

**Many Rooms: Mixed Use**  
**Reimagining Church Redevelopments in Vancouver**

by  
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## **Author's Declaration**

I hereby declare that I am the sole author of this thesis.  
This is a true copy of the thesis, including any required  
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## **Abstract**

In recent decades, Christian congregations in Canada have seen a significant decrease in affiliation and attendance. As congregations dwindled, many of the aging church buildings across the country have been sold, converted, or demolished. This has resulted in the loss of community-serving spaces in both rural and urban communities across the country. While existing research focuses on the adaptive reuse of churches, the recently emerging phenomenon of the mixed-use church building brings a new opportunity to reconsider how church buildings may evolve in response to the changing needs of contemporary society.

A mixed-use church building is a typology which integrates the religious and communal functions of a church within the fabric of a multi-story residential building. Redeveloping presents congregations with the opportunity to continue their ministry in the community, while preserving or expanding their spatial capacity. In addition, these projects also allow congregations to provide new amenities in the form of below-market housing. The research examines the contextual conditions which lead to the mixed-use option, and critically evaluates two recently completed case studies in terms of their architectural qualities. The thesis is an experimental design proposal of this typology in the city of Vancouver, which explores the architectural opportunities in combining religious, public, and residential functions.

Based on the diverse range of ways that places of worship are utilized, as well as the demand for community serving spaces, the thesis proposes three public rooms set within a residential fabric: a hall, a theatre, and a chapel. Each explores a different relationship between sacred space in the urban context, one that opens onto the street, one below the ground, and one open to the sky, respectively. In doing so, the thesis explores how the mixed-use church building can create spaces which serve both church congregations, and the city at large.

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## PREFACE

“According to an observation attributed to Egon Eiermann, once in a lifetime every architect longs to design a chair as well as a church. The assumption is that, for tasks like these, the usual constraints of efficiency and commercial viability for investors and developers do not apply, that building regulations are more relaxed and that forms are less restricted than they are for offices or residential buildings. The particular interest in the design of sacred buildings is also a factor of the unusual and rare nature of the task. Sometimes the interest is also driven by a desire to create something of architectural permanence- to quote Adolf Loos, something monumental.”<sup>1</sup>

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1 Rudolf Stegers, *Sacred Buildings : A Design Manual*, ed. Dorothea Baumann (Basel ; Boston: Birkhäuser ;, 2008) 27.

Given the nature of the thesis, it seems appropriate that I begin with a confession of sorts.

I have spent most of my Sundays in churches, at one place or another. As a part of a Chinese immigrant congregation that has moved from the church to church over the years, my first impressions of church architecture were formed by modest and unassuming spaces. I can recall the smell of old carpets, and even older pews, in the sanctuary, where we would sing with lyrics projected on a screen, accompanied by a guitar, a piano and a drum set. Many of the earlier memories were also of church basements: Sunday school and potluck dinners under the glow of fluorescent lights and the ubiquitous drop ceiling. In short, I have been shaped by a tradition of church practice and an experience of church buildings where architecture was primarily functional, and entirely secondary to the preached word or the hymns that we sang.

As an architecture student at this university, I have also had the privilege of a studio term in Rome, during which I beheld churches which were utterly beyond anything I had experienced before. While I was overwhelmed and bewildered by much of what I saw, I could dimly perceive that there was a robust symbolism and aesthetic tradition in church architecture which spanned the ages.

I say this to illustrate that I am aware of the great differences in opinion, to put it mildly, with regards to what constitutes church architecture. Thus, I find myself sympathetic towards those who think that the aesthetics of church buildings are entirely secondary if not trivial, as well as those for whom form, geometry, materiality, are much more than mere aesthetics, and deeply significant.

All this would have made for a more theoretical and esoteric thesis if were not for that fact that I had overheard that the church building our congregation was renting was up for sale. One thing led to another, and I took it upon myself to imagine how to create a mixed-use alternative, with more dignity and architectural ambition than the spaces I remembered from my youth.

That is why the thesis focuses primarily on the functional aspirations of contemporary places of worship, and the aesthetic and symbolic questions take a secondary place. While this is only a speculative project, I am thinking of the ‘client’ in a sense, of congregations who are used to inheriting modest, economical spaces, which would pale in comparison to even the most barren of the Italian churches I had visited. Their requirements for a place of worship were simple: if two or three could gather, that would be enough. If everyone could hear and see the preacher or the band, even better. In that context, sharing a place of worship with other users throughout the week is a common occurrence. The mixed-use church building may be an emerging typology, but churches in one way or another, have been mixed-use spaces for some time.



While it is too early to tell if the mixed-use church building is a trend that is just beginning, or an isolated phenomenon that is already on its way out, the questions it presents however, will likely persist. How does one reimagine church architecture in the urban, mixed-use context? What is the role of churches in a secular society? As the thesis points out, these are the questions that congregations and architects are actively engaged in with every new building project.

I end here with a quote by the late theologian Paul Tillich, which speaks of the risk and even necessity of an experimental proposal such as this one:

“One can say that every new church in a new style is an experiment. Without the risk of experiments that fail, there is no creation. Perhaps people in the future will point to many failed experiments; but they will also point to the wondrous success: the triumph over the dishonest, the unquestioned, the anxiously conservative. New church building is a victory of spirit, of the creative human spirit and of the spirit of God that breaks into our weakness.”<sup>2</sup>

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2 Paul Tillich, Jane Dillenberger and John Dillenberger, *On Art and Architecture* (New York: Crossroad, 1987) 213.



## CHAPTER 1: INTRODUCTION

## 1.1 Changing Religious Landscape

It is no secret that over the last few decades, mainline Protestant and Catholic churches in North America have seen a decline in membership and attendance. While there is some disagreement about the extent of this decline, and even more debate as to its causes and origins, the overall trajectory is a matter of fact.

The Pew Research Center, in its 2013 report “Canada’s Changing Religious Landscape” identifies two major trends in the religious affiliation of Canadians. First, there is a declining percentage of Canadians who identify as ‘Protestant’ or ‘Catholic’, as well as an increasing percentage of those who identify as ‘Other’, as well as ‘Religiously Unaffiliated’.<sup>3</sup> (*Figure 1.1*) These demographics are further differentiated geographically, with 44% of British Columbians identifying as ‘Religiously Unaffiliated’ compared to 12% of Quebec’s residents.<sup>4</sup> While religious demographics follow a similar trajectory in the United States, when it comes to the regular attendance of religious services, Canada has seen a comparatively sharper decline over the last three decades.<sup>5</sup>

As a result of this shift, churches across the country have been closing. Decreasing congregational attendance, as well as aging facilities, have led to the sale, conversion, renovation, and adaptive reuse of church buildings. The National Trust for Canada, a non-profit organization, estimates that a third of the 27 000 or so places of worship in the country will be lost in the next decade.<sup>6</sup> This estimate is in line with similar projections at the denominational level. The United Church of Canada reports closing approximately one building a week, while the Anglican Church of Canada projects a complete loss of members by 2040.<sup>7</sup>

The loss of these spaces is significant not only to church congregations looking for a place to worship, but also to the various community groups and non-profits who use spaces within church buildings for cultural, recreational, and social activities. Churches and communities that wish to preserve their spaces are faced with the challenge of securing funding, as well as pressure from real estate developers looking to capitalize on the value of their land.

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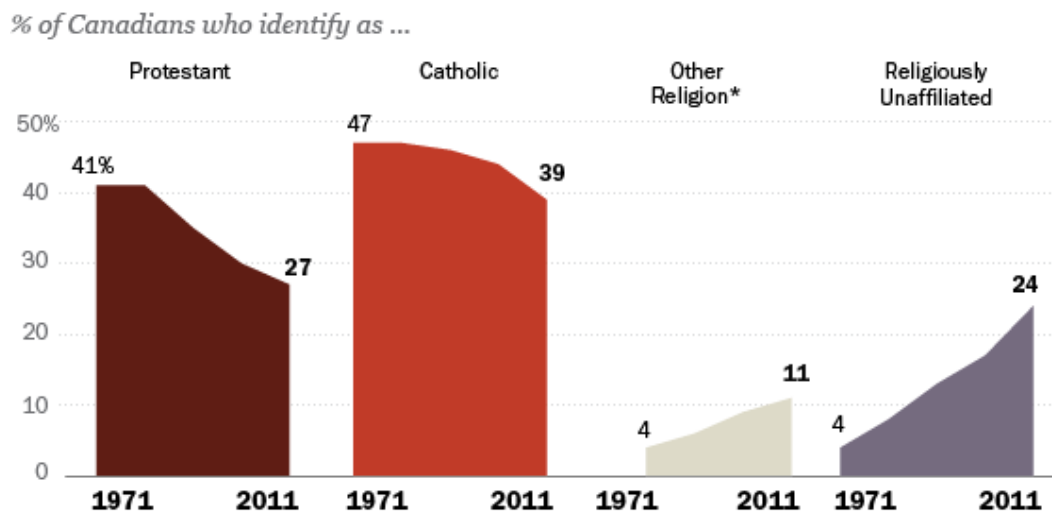
3 Pew Research Center, *Canada’s Changing Religious Landscape*, [2013].

4 Pew Research Center, *Canada’s Changing Religious Landscape*

5 Pew Research Center, *Canada’s Changing Religious Landscape*

6 “Canada to Lose 9,000 Churches in Next Decade, Warns National Heritage Group,” last modified -03-10T08:00:00.848Z, accessed Oct 1, 2019, <https://www.cbc.ca/news/canada/losing-churches-canada-1.5046812>.

7 Faith & the Common Good, *No Space for Community the Value of Faith Buildings And the Effect of their Loss in Ontario*, [2020].



*Figure 1.1 Canada's Religious Composition: 1971-2011.*

## 1.2 The Mixed-Use Church Phenomenon

In recent decades, churches in urban contexts across the United States and Canada have begun to partner with developers to create mixed-use developments on their site, which integrates the functions of a church into a multistory residential building. Granted, an urban, multistory church typology is not a new phenomenon. The Chicago Temple, constructed in 1924, consists of a 500-seat sanctuary on the ground floor, with ancillary spaces on the lower levels, and office spaces above.<sup>8</sup> In Hong Kong and other urbanized parts of Asia, the ‘skyscraper church’ continues to be a contemporary typology, with recent examples such as the Wesleyan House Methodist Church.<sup>9</sup>

However, what distinguishes these urban precedents from the mixed-use examples discussed in the thesis is the provision of housing. The inclusion of housing units is typically the main financial lever that makes mixed-use developments feasible, and in turn it requires a partnership with a developer who either sells or operates most of the resulting units. Examples in the United States include Gethsemane Lutheran Church in downtown Seattle. Completed in 2012, the project includes a seven-story addition next to the existing sanctuary that provides affordable housing, as well as ancillary spaces for the church.<sup>10</sup> In Canada, there are a high concentration of these projects in Vancouver. From 2009-2019, there were eight churches in varying stages of the development process which retained their function as a place of worship.<sup>11</sup> Five of the eight are mixed-use arrangements, with a new place of worship integrated into the residential development.<sup>12</sup> (*Figure 1.2*)

One of most comprehensive publications on this topic is a recent thesis entitled “A Leap of Faith: Motivations for Place of Worship Redevelopment in Vancouver”, by Scott Allan Erdman, a rezoning planner at the City of Vancouver.<sup>13</sup> As a part of his research, Erdman

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8 “History,” , accessed January, 2021, <https://www.chicagotemple.org/about/history/>.

9 “Reaching to Heaven: Hong Kong Gets Skyscraper Church - News - GCR,” , accessed Oct 27, 2020, <http://www.globalconstructionreview.com/news/reaching-heaven-hong-kong-gets-skyscraper-church/>.

10 “Gethsemane Lutheran Church / Olson Kundig,” last modified -10-04T18:00:00+00:00, accessed Jan 8, 2021, <https://www.archdaily.com/925109/gethsemane-lutheran-church-olson-kundig>.

11 Scott Allan Erdman, “A Leap of Faith: Motivations for Place of Worship Redevelopment in Vancouver” Simon Fraser University, 2020), 2-4.

12 Allan Erdman, “A Leap of Faith: Motivations for Place of Worship Redevelopment in Vancouver” 2-4

13 Allan Erdman, “A Leap of Faith: Motivations for Place of Worship Redevelopment in Vancouver”

formally interviewed four congregations in the process of redeveloping their site with a mixed-use proposal, with an emphasis on unpacking the complex motivations behind the redevelopment process.<sup>14</sup> In addition to the qualitative research, Erdman's work provides a comprehensive summary of the contextual factors which underlie the redevelopment process. As one of the few academic sources on this phenomenon in Vancouver, Erdman's research will be cited throughout this thesis to supplement the contextual analysis as well as the case studies.

### **1.3 Towards a Design Proposal**

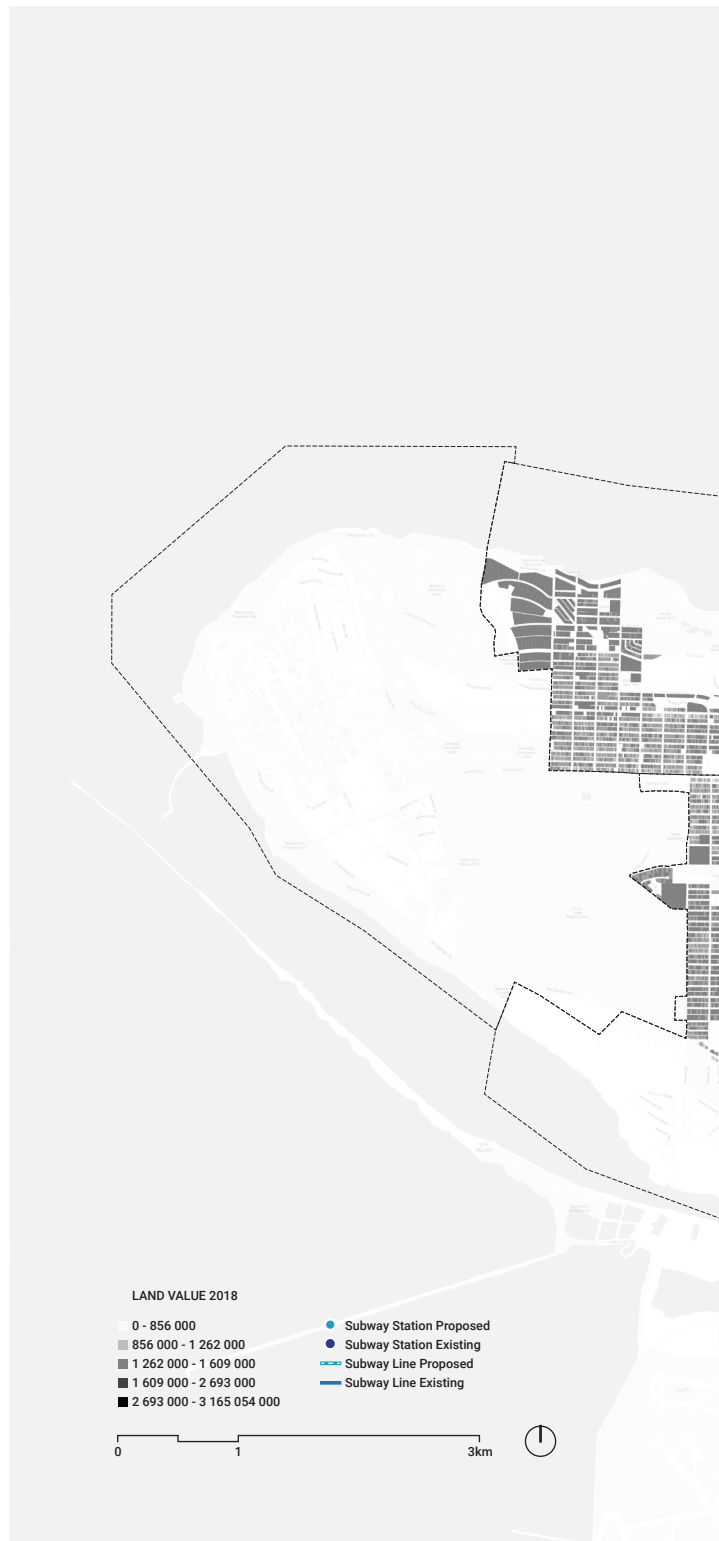
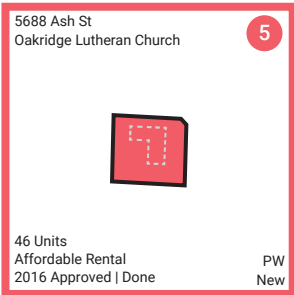
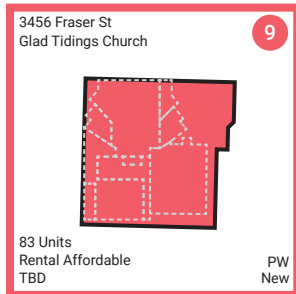
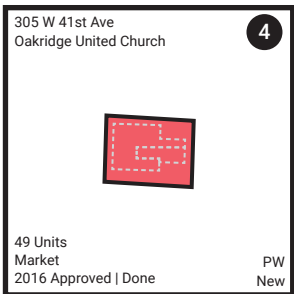
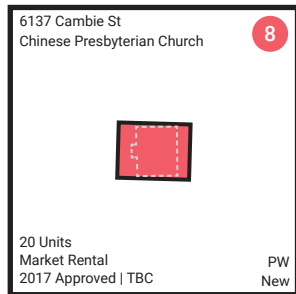
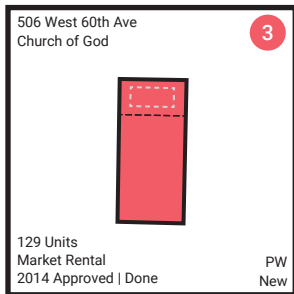
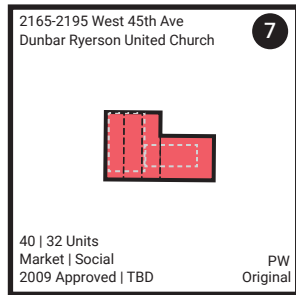
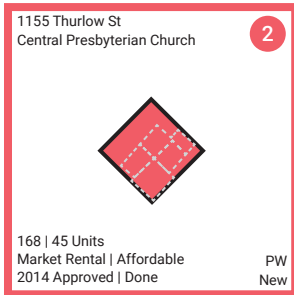
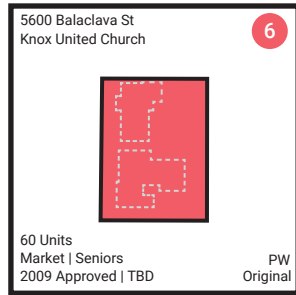
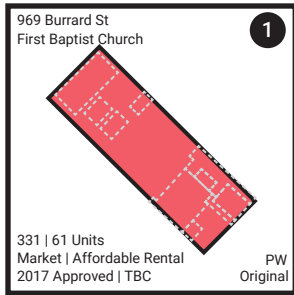
While there is a considerable amount of research focused on the issue of preservation, or the adaptive reuse, of church buildings, discussions about the emerging phenomenon of the mixed-use church building primarily comes from journalistic sources such as local newspapers. Articles such as "Houses of the Holy", published by the Vancouver Sun, typically focus on the role of congregations in real estate development, with an emphasis on the housing aspect of the projects.<sup>15</sup> What is lacking in both Erdman's research, as well as the local news coverage, is a discussion about the architectural aspects of these buildings.

Therefore, the thesis focuses on an experimental design proposal that examines the architectural implications of designing a place of worship within a residential building typology. Given the changes in religious demographics, and the ways that church buildings are utilized today, the thesis proposal looks at the opportunities presented by reimagining the church building in this high-density, mixed-use context. The proposal aims to address how these projects can be beneficial both for congregations as well as the city at large. Specifically, the thesis focuses on three types of spaces that these projects provide: places of worship which function as great public rooms, ancillary spaces which support community-serving programming, and affordable housing units.

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14 Allan Erdman, "A Leap of Faith: Motivations for Place of Worship Redevelopment in Vancouver"

15 "Houses of the Holy: In Vancouver, a Union of Church and Real Estate," Postmedia Network Inc, last modified Mar 23, <https://vancouversun.com/business/real-estate/0323-housing-partnerships/>.





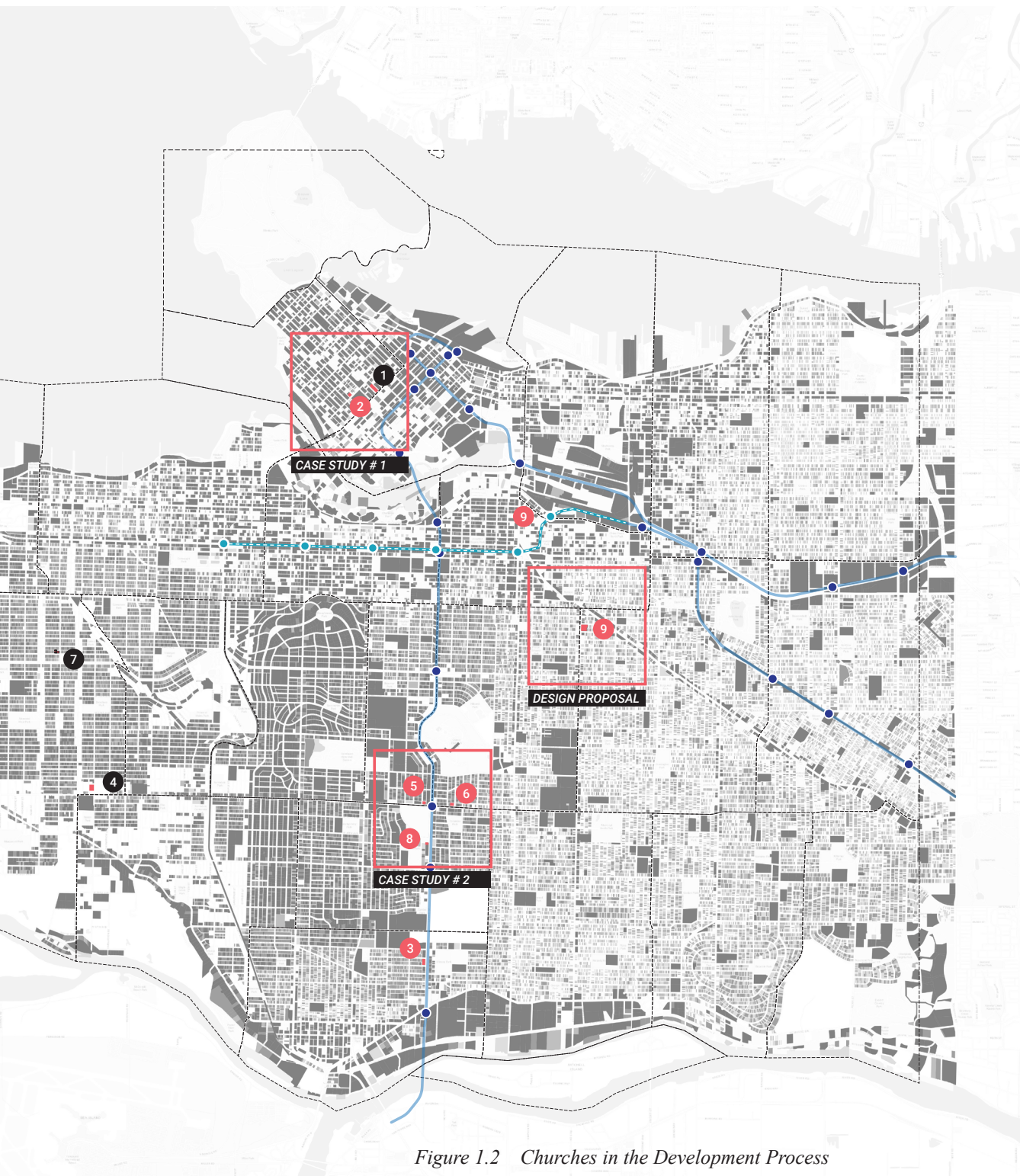


Figure 1.2 Churches in the Development Process



## CHAPTER 2: PLACES OF WORSHIP IN A SECULAR AGE

## 2.1 Rethinking Secularization

Despite the decline in traditional religious affiliation in Canada and other Western countries, sociologists and philosophers today challenge the notion that religion will disappear altogether. As philosopher Jurgen Habermas points out in “Notes on a Post-Secular Society”, the idea that religion would disappear in the face of modernization needs to be reconsidered in light of the persistent influence of religion today.<sup>16</sup> Habermas advocates for the term ‘post-secular’ society to describe countries like Canada where traditional religious affiliation has declined, in order reflect this new understanding of secularization.<sup>17</sup> In post-secular societies, “religion maintains a public influence and relevance,” even as religious practice shifts towards an individualistic focus.<sup>18</sup>

On a similar note, the philosopher Charles Taylor argues that the human aspiration towards religion, or to the spiritual in a broader sense, will not disappear.<sup>19</sup> Instead, Taylor argues that it will find new expression in forms that are both outside of and overlapping with traditional religious practice.<sup>20</sup> Taylor has written extensively about secularization in *A Secular Age*. While Taylor still describes modern Western society as secular, he sees it as an incredibly pluralistic one, with a variety of religious and non-religious options available.<sup>21</sup>

Regardless of what term is used, these observations about the nature of religion today have significant implications on role of contemporary places of worship. First, acknowledging the limitations of the secularization thesis involves recognizing that there will still be a need for places of worship that can accommodate religious services. Secondly, recognizing the pluralistic and individualistic nature of religion today, as well as the decline of religious affiliation, points to a need to consider what other functions places of worship can have.

The idea of sharing a place of worship with other user groups is a functional necessity in cities like Vancouver, where affordable meeting spaces are difficult to find. Pastors of younger congregations in Vancouver cite the cost of rent, the availability of childcare space, and the diminishing supply of church buildings as some of the challenges they

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16 Jurgen Habermas, “Notes on Post-Secular Society,” *New Perspectives Quarterly* 25, no. 4 (2008), 17-29. doi:10.1111/j.1540-5842.2008.01017.x.

17 Habermas, “Notes on Post-Secular Society,” , 17-29

18 Habermas, “Notes on Post-Secular Society,” , 17-29

19 Charles Taylor, *A Secular Age* (Cambridge, Mass.: Belknap Press of Harvard University Press, 2007).

20 Taylor, *A Secular Age*

21 Taylor, *A Secular Age* 437

encounter.<sup>22</sup> In the meantime, they rent spaces in school gymnasiums, libraries, and even theatres.<sup>23</sup> In some instances, this results in a younger, growing congregation renting the building of a declining, older congregation. For example, Reality Vancouver, a church plant of a larger non-denominational congregation, now meets in a building owned by the Anglican church.<sup>24</sup>

Beyond the needs of congregations, the thesis looks at three other user groups who would benefit from the construction of new places of worship. That is, those looking for event space, for performing arts venues, and for spaces for contemporary spiritual practices. For these groups, the thesis proposes a hall, a theatre, and a chapel, as suitable venues for their needs.

## 2.2 The Hall: Multifunctional Event Space

The first kind of function that places of worship provide is spaces for public gatherings and special events. Traditionally, a church sanctuary was a space that hosted some of the fundamental rituals of life: a baptism, a coming-of-age ceremony, a wedding, or a funeral. While weddings, for example, are not as frequently held in churches anymore due to religious disaffiliation, it stands to reason that these events will continue to be held elsewhere.<sup>25</sup>

Furthermore, in the chapter “Religion Today” in *A Secular Age*, Taylor notes that despite the trend towards individualism, collective gatherings remain prominent.<sup>26</sup> In considering the role of the collective, he draws on the notion of the ‘festive’ in describing gatherings ranging from the World Youth Days organized by the Catholic church, to rock concerts and memorial services.<sup>27</sup> Despite the varying range of religiosity in the examples, Taylor groups them together as events which promote a sense of ‘fusion’, “which often generate the powerful phenomenological sense that we are in contact with something

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22 “New Churches have a Tough Time Finding a Home in Vancouver,” last modified May 14, accessed Oct 30, 2019, <https://churchforvancouver.ca/new-churches-have-a-tough-time-finding-a-home-in-vancouver/>.

23 “New Churches have a Tough Time Finding a Home in Vancouver,”

24 “New Churches have a Tough Time Finding a Home in Vancouver,”

25 “Fewer Couples are Marrying in Churches. does it Matter?” last modified -06-07T19:30:09-04:00, accessed Jan 15, 2021, <https://religionnews.com/2018/06/07/fewer-couples-are-marrying-in-churches-does-is-matter/>.

26 Taylor, *A Secular Age* 517

27 Taylor, *A Secular Age* 516

greater, however we ultimately want to explain or understand this.”<sup>28</sup>

In that context, the thesis looks at how places of worship can continue to function as event spaces, in a broader sense. The design proposal revisits the typology of the multifunctional hall. Originating from the 20th century European model of the ‘parish centre’, these spaces were designed without overt religious symbolism in favor of a primarily functional form that could be used throughout the week.<sup>29</sup>

### 2.3 The Theatre: Performing Arts Space

Like churches, artists and arts organizations are similarly pressured by a shortage of affordable spaces in Vancouver.<sup>30</sup> The thesis looks at ways that places of worship, as well as other ancillary spaces that churches provide, can be beneficial for performing artists as well.

In 2015, Partners for Sacred Places, a non-profit based in the United States, published a study on space-sharing between artists and faith-based organizations entitled “Creating Spaces: Performing Artists in Sacred Spaces”.<sup>31</sup> The study consisted of self-reported surveys, as well as case studies, from Austin, Baltimore, and Detroit.<sup>32</sup> Partners found a high degree of interest from both sides.<sup>33</sup> For artists, the need for a ‘home space’; a long term, non-residential, base of operations, draws them to spaces offered by faith-based organizations.<sup>34</sup> Faith based organizations, on the other hand, are open to sharing their space with artists and arts organizations.<sup>35</sup>

At a local level, AMS Consulting Group has conducted a series of studies and reports on the state of cultural facilities for individual artists and collectives in Vancouver. A recent report from 2018, entitled “Key Gaps in Cultural Infrastructure”, found that for

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28 Taylor, *A Secular Age* 518

29 Stegers, *Sacred Buildings : A Design Manual*

30 Zak Vescera, “By the Numbers: The Disappearance of Arts Spaces in Vancouver Over Time,” *Vancouver Sun* September 09, 2019. <https://vancouver.sun.com/news/local-news/by-the-numbers-the-disappearance-of-arts-spaces-in-vancouver-over-time>.

31 Karen DiLossi and Neville K. Vakharia, *Creating Spaces: Performing Artists in Sacred Spaces*, [2014]).

32 DiLossi, *Creating Spaces: Performing Artists in Sacred Spaces*

33 DiLossi, *Creating Spaces: Performing Artists in Sacred Spaces*

34 DiLossi, *Creating Spaces: Performing Artists in Sacred Spaces*

35 DiLossi, *Creating Spaces: Performing Artists in Sacred Spaces*

individual artists studio or workshop space, and live/work spaces, were in high demand.<sup>36</sup> On the other hand, organizations reported that what they needed most were rehearsal and administrative spaces.<sup>37</sup> When it comes to performing arts venues, the study identified a need for small to mid-sized, 60-250 seat venues, that are suitable for smaller organizations looking to grow.<sup>38</sup> In general, the key criteria for artists were affordability, location, and transit accessibility.<sup>39</sup> In spite of this demand, the report highlights the fact that many of the city's existing facilities are in need of repair, and under pressure from real estate development.<sup>40</sup>

The design proposal explores the implications of designing places of worship to function as performing-arts venues in the form of a theatre. The adoption of the auditorium or theatre plan, as a type of Christian worship space, is extensively documented by professor Jeanne Halgren Kilde in *When Church Became Theatre*.<sup>41</sup> According to Kilde, this transformation was driven by a desire to create spaces with clear sightlines and comfortable seating that were suitable for hearing music and speech.<sup>42</sup> In turn, these same criteria would make these spaces also suitable for live music, or theatrical performances. In this way, the construction of a new place of worship can also create a modern performing arts venue for the city. Additionally, the design proposal looks at ways to include administrative, as well as residential space, in response to the issues highlighted by the AMS study.<sup>43</sup>

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36 AMS Planning & Research Corp., *City of Vancouver Update to Key Gaps in Cultural Infrastructure*, [2018].

37 AMS Planning & Research Corp., *City of Vancouver Update to Key Gaps in Cultural Infrastructure*

38 AMS Planning & Research Corp., *City of Vancouver Update to Key Gaps in Cultural Infrastructure*

39 AMS Planning & Research Corp., *City of Vancouver Update to Key Gaps in Cultural Infrastructure*

40 AMS Planning & Research Corp., *City of Vancouver Update to Key Gaps in Cultural Infrastructure*

41 Jeanne Halgren Kilde, *When Church Became Theatre: The Transformation of Evangelical Architecture and Worship in Nineteenth-Century America* (Oxford; Toronto: Oxford University Press, 2005).

42 Kilde, *When Church Became Theatre: The Transformation of Evangelical Architecture and Worship in Nineteenth-Century America*

43 AMS Planning & Research Corp., *City of Vancouver Update to Key Gaps in Cultural Infrastructure*



## 2.4 The Chapel: Contemporary Spirituality

The third kind of space that the thesis proposes is a chapel, which is designed to accommodate smaller gatherings and provide a space for communal spiritual practices.

In Taylor's view, one of the key features of contemporary spirituality is that it is no longer necessary to first join a religious group and identify with their beliefs, to access various forms of spiritual practices.<sup>44</sup> Rather, individuals seek them out and form a belief system that collages ideas and practices from a variety of different sources.<sup>45</sup> These may include "meditation, or some charitable work, or a study group, or a pilgrimage, or some special form of prayer, or a host of such things."<sup>46</sup> While the desire for religion and spirituality may begin as an individualistic quest, Taylor points out that this framework does not preclude the seeker from eventually joining a religious community, "because that's where many people's sense of the spiritual will lead them".<sup>47</sup>

What kind of spaces would be suitable for these kinds of communities? The design proposal explores the idea of a chapel, drawing from the lineage of 'multifaith' chapels popularized in American universities during the late 20<sup>th</sup> century.<sup>48</sup> Notable examples include Eero Saarinen's chapel at MIT, an introverted space lit from above, which was designed for individual experiences of the sacred, without the need for a religious mediator.<sup>49</sup> Granted, the contemporary aspiration to create a 'multifaith' space that is meaningful to everyone, and yet universally open, can lead to a rather generic space that in the end appeals to no one. This issue is at the heart of the difficult task of attempting to design a sacred space today.

## 2.5 Designing Sacred Spaces

In "The Sacred Today", professor Karla Britton argues that the changing attitudes towards religion and secularization, as exemplified by Habermas' comments, calls for

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44 Taylor, *A Secular Age* 514

45 Taylor, *A Secular Age* 514

46 Taylor, *A Secular Age* 515

47 Taylor, *A Secular Age* 516

48 Jeanne Halgren Kilde, "Protestant Theologies and the Problem of Sacred Space," *Actas De Arquitectura Religiosa Contemporánea* 5 (Jul 25, 2018), 2-23. doi:10.17979/aarc.2017.5.0.5140. <http://revistas.udc.es/index.php/aarc/article/view/aarc.2017.5.0.5140>.

49 Kilde, "Protestant Theologies and the Problem of Sacred Space," , 2-23



a “reformulation of what sacred spaces are, and how they are conceived”.<sup>50</sup> Britton cites architect Rafael Moneo’s reflections on the design of the Cathedral of Our Lady of the Angels in Los Angeles: “Since there is no longer a common ideal, or communal consensus on how the sacred is experienced in the post-secular age, the architect must “take the risk of offering others his [or her] vision of what constitutes sacred space””.<sup>51</sup> Without a shared point of reference, any designer of contemporary sacred space must be aware of the “underlying ambivalence about what religious buildings can communicate”.<sup>52</sup>

This is the main challenge of an experimental design proposal: that ultimately it will be up to the individual, or individuals of a faith community, to decide whether these are truly sacred spaces. The thesis proposal offers up one designer’s interpretation of what contemporary sacred space can be, in a mixed-use, urban context. In doing so, it cannot claim that it will universally be perceived in this way. However, that is not to say that the approach is entirely predicated on individual whims and personal preferences. While it may not be possible to authoritatively evaluate how these spaces will be perceived, the design intentions can still be based on a degree of authority.

To this end, the thesis draws on the work of architect Douglas R. Hoffman as a theoretical reference for what constitutes sacred spaces. In *Seeking the Sacred in Contemporary Religious Architecture*, Hoffman argues that there are clear, physical elements in architecture that are evocative of the sacred, which “act as symbolic markers transforming ordinary places into sacred sites.”<sup>53</sup> In the book, Hoffman summarizes recent scholarship on the matter and lays out a comprehensive catalogue of elements which can be evocative of the sacred. These include architectural elements which establish a clear sense of threshold, path, and place, archetypal or universal elements such as a reference to water, or to the sky, as well as atmospheric ambiguities such as the interplay between darkness and light.<sup>54</sup> The design proposal explores how such elements can be intentionally incorporated into a mixed-use context.

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50 Author: Karla Cavarra Britton, “The Sacred Today,” *Reflections*, 2015, .

51 Rafael Moneo, “Architecture as a Vehicle for Religious Experience: The Los Angeles, Cathedral,” in *Constructing the Ineffable: Contemporary Sacred Architecture*, ed. Karla Cavarra Britton (Yale School of Architecture, 2010).

52 Author: Karla Cavarra Britton, “The Sacred Today,”

53 Douglas R. Hoffman, *Seeking the Sacred in Contemporary Religious Architecture* (Kent, Ohio: Kent State University Press, 2010).

54 Hoffman, *Seeking the Sacred in Contemporary Religious Architecture*



## **CHAPTER 3: THE MIXED-USE CHURCH BUILDING**

### 3.1 Community-Serving Spaces

Beyond providing a central space for worship services and other events, a church building typically also contains several ancillary spaces as well. This is especially true of churches built in North America during the late 20th century, according to historian Jay Price.<sup>55</sup> “By the 1950s, the model favored by church consultants featured large facilities for dining, recreation space, stages for theater productions, and a host of parlors, salons, meeting rooms, and offices.”<sup>56</sup> The result was a space that was well-suited for “neighborhood functions, after-school programs, scout activities, and other events”.<sup>57</sup> Thus, the conception of the church as a multifunctional facility that embraced childcare, education, and other aspects of communal life led to the incorporation of kitchens, meeting rooms, and daycares into church buildings. While these facilities were originally designed primarily for their respective faith communities, recent research reveals that many community groups in Canada use spaces in church buildings for a variety of artistic, social, and cultural activities.

A recent study, entitled “No Space for Community”, conducted by the non-profit Faith and the Common Good, surveyed nearly 1000 user groups of places of worship in Ontario across four cities.<sup>58</sup> They found that the main reasons community groups used these spaces were location, affordability, and accessibility.<sup>59</sup> The top four user groups from the study were “Arts and Culture”, “Recreation and Sports”, “Social Club,” and “Education and Research”.<sup>60</sup> (*Figure 3.1*) In urban centres like Toronto, about 59% of the 189 groups surveyed responded that they would not be able to find an affordable alternative.<sup>61</sup> Furthermore, the study notes that the ongoing replacement of churches by condominium developments is likely to exacerbate this problem.<sup>62</sup>

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55 Jay M. Price, *Temples for a Modern God : Religious Architecture in Postwar America* (New York: Oxford University Press, 2013).

56 Price, *Temples for a Modern God : Religious Architecture in Postwar America* 177

57 Price, *Temples for a Modern God : Religious Architecture in Postwar America* 177

58 Faith & the Common Good, *No Space for Community the Value of Faith Buildings And the Effect of their Loss in Ontario*

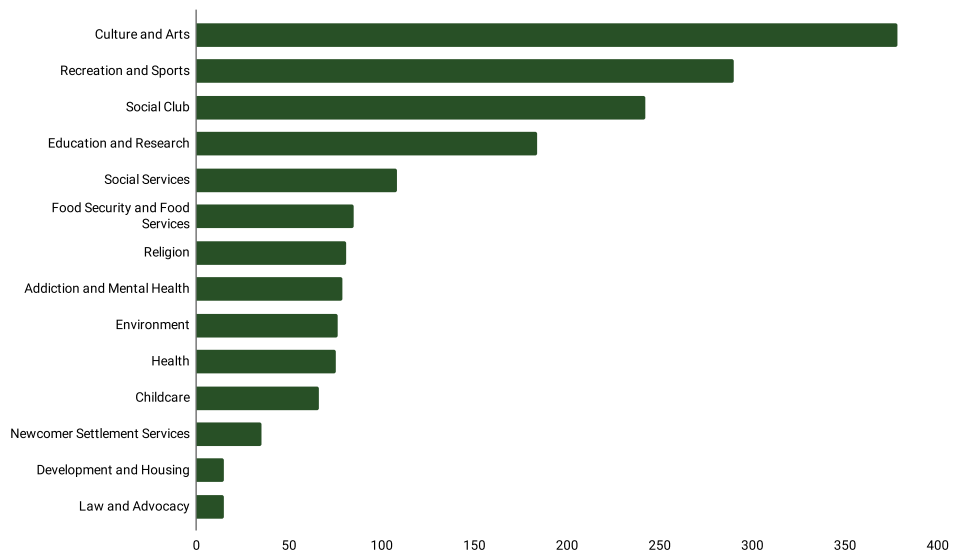
59 Faith & the Common Good, *No Space for Community the Value of Faith Buildings And the Effect of their Loss in Ontario*

60 Faith & the Common Good, *No Space for Community the Value of Faith Buildings And the Effect of their Loss in Ontario*

61 Faith & the Common Good, *No Space for Community the Value of Faith Buildings And the Effect of their Loss in Ontario*

62 Faith & the Common Good, *No Space for Community the Value of Faith Buildings And the Effect of their Loss in Ontario*

**Graph: What Does Your Group Do?**



*Figure 3.1 Groups Using Space in Places of Worship*

On the other side of the table, in Vancouver, the city conducted a Community-Serving Spaces study in May of 2019 with a forum that specifically targeted places of worship and faith-based organizations.<sup>63</sup> As a part of the study, groups were asked to self-identify their target demographics and the types of spaces they offered, in addition to the challenges they faced.<sup>64</sup> (*Figure 3.2*) Among the 364 groups that responded, they identified an interest in preserving places of worship and community ownership, as well as collaborating with other community groups.<sup>65</sup> The major challenges to maintaining their spaces included a lack of funding, as summarized by the phrase “asset rich/cash poor”, as well as the high costs of maintenance and the decline in membership.<sup>66</sup>

At a high-level, while the Ontario and Vancouver based studies focus on different groups; the tenants and the hosts so to speak, they draw similar conclusions. Churches and other faith-based organizations provide affordable, centrally located spaces in urban areas. Spaces which if lost, as the Ontario-based study warns, will be difficult to replace.<sup>67</sup> Furthermore, the studies reveal that congregations are challenged with finding adequate funding to maintain their spaces, while also facing pressure from real estate developers.

### 3.2 The Transformation of Church Buildings

A congregation that finds itself unable to maintain their building is confronted with several options. These range from selling the building outright, to trying to renovate the space with the help of outside partners. A closer look at the options reveals a tension between the preservation of the function of the building, as a public, community-serving set of spaces, and its physical form, whether in part or in whole. To illustrate the complexities of this process, the following abstracted decision-making process charts the several options available to a congregation, using contemporary examples. (*Figure 3.3*) While they are presented as discrete options here for the sake of clarity, it should be noted that these scenarios often overlap in practice.

The first question for a congregation is whether it is able or willing to continue as a distinct religious community. If membership is declining, church congregations may elect to close or join another congregation. If they vote to dissolve the congregation, then the building is likely to go up for sale. Whether or not the building is designated as a heritage

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63 City of Vancouver, *Community-Serving Spaces Study: Places of Worship Forum*, [2019a]).

64 City of Vancouver, *Community-Serving Spaces Study: Places of Worship Forum*

65 City of Vancouver, *Community-Serving Spaces Study: Places of Worship Forum*

66 City of Vancouver, *Community-Serving Spaces Study: Places of Worship Forum*

67 Faith & the Common Good, *No Space for Community the Value of Faith Buildings And the Effect of their Loss in Ontario*

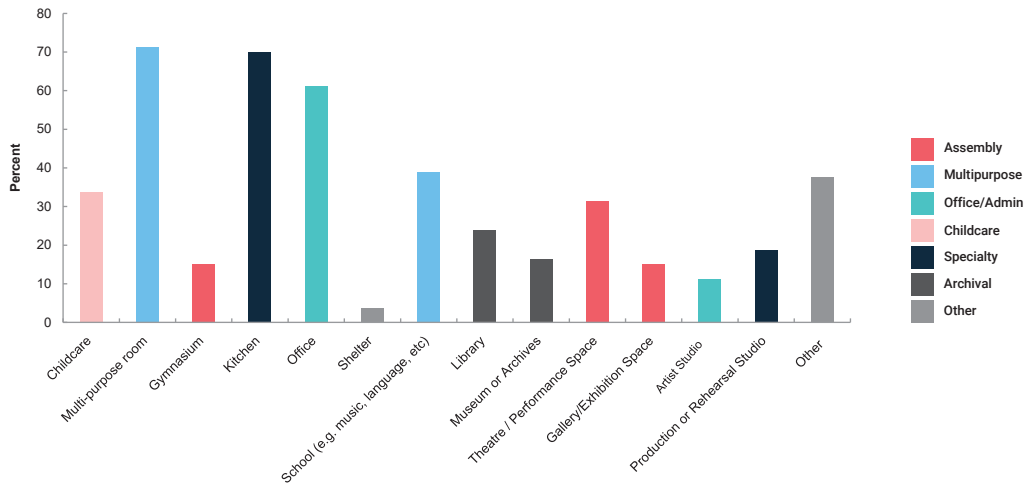


Figure 3.2 Community Serving Spaces: City of Vancouver 2019

structure plays a significant role in its future use. This can result in either the conversion of the building to private residential units, or an outright demolition to make way for a new development. In instances where the church is protected as a heritage structure, some elements from the façade may be kept as part of the new building. James Street Baptist Church in Hamilton is an example of this outcome, with the developer preserving a portion of the original church façade at the base of a new condominium.<sup>68</sup>

On the other hand, a non-profit group may choose to purchase and repurpose the building. Organizations such as Trinity Centres Foundation focus on converting underutilized churches into community centres. Their first project, St. Jax Montreal, repurposed a closed Anglican church to support both a new congregation as well as over 70 community groups.<sup>69</sup> The sanctuary, hall, and garden are available for rent, and have been refurbished to accommodate banquets, theatrical performances, and concerts.<sup>70</sup>

Should the congregation elect to remain as a community, they are then faced with the question of what to do with the building. For example, many of the buildings identified in the 2019 Vancouver study date from the post-war period, if not earlier.<sup>71</sup> These facilities are often in need of serious repair or renovation. Furthermore, the existing building may already be used at maximum capacity, or no longer suitable for supporting the needs of the church and the community users. If the congregation chooses to renovate and repair their building, they are then challenged with fundraising. There are two main options: partnering with other user groups, or selling property, as well as development rights, in exchange for capital.

St Matthew's United Church is a successful example of the first approach. Situated in the Wychwood neighborhood in Toronto, the building is home to three congregations and four volunteer programs, and has had a longstanding commitment to serving the neighborhood.<sup>72</sup> In order to address the ongoing operating deficit, the congregation went through the process of bringing in external tenants from the community.<sup>73</sup> Due to the arts-oriented nature of the community, some of the new tenants include fine arts and

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68 "Future of James Baptist Church Facade is Safe for Now | CBC News," last modified -03-14T21:47:58.656Z, accessed Jan 14, 2021, <https://www.cbc.ca/news/canada/hamilton/connolly-new-plans-1.4576629>.

69 "St Jax Montreal," , accessed Jan 10, 2021, <https://trinitycentres.org/en/montreal>.

70 "St Jax Montreal,"

71 City of Vancouver, *Community-Serving Spaces Study: Places of Worship Forum*

72 Faith & the Common Good, *No Space for Community the Value of Faith Buildings And the Effect of their Loss in Ontario*

73 Faith & the Common Good, *No Space for Community the Value of Faith Buildings And the Effect of their Loss in Ontario*



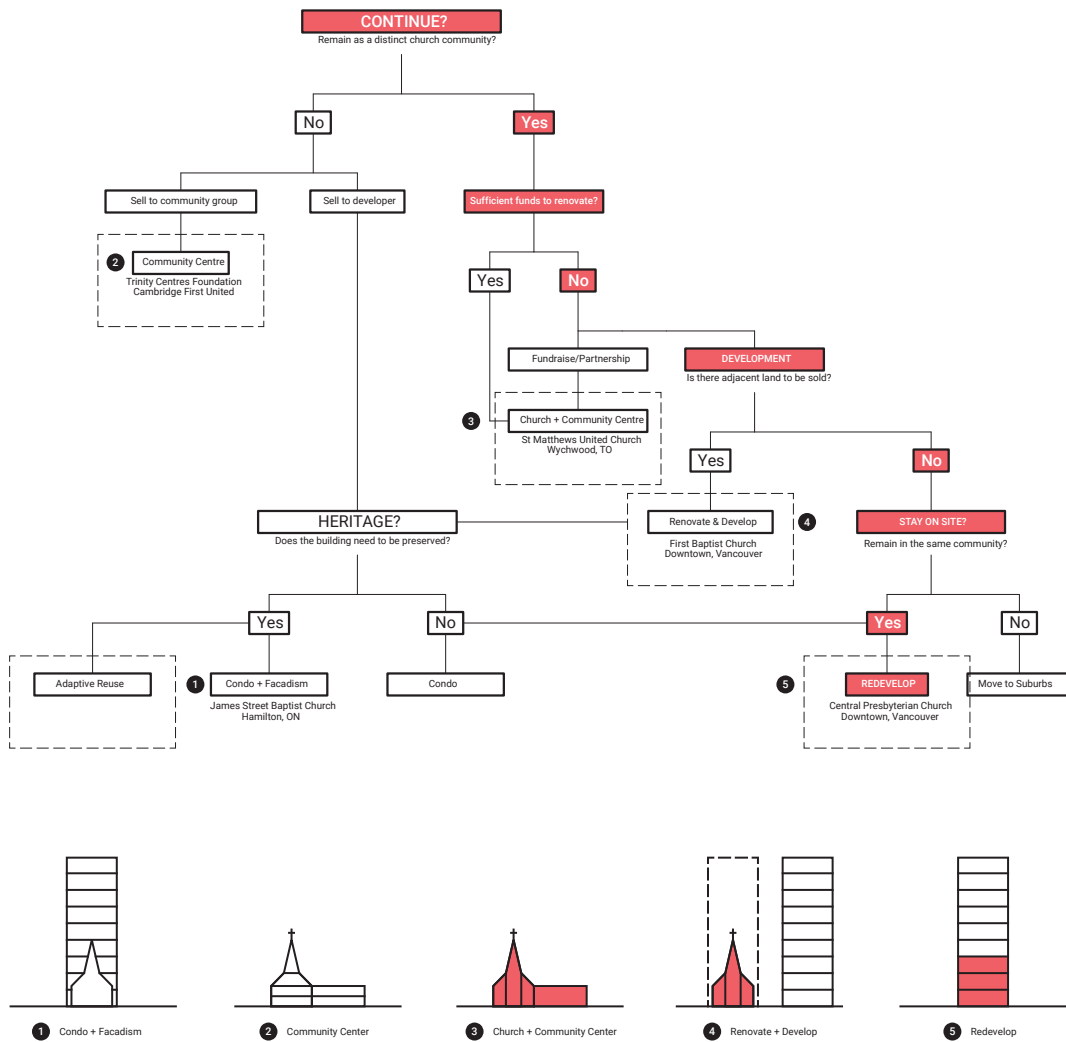


Figure 3.3 Options for Church Building Conversion

music classes, yoga sessions, as well as independent artists.<sup>74</sup>

In downtown Vancouver, First Baptist Church's recent partnership with the developer Westbank is a striking example of the second option. In 2017, a 57-story residential tower was approved for construction next to the church.<sup>75</sup> As a part of this transaction, the developer provided funding for the seismic retrofitting of the historic church, while also building 61 units of affordable housing.<sup>76</sup> First Baptist Church's situation highlights the challenges presented by maintaining a historic structure, as well as the pressure of the real estate market in Vancouver which would support such an increase in density.<sup>77</sup>

However, if the congregation chooses not to preserve the existing building, it may be for one of two reasons. First, the existing structure may already be insufficient for their current uses, and to construct an addition usually triggers substantial upgrades legislated by the building code with regards to fire safety, accessibility, and other concerns.<sup>78</sup> Due to these constraints, even a minor addition may end up exceeding the congregation's financial means. Secondly, not all congregations have the luxury of selling adjacent land, or overhead air parcels, for development. Without these extra options for generating funds, a congregation may be unable to afford the cost of renovating or repairing their building.

It is at this point that a congregation may consider tearing down the existing building and redeveloping the site instead. In exchange for the potential profit generated by new housing units on the site, the church can receive a new set of worship and ancillary spaces while remaining in the same community. The housing market is a major catalyst for these mixed-use developments, and it is important to examine this factor in greater detail before looking at recent examples of mixed-use church buildings.

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74 Faith & the Common Good, *No Space for Community the Value of Faith Buildings And the Effect of their Loss in Ontario*

75 "Houses of the Holy: In Vancouver, a Union of Church and Real Estate,"

76 "Houses of the Holy: In Vancouver, a Union of Church and Real Estate,"

77 "Houses of the Holy: In Vancouver, a Union of Church and Real Estate,"

78 Allan Erdman, "A Leap of Faith: Motivations for Place of Worship Redevelopment in Vancouver" 37

### 3.3 The Issue of Housing

According to the City of Vancouver, by 2041, the population is expected to increase by over 100 000.<sup>79</sup> Historically, this growth has been driven by international immigration as well as inter-provincial migration.<sup>80</sup> Driven by the anticipated demand as well as real estate speculation, the city has seen a significant increase in residential construction.<sup>81</sup> According to Statistics Canada, from January 2010 to December 2019, the amount of investment in Multiple Dwelling building construction in the metropolitan area of Vancouver increased from \$345,350,315 to \$804,426,219.<sup>82</sup>

The other side of this development boom is the affordability crisis in Vancouver, as housing prices have grown at a rate disproportionate to the local income. The Canada Mortgage and Housing Corporation defines affordability “against a threshold based on whether the household spent 30% or more of its average monthly total income on shelter costs.”<sup>83</sup> As of 2016, Vancouver as a region had the second highest percentage of households in Canada, 32%, that were paying more than 30% of their income for shelter.<sup>84</sup>

As Erdman points out, this increase in housing prices, and consequently land-values, is a city-wide phenomenon that has spread beyond urban, downtown locations, and into historically single-family residential neighborhoods as well.<sup>85</sup> For developers looking to build housing, church properties are an attractive option as they often occupy large lots on major intersections and arterials in the city. In turn, churches have recognized the opportunity afforded by the current housing market to redevelop their property. While housing affordability is a complex and multi-faceted issue which is beyond the scope of this thesis, the desire to provide below-market housing is often cited as a driving force behind the redevelopment of a place of worship.<sup>86</sup> As the case studies presented in this

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79 City of Vancouver, *Community-Serving Spaces Study: Places of Worship Forum*

80 Allan Erdman, “A Leap of Faith: Motivations for Place of Worship Redevelopment in Vancouver” 6

81 Allan Erdman, “A Leap of Faith: Motivations for Place of Worship Redevelopment in Vancouver” 7

82 Statistics Canada, *Table: 34-10-0175-01 Investment in Building Construction*, [2021]).

83 Statistics Canada, *Housing in Canada: Key Results from the 2016 Census*, [2017]).

84 Statistics Canada, *Housing in Canada: Key Results from the 2016 Census*

85 Allan Erdman, “A Leap of Faith: Motivations for Place of Worship Redevelopment in Vancouver” 7

86 Allan Erdman, “A Leap of Faith: Motivations for Place of Worship Redevelopment in

chapter illustrate, to what extent the new housing units are at or below market has much to do with the goals of the development partner involved.

The following sections of the chapter examine two cases studies: Central Presbyterian Church and Oakridge Lutheran Church. These two represent both the urban and suburban context, respectively, and highlight the unique challenges posed by this typology. Specifically, these projects raise questions about the spatial qualities of mixed-use places of worship, as well as the challenge of reconciling the residential and religious functions. Following the case studies, the remainder of the chapter will lay out the approach that the design proposal takes with regards to these issues.

### 3.4 Case Study: Central Presbyterian Church

Central Presbyterian Church is situated in the West End, a primarily residential neighborhood in downtown Vancouver, across from St. Paul’s Hospital. (*Figure 3.4*) The church was interested in finding a way to expand their facility to accommodate the various programs at their existing location, such as meal services and childcare.<sup>87</sup> The existing building, constructed in 1976, was home to three congregations: Central Presbyterian, with approximately 60 members, Galilee (a Korean Presbyterian congregation), with approximately 300 members, and Christ Alive, an LGBTQ+ congregation with approximately 12 members.<sup>88</sup>

Henriquez Partners Architects worked with the congregation and proposed three options: “sell the site to a developer, do the rezoning and sell the rezoned land to a developer, or rezone and develop it themselves.”<sup>89</sup> The church chose the third option, and partnered with Bosa Properties, a developer which acted as the financial partner for the project. Completed in 2018, the building consists of three portions. At the base is a podium which houses the church’s new sanctuary, along with a new chapel, multipurpose facilities, a community kitchen, retail, and a daycare.<sup>90</sup> (*Figure 3.5-3.7*) Above the podium are 45 units of affordable housing, which is owned and operated by the church, while the 160 market-rate rental units above are owned by Bosa Properties.<sup>91</sup>

Central Presbyterian Church was one of the first projects of this kind to be completed in Vancouver, and as such, they are often cited as a positive example.<sup>92</sup> By leveraging the value of the market rate rental units, the church was able to expand their facilities without the need for significant public funding.<sup>93</sup>

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87 Allan Erdman, “A Leap of Faith: Motivations for Place of Worship Redevelopment in Vancouver” 42

88 Allan Erdman, “A Leap of Faith: Motivations for Place of Worship Redevelopment in Vancouver” 40

89 Allan Erdman, “A Leap of Faith: Motivations for Place of Worship Redevelopment in Vancouver” 38

90 Allan Erdman, “A Leap of Faith: Motivations for Place of Worship Redevelopment in Vancouver”

91 Allan Erdman, “A Leap of Faith: Motivations for Place of Worship Redevelopment in Vancouver” 39

92 Allan Erdman, “A Leap of Faith: Motivations for Place of Worship Redevelopment in Vancouver” 45

93 Allan Erdman, “A Leap of Faith: Motivations for Place of Worship Redevelopment in Vancouver” 38



Figure 3.4 Central Presbyterian Site Plan



*Figure 3.5 View of Central Presbyterian exterior.*





*Figure 3.6 View of the sanctuary interior.*





*Figure 3.7 View of the altar and cross.*

### 3.5 Case Study: Oakridge Lutheran Church

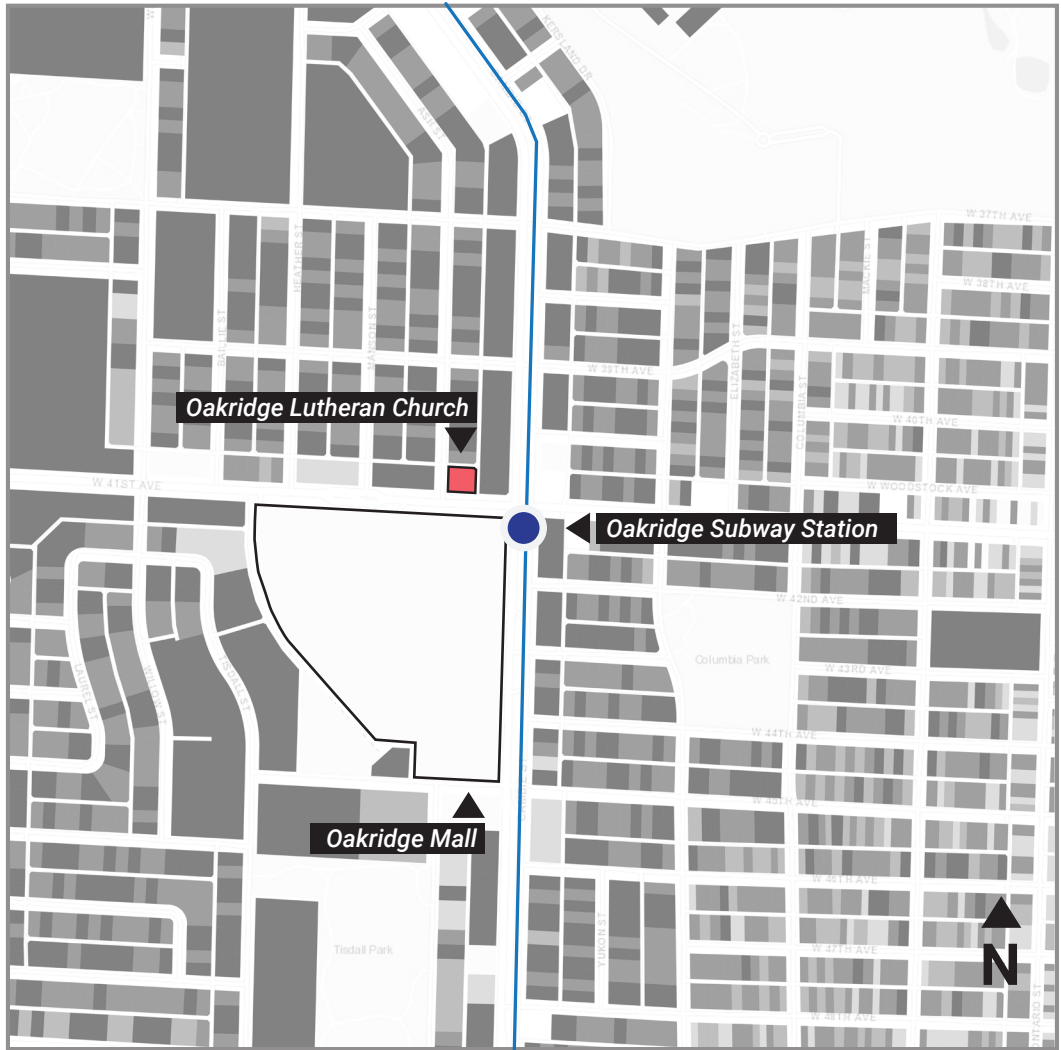
Oakridge Lutheran Church is located on a commercial and residential street, across from Oakridge Mall and a subway station. (*Figure 3.8*) Oakridge Mall had been approved for redevelopment as of 2014, a decision that would introduce a substantial amount of density in the region.<sup>94</sup> The original building was constructed in the late 1960's, and the church board had been looking at options for redevelopment for more than a decade.<sup>95</sup> In partnership with Catalyst Community Developments, a non-profit development agency, the church proposed a six-story residential building, with approximately 10 000 square feet on the second floor to be used as a new place of worship.<sup>96</sup> In addition, the ground floor contains a commercial space owned by the church, and 46 rental units priced below market and managed by an independent housing agency. Among the facilities in the new building, are a new sanctuary, multipurpose rooms, administrative space, and a communal kitchen. The project completed construction in late 2020. (*Figure 3.9-3.11*)

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94 "Oakridge Centre Redevelopment," , accessed Jan 8, 2021, <https://vancouver.ca/home-property-development/oakridge-redevelopment.aspx>.

95 "Vancouver Church Partners with Developer on Affordable Housing project," last modified November 3, accessed Oct 2, 2019, <https://www.theglobeandmail.com/real-estate/vancouver/vancouver-church-partners-with-developer-on-affordable-housingproject/article36826083/>.

96 "Vancouver Church Partners with Developer on Affordable Housing project,"



Property Value (\$)



Figure 3.8 Oakridge Lutheran Site Plan.



*Figure 3.9 Rendering of exterior.*





*Figure 3.10 View of main sanctuary.*



*Figure 3.11 View of stained glass facade.*

### 3.7 Multifunctional Sacred Spaces

These case studies demonstrate the ways that churches are currently integrated into residential buildings. While they operate at different scales, there is great deal of similarity with regards to the spatial qualities of the new places of worship, as well as their strategy for reconciling the residential and religious functions.

In both case studies, the main place of worship takes the form of a multifunctional hall. Enclosed by floor-ceiling glazing on several sides, the spaces have flexible seating, allowing for multiple configurations based on the activity. These examples demonstrate an aspiration for the space to be recognizable as a place of worship, while remaining adaptable and flexible. For example, the curtain wall in both projects is not only a means of mediating light into the room, but also the primary signifier of the place of worship from the exterior. As such, both projects modify the glazing to signify the sacred, and produce a degree of translucency. The façade at Central Presbyterian is covered with printed crosses, and the façade at Oakridge Lutheran uses colored glass. In general, they demonstrate an economical approach, where the standard elements of multistory residential architecture are transformed and repurposed to invoke the sacred.

As scholars of church architecture have pointed out, the aspiration to create a multifunctional, flexible space, as well as a desire to convey a sense of the sacred through architecture, are often at odds with one another.<sup>97</sup> Rudolf Stegers, in reflecting upon the multifunctional ‘parish centre’ typology, describes its shortcomings in this way: “The stipulation to conduct different functions in the same space, and in so doing, dissolving the boundary between the sacred and the secular, has in many cases led to spaces that no one particularly likes. The use of the zone around the altar during the week by a series of charity work groups or dance troupes has provoked general disapproval not only among the older generation of churchgoers”.<sup>98</sup>

Instead, Stegers suggests that architects should find ways to provide adaptability and flexibility without a need for moving partitions.<sup>99</sup> He points to examples such as Ottokar Uhl’s St. Judas Thaddeus Church in Karksurhe, where the overall room is subdivided into connected but distinct volumes through the strategic placement of circulation elements, which allow for variations in plan and section while maintaining the feeling of a unified volume.<sup>100</sup> While this strategy for one interconnected space does provide a degree of

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97 Stegers, *Sacred Buildings : A Design Manual* 25

98 Stegers, *Sacred Buildings : A Design Manual* 25-26

99 Stegers, *Sacred Buildings : A Design Manual* 26

100 Stegers, *Sacred Buildings : A Design Manual* 26

flexibility, the thesis proposes to use several discrete spaces for two main reasons.

First, providing a series of separate rooms allows for multiple events to occur simultaneously; and thus increasing the capacity of such a building. Secondly, this strategy allows for each space to have a distinct character, both in terms of its functional capacity as well its architectural atmosphere. To that end, the thesis proposes three different types of spaces which can accommodate both worship services as well as other public gatherings: a hall, a theatre, and a chapel. These will be further discussed in the next chapter.

### **3.8 Reconciling the Religious and the Residential**

The second issue to address is the question of how to integrate these spaces with residential units. The standard strategy involves locating the church functions in the podium, underneath the residential units. While this is an economical approach, it can compromise certain spatial characteristics of the places of worship, such as a generous ceiling height, or the introduction of diffuse natural light from above. Furthermore, with regards to the circulation strategy of these buildings, users of the main worship space as well as the ancillary programs share the same point of access, which limits the potential for these community-serving programs to be used by the public when the church is not open.

Given that the residential typology of the project greatly affects the resulting spaces, the thesis proposal examines an alternative approach at a mid-rise scale. Starting with a single-loaded courtyard block, instead of the conventional double-loaded block, expands the possibilities to shape the various places of worship, as well as the ways that these spaces are expressed on the exterior. This also allows for each space to have a sense of address, and a degree of autonomy from the residential units. (*Figure 3.12*)

In summary, the design proposal is premised on using many rooms as opposed to a single worship space, which are set in a single-loaded residential courtyard as opposed to the more conventional double-loaded block. This forms the basis of a design that is intended to reimagine the mixed-use church building as a public community centre with a diverse set of public gathering spaces.



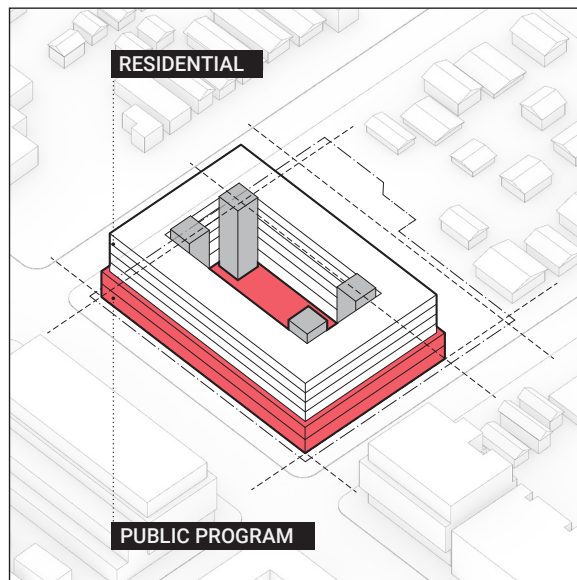
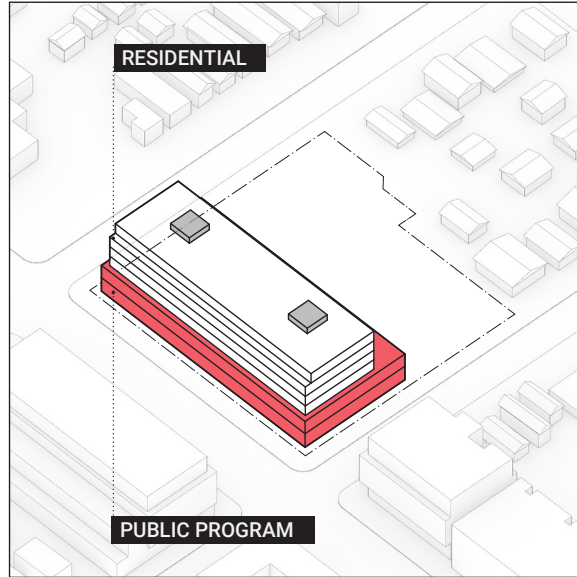


Figure 3.12 Single-loaded vs double-loaded typology.



## CHAPTER 4: THE DESIGN PROPOSAL

## 4.1 The Site

The site for this proposal is currently home to Glad Tidings Church, a sprawling building constructed in the late 1960's. Originally constructed in phases, the building consists of two worship spaces, a hall and an auditorium, joined by a series of offices and multipurpose rooms which face onto a major arterial, Fraser Street. (*Figure 4.1*)

The hall, a two-story volume with a floating parabolic roof, was the original place of worship and has since been converted into a gymnasium. (*Figure 4.2, 4.3*) The auditorium, which is currently the main worship space, seats over 1000 across the main floor as well as an upper-level mezzanine. (*Figure 4.4, 4.5*) To the back of the site is a small playground, as well as an elevated parking structure. Existing programs on the site include a daycare, a communal kitchen, and several multipurpose rooms which host activities spanning from music classes to twelve-step programs. (*Figure 4.6, 4.7*) The building is currently shared by three congregations, with services usually ranging from 100-200 congregants each on a weekly basis.

In this context, the proposal is based on the premise of a partnership between church congregations and a non-profit developer to create a mixed-use building on the site. This partnership structure is derived from case studies such as Oakridge Lutheran church, where the church provides the land and the preliminary program, and the developer brings the development expertise and financial partnership to the project. The existing program on the site serves as a starting point for the new building, which expands on the types of uses and spaces. While preliminary investigations explored the possibility of preserving parts of the existing structure, the design proposal envisions a scenario that involves completely new construction to create a more generalizable outcome.

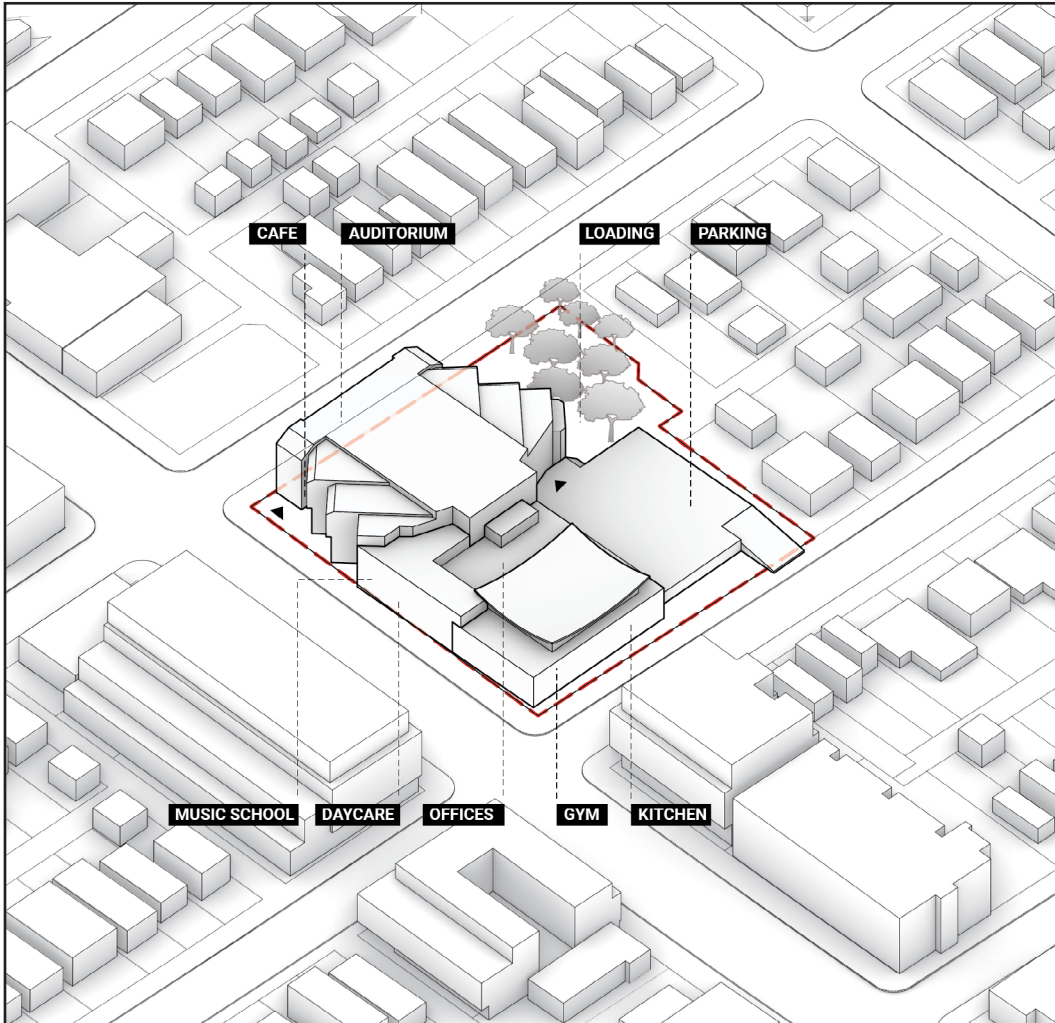


Figure 4.1 Axonometric diagram of existing building.



*Figure 4.2 View of gymnasium exterior.*





*Figure 4.3 View of gymnasium interior.*



*Figure 4.4 View of auditorium exterior.*





*Figure 4.5 View of auditorium interior.*

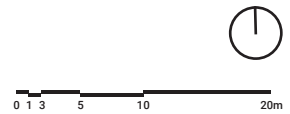
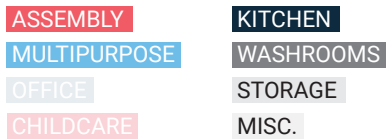
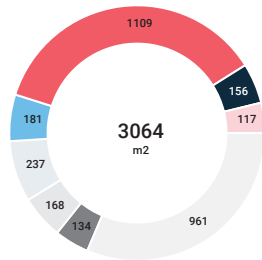
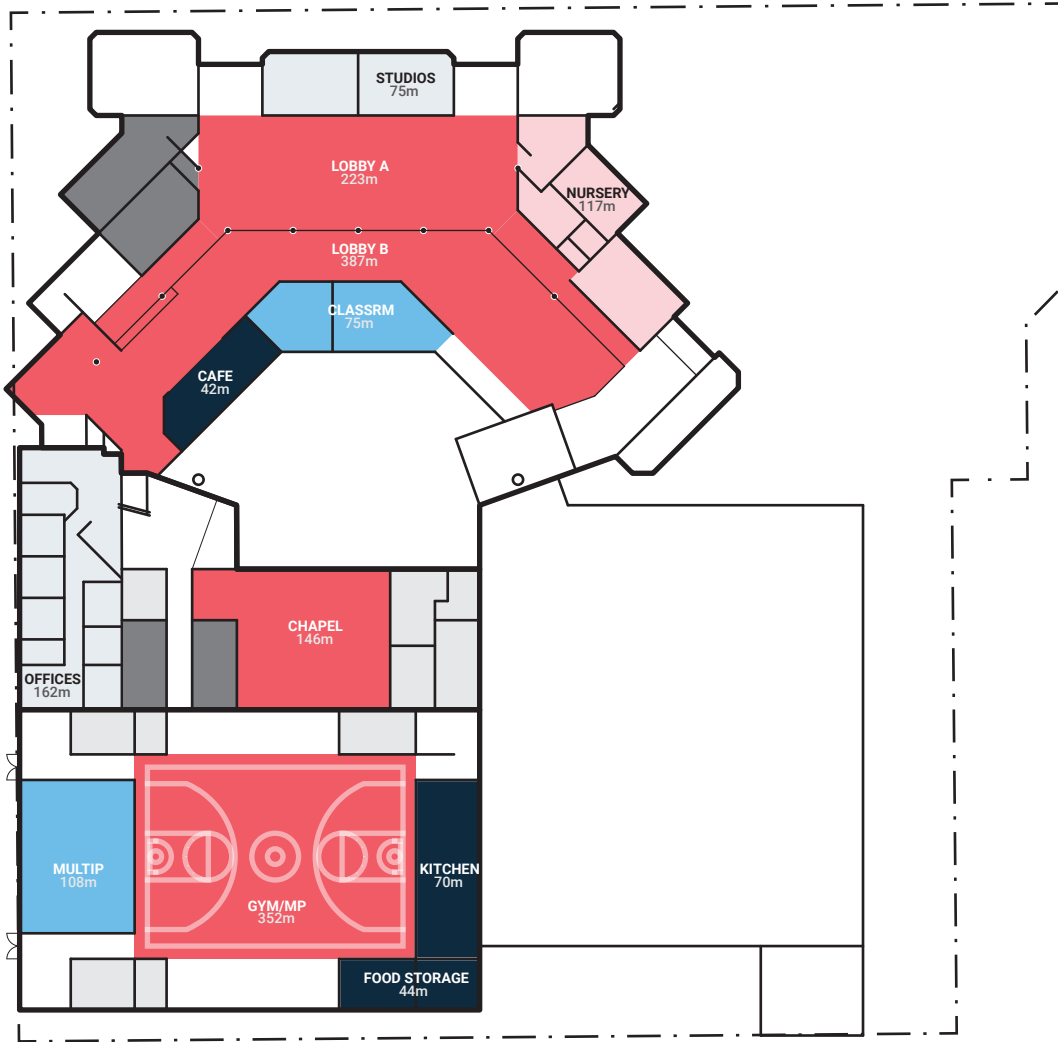


Figure 4.6 Existing lower level floor plan.

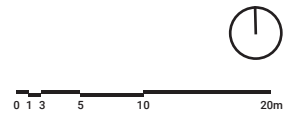
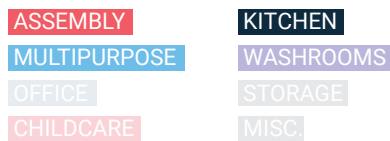
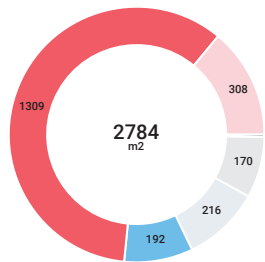
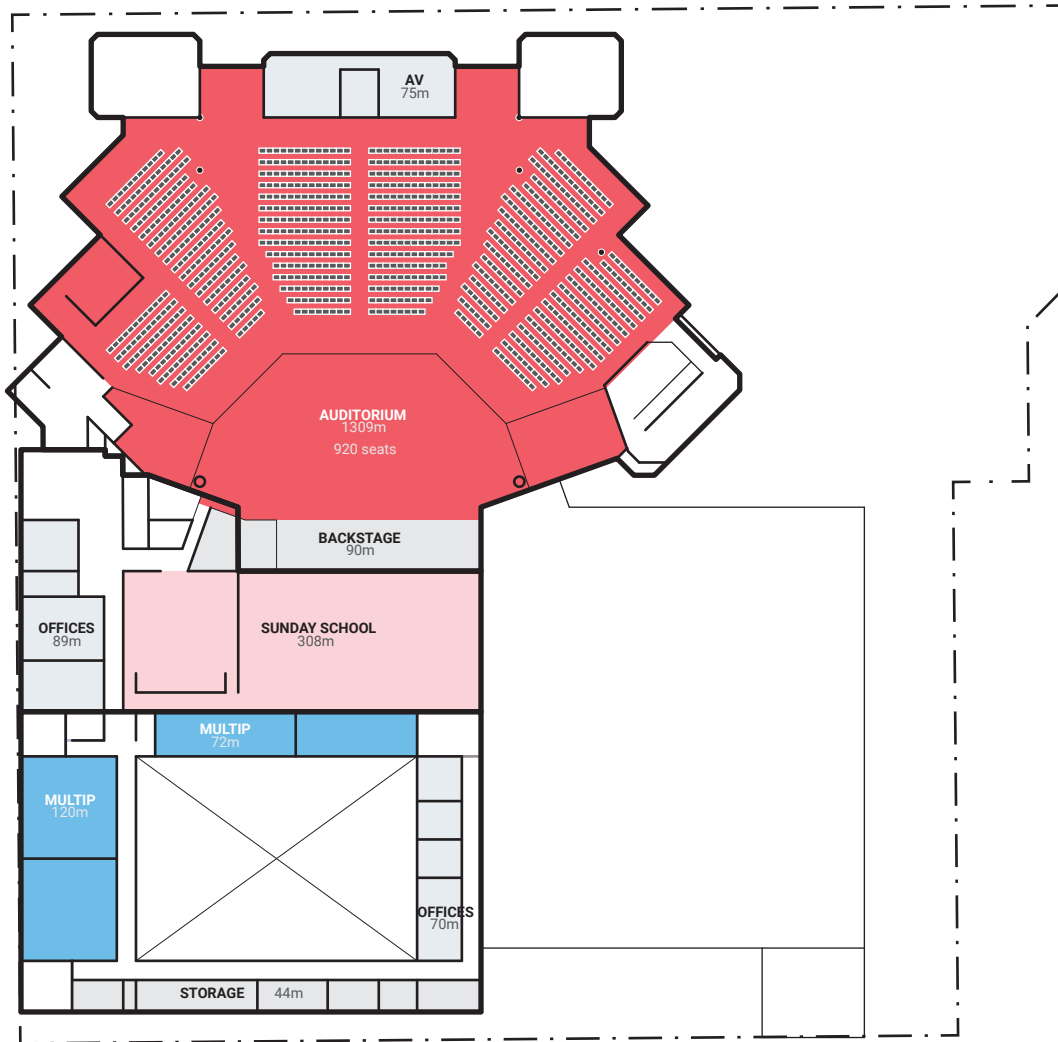


Figure 4.7 Existing upper level floor plan.

## 4.2 New Development

The church is in a suburban neighborhood that has witnessed a significant surge in residential development in recent years. Part of this increase comes from the transit accessibility in the area, with frequent bus service on Fraser Street, as well as direct bus service to the downtown core along Kingsway, a major commercial corridor running throughout the city. (*Figure 4.8*) This is amplified by the anticipated construction of a new subway station on the Broadway Subway line, only a few blocks away near Kingsway and Main Street.<sup>101</sup> The other part of this surge in development has to do with the City of Vancouver's recent incentives for secured rental housing.

In 2017, the City of Vancouver approved the Moderate Income Rental Housing Pilot Program (MIRHPP).<sup>102</sup> The program was conceived to streamline the approval process for 100% purpose built rental housing with a minimum of 20% of the units set aside for those making between \$30 000 to \$80 000 a year.<sup>103</sup> In order to encourage the construction of purpose-built rental housing, the program offers several incentives: such as waiving development fees, as well as support from the provincial government to obtain construction and take-out financing.<sup>104</sup> The support of purpose-built rental has been further reinforced by the recently amended Secured Rental Policy (SRP), which also provides recommended increases in density throughout select areas of the city.<sup>105</sup> Altogether, the city is targeting the construction of 20 000 purpose-built rental units in the next decade, with 4 000 set aside for below-market rentals.<sup>106</sup>

As a result of these policies, from 2019-2020, eight development proposals have been approved or considered in the neighborhood, including a lot directly across the site of the design proposal. (*Figure 4.9-4.10*) These will bring over 800 rental units into the area. In this context, the programs in the design proposal will help to address the growing demand for community space in the region.

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101 "Broadway Subway Project", accessed Jan 16, 2021, <https://vancouver.ca/streets-transportation/ubc-line-rapid-transit-study.aspx>.

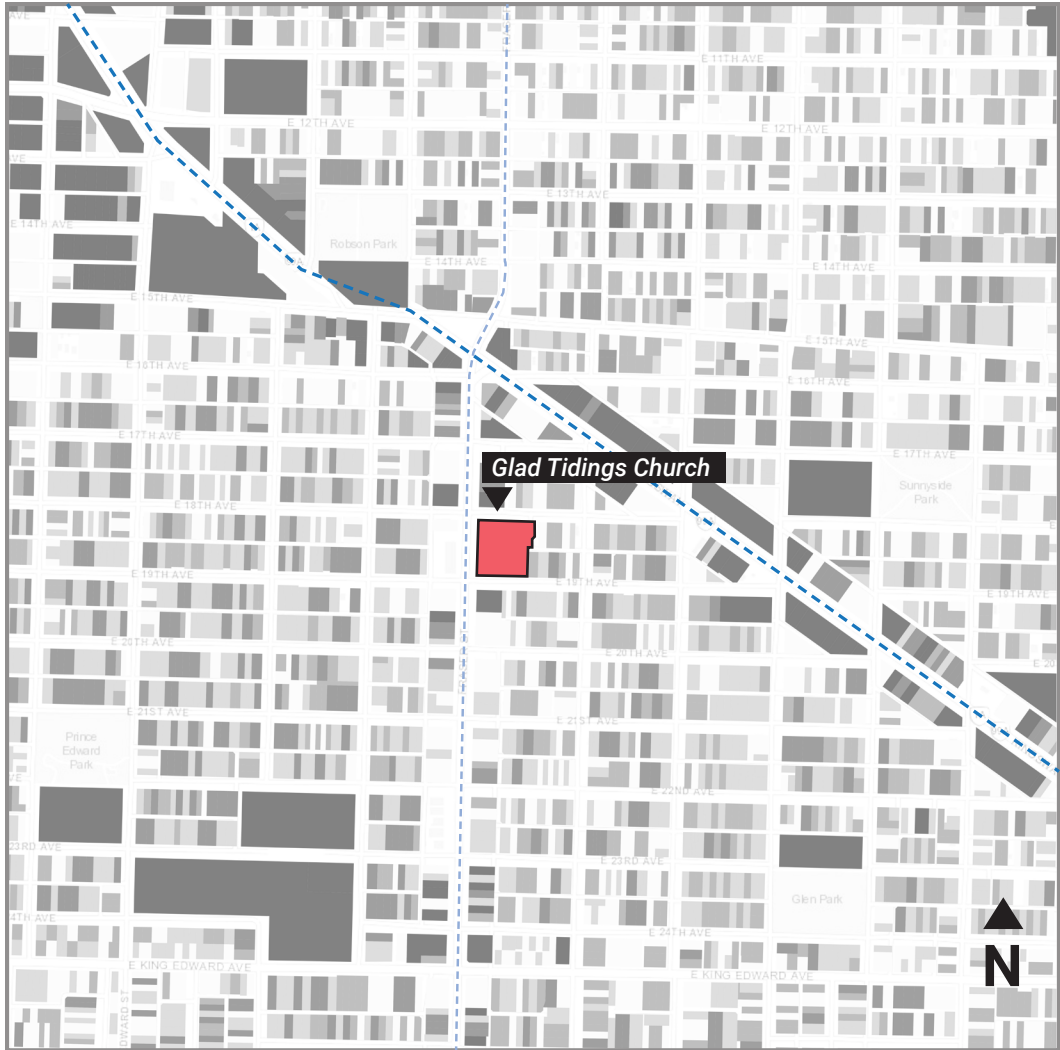
102 City of Vancouver, *Moderate Income Rental Housing Pilot Program: Application Process, Project Requirements and Available Incentives*, [2019b]).

103 City of Vancouver, *Moderate Income Rental Housing Pilot Program: Application Process, Project Requirements and Available Incentives*

104 City of Vancouver, *Moderate Income Rental Housing Pilot Program: Application Process, Project Requirements and Available Incentives*

105 City of Vancouver, *Secured Rental Policy Incentives for New Rental Housing*, [2019c]).

106 City of Vancouver, *Secured Rental Policy Incentives for New Rental Housing*



**Property Value (\$)**



Figure 4.8 Glad Tidings Church site plan.

#	Address	Stories	FSR	Type	Status	Year	Units
1	445 Kingsway	14	4.84	MIRHPP	Approved	2020	215
2	602-644 Kingsway	6	4.05	SRP	Considered	2020	80
3	855 Kingsway	6	3.4	SRP	Approved	2018	50
4	1001 Kingsway	12	5.78	Affordable	Considered	2019	88
5	1111 Kingsway	13	5.38	MIRHPP	Approved	2019	128
6	3429 Fraser St	6	3.43	SRP	Approved	2019	104
7	3510 Fraser St	6	3.49	Co-op	Approved	2020	58
8	3800 Fraser St	6	3.28	SRP	Approved	2019	121

Figure 4.9 Neighboring developments.

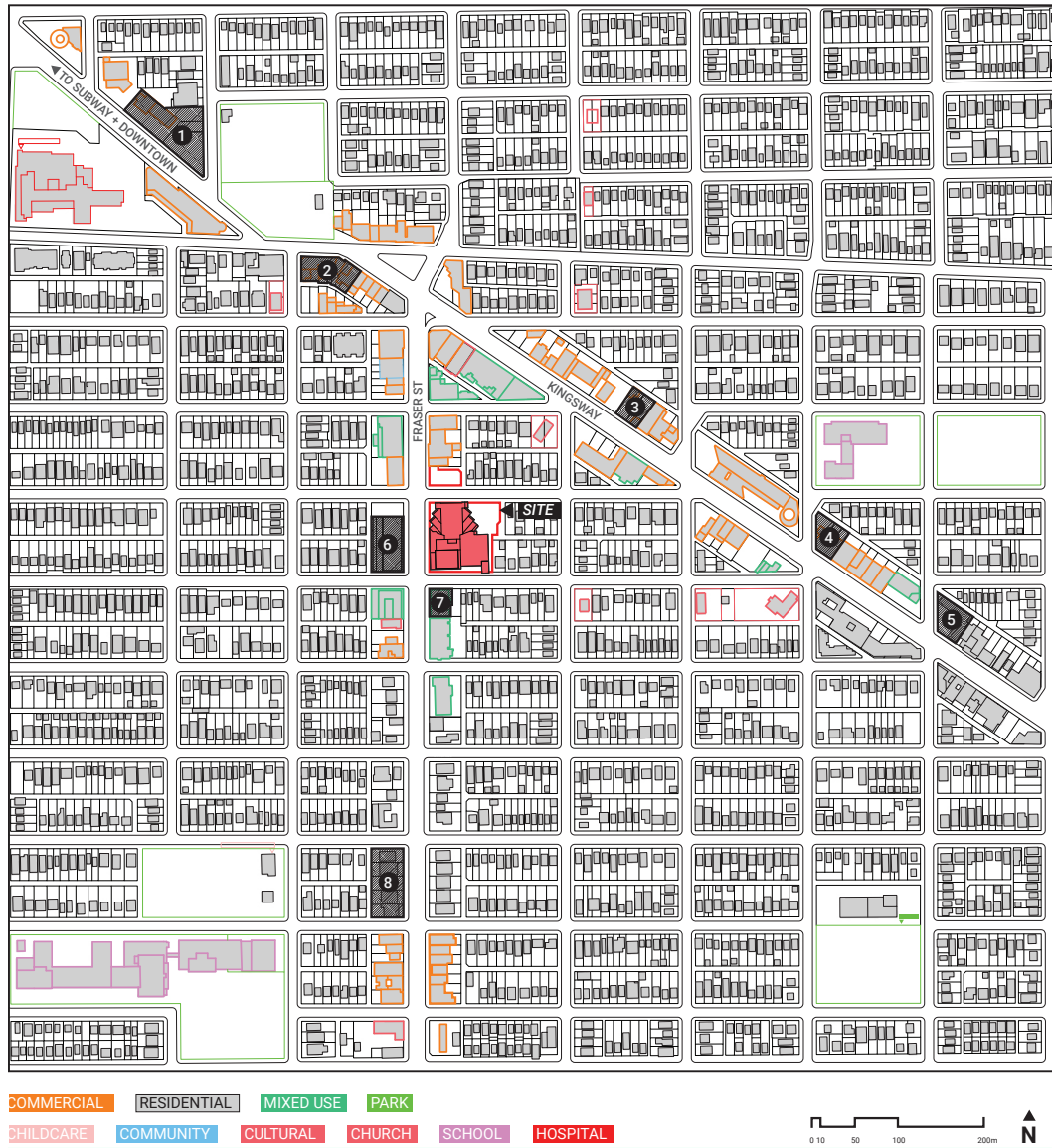


Figure 4.10 Neighborhood programs

### 4.3 Massing Strategy

Starting with a six-story courtyard block, the proposal places the public programs on the lower two levels, and the residential units on the upper four. The block is then divided in two, creating a public armature through the site which allows visitors to access the courtyard from both the front and the back of the site. This outdoor connection serves as a circulation spine for the three public rooms, the hall, the theatre, and the chapel. In making this connection, the stairwells are reoriented to act as vertical monuments to the complex. The first of the three rooms, the hall, is a double-height volume positioned on the southwest corner, connected directly to the courtyard. The second room, the theatre, is located on the lower levels in the center of the courtyard, accessed by descending from the central stair. The third room, the chapel, is designed as a floating volume, which is suspended between the residential units. On the ground floor, the rest of the public programs include a kitchen, a daycare, and a café. On the second floor are a series of offices and meeting rooms intended to be used both by churches and other non-profits for administrative functions. Finally, on the upper floors are eighty-three residential units that are arranged in a logical fashion and set back accordingly to the context of the neighborhood. (*Figure 4.11, 4.12*)



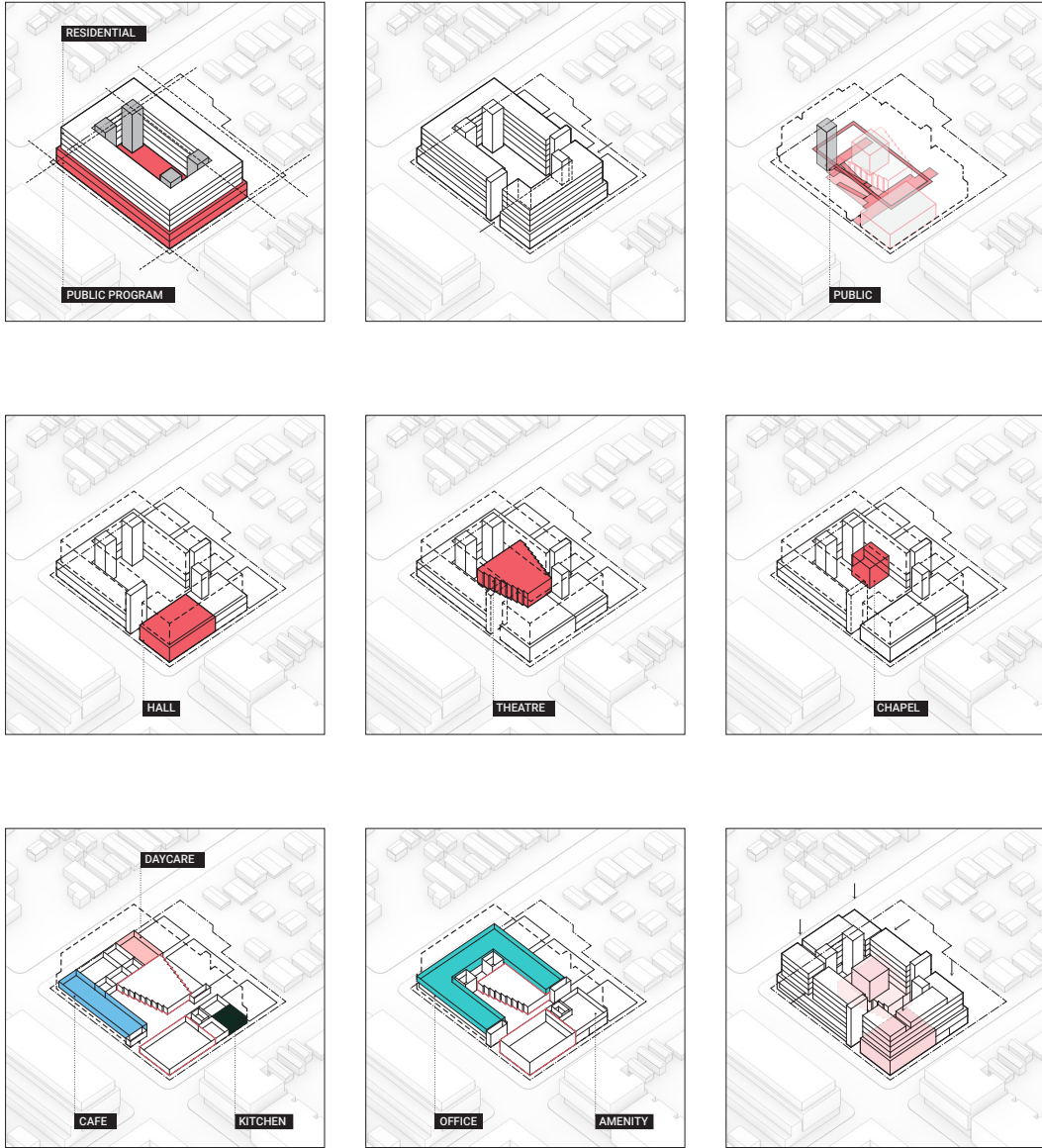


Figure 4.11 Massing diagrams

Space	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
L3 Chapel		Yoga Class	Prayer Meeting	Meditation Class		Memorial Service*	Church Service
L2 Offices	Admin						Admin
Meeting Rooms	AA Meeting	Small Group	AA Meeting	Counselling	Small Group		
G Daycare	Daycare						Childcare
Café / Coworking	Café / Coworking Space					Book Signing	Coffee House
Kitchen	Breakfast Service	Cooking Class	Breakfast Service	Cooking Class	Wedding*	Market	Church Service
Hall		Martial Arts Class		Dance Class			
P1 Theatre			Lecture		Rock Concert*	Chamber Music*	Church Service
P2 Rehearsal Rooms		Music Lessons		Music Lessons			Childcare

\*Special Events: Only several times a year.

Figure 4.12 Facility usage matrix.

#### 4.4 The Podium

From the street level, the entrance to the complex is signalled by the stair tower, which projects out into the sidewalk. This monument marks the entrance to the courtyard, with the hall on one side, and the café on the other. (*Figure 4.13*) Once inside the courtyard, the chapel and the theatre are revealed as the sound of a waterfall drowns out the noise from the streetscape. (*Figure 4.14*) From the courtyard, one can access the hall directly, descend to the theatre, or ascend to the chapel. This interior ‘street’ connects to the back of the site, which is landscaped with a series of public amenities that include a community garden, a basketball court, and a playground. These exterior spaces also act as a transitional boundary between the density of the building and the detached residential homes further down the block.

The rest of the programs on the ground floor include a large commercial kitchen on the southeast corner, which can work in conjunction with the hall for catering purposes, or separately as a space for cooking classes for residents and community members. On the northeast corner is a daycare space facing the playground, with a direct connection to one of the residential lobbies. It is intended to function as a privately run childcare facility during the week, and a space for church congregations during worship services, in a similar fashion to the daycare at Central Presbyterian Church.<sup>107</sup> Facing the main street at the front of the site is a large café space, that could be operated by a non-profit as an informal work and meeting space for the community. The café also functions as an informal lobby, with connections to the vertical circulation into the theatre and the chapel. These spaces, the kitchen, the daycare, and the café, are common to many churches in the city.<sup>108</sup> Here, they are reimagined to function primarily as public-facing autonomous programs, to be used throughout the week. (*Figure 4.15*)

On the second floor, the north half of the podium is intended to house a series of office spaces and meeting rooms. The offices could be used by the congregations, artistic organizations, or other non-profits for administrative functions, while the meeting rooms could accommodate club meetings, or a twelve-step program. In section, these spaces are connected from the courtyard to the chapel and the theatre through the central stair. (*Figure 4.16*)

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107 Allan Erdman, “A Leap of Faith: Motivations for Place of Worship Redevelopment in Vancouver” 42

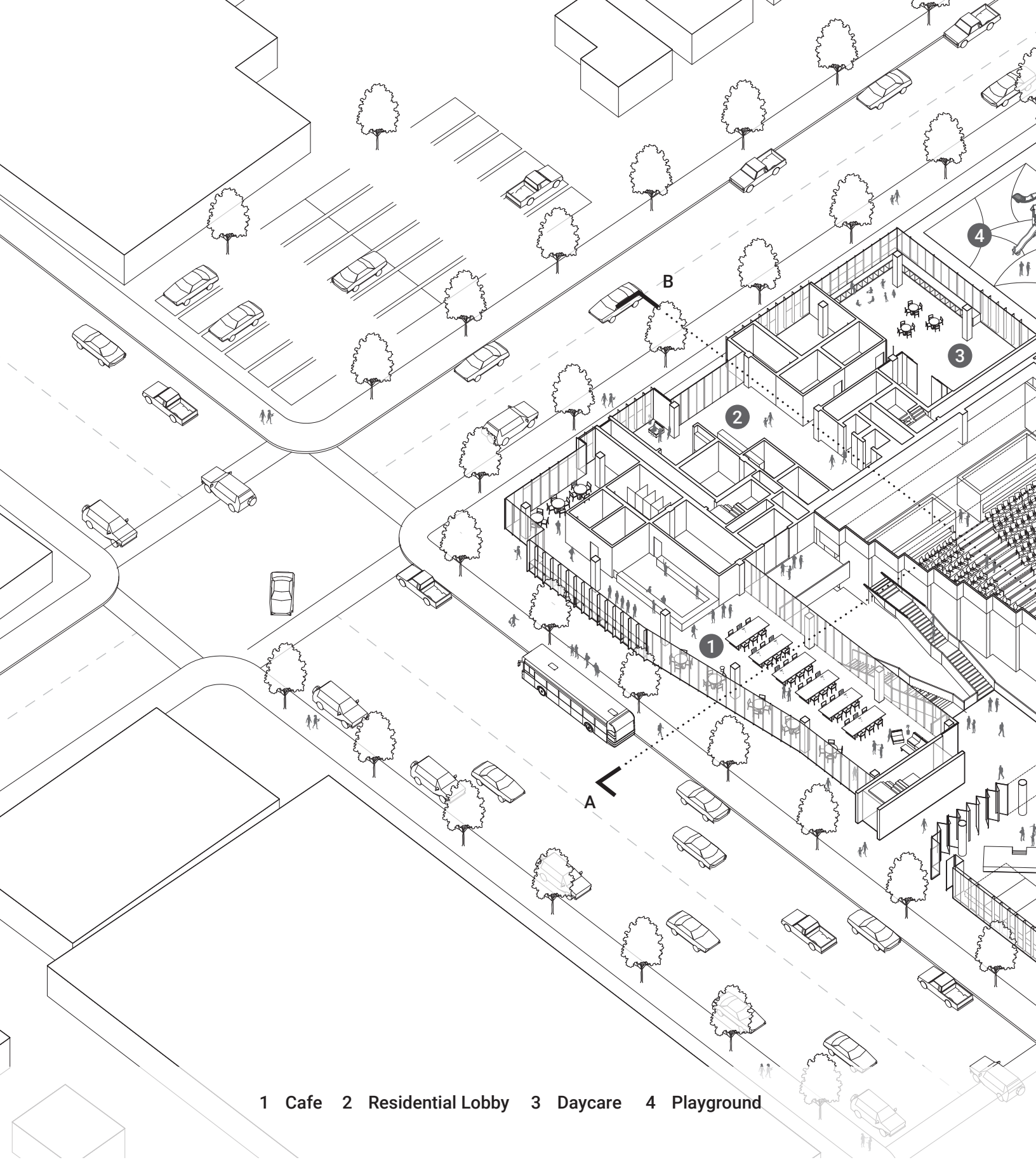
108 City of Vancouver, *Community-Serving Spaces Study: Places of Worship Forum*



*Figure 4.13 View of exterior: daytime.*

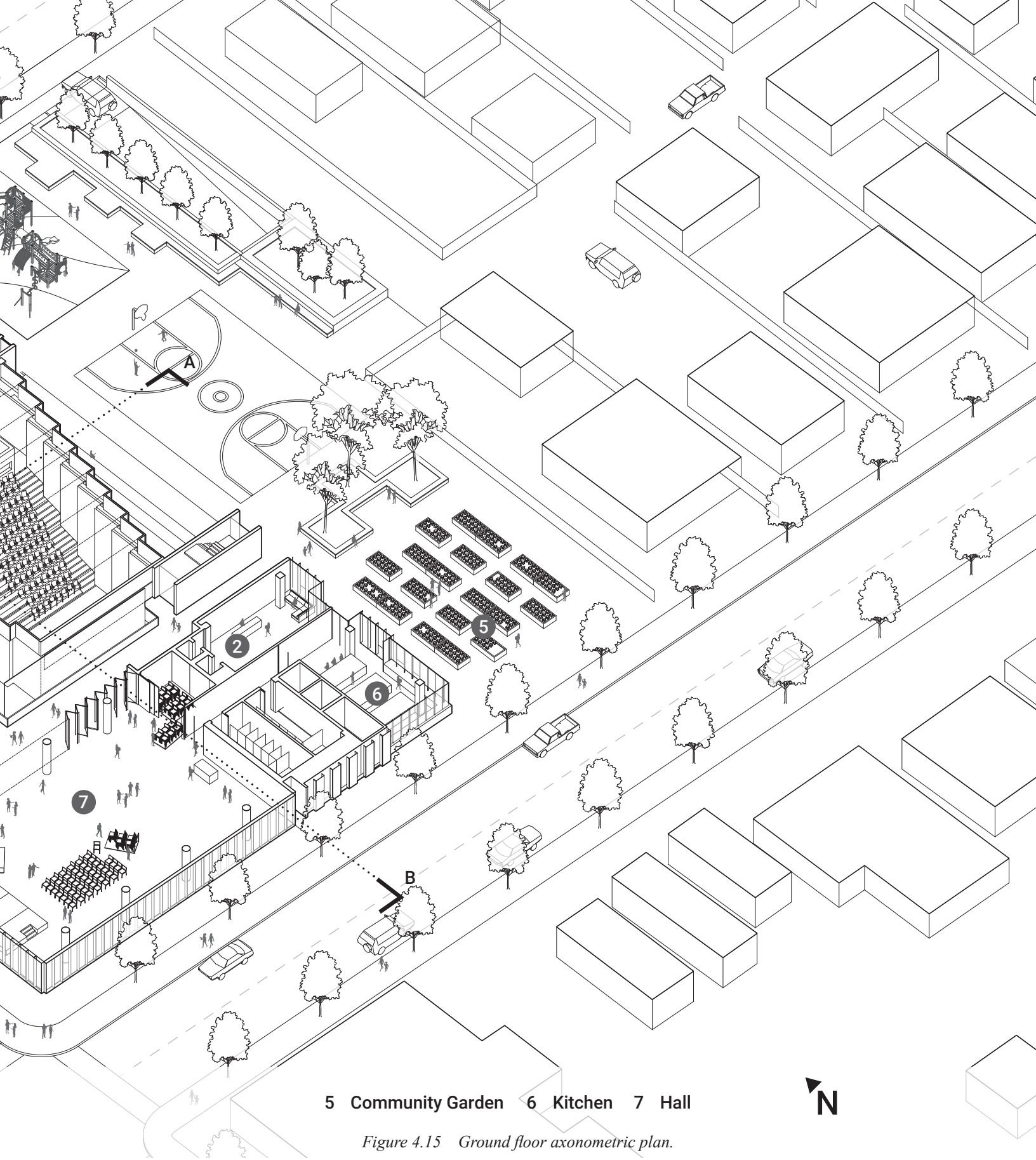


*Figure 4.14 View of ground floor courtyard.*



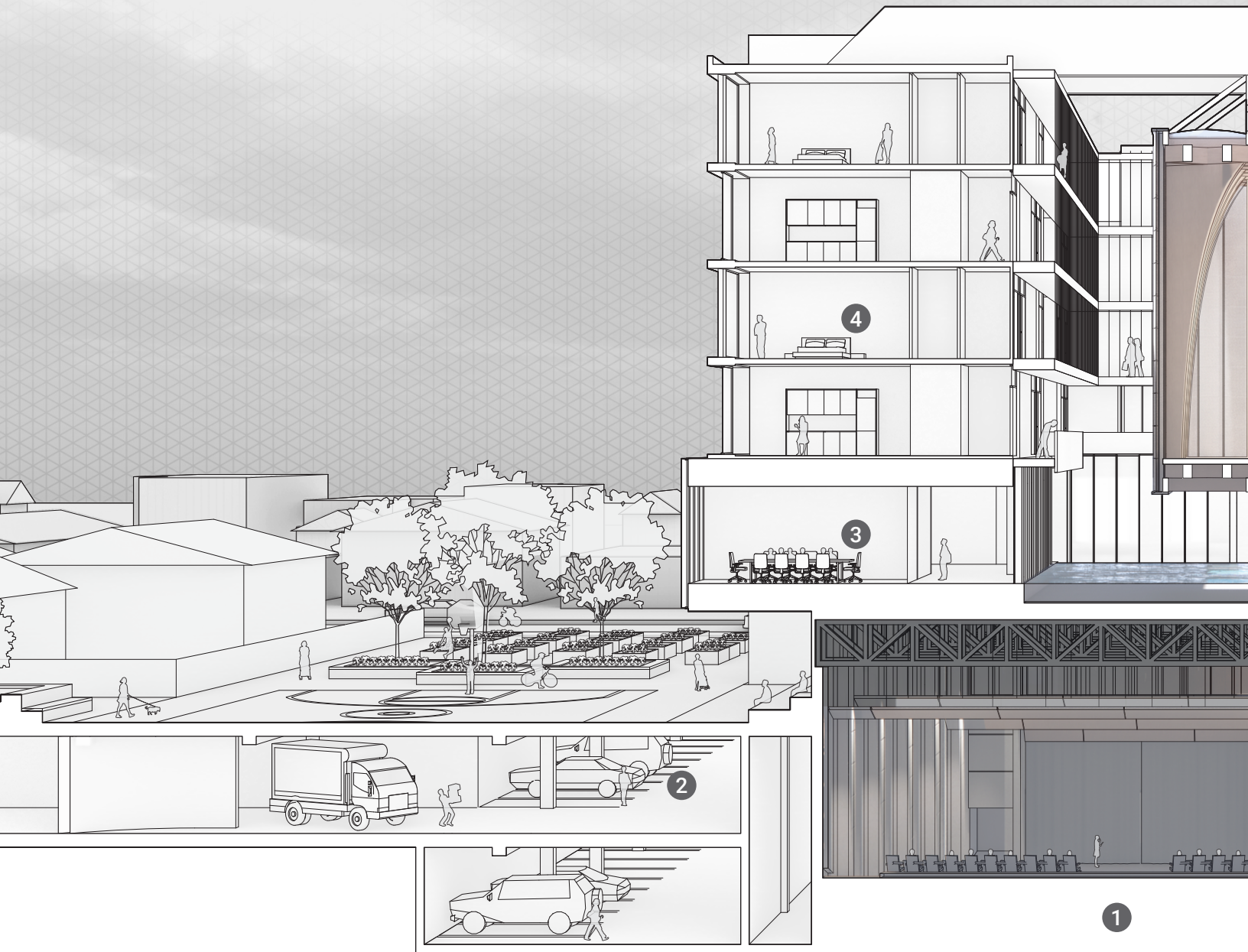
1 Cafe 2 Residential Lobby 3 Daycare 4 Playground





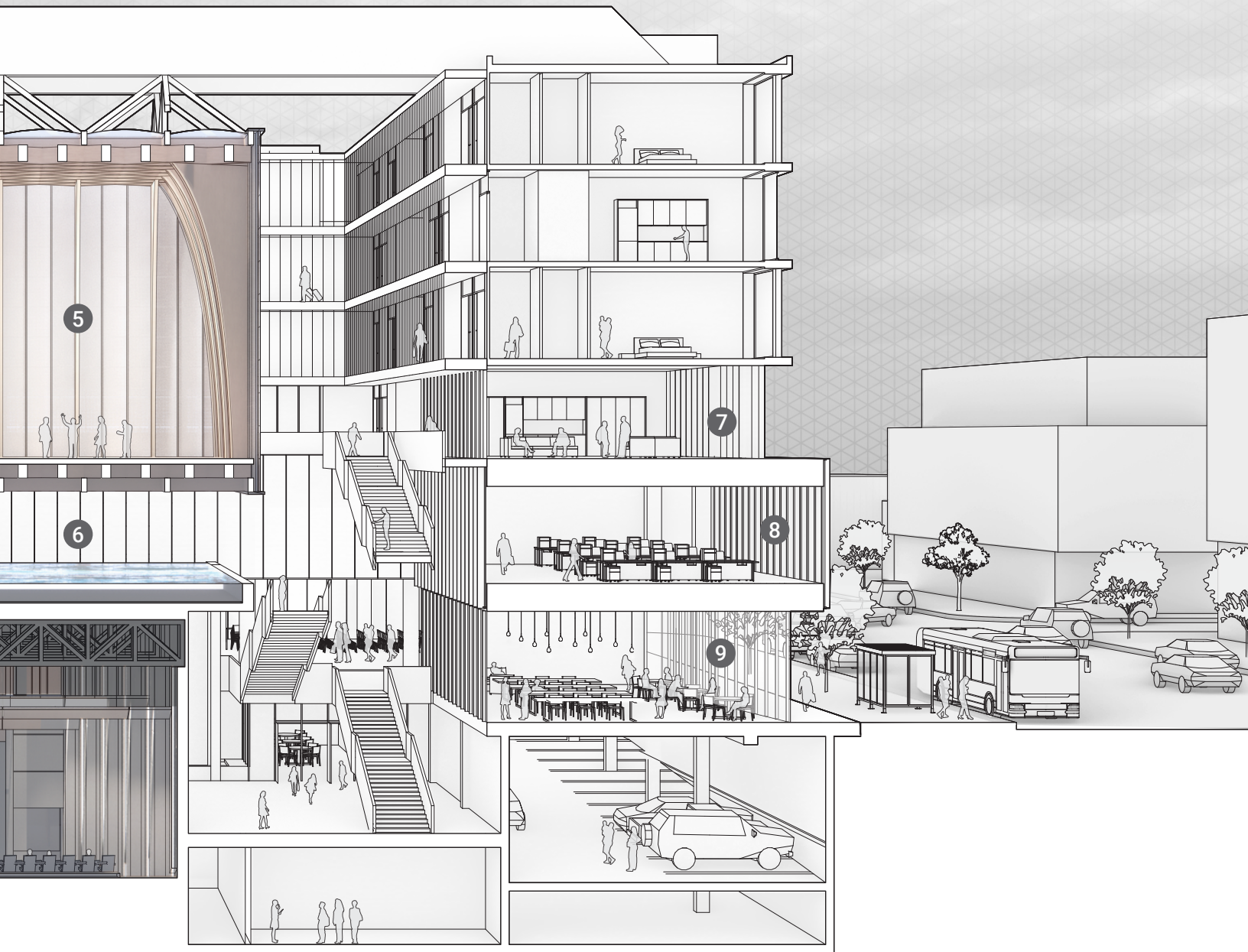
5 Community Garden 6 Kitchen 7 Hall

Figure 4.15 Ground floor axonometric plan.



1 Theatre 2 Parking / Loading 3 Meeting Rooms 4 Apartments





5 Chapel 6 Water Feature 7 Multipurpose 8 Offices 9 Cafe

Figure 4.16 Section A: facing south.

## 4.5 The Hall

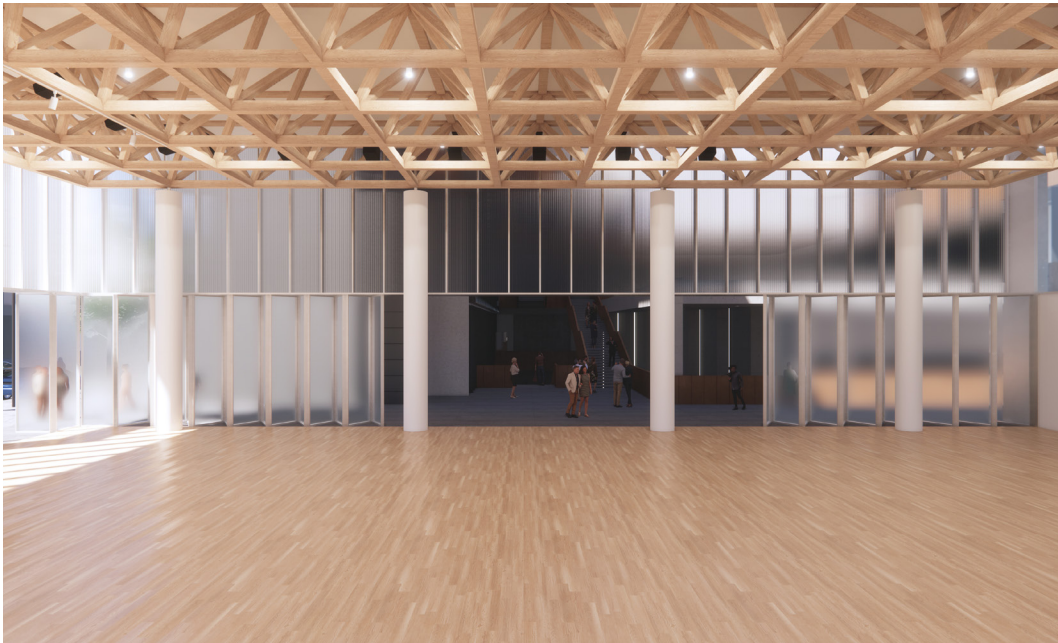
The first place of worship, the hall, is positioned on the prominent southeast corner of the building. Clad in a dual skin of fritted glass and polycarbonate, the façade diffuses daylight while offering a degree of translucency to passerby. (*Figure 4.17*) The mass timber ceiling provides a clear span across the space while integrating the necessary lighting and technical fixtures. The use of timber in the hall, and elsewhere in the project, is in keeping with the province's ambitions to minimize the carbon footprint of new buildings while highlighting local materials.<sup>109</sup> On the north end, a series of folding doors allows for activities to spill out into the courtyard. (*Figure 4.18*)

As the largest of the three rooms, at approximately 600m<sup>2</sup>, the hall is intended to be used for larger events, ceremonies, and community functions. It can serve as a venue for wedding ceremonies, as well as a space for worship services. (*Figure 4.19-4.20*) With the stage stored away, the hall can also host a meal service, such as a senior's breakfast, or a soup kitchen, facilitated by a church congregation or another non-profit. (*Figure 4.21*)

In this proposal, the hall is a reinterpretation of the multifunctional spaces seen in the case studies. The timber ceiling and the translucent façade create a modest yet dignified space that communicates the activities within to the outside world, while maintaining a sense of mystery.



*Figure 4.17 View of hall exterior: closeup.*



*Figure 4.18 View of folding doors; north elevation.*



*Figure 4.19 Hall: wedding ceremony.*





*Figure 4.20 Hall: worship service.*



*Figure 4.21 Hall: meal service.*

## 4.6 The Theatre

From the courtyard, one can descend the central staircase and approach the lobby of the theatre. (*Figure 4.22*) Partially submerged in the ground, the materiality and location of the theatre is an interpretation of the use of stone, and the earth itself, as a marker of the sacred.<sup>110</sup> Formally, the theatre is conceived as a series of nested concrete portals. On the exterior, the form of the theatre narrows and approaches a waterfall that spans from the second floor down into the theatre lobby. Here and elsewhere in the building, the waterfall acts a visual and auditory threshold to the place of worship. For visitors coming into the building from the parking garage, the waterfall creates a moment of repose before entering the theatre. (*Figure 4.23*)

From the entrance, the theatre steps down another level, leading to the stage itself. Wood is introduced again in the ceiling, as an acoustical diffuser. The concrete walls are similarly chamfered and covered with acoustical tiles to direct sound appropriately. (*Figure 4.24*) With a seating capacity of 220, the theatre can accommodate live music, a lecture, or a contemporary worship service. (*Figure 4.25-4.26*)

Outside the theatre itself, on the first floor of the underground parking is the lobby, as well as separate lobbies for the residential units. (*Figure 4.27*) On the second, lower floor of the parking garage would be the back of stage, rehearsal rooms, and other supporting programs for the venue. Egress is provided through both sets of lobbies at the upper and lower parking levels.

In summary, the theatre and its ancillary spaces can help to address the need for performing arts venues and rehearsal spaces in the city while also accommodating contemporary worship services that utilize audiovisual amplification.

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110 Hoffman, *Seeking the Sacred in Contemporary Religious Architecture* 15





*Figure 4.22 View of exterior entrance from the courtyard.*



*Figure 4.23 View of waterfall in the lobby.*



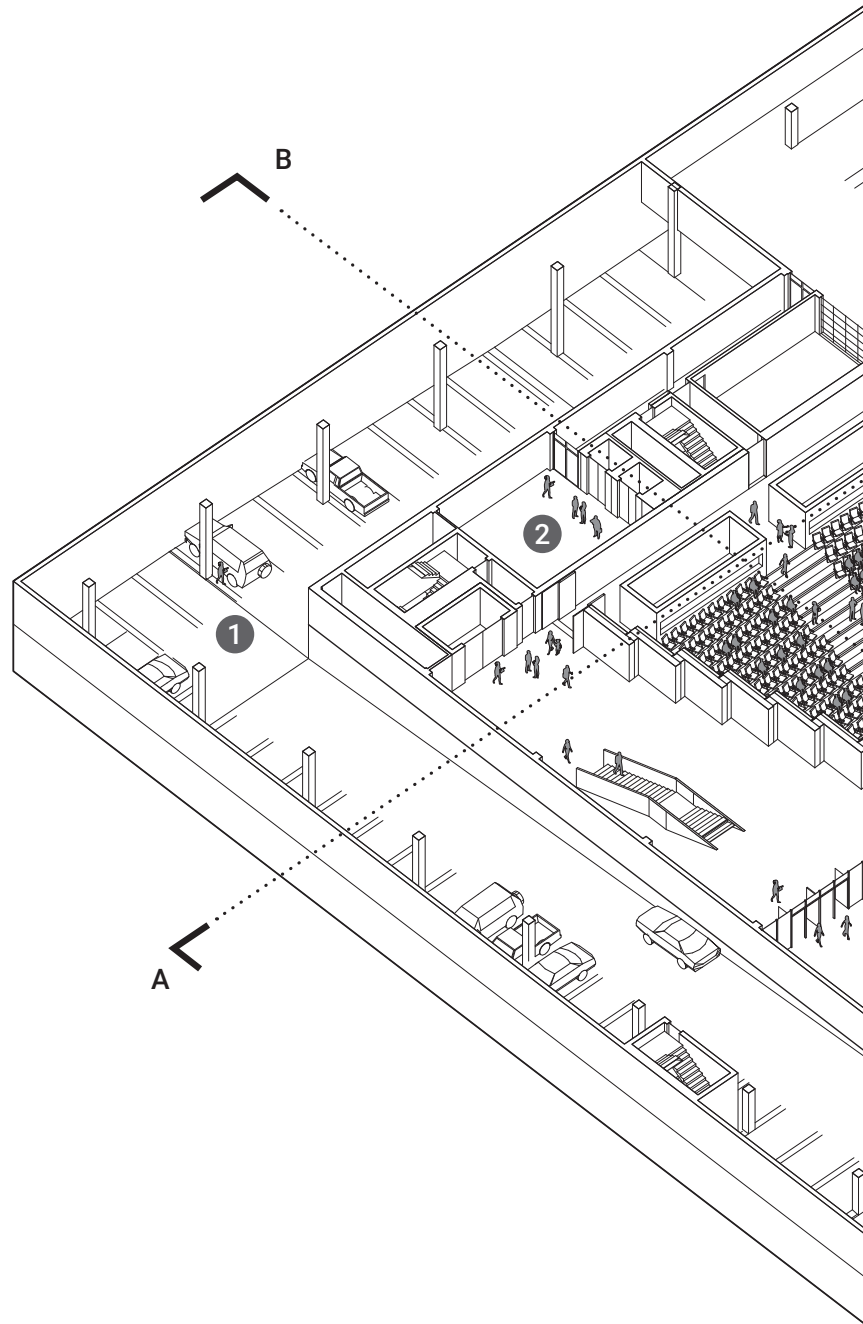
*Figure 4.24 View of theatre interior.*



*Figure 4.25 Theatre: Piano recital.*

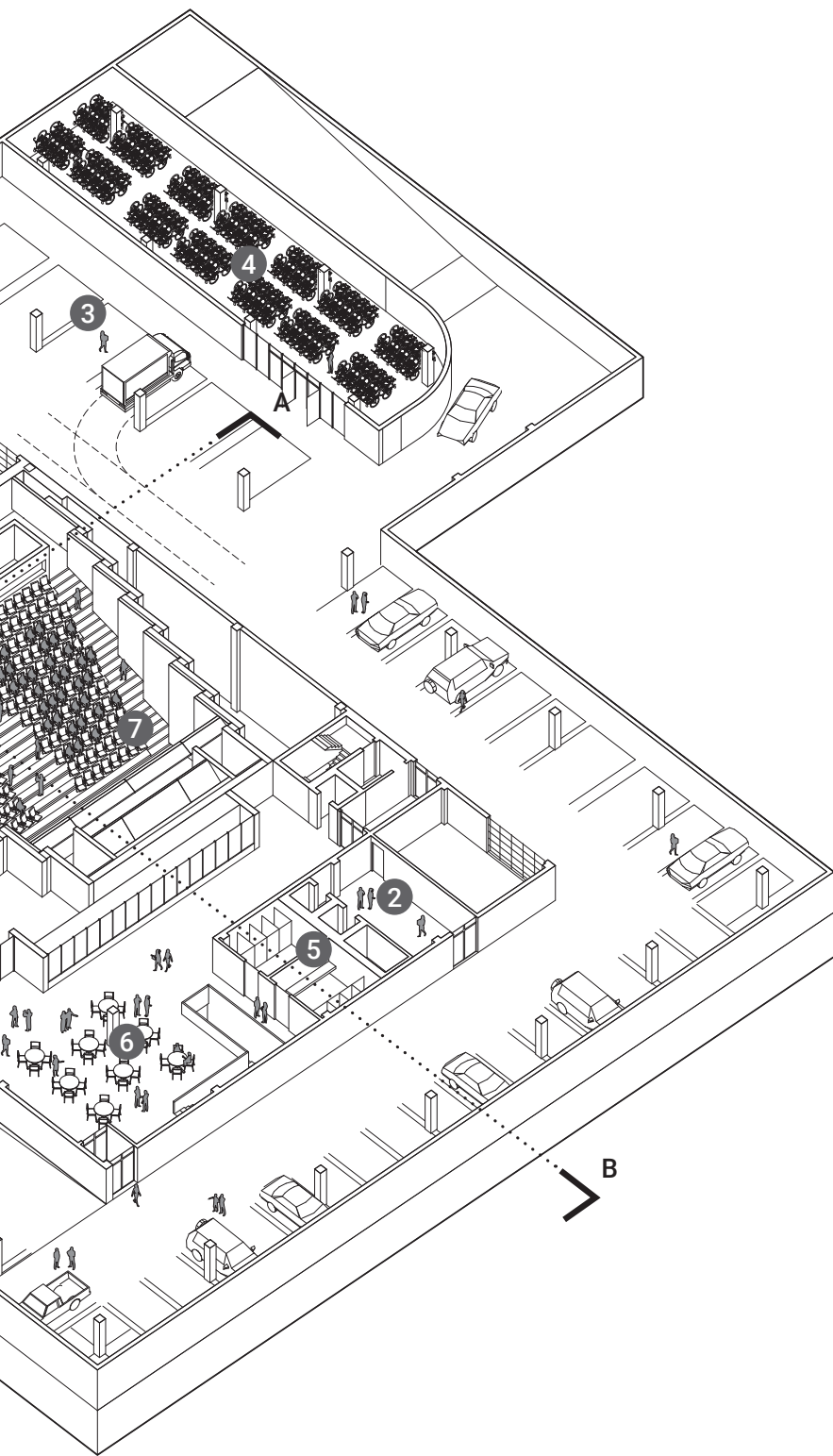


*Figure 4.26 Theatre: Contemporary worship service.*



1 Parking 2 Residential Lobby 3 Loading 4 Bike Storage





5 Washrooms 6 Lobby 7 Theatre

Figure 4.27 P1 floor axonometric plan.



## 4.7 The Chapel

Suspended over the courtyard, the chapel is the smallest and most evocative of the three rooms. (*Figure 4.28*) From the central staircase, one accesses the chapel from the north end through a covered walkway. (*Figure 4.29*) At the entrance to the chapel, a smaller waterfall creates a threshold between the residential and public realm, and the door of the chapel. Inside, the intricate timber structure stretches up towards a series of clear skylights, creating the impression of a space open to the heavens. (*Figure 4.30*) The chapel is clad in a double-layered curtain wall, with perforated metal panels on the outside that diffuse daylight throughout the interior.

The chapel was designed to provide a space for smaller social gatherings and contemporary spiritual practices. These might include a yoga class, a study group, or a memorial service. (*Figure 4.31-4.33*) Accessible to both residents as well as the public, the chapel can be a space for personal reflection and contemplation when not being used for an event. In the evenings, the chapel becomes a softly glowing lantern illuminating the space of the courtyard. (*Figure 4.34*)

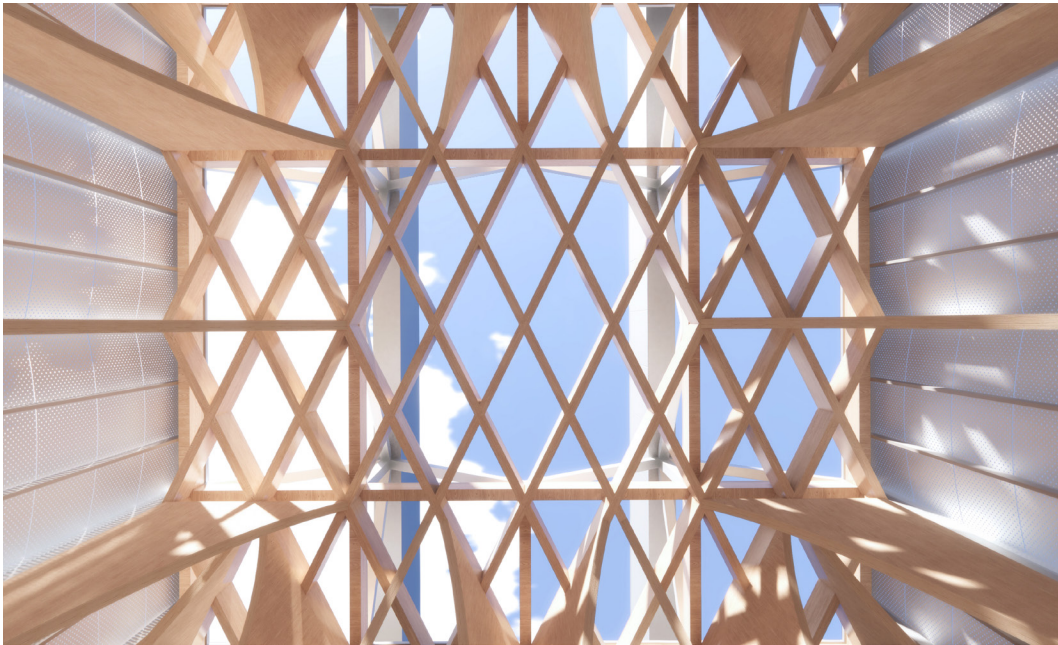




*Figure 4.28 View of chapel from inside the courtyard, facing north, daytime.*



*Figure 4.29 View of entrance to the chapel: facing east.*



*Figure 4.30 View of chapel ceiling.*



*Figure 4.31 Chapel: yoga class.*





*Figure 4.32 Chapel: study group.*



*Figure 4.33 Chapel: memorial service.*



*Figure 4.34 View of chapel from inside the courtyard, facing north, evening.*

## 4.8 Residential Units

The final component of this project, the residential units, are arranged over the upper four stories. The unit mix follows the rental housing guidelines set by the city which prioritize multi-bedroom units, with 20 studio units, 33 one-bedrooms, 16 two-bedrooms, and 14 three-bedrooms for a total of 83 units.<sup>111</sup> (*Figure 4.35*) In section, they are organized in a modular logic around the courtyard, with two openings in the massing to provide a connection between the exterior and the interior. The single-loaded typology allows each unit to have cross ventilation through the courtyard face, as well as a visual connection to the various places of worship and the courtyard.

The rest of the third floor contains two large multipurpose rooms. The one on the west side, facing the street, is intended to function as an ancillary space for the chapel. On the south end, this multipurpose room connects to a terrace overlooking the courtyard, and functions as an amenity for the residents. Due to the semi-public nature of the third floor, the residential units here are envisioned as live-work spaces, such as artists' studios, which would benefit from the access to the programs on the lower levels. (*Figure 4.36*)

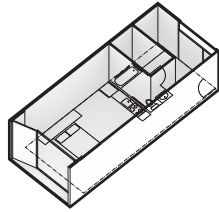
While this juxtaposition of residential units and places of worship bears a superficial resemblance to a monastery, the units are not meant to be exclusive to the congregation. Rather, through a partnership with a non-profit developer, these units would be rented at below-market rates to the public. With that said, while the design allows for residents and visitors to access their homes and the places of worship respectively with minimal overlap in terms of circulation, the two realms are highly overlapping in a visual and auditory sense. Due to this configuration, there is an increased potential for conflict to occur, as opposed to a scheme that would isolate the two realms. For example, a group trying to meet for prayer in the chapel might find the residential units to be too loud during the evenings. Certain design strategies, such as the isolation of more sensitive spaces such as the chapel from the residential units, and the use of falling water as an acoustical barrier, are intended to mitigate such conflicts.

Ultimately, by intermeshing the religious and residential functions, the proposal aims to reveal the conceptual interdependency between the two programs. The residential units rely on the church's redevelopment to exist, and similarly, the new worship spaces require the residential income stream to justify the development financially. In this way, the thesis aims to highlight the higher degree of interdependence and cooperation required to address the issues faced by the intensifying city. (*Figure 3.47*)

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111 City of Vancouver, *Moderate Income Rental Housing Pilot Program: Application Process, Project Requirements and Available Incentives*

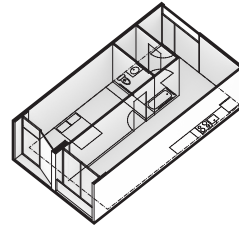




**Studio**

**456 ft<sup>2</sup>**

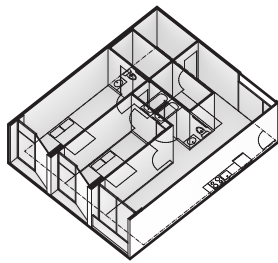
**x20**



**1 Bedroom**

**612 ft<sup>2</sup>**

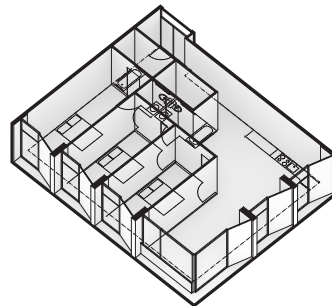
**x33**



**2 Bedroom**

**928 ft<sup>2</sup>**

**x16**

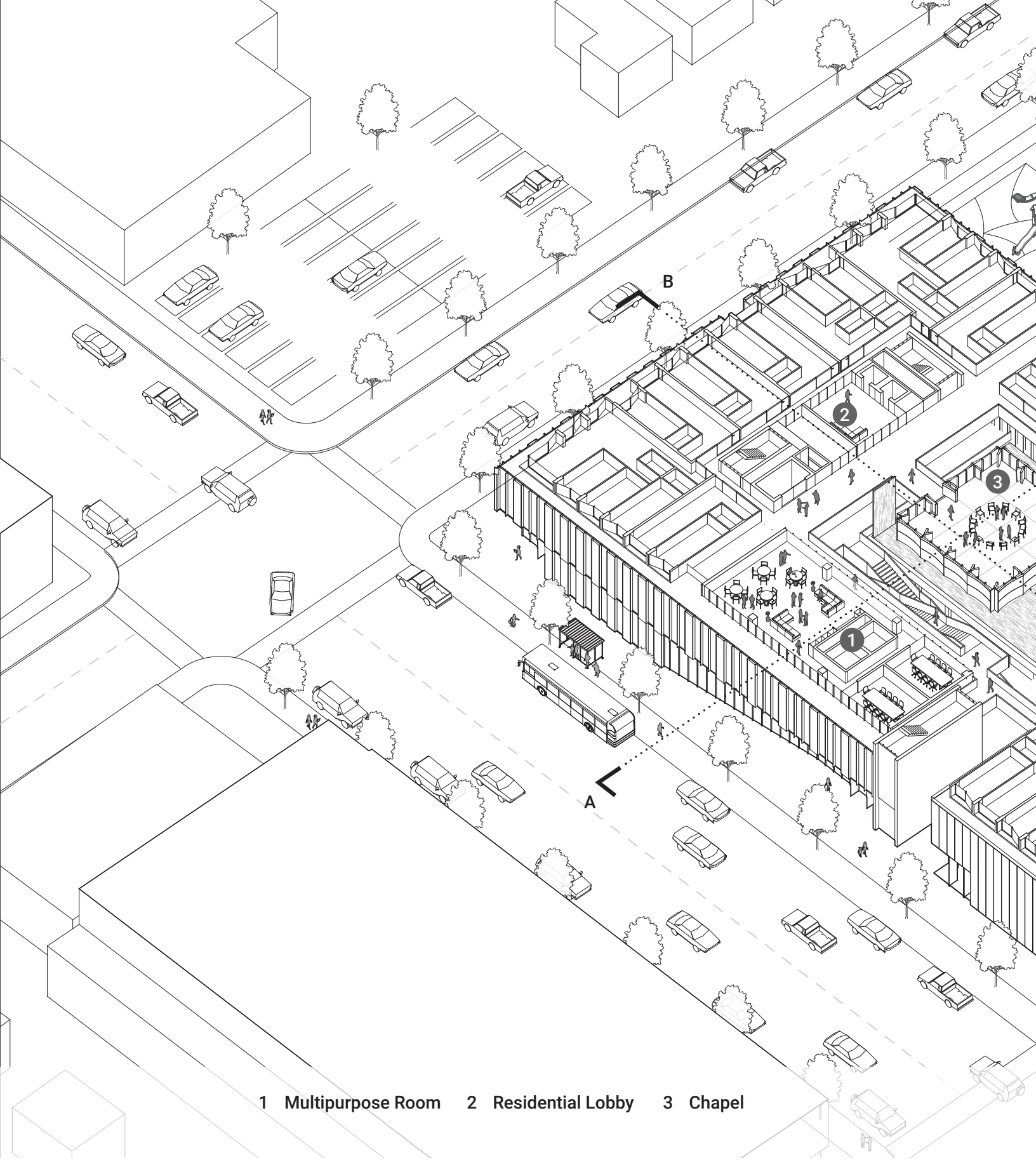


**3 Bedroom**

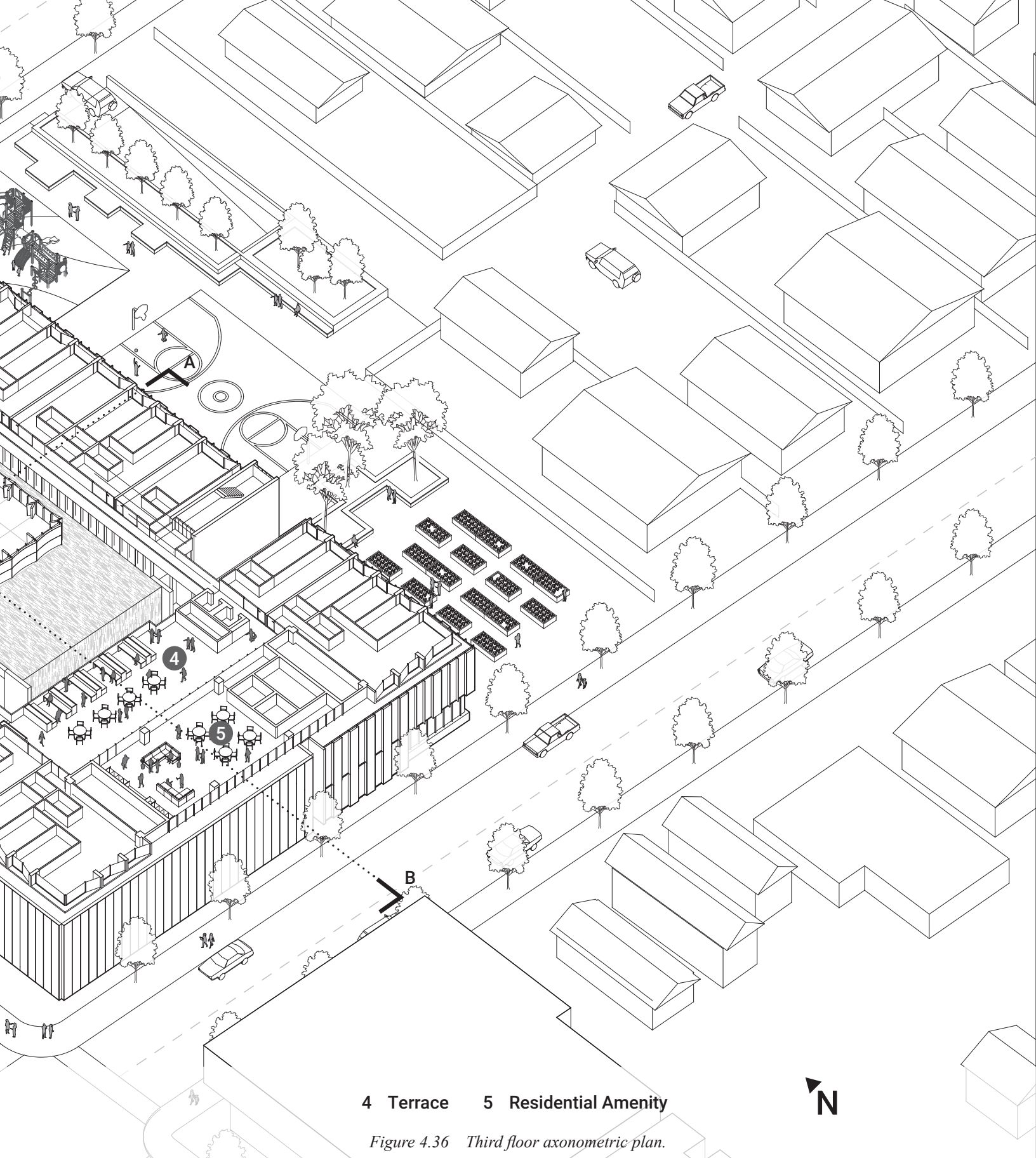
**1 239 ft<sup>2</sup>**

**x14**

*Figure 4.35 Unit mix diagram.*



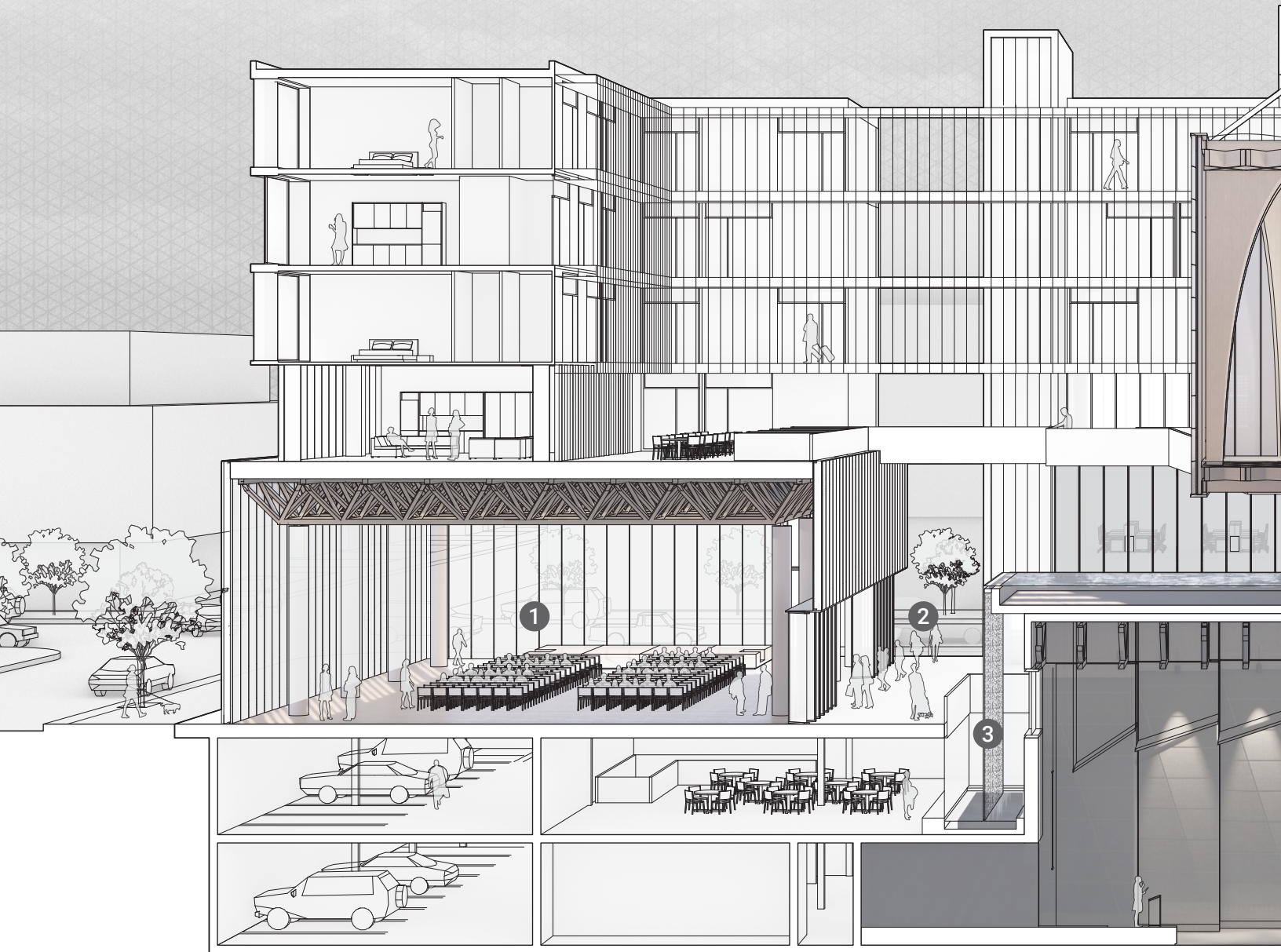
1 Multipurpose Room    2 Residential Lobby    3 Chapel



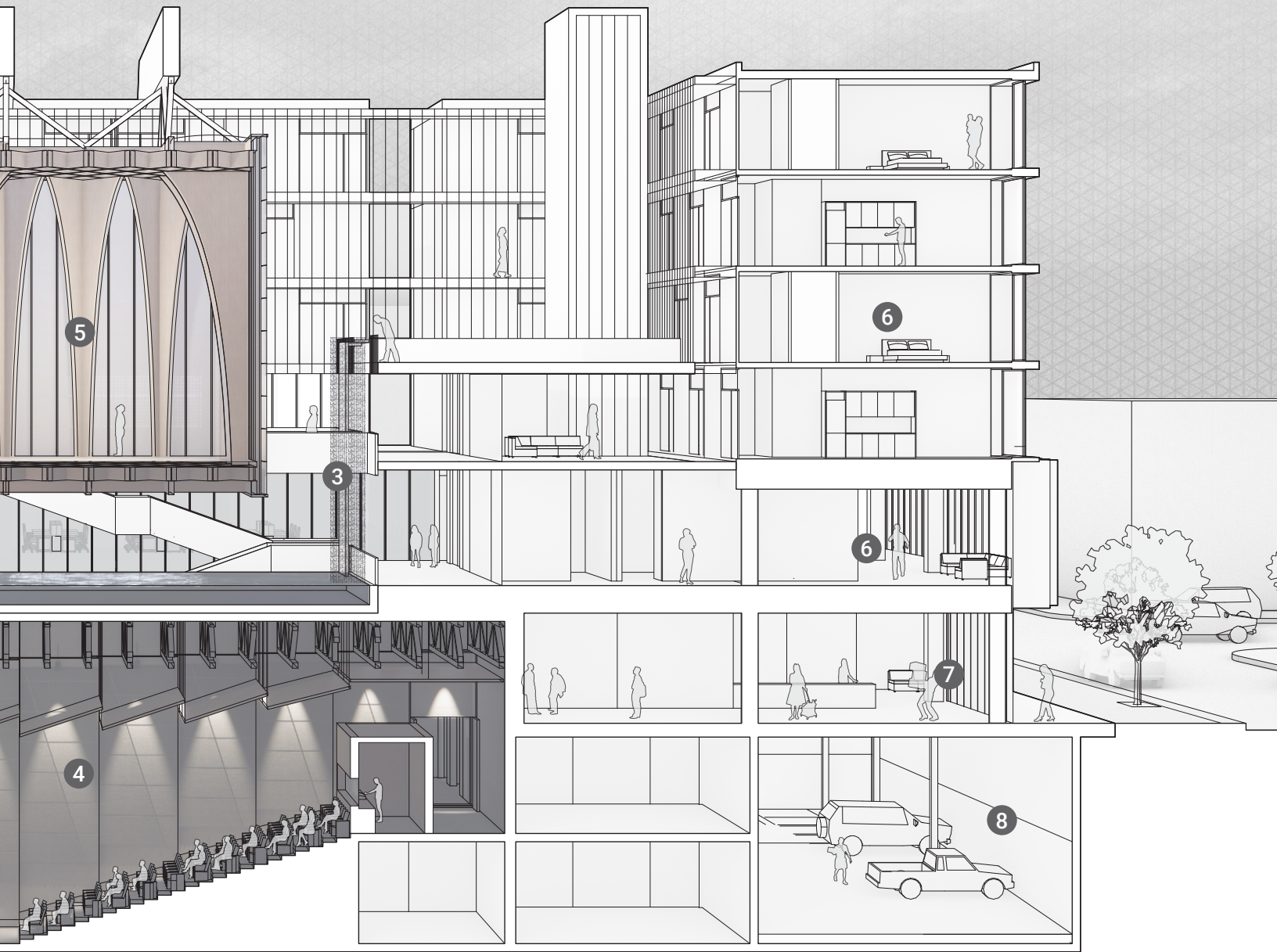
4 Terrace 5 Residential Amenity

Figure 4.36 Third floor axonometric plan.





1 Theatre 2 Courtyard 3 Waterfall 4 Theatre 5 Chapel



6 Apartments 7 Offices 8 Residential Lobby 8 Parking

Figure 4.37 Section B: facing east.



## 4.9 Theoretical References

While the discussion has been primarily descriptive and focused on functionality so far, the remainder of the chapter will reflect on the design proposal with regards to the theoretical intent of the design decisions.

Architectural critic Paul Goldberger, in a concluding address at a symposium on contemporary sacred space, described one of the central challenges of constructing sacred spaces today as the need to maintain a sense of mystery.<sup>112</sup> He points out that while in the past the sacred was associated with spaces that defied formal conventions, such as Le Corbusier's chapel at Ronchamp, technology today enables the creation of forms which previously were unimaginable.<sup>113</sup> The design proposal takes this challenge to heart, and views the residential component as a veil, an extended threshold that hides the sacred spaces within.

Following Hoffman's writings, the visitor or the worshipper is led into the spaces through a clearly articulated set of thresholds and pathways. From the street, the stairwell marks the major entry point, the gate, into the courtyard, which is a transitional space shared by all three rooms. From there, the central stair with weathered steel railings connects visitors to the theatre and the chapel, indicating a clear pathway. While the hall is clearly articulated as a specific place from the exterior, the theatre and chapel are also given distinct formal expression inside the courtyard.

Each of the three spaces also has a varying degree of thresholds from the courtyard. The hall can be accessed directly, while the chapel requires one to ascend two flights of stairs in a winding fashion and pass underneath a smaller waterfall. In this way, the design offers variation with regards to processional movement, for both formal and informal occasions. The varying degrees of accessibility also correspond to the degree to which each space is considered sacred.

The use of water, as mentioned previously, serves as a reinforcement of the specific point of entry into the theatre and the chapel. Hoffman identifies water, along with earth, air (or sky), and fire, as 'Universal' archetypal elements.<sup>114</sup> The concrete theatre in the earth, and the suspended chapel, open to the sky, are deliberate references to these primal elements.

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112 Paul Goldberger, "On the Relevance of Sacred Architecture Today," in *Constructing the Ineffable: Contemporary Sacred Architecture*, ed. Karla Cavarra Britton (Yale School of Architecture, 2010).

113

114 Hoffman, *Seeking the Sacred in Contemporary Religious Architecture* 15

Finally, the design has strived to produce various states of transition and ambiguity throughout the journey into the three rooms, and within their interiors as well. The path brings visitors from wide open spaces like the courtyard, to darker, and narrower passages such as the walkway opposite the chapel. The facades of the hall and the chapel allow diffuse rather than direct light, amplifying the changing nature of daylighting throughout the seasons. In section, the three spaces are rather monumental volumes in contrast to the ordinary dimensions of the residential unit.

In the end, the design proposal appeals to these common elements with the hopes that the resulting spaces will produce an affect that transports the visitor from the everyday realm and into an encounter with the sacred.





## CONCLUSION

In summary, the thesis has been an experiment in reimagining the typology of the mixed-use church building. At the core of this effort is the belief that beyond meeting functional requirements, this hybrid typology can offer spaces in the city that are truly special: spaces that can accommodate both the needs of church congregations, as well as the many community groups that use church buildings for social, cultural, and recreational purposes.

The research positions the mixed-use option as a unique alternative to more conventional renovations or conversions of church buildings in terms of the opportunities it offers to design contemporary places of worship, as well as its ability to provide housing. As the case studies demonstrate, the addition of housing units, and the financial performance of these units, are critical to the feasibility of such a project. While the design proposal aimed to create ambitious spaces in a sensible and economical manner, a preliminary proforma reveals that the project would require a substantial amount of public and private funding.

The proforma examined to what extent such a building could maintain below-market rents across both the community and residential programs. Based on industry cost guides, and assuming some of the development incentives from the City of Vancouver's rental housing guidelines, a preliminary estimate suggests that 40% of the project's total cost could be supported by an annual debt service, supported in turn by operating revenue alone.<sup>115</sup> This leaves a significant percentage of the total cost to be born by public or private donors. Given the general shortage of funding reported by church congregations, this suggests that it will be up to local and regional governments to enable such a project.

In a sense, the need for partnership points back to a central argument of the thesis: which is that the future of church buildings is not only an important issue for congregations, but for the city as well. The spaces that churches have historically provided, in terms of spaces for public assembly and spaces for community-serving programs, are in high demand in the face of recent intensification. The possibility of creating below-market housing through redevelopment is an important asset for cities like Vancouver struggling with housing affordability.

Over the course of the last year, the issues presented in the thesis have been further exacerbated in the wake of a global pandemic. The widespread suspension of public gatherings has been especially difficult for smaller church congregations, which had little savings to start with, and were ill-prepared for a transition to online services.<sup>116</sup> Early

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115 See Appendix A for the full analysis.

116 Michelle Boorstein, "Church Donations have Plunged because of the Coronavirus. some Churches Won't Survive." *Washington Post* April 24, 2020. <https://www.washingtonpost.com/>

reports indicate a significant drop in donations, and it is possible that many congregations will close permanently in the aftermath.<sup>117</sup> Similarly, performing artists and other communities that have relied on live events have also experienced a significant loss in revenue.<sup>118</sup> Finally, the rising unemployment to pandemic-related job losses will have a considerable impact on renters in the city.<sup>119</sup>

Of course, these are all complex issues that are far beyond the scope of any single building project. Nevertheless, the thesis asserts that architecture has a role to play as well: one that seeks to reconcile the various needs of a city under pressure for affordable, multi-functional, spaces. In that respect, while the proposal aims to be generalizable as a typology, it does not claim to be the definitive model for a mixed-use church building. Rather, the hope is that design experimentation can broaden the possibilities of such projects in a way that is beneficial for churches and for the city at large.

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religion/2020/04/24/church-budgets-coronavirus-debt/.

117 Boorstein, "Church Donations have Plunged because of the Coronavirus. some Churches Won't Survive."

118 "COVID-19: As Vancouver Arts and Culture Organizations Face Major Revenue Losses, City Launches New Grant Program," last modified -09-26T16:45:00-07:00, accessed Jan 19, 2021, <https://www.straight.com/arts/covid-19-as-vancouver-arts-and-culture-organizations-face-major-revenue-losses-city-launches>.

119 "Here's how CMHC Thinks COVID-19 Will Impact Vancouver's Real Estate Market," last modified -06-23T10:20:00-07:00, accessed Jan 19, 2021, <https://bc.ctvnews.ca/here-s-how-cmhc-thinks-covid-19-will-impact-vancouver-s-real-estate-market-1.4996407>.



## LETTERS OF COPYRIGHT PERMISSION

### Wayne Yan

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**From:** Nicolette Williams <nicolettewilliams@henriquezpartners.com>  
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**To:** Wayne Yan  
**Subject:** RE: Project Images Use Request

Hi Wayne,

That sounds like a great thesis. Of course we would be happy to provide you use of our images. Please ensure you reference HPA, as well as ensuring you credit our photographers. Our photographers are Ema Peter & Ed White – I have noted on each image who the photographer was, see below downloadable link,

[https://henriquezpartners-my.sharepoint.com/:f/p/nicolettewilliams/Ely\\_PxuuPJBlBUY5FPQooBQvniF3OQRXaqoIJ7LC55A?e=gMd2zd](https://henriquezpartners-my.sharepoint.com/:f/p/nicolettewilliams/Ely_PxuuPJBlBUY5FPQooBQvniF3OQRXaqoIJ7LC55A?e=gMd2zd)

Best of luck in your thesis.

Many thanks,

**Nicolette Williams**  
Project Coordinator

**Henriquez Partners Architects**  
598 W Georgia Street  
Vancouver, BC  
Canada V6B 2A3

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**To:** Nicolette Williams <nicolettewilliams@henriquezpartners.com>  
**Subject:** Project Images Use Request

Hi Nicolette,

I am a graduate student at the University of Waterloo School of Architecture and I'm writing to ask whether I can use some of the images of the Central Presbyterian Church project on your website in my thesis. My thesis research is focused on the design of mixed-use church buildings in Vancouver, and I would like to cite this project by Henriquez Partners Architects as a case study.

1

Attached is the link with the images I am referring to:  
<https://henriquezpartners.com/projects/central-presbyterian-church/>

Please let me know if you have any further questions/concerns.

Thank you,

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Z a n f j w a g - k h i f j y e g . c %

**Wayne Yan**

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**From:** elcic@oakridgelutheranchurch.ca  
**Sent:** January 17, 2021 10:20 PM  
**To:** Wayne Yan  
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**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hi Wayne,

Of course you are welcome to use the photos off of our website. Thank you for getting in touch with us about it.

Megan Gerlach

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**To:** elcic@oakridgelutheranchurch.ca  
**Subject:** Church Images Use Request

Hi,

I am a graduate student at the University of Waterloo School of Architecture and I'm writing to ask whether I can use some of the images of Oakridge Lutheran Church on your website in my thesis. My thesis research is focused on the design of mixed-use church buildings in Vancouver, and I would like to cite this project as a case study.

Attached is the link with the images I am referring to, from the sanctuary space:  
<https://www.oakridgelutheranchurch.ca/gallery/sanctuary>

As well as the church entrance:  
<https://www.oakridgelutheranchurch.ca/gallery/church-entrance>

Please let me know if you have any further questions/concerns.

Thank you,

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N e t o t a e k e f d m i k e i j j a i %  
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## BIBLIOGRAPHY

- “Gethsemane Lutheran Church / Olson Kundig.” . Accessed Jan 8, 2021. <https://www.archdaily.com/925109/gethsemane-lutheran-church-olson-kundig>.
- “History.” . Accessed January, 2021. <https://www.chicagotemple.org/about/history/>.
- “Reaching to Heaven: Hong Kong Gets Skyscraper Church - News - GCR.” . Accessed Oct 27, 2020. <http://www.globalconstructionreview.com/news/reaching-heaven-hong-kong-gets-skyscraper-church/>.
- “St Jax Montreal.” . Accessed Jan 10, 2021. <https://trinitycentres.org/en/montreal>.
- 14, Samantha Craggs · CBC News · Posted: Mar and 14, 2018 5:47 PM ET | Last Updated: March. “Future of James Baptist Church Facade is Safe for Now | CBC News.” . Accessed Jan 14, 2021. <https://www.cbc.ca/news/canada/hamilton/connolly-new-plans-1.4576629>.
- Allan Erdman, Scott. “A Leap of Faith: Motivations for Place of Worship Redevelopment in Vancouver.”Simon Fraser University, 2020.
- Allen, Bonnie. “Canada to Lose 9,000 Churches in Next Decade, Warns National Heritage Group.” . Accessed Oct 1, 2019. <https://www.cbc.ca/news/canada/losing-churches-canada-1.5046812>.
- AMS Planning & Research Corp. *City of Vancouver Update to Key Gaps in Cultural Infrastructure* , 2018.
- Author: Karla Cavarra Britton. “The Sacred Today.” *Reflections*, 2015.
- Boorstein, Michelle. “Church Donations have Plunged because of the Coronavirus. some Churches Won’t Survive.” *Washington Post*, April 24, 2020. <https://www.washingtonpost.com/religion/2020/04/24/church-budgets-coronavirus-debt/>.
- Bula, Frances. “Vancouver Church Partners with Developer on Affordable Housing project.” . Accessed Oct 2, 2019. <https://www.theglobeandmail.com/real-estate/vancouver/vancouver-church-partners-with-developer-on-affordable-housingproject/article36826083/>.
- City of Vancouver. “Broadway Subway Project.” . Accessed Jan 16, 2021. <https://vancouver.ca/streets-transportation/ubc-line-rapid-transit-study.aspx>.
- City of Vancouver. *Community-Serving Spaces Study: Places of Worship Forum*, 2019a.

- City of Vancouver. *Moderate Income Rental Housing Pilot Program: Application Process, Project Requirements and Available Incentives*, 2019b.
- City of Vancouver. "Oakridge Centre Redevelopment." . Accessed Jan 8, 2021. <https://vancouver.ca/home-property-development/oakridge-redevelopment.aspx>.
- City of Vancouver. *Secured Rental Policy Incentives for New Rental Housing*, 2019c.
- DiLossi, Karen and Neville K. Vakharla. *Creating Spaces: Performing Artists in Sacred Spaces*, 2014.
- Faith & the Common Good. *No Space for Community the Value of Faith Buildings And the Effect of their Loss in Ontario*, 2020.
- Fumano, Dan. "Houses of the Holy: In Vancouver, a Union of Church and Real Estate." Postmedia Network Inc. <https://vancouver.sun.com/business/real-estate/0323-housing-partnerships/>.
- Goldberger, Paul. "On the Relevance of Sacred Architecture Today." In *Constructing the Ineffable: Contemporary Sacred Architecture*, edited by Cavarra Britton, Karla: Yale School of Architecture, 2010.
- Habermas, Jurgen. "Notes on Post-Secular Society." *New Perspectives Quarterly* 25, no. 4 (2008): 17-29. doi:10.1111/j.1540-5842.2008.01017.x.
- Hoffman, Douglas R. *Seeking the Sacred in Contemporary Religious Architecture*. Kent, Ohio: Kent State University Press, 2010.
- Jeffrey MacDonald, G. "Fewer Couples are Marrying in Churches. does it Matter?" . Accessed Jan 15, 2021. <https://religionnews.com/2018/06/07/fewer-couples-are-marrying-in-churches-does-is-matter/>.
- Kilde, Jeanne Halgren. "Protestant Theologies and the Problem of Sacred Space." *Actas De Arquitectura Religiosa Contemporánea* 5, (Jul 25, 2018): 2-23. doi:10.17979/aarc.2017.5.0.5140. <http://revistas.udc.es/index.php/aarc/article/view/aarc.2017.5.0.5140>.
- Kilde, Jeanne Halgren. *When Church Became Theatre: The Transformation of Evangelical Architecture and Worship in Nineteenth-Century America*. Oxford; Toronto: Oxford University Press, 2005.
- Mangione, Kendra. "Here's how CMHC Thinks COVID-19 Will Impact Vancouver's

Real Estate Market.” . Accessed Jan 19, 2021. <https://bc.ctvnews.ca/here-s-how-cmhc-thinks-covid-19-will-impact-vancouver-s-real-estate-market-1.4996407>.

Moneo, Rafael. “Architecture as a Vehicle for Religious Experience: The Los Angeles, Cathedral.” In *Constructing the Ineffable: Contemporary Sacred Architecture*, edited by Cavarra Britton, Karla: Yale School of Architecture, 2010.

Pew Research Center. *Canada’s Changing Religious Landscape*, 2013.

Price, Jay M. *Temples for a Modern God : Religious Architecture in Postwar America*. New York: Oxford University Press, 2013.

Statistics Canada. *Housing in Canada: Key Results from the 2016 Census* , 2017.

Statistics Canada. *Table: 34-10-0175-01 Investment in Building Construction, 2021*.

Stegers, Rudolf. *Sacred Buildings : A Design Manual*, edited by Baumann, Dorothea. Basel ; Boston: Birkhäuser ;, 2008.

Stirk, Frank. “New Churches have a Tough Time Finding a Home in Vancouver.” . Accessed Oct 30, 2019. <https://churchforvancouver.ca/new-churches-have-a-tough-time-finding-a-home-in-vancouver/>.

Takeuchi, Craig. “COVID-19: As Vancouver Arts and Culture Organizations Face Major Revenue Losses, City Launches New Grant Program.” . Accessed Jan 19, 2021. <https://www.straight.com/arts/covid-19-as-vancouver-arts-and-culture-organizations-face-major-revenue-losses-city-launches>.

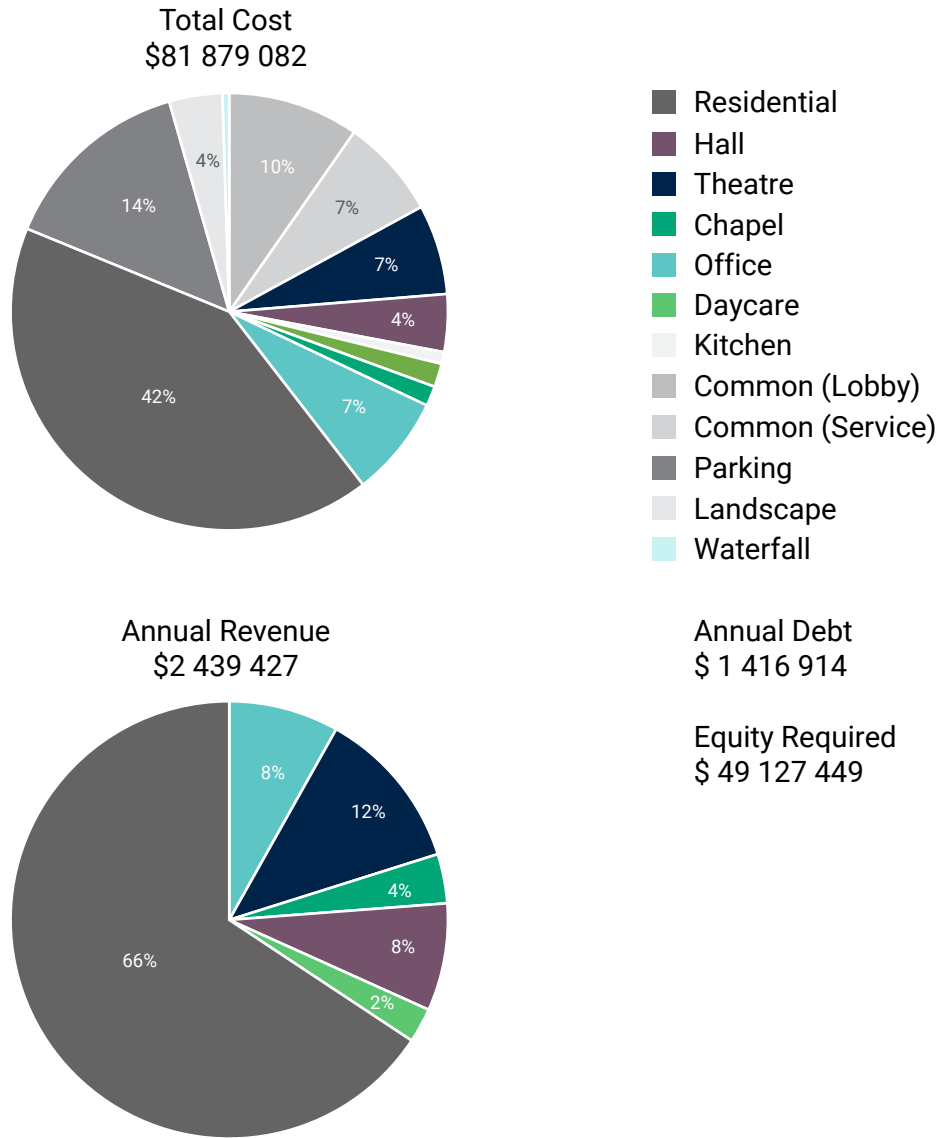
Taylor, Charles. *A Secular Age*. Cambridge, Mass.: Belknap Press of Harvard University Press, 2007.

Tillich, Paul, Jane Dillenberger, and John Dillenberger. *On Art and Architecture*. New York: Crossroad, 1987.

Vescera, Zak. “By the Numbers: The Disappearance of Arts Spaces in Vancouver Over Time.” *Vancouver Sun*, September 09, 2019. <https://vancouver.sun.com/news/local-news/by-the-numbers-the-disappearance-of-arts-spaces-in-vancouver-over-time>.



## APPENDIX A: PROFORMA



*Figure A.1 Proforma summary.*

<b>BUILDING SUMMARY</b>				
<b>Item</b>	<b>SF</b>	<b>SM</b>	<b>%</b>	<b>Count</b>
<b>Density</b>				
Site Area	66,704	6,197		
Total Interior Area	174,628	16,224		
<b>FSR</b>	<b>2.62</b>			
Site Coverage	63%			
Stories	6			
Height (m)	24			
<b>Areas</b>				
Common (Lobby)	21,225	1,972	8%	
Common (Service)	42,862	3,982	17%	
Theatre	6,286	584	2%	
Hall	7,072	657	3%	
Kitchen	1,783	166	1%	
Daycare	3,541	329	1%	
Chapel	1,561	145	1%	
Office	15,791	1,467	6%	
Residential	74,508	6,922	29%	
Parking	52,226	4,852	20%	
Landscape	22,863	2,124	9%	
Waterfall	5,744	534	2%	
Other				
<b>Total</b>	<b>255,461</b>	<b>28,118</b>		
<b>Total Interior Area<sup>1</sup></b>	<b>174,628</b>	<b>16,224</b>		
<b>Unit Mix</b>				
Studio	9,688	900	13.61%	20
1 Bed	23,089	2,145	32.43%	33
2 Bed	18,083	1,680	25.40%	16
3 Bed	20,344	1,890	28.57%	14
<b>Total</b>	<b>71,203</b>	<b>6,615</b>	<b>100.00%</b>	<b>83</b>
<b>Parking</b>				
Vehicle	114			
Bicycle	-			

Figure A.2 Building statistics.

1. Total Interior Area excludes Parking, Landscape, and Waterfall.

DEVELOPMENT BUDGET					
	Total \$	SF	Per GSF	%	Justification
<b>Acquisition Costs</b>					
Site Purchase	\$1	84,506	\$ 0	0.00%	Church develops own site
Reallocation Fees <sup>1</sup>	\$28,800	-	-	0.04%	Cost of renting interim space
<b>Total Acquisition Costs</b>	<b>\$28,801</b>	<b>-</b>	<b>-</b>	<b>0.04%</b>	
<b>Hard Costs</b>					
Common (Lobby)	\$5,624,714	21,225	\$ 265	6.87%	Office-(Class A) 5-30 storey-Low
Common (Service) <sup>2</sup>	\$4,286,185	42,862	\$ 100	5.23%	-
Theatre	\$3,865,962	6,286	\$ 615	4.72%	Performing Arts Building-Mid
Hall	\$2,475,159	7,072	\$ 350	3.02%	Multi-Use Rec Centre-Mid
Kitchen	\$508,013	1,783	\$ 285	0.62%	Multi-Use Rec Centre-Low
Daycare	\$1,009,277	3,541	\$ 285	1.23%	Multi-Use Rec Centre-Low
Chapel	\$858,421	1,561	\$ 550	1.05%	Museum/Gallery-Mid
Office	\$4,342,426	15,791	\$ 275	5.30%	Office-(Class A) 5-30 storey-Low
Residential	\$24,215,008	74,508	\$ 325	29.57%	Residential-Up to 12-Mid
Parking	\$8,356,231	52,226	\$ 160	10.21%	Underground Garage-Mid
Landscape <sup>3</sup>	\$2,286,252	22,863	\$ 100	2.79%	-
Waterfall <sup>3</sup>	\$287,219	5,744	\$ 50	0.35%	-
15% Construction Contingency	\$8,717,230			10.65%	
<b>Total Hard Costs</b>	<b>\$66,832,097</b>	<b>255,461</b>	<b>\$262</b>	<b>81.62%</b>	
<b>Soft Costs</b>					
Arch & Engineering Consultants	\$10,024,814	-	-	12.24%	15% of Hard Costs
Permit & Development Charges	\$4,137,916	-	-	5.05%	Waived due to MIRHPP
Legal & Admin Costs	\$668,321	-	-	0.82%	1% of Hard Costs
Loan Fees & Construction Interest <sup>4</sup>	\$3,508,685	-	-	4.29%	See footnote.
Marketing & Leasing Fees <sup>3</sup>	\$1,500,000	-	-	1.83%	-
Developer Fee <sup>3</sup>	\$1,336,642	-	-	1.63%	2% of Hard Costs
Soft Cost Contingency 10%	\$2,117,638	-	-	2.59%	-
<b>Total Soft Costs<sup>5</sup></b>	<b>\$19,156,100</b>	<b>-</b>	<b>\$75</b>	<b>23.40%</b>	
<b>TOTAL DEVELOPMENT COST</b>	<b>\$81,879,082</b>	<b>255,461</b>	<b>\$321</b>	<b>100.00%</b>	

Figure A.3 Total Development Cost.

1. Reallocation fee based on \$300/month rental at 48 days a year for three years.
2. Common (Service) areas include stairwells, exterior corridors, bathrooms.
3. Values based on best estimate.
4. Construction Loan taken out at 3.5% over 3 years, interest only, and added back into permanent financing upon completion. 50% of total value assumed for simplification.
5. Total Soft Costs estimated to be around 20% of total hard costs.



RESIDENTIAL REVENUE-MARKET <sup>1</sup>								
Type	SF/Unit	SM/Unit	% Total	Count	\$ Rent/M	\$ Rent/Y	\$ Rent/Y/SF	Annual Revenue
Studio	456	42.4	24.10%	20	\$ 1,607	\$ 19,284	\$ 42.25	\$ 385,680
1 Bed	612	56.8	39.76%	33	\$ 1,869	\$ 22,428	\$ 36.66	\$ 740,124
2 Bed	928	86.2	19.28%	16	\$ 2,457	\$ 29,484	\$ 31.76	\$ 471,744
3 Bed	1,239	115.1	16.87%	14	\$ 3,235	\$ 38,820	\$ 31.32	\$ 543,480
<b>Average</b>	<b>741</b>	<b>69</b>			<b>\$ 2,150</b>	<b>\$ 25,796</b>		
<b>Total</b>			<b>100.00%</b>	<b>83</b>				<b>\$ 2,141,028</b>

RESIDENTIAL REVENUE-LOWER END OF MARKET (LEM) <sup>1</sup>								
Type	SF/Unit	SM/Unit	% Total	Count	\$ Rent/M	\$ Rent/Y	\$ Rent/Y/SF	Annual Revenue
Studio	484	45.0	24.10%	20	\$ 1,198	\$ 14,376	\$ 29.68	\$ 287,520
1 Bed	700	65.0	39.76%	33	\$ 1,411	\$ 16,932	\$ 24.20	\$ 558,756
2 Bed	1,130	105.0	19.28%	16	\$ 1,964	\$ 23,568	\$ 20.85	\$ 377,088
3 Bed	1,453	135.0	16.87%	14	\$ 2,427	\$ 29,124	\$ 20.04	\$ 407,736
<b>Average</b>	<b>858</b>	<b>80</b>			<b>\$ 1,638</b>	<b>\$ 19,652</b>		
<b>Total</b>			<b>100.00%</b>	<b>83</b>				<b>\$ 1,631,100</b>

THEATRE REVENUE <sup>2</sup>								
Renter Type	#/Month	#/Year	% Total	Count	\$ Rent/Day	\$ Rent/Y	\$ Rent/Y/SF	Annual Revenue
Church	8	96	50.00%	96	\$ 500	\$ 48,000	\$ 7.64	\$ 48,000
Non-Profit	4	48	25.00%	48	\$ 1,250	\$ 60,000	\$ 8.48	\$ 60,000
For-Profit	4	48	25.00%	48	\$ 3,500	\$ 168,000	\$ 94.25	\$ 168,000
<b>Average</b>					<b>\$ 120</b>	<b>\$ 1,438</b>		
<b>Total</b>	<b>16</b>	<b>192</b>	<b>100.00%</b>	<b>192</b>		<b>\$ 276,000</b>	<b>\$ 110.37</b>	<b>\$ 276,000</b>

HALL REVENUE <sup>2</sup>								
Renter Type	#/Month	#/Year	% Total	Count	\$ Rent/6H	\$ Rent/Y	\$ Rent/Y/SF	Annual Revenue
Church	4	48	25.00%	48	\$ 300	\$ 14,400	\$ 2.04	\$ 14,400
Non-Profit	8	96	50.00%	96	\$ 800	\$ 76,800	\$ 10.86	\$ 76,800
For-Profit	4	48	25.00%	48	\$ 2,000	\$ 96,000	\$ 13.57	\$ 96,000
<b>Average</b>					<b>\$ 81</b>	<b>\$ 975</b>		
<b>Total</b>	<b>16</b>	<b>192</b>	<b>100.00%</b>	<b>192</b>		<b>\$ 187,200</b>	<b>\$ 26.47</b>	<b>\$ 187,200</b>

CHAPEL REVENUE <sup>2</sup>								
Renter Type	#/Month	#/Year	% Total	Count	\$ Rent/2H	\$ Rent/Y	\$ Rent/Y/SF	Annual Revenue
Church	4	48	25.00%	48	\$ 150	\$ 7,200	\$ 0.03	\$ 7,200
Non-Profit	8	96	50.00%	96	\$ 400	\$ 38,400	\$ 0.15	\$ 38,400
For-Profit	4	48	25.00%	48	\$ 800	\$ 38,400	\$ 0.15	\$ 38,400
<b>Average</b>					<b>\$ 36</b>	<b>\$ 438</b>		
<b>Total</b>	<b>16</b>	<b>192</b>	<b>100.00%</b>	<b>192</b>		<b>\$ 84,000</b>	<b>\$ 0.33</b>	<b>\$ 84,000</b>

Figure A.4 Annual Revenue Breakdown

1. Monthly rental costs based on City of Vancouver's Community Housing Incentive Program Indicative Grant Calculation Tool.

<https://vancouver.ca/people-programs/community-housing-incentive-program.aspx>

2. Average rentals based on interpolating around comparable venues in Canada.

	Hall		Theatre		Chapel	
Year	Year 1	Year 10	Year 1	Year 10	Year 1	Year 10
Rentable SF	7,072	7,072	6,286	6,286	1,561	1,561
Rate/SF/Year	\$26.47	\$32.27	\$43.91	\$53.52	\$53.82	\$65.61
<b>Total Annual Revenue</b>	<b>\$187,200</b>	<b>\$228,196</b>	<b>\$276,000</b>	<b>\$336,442</b>	<b>\$84,000</b>	<b>\$102,396</b>
Operating Expenses (30%)	-\$56,160	-\$68,459	-\$82,800	-\$100,933	-\$25,200	-\$30,719
Vacancy (2-5%)						
Credit Loss (2%)	-\$3,744	-\$4,564	-\$5,520	-\$6,729	-\$1,680	-\$2,048
<b>NOI</b>	<b>\$127,296</b>	<b>\$155,173</b>	<b>\$187,680</b>	<b>\$228,781</b>	<b>\$57,120</b>	<b>\$69,629</b>
Cap Ex (5% NOI)	-\$6,365	-\$15,517	-\$9,384	-\$22,878	-\$2,856	-\$6,963
<b>Net Cash Flow</b>	<b>\$120,931</b>	<b>\$139,656</b>	<b>\$178,296</b>	<b>\$205,903</b>	<b>\$54,264</b>	<b>\$62,666</b>
	Office <sup>1</sup>		Daycare <sup>1</sup>		Residential-LEM	
Year	Year 1	Year 10	Year 1	Year 10	Year 1	Year 10
Rentable SF	7,895	7,895	3,541	3,541	74,508	74,508
Rate/SF/Year	\$25.00	\$30.47	\$18.00	\$21.94	\$21.89	\$26.69
<b>Total Annual Revenue</b>	<b>\$197,383</b>	<b>\$240,609</b>	<b>\$63,744</b>	<b>\$77,703</b>	<b>\$1,631,100</b>	<b>\$1,988,302</b>
Operating Expenses (30%)	-\$59,215	-\$72,183	-\$19,123	-\$23,311	-\$489,330	-\$596,491
Vacancy (2-5%)	-\$9,869	-\$4,812	-\$3,187	-\$1,554	-\$81,555	-\$39,766
Credit Loss (2%)	-\$3,948	-\$4,812	-\$1,275	-\$1,554	-\$32,622	-\$39,766
<b>NOI</b>	<b>\$124,351</b>	<b>\$158,802</b>	<b>\$40,159</b>	<b>\$51,284</b>	<b>\$1,027,593</b>	<b>\$1,312,279</b>
Cap Ex (5% NOI)	-\$6,218	-\$15,880	-\$2,008	-\$5,128	-\$51,380	-\$131,228
<b>Net Cash Flow</b>	<b>\$118,134</b>	<b>\$142,922</b>	<b>\$38,151</b>	<b>\$46,156</b>	<b>\$976,213</b>	<b>\$1,181,051</b>
Year	Year 1	Year 10				
<b>Total Revenue</b>	<b>\$2,439,427</b>	<b>\$2,973,648</b>				
<b>Total NOI</b>	<b>\$1,564,199</b>	<b>\$1,975,948</b>				
Annual Debt Service <sup>2</sup>	-\$1,416,914	-\$1,416,914				
<b>Total Net Cash Flow</b>	<b>\$69,075</b>	<b>\$361,440</b>				
<b>DSCR</b>	<b>1.05</b>	<b>1.26</b>				
<b>Equity Required</b>	<b>\$49,127,449</b>					
<b>Loan to Value</b>	<b>40%</b>					

Figure A.5 Operating Cash Flow Summary

1. Average rentals based on interpolating around comparable venues and/or best estimates.
2. Income increases at 2% annually.
3. Annual debt service based on 3.00% interest rate, amortized over 40 years. Interest rate based above current prime rate of 2.45%; assuming CMHC Rental Construction Financing Incentive. <https://www.cmhc-schl.gc.ca/en/nhs/rental-construction-financing-initiative>