like Sorella has indoor and outdoor common spaces for healing, recovery and socializing, it would be beneficial to ensure visuals of nature and spaces to engage with nature were available consistently throughout the space.



While not all women in a supportive housing building will desire to engage in the same way, there is an argument to be made for passive associations with nature to be the bare minimal. Beyer et. al. (2014) note that studies evaluating the positive health outcomes associated with passive relationships with nature have proven that a wide array of factors can be affected: mental fatigue, stress reduction, and even neighbourhood social cohesion (p. 3454). Even more impressively, some researchers have found nature to have impact health not only on a physical level, but also on a societal scale. For example, Mitchell and Popham

(2008) found through an observational population study that “populations that are exposed to the greenest environments also have lowest levels of health inequality related to income deprivation. Physical environments that promote good health might be important to reduce socioeconomic health inequalities”(p. 1655). Establishing the link between socioeconomic status and health outcomes, while taking into consideration that many supportive housing users come from less privileged socioeconomic backgrounds, their study makes the case for small scale and large scale green space access for supportive housing users.

“Today I know how important bees are, and trees are, and water... When you’re a kid you didn’t worry about it... Now I find it’s just so important.”

Participant A speaks to the role of nature in her life

Further recognizing and exploring the multifaceted life circumstances of those living in supportive housing, one can look to research about other populations and how they may also benefit from connections to nature to strengthen the argument for green space in supportive housing. For example, scholars have looked at the social benefits of green common spaces particularly for older adults (Kweon, Sullivan, & Wiley, 1998). Social relationships have proven to have positive health impacts in older adults from lowering suicide rates to more generally supporting better physical health (Kweon, Sullivan, & Wiley, 1998, p. 833). Due to older adults relatively restricted mobility (providing further connections to disabled housing residents), it has been argued that in comparison to younger individuals, an older adult’s immediate surrounding has greater importance in terms of facilitating their social life.

Explaining the importance of this in terms of providing green space, Kweon et al. (1998) note that one of the most important influences on a person's perception of using outdoor space and the amount of time they spend in it is the presence, magnitude, and diversity of greenery. Taking into consideration all the potential marginalized groups that may benefit personally and as a community from access to green space, there is a strong argument to be made for its inclusion into supportive housing and ensuring it gets used. Paying attention to green space may seem like spending time on a superficial frill in comparison to developing other items such as the services offered to supportive housing users. However, when one thinks about the positive health and societal impacts that green space can provide, it may actually lessen the need to rely on other more expensive programs.

"I want to sit by the water... I don't want to go walk around in blocks... I don't want to look at the high rises... I want to look at the water."

Participant A speaking about walks through the city and a desire to connect with nature

Design Recommendations Emerging from the Literature

From this investigation into the design of common spaces and supportive housing users, a few clear design implications arise:

7. Ensure spaces are flexible. Allowing common spaces to be changed at will, depending on the user's needs, will guarantee that they stay useable over the long term.
8. Make use of different forms of privacy creators. Users require different levels of engagement with social spaces.
9. Allow for accidental supervision of play spaces. Mothers are more likely to let their children use the play spaces when they perceive them as passively watched.
10. Confirm that play spaces are protected from outside harms such as strangers or traffic. This will also increase the likelihood of their use.
11. Bring nature into the common spaces. Natural elements have proven to have real physical and emotional benefits for individuals in many different life circumstances.
12. Design the natural elements to be taken in actively and passively. Not all residents will be able to or want to engage with nature in the same way but passive contact with nature can still be beneficial.

With a general sense of what constitutes good design in a common space of a supportive housing building, the lessons can be applied to our building of interest, Sorella.

Section 4 – A Glimpse of Sorella



Sorella is located in the Downtown neighbourhood of the city of Vancouver. It simultaneously borders some of the wealthiest and most impoverished areas of Vancouver; on one side of the building, one finds the thriving shopping and financial district, and on the other, the Downtown Eastside (once considered the “poorest neighborhood” in Canada) and rapidly gentrifying Gastown neighbourhoods. Listed by BC Non-Profit Housing Association as a neighbourhood in a “critical” state of housing unaffordability, 52% of residents living in the Downtown Vancouver neighbourhood are spending over 30% of their income (the commonly held threshold of affordability) on housing alone (BC Non-Profit Housing Association, 2016). More alarmingly, within that group, 33% of residents living in Downtown Vancouver are actually spending 50% or more of their income on housing (BC Non-Profit Housing Association, 2016). As such, Sorella is located in a neighbourhood with a clear need for adequate and affordable housing and plays a vital role in providing safe and affordable spaces for women and their children.

Named the Italian word for sister, ‘Sorella’ was built through a partnership between the Province of British Columbia, Canada Mortgage and Housing Corporation, the City of Vancouver and Atira. Sorella features 108 units (with no maximum length of stay), including 12 reserved for mothers who are vulnerable and their children in the family program (with a maximum stay of 2 years). The residential portion of the building is 10 stories tall with 96 studio apartments and 12 two bedrooms. The building offers 24-hour support staff, 7 days a week and connects women to

- Three gardens
- A playground
- A communal kitchen
- A library
- Computers
- Bedbug room
- Bike storage
- Parking garage

PLANT LIST

Symbol	Qty	Botanical Name	Common Name	Size
1	1	Tree	Acacia Maple	2.5m H. DBH
2	1	Tree	Redwood	2.5m H. DBH
3	1	Tree	Redwood	2.5m H. DBH
4	1	Tree	Redwood	2.5m H. DBH
5	1	Tree	Redwood	2.5m H. DBH
6	1	Tree	Redwood	2.5m H. DBH
7	1	Tree	Redwood	2.5m H. DBH
8	1	Tree	Redwood	2.5m H. DBH
9	1	Tree	Redwood	2.5m H. DBH
10	1	Tree	Redwood	2.5m H. DBH
11	1	Tree	Redwood	2.5m H. DBH
12	1	Tree	Redwood	2.5m H. DBH
13	1	Tree	Redwood	2.5m H. DBH
14	1	Tree	Redwood	2.5m H. DBH
15	1	Tree	Redwood	2.5m H. DBH
16	1	Tree	Redwood	2.5m H. DBH
17	1	Tree	Redwood	2.5m H. DBH
18	1	Tree	Redwood	2.5m H. DBH
19	1	Tree	Redwood	2.5m H. DBH
20	1	Tree	Redwood	2.5m H. DBH
21	1	Tree	Redwood	2.5m H. DBH
22	1	Tree	Redwood	2.5m H. DBH
23	1	Tree	Redwood	2.5m H. DBH
24	1	Tree	Redwood	2.5m H. DBH
25	1	Tree	Redwood	2.5m H. DBH
26	1	Tree	Redwood	2.5m H. DBH
27	1	Tree	Redwood	2.5m H. DBH
28	1	Tree	Redwood	2.5m H. DBH
29	1	Tree	Redwood	2.5m H. DBH
30	1	Tree	Redwood	2.5m H. DBH
31	1	Tree	Redwood	2.5m H. DBH
32	1	Tree	Redwood	2.5m H. DBH
33	1	Tree	Redwood	2.5m H. DBH
34	1	Tree	Redwood	2.5m H. DBH
35	1	Tree	Redwood	2.5m H. DBH
36	1	Tree	Redwood	2.5m H. DBH
37	1	Tree	Redwood	2.5m H. DBH
38	1	Tree	Redwood	2.5m H. DBH
39	1	Tree	Redwood	2.5m H. DBH
40	1	Tree	Redwood	2.5m H. DBH
41	1	Tree	Redwood	2.5m H. DBH
42	1	Tree	Redwood	2.5m H. DBH
43	1	Tree	Redwood	2.5m H. DBH
44	1	Tree	Redwood	2.5m H. DBH
45	1	Tree	Redwood	2.5m H. DBH
46	1	Tree	Redwood	2.5m H. DBH
47	1	Tree	Redwood	2.5m H. DBH
48	1	Tree	Redwood	2.5m H. DBH
49	1	Tree	Redwood	2.5m H. DBH
50	1	Tree	Redwood	2.5m H. DBH
51	1	Tree	Redwood	2.5m H. DBH
52	1	Tree	Redwood	2.5m H. DBH
53	1	Tree	Redwood	2.5m H. DBH
54	1	Tree	Redwood	2.5m H. DBH
55	1	Tree	Redwood	2.5m H. DBH
56	1	Tree	Redwood	2.5m H. DBH
57	1	Tree	Redwood	2.5m H. DBH
58	1	Tree	Redwood	2.5m H. DBH
59	1	Tree	Redwood	2.5m H. DBH
60	1	Tree	Redwood	2.5m H. DBH
61	1	Tree	Redwood	2.5m H. DBH
62	1	Tree	Redwood	2.5m H. DBH
63	1	Tree	Redwood	2.5m H. DBH
64	1	Tree	Redwood	2.5m H. DBH
65	1	Tree	Redwood	2.5m H. DBH
66	1	Tree	Redwood	2.5m H. DBH
67	1	Tree	Redwood	2.5m H. DBH
68	1	Tree	Redwood	2.5m H. DBH
69	1	Tree	Redwood	2.5m H. DBH
70	1	Tree	Redwood	2.5m H. DBH
71	1	Tree	Redwood	2.5m H. DBH
72	1	Tree	Redwood	2.5m H. DBH
73	1	Tree	Redwood	2.5m H. DBH
74	1	Tree	Redwood	2.5m H. DBH
75	1	Tree	Redwood	2.5m H. DBH
76	1	Tree	Redwood	2.5m H. DBH
77	1	Tree	Redwood	2.5m H. DBH
78	1	Tree	Redwood	2.5m H. DBH
79	1	Tree		

Although this study focuses mainly on the building's common space, it is useful to also get a sense of the interior design of the individual units of this supportive housing complex for women. Figures 4 and 5 compare the size and layout of the rooms for single women with apartments for women with children. For the single units, there are four different models available and for the units housing mothers and their children, there are two models in the building.

Figure 4. Examples of a Single Unit in Sorella (provided by Atira).

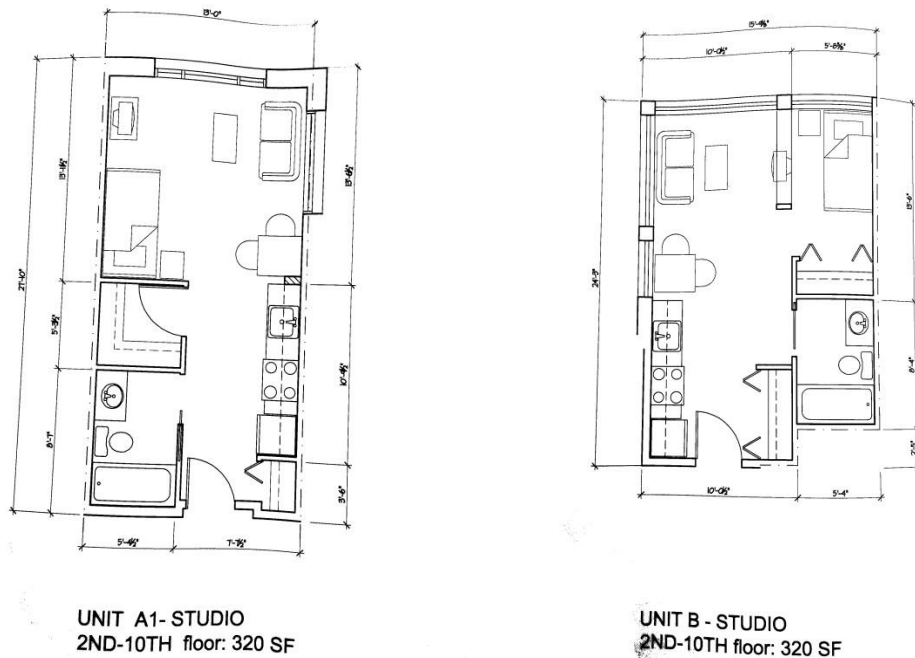
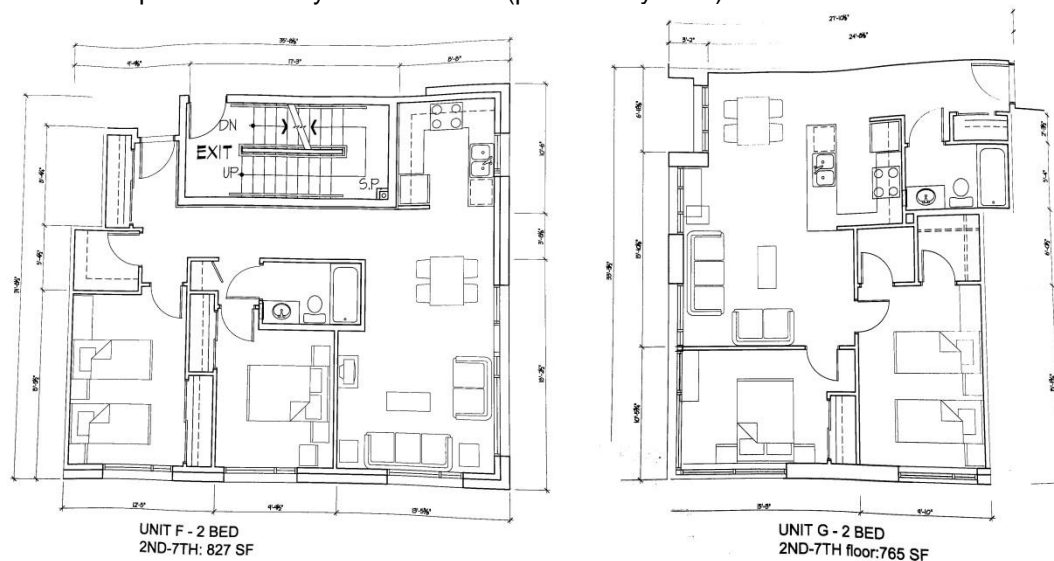


Figure 5. Examples of a Family Unit in Sorella (provided by Atira).



Understanding the layout and design of the private spaces in Sorella is a critical part of evaluating the common spaces. When considering issues like privacy and safety, the private spaces become a critical component of comfort. As was discussed in the literature review, it is

important to offer a variety of socializing opportunities and chances for solitude. If something is lacking within the private space of the building, it may create a need that must be met through use of the common spaces and vice versa. Furthermore, disparities which result from differences in private spaces may explain why one resident uses a common space in a certain way and another does not.

Section 5 – Findings & Discussion

Now that we have established a sense of what the interior space is like, we can delve into the findings of the primary research. Of the survey that was deployed in Sorella in the fall of 2016, 18 long term housing residents in bachelor suites provided feedback regarding the livability of the building.

Survey Results: Single Units

Table 1. Demographic information for single unit survey respondents

Status	n = 17	First Language	n = 18	Ethnicity	n = 9
Immigrant	1	English	16	Aboriginal	3
Permanent Resident	2	Czech	1	Caucasian	5
Canadian	10	Ojibiway	1	Welsh	1
Aboriginal	4				

Looking first at the socioeconomic information that was collected from participants, over half identified themselves as Canadian, with the second largest group identifying as Aboriginal. English was most commonly noted as the participants first language at 89% and with a low response rate, 56% identified as Caucasian, 34% as Aboriginal and 1 respondent identifying as Welsh.

Table 2. Survey questions and responses for single unit survey respondents

Livability	Response			No. of Responses
Question	Yes	No	Don't Know	n
Are the units large enough to live comfortably?	15	3	0	18
Is the kitchen sufficient for cooking healthy meals?	18	0	0	18
Are the bathrooms sufficient for personal care?	17	1	0	18
Is heating sufficient in winter?	11	5	1	17
Are units cool enough on hot days?	4	10	3	17
Is there a lot of loud noise from suites next door?	10	7	0	17
Is there sufficient natural light from the windows?	18	0	0	18
Do you feel safe and secure in your building?	13	4	1	18

Do you have friends in the building?	12	2	4	18
Do you feel comfortable using the social/common spaces in Sorella?	12	5	1	18
Which areas in Sorella do you use?				18
The outdoor gardens	8	10	0	
The communal kitchens	8	10	0	
The computers	5	13	0	
The laundry	16	2	0	
The storage room	7	11	0	
The bike parking	2	16	0	

There was a much more consistently high response rate to the remainder of questions on the survey. The kitchen and natural light were identified by residents as the two most adequate features of Sorella, with 100% of respondents selecting “yes” when asked if the kitchen was sufficient and again when asked if there was adequate natural light in the units. The most consistently negative response was to question number 10, regarding feeling cool in their units on hot days with 59% saying it was too hot and only 23% saying units are cool enough.

As for questions regarding the common spaces, notably, only 2 respondents indicated that they used the bike parking. Also showing low levels of use were the computers with only 5 total users. The laundry room was identified as the most used common space, however, 2 respondents filled in the write-in response section of the survey stating that their laundry gets stolen often. Similarly, while the garden is used by less than half of those who responded to the survey, one said they would use it more but their vegetables get stolen from the 8th floor outdoor space. Privacy and security emerge as potential concerns for the residents using the common spaces.

Most respondents indicated that they have friends in the building and feel comfortable using the common spaces, although no respondent said they had more than just a few friends. Only 5 respondents wrote long answers to the final open ended question (i.e., whether they would add any other comments or concerns), and documented conflicts they have had with other residents in common spaces like the kitchen and hallways. Interestingly, while each of those respondents made those comments, each also wrote they were very happy in the building more generally speaking. Only 2 of the 5 who wrote about issues with other residents focused on mental health supports, stating they think residents need more time with staff.

Survey Results: Family Units

Table 3. Demographic information for family unit survey respondents

Status	n = 2	First Language	n = 2	Ethnicity	n = 2
Immigrant	0	English	2	Aboriginal	1
Permanent Resident	1	Czech	0	Caucasian	1
Canadian	0	Ojibway	0		
Aboriginal	1				

There were only two respondents with children who answered the extended survey. One identified as Aboriginal and the other as a white permanent resident. The responses were split 50/50 on several questions including heating, cooling and use of common spaces. Most noteworthy of these two responses was that each recorded being uncomfortable having their child in the building due to their experiences with other residents. Both women noted they did not feel safe using the common spaces or letting their children use them. One also mentioned again that laundry gets stolen. Both survey respondents agreed that the kitchens were sufficient, there was enough natural light and that they had friends in the building. They also agreed that their units were too small, the bathrooms were insufficient, there was often loud noise from other suites and neither they themselves nor their children felt safe in the building.

Table 4. Survey questions and responses for family unit survey respondents

Livability	Response		
Question	Yes	No	Don't Know
Are the units large enough to live comfortably?	0	2	0
Is the kitchen sufficient for cooking healthy meals?	2	0	0
Are the bathrooms sufficient for personal care?	0	2	0
Is heating sufficient in winter?	1	1	0
Are units cool enough on hot days?	1	1	0
Is there a lot of loud noise from suites next door?	2	0	0
Is there sufficient natural light from the windows?	2	0	0
Do you feel safe and secure in your building?	0	2	0
Do you feel your children are safe and secure in the building?	0	2	0
Do you have friends in the building?	2	0	0
Do you feel comfortable using the social/common spaces in Sorella?	0	2	0
Which areas in Sorella do you use?			
The outdoor gardens	1	0	0

The communal kitchens	0	0	0
The computers	0	0	0
The laundry	2	0	0
The play equipment	0	0	0
The storage room	1	0	0
The bike parking	0	0	0

Interviews

As was revealed by the survey, there is a mix of opinions about the spaces in Sorella and levels of safety and comfort in using them. Further information was sought and surveys were conducted to explore how different users may have different experiences with the spaces in the building. Two interviewees were asked 9 questions and each interview lasted approximately 1 hour. The following responses explore how the two participants answered questions about life in the Sorella.

“Could you tell me a little bit about yourself (age, what gender you identify with, maybe a little bit about your background) and how long you’ve lived in Sorella?”

Participant A is a 62-year-old, a mother/grandmother, has Aboriginal ancestry and suffers from acute fibromyalgia. She has lived in Sorella for 5 months after spending many years moving back and forth between Prince George, Victoria, and Vancouver. She was born one of 18 children in a small town in Northern BC. Despite the pain she suffers in her hands says her favourite hobby is beading and cedar hat making, two pastimes she has only recently discovered since moving into Sorella.

Participant B is 47 years old, has a 4-year-old daughter and identifies herself as a recovering addict. She has lived in the Lower Mainland her entire life and has spent time in a series of Atira buildings, including units located outside of Vancouver. She has only been living in Sorella since January and is hoping her time in the family program will help her get her daughter back who is currently under Ministry care.

“How’s the social life in Sorella? Do you have friends in the building?”

Both participants said they have friends living in Sorella and each credit groups supported by Atira staff members as helping them settle so quickly into life in the building. Participant A met the majority of the women she is close to in Sorella’s group for women over 55. The group has since been disbanded, but she remains close to the women who once made up the group, especially the other older women with Aboriginal ancestry. She says they still volunteer in the kitchen together and join forces for crafting and weekly walks through Vancouver. Participant B has a few close friends in the

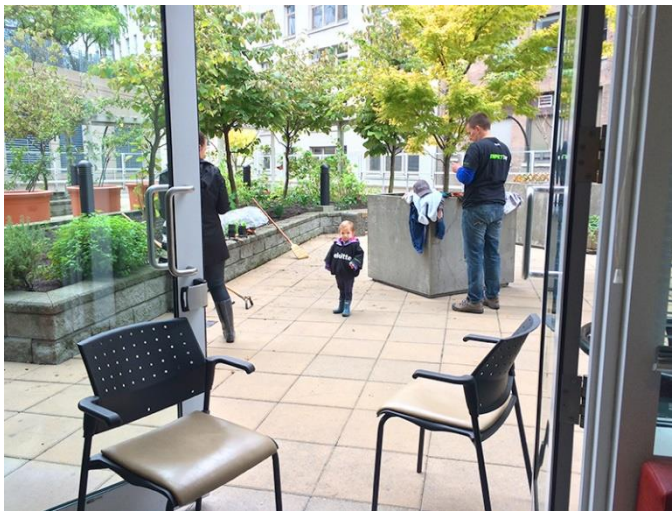
“We are all on different levels... but a couple people in the family program... I associate with and I talk to and we talk about our kids...”

Participant about her friends in the building

family program and said she enjoys having her daughter visit so she can play with the other children. She has one particularly close friend in Sorella who has a child of similar age to her daughter. She also notes that she does not have friends from elsewhere in the city who visit her at the building, as she is actively trying to disassociate herself from old friendship groups. New friends in the building have been helpful in getting back to the life she wants.

“If you’re upset or something bad happens are you able to find support here when you need it (from a friend or a staff member)?”

Both participants agreed that between the staff and other residents, help is never hard to find in Sorella. Participant A notes that each of the women have “bad days” and make life a little harder for other residents, but that the majority of days in Sorella are quiet and residents help each other out during some of those darker spells. Participant B observed similar situations which she referred to as “freak outs.” Particularly, she claimed, on those bad days residents are able to give each other space or help out where they can. Both participants enjoy the conversations they have with other women in the common spaces and hallways. Each notes that it is not common for women to hang out in private rooms, mostly just in common areas, something neither interview participant minds.



“Do you consider this an inclusive space? Are people welcome here from diverse backgrounds?”

Both participants agreed the space was inclusive and diverse. Participant B noted she was impressed to find out that the space was transgender-friendly and from her perspective does not see any othering of transgender residents; however, she can only speak for her own interactions. She also noted that since the space has harm reduction facilities, people are able to be open about exactly what is going on in their life if they choose to do so. Participant A gave a

shorter response to this question, saying she has enjoyed learning how different everyone’s story is and hopes that Atira continues to encourage so many unique women to move into Sorella.

“Do you feel safe in the building? Do you feel comfortable in the building?”

The participants gave mixed responses to the question about safety and comfort in Sorella. Participant A claimed that the only time she ever feels unsafe in Sorella is during busier weeks of the month (when welfare cheques are given out). She says this only pertains to the main entry way, but she notices more men at that time of the month and generally more strangers waiting for the elevator. When asked a follow up question, she said she does not notice it on floors other than the first, but she will often have to wait for a separate elevator as she does not always feel comfortable riding with strange men. Overall, she said she knows if there is an issue, staff will easily be able to remove a non-resident so she does not feel the need to bring it up as a reoccurring issue. She says that she just finds the chaos of those scenarios a little overwhelming at times but that she has gotten used to it.

Participant B said she always feels safe in Sorella but feels the neighbourhood is not safe for her daughter. She notes that is the major reason she would not want to raise her daughter in Sorella. She also thinks that the harm reduction facilities make it a little challenging for her to feel comfortable letting her daughter run around, but overall, she appreciates the role the facilities play in the building and neighborhood as a whole. She speaks about other women she has seen move through Sorella and who successfully established a more permanent home elsewhere with help from Atira. She has no doubt the staff will be able to help her find a new home for her and her daughter when she is ready. She is impressed that Atira collaborates with other housing providers to make sure the women in their programs are moved to something safe and supportive when their time at Sorella is over.

“Of the common spaces - the kitchen, gardens, laundry room, storage facilities – what areas do you use the most and why?”

Participants explained that the kitchen is the most well-used space in Sorella. They both greatly enjoy the cooking program and even though some meals are chaotic with so many women needing lunch, it is a great opportunity to connect with other women. Participant A is a particularly heavy user of the kitchen space because she does not have room to do her bead work in her private unit. She often takes her crafts downstairs and said the kitchen provides the perfect layout for crafting. She enjoys the programs that take place in the building, particularly meditation, even though she said they do not always have an easy time practicing it in the common areas due to the noise. She wishes there were options for more privacy in the common rooms for activities that are group-based but need some quiet.

“They definitely try to create a community environment and... I believe they do.”

Participant B reflects on the social life in Sorella

Both women are also excited to begin using the gardens. Participant A says that as she has gotten older she has come to truly appreciate nature and that green spaces are critical for her happiness. She enjoys the walks organized by the building but wishes they would put more effort into going to a destination with trees or by the

water. She says the busy downtown streets overwhelm her and she quickly needs to return to the building. She is looking forward to sitting in silence outside in the summer, as she deeply enjoys sitting still and focusing on her meditation. Her disability limits her from straying too far from home but finds engaging with nature an important part of her identity. Participant B says her daughter loves other gardening work they have done together, and while she has only been here only for winter months, she can see using the gardens a lot this summer. She does note that the playground is not adequate for her daughter and that she wishes it was more stimulating. She explained that a 4-year-old gets bored particularly quickly in the space and that more age-diverse equipment would solve the problem. She agrees it is safe and private in the main outdoor space, but cannot see her daughter wanting to play out there for too long due to the limited activities available.

“What areas do you use the least and why?”

Both women said the only reason they do not or have not used certain common spaces is because they do not apply to them or because it has been the wrong season. Participant B did mention that she hates to use the laundry room because her things get stolen but that she understands the problem would be solved if she would just stay down there, a chore which she finds particularly unappealing.

“Of those areas, are you able to use them alone and in a group successfully? Or is one activity easier than the other?”

Both participants agreed that Sorella provides adequate space for group time and alone time. They both noted that they do not often invite women into their rooms and they like how easy it is to find solitude outside of the common spaces. Interestingly, Participant B explains that she is not particularly interested in the social side of Sorella even though she takes part in it. She sees Sorella as a space to work on herself and reconnect to her child. She says she has been impressed with how well she is doing at Sorella and how she can see herself achieving her goals. In contrast, Participant A is greatly interested in how the building serves her social life. She says that especially with the Aboriginal programming, she has been able to connect to parts of her community that she either lost or never had.

“What else would make your community life and social life better at Sorella?”

Participant A would like to see even more lessons and activities in the building. She has greatly enjoyed her experiences in Sorella so far and hopes the staff continue to bring in activities for her. She said that she never had those kinds of opportunities in her younger years and is enjoying them immensely as she ages. Participant B said she had no exact recommendations. She thinks Sorella is a great place to live and is looking forward to finishing her time in the family program and finding a new two-bedroom in some other form of social housing for her and her daughter.

Section 6 - Conclusions and Recommendations

A variety of noteworthy discussion points emerged from the surveys and the interviews. Firstly, the interviews did help to answer some questions brought up by the survey results. For example, many of the women who claimed they do not use common spaces on the survey may have had a logistical or practical reason not to use them i.e. due to the season or their desired activities. Also, it appears that for the women in the family program, some of their negative responses about comfort and safety may relate more to the neighbourhood than to the building itself; this was not clear from the survey. Overall, while the surveys offered some general insight into the livability of Sorella, the interviews presented a more intimate look at what life is like in the building. Notably, the two interview respondents were noticeably positive regarding all their feedback about living in Sorella. When one considers how differently they use the building, which is quite significant. Participant A sees Sorella as a long-term home where she has been able to connect with her

“I want to know everything; I want to learn things... whereas I didn't get a chance to do it when I was a child.”

Participant A on learning opportunities and classes through Atira

lost Aboriginal roots and make deeper friendships than she had been able to establish in other living situations. Participant B views her time at Sorella as a temporary situation, where she is in working to move her and her daughter to a more long-term housing situation. Each woman is pursuing a completely different goal, yet able to do it easily in the same space.



To fully assess how the literature and lived experience of the women can be translated into actionable items for supportive housing, we can begin to bring together observations and make connections about our three areas of interest: privacy, play space, and green space. Firstly, it was clear from the surveys and interviews that privacy, or more specifically, the separation between private and public spaces is essential for comfort in the building. However, counter to literature around clearly defining separation in common spaces, it appears that the culture in Sorella of “keeping your private unit private,”



naturally provides that distinction, resulting in solutions offered by Day (2000) or Greig (1980) not being necessary in a space like Sorella. Secondly, as was identified in the literature and discussed in the interview with Participant B, a mother’s perception of play space is a more important determinant of its use rather than the child’s perception. Participant B who views the play space in Sorella as unstimulating for her daughter, does not feel the urge to bring her child out to there to use it. Lastly, as was apparent through the interview with Participant A, some older women do hold high regard for the building’s ability to provide them a social life as

well as connections to nature, something that becomes especially important when one has mobility issues, mirroring the observations put forward by Kweon, Sullivan, & Wiley (1998).

To summarise how the literature matches primary observations, the table below presents insights gained from the surveys and interviews and weighs them directly against the recommendations that arose from the literature.

Table 5. List of Recommendations

Recommendation from Literature	1. Ensure spaces are flexible. Allowing common spaces to be changed at will, depending on the user's needs, will guarantee that they stay useable over the long term.	2. Make use of different forms of privacy creators. Users require different levels of engagement will social spaces.	3. Allow for accidental supervision of play spaces. Mothers are more likely to let their children use the play spaces when they perceive them as passively watched.	4. Confirm that play spaces are protected from outside harms such as strangers or traffic. This will also increase the likelihood of their use.	5. Bring nature into the common spaces. Natural elements have proven to have real physical and emotional benefits for individuals in many different life circumstances.	6. Design the natural elements to be taken in actively and passively. Not all residents will be able to or want to engage with nature in the same way but passive contact with nature can still be beneficial.
Insight from Surveys	There is a diversity of backgrounds found in Sorella and each user has different needs. As many women are in recovery or are actively changing parts of their lives, their stay at Sorella will see their needs for spaces changing too.	Not everyone in the building experiences space in the same way and what works for one resident may not work for others. Women do need privacy for the times when they do not wish to engage with certain residents.	Some mothers do not see the spaces for their children as safe and this may impact their use.	Some mothers do not see Sorella as a safe building for their children and this may impact how/when often spaces are used. It is unclear whether this is more to do with the building or neighborhood.	The gardens are not consistently used by residents and a review may be warranted to find out the reason why. It may just be the season.	N/A
Insight from Interviews	The spaces already support a mix of uses and the only piece potentially missing is a private space for group use.	The building culture around keeping your unit private and using the common spaces for socializing has been working well.	Supervision is less important than stimulation in terms of effect on use for the play space currently in the garden. The play equipment does not support a variety of ages.	The garden is adequately safe and protected from outside harm. This is especially important as the surrounding neighborhood may not been be viewed as safe for mothers and their children.	Nature can be an important part of wellbeing and while in-house nature is well used, there is a strong desire to connect to more 'raw' nature in the surrounding neighborhood.	Particularly older residents or those with disabilities benefit from passive associations with nature in times when they are unable to get outdoors or stray too far from the building.

Directions for Future Research

Supportive housing, and social housing more generally, will continue to play a critical role in the housing spectrum in years to come, as its ability to house those who may always struggle to thrive in the private market creates an environment ensuring their continued need. To guarantee the viability of supportive housing over the long term, housing providers will need to consider the complexity of future tenants and develop housing models that support diversity and ever-changing needs. This report offers insights into the livability of Sorella in terms of the ability of its common spaces to support the women and children who live there. This report also recommends 6 core principles for designing common spaces in supportive housing for women that can be taken into consideration by other housing providers looking to apply intersectionality to their housing design. Given the scope of this project and the report's primary focus on health, coping, and the built environment, certain topics were left unaddressed and may warrant investigating in the future. These topics include but are not limited to: supportive housing and perceptions of safety, the role of the neighbourhood, and community development. As supportive housing continues to play an increasing role in the housing sector, each of these topics of interest will undoubtedly grow in importance. From the lessons learned through this report, it can be argued that the most successful supportive housing projects will most likely be those that are able to accurately reflect the resilience and complexity of the residents within them.

Bibliography

Aarts, M.-J., Wendel-Vos, W., van Oers, H. A., van de Goor, I. A., & Schuit, A. J. (2010). Environmental Determinants of Outdoor Play in Children: A Large-Scale Cross-Sectional Study. *American Journal of Preventive Medicine*, 39(3), 212-219.

Abu-Ghazze, T. M. (1998). Children's use of the street as a playground in Abu-Nuseir, Jordan. *Environment and Behavior*, 30(6), 799+.

Atira Women's Resource Society. (2017). Atira Women's Resource Society. Retrieved from Mission, Vision, Values: <http://www.atira.bc.ca/mission-vision-values>

Bassuk, E. L., Weinreb, L. F., Buckner, J. C., Browne, A., Salomon, A., & Bassuk, S. S. (1996). The Characteristics and Needs of Sheltered Homeless and Low-Income Housed Mothers. *Journal of the American Medical Association*, 276(8), 640-646.

BC Non-Profit Housing Association. (2016). Rental Housing Index. Retrieved from <http://www.rentalhousingindex.ca/>

Beyer, K. M., Kaltenbach, A., Szabo, A., Bogar, S., Nieto, F. J., & Malecki, K. M. (2014). Exposure to Neighborhood Green Space and Mental Health: Evidence from the Survey of the Health of Wisconsin. *International Journal of Environmental Research and Public Health*, 11, 3453-3472.

Biddulph, M. (2010). Evaluating the English Home Zone initiatives. *Journal of the American Planning Association*, 76(2), 199-218.

Bowleg, L. (2008). When Black + Lesbian + Woman ≠ Black Lesbian Woman: The Methodological Challenges of Qualitative and Quantitative Intersectionality Research. *Sex Roles*, 59, 312-325.

Carrion, B. V., Earnshaw, V. A., Kershaw, T., Lewis, J. B., Stasko, E. C., Tobin, J. N., & Ickovics, J. R. (2014). Housing Instability and Birth Weight among Young Urban Mothers. *Journal of Urban Health*, 92(1), 1-9.

Christensen, A.-D., & Jensen, S. Q. (2012). Doing Intersectional Analysis: Methodological Implications for Qualitative Research. *NORA*, 109-125.

City of Vancouver. (2016). Supportive housing for homeless and at-risk residents. Retrieved November 28, 2016, from City of Vancouver: <http://vancouver.ca/people-programs/supportive-housing.aspx>

Clampet-Lundquist, S. (2003). Finding and Keeping Affordable Housing: Analyzing the Experiences of Single-Mother Families in North Philadelphia. *Journal of Sociology and Social Welfare*, 30(4), 123-140.

Cranz, G., & Arch, C. (2006). The Role of Design in Inhibiting or Promoting Use of Common Open Space. *Journal of Housing For the Elderly* ISSN:, 19(3-4), 71-93.

Day, L. (2000). Choosing a house: the relationship between dwelling type, perception of privacy, and residential satisfaction. *Journal of planning education & research*, 19(3), 265-275.

Galster, G., & Constantine, P. (1991). Discrimination Against Female-Headed Households In Rental Housing: Theory And Exploratory Evidence. *Review of Social Economy*, 49(1), 76-100.

Greene, S., Chambers, L., Masinde, K., & O'Brien-Teengs, D. (2013). A House is not a Home: The Housing Experiences of African and Caribbean Mothers Living with HIV. *Housing Studies*, 116-134.

Grinde, B., & Patil, G. G. (2009). Biophilia: Does visual contact with nature impact on health and well-being? *International Journal of Environmental Research and Public Health*, 6(9), 2332-2343.

Kraay, J. H. (1986). Woonerven and other experiments in the Netherlands. *Built Environment*, 12(1-2), 20-29.

Kweon, B.-S., Sullivan, W. C., & Wiley, A. R. (1998). Green common spaces and the social integration of inner-city older adults. *Environment and Behavior*, 30(6), 832-858.

Letiecq, B., Anderson, E. A., & Konlinsky, S. A. (1998). Social Support of Homeless and Housed Mothers: A Comparison of Temporary and Permanent Housing Arrangements. *Family Relations*, 47(4), 415-421.

Lindsay, M., Williams, K., & Dair, C. (2010). Is There Room for Privacy in the Compact City? *Built Environment*, 36(1), 28-46.

McCall, L. (2005). The Complexity of Intersectionality. *Signs: Journal of Women in Culture and Society*, 30(3), 1771-1880.

Mistry, R. S., Lowe, E. D., Benner, A. D., & Chien, N. (2008). Expanding the Family Economic Stress Model: Insights from a Mixed-Methods Approach. *Journal of Marriage and Family*, 70(1), 196-209.

Mitchell, R., & Popham, F. (2008). Effect of exposure to natural environment on health inequalities: an observational population study Richard. *The Lancet*, 372, 1655-1660.

Reid, M. (2012). Public housing and gender: Contextualizing the "We Call These Projects Home" report. *Cities*, 35, 335-341.

Saugeres, L. (2009). "We Do Get Stereotyped": Gender, Housing, Work and Social Disadvantage. *Housing, Theory and Society*, 26(3), 193-209.

Shaw, M. (2004). Housing and Public Health. *Annual Review of Public Health*, 24, 397-418.

Suglia, S. F., Daurte, C. S., & Sandel, M. T. (2011). Housing Quality, Housing Instability, and Maternal Mental Health. *Journal of Urban Health*, 88(5), 1105-1115.

Taylor, A. F., Wiley, A., Kuo, F. E., & Sullivan, W. C. (1998). Growing Up in the Inner City: Green Spaces as Places to Grow. *Environment and Behavior*, 30(1), 3-27.

Appendices

Appendix A: Survey Questions for Family Units

Tell us about Sorella!

Please use this survey to tell us about your home. If you wish to remain anonymous you may chose to leave both your name and unit number off the survey form.

Your Information

Name & Unit Number (optional):

Age:

Status:

- a. Immigrant
- b. Permanent Resident
- c. Canadian Citizen
- d. Aboriginal or First Nations Band member

First Language:

Ethnicity or Race:
(optional; include if you identify with any racial, ethnic or linguistic group)

Livability

Please check the appropriate boxes and feel free to provide any written feedback.

Personal Unit

Are the units large enough to live comfortably? ☐ Yes ☐ No

Comments:

Is the kitchen sufficient for cooking healthy meals? ☐ Yes ☐ No

Comments:

Are the bedrooms big enough? ☐ Yes ☐ No

Comments:

Are the bathrooms sufficient for personal care? ☐ Yes ☐ No

Comments:

Is heating sufficient in winter? ☐ Yes ☐ No

Comments:

Are units cool enough on hot days?

☐ Yes ☐ No

Comments:

Is there a lot of loud noise from suites next door?

☐ Yes ☐ No

Comments:

Is there sufficient natural light from the windows?

☐ Yes ☐ No

Comments:

Building

Do you feel safe and secure in your building?

☐ Yes ☐ No

Comments:

Do you feel your children are safe and secure in your building?

☐ Yes ☐ No

Comments:

Do you have friends in the building?

☐ Yes ☐ No

If so, how many? _____

Comments:

Do you feel comfortable using the social/common spaces in Sorella?

☐ Yes ☐ No

Comments:

Which areas do you use?

- a) The outdoor gardens
- b) The communal kitchen
- c) The computers
- d) The laundry
- e) The play equipment
- f) The storage room
- g) The bike parking
- h) Others:

Any further comments:

(The data collected through this survey is being evaluated as part of a Master's project, conducted by a student at the University of British Columbia. All information in the project will be anonymous.)

Appendix B: Survey Questions for Single Units

Tell us about Sorella!

Please use this survey to tell us about your home. If you wish to remain anonymous you may chose to leave both your name and unit number off the survey form.

Your Information

Name & Unit Number (optional):

Age:

Status:

- e. Immigrant
- f. Permanent Resident
- g. Canadian Citizen
- h. Aboriginal or First Nations Band member

First Language:

Ethnicity or Race:
(optional; include if you identify with any
racial, ethnic or linguistic group)

Livability

Please check the appropriate boxes and feel free to provide any written feedback.

Personal Unit

Are the units large enough to live comfortably? ☐ Yes ☐ No

Comments:

Is the kitchen sufficient for cooking healthy meals? ☐ Yes ☐ No

Comments:

Are the bedrooms big enough? ☐ Yes ☐ No

Comments:

Are the bathrooms sufficient for personal care? ☐ Yes ☐ No

Comments:

Is heating sufficient in winter? ☐ Yes ☐ No

Comments:

Are units cool enough on hot days? ☐ Yes ☐ No

Comments:

Is there a lot of loud noise from suites next door?

☐ Yes ☐ No

Comments:

Is there sufficient natural light from the windows?

☐ Yes ☐ No

Comments:

Building

Do you feel safe and secure in your building?

☐ Yes ☐ No

Comments:

Do you feel your children are safe and secure in your building?

☐ Yes ☐ No

Comments:

Do you have friends in the building?

☐ Yes ☐ No

If so, how many? _____

Comments:

Do you feel comfortable using the social/common spaces in Sorella?

☐ Yes ☐ No

Comments:

Which areas do you use?

- i) The outdoor gardens
- j) The communal kitchen
- k) The computers
- l) The laundry
- m) The play equipment
- n) The storage room
- o) The bike parking
- p) Others:

Any further comments:

(The data collected through this survey is being evaluated as part of a Master's project, conducted by a student at the University of British Columbia. All information in the project will be anonymous.)

Appendix C

Interview Questions – Sorella Housing for Women

1. Introductions
 - a. Could you tell me a little bit about yourself (age, what gender you identify with, maybe a little bit about your background) and how long you've lived in Sorella?
2. Discussion
 - a. How's the social life in Sorella? Do you have friends in the building?
 - b. If you're upset or something bad happens are you able to find support here when you need it (from a friend or a staff member)?
 - c. Do you consider this an inclusive space? Are people welcome here from diverse backgrounds?
 - d. Do you feel safe in the building?
 - e. Do you feel comfortable in the building?
 - f. Of the common spaces - the kitchen, gardens, laundry room, storage facilities – what areas do you use the most and why?
 - g. What areas do you use the least and why?
 - h. Of those areas are you able to use them alone and in a group successfully? Or is one easier than the other?
 - i. What else would make your community life and social life better at Sorella?
 - j. Is there anything else you would like to add before we finish the interview?