

Running a Maker Day Workshop to Explore Southview Residents' Perspectives on  
Livable Communities in Calgary, Alberta using Design Thinking

by

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A Thesis Submitted to the Faculty of Social and Applied Sciences  
in Partial Fulfilment of the Requirements for the Degree of

MASTER OF ARTS IN ENVIRONMENT AND MANAGEMENT

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JULY, 2023

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## COMMITTEE APPROVAL

The members of Kylie Weber-Vigrass' Thesis Committee certify that they have read the thesis titled Running a Maker Day Workshop to Explore Southview Residents' Perspectives on Livable Communities in Calgary, Alberta using Design Thinking and recommend that it be accepted as fulfilling the thesis requirements for the Degree of Master of Arts in Environment and Management:

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### **Abstract**

The research involved organizing and leading a Maker Day workshop in a neighbourhood of Calgary and was concerned with how to meaningfully engage the public by implementing alternative methods using design thinking. The research question: How might Southview change to suit the needs of the existing residents and community while also accommodating for a changing Calgary? guided this study. Participants reported feeling more comfortable sharing, safer in comparison to other meetings they had been at involving community matters, allowing them to converse more passionately and boldly. The research explored how engaging those closest to the problem using human centred design thinking in the scenario of a Maker Day process might cultivate new and invigorating ideas for decision makers to use moving forward. The results may lead to more creative solutions to the challenges this neighbourhood faces. Running a Maker Day workshop using design thinking methods was successful in engaging participants and through grounded theory analysis, thematic elements helped develop new pathways to explore for more localized, community design planning.

*Keywords:* Maker Day workshop, Southview, neighbourhood, design thinking, design scenario, community, community planning

## Content

<b>Introduction</b> .....	7
<b>Research Context</b> .....	12
<b>Area of Focus</b> .....	13
<b>Highlighting Envision Utah: A Success Story</b> .....	14
<b>A Time for Transformation</b> .....	16
<b>Methods and Methodology</b> .....	20
<b>Design Thinking</b> .....	20
<b>The Maker Workshop – Research Design</b> .....	25
<i>Participants and Recruitment</i> .....	29
<i>Choosing the Research Design</i> .....	32
<b>Data Analysis</b> .....	34
<b>Maker Day Workshop and Results</b> .....	37
<b>Evaluation</b> .....	45
<b>Limitations</b> .....	47
<b>Discussion</b> .....	50
<b>Conclusion</b> .....	55
<b>Appendix A</b> .....	62

	5
<b>Appendix B</b> .....	64
<b>Appendix C</b> .....	69
<b>Appendix D</b> .....	70
<b>Appendix E</b> .....	71
<b>Appendix F</b> .....	72
<b>Appendix G</b> .....	74
<b>Appendix I</b> .....	74
<b>Appendix H</b> .....	75
.....	76
<b>Appendix I</b> .....	77
<b>Group A</b> .....	78
<b>Group B</b> .....	80

**List of Figures**

**Figure 1** ..... 24

## Introduction

By the year 2050, it is estimated that nearly 68% of the world's population will be living in urban areas, with the expectation that almost all countries will have higher shares in urban areas rather than rural ones (Ritchie & Roser, 2018). This number is an indication of the organization and forethought that cities will need to put into their developments and planning in the immediate future.

Calgary is a city facing great growing pressures. By the year 2080, Calgary is estimated to grow in population by another 1,300,000 people (The City of Calgary, 2019). Where will they live? How will they get around? How will the city nurture great communities and ensure high quality of life founded in sustainability?

Clearly, such growth will demand revisions to current zoning. Amanda Burden was the New York City Planning Commissioner from 2002 to 2013, she notes the need for community engagement to fuel the need for zoning revisions, as zoning is "a city planner's regulatory tool" (Burden, 2014). In Burden's opinion, zoning is critical for purposeful design as it allows planners to target where new development can go as well as prohibiting car-oriented suburban style neighbourhoods. In addition, Burden attests that public spaces are 'a part' of creating and maintaining sustainable communities (2014).

Consulting the people who live in neighbourhoods is key when considering zoning implementations, whether in existing establishment or redevelopment. In testament to Burden's point above, the established zoning for neighbourhoods dictates what changes and redevelopment are possible in the area, necessary information for developers and city planners.

In 2009, the City of Calgary created the Municipal Development Plan (MDP), identifying short, mid, and long-term objectives to increase densification, planning for the growing future of the city. In the ten years prior (1999-2009) 107,504 new home units were built in Calgary, 77% of them in suburban areas (The City of Calgary, 2019). Two major changes addressing this issue are the targets established in the MDP: 50% of future growth with developed areas over the next sixty to seventy years, and 33% of future growth to be within already developed area of the city by 2039 (The City of Calgary, 2019).

These changes to the development plan require action from planners, developers, civil workers, and residents alike. The MDP recently underwent a revision (February 2021), though overall goals and policies remained the same, edits and changes were in the form of verbiage and content structure.

Calgary is located on the traditional territories of the people of Treaty 7, including: the Blackfoot Confederacy, made up of the Siksika, Piikani, and Kainai First Nations; the Stoney Nakoda First Nations, comprised of the Chiniki, Bearspaw, and Wesley First Nations; and the Tsuut'ina First Nation (The City of Calgary, 2018). The neighbourhoods within the city limits of Calgary that are primarily poised for consideration in this process reside in what Uribe and Sandalack (2011) name 'the middle-ring'. Ten communities in Calgary had an increase of over 1,000 residents from April 2017 to April 2018 (City of Calgary, 2018), with all but one of them located outside the middle ring area of the city. This information is collected in the Canadian census and reflects the population living in private households; information is currently only available from the 2016 census as the 2021 information is not yet available. The middle ring is located between the downtown/inner-city neighbourhoods and the newer slot of suburbs around

the edge of the city (Sandalack & Alaniz Uribe, 2011). This area is typical of neighbourhoods developed between the 1950s and 1970s, with increasing opportunity to undergo redevelopment (Sandalack & Alaniz Uribe, 2011).

In accordance with the city's Municipal Development Plan (MDP), these neighbourhoods could be optimal locations in consideration for redevelopment, and an opportunity to engage with residents, city council, and planning professionals to generate new ideas for the future of these communities (City of Calgary, 2019). This is a unique opportunity to shift how community engagement and planning intersect, opening the door to find out what may be most important to residents in terms of the factors that would make their community more livable and sustainable. Creating an environment where residents can come and collaborate with fellow community members and professionals in a very open, new, creative, and welcoming space could present an opportunity that inspires imaginative design propositions from those who benefit from redevelopment the most.

The middle ring area in the city is of particular interest for change because of the mentioned growing population, interest to live in and around the centre of the city for many individuals and families, as well as the building mandates that are specified in the MDP and TCP for Calgary's future of building and planning. This redevelopment and transition process requires so much attention to detail with its focus centring around community quality while growth and diversifying incurs, therefore, a common goal to anchor efforts should/could be livability.

The uniqueness of individual neighbourhoods makes it difficult for an overly generic strategy to increase density in the same manner. Zoning highly regulates all the neighbourhoods

in cities, and it is commandeered to individual neighbourhoods rather than city-wide (TED, 2014).

The MDP does not discuss ways in which the city will obtain these goals, leaving room for inquiry and exploration. In my research, I conducted a design thinking workshop using residents of the Southview neighbourhood, seeking to discover new ideas and locally based suggestions to alter the neighbourhood of Southview to make it more livable for residents while also adhering to MDP initiatives. Design thinking is an approach to problem solving that focuses on people and iterative prototyping, promoting innovation and combining analytical and creative thinking processes (Curedale, 2013) The connection between what goals and visions exist for a neighbourhood and the limitations presented by neighbourhood zoning and development goals was a problem. I had hopes that the process of generating the resident's ideas using an alternative and time intensive method could potentially fill gaps in current ideas and community development for inevitable densification and growth of Southview and Calgary.

Engaging with residents to gather community concerns and problems, and then moving to dictate policy is an ideal scenario for development design. If policy were to change first or be centred on generic needs, communities would suffer as blanket zoning changes are not an adequate fit for the unique alterations of all communities. *Green Solutions for Livable Cities* highlights that bold steps can help our cities in the future.

To cope with this human influx, we need a new approach to designing urban space.

Sustainable development cannot be achieved without transforming how we build and manage our cities. Bold steps now can help our cities absorb the pressures of mass urbanization. Without such steps, inefficient land-use planning and natural resource

management, limited community engagement and decision-making processes, and insufficient financing will expose our cities to risks. (Sandhu, Singru, Bachmann, Sankaran, & Arnoux, 2016, p. 8)

This research is concerned with how to meaningfully engage the public by focusing on a neighbourhood in Calgary, Alberta. Good design thinks about the user, who we are designing for, those who put to ‘use’ all the aspects of their neighbourhood daily, constructing their daily movements around them. They are in a sense the ‘experts’, and as such it is important to gain insight from their experiences when considering changes for the future. In my research, I explored in depth the generation of ideas that resident’s put forth, using an alternative and time intensive method, a Maker Day process (Crichton & Carter, 2015), that was engaging and connecting.

Section two discusses my methodology followed by the research context. The next section describes the results of the workshop, followed by an analysis of the data. The next section is also a discussion of my data and the last section is the conclusion which includes recommendations for other neighbourhood Maker Days (Crichton & Carter, 2015).

## Research Context

After completing my Bachelor's degree in sociology, I proceeded to live in various countries for the next 10 years. France, Tunisia, Germany, Poland, and Turkey were all locations I spent time in. The cultural immersion I experienced in each one of these locations had substantial impact on shaping my beliefs and preferences as an individual, as well as those for my own community and neighbourhood. It was while living in Izmir, Turkey, that the connection I experienced in my neighbourhood with the people, services, and places was something I had never and likely would never experience back home in Canada. I don't think there is the same thought put into how spaces (neighbourhoods and communities) function for the users, maximizing connections and usability.

I have lived in eight different cities in Europe in my time there, and every one of them gave me the experience of living with local connections. The majority of my life and the people I spent time with existed in a small area, where I could get my groceries, exercise, go for coffee, have childcare, go to parks, catch transit, and do work. Most days I never got in a car. This was my livable neighbourhood and informs the lens I bring to my research and ambitions for livable neighbourhoods in Calgary. The research is a conduit to achieving something larger than more green space or additional transit stops in neighbourhoods. These are steppingstones, but my desire is that residents believe something even larger and more impactful is possible in their neighbourhoods, but change needs to start somewhere and with something, so why not now with this research?

## **Area of Focus**

In daily choices when provided with more autonomy and agency, individuals are more likely to experience far greater community engagement in the design and re-design of community form, as discussed by Dale et al., (2014), in which the authors suggest greater interdisciplinary planning. When deciding on plans for any area, a critical focus is sustainability or regenerative sustainability (Dale et al., 2014). Regenerative sustainability is not simply about reducing harm or reversing damage, it is a net-positive approach that reconciles ecological, social, economic and political spheres, contributing positive, mutually reinforcing, enduring benefits to human and ecological systems (Dale et al., 2014). It is rooted in the notion of procedural sustainability - sustained dialogue, reflection, feedback and continual improvement processes, collaboration, compassion, kindness and love (Dale et al., 2014).

The neighbourhood of Southview is located in the SE quadrant of the city, as mentioned in the middle ring location of Calgary. The community had a population of 1,815 in 2014 as reported by the Calgary Civic Census, compared to a population of 1,940 in 2011 as reported by Statistics Canada run by the Census of Canada (The City of Calgary, 2018). The 2016 results from Census Canada are not yet posted to the City of Calgary website, however the 2018 Civic Census indicates that the population of Southview as of April 2018 was 1,858. This community provides an appropriate location (in the middle ring area) to conduct the workshop, it is conveniently located close to many major roads and existing transportation routes, and it is surrounded by similarly structured communities with comparable plans and poised for potential redevelopment. In the projected population generated by the City of Calgary, by the year 2042

the entire city will expect a 60% increase of population change, with Southview's population percentage change increasing by 40% (City of Calgary, 2019).

### **Highlighting Envision Utah: A Success Story**

There are several examples of successful community engagement scenarios involving all participants affected by development decisions that structured huge change in a meaningful way for users. Envision Utah: A Partnership for Quality Growth, is an example of a diverse and very comprehensive plan organized by various levels of state, community, and residents (Envision Utah, 2002). The plan is designed to guide future development of the Greater Wasatch Area of Utah. A key component to the success and implementation of the plan was the support of the public, a notion strongly supported by the thoughts of Dale (2018) in *Edging Forward*. Dale conveys this notion as well, that planning for change needs the inclusion of individuals and groups using it, "If we are to leap forward, rather than edge forward, development leaders must step up to the plate, stop fighting communities, and begin listening to the people that live next to any proposed new development" (p. 58).

The example of Envision Utah illustrates the potential of design thinking work done through a collective process. Although the above presented example is far grander in scale than the possible outcome of my research, a sole neighbourhood workshop, the information collected opens new doors and possibilities for resolving the City of Calgary's developmental planning. This excerpt from *Community and Quality of Life: Data Needs for Informed Decision Making* advocates for the importance behind the collective process of ideas from those who use and will use the area.

Envision Utah is a unique and dynamic partnership, bringing together citizens, business leaders, and policy makers from public and private circles throughout the state. This unique and diverse coalition is working to implement a common vision for the Greater Wasatch Area (GWA). This group did not seek to limit growth, but rather to create a vision of how the citizens of GWA want the area to grow. Envision Utah incorporated substantial input from the public. Meetings, surveys, and open work. (Envision Utah, 2002, p. 9)

The then leader of the Quality Growth Steering Committee in Utah, Robert J. Grow, was quoted saying that he believed his role in the process was that of a 'Sherlock Holmes', continually seeking new answers and working with the notion that "the more people we asked questions and listened to, the easier it was to sort out the truth" (Smart Growth, 2000, pp. 2-3).

Creating a space to share information, ask people purposeful questions, and cultivate ideas was needed. Design thinking was one way to move forward to harness people's needs and vision for what they envision for a more livable future. An example follows below.

When work started on forming what is now Envision Utah, to tackle the growth challenges the Greater Wasatch area was facing, they were aware that a significant commitment of time and resources would be needed (Smart Growth, 20019). This commitment was necessary from "local and state government leaders and agencies, as well as that of community, business, and civic leaders" (Smart Growth, 2001, p. 7). They were also aware that the caliber of effort needed for community support warranted a result that went beyond a summary report; it must be effective in addressing the growth challenges ahead (Smart Growth, 2001). However, the main conclusion the committee forming Envision Utah deemed essential was providing a *process* for addressing development and growth challenges (Smart Growth, 2001). It is with these attributes

in mind that the formation of Envision Utah registers as an insightful case study for the research done here with community processes and researching the implementation of using the Maker Day process to address community development and growth challenges.

### **A Time for Transformation**

There is a shift that beckons on multiple fronts, societal perception of what functions as an acceptable way to collect information for pressing collective amendments, as well as where the information is sourced from. In their presentation at the Walk21 Vienna 2015, a conference on walkable and livable communities, Sandalack and Uribe (2011) noted some sweeping planning goals that the City of Calgary wants to focus on, highlighting that (in no particular order) there was a need for an increase of density particularly in areas with established transit routes, employment areas close to goods and services; mixed-land use as well as condensed building; and finally to "foster distinctive, attractive communities with a strong sense of place" (p. 10).

Dale (2018) described a type of multi-level cooperation:

Multi-level governance, based on principles of collective intelligence, recognizes the dynamic interactions between scales and leads issue-oriented alliances between levels of government and stakeholders. This focus on issues reframes the challenges in the light of day, rather than based on problems of the past. It involves collaboration and policy coherence with and between provinces, facilitated by the federal government, with active community engagement in the identification and development of policy solutions. The involvement of civil society is essential for ensuring policies that are place-relevant and will be adopted and implemented by communities across the country (p. 111).

Again, the necessity to shift the emphasis, restructure government agendas to what is timely *now*, not what the emphasis was when these governments (including federal, provincial, and municipal) were shaped and utilized in a very different era; priorities were different (Dale, 2018).

This has a similar connection to the thoughts of Manzini, an accomplished design thinker specializing in the fields of strategic design and design for sustainability focusing on social innovation (CIID, 2023), with the belief that change must include a connection between individuals and government (2025). Manzini suggests that in an attempt to tackle the large and complicated problems we are currently facing in history, a "renewed pact between citizens and the state" (Manzini, 2015, p. 15) be formed, meaning the government would become "an active and influential partner along with citizens and social enterprises" (p. 15). There is a routine and very well practiced way of doing this, which Manzini terms conventional mode. It's the path of least resistance as well as a comfortable mode to work within as its based upon the concept of tradition and how things are expected to get accomplished (Manzini, 2015).

The importance of altering the built world is mentioned above: for the logistical reasons of a growing population and city plans geared to densify and adjust current neighbourhoods rather than proceeding to build further outside the city limits, and as Dale mentions,

Since we humans are biologically driven to seek connection and have needs for bonding and social capital connections, the design and redesign of the physical space of our neighbourhoods and our cities is vital for enabling diverse relationships to occur (2018, p. 71).

Sanders and Stappers indicate three major reasons why it has taken so long for co-designing to take notice. One is that to fully embrace co-designing, those implementing it must believe all participants have the ability to be creative, which isn't a widely accepted notion especially amongst those with a business mentality (Sanders & Stappers, 2008). It also ruffles feathers in the sense that distributing control to potential customers, consumers or end-users would mean threatening the existing power structures (Sanders & Stappers, 2008). Another is that participatory design scenarios (like Maker Day) are "seen as an academic endeavour with little or no relevance for the competitive marketplace" (Sanders & Stappers, 2008, p. 9). These examples demonstrate a hesitation from organizations making the decisions to invest monetarily as well as on an ideological level to the process and outcomes of co-design. There exist perceptions surrounding completing research and work described as co-design or human design thinking, as noted in Sanders and Stappers, that the experiences can change people's notions, and that "the move from user-centred design to co-designing is having an impact on the roles of the players in the design process" (p. 10).

For this project, I opted for a less traditional approach, veering away from the standard literature review included in most theses. This research is presented slightly more in the realm of a research project rather than thesis. Adjusting the layout and presentation of the background research warranted a shift to complement the type of project it was. It was also more helpful in telling a 'story', complementing the flow of all the elements that need to be presented in terms of the research, results, and analysis for this major project. The way the literature is presented throughout the entirety of the project rather in a delegated section uplifts and supports the other

content presented, rationalizing the measures taken to carry-out the Maker Day workshop (Crichton & Carter, 2015) and the reason it was selected for use in the first place.

## **Methods and Methodology**

### **Design Thinking**

The method I used for my research is Human Centred Design Thinking (von Thienen et al., 2014) using a Maker Day Workshop process (Doorley et al., 2011). The ideal aspect of design thinking in terms of my research and using a Maker Space Workshop is that in the hands-on and collaborative process of working out a solution allows for many trials and errors (von Thienen et al., 2014).

The unique opportunity to fail and experiment allows for more success down the road and is a key feature of design thinking, “by establishing mindsets and offering tools which save you from the impossible task of finding ‘the correct problem view’ or ‘the optimal solution’”(von Thienen et al., 2014, p. 102). The focus is on user needs that simply require fulfilment through good design. The process develops new interpretations of the problem which progress along in the process while factoring in the various stakeholders and their own interpretations of the problem; this helps everyone look at the situation from a new vantage point (von Thienen et al., 2014). The process “remains flexible, spirited and unrestrained by arbitrary formalizations” (p. 102) by structuring the workshop in a creative and welcoming way that provides many tools and supplies that encourage groups in their problem-solving process (von Theinen et al., 2014). von Thienen et al. highlighted a strong argument for scenarios when design thinking dictates the layout; that things remain flexible and creative with use of many tools and supplies while participants look at a scenario that simply requires a fulfilment, encouraged by a process that includes various stakeholders and various interpretations, further encouraging everyone to view the situation from a different vantage point (2014).

The key strength of Human Centred Design is the active involvement of end users who have knowledge of the context in which the system will be used (Maguire, 2000) in this case the residents of Southview. Involving the end users also increases the chances that any new decisions will be relevant, as the users were consulted beforehand and resulting implementations are less likely to be an imposition on them (Maguire, 2000).

In their book *Putting Design Thinking to Work: How Large Organizations Can Embrace Messy Institutions to Tackle Wicked Problems*, Steven Ney and Christoph Meinel combine to illustrate the possibilities design thinking methods and mindsets can have with different organizations and goals (2019). Meinel helped pilot the opening of the Hasso-Pattner-Institute (HPI) School of Design Thinking in Potsdam in 2007, while being one of the leading advocates for design thinking in Europe while teaching at the institute since its opening (HPI, 2023). Ney has "designed and delivered co-creation processes, organizational strategies, and new business models", and has also worked as a professor at the HPI School of Design Thinking where he "designed, led, and implemented continuing education formats" (Wear It, 2019). Ney and Meinel (2019) mirror the thoughts of those expressed by von Thienen et al. (2014), and in their work they observe that Curdale (2013) accurately notes why defining design thinking as a method can be rather challenging:

Design Thinking is a methodology or approach to designing that should help you be more consistently innovative. It involves methods that enable empathy with people, it focuses on people. It is a collaborative methodology that involves iterative prototyping. It involves a series of divergent and convergent phases. It combines analytical and creative thinking approaches. It involves a toolkit of methods that can be applied to different

styles of problems by different types of people. Anyone can use Design Thinking. It can be fun. (Curedale, 2013, p. 14)

Curedale's perspective on design thinking frames much of what the workshop I facilitated encompassed; an empathetic and deeply collaborative day with iterative prototyping, sources both from analytical and creative tendencies, and it involved a tool kit, in this case, actual materials to help teams build out and demonstrate their final group designs. At present, this alternative decision-making is still novel in the mainstream.

Design Thinking entails mindsets and practices that may sit rather awkwardly in the way large organisations usually go about their business... some argue that if people want to use Design Thinking to successfully tackle complex problems, this will necessitate fundamental changes in how they work and collaborate (Ney & Meinel, 2019, p. 9).

Fundamental change is not such a bad thing and would mean opportunity for fresh approaches and working more closely together in appreciation of what everyone brings to the table.

In their article *Achieving Transformative Sustainability Learning: Engaging Heads, Hands, and Heart*, Sipos, Battisti, & Grimm, (2008) argue that the transformation of sustainability consciousness involves changing our pedagogical approach from one of unsustainability to that of sustainability, by invoking a shift that leads us to a new way of perceiving education and life (2008). The process to get closer to a sustainability focused mentality involves three areas of interest for Sipos et al., the transformative learning process. For Sipos, et. al (2008), this includes “our heads (cognitive domain; requiring engagement), hands (psychomotor domain; enactment of theoretical learning through practical skill development and

physical labour), and hearts (affective domain; enablement of values and attitudes to be translated into behaviour)” (p. 74). These measures promote a deeper connection that individuals, organizations, stakeholders, users etc., can experience through the design thinking process.

Another intention of the workshop is co-design, as Sanders and Stappers (2008) describe,

Co-design is a specific type of co-creation... We use co-design in a broader sense to refer to the creativity of designers and people not trained in design working together in the design development process (2020, p.6).

In their work, Cross states:

There is certainly a need for new approaches to design if we are to arrest the escalating problems of the man-made world and citizen participation in decision making could possibly provide a necessary reorientation. Hence this theme of ‘user participation in design’. (1972, p. 11)

This directly supports the importance of the 'user as partner' focused design principle, first thought of in 1972 by Barney G. Glaser and Anselm L. Strauss. This type of design planning was focused on collaboration with all parties involved, whereas the model used in the United States for many years prior to that was 'user-centred design', where the users were considered not as equal contributors as they were studied and researched rather than consulted on their opinions and ideas for useful change (Sanders & Stappers, 2008). The authors believe that if practiced early in the design development process, co-creation "can have an impact with positive, long-range consequences" (2008, p. 9). Here, they really highlight the basis behind the principles to

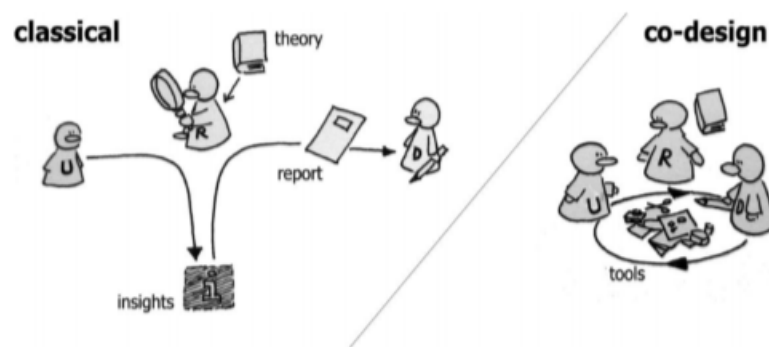
the workshop, the whole concept of involving everyone from the moment ideas begin to formulate and come to fruition.

On the left, Figure 1 displays a simplified example of what the typical or preferred method for making decisions or creating policies within most modern organizations tends to look like, with person U representing users, person R representing researchers, and person D representing designers, and, on the right, it displays decision making or policy creation using a co-designing process (Sanders & Stappers, 2008).

### Figure 1

*The Roles in the Design Process are Changing.*

Adapted from “Co-creation and the new landscapes of design”, by E. B. Sanders & P. J. Stappers, 2008, *Co-design*, 4(1, p. 11)



Classic roles of users, researchers, and designers in the design process (on the left) are notably different in structure than how they are merging in the co-designing process (on the right).

Ney and Meinel offer a suggestion regarding making a switch to tackle problems, "Organizations need to learn to use the other hand, become ambidextrous, and design thinking is an excellent way to work towards that goal" (2019, p.16). Sanders and Stappers (2008) also note

the role of the researcher in the co-designing process, thoroughly describing the responsibilities and influence they can play in terms of the activity. The researcher (myself for this case study workshop) takes on the role of a facilitator. A very pertinent part of facilitating involves "leading, guiding, and providing scaffolds, as well as clean slates to encourage people at all levels of creativity" (Sanders & Stappers, 2008, p. 13), which can encourage more future users to engage and participate in the design development process. The process of the workshop requires the researcher to lead on the fronts of 'doing', 'adapting', 'making', and 'creating' levels of creativity, involving the various levels of what and how the participants were able to give to the process (Sanders & Stappers, 2008). It also required the facilitator to bring background knowledge and literature that was helpful for participants/users and that aided the design process (Sanders & Stappers, 2008).

### **The Maker Workshop – Research Design**

This case study is action or applied research (Hedrick et al., 1993) that used a Maker Day workshop where I invited residents from the neighbourhood of Southview. The structure of the workshop was designed to facilitate open deliberation and uninhibited idea-sharing among participants. The process of a maker day workshop is uniquely arranged to draw ideas and engage in dialogue at certain points of the workshop process. Individuals developed their own set of ideas addressing the questions posed to them and followed the parameters prompting reflection during specific time increments, either individually or by partnering with another participant.

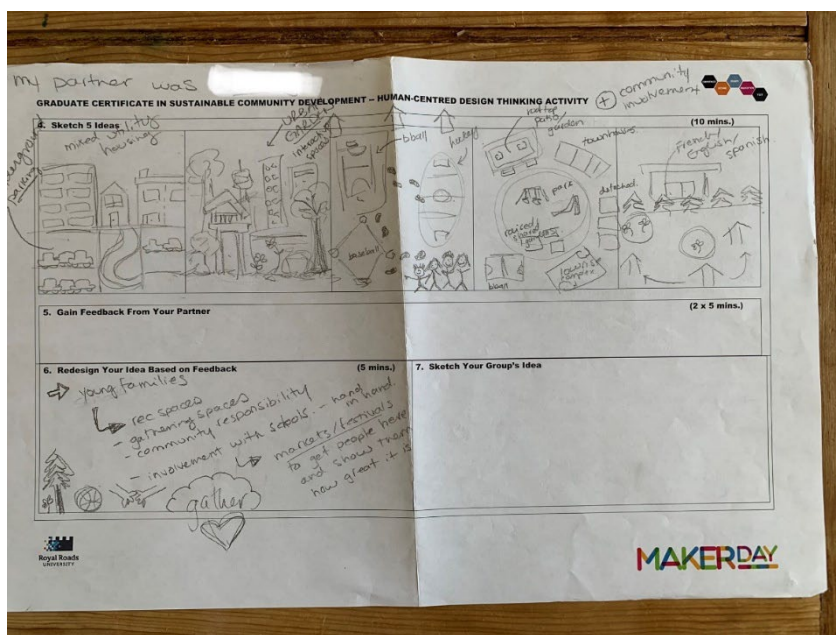
I crafted the design scenario specifically for the workshop around this question: *How might Southview change to suit the needs of the existing residents and community while also*

*accommodating for a changing Calgary?* Each pairing was given a copy of the design scenario, presented as Appendix F. Brief background knowledge was presented along with the overall objective for the day and design rationale. Livability is subjective, with relevance surfacing differently for every person. The design scenario presented guided discussions by outlining some information and direction with statistics from the City of Calgary as well as other content to provide guidance for what livability could be on the day of the workshop.

A detailed schedule of the structure is shown in Appendix D. This dyadic first part provided time enough for the tasks to be accomplished within their specified time allocations. Appendix D details the workshop process in minute detail. In my training to facilitate the workshop, Royal Roads University associate professor, Leighton emphasized “the importance of time and the importance of precise management throughout the day” (personal communications, May 30, 2020). After introductions, a slide deck to introduce design thinking was presented to the group. This step of the workshop speaks to Sanders and Stappers work when they bring up the requirement to bring background knowledge and literature to help the participants familiarize themselves how they might play a role in this design process (2008).

Appendix E shows the worksheet given to each participant to work through as the day progressed. The early part of the process was working exclusively in pairs, and once completed, the remainder of the time was spent collaborating within their groups. The purpose of the sheets was two-fold: i) to document their work in a tangible manner that they could reflect on and be guided with little interference from facilitation and ii) to have a documented progression of their thoughts and progress for my results.

The worksheet (see Appendix E) was on 11.7 x 16.5 in paper, a design element of the workshop that encourages a better relationship between participant, pencil, and paper. For this portion of the workshop, participants were only given pencils to work with, however they were encouraged to draw and design, to try to understand one another through the introductory and exploratory process the worksheet provides. Based on design for the workshop process, participants were not yet made aware of their next processes.



Maker Day participant worksheet

Activity blocks were described as addressed. The intention of this allows participants to focus on the present task, vocalizing thoughts on the workshop's prompting question, developing thought without boundaries. The main objective of this part was for the participants to come up with a singular design strategy. This first part is primarily about opening up and providing a space of comfort for the participants. It's a unique aspect of the Maker Day (Crichton & Carter,

2015) workshop, where the intentional time implementations and cyclical nature of the process coaxes an ease from the participants, hopefully making for pliable minds and ideas.

The process was timed, and phases were switched promptly as scheduled, and I answered very few questions that came up unless they were process specific, as the participants were given all the information they needed at the forefront of my presentation and within the design scenario challenge given. This was an intentional part of the workshop, to mostly observe and let the participants guide themselves with their own ideas rather than interrupt their process. I also didn't entertain clarification questions because if they felt a little lost or that things were more ambiguous than they were used to in decision making processes, that was the point, this was forcing them in a new direction and justifying their own decisions. Guided by Leighton in my training for the workshop, she advised the following:

Constraints and process are huge here, because we are engrained in a societal process that is not this. These concepts are often hard for some and easy for others, however the nature of problems is that they all require different approaches. It is not about the exact representation of their pieces, it's about the process. It evokes the traits needed for design thinking, as well as collaboration, working with multiple personalities, compromise, prioritizing, being involved in a system you don't understand or support (Leighton, personal communications, May 30, 2020).

After the pair work, groups convened to share the ideas they had each generated. They were given the chance to share feedback within their groups on each individual's ideas. From this point the groups were tasked with completing a group idea, presenting something sourced from individual ideas or ideas that were generated through collaboration and their dialogue in this

stage. The next portion of the workshop focused on design solution collaboration prototyping. The prototyping with tool kits and supplies was not explained or discussed until this time. Participants seemed surprised about the way they were to visually represent their solutions to the problem scenario using some or all of the items in the participant group maker day kit in some way (Appendix G). Tasked with collaborating and planning for the future, participants were to create a physical representation of their group idea given the scenario presented in Appendix F under *Collaborating and Planning for the Future*.

Additional reasons that a Maker Day workshop best suited my research include the ability for anyone who follows the toolkit to be able to run the workshop. The group sizes (ideally 4 per group) were exemplar for the scale of my project. The workshop is structured in its layout and execution, promotes open dialogue and the opportunity to reflect on one's own ideas, as well as their partners, and finally in a group setting. Results are garnered quickly and require no follow-up contact with participants. Finally, it is entirely scenario specific.

### ***Participants and Recruitment***

Participants were informed via email (see Appendix A) about the logistics and details of the day. They were advised that this study was voluntary and of their right to withdraw from the study, as well as their right to decline an appearance on the video recordings and pictures taken throughout the session. The consent form (see Appendix B) was discussed at the very beginning of the session, and participants were asked to sign and keep one copy for themselves and their records as well as sign and return one to me. No participants withdrew from the workshop at any point in the day, and we were able to proceed with seven participants that were originally recruited by means of posters in the neighbourhood as well as a door-to-door flyer that was

delivered to every house within the neighbourhood of Southview (see Appendix C). Participants were informed of the overall approach and agenda for the day, however specific details regarding methods, structure, and tasks were withheld prior to their arrival at the workshop, and even until certain portions of the day by design. This decision was made because it is keeping with how the workshop is intended to place participants in a new mental frame in-situ, requiring them to remain open minded to new experiences and ways there may be to collaborate with a group of people working to achieve a common goal.

Participants included six females and one male, with four identifying in the fifty-five years and over range, with the other four falling in thirty-five years and younger demographic category. The participation number was smaller than I was originally seeking, however this was the second attempt at running the workshop. My initial efforts to run this same workshop were scheduled for January 2019, and unfortunately I received no responses of availability for that date. Timing and conflicts were potential deterrents for people, so I rescheduled for June 2019 to allow myself enough time to reorganize, and recruit by providing more information to residents. The initial interest for the June workshop was 12 confirmed participants, however as anticipated, people were unable to attend for various reasons, and after discussion with my supervisor and committee member, we agreed that seven was a satisfactory number to move forward.

My original recruitment of participants included working with the Ward 9 Alderman, Gian-Carlo Carra and his team, advertising using the poster for the workshop in their bi-weekly emails, as well as their monthly newsletter. Posters were placed in various locations all over the community, in areas with increased foot traffic and the potential for large gatherings. This process was repeated for the June 2019 workshop, however, since I received zero participants on

my first attempt, I decided more direct engagement was needed to spread more awareness about the workshop. Flyers were created (see Appendix C) and delivered to every residence in the Southview community. Delivery volunteers did not knock or ring doorbells, rather flyers were left in mailboxes. Some residents who saw the volunteers inquired about their objectives, and they briefly explained the invitation for participation in the upcoming workshop and suggested that if they had any interest or questions to contact the email provided for further information.

This likely contributed to better results, as I received multiple emails within the first 72 hours requesting further information or to sign up for the workshop. Prior to the week of the workshop, there were a dozen confirmed participants.

Due to the change in our participation numbers, the seven participants (one was an environmental design student from the University of Calgary recruited for their expertise) were split into two groups rather than my original design of three. To make sure the groups were even, I added another volunteer, a 33-year-old working mom of two who was searching for a home at the time, looking for a suitable community for her family to grow up in. She was not a resident of Southview; however, she grew up in inner city Calgary and was interested in what a community like Southview could offer her as a potential neighbourhood. Her addition allowed the workshop to carry on with the original structure, which began with participants working exclusively in pairs for the first 45 minutes to an hour of the session. The groups were assembled after the participants arrived for the day. After introductions, I convened the two groups based on the little information provided by the participants about why they were joining for the day and their dispositions (reserved, outgoing) as well as their age etc. There were two participants in

each of the following categories: 20-29, 30-39, 40-49, and 50-59, a diverse age range represented in a small group of individuals.

### ***Choosing the Research Design***

A smaller scale approach to implementing design thinking was considered suitable for the scope of a graduate level research project. Since my research was with a post-secondary institution, there were no incentives for the recruitment of potential participants, so the process needed to be limited in time and outcomes to encourage people to take their time to enroll and join the experience.

This described scenario fits rather perfectly with a comprehensive plan that Crichton and Carter developed in 2013, and further revised in 2015 titled Taking Making into Schools. It is an immersive development approach which "requires ALL participants to thoughtfully and fully engage in design thinking and creative problem finding" (2015, p. 3). Focusing on a purpose and the process, this immersive professional development process builds on theories about how learning occurs, along with appropriate timing and the need for more innovative approaches to solve problems, and to "foster curiosity and creativity in the pursuit of personal knowledge building" (Crichton & Carter, 2015, p. 12). This outlook on learning guided the formula and structure for what a Maker Day was.

So, we see a purposeful way of Taking Making In the Schools is by intentionally linking the process of Making (designing, thinking, prototyping, tinkering, reflecting) with a well considered, thoughtfully crafted Design Challenge building on prior learning and scaffolding the introduction of new ideas. The Design Challenge is the curriculum tie that allows the students to uncover the learning. What aligns the design challenge to the

curriculum in schools is the subject knowledge / curriculum understandings needed to respond to design challenge and the need to use design thinking and hands-on construction (prototyping) to solve the problem. A design challenge is the starting point or narrative from which participants use design thinking to find creative solutions to problems drawing on empathy, creativity, and research. (Crichton & Carter, 2015, p. 13)

The essence of the Maker Day workshop was ideal for answering my research question. In this scenario, being the researcher, I was able to embrace the responsibility of researcher, educator, and facilitator. As noted by Crichton and Carter,

“The educator has an active role in shaping the inquiry with the students and guides the students within the specific context of the learning environment and curriculum under study. The students actively engage in the learning while educators thoughtfully scaffold and facilitate the process” (2015, p. 13).

In this case, I was the ‘educator’, and the ‘students’ were the participants in my workshop. To my mind, the use of a Maker Day workshop was a preferential method for conducting this kind of research. Supported by the notions of Crichton and Carter “it is through the design process that problems, old or new, simple or wicked, can be problematized” (2015, p. 16). Focusing on the process to the solution is critical for developing something new. The authors state that “Design Thinking is a process by which designers can think and talk purposefully within their groups and consider, discuss, research, and explore options. Thinkering is often called lateral thinking – thinking that tends to foster creativity and innovation” (2015, p. 16).

An additional benefit to using the Maker Day approach for this research is the possible growth of something very empowering for the community itself. *Community Vitality* (Dale et al.,

2014) discusses the importance of social capital, which is a term when thinking of community that can be thought of as the following.

The core values, norms, social trust, and networks that facilitate coordination and cooperation that is mutually beneficial among members- a moral resource. Social capital can be seen as potential resources that are linked to a strong network of institutionalized relationships (p. 57).

Strengthening social capital within communities is also something the neighbourhood may benefit from hosting the workshop. The essence of social capital in neighbourhoods as described in the quote above is highly valuable and by running the workshop these attributes could be strengthened. Organizing, running, and participating in a planning and problem-solving workshop such as Maker Day has the potential to create new relationships and connections, that could strengthen any institutionalized relationships, especially ones pertaining to planning and development. The benefits of this are a 'moral resource', or enhanced social capital that provides the community with a sense of identity, values, norms, and social trust, as mentioned in the quote above by Dale (2014). The potential development of social capital within the neighbourhood could provide the community with extended benefits that go beyond the results from this workshop alone.

### **Data Analysis**

What surfaced through the design thinking process/maker workshop was an emergent problem, as identified by Glaser (2016), and the content which participants were able to talk about and develop through the layout and platform of the workshop. As Hall (2015) notes in his review of Glaser's work, "grounded theory is not to be seen as defining truth, but is instead a

method used to discover thematic elements from data in a conceptual way in localized context” (p. 88). He further emphasizes the appropriate use of grounded theory for his own research (much like my own), where you are able to “explore the local, contextual experience” of people “and not necessarily make truth claims at a larger level” (2015, p. 88). A more recent account of grounded theory states that:

The very nature of the grounded theory process means we start with a very detailed and intimate relationship with the data. This is both the strength and weakness of grounded theory. The scale of the task of building a grounded theory means that we often leave it to others to then take our theories and either apply them to other contexts or test them.

(Urquhart, 2019, p. 18)

By these accounts, although I did not develop a theory from my data given its applied nature, grounded theory anchors my research because it allows for no pre-conceived notions prior to conducting my workshop, allowing for emergent problems to develop by the means of the workshop and research itself although participants knew about the nature of their place. In relation to Urquhart's point, the work behind conducting my research was heavy and time intensive, and the results allowed for others to interpret in a manner that was relevant to the problem.

Information from the entire day was recorded using multiple mediums. Detailed notes were taken by myself during the initial phase of partner work, the group brainstorming, the building phase, and the final presentations. The individual I had there helping with set-up and station maintenance also wrote direct quotes from participants during their brainstorming and building phases.

Immediately following the workshop, I wrote out individual reflections for each participant. I also wrote out my reflections on the experience as a whole and how the workshop came together for me. Portions of each phase were also recorded using video. I set up the camera and recorded conversations occurring between the participants. Photos were also taken, however these were used for the final models and documents not for participant work.

To analyze the data I collected, I assigned participants labels according to their group and person (i.e., A1 for participant 1 in group A). I listened to all the video footage recorded, and catalogued individual quotes to the specific person, and gathered other talked about themes into common categories, for example car use, parks, zoning etc. For the footage taken of the final presentations, I aimed to take literal transcriptions then organize them into common categories so their description would make more sense in the results. I also included quotes from the feedback forms that participants provided me; this information was more reflection based on the participants behalf and I believe it offered great insight on their true perception of the experience.

### **Maker Day Workshop and Results**

As Crichton and Carter mention, there are five distinct yet very related elements of the Maker Day workshop; these include “design challenge, design thinking, design solution through collaborative prototyping, design charrette, and group reflection” (2014, p. 6). Keeping flow and a storytelling element to this research, I present my results by showing how these elements moved through the course of the workshop.

At the time of the workshop in June 2020, there was controversy in the neighbourhood of Southview regarding the potential placement of a safe drug clinic within their boundaries. This subject was of concern for a few of the participants; however, I told the room that this workshop was not a suitable time to discuss the progress of those plans and all participants understood, accepting that it was a City Council conversation, best discussed with their Alderman.

Watching the groups through this time of engagement with one another and with the maker day kits to create something original was very interesting. For this portion of the workshop I observed, while simultaneously taking notes on behaviour. The following are quotes I recorded during the prototyping phase.

"I wasn't so sure about this at the start, but now I totally get it and I'm into it." (A1)

"It's so frustrating to go to the city led meetings, I hate government structures, no one ever listens." (B1)

"We just started talking and our ideas came together." (B2)

"The ladder could represent climbing to new heights." (A4)

"I feel like I'm being heard here, starting in groups of two, moving to four, and finally the entire group stage made it feel safe." (A3)

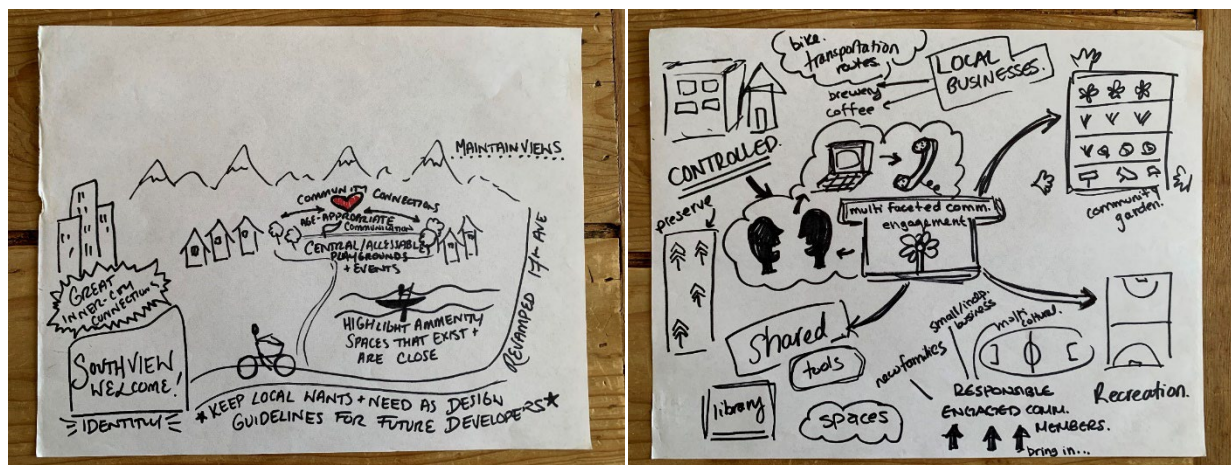
"I admit to coming here with my own agenda, but this process made me feel energized and creative." (B3)

We altered the charrette portion of the day. Since we only had two groups and eight participants, it made for a more intimate presentation where one group member from each team presented what their group had assembled to represent their solution/s to the problem scenario. This was a fabulous opportunity for the entire group to come together for the first time in the day to share what they ideated. Speaking in only an observatory manner, participants marvelled while they took turns presenting. Presenters were given the floor for the entirety of their presentation, with time for questions and discussion after the fact.

**Group A** incorporated lots of thought and replication from their design and thoughts into their structure and presentation. With the introduction of the workshop, team members in this group had great energy and anticipation of the process. Input appeared even, all members were sharing and there was great dialogue. Throughout the stages, there was much flexibility in making amendments and altering ideas to add to the vision they were co-creating. They weren't 'completion' focused, they stayed in the moment with each of the instructions given at the time and really engaged in the process. These insights were observed by me, sitting and listening/recording notes during the process of their brainstorming and prototyping phases.

When this group of individuals came together, they discovered they had very common desires and wishes for their livable neighbourhood. How do we get there? How can we translate these ideas and desires into action for residents of all backgrounds and socioeconomic status? The ideas that follow are from Group A's presentation and entail their solutions to the question

posed in the design scenario: *How might Southview change to suit the needs of the existing residents and community while also accommodating for a changing Calgary?*



Photos of Group A and B's rough sketch ideas

Two concepts the group wanted to emphasize were preservation and enhancement. The creation of a 'Southview' sign that exemplifies the neighbourhood's identity, with its downtown and mountain views which are unique to the neighbourhood. The sign would be designed to represent Southview's qualities, with the inclusion of a ladder somewhere to idealize 'reaching new heights'. Group members said the sign would allow people from outside the neighbourhood to see it and create their own perspective of what Southview is all about.

They were pleased with the quantity of parks in the neighbourhood; however, they thought continual work needed to be established either by the city or community organized methods. Maintaining all the parks in the community was a very strong opinion held by the group, in addition to wanting enhancements by modernizing the playgrounds to be more inclusive and accessible.

The construction of community gardens was suggested as a way for residents to get to know one another, neighbours meeting neighbours as well as a community building experience: rent space in the garden, plant as you like and make sure to take care. They identified a need to figure out access to land, as to what is city owned and what needed approval as there were certain criteria to meet to make this experience possible. This had briefly been investigated in the past and there seemed to be limitations, however the group noted it is an opportunity to work creatively to find a solution that works for their community.

The group noted that the bike path that has been recently finished creates great connections with the entire rest of the city on some of the best pathways in the country. They wanted to get people away from their vehicles and optimize the bike path infrastructure because opportunities for access to the rest of the city are often limited when trying to reach it by car. There was lots of passion surrounding car reduction in the area, decreasing the amount of traffic through the neighbourhood by emphasizing the amazing bike paths as well as the newly introduced transit system with stops located right at the entrance to the neighbourhood.

Group A wanted to preserve the bluff that runs along the west side of the neighbourhood, creating a space useful for nature as well as people, rather than leaving it to diminish and potentially lose lushness or even attract homeless patrons. The big natural area of Southview comprises a lot of this neighbourhood's identity, a space to connect with the city visually, through nature, and fellow community members. The group identified walkability, family friendliness, connectivity, engagement, diversity, and safety as attributes their neighbourhood possessed and was looking to enhance. In the built neighbourhood, they hoped to increase the

number of local businesses. Rather than residents leaving Southview to procure their goods in other neighbourhoods, this would work on having them remain in Southview.

They suggested creating a set of neighbourhood design guidelines to present to developers about what matters to the collective community, which would include the neighbourhood's proposition on how to maintain a community identity and have a hand in their own future. They were the 'users' with lived experience, and they were the 'experts', with participant A3 stating, "it creates the ability to move forward in a way that is far more coherent for all parties". Some participants argued there are developers out there who place value in community engagement and enhancement to be sought out and worked with in an authentic manner. Improving awareness regarding existing amenities, meant advertising what there is and is established, in a far better manner. It was the residents' experience that people sometimes want for what they already have (i.e., coffee shops, local grocers, consignment stores etc.) and more care needs to be placed into improving those businesses rather than trying to recruit new businesses to the neighbourhood. The following is transcribed from the presentation, however without participant numbers as they were sitting outside of footage range and unidentifiable.

" You can go down to the canoe club at the bottom of the bluff and rent a canoe for \$5"

"I didn't know that!"

"Ya, I didn't know that either!"

"Me either, that is amazing."

This really emphasizes their own admission that even active members of the neighbourhood aren't aware of all the services offered. For example, there were wildflower walks identified along the bluff that only one participant was aware of as well. There was a huge round

of applause at the end of the presentation as well as following the question and debrief period. I observed there was a great connection and idea chemistry. One prolific comment near the end of the discussion time was made by participant A1, offering "what is the lived experience of Southview, and how can we manifest that, maintain that, and grow from there?"

**Group B** There was a considerable amount of hesitation on the initial introduction of the workshop. Many of their thoughts were very literal in concept and the group had a very difficult time feeding off one another's dialogue, with everyone seemingly focused on their specific comments with little conversation leading to new discussions. After the second round of individual interviews, I observed something in the group shifting and partners became more comfortable with one another, realizing they had common ground and relatable content with their group members and neighbours. When I introduced the physical build stage, the development advanced, however participants were still hesitant about the necessity to relay their outcomes into a 'craft project'. The influence some personalities had in Group B was unfortunate, with more dominant influencers tamping down the input of more soft-spoken members and in turn, this did not help the group to translate their thoughts and idea generation very well into a built structure. It seemed much more of a forced and pragmatic experience.



Group A and B's finished prototype pieces

Group B's overall objective in their planning and idea generation was to focus on community engagement. A high priority for them was focusing on reduction of automobile

impacts in the neighbourhood. One solution to consider was to have underground parking by mandating that condominiums and future developments provide it, in order to skirt increased demands for street parking and potential community turmoil. They also believed that street parking issues were often resolved in other neighbourhoods by losing green space, which they wanted to avoid.

Unsure of the intended use but believing it would have a positive influence in their neighbourhood, the participants wanted to incorporate solar panels and power into the community.

They wanted inquiries about zoning within the neighbourhood and a petition for changes, if need be, to increase infill developments. Rezoning had been done in a very specific portion of the community to accommodate infills, however participants wanted to see expansion of the rezoning to include more or all the neighbourhood. They expressed their desire for the community to set standards of lot use, remaining diverse with: residential properties being owned and leased, commercial properties, green spaces, an overall multiple use neighbourhood. They believed there needed to be more control over development in the neighbourhood. The ability to limit how many infills could be built within an area and diversify the type of home ownership to achieve that. They envisioned diversified housing in general, with a balanced community that attracted all types of people and families, with high as well as lower end options, with a goal of remaining affordable. They also noted their interest in exploring the possibility of having land in the neighbourhood dedicated to the construction of mini houses.

Another idea was the introduction of information boards posted throughout the community by mail collection boxes with information pertaining to the neighbourhood. Another

idea was to establish a Maker Space in the community. Participant A4 described this as being "a place that has resources for people to learn new skills or complete projects with tools and space provided for a fee, for example, you can use the carpentry tools and rent the space for a day or pay a fee to learn how to use the 3-D printer etc."

## **Evaluation**

Participants were engaged and responsive to an alternate idea-generating method. Wariness morphed into intrigue, which continued to comfortability and finally resolved into satisfaction. One participant proclaimed, "I wasn't totally sure about this at the start, but now I totally get it and I'm into this" (A1).

I believe the participants were surprised and pleased about what they were able to achieve during the structured meeting I led. Some of the comments focused on how typical previous community meetings or even city led discussion groups, were usually led by an individual dispensing information followed by a question period or debrief with opportunity for attendee's thoughts. Positive feedback for this process was provided verbally as well as in feedback forms, I distributed to the participants after the workshop had finished (Appendix H). "It was awesome being able to think about this problem creatively, it was a totally different experience" (A1). The majority of individuals were thrilled with the new content generated surrounding community potential and possibilities, as well as the dialogue they were able to have with their fellow community members. Not all the propositions were tangible, however, this is bound to be the case from any solution seeking mission.

After the charrette process, I was able to explain with a little more clarity some of the intent behind the specificities of the Maker Day workshop. Much of the information I debriefed

post-workshop were answers to questions or comments that participants raised throughout the day. Leighton provided the following information to deliver to the group to help tie the whole experience together for them. All aspects of the day (timing, limitations, forced use of resources) were planned with intent to stimulate features of actual problem solving (Leighton, personal communications, May 30, 2020). One intention of the day was to delimit, forcing a faux real-world situation where not every tool, resource, budget, or personnel was available, and it stimulates challenges for individuals and happen at different stages for each participant (Leighton, personal communications, May 30, 2020).

The workshop went well in that all topics were covered, we remained on time, no one left, and all participants reported a positive reflection of the experience. Some of the feedback received was:

"We are still far from comprehending the possibilities of Southview decisively enough. But this helped me generate new modes of thinking about space, place, and community, and I definitely think this was a fruitful, energizing, and challenging experience" (A1).

"I felt that there were new ideas that are certainly doable, i.e., enhance parks, signage to highlight our community's name, improve communication between community association" (A2).

"As you mentioned, I actually feel energized and better connected to Southview. I feel a bit validated that my values match those of my neighbours. I was surprised that other people that don't have small families were as interested in updating our space for children" (A3).

The rough sketches presented by each group as well as the photos of their finished pieces can be found in Appendix J.

Here is a sample of a participant's (6) thoughts on the overall experience of the day taken from my notes.

Participant A3 was very interested in the how the workshop was structured and laid out and gave feedback to the whole group that the length of the process was enjoyable and

Participant A3 believed it added to the ideas created and made the experience much more authentic and purposeful than a regular community meeting. Participant A3 believed the quality and uniqueness of the discussion from the day far surpassed the time and energy put into normal community meetings and also mentioned the desire to want to share ideas at meetings but was too intimidated and some people monopolize conversation and topics.

Participant A3 liked the format of interviewing with one person and becoming comfortable, and then slowly expanding to the group of 4 and sharing and generating ideas, and then presenting to the whole group, and by the end was very confident and proud of what was said, which was very empowering. Participant A3 also asked for access to the worksheets because it could be a great way to work with coworkers. Participant A3 believed the quality and uniqueness of the discussion from the day far surpassed the time and energy put into other meetings designed to make collective decisions that they had attended in the past.

### **Limitations**

The limitations of my workshop are not minimal. The small number of participants was a huge challenge for the execution of the workshop. It was a challenge in terms of organizing and creating the day itself. An original workshop date was scheduled for Jan 20, 2019, with the same

process in place to recruit participants, minus the door-to-door flyer delivery to every residence in Southview. The goal was to secure at least 12 participants for the day, putting 4 people in each working group. The obvious benefits of having additional people participate in the workshop is comparable to any experiment; more data is almost always better. For the purposes of this workshop, increased participants could have significantly increased idea pollination (Leighton, personal communications, May 30, 2020). Idea pollination is what occurs when ideas are widely shared within a group of people creating new life (Leighton, personal communications, May 30, 2020). Within organizations, or in this case, a workshop, conveying ideas through open exchange, time regulation, and a focal problem offers a rich environment for ideas to pollinate and grow (Leighton, personal communications, May 30, 2020).

Another limitation was scheduling conflicts concerning city representatives and community representatives. I was in contact with the offices of the Ward 9 Alderman as well as the Southview Community President, however, neither were able to attend any portion of the workshop day. It would have been the most beneficial for them to attend the final stage of the day which included the group presentations as well as the reflection period.

I also organized this workshop while I was living abroad in Poland. Though most of the logistical aspects were simple enough to accomplish via email, I believe my presence in the city while trying to recruit participants for the workshop would have been beneficial. As it was, I had volunteers drop off flyers and refer people to my email if they had any further inquiries. Being in Calgary would have given me the opportunity to do more lobbying on behalf of my workshop in the form of personal presence in the neighbourhood. Also, this study comprised one set of Maker experiences and did not go beyond the neighbourhood of Southview, therefore the outcomes are

limited in their ability to be generalizable and extrapolated to other neighbourhoods located in Calgary or in the country.

## Discussion

The results of this workshop demonstrate that users in Calgary (people who live in the neighbourhoods) could benefit from workshops like this one in their own neighbourhoods. As Sandalack and Uribe described in their presentation in Vienna in 2015, the middle ring area of Calgary in which Southview is located is under desperate need of updated planning and a transition into aspects that suit users now, rather than when the neighbourhoods were built in the 50s and 60s (2011). My results suggest that a Maker Day workshop could be an effective way to achieve novel, integrated outcomes, sourcing material in a new and creative way with localized input.

A very pertinent role in facilitating involves "leading, guiding, and providing scaffolds, as well as clean slates to encourage people at all levels of creativity" (Sanders & Stappers, 2008, p. 13), which encourages more future users to engage and participate in the design development process. The ability to connect with the users the space is designed for is critical and combining that with an alternate method of discovering new ideas, can facilitate innovative community solutions to current issues. As mentioned above, the workshop was successful in creating new dialogue surrounding possible plans for a sustainable community, ideas that participants mentioned they had never discussed in other community meetings or community activities.

The initial phases of design planning are arguably even more important than the building phase, as if not done properly, the result will not function for the members it aims to serve, and time, money, energy, resources will be wasted re-developing or fixing errors or issues that arise. Getting the process right is critically important for achieving meaningful outcomes, both in

Maker Day processes specifically as well as any other engagement processes that are involved in the design planning process.

Planning for growth without consultation or engagement of the community is maybe comparable to building a custom house for a client you have never spoken to or met. Maybe they have 6 dogs, chickens and no kids; or maybe they need a grandparents suite, maybe they want to rent out their basement space for additional income. If planning for an area or plot of land does not include a focus on what the people using and interacting with that space day in and out for their life needs require or how they want to live, then opportunities for successful development may be missed. On a different scale, this relates to planning, designing, and re-designing spaces like communities and cities. If meetings, town halls, public events etc. are not held or coordinated in an attempt to authentically gather information about what residents value and discover what they most want to preserve or change as the area continues to grow, changes may be based on a theory rather than an actuality. The constraints and process of working with design thinking goes against more traditional processes, and varies in terms of its difficulty for some in understanding the process and yet is easy for others. Problems are unique to each community, therefore we must resist the assumption that most problems can be solved using similar approaches which is contradictory to the nature of problems in the first place.

Engagement, public meetings, diverse participants, questionnaires, technical modelling, meetings with key decision makers; these are all needed to help chart the course for future development—the ideas and opinions that are contributed during these steps are key to successful implementation. As Dale et al. (2014) state, "Increasing autonomy and agency to

individuals in their day-to-day choices is necessarily linked to far greater community engagement in the design and re-design of community form" (p. 29).

This workshop organization allowed participants to explore all types of ideas with no single agenda, with ideas only guided by the design scenario and relevant information provided before hand. Throughout the day, the majority of the participants commented on the novelty of experiencing something new in terms of idea generation, and how they hadn't considered a lot of the content that they were speaking about prior to the day. The mix of using multiple, timed interview style blocks, as well as alternative ways to express their ideas seemed to be very impactful for people.

There was a prominent theme of Southview lacking an identity as a community. Participants either thought it was Southwood (another neighbourhood in Calgary), or when described by location, it was perceived as Forest Lawn or Dover (two other bordering neighbourhoods). There was overall regret from the participants about the lack of identity that their community had, and instead they believed Southview had enormous potential to work towards a prominent positive identity.

My intention when deciding to run this workshop was to see if I could push the boundaries of community engagement and planning, specifically the cyclical relationship between the two and whether the workshop could produce something to shift it. Dale et al. (2014) identify that "input from a diverse range of people provides opportunities to discuss different issues, identify new perspectives and promote a sharing of knowledge and understanding" (p. 30). This study partially begins to touch on answering: How can we maintain a livable, attractive, neighbourhood while adjusting for the considerations in significant growth

and the MDP development goals? What are the current needs of the users, are they being met, and if not, how can we meet them? And there is clearly a need for more Maker research and its application on the ground.

As quoted above, one of the participants for the day mentioned how safe this process and space made her feel, trusting the exercise and transitioning from more intimate scenarios and building up to the whole group experience. More traditional approaches to source information or seek solutions are organized around a vertical layout, where the users are considered not on equal contributing terms, and they are studied and researched rather than consulted on their opinions and ideas for useful change (Sanders & Stappers, 2008). This approach can lead to a flawed process.

I believe that the results from the Maker Day workshop I led support the need to continue the same type of workshops across the neighbourhoods throughout Calgary. They are an opportunity to convene people living in the same place but requiring very different things from the environment they inhabit. From the feedback form I gave the participants to fill out at the end of the day (Appendix H), here is what someone said when asked, 'Have you gained or shifted any of your views on your vision for the future of Southview?', to which she replied,

"Now that I am aware of a 30-year plan for the community, I want to be more engaged. It sounds like our small group today kind of had a unified vision. I guess I think Southview can create a more concrete manifesto for the community" (A3).

When replying to the question 'Do you think this process helped generate new ideas or ideas that you may not have discussed in a typical town hall style of activity?' another participant answered,

"We are still far from comprehending the possibilities of Southview decisively enough, but this definitely helped me generate new modes of thinking about space, place, and community, and I definitely think this was a fruitful, energizing, and challenging experience" (A1).

There was such a shift once the participants realized this wasn't about imposing something on them to elicit information or feedback; it was about working together in an inviting environment with each other and within the process and with the toolkits to see what could be created as a liberating experience for all the participants.

## Conclusion

The goal of this research was to demonstrate an alternate method of gathering information for use in decision making in planning for the future of neighbourhoods in Calgary. Ideally this research may contribute to the possibility of making more neighbourhood specific policies for the future based solely on the needs of the users, rather than based on the policy makers' agenda or existing guidelines.

My intent for the design scenario was to discover what participants believed made a neighbourhood livable. This fits into the context of livability, but there are so many other key aspects that make this question relevant at this moment in time, moving forward for our communities, cities, countries, global interactions, and planet. These aspects are paramount on a human interaction level, as well as a physical environmental level. These relationships are bound to one another, in past, present, and of most concern, the future.

Community livability is not just specific or beneficial to the localized community, rather it has positive outcomes and radiates in all directions to influence change socially, economically, and ecologically.

Communities at present in Canada exist primarily as residential areas, dwellings in an area that are used for a very specific function with very little room for alternate interpretation or usage. This very point addresses the connectedness of communities, they have limiting factors for developing and fostering social, economical and ecological relationships because presently there is very little community engagement to facilitate sustainability.

Southview was my neighbourhood of study; however, the entire middle ring could potentially benefit from assessing their sustainable/livable objectives as Sandalack and Uribe

(2011) state they are "poised to undergo redevelopment—offer convenience, proximity to the downtown employment centre, access to services and amenities, many positive qualities of urbanity" (p. 15). One might assume that as time passes and the city grows, all neighbourhoods in this city will be subjected to redevelopment.

How can the process of getting what these neighbourhoods/communities needs be improved? Using design thinking, with maker day processes, and by engaging those closest to the problem, and putting that information in the hands of the people who can make the changes, the process can be improved. I believe the work done as this research study resonates so well with the notions of Sipos et al., that a shift in mentality involves a transformative process, involving “heads, hands, and hearts” (2008). This process is useful for planners, workshop leaders, citizens, residents of Southview, and City of Calgary officials because it creates an opportunity to include all contributors, relinquishing hierarchy or specialization and instead prioritizing idea generation and a shared connection through common problem-solving.

My recommendations for others wishing to lead a Maker Day workshop and hoping to shift mentality, is to be bold and creative in your attempts. Be bold with the approach as well as the workshop organization. Having more participants relevant to the workshop is preferable, and acquiring those individuals requires tenacious planning, outreach, and networking. When guided by those who offer direction, and enthusiasm, participants are drawn by conviction, and feel comfortable and express themselves more wholly when they feel safe and heard. By educating oneself about the process and implementing the procedures as planned, participants can be given a safe place to experience an open space for their feelings and to generate new and novel ideas. The high levels of interaction with individuals in a problem-solving scenario will be difficult in

scenarios different from this as well. Every individual brings something unique and different to the experience, which is a strength rather than a weakness.

The expected growth of the city of Calgary and the requirements mandated in the Municipal Development Plan, coupled with opportunities in the middle ring neighbourhoods and new needs for these neighbourhoods means there is a substantial opportunity to make positive changes for the future. An idea presented by Dale et al. (2014) communicates so effectively what I hope the work I've done with my thesis offers others moving forward, "Designing, re-designing, building and maintaining the built environment represents one of the most effective and economical means of addressing climate change, which in turn contributes to improving the health, prosperity and future options of all Canadians" (p. 59).

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## Appendix A

Initial contact email sent to individuals who reached out with an interest in the workshop.

Its great to hear from you, I'll give you the background info about what I'm up to, and I would love to hear back from you. I am still looking to fill a couple of spots for the workshop so please consider coming out! And please do let me know if you have any further questions once you've finished reading this email as well.

I am conducting this workshop for my thesis, as I am completing my Master of Arts in Environmental Management through Royal Roads University. My thesis is focused on using an alternative method, called design thinking through the event of a Maker Space workshop, to draw out ideas and possible solutions for development issues in local communities. The way a lot of the middle ring communities in Calgary are developed is not functional for the city's growing population and we need improved housing in existing areas as well as diverse uses and mixed-use properties, improved transportation routes, local businesses, grocery stores, places of work, coffee shops, green spaces and pedestrian areas etc. for a different and growing demographic.

This type of workshop focuses on group collaboration, planning, prototyping, and building. Participants are given various materials to work with rather than a pen and paper. It encourages a different type of approach and thinking towards problem solving, and with various participants and their diverse backgrounds, it can come up with very compelling proposals that have the potential to intrigue private companies and local government. The workshop runs from 9am-3:45pm, as it takes that long to inform participants of the workshop events and carry out the exercises. At the end of the day, each group (4 groups total) will present their ideas for the following question posed to them earlier in the day: What makes a neighbourhood livable? The workshop will be video recorded for study purposes only, to be viewed by me and my supervisor Ann Dale, and committee member Hilary Leighton exclusively. No portion of the video will be used in the final report, only portions may be transcribed to paper and used within the report. Photos will also be taken throughout the day, and used in the final report, however any pictures used for this purpose will not contain identifiable images so participants remain completely anonymous. Any information used in direct relation to a participant's contribution will be done so with a pseudonym, so participants mentioned in the report will remain exclusively confidential. You have the right to withdraw from the study at any time, however your contributions up until withdrawal will remain subject to inclusion in my final report.

Part of why I am conducting this research is to actually discover the ways that participants themselves identify with a more livable community, so I have refrained from using too many leading examples to identify what it means to me. I think it has the potential to mean something different for every resident, and that is why planning communities and making changes to them is so difficult, everyone has different needs and desires. As mentioned above it could be that increasing transportation lines into the community would make it more livable for

me, but for you better control and standards for property maintenance and cleanliness makes the community more livable.

I am only looking for 9-14 participants so it is quite intimate and casual. I believe its a really great opportunity to demonstrate what may be possible by working closely with local residents on their insights. I am running the workshop just as an individual conducting my thesis and the research is for me, however I plan to share my results/thesis with the aldermen (Gian-Carlo Carra) as well as your community association president George Harris when it is completed. I am not sure their use for the results however running the workshop could bring some unique aspects/potentials in the community to the surface.

If you have any questions about this research, its purpose, or its authenticity please feel free to contact my supervisor Ann Dale. If you wish to participate in this study, you will be required to fill out a Letter of Informed Consent upon arrival to the workshop and prior to the start.

## Appendix B

Letter of informed consent.



### Letter of Informed Consent

To the participants in this workshop,

This study” Running a Design Thinking Workshop to Explore Southview Resident’s Perspectives on Livable Communities in Calgary, AB” will be carried out in Calgary, Alberta under the supervision of Professor Ann Dale, School of Environment and Sustainability, Royal Roads University. The data is being collected for the purposes of a Masters of Environment and Management (MA) thesis and perhaps for subsequent research articles.

The purpose of the present study is to explore the opinions on livable community aspects from residents in Calgary, specifically from the community of Southview. This study will build an understanding of the beliefs and wishes that local residents have for their own community, and what they truly feel may add to their community in a way that could make it more sustainable and livable for the future. The opinions and solutions presented by the participants will be analyzed and themes will be reported. Insights from this study may be of interest for the community association and its board, as well as local governments, planners, developers, and

architects. This project can also help participants connect with other residents in the community and develop a deeper understanding of their personal desires for the future of their neighbourhood and commitment to their community.

The participants in this study will be selected randomly out of individuals who live in the neighbourhood of Southview, Calgary, and have received flyers dropped in every resident's mailbox, or seen posters posted throughout the community and contact me for information and their interest to participate in the workshop.

The purpose of this workshop is to gain insight into the motivations and perceptions of residents currently living in the neighbourhood of focus regarding their views on what could make their area more livable. The term 'livable' is left undefined to the participants as it may resonate differently to each individual, and identifying what it means to participants is one aim of the study. The workshop will commence at 9:00am and run until 4:00pm, and be made of 8-12 individuals. Participants are welcome to ask questions about the project or process before the meeting proceeds. During the workshop the participants will be briefed on the method that will be used to run the workshop, giving background information on its impact and purpose in the study. Participants will be split into groups of four. At a certain point in the process, groups will be posed the problem of what makes a community livable. The groups will brainstorm and prototype possible representations and solutions to this question, and be required to present their group objective at the end of the day. As the day progresses, I may interject with any clarifying information or answer questions participants have, however after the initial introduction to the

whole proceedings of the day, my main part will be to observe group work and listen to participants speak about their ideas and how they support them.

It is the intention that the entirety of the workshop will be video recorded and viewed later to transcribe portions to paper. As the video will include the whole workshop, participants will have to appear visually and/or audially at some point in the recording; the nature of the workshop prevents individuals from exclusion of being recorded as participants are all involved simultaneously. Loss on anonymity will occur for participants in the workshop, however, the researcher will still maintain participant confidentiality in any report. Photos will also be taken during the workshop and used in the final report, however only photos that guarantee participant anonymity will be used (i.e. no faces or identifiable features, only backs of heads or unidentifiable body parts). The information obtained in the workshop will be kept in strict confidence and stored in an encrypted drive and will only be accessed by the researcher (Kylie Weber-Vigrass), the thesis supervisor (Ann Dale) and thesis committee member (Hilary Leighton). All information will be reported in such a way that individual persons cannot be identified. All raw data will be destroyed (i.e. transcripts, notes) will be destroyed five years after the completion of the study.

You may at any time withdraw your participation from the study. Any information that you have provided until that point will remain in the study, as the workshop is focused on ideas generated by the group, removal of individual contributions could affect the outcome or explanation of other results within the study. If you do choose to withdraw your participation, you may leave the workshop at any time and your contribution will be terminated moving

forward. At no time will value judgements be placed on your responses nor will any evaluation be made of your effectiveness as a principal. Finally, you are free to ask any questions about the research and your involvement with it and may request a summary of the findings of the study. Those who wish to receive the final thesis may request it using my contact information on this form.

If you have any questions, please feel free to contact me, you may also contact the Royal Roads Office of Research Ethics for questions about your rights as a research participant. Thank you in advance for your participation.

Kylie Weber-Vigrass  
Masters of Environment and Management  
Candidate, School of Environment and  
Sustainability, Royal Roads University

Professor Ann Dale  
Professor, Royal Roads University

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By signing below, you are indicating that you are willing to participate in the study, you have received a copy of this letter, and you are fully aware of the conditions above.

Name: \_\_\_\_\_

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

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Please initial if you would like a summary of the findings of the study upon completion: \_\_\_\_\_


Please initial if you agree to have your photo taken: \_\_\_\_\_

Please initial if you agree to be video recorded throughout the workshop: \_\_\_\_\_


Please keep a copy of this form for your records.

## Appendix C

Recruitment flyer delivered door-to-door throughout the neighbourhood of Southview.



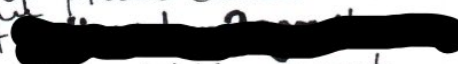
Do you live in or around  
 ↑↑ Southview? ↑↑


Are you interested in exploring how it could  
 become more **Liveable?** 

WE NEED YOUR INPUT AND IDEAS!

We will be getting **creative** on Saturday,  
January 19<sup>th</sup>, 2019 in Southview at a 1 day workshop  
 to explore the possibilities of this topic in depth.

Working with Residents and Community members,  
 the results will be shared with CITY COUNCIL  
 to try and make **REAL CHANGE!**

For more details or to sign up please contact me!  
 Kylie Weber Vigrass by email at 

I am a Masters student in the Environmental Management  
 Program at Royal Roads University 

**LUNCH, Snacks and BEVERAGES**  
 will be provided all day! Plus plenty of brainstorming,  
 discussion and getting our hands dirty!

**LET'S MAKE POSITIVE CHANGE IN SOUTHVIEW!!**

## Appendix D

Detailed schedule for the procedures of the Maker Day workshop.

1980s + 90s adapted for business purposes by Stanford employee David M. Kelley, who found the design consultancy IDEO in 1991.

↳ led to the creation of d.school program at Stanford

Time	Description of Events
9:00am	Workshop starts, followed by introductions and welcome/housekeeping-research aims/ethics
✓ 15 min.	- introduce yourself, *REMEMBER NAMES. *explain scenario if not everyone shows up. - deeply thank everyone for their time. - consent forms.
✓ 15 min.	9:15 - 9:30am Slide deck to introduce design thinking - mention TIME + structure. ↳ a method for solving wicked problems - follow post-its to help w each slide. ↳ these are complex, open-ended, and ambiguous *mention InjectionSite* ↳ there are no easy judgements of right or wrong
10:15 15 min.	9:30 - 9:45am Everyone reads the challenge in their groups and gets coffee, gets ready Show Apollo 13 video - this is design thinking at work
45 - 1 hr.	9:45 am Interviews begin and take 45 minutes to 1 hour to complete the whole cycle to have a final group drawing decided upon * ↳ must be concluded by you break for lunch.
10:45 - 11:00 am	Short break open door to outside: get video ready.
1 hr.	11 - 12 pm Present toolkits and participants begin the process Pose the question/problem: What makes a community livable? } explain connection *PROBLEM SCENARIO. - inform the groups 1 person will present completed project + how it came to fruition. *RECORD*
12 - 1 pm	Break for lunch (some people may work through while they eat)
1 - 2:30pm	Finish up and clean up areas
2:30 - 3 pm	Gallery walk and questions *RECORD*
3:30 pm	Final reflections on the sheet and in discussions *hand out final questionnaire. - the intention of today was partly to delimit ↳ in real world situations, not every tool, resource, working personnel is available. - you have to work w limitations + constraints.

\* all aspects of the day (timing, limitations, forced use of resources) were planned w intent to simulate features of actual problem solving.

Microcosm in the Macro  
↳ a community, place, or situation regarded as encapsulating in miniature the characteristic qualities or features of something much bigger

## Appendix E

### Maker Day participant worksheet.

GRADUATE CERTIFICATE IN SUSTAINABLE COMMUNITY DEVELOPMENT - HUMAN-CENTRED DESIGN THINKING ACTIVITY

*my partner was*

**1. Interview Note (Empathy) (2 x 4 mins.)**

<p><i>my partner</i></p> <p>Maintain</p> <ul style="list-style-type: none"> <li>urban forest</li> <li>open spaces</li> <li>usability</li> <li>accessibility</li> <li>→ housing</li> <li>→ CA is central to the community</li> </ul>	<p>improve</p> <ul style="list-style-type: none"> <li>→ enhance/improve green spaces (to much focus on west Calgary)</li> <li>→ reduction in social services dumping</li> <li>→ assume that people here are indifferent and uninvolved - that there will be no backlash</li> <li>→ different levels of income and ability bring everyone up</li> </ul>
---	--

**2. Detailed Interviews (Empathy) (2 x 3 mins.)**

*how things have changed*

logical and thoughtful Q's

→ Wendy

→ maintain

→ density to be accommodated by UNDERGROUND parking

→ plan in a way that the community is enhanced

→ multi use / multi level

→ different purposes of housing

**3. Defining the Issue (Define) (3 mins.)**

GOALS AND WISHES

- ending ignorance and stereotypes
- better allocation of resources
- zoning

INSIGHTS

- multi-use
- community green spaces/shared gardens
- NEW - small shared living buildings with parks/gardens
- youth / childrens rec areas
- soccer
- hockey
- tennis
- basketball

*2nd language schools - French Spanish*

**4. Reflection**

MAKERDAY

GRADUATE CERTIFICATE IN SUSTAINABLE COMMUNITY DEVELOPMENT - HUMAN-CENTRED DESIGN THINKING ACTIVITY

*my partner was*

**4. Sketch 5 Ideas (10 mins.)**

*community involvement*

*my partner*

*mixed utility housing*

*ball*

*hobby*

*garden*

*detached*

*French English Spanish*

*community involvement*

**5. Gain Feedback From Your Partner (2 x 5 mins.)**

**6. Redesign Your Idea Based on Feedback (5 mins.)**

→ young families

- rec spaces
- gardening spaces
- community responsibility
- involvement with schools
- markets/festivals - hand in hand to get people here and show them how great it is

*gather*

**7. Sketch Your Group's Idea**

MAKERDAY

## **Appendix F**

Design scenario sheet given to participants outlining the intent and parameters of the challenge for the workshop.

### **DESIGN CHALLENGE/CITY PROJECT**

#### **Overview Statement**

Population growth for Calgary is expected to increase in the coming years, and by the year 2080, it is estimated that our population will have doubled. In 2009, the City of Calgary created the Municipal Development Plan (MDP) with guidelines that address concerns for densification and new build locations. Its mandated that 50% of future growth with developed areas over the next sixty to seventy years, and 33% of future growth to be within already developed area of the city by 2039. These goals raise issues that need to be considered in moving forward with planning the city's neighbourhoods:

- 1) Increased need for housing
- 2) Increased need for builds to happen on already developed land and
- 3) Decreased dependence on new/repair road infrastructure

Cities are finite, and there is an ever-increasing pressure to keep neighbourhoods livable while still adjusting for new growth challenges.

#### **Design Rationale**

Good design thinks about the user, and who we are designing for. Who knows this better than those who live in the neighbourhood? Those who put to 'use' all of the aspects of their neighbourhood on a daily basis, constructing their daily movements around them. They are in a sense the 'experts', and as such it is important to gain insight from their experiences when considering changes for the future. As I am completing my Master of Arts degree, I have the opportunity with my thesis to work closely with residents in neighbourhoods. I believe this is a unique chance to shift how community engagement and planning intersect, opening the door to find out what may be most important to residents in terms of the factors that would make their community the most livable and sustainable. How do we maintain a livable, attractive neighbourhood while adjusting for the considerations listed above?

Where will people live? How will they get around? How will the city nurture great neighbourhoods' high quality of life?

### **Problem Scenario**

#### **COLLABORATING AND PLANNING FOR THE FUTURE**

- You are the experts, you're creating a path for the future
- How might Southview change to suit the needs of the existing residents and community while also accommodating for a changing Calgary?
- Assume for the exercise the mentioned mandates from the MDP apply directly to the neighbourhood of Southview, and you are planning for a 25% increase in residents over the next 20 years:
  - o What are aspects of your neighbourhood you would like to maintain?
  - o What are aspects of your neighbourhood you would like to improve?
  - o How do you balance population and building increase with livability and neighbourhood aspects that add to quality of life?

#### **Success Will be Determined By:**

The criteria for how the design solutions will be assessed/or peer evaluated during the design charrette or gallery walk)

- Uniqueness and usability of your metaphor and the degree to which it is illustrative of design challenge
- Degree to which your metaphor looks like your design sketch
- Degree to which your metaphor is adaptable to all stakeholders who play a role in the challenge
- Integrity, complexity and depth of understanding of the current challenge evident in your metaphor
- Degree to which your metaphor depicts future oriented possibilities
- Functionality, sustainability, ability of your metaphor to be integrated into practice
- Degree to which your metaphor supports the City of Calgary's strategic direction
- Degree to which your metaphor is fun and whimsical

#### **Parameters**

- You must use **some of all** the items in participant group maker kit in some way
- You must consider how to make your metaphor colourful and intriguing
- You may use the resources and tools provided to you in the Shared Pantry

## Appendix G

Supplies list for the Maker Day kit. Materials and supplies given to the participants for use in creating their final prototyped representation of their design scenario solution.

**MAKER DAY KITS** - one per team x 4 teams in a clear plastic bag

- Velcro 2 - 1 inch pieces
- Nuts and bolts - 4
- Cordage - 3 metres (h)
- Tongue depressors - 6 (h)
- Zip ties - 6
- Toothpicks - 12 (h)
- Pipe Cleaners - 3 (h)
- Coloured straws - 10
- Bamboo skewers - 10
- Garbage bags - white small - 1
- Small plastic cups - 4
- Marbles - 4 (h)
- Jute/twine - 2 metres (h)
- Jumbo straws - 6
- Wire - 1 metre (h)
- Muffin cups - 4 (h)
- Plasticene - 1 pkg assorted colours
- Dowling 6 pieces
- Duct tape - 1 small roll
- Cotter pins - 12
- Blue plastic bag or blue fabric or blue paper?
- Styro foam - 1 large piece
- Cardboard - 1 flat piece

**ON THE MAKER TABLES FOR USE FOR ALL:**

- Drop cloths x 2-3
- Power bars and extensions
- Glue guns x 3 (Hilary)
- Glue sticks (Hilary)
- Small saw - 1 (Hilary)
- Safety glasses - 1 (Hilary)
- Scissors x 3 pairs only (Hilary)
- Exacto x 1 (heavy duty kind - do you have one?)
- Small exacto - 1 (Hilary)
- Ruler x 1 (Hilary)
- Felt pens (office)
- More cardboard and styro- bigger pieces
- Bubble paper (Hilary)
- Coloured paper
- More of any of the above (whatever is extra)

For each table.  
↳ only delivered once they've decided on design.

exactly #  
- you don't have to use it all \*  
but something of everything  
- you can go outside to source materials.

↳ mention @ end.

\*delimit\*  
microcosm in the macro.

**For the PANTRY**

- saw
- glue guns.
- paper cutter.

## **Appendix H**

Optional feedback form provided to participants at the end of the session.

Have you gained or shifted any of your views on the current state of your neighbourhood?

Have you gained or shifted any of your views on your vision for the future of your neighbourhood?

Do you think this process helped generate new ideas or ideas that you may not have discussed in a typical Town Hall style of activity?

3

Have you gained or shifted any of your views on the current state of your neighbourhood?

I have a newfound interest and mode of thinking about my area. I now have a better understanding of what this area is, what it means, what it needs, and the possibilities.

Have you gained or shifted any of your views on your vision for the future of your neighbourhood?

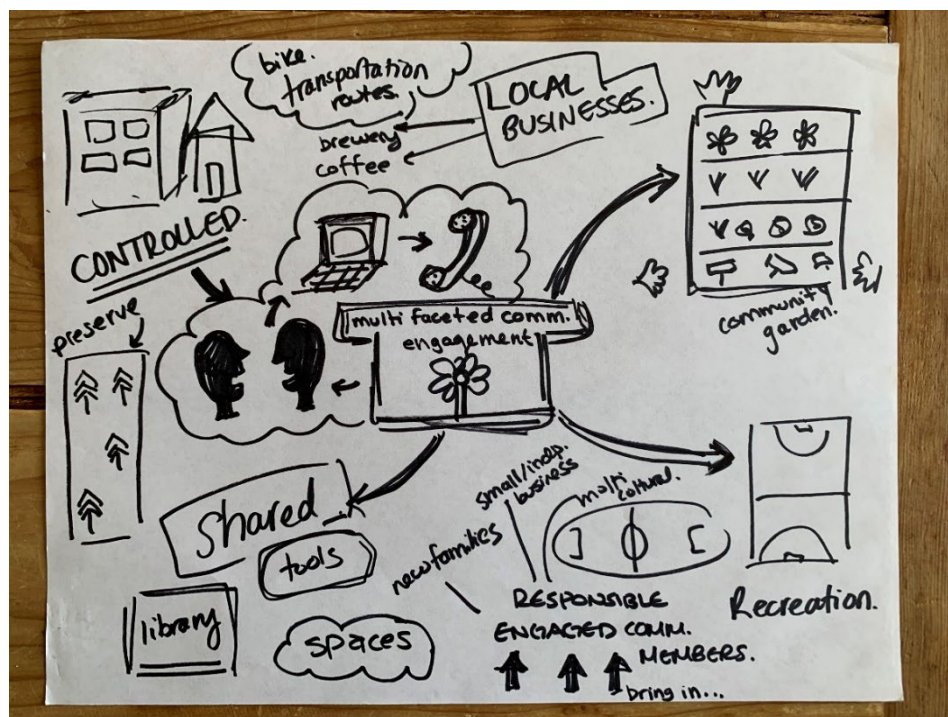
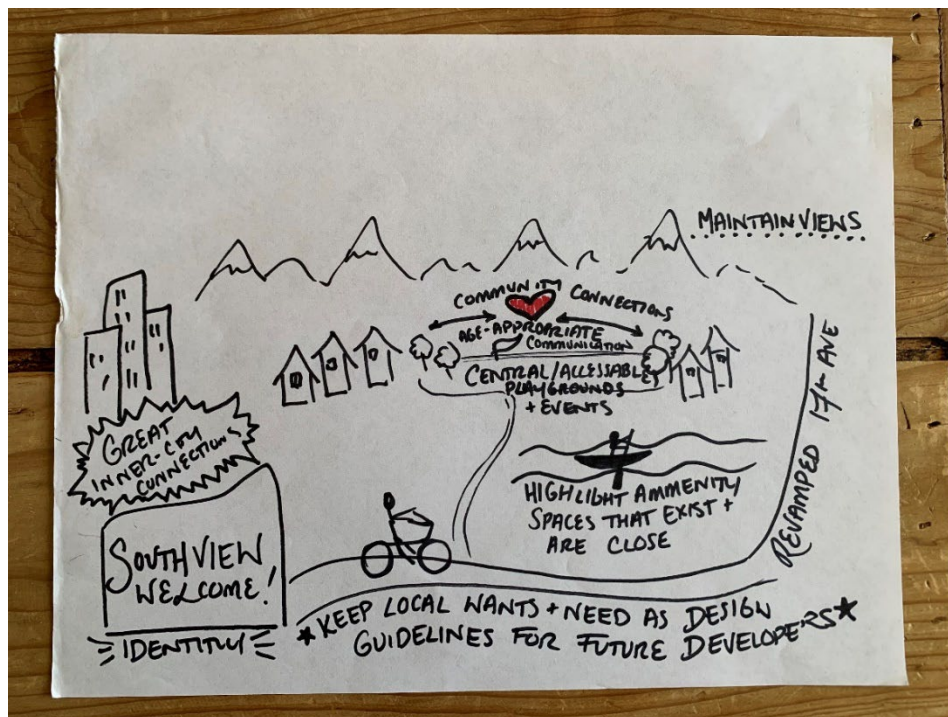
I have gained new comprehension of the future of Southview, and the extent to which we can change it.

Do you think this process helped generate new ideas or ideas that you may not have discussed in a typical Town Hall style of activity?

We are still far from comprehending the possibilities of Southview decisively enough. But this definitely helped me generate new modes of thinking about space, place, and community, and I definitely think this was a fruitful, energizing and challenging experience.

### Appendix I

Photos of Group A and B's rough sketch ideas as well as their finished prototype pieces.



Group A





Group B

