



RESIDENTIAL REDUX

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RESIDENTIAL REDUX

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Landscape Architecture of North Dakota State University

By

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TABLE OF CONTENTS

| | | | |
|----------------------------|-----|-------------------------|-----|
| List of Tables and Figures | 4 | Materials and Details | 140 |
| Thesis Abstract | 7 | Closing thoughts | 142 |
| Problem Statement | 9 | Thesis Display | 144 |
| Statement of Intent | 10 | Reference List | 146 |
| Plan for Proceeding | 12 | Personal Identification | 150 |
| The Proposal | 14 | | |
| Narrative | 16 | | |
| User/Client Description | 19 | | |
| Major Project Elements | 21 | | |
| Site Information | 22 | | |
| Project Emphasis | 27 | | |
| Plan for Proceeding | 28 | | |
| Semester Schedule | 31 | | |
| Studio Experience | 33 | | |
| Program | 34 | | |
| Research Results Summary | 36 | | |
| Case Study Research | 49 | | |
| Historical Context | 76 | | |
| Project Goals | 81 | | |
| Site Analysis | 87 | | |
| Process Work | 118 | | |
| The Design | 122 | | |
| Systems Design | 138 | | |

LIST OF TABLES AND FIGURES

| | | |
|-------------|---------------------------------------|----|
| Figure 1 | - Statement of Intent Cover | 10 |
| Figure 2 | - Proposal Cover | 14 |
| Figure 3 | - Common Neighborhood Sidewalk | 18 |
| Figure 4.1 | - State Map | 22 |
| Figure 4.2 | - City Map | 23 |
| Figure 5 | - Site Map | 26 |
| Figure 6 | - Semester Schedule | 30 |
| Figure 7 | - Program Cover | 34 |
| Figure 7.1 | - The Artefact | 45 |
| Figure 8.1 | - Perspective of Siedlung Halen | 50 |
| Figure 8.2 | - Inside the Main Courtyard | 50 |
| Figure 8.3 | - View from Behind the Complex | 51 |
| Figure 9.1 | - Site Plan | 52 |
| Figure 9.2 | - Geometry | 53 |
| Figure 9.3 | - Structure | 53 |
| Figure 9.4 | - Circulation Use | 53 |
| Figure 9.5 | - Hierarchy of Space | 53 |
| Figure 9.6 | - Natural Light | 54 |
| Figure 9.7 | - Massing | 54 |
| Figure 9.8 | - Plan to Section | 55 |
| Figure 10 | - View of Backyards | 58 |
| Figure 11.1 | - Site Perspective | 59 |
| Figure 11.2 | - View Between Parking and Residences | 59 |
| Figure 12.1 | - Geometry | 60 |

| | | |
|-------------|---|----|
| Figure 12.2 | - Structure | 60 |
| Figure 12.3 | - Circulation Use | 60 |
| Figure 12.4 | - Hierarchy of Structure | 60 |
| Figure 12.5 | - Natural Light | 61 |
| Figure 12.6 | - Massing | 61 |
| Figure 12.7 | - Plan to Section | 62 |
| Figure 13.1 | - Entryway | 66 |
| Figure 13.2 | - View from Above | 67 |
| Figure 14.1 | - Geometry | 68 |
| Figure 14.2 | - Hierarchy of Space | 68 |
| Figure 14.3 | - Massing | 68 |
| Figure 14.4 | - Plan to Section | 69 |
| Figure 14.5 | - Structure | 70 |
| Figure 14.6 | - Natural Light | 71 |
| Figure 14.7 | - Circulation | 71 |
| Figure 15.1 | - Hennepin Avenue and 2nd Street, 1867 | 77 |
| Figure 15.2 | - Looking North on Hennepin and 7th, 1912 | 78 |
| Figure 16 | - Downtown Skyline | 81 |
| Figure 17 | - FAIR School Across from Site | 86 |
| Figure 18 | - Corner of Hennepin and 10th | 91 |
| Figure 19 | - View of Site Looking South on Hennepin | 92 |
| Figure 20 | - Site Map | 94 |
| Figure 21.1 | - Photo Grid 1 | 97 |
| Figure 21.2 | - Photo Grid 2 | 97 |

| | |
|--------------------------------------|-----|
| Figure 21.3 - Photo Grid 3 | 97 |
| Figure 22.1 - Photo Grid 1 | 99 |
| Figure 22.2 - Photo Grid 2 | 99 |
| Figure 23.1 - Photo Grid 1 | 101 |
| Figure 23.2 - Photo Grid 2 | 101 |
| Figure 23.3 - Photo Grid 3 | 101 |
| Figure 24 - Photo Grid 1 | 103 |
| Figure 25.1 - Temperature | 104 |
| Figure 25.2 - Relative Humidity | 104 |
| Figure 25.3 - Precipitation | 105 |
| Figure 25.4 - Snowfall | 105 |
| Figure 26 - Cloud Cover | 106 |
| Figure 27 - Wind Speed and Direction | 107 |
| Figure 28 - Sun Path | 108 |
| Figure 29 - Cast Shadows | 109 |
| Figure 30 - Topography | 110 |
| Figure 31 - Air Movement | 111 |
| Figure 32 - Noise | 112 |
| Figure 33 - Interaction Matrix | 113 |
| Figure 34 - Space Allocation | 114 |
| Figure 35 - Interaction Net | 115 |
| Figure 36 - Profile | 116 |

THESIS ABSTRACT

This thesis project, *Residential Redux*, investigates the following question, can a new residential/mixed-use complex integrate the traditional assets of a suburban neighborhood, while still addressing its new urban context? This proposal's primary focus is through an imaginative reinterpretation of the suburban dweller and their regress into the city.

The type of building implemented for this statement will be predominantly apartments and condominiums and is located in Minneapolis, Minnesota.

The importance and potential application of this project comes from the sprawling residential trends that have greatly shaped

our cities' layout and is thusly an attempt to reconcile their unsustainable nature by offering a more sensitive alternative.

PROBLEM STATEMENT

Can a dwelling complex successfully and poetically reinterpret the benefits of a suburban house and neighborhood in an urban setting and facilitate the influx of a new wave of city dwellers?



Figure 1 - Statement of intent cover
(www.standish-ericsson.org)

STATEMENT OF INTENT

||||| PLAN FOR PROCEEDING

PROJECT TYPOLOGY

Mixed-Use Apartments and Condos

CLAIM

A clear and fulfilling sense of neighborhood and community can exist within the walls of an urban dwelling complex and create an attraction that facilitates new urban growth.

ACTORS Residents in an urban setting

ACTION Creating a needed sense of neighborhood

OBJECT Apartment and Condominium Complex

PREMISES

Downtown residential complexes are increasing in demand in many cities in this country. Residential complexes tend

to lack a neighborhood-like involvement that is commonly found in suburbs.

“Positive change and sustainable growth are occurring in many American downtowns, neighborhood commercial streets, Main Streets, and big city business districts” (Gratz 1998). In order to healthy infill the city, we need to imaginatively reinterpret our low-density counterparts for our destined future back in the urban fabric.

UNIFYING IDEA

An urban residential complex can be designed to hold the assets of community, involvement, and personality that traditional suburban housing communities naturally imbue and to help spark interest in moving back into the city.

PROJECT JUSTIFICATION

Since the middle of the 20th century, the popular train of thought is that when a couple wants to settle down and raise a family, they need to move out of the city, find a nearby school, and purchase a house in a suburban community. While this is a fine choice for anyone who sees fit, it has at the same time made itself out to be the only one. Apartments and condominiums

have many stigmas associated with them as compared to a single-family home or townhome and this is exacerbated when trying to raise a family. A general lack of space, layering of privacy, and the ominous sense of anonymity factor into these decisions and drain urban centers of residential potential.

In order to help bring people back to the city, there needs to be a third option. There needs to be a viable means of living that bridges the gap between both dwelling styles and utilizes both of their inherent assets.



Figure 2 - Proposal cover
(www.miss-design.com)

THE PROPOSAL

 NARRATIVE

My inspiration for this project first began over a simple conversation with my parents two years prior. We were on the topic of post-academic living, but I soon found that they were confused when I stated that I would like to raise a family in the city, in an apartment. It was then that I realized just how far and how long this country has drifted away from a city way of life and adopted the suburbs as a new home. Baby boomers such as themselves have made the city out to be a novel place more than anything. Maybe a place where you'd go see a play or a ball game, but by no means, where you could live easily.

Maybe it is time for this country to gain a newly felt love of the

city and thankfully it has begun to do just that. In recent years, people my age and older are beginning to keep their spot in the city and not regress towards the suburbs to live their middle-age. This trend is for good reason as it has many benefits that lower density populations do not. In addition to many of the attractions and events that the urban life offers, one of the key benefits is flexibility. Many people don't own or need a car if everything is within walking or biking distance. This saves large sums of money in addition to being a healthier alternative. The end of this century may see American cities that are as dense and diverse as the decades in which they were established.

While the suburb may not be an ideal candidate for all who live in a metropolis, it still imbues many benefits that are rare in apartments and condominiums. A strong sense of neighborhood and community is the most prominent of these and thusly is the primary focus of this thesis. A sense of community is a very broad and stratified subject that can be seen from many sides, so in my examination I will look into how the neighborly community lies not amongst clusters of residential blocks but instead, inside one complex. One place that is not simply exclusive to its occupants, but is also inclusive to the neighboring blocks and makes for a welcoming habitat.

The sense of neighborhood is the subtle connectivity that we feel when we meander around a cul-de-sac or explore the streets of a hundred year old neighborhood. Even some of the most poorly designed suburbs still carry a trace quality of camaraderie amongst neighbors, almost as if such personal bonds are expected. I find it such a fascinating effect of low density housing and then wonder why it isn't seen in modern, high-density units. In an apartment or condominium complex, the people down the hall wouldn't be called neighbors so much as "other tenants." A general disconnect lies with a group of people who ironically are much closer in proximity to one another than anyone in a single-family neighborhood. While a great



Figure 3 - Common neighborhood sidewalk
(www.urbanindy.com)

USER/CLIENT DESCRIPTION

OWNER

The site and the complex designed on it will be owned by the current owner or be sold to another willing party. They will oversee the design and construction to its completion. Any retail space will be leased to private parties and any public or community works will be owned and regulated by the city of Minneapolis.

The complex will also consist of condominiums for purchase and will be owned by the homeowners. The exterior walls and roof will be owned by the developer and insured by the condominium association.

MAJOR PROJECT ELEMENTS

USER GROUPS

APARTMENTS

The apartment complex will be the primary dwelling form on the site and will house the greatest number of tenants.

Owner/Landlord
Managers
Tenants
Custodial

CONDOMINIUMS

The condos on the site will be similar in layout as the apartments, but featuring a wider range of material pallets for those who would choose to own rather than rent.

Land Owner
Homeowners
Custodial

RETAIL/RESTAURANT

The restaurants, coffee shops, and retail stores that exist on the site will cater to the needs of the residents and the public.

Owners
Managers
Kitchen Staff
Wait Staff
General Staff

PUBLIC AND SEMI-PUBLIC GREENSPACE

Many levels of usable greenspace featuring a wide variety of local plants will be designed on the site and will need to be cared for. These areas vary in privacy from the public at ground floor to shared spaces on higher floors.

Grounds keeping
Grounds Crew

FITNESS CENTER

A gym will be available for the residents as well as the public. This area will facilitate the interaction of its users and make for a more communal space.

Owner
Managers
Fitness Center Members
Custodial

PUBLIC WORKSHOP

This workspace would feature a wood shop and art space available to the complex's inhabitants and the public.

Certified Technician
Staff

||||| SITE INFORMATION

REGION

My site is located in Minneapolis, Minnesota. Minneapolis is the largest city in the state and holds the county seat for Hennepin County. According to the United States Census Bureau, since 2006, the population grew 3.2 percent with a total population of almost 390,000 in 2011. In 2011 alone, Minneapolis took in over 5,000 more residents and has begun to see a return to growth in the core cities which we have not been seeing specifically for many years” (MPR News, 2012).

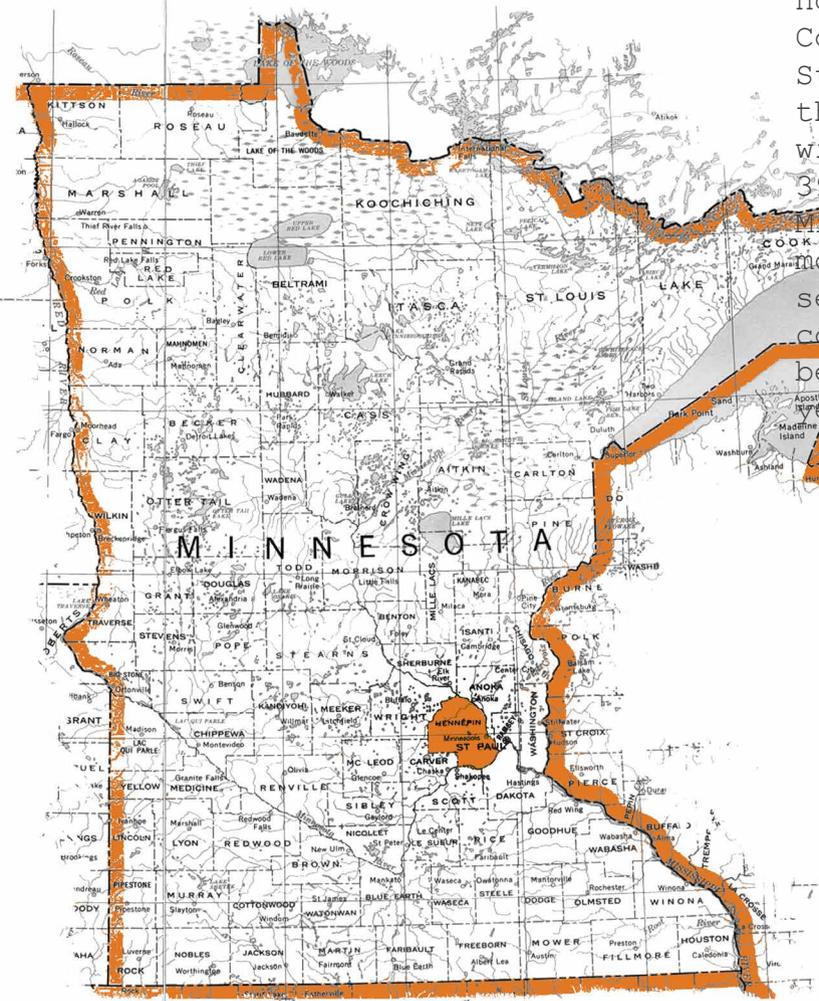


Figure 4.1 - State map
(www.maps.statemaster.com.com)

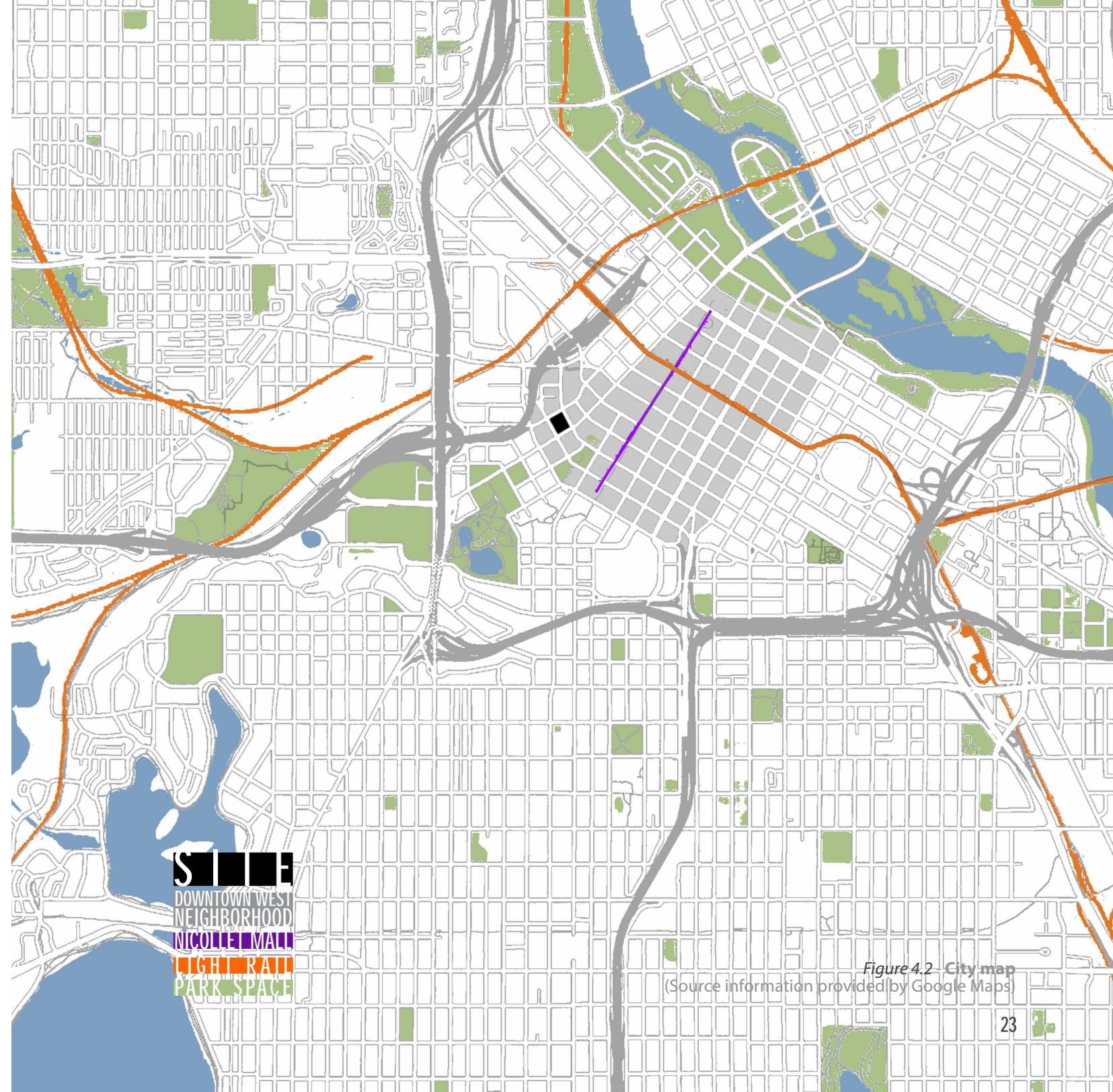


Figure 4.2 - City map
(Source information provided by Google Maps)

CITY

In the downtown area, there are many neighborhoods that divide the city and give way to their own unique development plans. In recent years, many plans have been made to infill the vacant lots in the city, particularly in the North Loop and East Metro areas (www.minneapolis.gov). However, these areas generally lack retail shops, schools, and other essential amenities to city living and aren't as diverse nor bustling as some of the older neighborhoods in the city.

In overlaying locations of local schools, single-family neighborhoods, and lines of public transit, the southern region of the downtown west neighborhood became the ideal location for my project. The neighborhood is home

to the theater district and is currently a vibrant and diverse part of the city.

THE SITE

The site is located in the southwest corner of Minneapolis' theater district, off of Hennepin Avenue and two blocks northwest of Nicollet Mall. In addition, the site sits across the street from the district's K-12 FAIR school. The site measures roughly 280 by 310 feet and is currently being filled with surface parking. By infilling this visually vacant lot, it will help to further channel Hawthorne and Hennepin Avenue's historic streets and to further development southward.

Since driving downtown can be

quite time consuming and many residents may even be without an automobile, finding nearby public transportation was critical in the process. The site is not only located just south of the city's Greyhound station, but it has bus many surrounding bus stops. For those who do drive, it is also only two blocks from the highway 394 exit.

In addition to the site's proximity to much needed amenities, the location was selected because of surrounding area's general lack of a residential population. Most of the district is composed of offices, theaters, and other public buildings, making for an area that lacks the permanence of living. By providing this pivotal urban need, it will help to make

for a more diverse population and a healthier city.

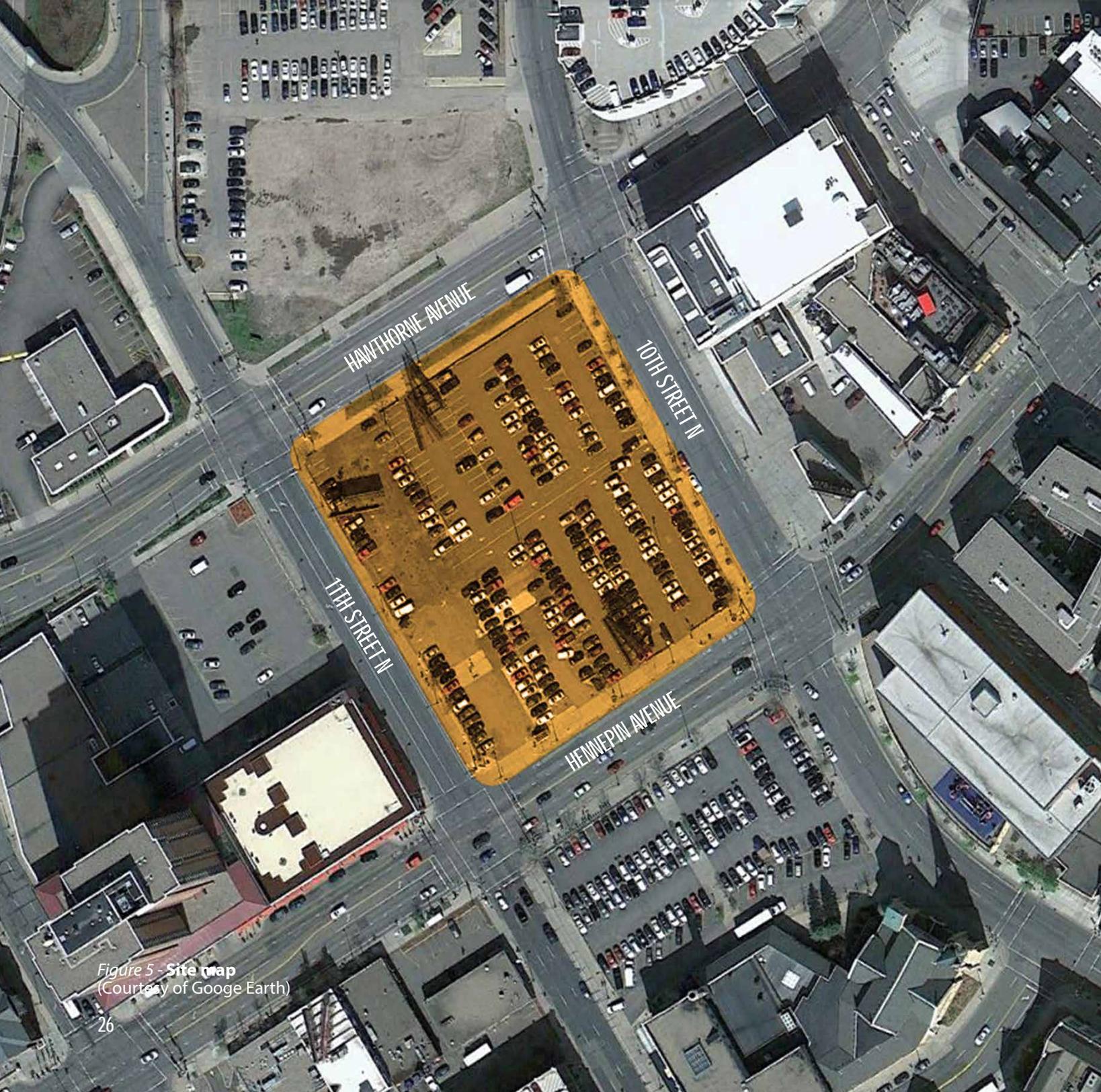


Figure 5 - Site map
(Courtesy of Google Earth)

PROJECT EMPHASIS

In order for a high density complex to hold the assets of community and neighborhood, it is important to seek out just what makes it possible in single-family neighborhoods. My emphasis for such a task is to examine the mental and physical barriers that distinguish the public and the private realm, and to focus on the social aspects of communal living.

Inspiration for this emphasis has come from Richard Sennett's book, *The Fall of Public Man*, in which he described the lack of private barriers amongst individuals as a detrimental occurrence to social interaction. As he states on the matter of the public realm, "...a person feels he must protect himself from the surveillance of

others in the public realm by silent isolation, he compensates by baring himself to those with whom he wants to make contact" (Sennett 1974). In other words, when one's mental state of privacy is lacking, it is thus made up in the mind. Only when we have the proper levels of comfort can we willingly break through them and open our personalities to others.

Through this lens, I can effectively question the nature of social living in our modern communities and utilize its answers through my architecture.

RESEARCH DIRECTION

Research will be conducted throughout the thesis project. This will include the historical context of the site, a full site analysis, readings on the foundations of American suburbs, and readings on social theory and group dynamics.

The focus of my research will be the theoretical premise/unifying idea and will act as the vessel through which my designs are implemented. This process will allow me to produce a thoughtfully detailed and effectively implemented architectural design.

DESIGN METHODOLOGY

The design process will be conducted through qualitative and quantitative data gathered,

PLAN FOR PROCEEDING

analyzed concurrently, and transformed from a wide range of sources. This will include theoretical works, historical texts, and comprehensive site analysis. The results of this information will be displayed accordingly graphical and textual representation.

QUANTI-TATIVE Statistical and scientific data gathered locally and through archival research.

QUALI-TATIVE Historical and theoretical data analyzed through archival research and from local observations.

PLAN FOR DOCUMENTATION

All data and research will be compiled digitally and in hard copy forms. Sketches and other analogical forms will be scanned and/or photographed to preserve their image and to use for further editing. Digital information will be backed up on a separate hard drive to reduce the risk of lost files. Work will be designed and created by hand and through digital means and will be backed up similarly. File back up and documentation will be made on a biweekly basis.

My work will be made available online for future scholars. These would be found on the university's website and in the architecture/landscape architecture library.

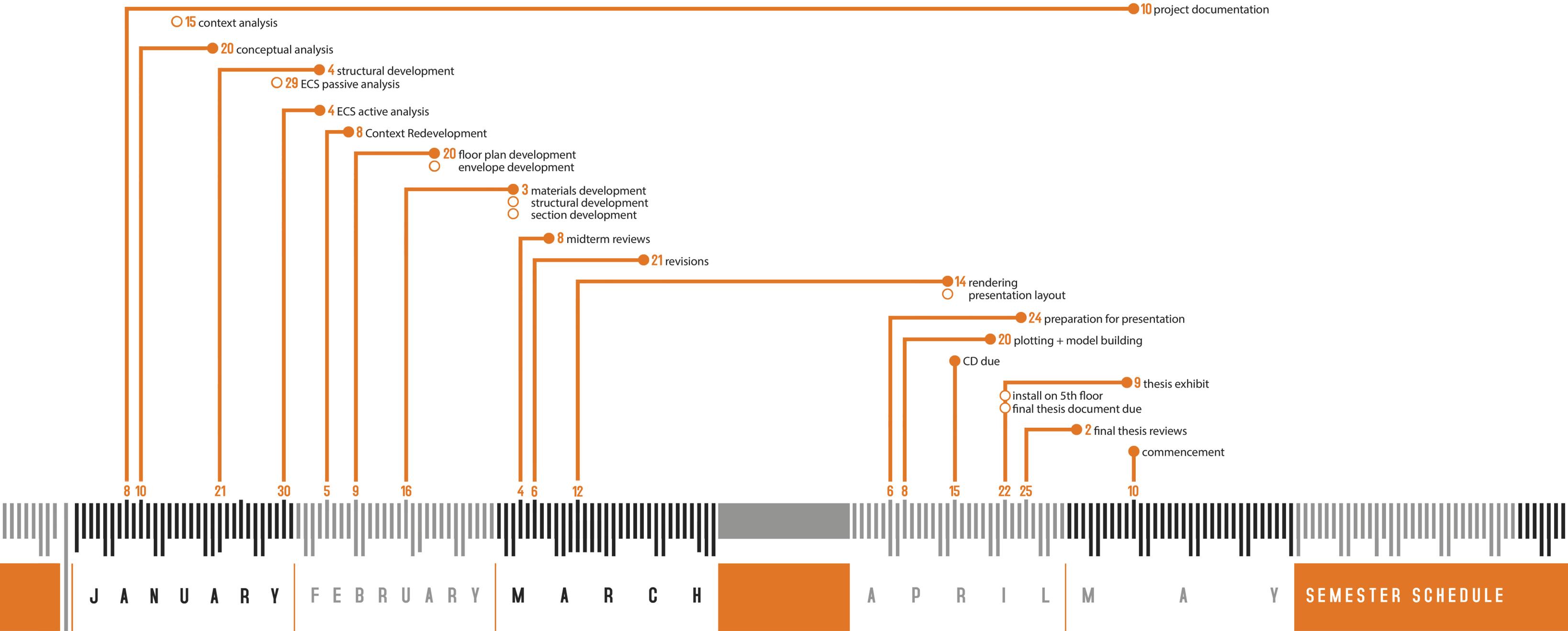


Figure 6 - Semester schedule

STUDIO EXPERIENCE

FALL DARRYL BOOKER
2009 TEA HOUSE . Moorhead, MN
BOAT HOUSE . Minneapolis, MN

SPRING STEPHEN WISCHER
2010 TWIN HOUSE . Fargo, ND
AIRPORT TERMINAL . Fargo, ND

FALL REGIN SCHWAEN
2010 WOODEN HOTEL . Fargo, ND
US BANK PLAZA . Fargo, ND

SPRING RONALD RAMSEY
2011 SHAKER BARN . New Lebanon, NY
CHICAGO ARCHIVE . Chicago, IL

FALL DAVID CRUTCHFIELD
2011 HIGH RISE . San Francisco, CA
KKE "TRASH TO TREASURE"

PAUL GLEYE
SPRING STUDY ABROAD
2012 LILLE URBAN INFILL
SQUARE FOCH . Lille, France

PAUL GLEYE
FALL PERFORMING ARTS
2012 CENTER . Fargo, ND



Figure 7 - Program cover
(www.granismith-godly.blogspot.com)

THE PROGRAM

RESEARCH RESULTS

In order to better understand the unifying idea, its imbued historical and sociological origins need to be unpacked and will begin to compose a theoretical construct that attempts to contextualize the problem. This framework is composed of several topics of discussion with the latter building upon the previous.

EVOLUTION OF PUBLIC AND PRIVATE

In order to effectively solve the issue of urban housing in its modern context, it is imperative to first understand where society as an interconnected whole has come from and since then, how the private affairs of man have changed. This importance is justified by the powering fact that mankind is rooted in history. From

the arts to politics to our social constructs, everything we do has come from a long and constantly evolving lineage. History as a timeline has shown that not all problems are in fact new, and many times their solutions take an imaginative reinterpretation of old answers. In addition, through mankind's historical context we are also able to further extrapolate such findings in an attempt to preemptively answer future questions and problems of modern society. This important notion was made evident from acclaimed sociologist Richard Sennett in his book, *The Fall of Public Man*. Sennett's primary criticism against modern society is generally associated with the veils of anonymity that have grown amongst its citizens.

This veil can be seen as a mask worn in public, sheathing the world from a genuine view and further distancing the way we act and the way we feel. This type of social distancing has divided its citizens, residents, and neighbors from assertive interaction and makes for a poorer sense of community.

To better elaborate this problem, it is important to clearly state that everyone has a public side and private side to social interaction. The very definitions of public and private have changed throughout the centuries and with them, how we view ourselves and how we view each other. In ancient Rome for example, the public life thrived in kinship known as a *Res Publica*, "bonds of

association and mutual commitment which exist between people who are not joined together by ties of family or intimate association (Sennett 1974)." There existed an invisible unity amongst strangers that was in many ways so strong that you could never say that you were truly anonymous. The unity that tied such a republic together came from not only the State but from the Church, from religion. Even to this day this relationship can be seen in a microcosmic scale, but since the end of the 18th century and the beginning of the industrial revolution, the invisible threads that have tied societies as a whole changed. In the renowned book, *The Lonely Crowd*, David Riesman defined the change from what was once an outer-directed

society to an inner and other-directed one. Respectively, the former is a society guided by an authoritative presence while the latter is guided by the citizens themselves. In this case, the Church and State lost their ability to universally guide society and its citizens began to look towards their own goals and the goals of others. This change can be seen and compared to the French revolution at the end of the same century. In short, the egalitarian culture that stratified people was leveled, freeing its citizens from the binds of caste. Without its presence, people began to see each other on equal terms. Since then we have all become children of an old way of life, equal to not only each other but to those

who we elect and let rule. This is the society that we live in today and is the context of the modern problem.

The issue that resides with us today is in a way a cause of our new directional attitudes towards our fellow man. We have grown into a communication-connected society, but with all of the technology at our disposal we lack the empathy and virtue that was once so prevalent in history. This is a culture that is paradoxically seen, but not felt; connected, but not attached. As a small microcosm of the larger picture, this thesis is an attempt to reconcile the old values of communal bonding with the new context in which we find ourselves.

The difficulty in trying to create a community that empathetically brings people together isn't solely due to societal shifts. The problem is architectural as well. In many ways, city life lacks the critical buffer between the public and the private aforementioned. This buffer isn't so much a physical problem, but a mental one. If the mental distancing between the outside world and the inside isn't felt adequately enough, then one's willingness to open up and remove the mask is reduced. The remaining buffer room is in effect, made up in the mind to provide that needed sense of invulnerability. As Sennett noted, an example of this phenomenon can be seen in an office that he worked in that

didn't have enough privacy to its cubicles. The initial idea was that a lack of a visual border would induce social interaction, but it instead did the opposite. Since there wasn't the much needed privacy and since eyes were on each other at all times of the day, the workers were even more inclined to not engage socially and to counter intuitively keep to themselves. Effectively, the mind became the last private refuge. The duty of architecture isn't to remove that barrier, but to instead become weary of its presence. By addressing the necessary levels of privacy and publicity, it can create a series of spaces that fit the appropriate amounts needed by its inhabitants. This issue can be applied to the way we live

in high density housing and thus is the core of my thesis.

THE PROBLEM OF COMMONALITY

Although creating a sense of community is a noble goal to have, the term itself is quite a broad and general statement, and lacks the necessary conviction needed to convey. The specificity of this argument comes from the analysis of American suburbs and acts as a source of valuable comparison. Suburban neighborhoods in general tend to be good incubators of communal relationships, breaking the silence of anonymity and making for a space that resonates with life. In some ways this neighborly friendship could be considered the initial act of civility. This type of relationship evokes

images of a time long ago when one small clan of hunters teamed with another and sat around the fire to share their meal. It was the first act of trust amongst strangers and arguably the first form of civilization. In its modern context, neighbors not only provide opportunities for social interaction, but also provide protection by keeping more eyes on their surroundings. This small system of unwritten social agenda is similar to the Res Publica of ancient Rome. It ties strangers together even if by necessity of safety. But this small commonality is much more present than in other forms of housing. The Res Publica of neighbors is largely lost in the hallways of an urban residential complex because the need for

safety isn't apparent anymore.

Although the issue displayed is interesting, it says the least in reconciling anything since it seems to be a matter of differing typologies. It may even suggest that in order to create a bond of trust, the architecture must instill a bit of danger. This is laughably untrue, but the concept of trust isn't entirely lost. The subject in this particular instance can be boiled down to a more fundamental idea, the idea of participation. The neighbors all have a vested interest that they share and that interest is equally distributed amongst everyone else. The connections with the rest of the neighborhood wouldn't exist if it were not the fact that their own interests

also satisfied theirs. In ancient Rome, the success of a Res Publica wasn't solely based on an attempt to get people to interact with one another, it was to tie an entire empire together in a bond stronger than any government could enforce on its own. This concept of community gives rise to an "us versus them" mentality, and has a show of patriotism that is resonant even in the small scale of a neighborhood.

It will take a more in depth understanding in order to solve the problem of commonality for the issue is a multifaceted one. In a different perspective, commonality can be defined by the similar demographics that a neighborhood imbues. Neighborhoods in both the city

and its suburbs have their share of assorted and diversified inhabitants. Whether it is by age, class, or ethnic background, neighborhoods such as these have bonded historically due to the connectedness of similar lifestyles. The question posed is how can a community still harness such a strong sense of connectivity when the inhabitants are much more diversified? If two neighbors are brought together by no more than an adjacent residential unit, is it possible to show the potential connections that may lie unseen? Architects can create the most wonderful of spaces, but the buildings themselves can do no more than invite. Like an art piece hanging on a wall, it is up to the observer to interpret

and value the metaphors that lie underneath its surface. The artwork cannot do it on its own nor should it. Similarly, the goal of the project isn't to contrive a series of spaces that force interaction, but instead give the occupants the option. This option implies that an occupant can keep up the veil that distances themselves from the community or they can choose to be a part of it. Through an integration of topics discussed, an urban residential complex can begin to speak of not only a place to live, but a place to interact and a place to better call home.

THE ARTEFACT AND THE CONCEPTUALIZATION
Metaphors, literary analogies, and the symbolic dimension

reside in the very fabric that weaves through this world. Prior to the 17th century, the relationship amongst art, science, and philosophy could never be imagined as separate entities for they all spoke of the same universal ideals. This re evoking of philosophical understanding has been the focus of NDSU professor Stephen Wischer, and is the source of inspiration for the artefact's conceptualization. In his article, 'Narrative transformations and the Architectural Artefact,' published in the book *Museum Making*, Wischer explains that architecture has always been grounded in myth and prior to the 17th century, was the source of symbolic hierarchy in a project. The eventual specialization of

what were once holistic constructs divided and compartmentalized the poetic nature that exists in the ether of life. The artefact is a way to make those connections once again present and acts as the vessel for poetic language (Wischer 2012).

Only so much can be written and theorized about a complex subject matter, but the true strength of its argument comes from testing. A subjects understanding is a reciprocal process for in many ways, the things we create in attempts to better that connection reflect back and inform in non-anticipatory ways. Through the creation of a metaphorical set piece, the topical notions of communal effort and the loosening of social barriers tells its own

story through group interaction and social engagement.

The artefact in response to these issues manifested into a long wooden board that rests upon the laps of a row of seated people. The board is lined with a layering of sheets of paper equal to its length, its edges biting into the wood and creating a wrapping with only the far ends exposed. The people who find themselves situated along the board's length sit in the same direction, silently requesting that the paper be torn. The board acts as a visible bridge and links the row together. Beginning on the far end where the edge of the paper is exposed, the first person begins tearing the sheet down its length and handing the ripped

piece to the next person. The subsequent layers of paper are exposed for more tearing. Soon the pace picks up and the paper down its entire length becomes a playground. What was once a row of civilized and complacent adults has now regressed back to childlike engagement and the social barriers that each person shared had dropped. The social acceptability of ripping without anyone else's consent is similar to the connections that are trying to be made with strangers. The tearing of paper, like the revealing of our backstage is a group process. The tendency to conform is a natural social trait that is expected in public, but if everyone decides to act concurrently, then no one feels exposed and the change can occur.

CONCLUSION

The architecture of the project will need to reveal the internal dialog that commonly occurs between public and private desires. The social walls that have been layered over with time are hurtful to the communal qualities of life and a community even in the smallest of microcosms gives more purpose to the sense of place than one devoid of a sense of neighborhood. The layering of public and private, the communal connections of commonality, and the group dynamic of social change are the vessels from which the architecture is created. An imaginative interpretation of these key issues will not only bring about the success of the project, but will stand as a

case study for a new standard in social living and will save the public from the fractures of anonymity.



Figure 7.1 - The Artefact
Photo by David Booth

 SUMMARY

In order to make a successful argument against the inadequacies of urban living and its modern practices, the analysis has filtered into two distinct problems: The lack of borders between public and private life, and the lack of commonality amongst its inhabitants. With the addition of the artefact, we can begin to contextualize the issue by making tactic social connections amongst a group of people.

The borders between public and private life exist visibly and invisibly in society's daily rituals. From the profanity of the city street to the divinity of the bedroom or living room, multiple levels of visceral enclosure divide these extremes.

In the context of a single-family neighborhood, backyards, front yards, alley ways, sidewalks, and roads help to contribute to these layers by giving the necessary social space desired by the occupant at any given time. The layers that blend these barriers are needed in higher density housing if the building is to be more than a cluster of separate units. Similar to the office cubicles described by Sennett, layers provide a mental distancing that filters the profane and the divine and gives the occupant the ability to choose what feels comfortable.

This, partnered with the invisible bonds of commonality, can help to create a series of spaces that speak more of a

neighborhood than an organized cluster of residential units. Commonality is what allows us to associate with one another and to see ourselves in the third person. It is a vessel to enable pathos in a community and tie people together with a common desire. Being a community takes participation in order to thrive, evoking empathy is critical for its success. The presentation of the artefact begins to pry at these social facets and make them apparent in a deliberate sense. Letting go of the complacency for conformity, it is an analogy for the lack of concern provided by children. Children are great harbors of imagination, devoid of the stigmas present in society's social norms. However, since the adult is the unit of measurement

from which social acceptance is judged, these discrepancies present in children become suppressed in the willingness to blend in. In relation to the problem of modern housing, living anonymously is the act of blending in. In an environment that favors a lack of sociability, anonymity then become the norm and social engagement becomes stigma. The goal is to instead do the opposite. Similar to the way the artefact took a collective effort to become socially acceptable, the goal is a neighborhood that allows for the normalcy of social engagement with the public. This normalcy is the ultimate result of a sensitive and holistic integration of all of the issues discussed and is the final goal to see the solution through.

||||| CASE STUDY RESEARCH

INTRODUCTION

Three case studies were selected in order further the understanding of the theoretical premise and to better solve the problem of modern urban housing. The list consists of Seidlung Halen in Switzerland, Mountain Dwellings in Copenhagen, and Habitat 67 in Montreal, each of which tell a story unique to the site and social goals of the location. Reaching into historical precedent is a resource that not only sheds new light onto any given subject, but allows the information to form extrapolated arguments that apply to current problem. The problem of urban housing is by no means a new topic and has attempted to be reconciled by a number of architects and urban designers through a variety of means and on a variety of scales.

The three case studies are all residential complexes and all have a unique focus on creating a strong sense of community. The success of some of these projects is debatable, but for what did work, its assets can be used in more sensible ways.

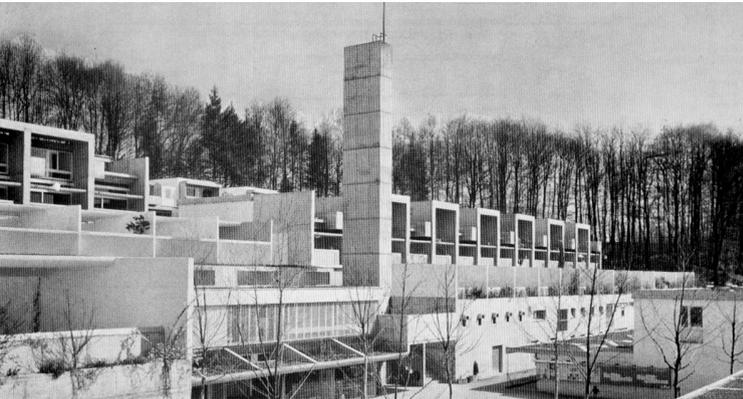


Figure 8.1 - Siedlung Halen perspective



Figure 8.2 - Inside the main courtyard
(www.aguileraguerreroarquitectos.blogspot.com)

SIEDLUNG HALEN

ATELIER 5 . Bern, Switzerland

INTRODUCTION

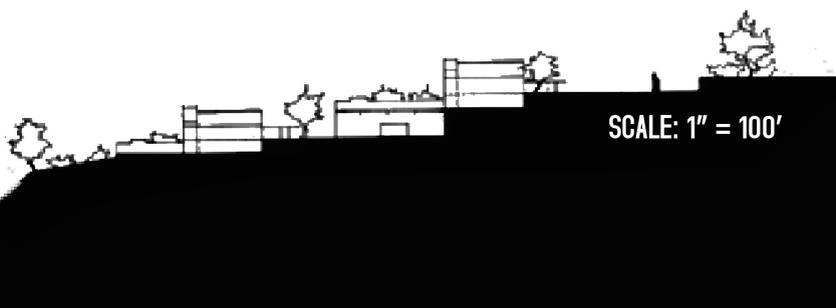
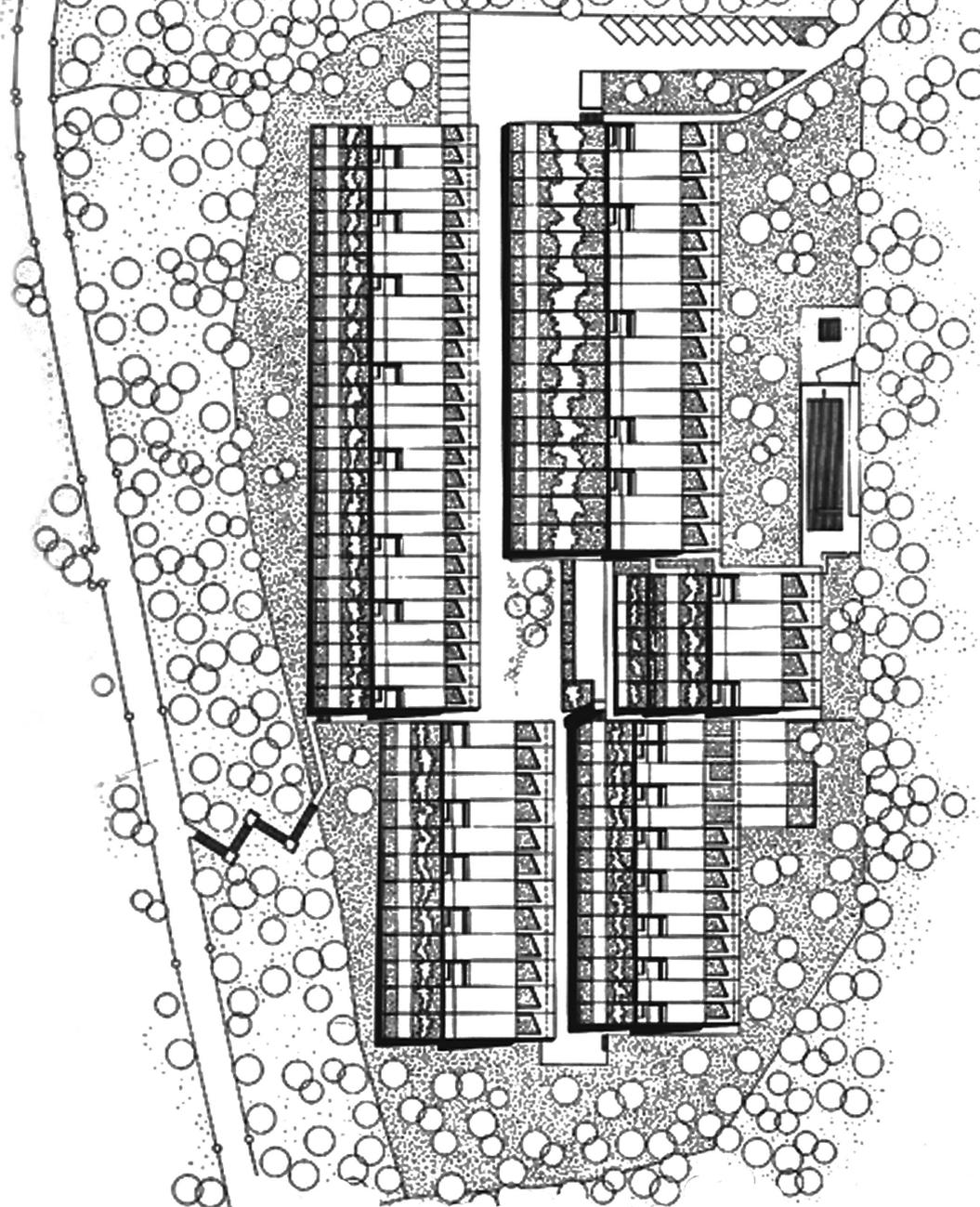
Siedlung Halen, also known as the Halen Estate, is a high density housing complex comprised of 81 privately owned homes just north of Bern, Switzerland. Built from 1957 to 1961, the concept was a high-density suburban community emphasizing a unique relationship with nature and an interrogative look at the connection between private family homes and community. As intriguing as this question already is, the complex itself is set in a location not entirely spatially lacking. The buildings were constructed in rural area on the hillside of a

patch of undeveloped wilderness. Arranged in three terraces, the complex features all of the amenities that are likely to be seen in a small town, but in an even smaller environment.



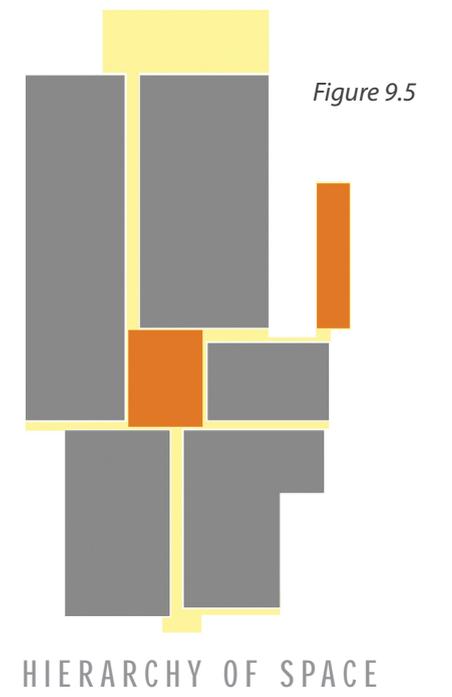
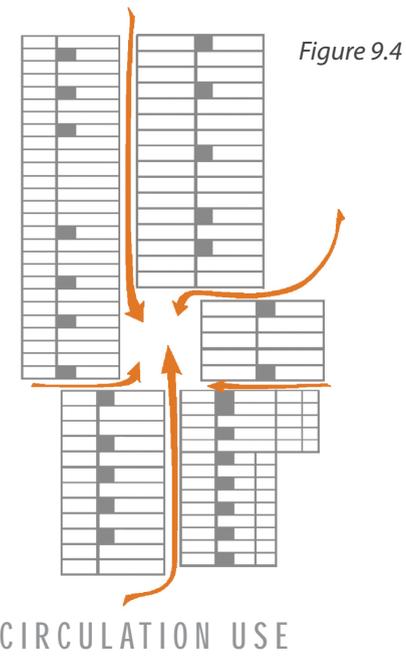
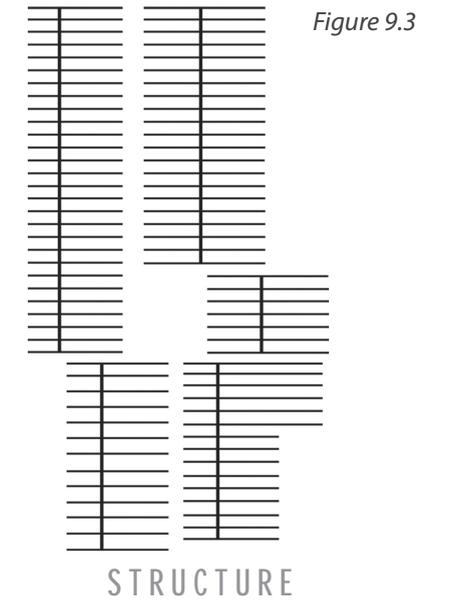
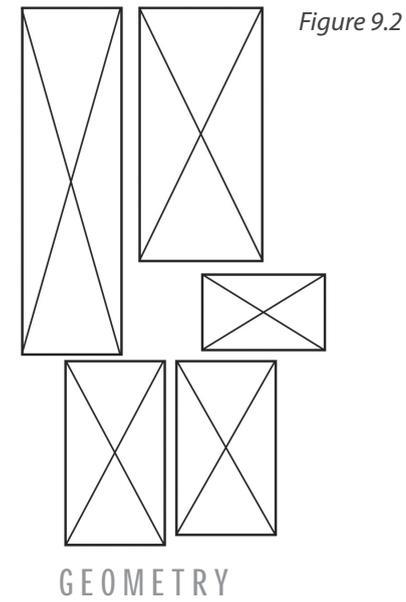
Figure 8.3 - View from behind the complex
(www.3.bp.blogspot.com)

SITE FLOOR PLAN
EAST ELEVATION



SCALE: 1" = 100'

Figure 9.1 - Site plan
(Source information provided by
www.housingprototypes.org)



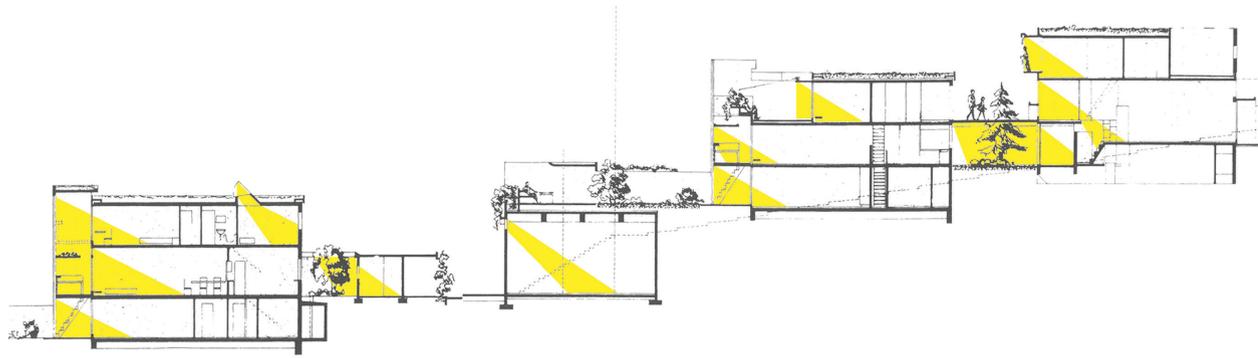


Figure 9.6

NATURAL LIGHT

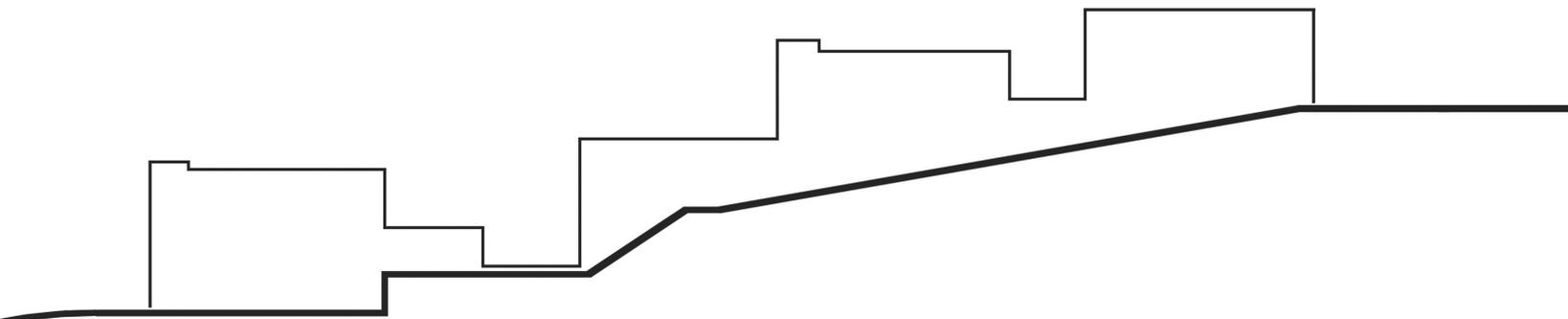
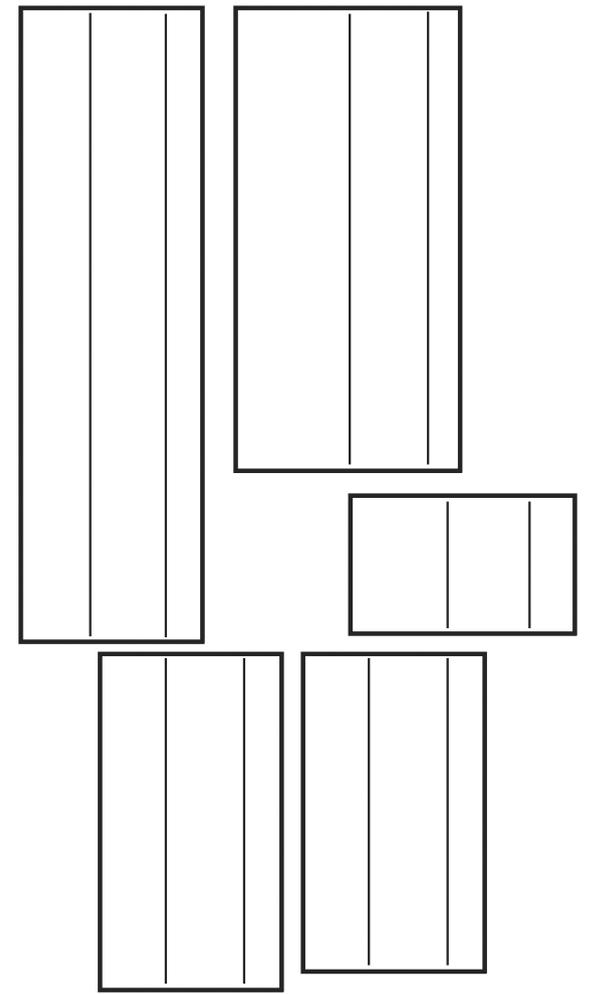


Figure 9.7

MASSING



PLAN TO SECTION

Figure 9.8

RESEARCH FINDINGS

The Halen Estate is a prime example of modernist architecture implemented in a residential setting. Like many modernist ideas of the time, the complex's design has a lack of historical and locational precedent, sitting somewhat oddly in its rural context. However, with what was essentially a blank canvas to work with, the firm's five lead architects had the ability to design the complex from the ground up. In doing so, the team put a large emphasis on sustainable building design, a notion that was relatively uncommon at the time. The entire site rests on the southward facing slope of a river valley, allowing for its individual houses and courtyards to collect sunlight. The site

was primarily constructed with concrete in order to regulate heat similar to traditional adobe huts. In addition, its grass-laden terracing was one of the first applications of green roof technology and is a clever way to maximize the amount of usable space in the complex.

The building was primarily influenced through the works of Le Corbusier and his ideas of a utopian society, one largely independent from the greater influence of a city. In addition to the common amenities such as restaurants, laundry rooms, and public courtyards, Siedlung Halen also features its own power plant to supply the site's electricity independently from the rest of the country. Cars are not allowed

in the site so the entire complex rest above a large underground parking lot. What lies on top is a pedestrian-oriented community with a delicate play of public and private spaces.

CONCLUSION

Although Siedlung Halen works well as a conceptual design, it in many ways is not a practical solution for most of today's societal needs. Primarily, it doesn't address the important task of reintegrating with the city. In fact it is clearly attempting to do the opposite. A healthy city is one that is as cohesive as the complex itself. By moving outward, we simply promote a more spread out and fractured community, one that is heavily dependent on the automobile as a means of transportation. In the

21st century, that can no longer be the case.

Although the complex fails to address the community outside its walls, it does succeed in internalizing the one inside and helps to provide evidence in support of the unifying idea. Due to the site's relatively simple layout and circulation of spaces, the Halen Estate has a clear sense of connectivity and cohesiveness throughout. This is further emphasized through the layering of spaces over one another, utilizing both floors and rooftops. This detail is important to note in higher density design not only because it utilizes more habitable space, but as mentioned earlier, it helps to buffer the layers between public and private.

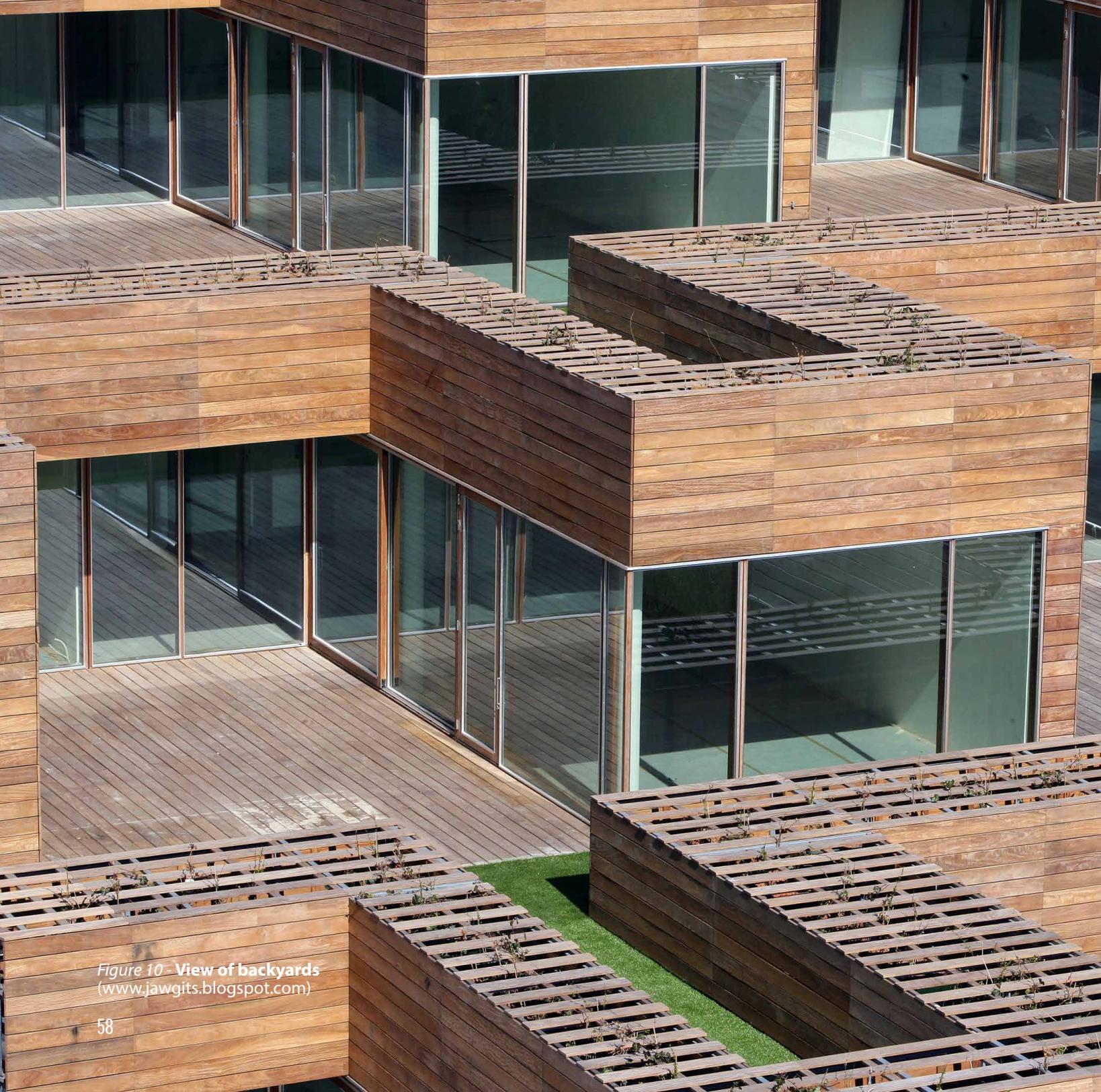


Figure 10 - View of backyards
(www.jawgits.blogspot.com)

MOUNTAIN DWELLINGS

BIG . Orestad, Denmark

INTRODUCTION

Completed in 2008, Mountain Dwellings is an award winning building designed by Bjarke Ingels Group of Denmark. The site is located in southern Copenhagen in the smaller town of Orestad and is a case study in high density living. The primary intention of the 360,000 square foot complex is to combine the desire of backyard living with the vibrance of an urban lifestyle. The eleven-story building houses not only 80 residences, but also 480 parking spaces that seamlessly blend commodity and aesthetics.



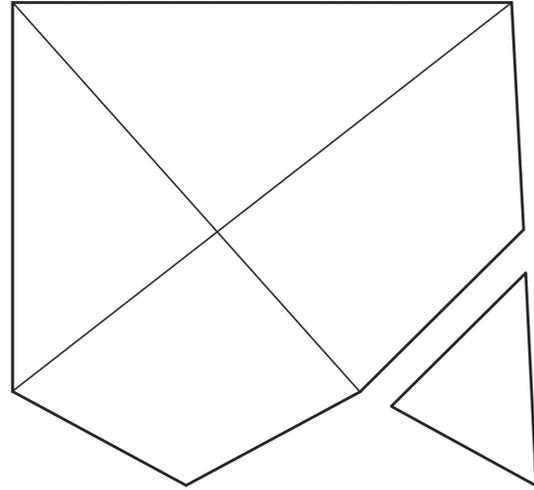
Figure 11.1 - Site perspective



Figure 11.2 - View between parking and residences
(images and source information courtesy of www.archdaily.com)

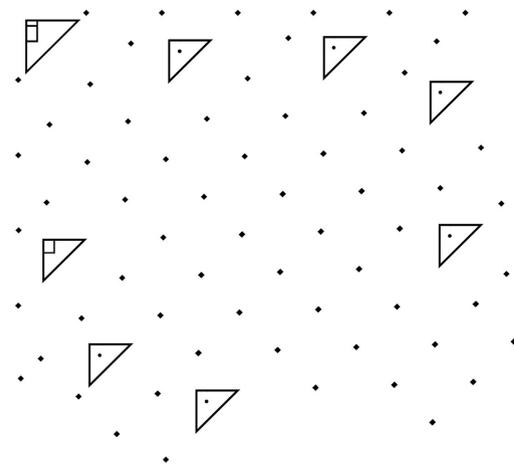
RESIDENTIAL PARKING

Figure 12.1

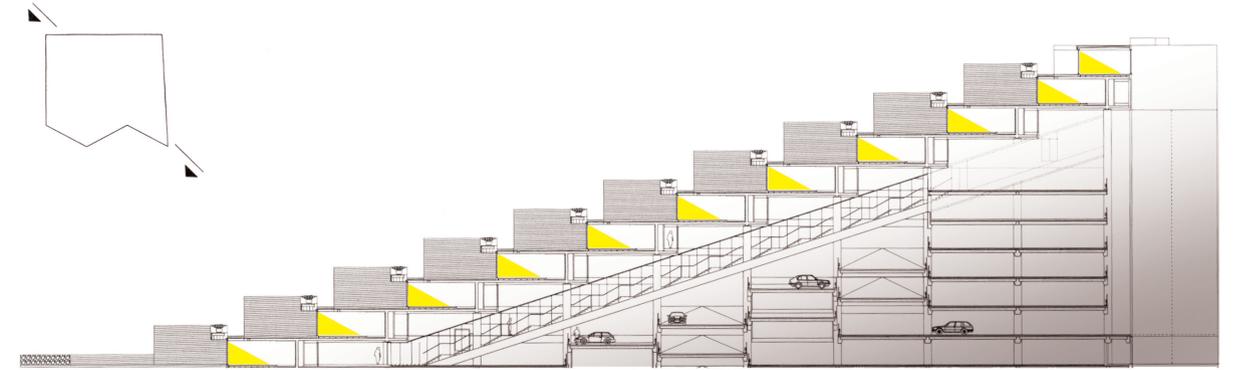


GEOMETRY

Figure 12.2



STRUCTURE



NATURAL LIGHT

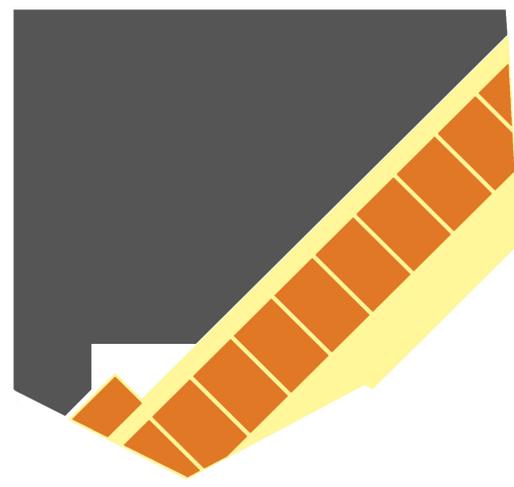
Figure 12.5

Figure 12.3

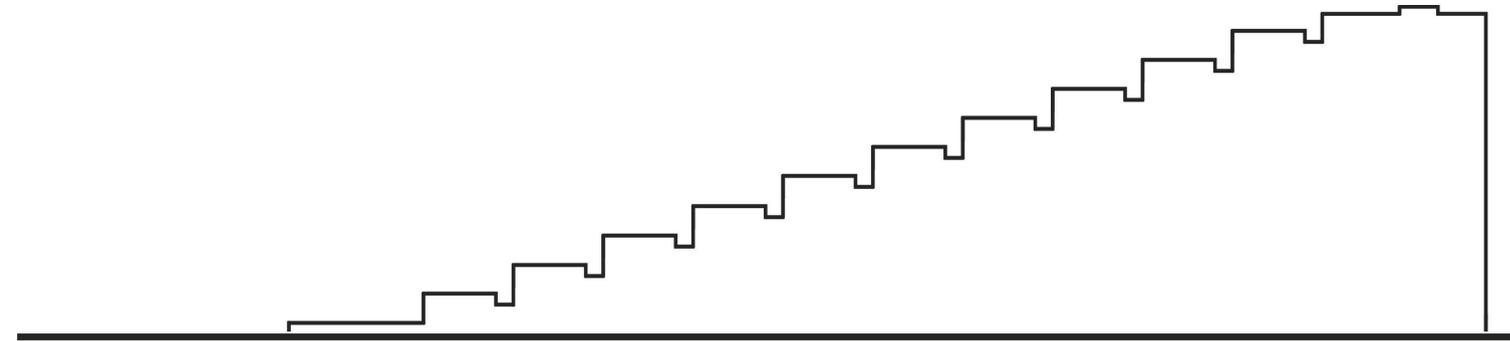


CIRCULATION USE

Figure 12.4

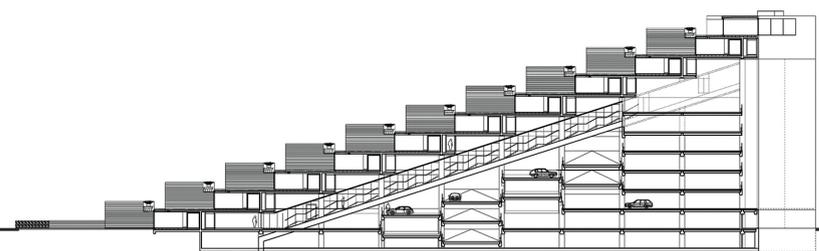
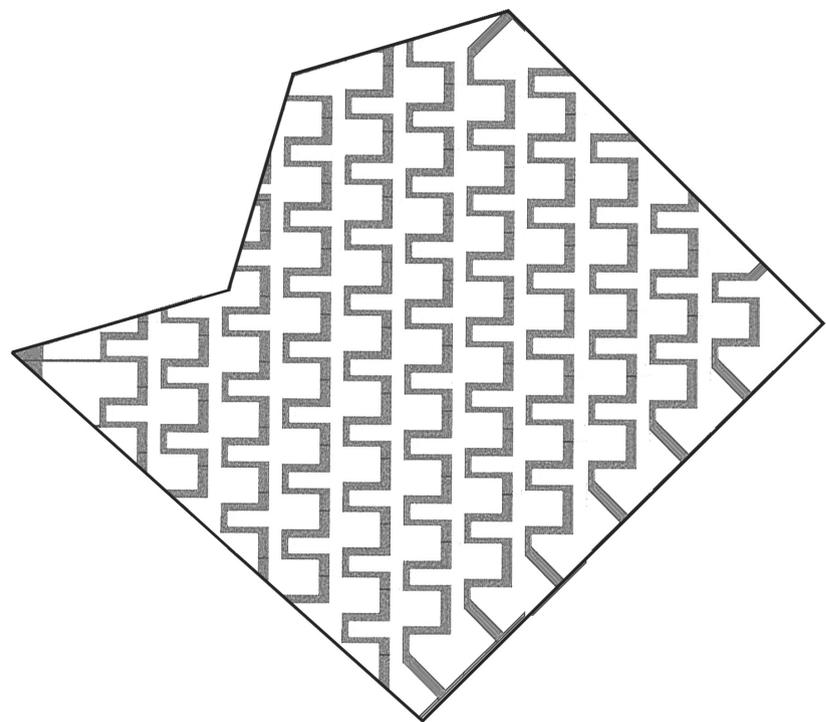


HIERARCHY OF SPACE



MASSING

Figure 12.6



PLAN TO SECTION

Figure 12.7

RESEARCH FINDINGS

BIG opted to keep the lot tightly bound with clean walls not only to keep the desired density, but also to delineate a clear sense of boundary. This boundary between inside and out is similar to the way a gated community borders its neighborhood, inclusively looking in on itself and making for a stronger sense of place. In order to give the necessary outdoor space that is desired in a backyard, the entire complex slopes on an angle with each exposed layer of residences layered over one another. The unique design not only utilizes all of the available sun exposure, but also links entire floors of green space together and effectively makes more neighborly connections. In a final reinterpretation of urban

living, an above-ground car park lies underneath the layer of residences, allowing its occupants to park as close to their homes as one would do in any driveway. Under one cascading roof, BIG has included a sense of front yard, back yard, a home, and neighborhood with the level of density normally reserved for urban apartment complexes.

Although many of Mountain Dwellings accomplishments can be used as inspiration for my urban site, there is one important program that it has rejected, commercial development. While it works nicely in its suburban context, in Minneapolis it will need to address the street and include the community outside of its walls as effectively as it does inside.

This paradox of boundary and permeability is the true success of suburban neighborhoods, and it can be argued that healthier communities embrace this notion instead of fight it. In relation to the project site and the historic Theater District at its doorstep, integration with the surrounding context couldn't be more important.

CONCLUSION

The complex is an ingenious integration of commodity and function from its ample use of parking and natural lighting to extending neighborly borders to blend the layers of public and private. Aside from its sustainable water-collection systems and passive lighting, the importance of such a site

is how these types of communal connections can be facilitated. Mountain Dwellings' integration of suburban assets and urban living is a testament to not only the feasibility of this thesis, but also to the contingent desire to live closely and densely.



Figure 13.1 - Entryway
(www.tumblr.com/tagged/habitat-67)

HABITAT 67

Moshe Safdie . Montreal, Canada

INTRODUCTION

Habitat 67 is a large multifamily housing complex, located on a small peninsula on the St. Lawrence Seaway east of downtown Montreal. The building was originally the Master's thesis of Moshe Safdie who attended Montreal's McGill University several years previous. Built as a pavilion for the 1967 World's Fair Expo, Habitat 67 is easily the largest and most recognizable landmark of the city.



Figure 13.2 - View from above
(www.udis-tmc.blogspot.com)

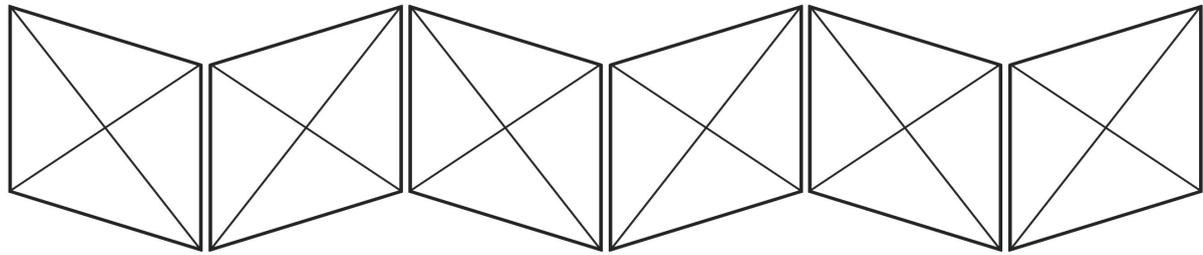


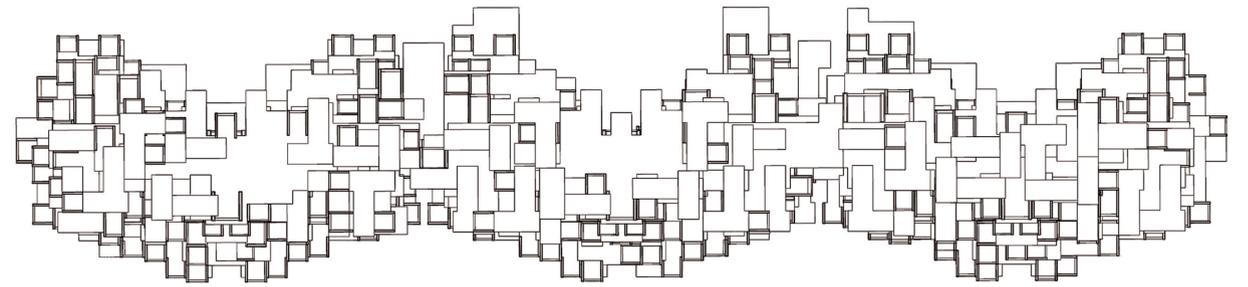
Figure 14.1

GEOMETRY



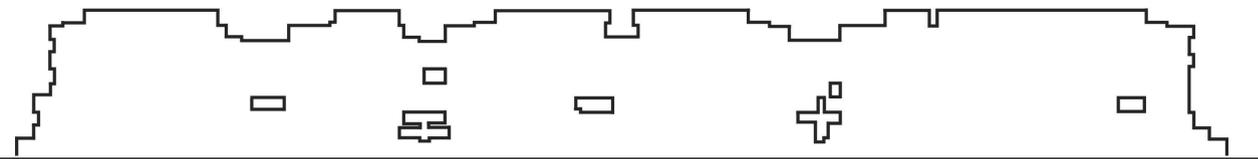
Figure 14.2

HIERARCHY OF SPACE



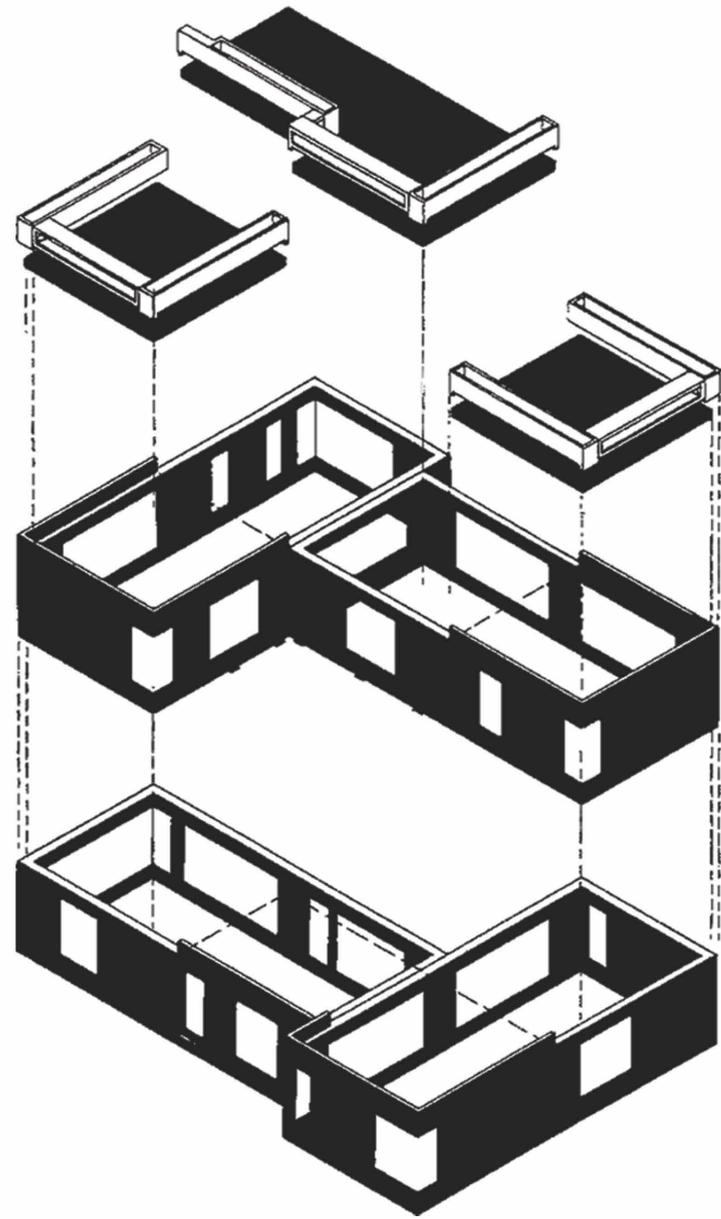
(source information provided by
www.cac.mcgill.ca)
Figure 14.3

MASSING



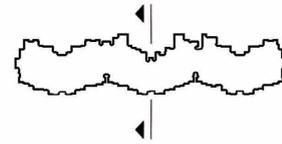
PLAN TO SECTION

Figure 14.4



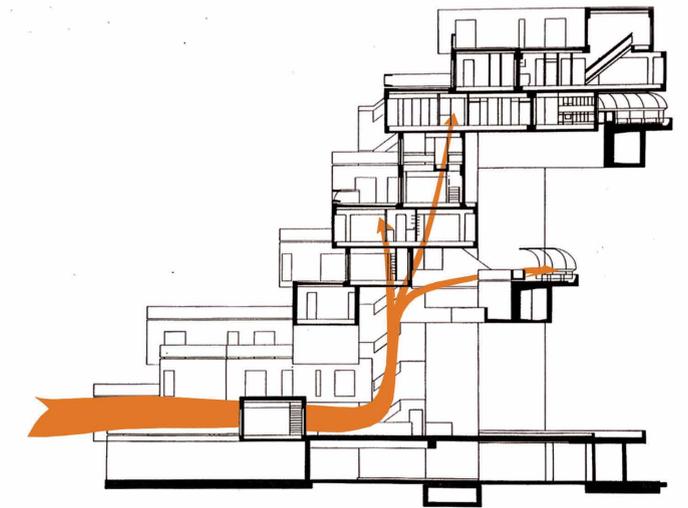
STRUCTURE

Figure 14.5



NATURAL LIGHT

Figure 14.6



CIRCULATION

Figure 14.7

RESEARCH FINDINGS

The initial inspiration for Habitat 67 was a habitable community that gave "privacy, fresh air, sunlight and suburban amenities in an urban location (Sharp 2006)." The design originally called for 1,000 precast concrete units with fifteen different plan types, but was reduced down to 158 by construction. The units fit into one another in a seemingly haphazard way, but with good intention for each rooftop of one unit acts as the green space for the unit above it. In the complex, pedestrian traffic was the major determining factor for its inception. Staircases and pedestrian walkways link the units together and create a unique sense of not only community,

but a small residential city. Similar to Mountain Dwellings and long preceding it, the prophetic vision of Safdie was to integrate a suburban lifestyle with an urban feel. The units seemingly chaotic nature help to do so not by visuals alone, but by creating a multi-layered fabric of public spaces, private spaces, and a combination of the two.

CONCLUSION

The complex has responded to both critical and popular acclaim for its bold vision and brutalist design. However, the idea poses two questions that need to be addressed in our post-modern setting: Can this exercise in modern living be adjusted to a much smaller and denser site, and how can it reconcile the historical

and regional specificity of its urban context. Habitat 67 may be a successful exercise in a quasi-utopian residential future, but it by no means responds to the architectural precedent of Montreal. Architecture needs to be both practical and poetic if it is to not only succeed on paper but in use, and since our buildings do not exist in a vacuum they need to be appropriately sensitive.

||||| CASE STUDY RESEARCH TYPOLOGICAL SUMMARY

As unique as these three studies are, some similar trait runs through them, the primary of which is their effective use of greenspace. In order to fill the void of open, yet private space, habitable areas from the floor above made efficient use of the roof top of the floor below. Even in Mountain dwellings where the site is similarly flat, the building artificially built the slope, giving it its name. Relating to the concept of suburban qualities in a high-density setting, the greenspace provides a backyard and another needed layer of privacy between the profane and the sacred. In addition, these spaces form as a less formal scene for interaction, devoid of the social context associated with areas of complete publicity.

A drastically varied issue that each case study handled however, was the ease of pedestrian and automobile traffic. Interior and exterior passages are extrapolations for the sense of spaces that they are trying to evoke. The architects behind Siedlung Halen for example decided to leave the entire interior of the complex completely open to pedestrian traffic while in Mountain Dwellings, the occupant is able park only a few feet away from their apartment. While the former leaves a romantic LeCorbusian vision of a small utopian society, something as simple as parking fails to practically address crucial elements of an integrated community. The community exists

yes, but would the same goal be achieved in the context of downtown Minneapolis? The goal is to blend the complexity and fluidity of city life within the walls of the building, not segregate it. This also relates to the fact that each site decided to exist outside the realm of the urban framework. Even Habitat 67, built just across the water from Montreal's downtown, doesn't relate to the exterior community as much as it does the interior. It does something much different however; it makes itself present to the entire city by distancing itself in terms of proximity and integration. The landmark that it is begins to contrive a unique sense of inclusiveness to its inhabitants due to its presence. It might sound odd to

think that an entire neighborhood can come prefabricated and set on site, but it does show that the desirable sense of the word isn't solely reserved for places strengthened by time.

Regardless of architectural philosophy, each project analyzed attempts to answer these very same questions: Can a neighborhood detach itself from its context? Can it further integrate typological functions and strengthen its inclusive and exclusive relationships simultaneously? Can it successfully incorporate the suburban lifestyle and urban complexity under one roof? They act as a basis for comparison in the success of this and future projects of a similar nature.

||||| HISTORICAL CONTEXT

Various forms of urban dwellings exist in every city across the globe. The need for housing in a growing city will always need to be met, but the inherent importance comes from the way in which it is accomplished. In this particular study, the discussion of interest is an intrinsic look at the relationship amongst suburban living, urban living, and the historical context to the topics. The last eighty years of American History has exacerbated this divide with the suburban flight of the country's middle and upper class and the disastrous urban renewal plans that effectively pock marked the cores of its cities. Large social immigrations combined with poor urban design choices have created an unsustainable

future that the 21st century now has to solve (Jacobs 1992.) With this precedent as justification, the implications for better residential design are far larger than the site specific location from which it has boiled down. These questions bridge far beyond the benefit of any given site for the problem exists in many cities. The site at this point becomes more of a blank canvas onto which the architectural painting is created. It has its list of particular challenges created by the specific urban context, but the message that it ultimately conveys ranges from the micro to the macro, from a small case study to a new way to think about living in the twenty-first century.

Minneapolis, Minnesota was by no means exempt from the social stratification that occurred so it is a great stage to test these waters. Having personally lived on the wings of its infrastructure, the residential redux that has begun to occur in its center can be clearly seen. Minneapolis is the largest city in Minnesota and has had a population growth of 1.4% since 2010 compared to the state average of 0.8% (census.gov.) While this number may seem small, it doesn't account for the entire metro area as a whole, but is instead a direct look at how the inner city itself is growing in population along with its residences. Much of this growth can be attributed to the historic neighborhoods that comprise its core including Elliot and

Loring Park, the North Loop, the East Metro, and the focus of this thesis, the West Metro. Officially labeled Downtown West, the area is home to the financial and arts districts, having had an increase in population of 26% since 2000. Most of the residences can be attributed to mid and high-rise complexes that



Figure 15.1 - Hennepin Avenue and 2nd Street, 1867
(www.grossmanproject.net)

Figure 15.2 - Looking north on Hennepin and 7th, 1912



mingle with the city skyline, but further expansion is occurring to the north and to the south where several blocks of unfilled parking exist.

Since Hennepin Avenue's creation the mid-eighteen hundreds, the

neighborhood quickly lined with shops and residences. Eventually as the blocks filled, residences lofted above the street line to create a programmatically mixed area commonly seen in other American and European cities. Due to the integration of retail, offices, and residences, the public street life made for a vibrant and inhabited atmosphere. The reason for this is quite simple. When the daily routine of a city's life is filled with niches of activity from several sources, that area that exists within it becomes a continually filled beacon of activity and in turn, furthers desirable development. However, when a portion of the city lacks the diversity of programs necessary to live, the activity of the

area can shift dramatically in one day. A financial district for example might find itself booming with life at 12:30 on a Tuesday afternoon, but will become vacant and crime ridden past 6 o'clock. This problem, at one point hardly existent, became a great problem after the immigration towards the suburbs. In the 1930 and 40's Downtown West and other neighborhoods lost public interest in favor of the open expanses of single-family homes and suburban communities. Lower real estate prices drove banks and other businesses inward and fostered this compartmentalization of function. The residences that remained quickly deteriorated with crime, on a notorious level at the convergence of Hennepin Avenue and Nicollet nine blocks

north of the current site.

Today the programmatic stratification that has impacted Downtown West is still a serious problem. Hennepin Avenue today is home to the Arts District with multiple theaters, bars, and restaurants throughout its corridors. However, the neighborhood lacks the residential diversity that what was once so prevalent one hundred years ago. Residential infill projects are becoming more of a common occurrence in Minneapolis and other cities. In the East Metro alone, since 2006 over five blocks of apartments and condominiums have filled the pock marked neighborhood. This in turn has brought more attraction to the water front and to its surrounding

business, gentrifying the area and helping to restore it to a healthy balance. In Downtown West, this will also need to be the case if future development is going to be successful.

As much good as new blocks of lofts are for a vacant neighborhood, they still aren't enough. In neighborhoods such as the East Metro, the sense of community that it needs to once again provide isn't as simple as placing buildings that border the streets. Areas such as this and the site concordantly, are missing the historical narrative that is told through its inhabitants and its neighbors. When the blocks of residences went in exchange for parking lots, the soul of the neighborhood went with them.

When walking along the streets of Downtown West, there still are numbers of historic buildings scattered throughout the area, but the area lacks the permanence of residences. As much as a city needs its share of schools, grocery stores, shops, offices, and bars, it needs a permanent population to exist among them. Without it, neighborhoods become flooded with people at certain times of the day and become deserted at others. A population of pure city dwellers not only brings increased attraction for more programmatic elements, but it acts as a great equalizer of population swings.

Similar to the mixed-use development that Minneapolis used to line along its streets,

a comprehensive design will need to be built. The project not only needs to fulfill its aforementioned goals of facilitating communal relations within its walls, but simultaneously address the street life of the surrounding context. The solution doesn't necessarily have to create a building that does both in a divided and schizophrenic way, but can instead speak of a holistic and permeable location, one that embraces all who live within its realm and all who walk by. The duality of inclusivity and exclusivity is not a unique approach to housing, but is in fact a defining characteristic of the suburban layout. Grids of streets lined with clusters of single-family houses can create spaces in between that interject

the exclusivity of neighborhood with the inclusivity of the outside world. There exists an atmosphere that is both welcoming to those who live within its streets and to those who are only passing. Introducing the notion of permeability will not only benefit the site with integrated development, but will help in bettering the sense of community by opening up to the neighborhood beyond its walls. The integration can result in a complex that promotes a healthier neighborhood than implementing either approach alone, and it can create a block that resonates with communal qualities that bring the area back to a level of vibrant activity that hasn't been seen in eighty years.



Figure 16 - Downtown skyline
(www.deviantart.com)

PROJECT GOALS

The goals of a thesis extend beyond the specific design of a self-proclaimed site and instead point to greater issues present in architecture and in society. These inspired ideals can come from a range of sources including modern observations, sociological analysis, or furthered philosophical questions, but their success not only comes from the impact on the particular site, but how well it answered the questions it set out to find. The checklist for such a plan can be refined into three architectural realms: the academic, the professional, and the personal. These three categories not only help to organize the intention of the thesis' plans, it also helps to contextualize the argument and

make it relatable for the public reader.

ACADEMIC

With the project's success, the thesis will not only serve as a detailed case study for future architectural students, it will act as the vessel for teaching the public at large. In both instances, the goal is to reveal to the curious inquisitor that the standards of urban housing practices should not be left to complacency and acceptance. Instead, the intention is to reveal a new and oblique train of thought on a very familiar subject in order to question the design practices that are implemented across the world. The work that has been sourced and compiled between two covers

is the best gift that we can ever give to anyone who would like to know more.

PROFESSIONAL

In the professional world, architectural endeavors of infinite sources cross paths and site themselves from the collective pool of creative thought. By adding this thesis into the pool, it does the field a professional service in order to better inform its practitioners of better design solutions. The thesis is another book upon the infinitely long shelves of human knowledge, but in doing so, we have now begun to contribute to humanity in the most genuine and sincerest of ways.

PERSONAL

Possibly the greatest benefit that the thesis can provide, its creation simultaneously creates the architect and unfolds the sub-dermal layers of empathy in the field and towards society. The effects point far beyond what any project in the field can provide because the thesis is forged from pure passion, thought, and pathos. When it dwindles down to a small book with a name upon its surface, the result is ultimately an extension of the soul and is saturated with an extract of architectural endeavor that cannot be manifested in any other way.

This pathos comes from the very real concern for the state of high-density housing and successfully

retaining a healthy city life. The very anonymity that the urban context emits pushes a younger generation away in supplement for an area in the suburbs. By creating an opportunity that bridges the gap between both worlds it facilitates the future influx of residents, including me.

Figure 17 - FAIR School across from site



||||| SITE ANALYSIS

QUALITATIVE

The successful demonstration of the issues discussed all stem from the correct context in which it is designed. As aforementioned, urban infill projects exist all over the country so the goal is to compose the piece in a location that is not only in need of residences, but is within the realm of an architect's impact. Previous sites have led to other Minneapolis neighborhoods such as Elliot Park where large lots of low-income housing scatter across fields of parking lots. A desperate neighborhood this is yes, but the change that needs to be made would have to be more drastic and much larger than this study is set out to do. In addition, to an adequate context, the site needed to be nearby many amenities found in

a healthy neighborhood including a school. Once again, the object isn't an attempt to reinvent the wheel by contriving these spaces. Like an artist about to paint a work of art, it takes a quality brush and a blank canvas in order to start. Cross referencing these several critical nodes of interest limited the search to the corner of Hennepin Avenue and 10th Street North in the Downtown West neighborhood. As central as the neighborhood is, it currently is lacking the sense of permanence that residential infrastructure provides. The neighborhood consists of over seventy blocks of the downtown grid, but as of 2010 houses roughly 5,000 people. With the completion of Target Field just seven blocks to the north, the

west metro has received much more interest in residential development, primarily mid to high-rise construction.

AMENITIES

The site measures roughly 90,000 square feet, currently consists of surface grade parking, and lies across just south of the historic Arts District. The site is nearly square with little to no incline and runs on the 20 degree angle of the city's downtown grid. Adjacent to the site lies the Downtown Metro FAIR School, a K-12 public school that specializes in comprehensive learning through artistic direction. The site also sits across from a Baptist church to the east, a midrise residential complex to the south

and the famous Orpheum Theater to the north. Behind the site to the north on Hawthorne Avenue is the Greyhound bus Depot. In addition to these accoutrements, the site also benefits from its ease of transportation access. For residents with a vehicle, there is quick access to arterial roads from highway 394 and for public riders; the site is adjacent to several bus stops. Lastly, the site is located two blocks away from a local grocery store and a five minute walk from Loring Park and a dog park.

The location is situated in a relatively healthy neighborhood, but the district's vibrance can be temperamental. The surrounding neighborhood tends to swell with people during the daytime and on

the weekends, but after business hours, the financial district to the east shuts down and makes for an uncomfortably hollow core. One walk down Nicollet Mall at dusk tells how quickly the blocks turn into a ghost town. Hennepin Avenue has shed some of this ominous feeling with a range of bars and restaurants to occupy the later guests and the feeling further dissipates as the road heads south towards Loring Park. As stated earlier, combating the problem of segregated program types will be a sensitive issue to consider.

VIEWS

The site's surrounding architecture is an integration of historic low-rise buildings in the foreground and modern,

high-rises in the background. The perspectival ratio between the two building types make for a view that is simultaneously distant and near, almost to encapsulate multiple essences of the same city. Aside from the FAIR School consisting of complimentary colors, most of the surrounding buildings are brown and beige brick. Looking up Hennepin reveals a pallet of colors from the theaters and bar signs grouped along the streets, and at night the lights emit even more intensity. The site ultimately has the choice to either blend in with its beige surroundings or stand amongst the Theater District with a range of colors that match the décor.

While the site has many great

views of downtown Minneapolis to the northeast, the opposing direction isn't as slightly. The site to the west is imbued with an open, unsightly, and potentially noisy highway west of Hawthorne Avenue. Protection will need to be implemented in order to combat the views and potential noise that residences may have towards this part of town.

VEGETATION

Several small trees lie on the periphery of the site forming a small allee between the sidewalk and the street. They will be workarounds in the design of the building. The surrounding area is lacking the comforting green of vegetation so an emphasis on soft scape would be a welcomed change from the context.

LIGHT

As close to the city center as the site is, there is plenty of solar access at all times of the day. The only shadows that cast upon the area are in the late evening during the summer months due to the midrise complex to the south west. This shading however isn't necessarily a problem for it can help in blocking the hot afternoon sun shining in from the west.

WIND

Most of the wind that blows through Minneapolis comes from the northwest or the southeast and since there isn't much to block its passage; these sides will be open to the elements. Since the northern exposure is

most severe and the views to that side are coincidentally the least desirable, an emphasis can be made on openings in other directions.

HUMAN CHARACTERISTICS

Aside from the site's current surface grade parking, no habited structures exist. A small fast food restaurant used to border Hennepin Avenue but has since been removed leaving only parking spaces and three billboards.

DISTRESS

Although Hennepin Avenue has a healthy and vibrant atmosphere, 10th Street west of Hawthorne isn't as hospitable. The Greyhound Station occupies three long blocks and chokes the pedestrian-friendliness with a



Figure 18 - Corner of Hennepin and 10th



Figure 19 - View of site looking south on Hennepin

long corridor of parking garages. Across the street are a few small businesses and a church pinched between the station and highway 394.

There are no signs of environmental distress on the site or on the current vegetation.

QUANTITATIVE

SOILS

The site lies in a large collection of soil known as the Eastern Iowa and Minnesota Till Prairies. This composition is primarily composed of Mollisols and Alfisols, fertile soils rich in organic matter. The soil is loamy with slight clay content and drains adequately-poorly.

The soil is of the Wadena-Estherville-Hawich series which has sedimentation of fine, silty, loamy soil followed by a sandy mix underneath.

UTILITIES

A small electrical box occupies the north corner and a telephone wire passes around the west corner of the site. The sidewalk facing Hawthorne Avenue is lined with parking meters and all sides of the block are lined with tall street lights.

VEHICULAR TRAFFIC

Hawthorne and Hennepin Avenue are both two-way streets with two lanes in each direction. 10th and 11th Streets are both three lane, one-way streets with 10th directed east and 11th directed

west. Bike lanes accompany these streets in similar directions.

Five separate bus routes boarder the site, taking riders in every grid direction.

PEDESTRIAN TRAFFIC

Pedestrian traffic is moderate on Hawthorne and Hennepin north of the site, but quickly diminishes after 10th Street.



(Courtesy of Google Maps)
Figure 20

SITE MAP

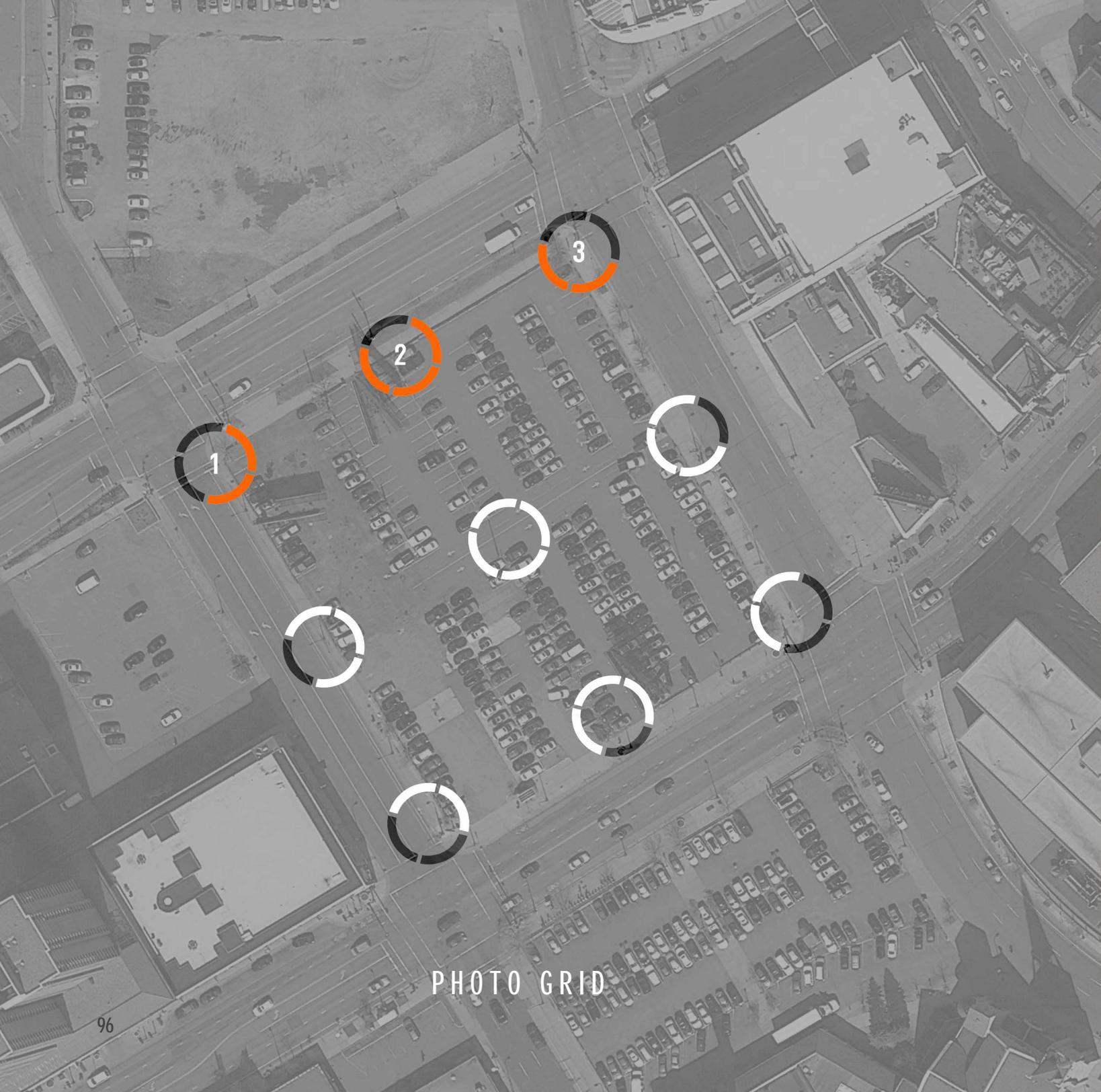


PHOTO GRID

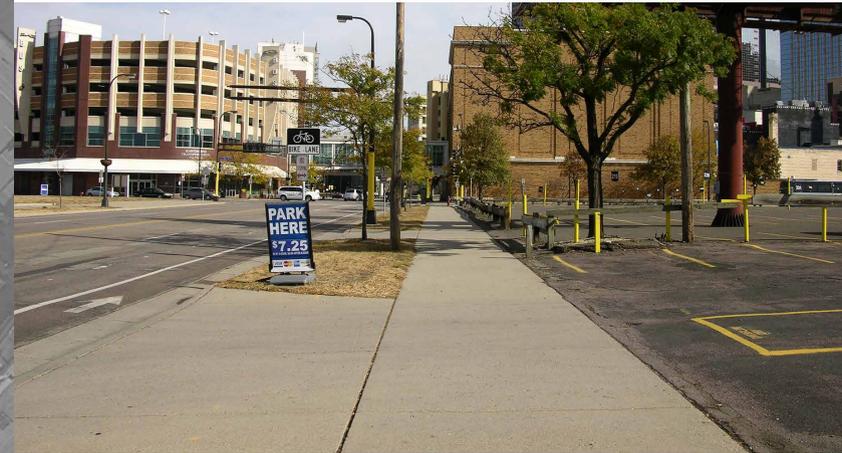


Figure 21.1

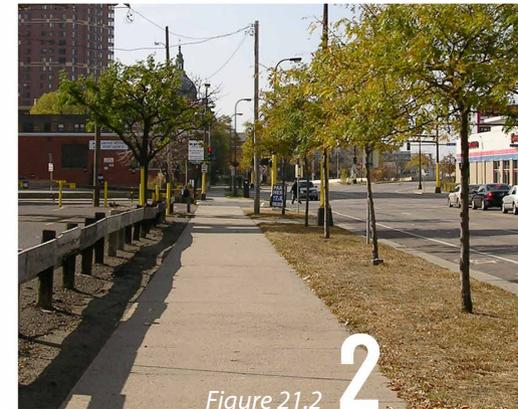


Figure 21.2



Figure 21.3

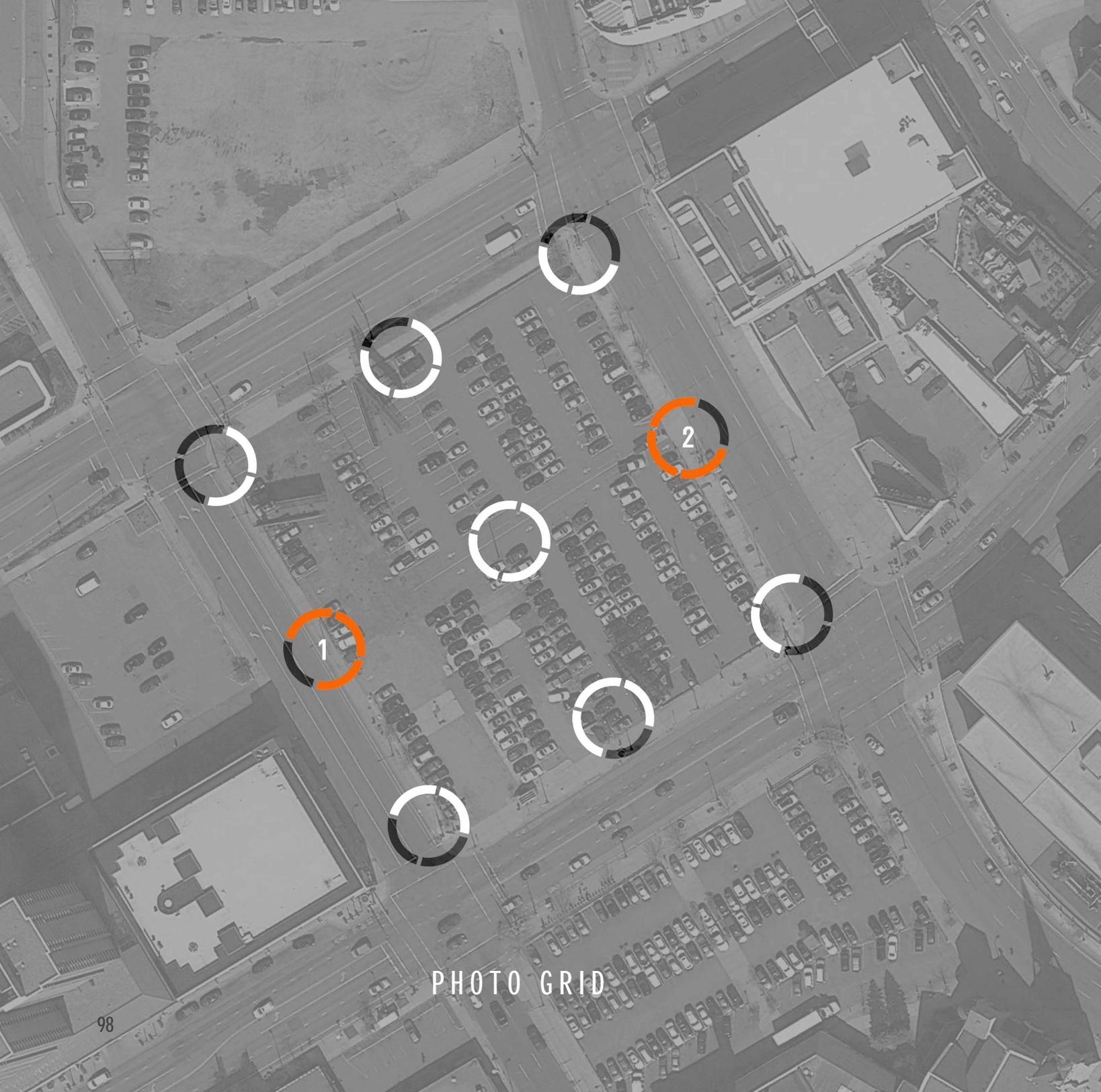


PHOTO GRID



Figure 22.1

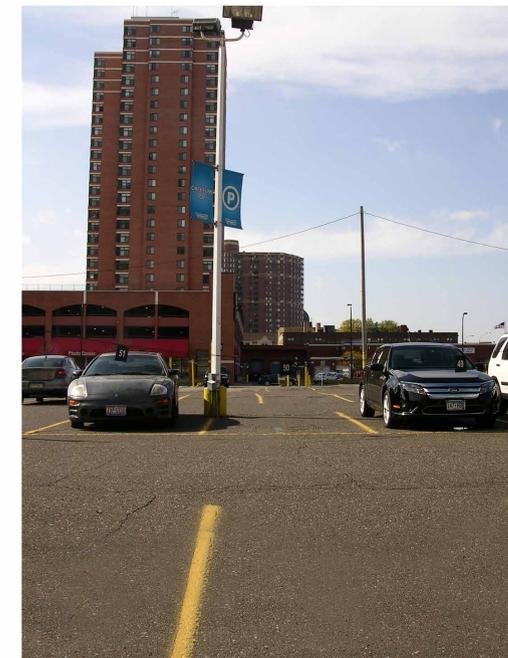


Figure 22.2

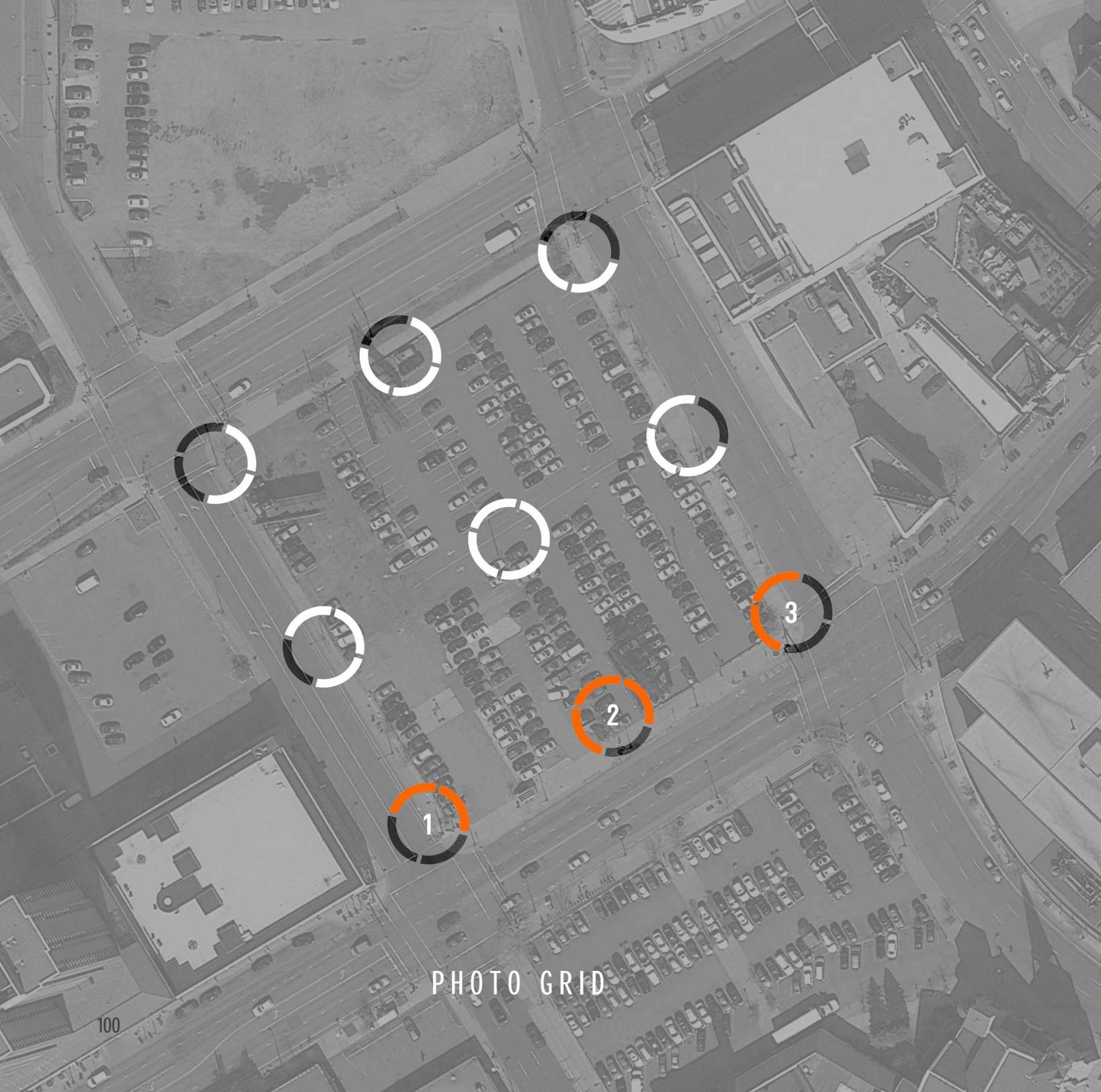


Figure 23.1



Figure 23.2



Figure 23.3

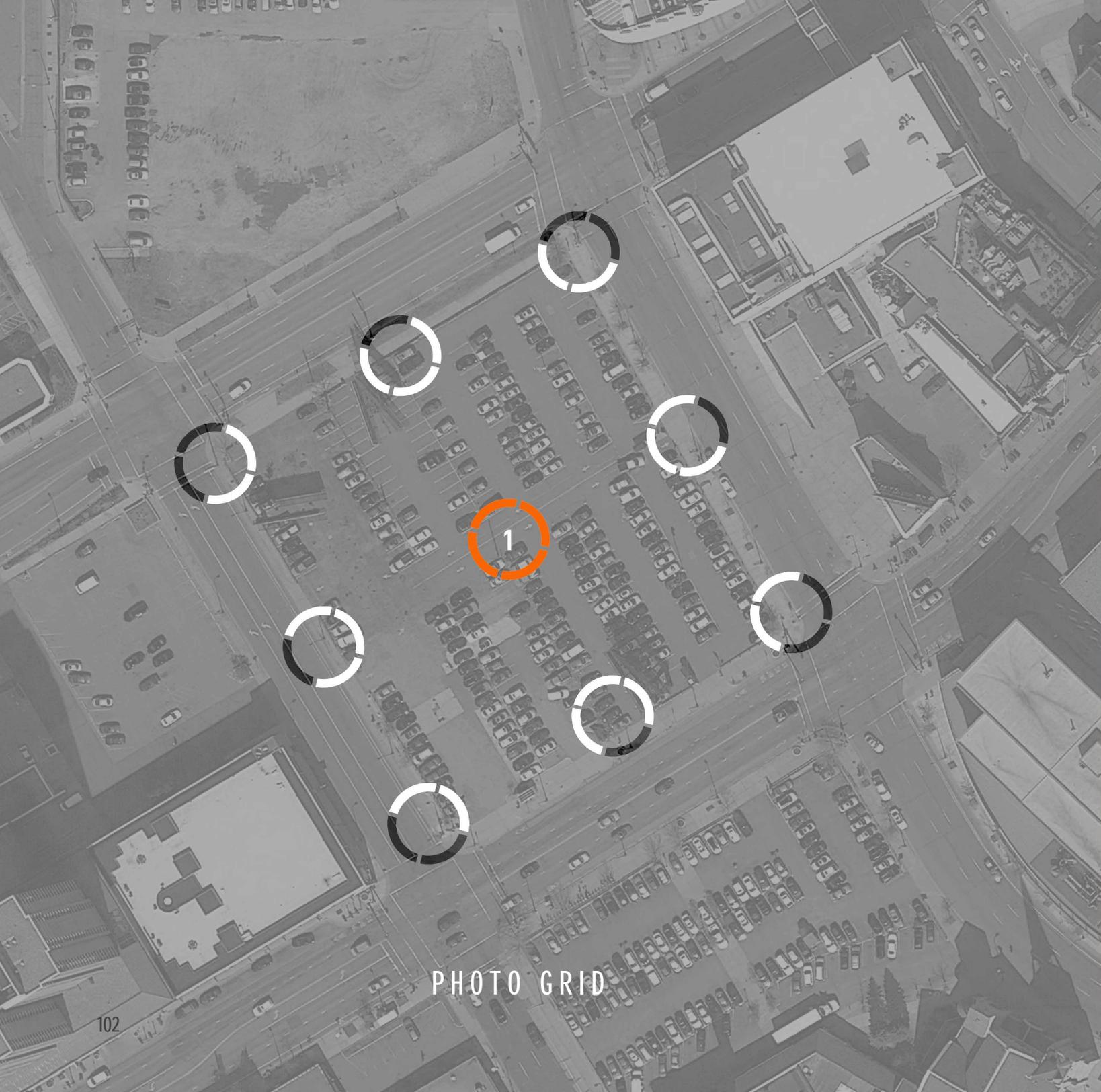


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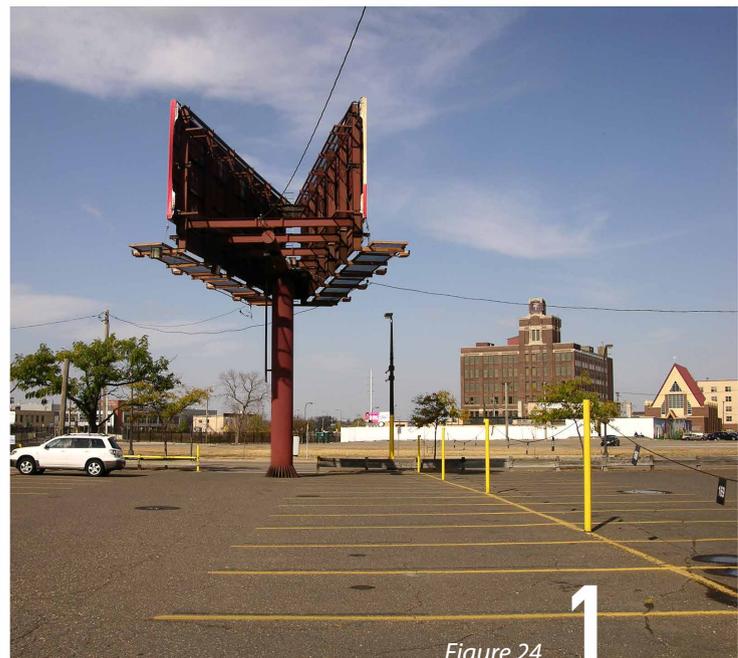
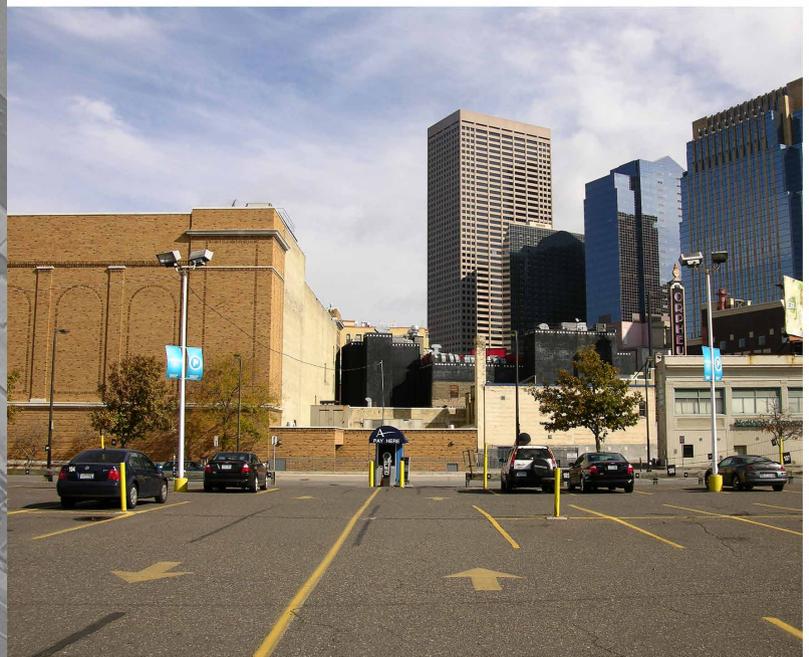


Figure 24



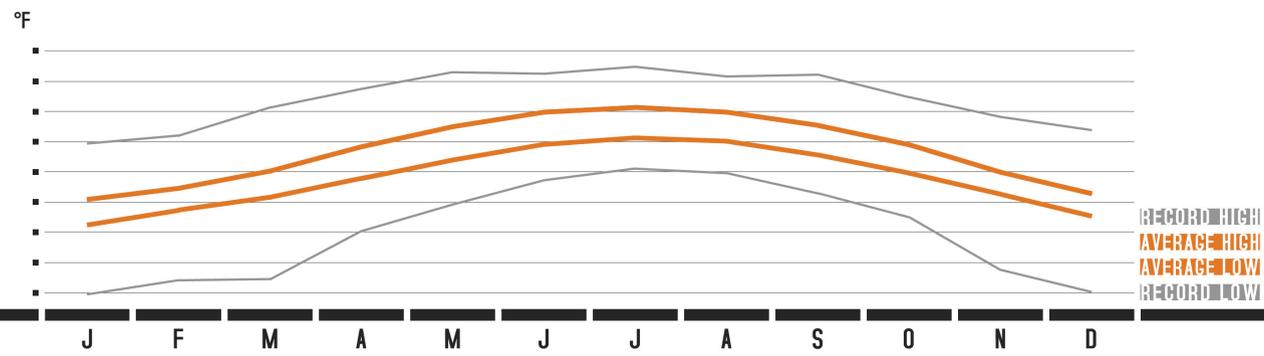


Figure 25.1

TEMPERATURE

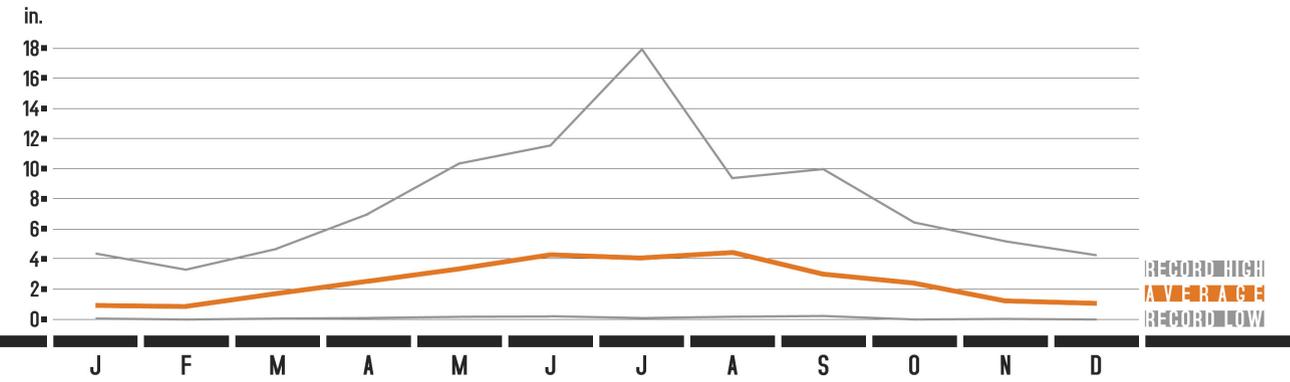


Figure 25.3

PRECIPITATION

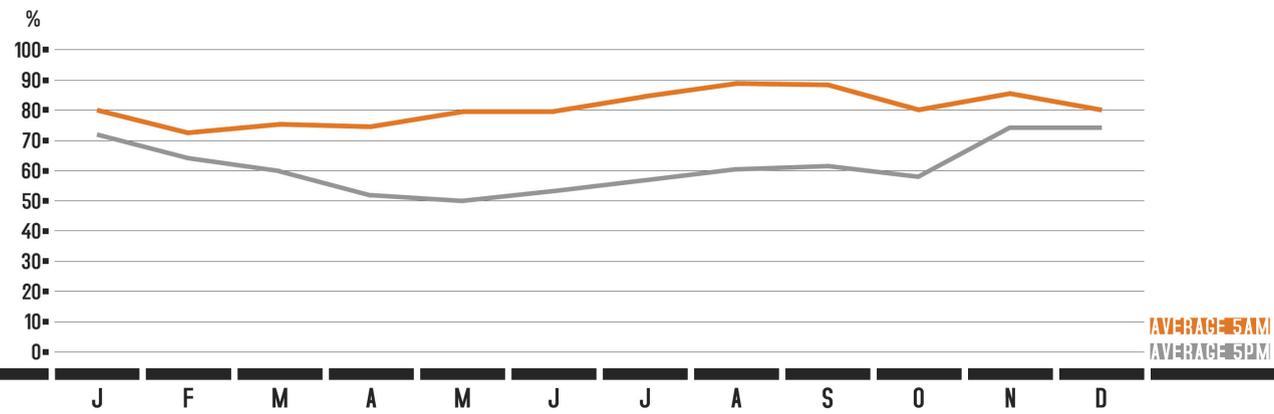


Figure 25.2

RELATIVE HUMIDITY

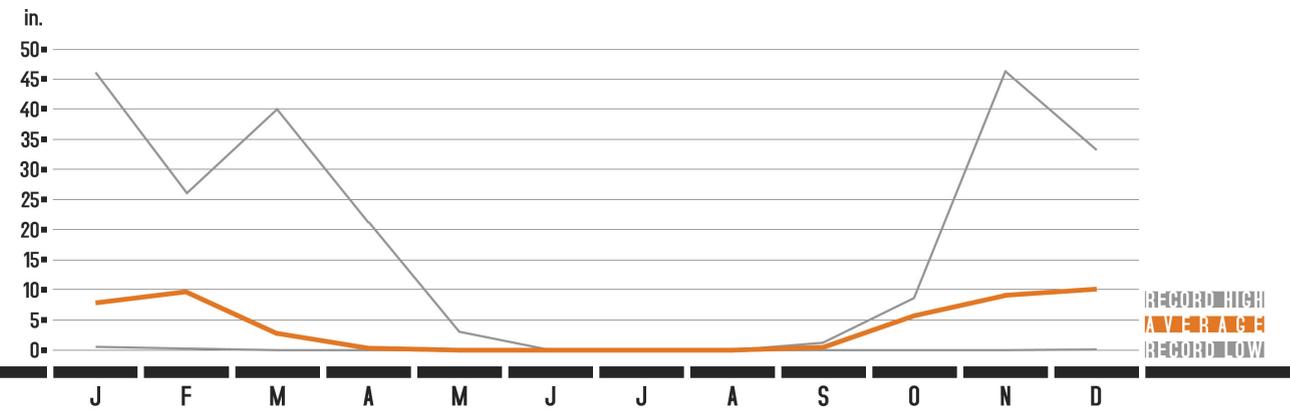
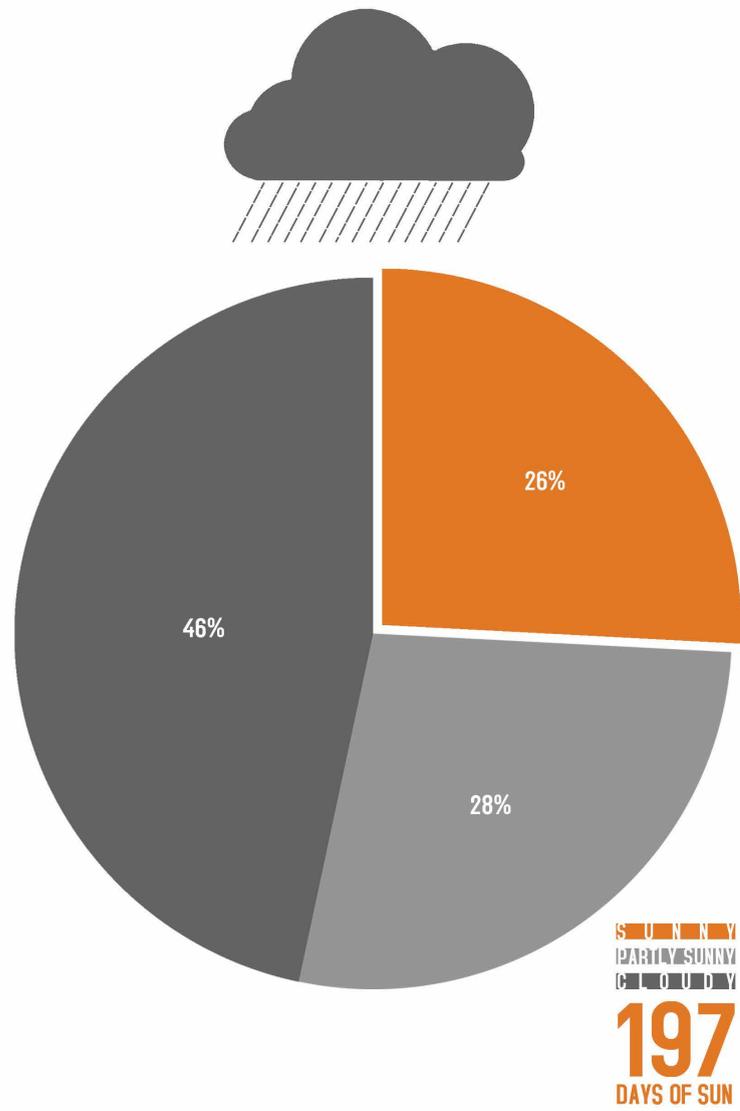


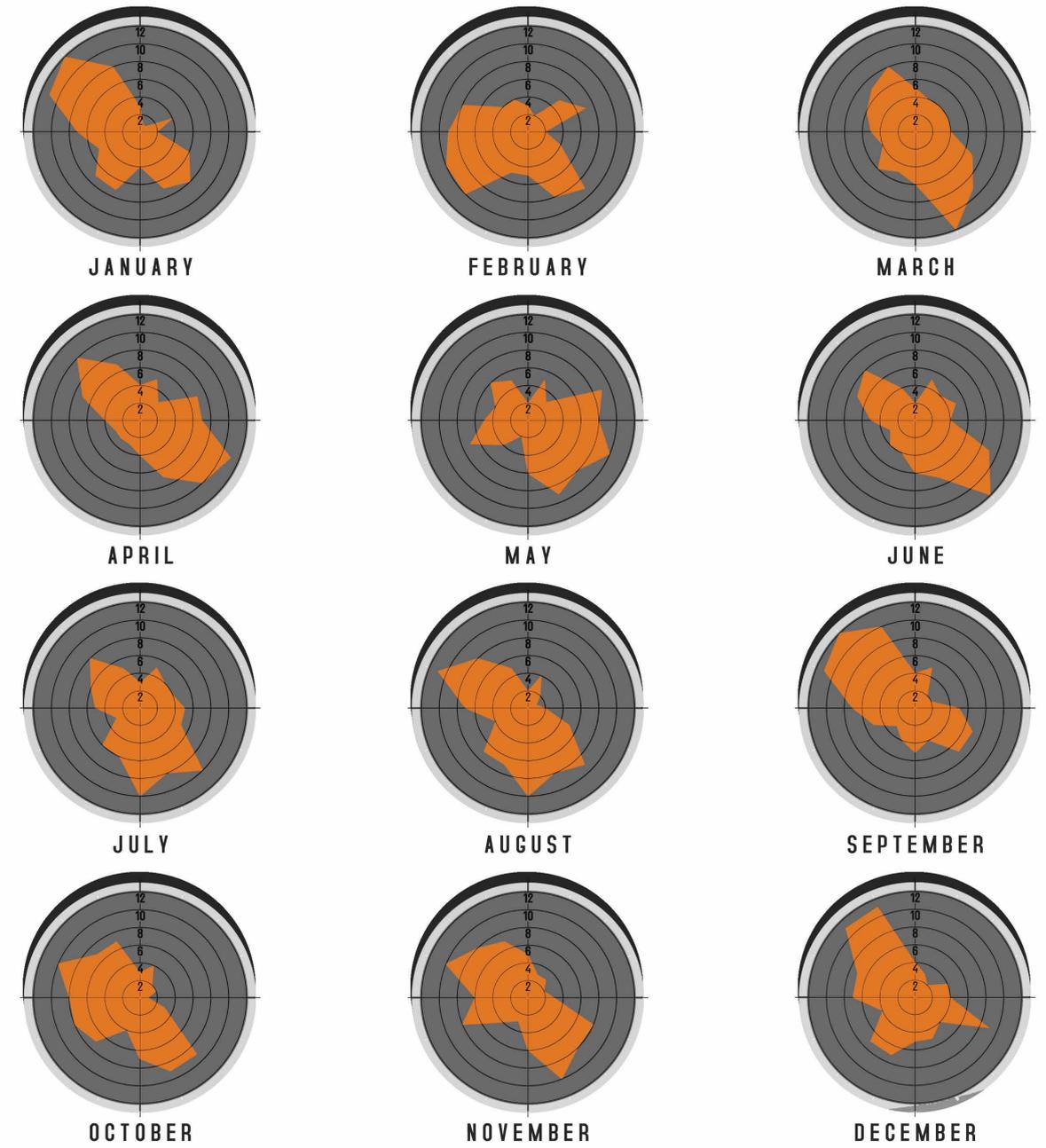
Figure 25.4

SNOWFALL



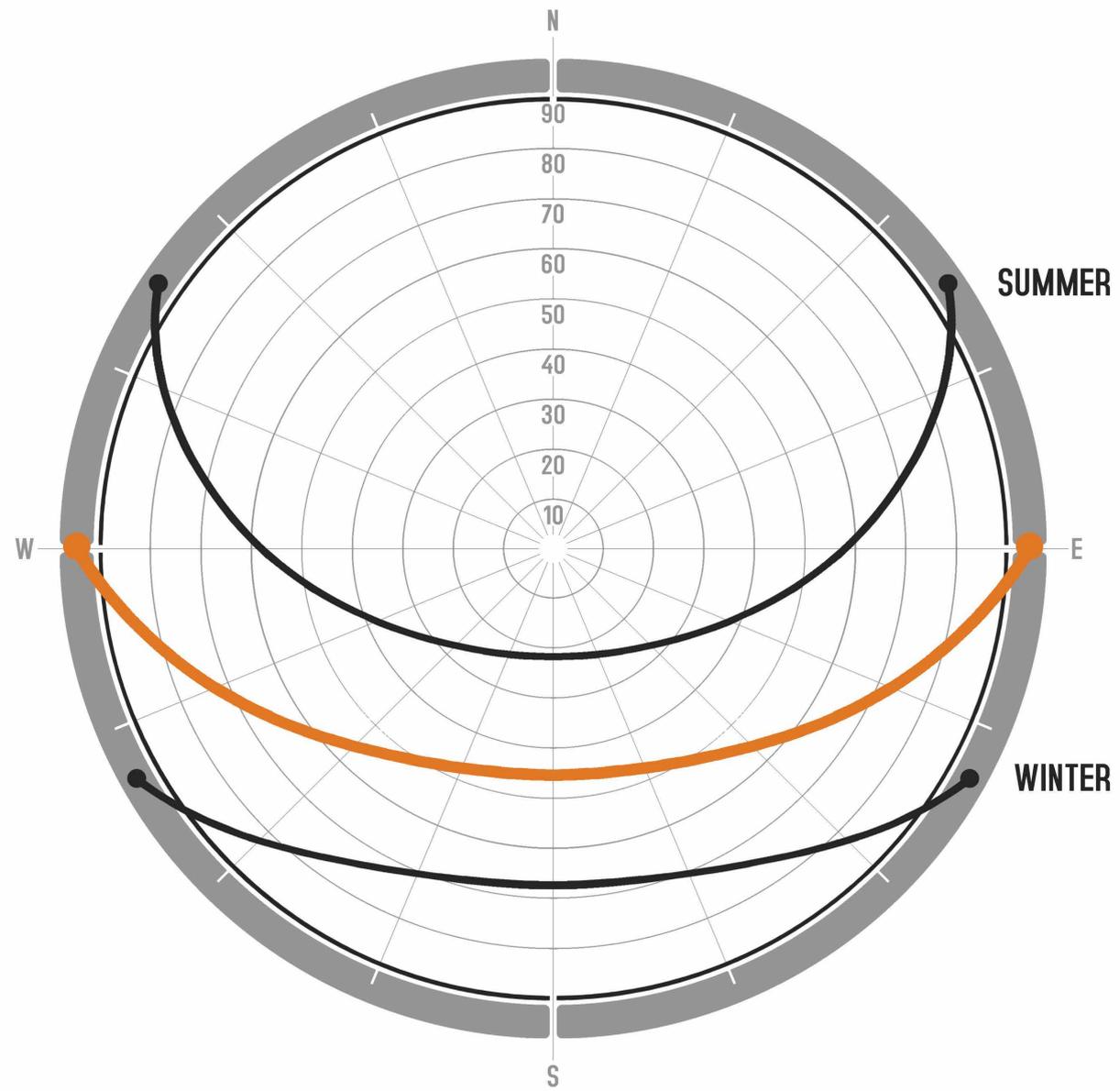
CLOUD COVER

Figure 26



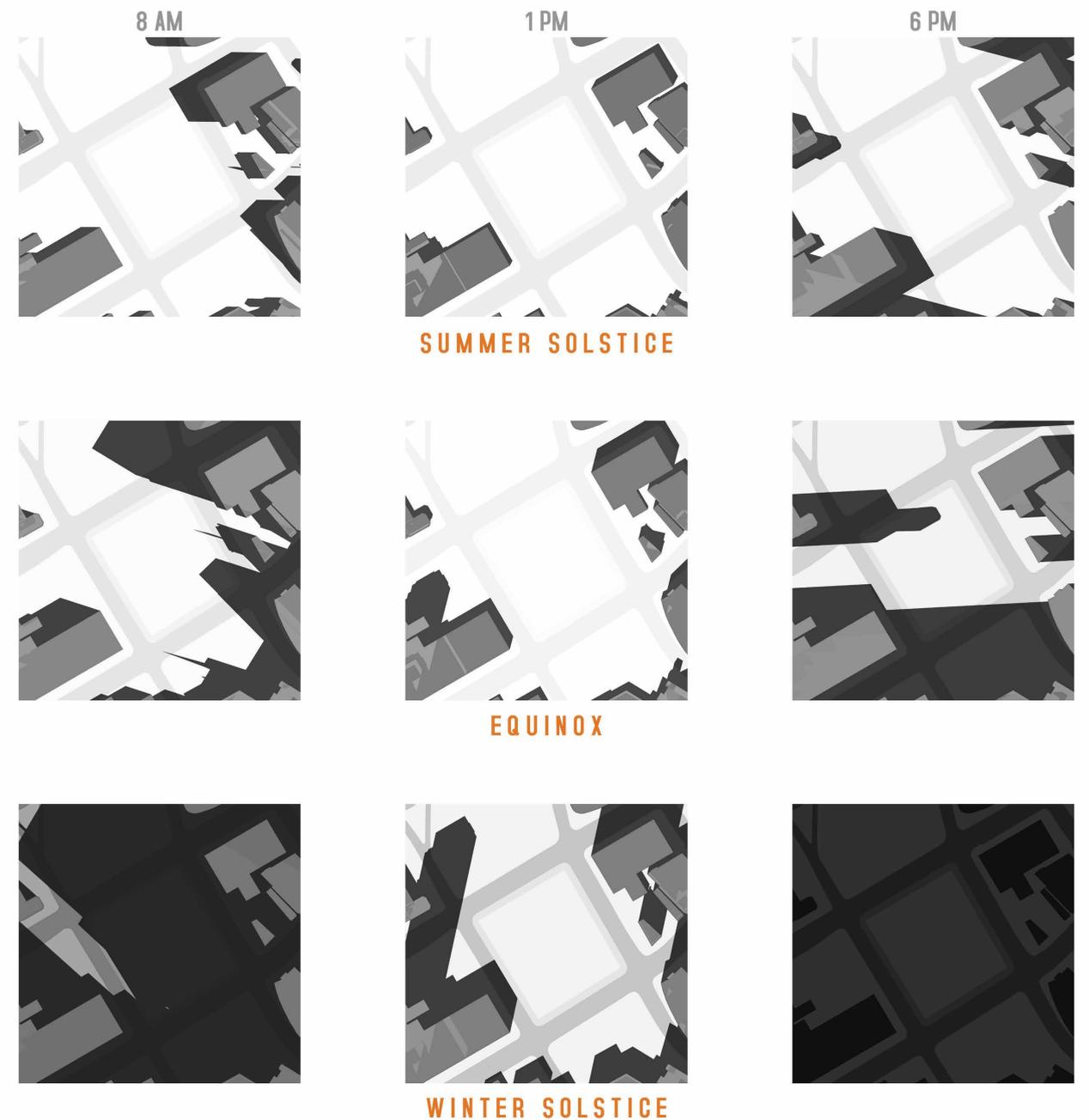
WIND SPEED AND DIRECTION

Figure 27



SUN PATH

Figure 28
108



CAST SHADOWS

Figure 29
109

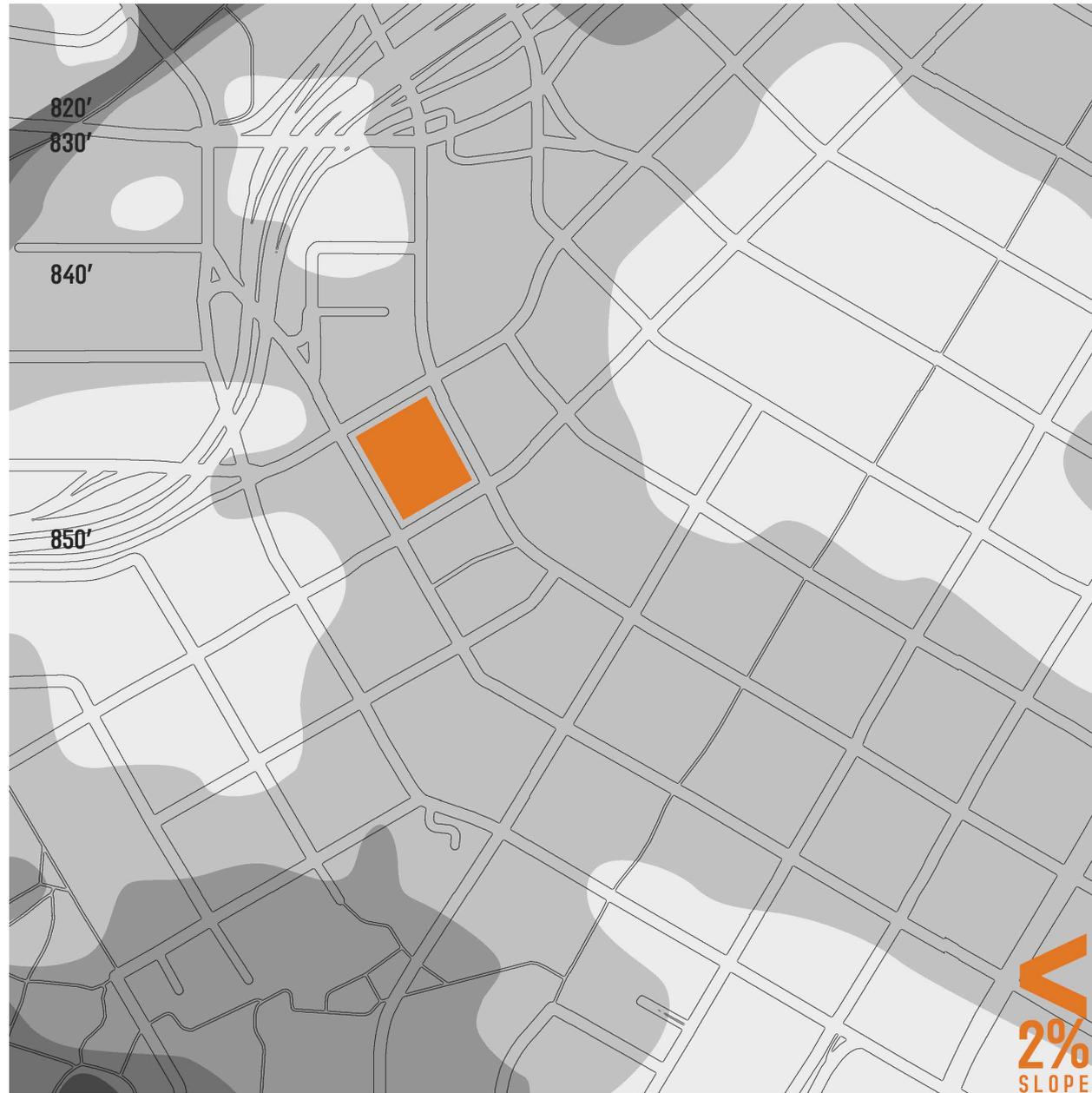
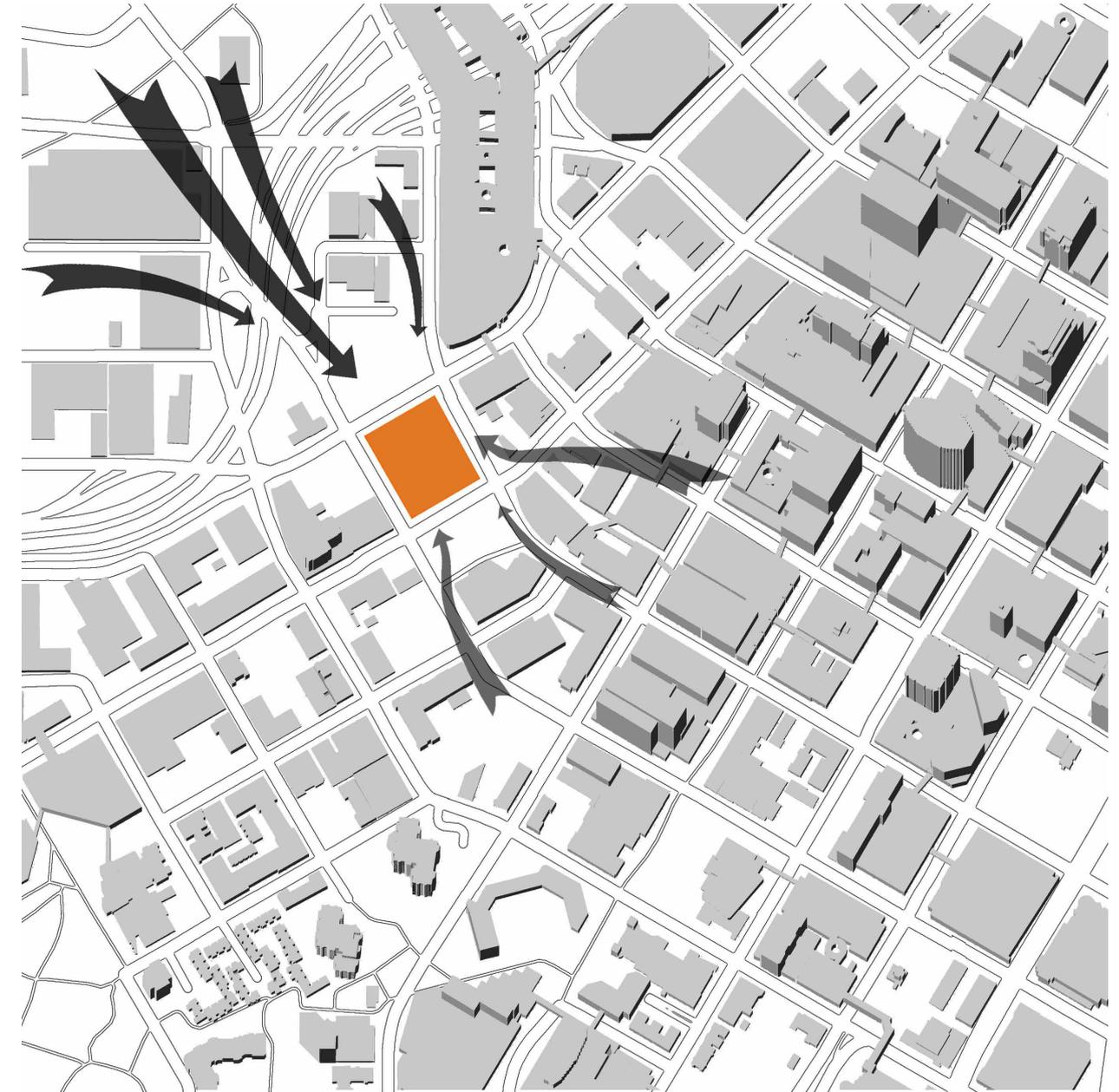


Figure 30

TOPOGRAPHY



AIR MOVEMENT

Figure 31



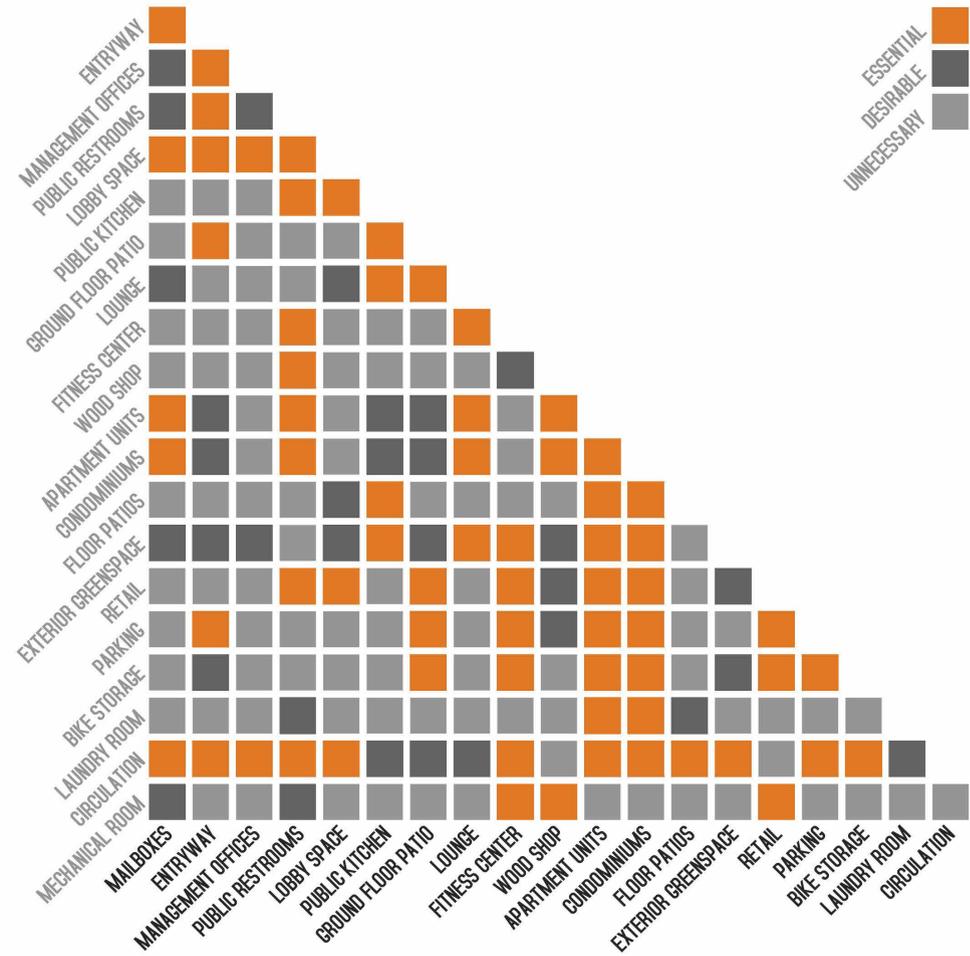
Figure 32

NOISE

| sq ft. | |
|--------|---------------------|
| 100 | Entryway |
| 200 | Management Offices |
| 200 | Public Restrooms |
| 400 | Lobby Space |
| 100 | Public Kitchen |
| 200 | Ground Floor Patio |
| 100 | Lounge |
| 2,000 | Fitness Center |
| 1,000 | Woodshop |
| 30,000 | Apartments |
| 30,000 | Condominiums |
| 1,000 | Floor Patios |
| 4,000 | Exterior Greenspace |
| 30,000 | Retail |
| 20,000 | Parking |
| 100 | Bike Storage |
| 200 | Laundry |
| 2,000 | Circulation |
| 100 | Mechanical Room |
| 70 | Mailroom |

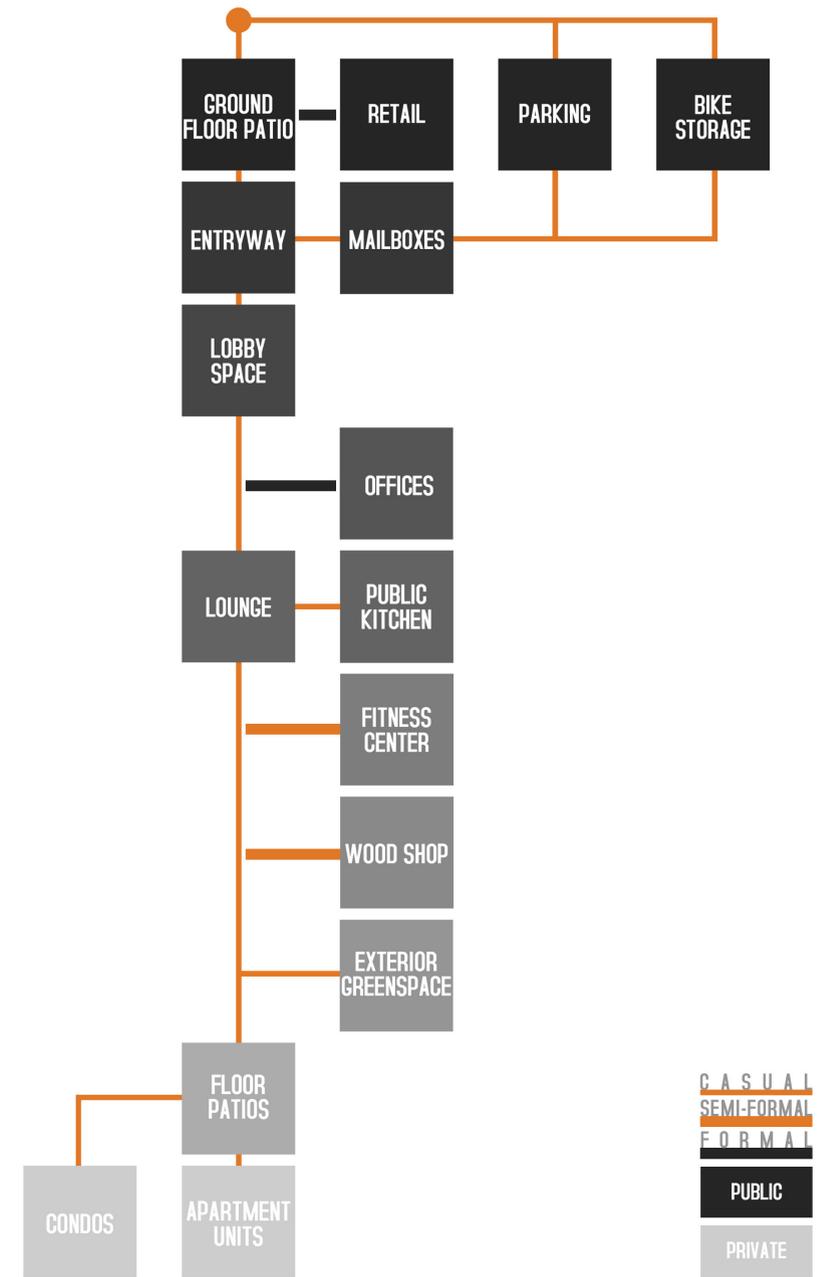
SPACE ALLOCATION

Figure 33



INTERACTION MATRIX

Figure 34
114



INTERACTION NET

Figure 35
115



Figure 36 - Program cover
(www.4.bp.blogspot.com)

THE DESIGN

||||| PROCESS WORK

CLEARED SITE 1

In order to begin the design phase, all existing land has been virtually cleared.

SITE GIVEN MOST "STANDARDIZED" HOUSING SOLUTION 2

As this is a critique on the standard of living deemed acceptable in our cities, it would be a poetic gesture to transform a normal urban infilled layout into the final design. Blue is for commercial and yellow is for residential.

PEDESTRIAN ACCESS 3

In order to persuade public access into the heart of the site, a cut is made through the site. In doing so, it also helps to link Hawthorne Ave. and Hennepin Ave. together.

PERMEABILITY 4

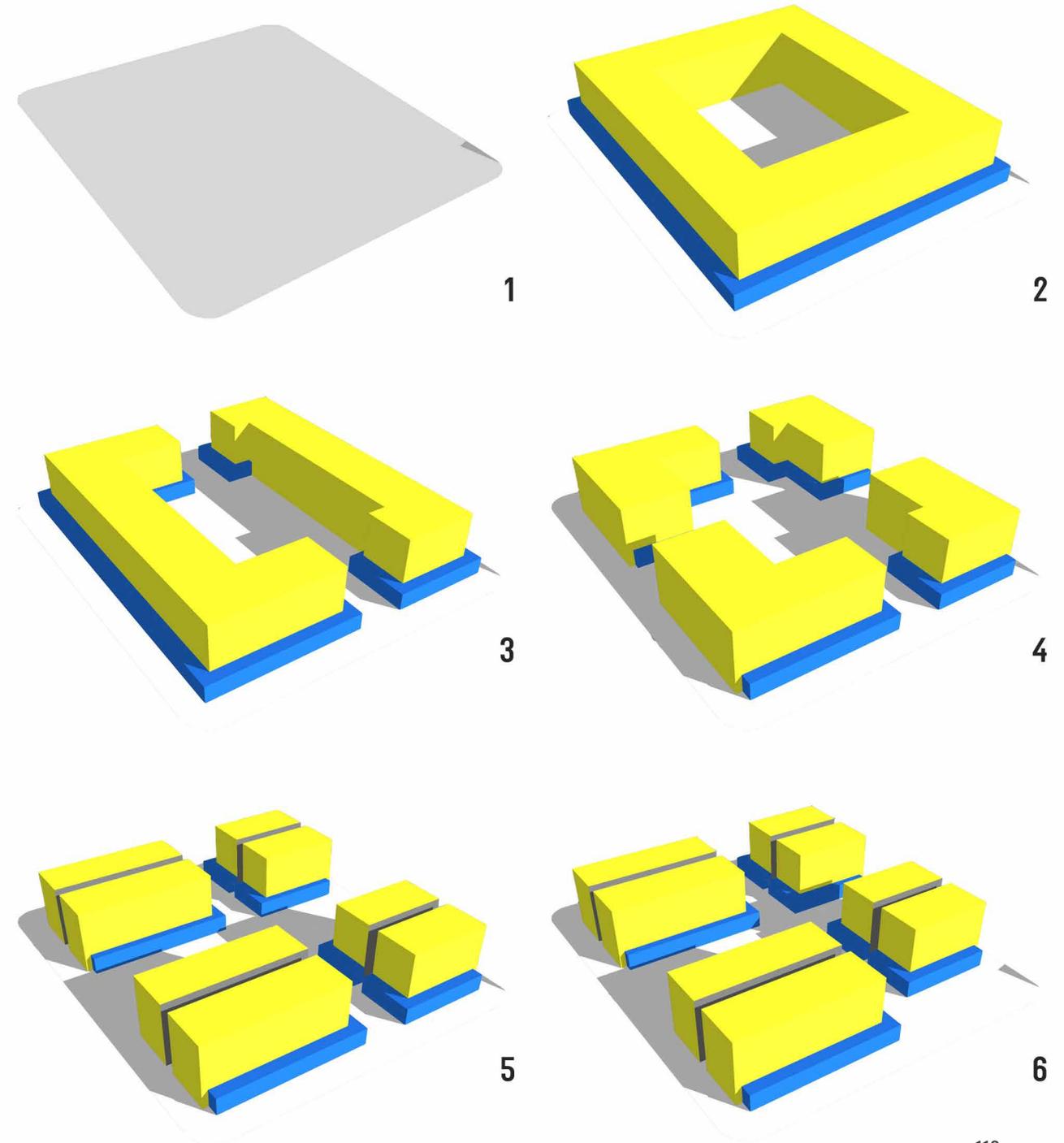
Sociologically, it takes a conceded effort to walk through the center of a city block rather than on its sidewalks. Therefore, by opening it up even further, the public has a chance to make it back to the streetscape.

SUB-BUILDINGS DIVIDED 5

The sub-buildings created are then split in two in order to allow more light, and to create a clear sense of access from the street.

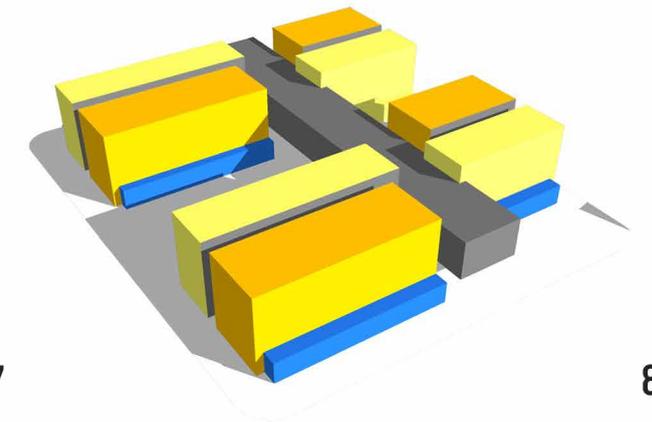
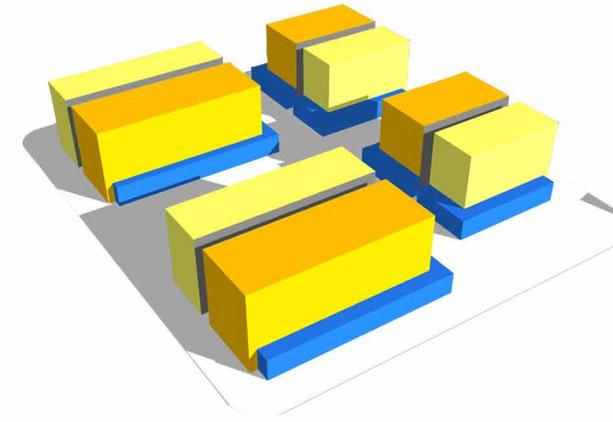
SUB-BUILDING MOVED BACK 6

The sub-building closest to north-Hennepin is moved back from the sidewalk to allow for a public plaza and to further instill the sense of opening.



APARTMENTS AND CONDOMINIUMS 7

The sub-buildings are then divided amongst apartments and condominiums, the latter being coded the color orange.

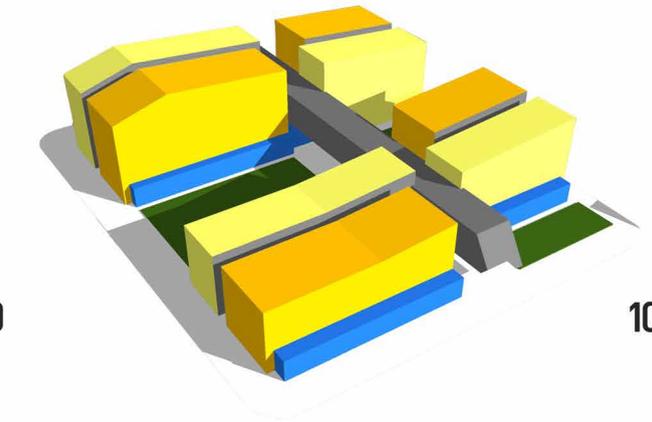
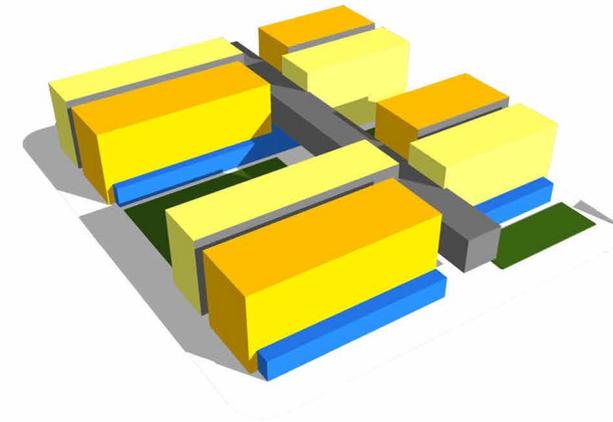


THE BRIDGE 8

At this point the four sub-buildings have stood alone on the site. In order to rebridge the residents, a long corridor named respectfully spans the length of the site.

PARK AND PLAZA 9

The remaining space on the ground floor is filled with a public plaza on Hennepin Ave. and an open park to the west.



SUN ANGLE 10

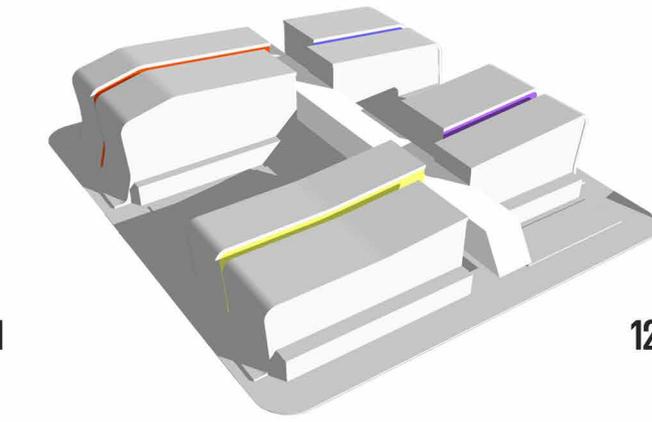
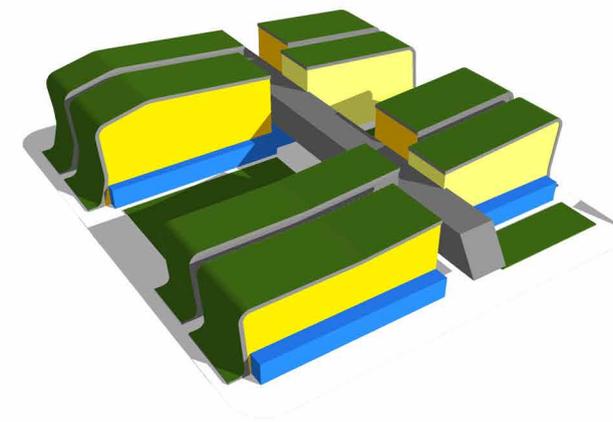
In order to allow more light into the park, the bridge, and Hawthorne Ave, the sub-buildings are adjusted likewise.

GREEN ROOF 11

Taking the form of a complex rising out of the site, green roofs and walls extend up and over the sub-buildings and visually connect on the other side.

COLOR CODING 12

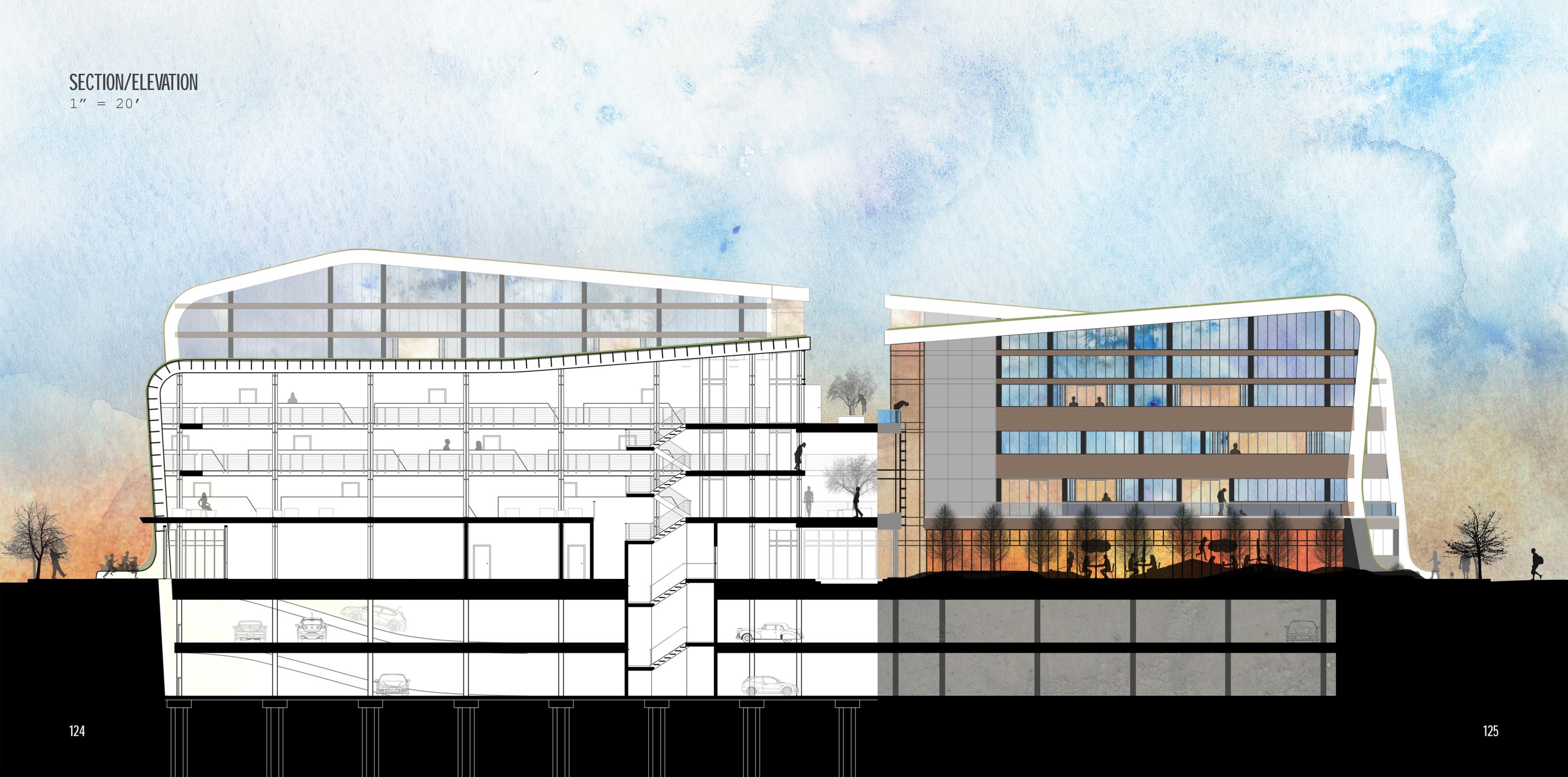
The sub-buildings are given a special identity related to the four dominant colors of Hennepin Ave's. four theaters, the Orpheum, Pantages, State, and New Century. A unique sense of identity helps to relate the residents under the same roof and spark the idea of community.



THE DESIGN



SECTION/ELEVATION
1" = 20'



FLOOR PLAN 1

1" = 60'

- RETAIL/COMMERCIAL 1
- PUBLIC KITCHEN 2
- LAUNDRY 3
- GROUND FLOOR PATIO 4
- UNDERGROUND PARKING ENTRANCE 5
- PUBLIC RESTROOMS 6
- FITNESS CENTER 7
- OFFICES 8
- BIKE STORAGE 9
- APARTMENTS 10
- MAILBOXES 11
- LOBBY SPACE 12
- MECHANICAL 13



FLOOR PLAN 2

1" = 60'



LOUNGE 1

EXTERIOR GREENSPACE 2

FLOOR PATIOS 3

APARTMENTS 4

CONDOMINIUMS 5

FLOOR PLAN 4

1" = 60'



FLOOR PATIOS 1

APARTMENTS 2

CONDOMINIUMS 3

EXTERIOR GREENSPACE 4



VIEW OF PARK LOOKING TOWARDS BRIDGE



VIEW DOWN THE BRIDGE



ATRIUM WITH FRONT STOOPS



LOFT CONDOMINIUM WITH VIEW TO EXTERIOR

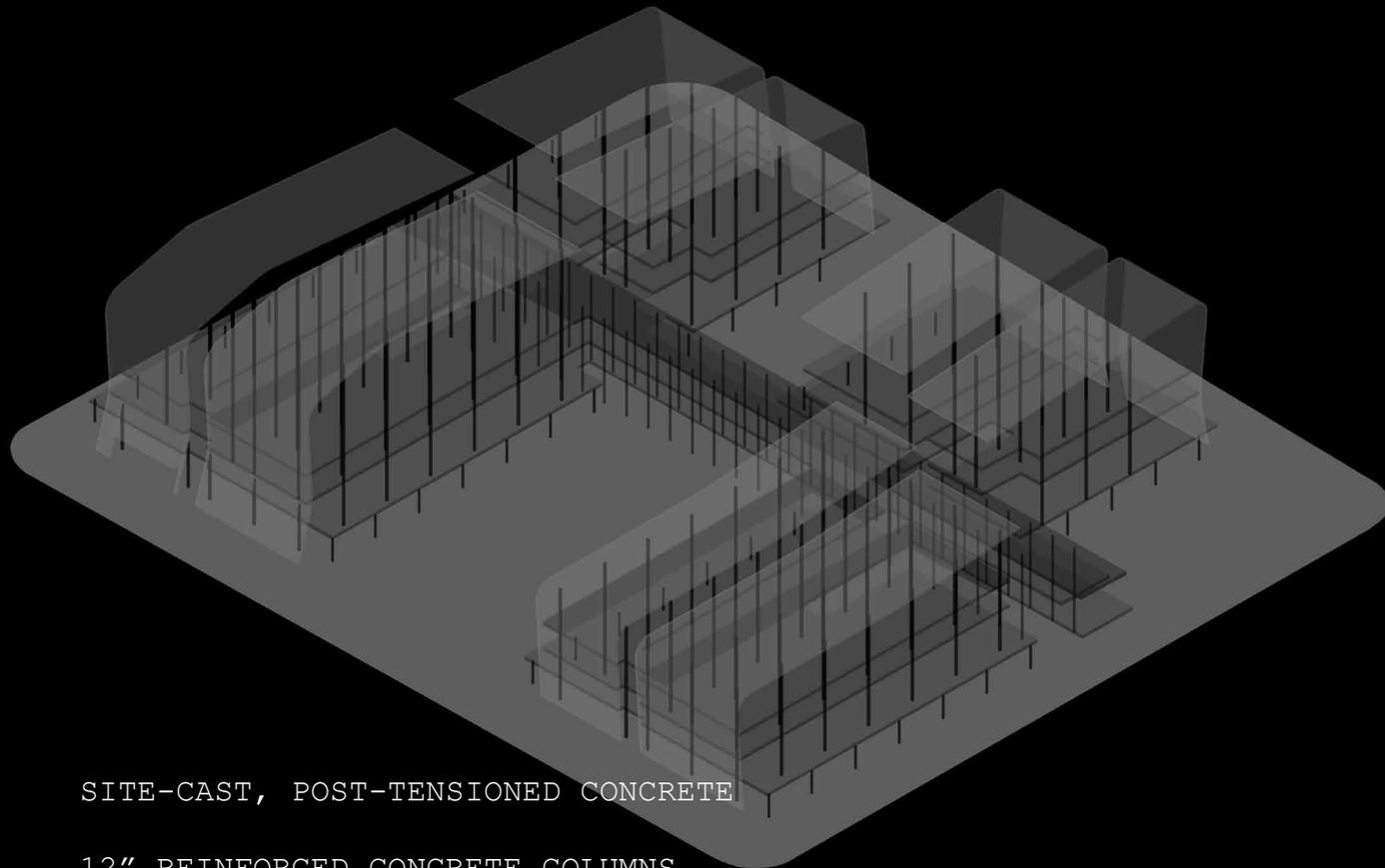


EXAMPLE FLOOR PLAN

BETWEEN HOUSE AND HOME

The floor plan displayed to the left is an example of the physical layers of enclosure needed in this thesis. Although seemingly similar in nature to that of a normal unit layout, the difference lies in the attempt to blend the completely public realm and the completely private. In this example, the door step has been pulled away from the walkway, allowing an indoor pation to emerge, and to help reclaim the interior corridor's sense of life. In addition, by blurring the definition of circulation and resting space, the atriums of the four sub-buildings can be equally hospitable towards relaxing and social interaction as does the bridge that links similarly.

SYSTEMS DESIGN



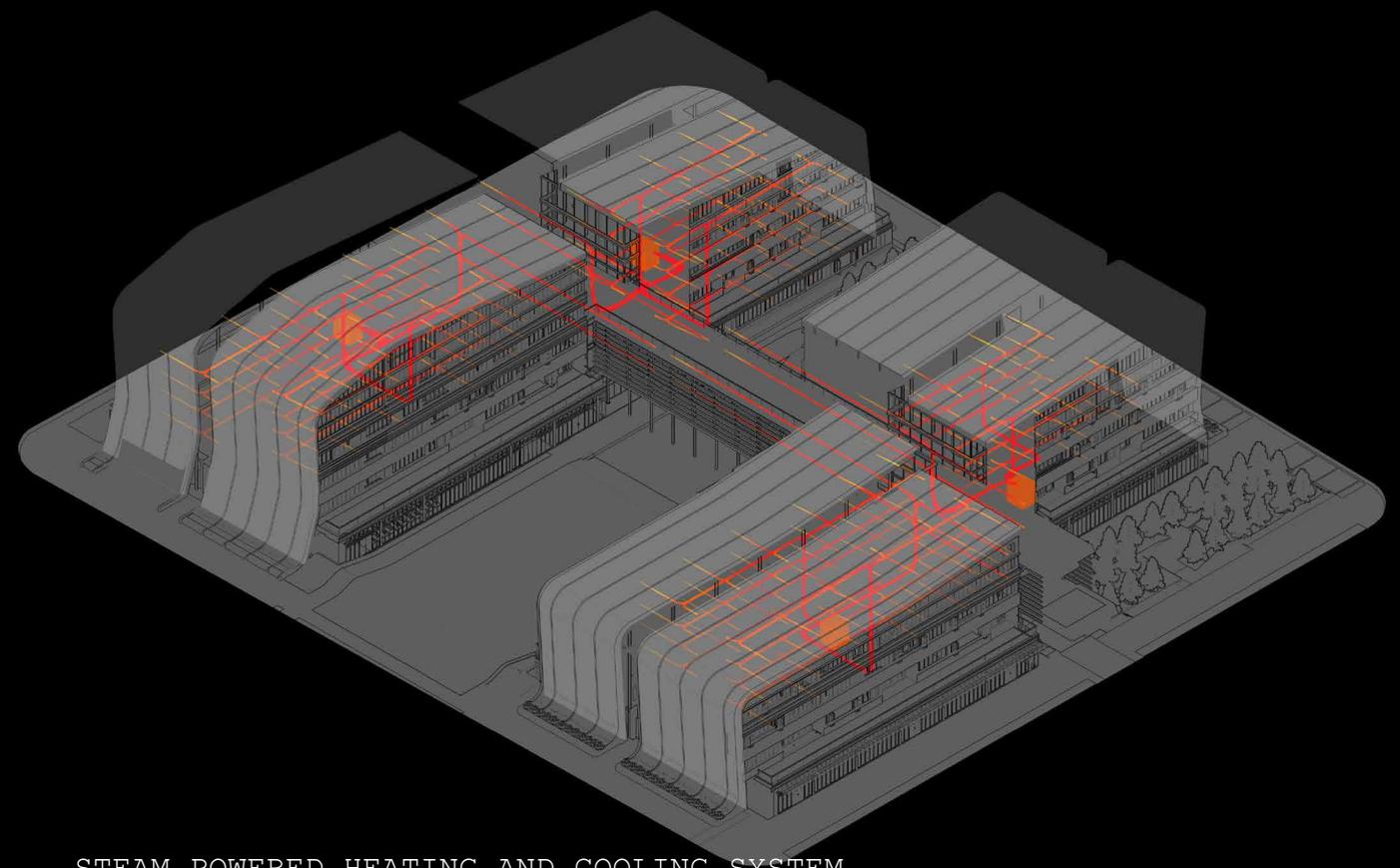
SITE-CAST, POST-TENSIONED CONCRETE

12" REINFORCED CONCRETE COLUMNS

6" FLOOR SLABS

THERMALLY BROKEN SLABS AT EXTERIOR WALLS

STRUCTURE



STEAM POWERED HEATING AND COOLING SYSTEM

ENERGY PROVIDED BY CITY OF MINNEAPOLIS

HEATS AND COOLS AIR THROUGHOUT THE YEAR

HVAC SYSTEM

||||| MATERIALS AND DETAILS

ZOLA FOLDING WINDOW AND DOOR SYSTEM

Aluminum-clad wood
Triple-glazed
R-Value - 8.1

TIMBERTECH COMPOSITE WOOD PANELING

Weatherproof
Resists warping
Low Maintenance

WEATHERCRETE PRECAST CONCRETE PANELS

For use on first floor exterior
Weatherproof
Resists damage and vandalism

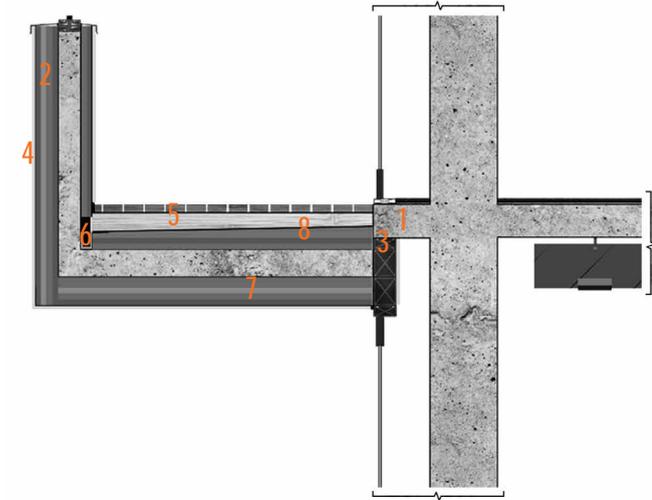
GRANITE PAVERS

Extremely durable
Easy to repair

Zahner GB-60 Stainless Steel Panels

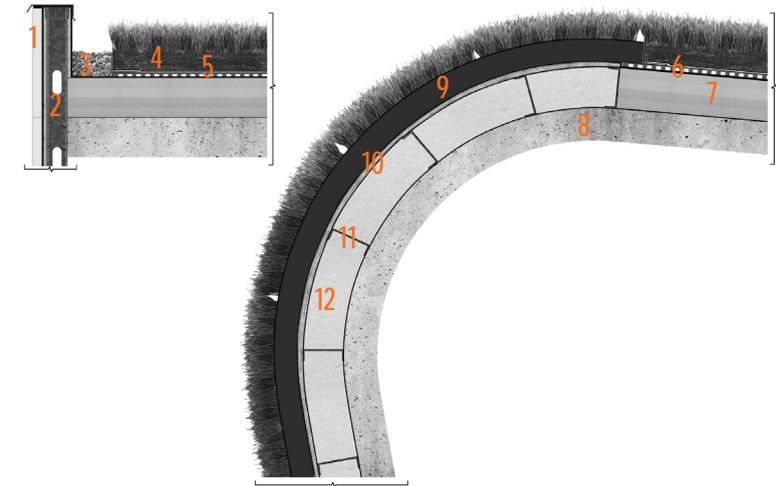
Resists oxidation and smudging
Wear-proof

- 1 6" SITE-CAST CONCRETE
- 2 6" RIGID INSULATION
- 3 1" STEEL PLATE
- 4 ZAHNER STAINLESS STEEL PANEL
- 5 2X4 RUNNERS
- 6 GUTTER
- 7 8" RIGID INSULATION
- 8 WATERPROOF MEMBRANE



PATIO AND THERMAL BRIDGING DETAIL

- 1 ZHNER STAINLESS STEEL PANEL
- 2 4" STEEL STUD
- 3 <8" GRAVEL
- 4 5" GROWING MEDIUM
- 5 FILTER CLOTH
- 6 DRAINAGE LAYER
- 7 8" RIGID INSULATION
- 8 8" SITE-CAST CONCRETE
- 9 GREENWALL GROWING CELLS
- 10 WATERPROOF MEMBRANE
- 11 GALVANIZED STEEL STUDS
- 12 EXPANDING FOAM INSULATION

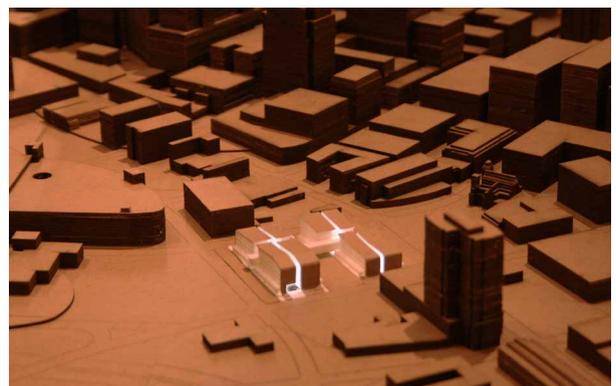
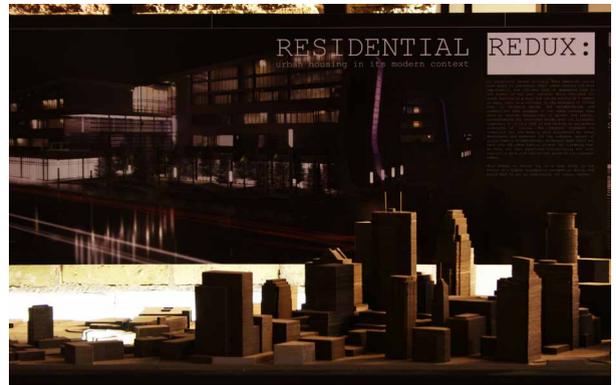


PATIO AND THERMAL BRIDGING DETAIL

||||| CLOSING THOUGHTS

Sociologist C. Wright Mills once wrote, "Neither the life of an individual nor the history of a society can be understood without understanding both. (Mills 1959)" In other words, the issues regarded in public life and those in private life need an appropriate knowledge of both before any positive change can be met. This thesis is an attempt to not only understand the societal problems in urban housing, but the individual needs that set before it. More important than frivolous infill, more important than financially efficient housing, community is the most dreadfully overlooked necessity to urban life and is the soon-to-be answered question to this residential redux.

THEESIS DISPLAY



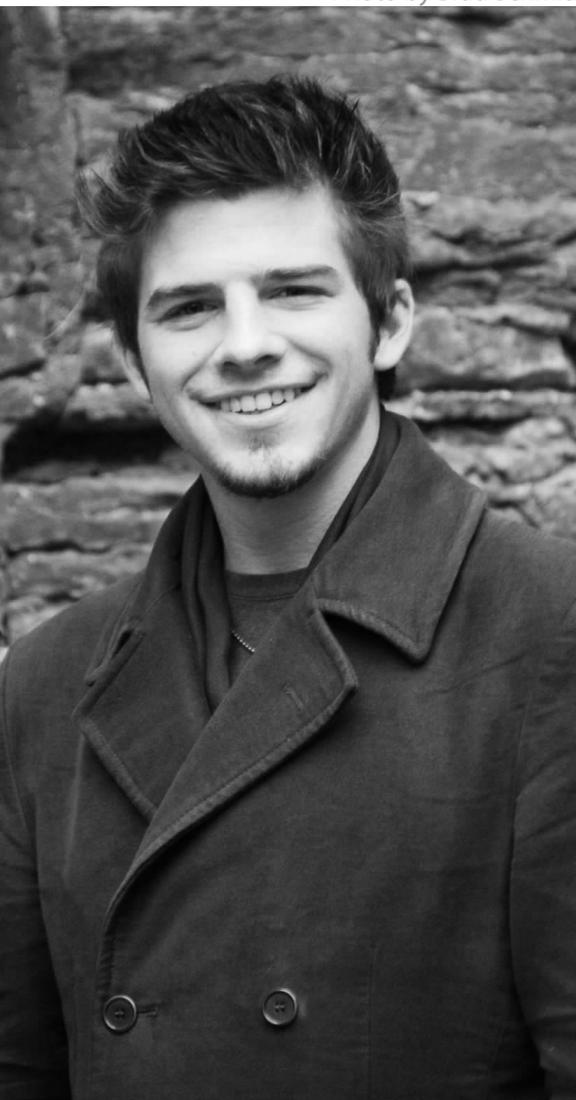
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www.quickfacts.census.gov](http://www.quickfacts.census.gov)

Wischer, S. (2012). 'Narrative Transformations and the Architec-
tural Artefact'. *Museum Making*, 11.

Figure 36 - Profile
Photo by Brad Schmid



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"Where the railroad and the Red River of
the North meet, a great school thrives."