

HERE IN THE CITY



HERE IN THE CITY:

ARCHITECTURE OF LOST SPACES

Samantha Marihart | North Dakota State University | Architecture Masters Program

In 1971 Paul McCartney released “Dear Friend” with the Wings as part of their Wild Life album. This song was written for John Lennon before he died in 1980 and took on a mournful quality ever since. It has never been played at concert and is revealing of the close bond John and Paul had.

Dear friend, what's the time
Is this really the borderline
Does it really mean so much to you

Are you afraid, or is it true
Dear friend, throw the wine

I'm in love with a friend of mine
Really truly, young and newly wed
Are you a fool, or is it true

Are you afraid, or is it true?

A song written for two friends who will never separate.
Here's to you my dear friend, Jackson.

HERE IN THE CITY:
ARCHITECTURE OF LOST SPACES

A Design Thesis Submitted to the
Department of Architecture and Landscape Architecture
Of North Dakota State University

By

Samantha Marihart

In Partial Fulfillment of the Requirements
For the Degree of
Master of Architecture



Primary Thesis Advisor



Thesis Committee Chair

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OBJECTIVE

THESIS ABSTRACT

Can lost space be revitalized to promote the culture of the city?

In every city lost space resides. These are slivers and awkward portions of space where no traditional use works. Often found in between buildings, and under overpasses these spaces occur as a result of passive actions. These urban spaces are essential to every street you walk past as they have an enormous power to set the tone of the urban conversation. This thesis looks to revitalize lost spaces and bring light into the urban void.

This thesis looks to open up the dialect by targeting a forgotten space in the Lowertown neighborhood of Saint Paul, Minnesota. Currently, the lost space serves as a concrete slab that used to carry many trains to the Union Depot station. Today the site only has one functioning train track, leaving a vast open space in the city next to the Mississippi River. Due to the loss in function the site has become desolate while the sidewalks around it are full of pedestrians. An urban renewal could open up the culture of the local neighborhood and provide identity.

Keywords: Lost spaces, voids, urban design



OBJECTIVE

THE NARRATIVE

Introduction

“Our lives are complex; our emotions are complex; our intellectual desires are complex. I believe that architecture ... needs to mirror that complexity in every single space that we have, in every intimacy that we possess..”
- Daniel Libeskind

Questions?

Can lost spaces be revitalized to promote the culture of the city?

Buildings should have an emotional core. We should experience an emotion from our built environment and sometimes we might even feel moved. Today, architecture is becoming more and more prevalent in how spaces pertain to the people who use them. Buildings are being designed to help students learn and to help the sick heal. What about a design to inspire the local culture through urban renewal?

The Site

The site is located in Lowertown, St. Paul Minnesota and serves as the home of the union depot. It is situated between the Mississippi river and the edge of downtown St. Paul with views looking across the river. This specific site was important because of its many flaws regarding safety. For example the pedestrian path to the river is unsafe and unsatisfactory. In addition the site is located in an urban desert for public buildings and meets the criteria for a lost space. By looking into this site and how to improve it, I believe that it can transform to have a stronger positive emotional impact to the local community and culture.

The Complexity of Desire

Often we find spaces we like to spend time in. Why walk further to one coffee shop when one is closer? We will

sacrifice our time for a space we find more desirable. Urban renewal can have a similar effect by transforming a space into a place we enjoy. It can bring population and commerce to an area overnight if done beautifully like that of the High Line in New York City. The complexity arises by bringing a newfound popularity to an area formerly dismissed by the public. The inhabitants near the area may feel a false urban tourism taking over their neighborhood. The problem is how to make these two groups content with the design implemented.

The Premise

Building materials such as wood, brick, steel, and glass are used in every item of architectural expression. Yet, they are not “the building.” The building is a collection of systems, science, art, and beauty that we refer to as architecture. In many ways the building breathes and changes every day, it is a living thing. We are the keepers that feed it, take care of it, and watch over it. Every building has a bit of a soul. It’s because of this that some places just seem to move us.

I like this quote from Peter Zumthor: ‘I try to find out why things here look the way they do and how to make things beautiful. For me it turned out to be about overcoming architectural modernism in which everything had to be new and nothing was supposed to have history.’ Buildings should have history, even new ones. They should tell stories, art can help that.

The Theoretical Concept

Art movements throughout history have reflected upon the society around the artist. For example surrealism is an attempt at merging the dream world into our everyday lives and became known for its wide range of creative acts of revolt and efforts to liberate the imagination. Architecture is the same and throughout time has blended with art to create an experience. Sometimes this is done for the sake of imagination and sometimes it improves people’s lives. Much like the way schools allow more light into their classrooms to improve learning and hospitals promote healing by design to prevent infection.

This thesis desires to promote creativity and imagination through the experience of the architecture. These experiences explore the mind to reveal human emotions and desires in an intentional, powerful, and poetic new way.

This project aims to display a response to the changing experience of space, movement and time. The beauty in art is that it has a particular way of bringing our inner thoughts to the surface.
A place where we cannot go, but merely see into.
Architecture can become a form of vision without space. A motion we must make ourselves open to perceive. Instead of space it is the time of experience we are trying to grasp, a true extension of reality as Being in the World.

A skill of uniting reality with dream from the depths where our emotions lie. There is a story beyond what we see, it’s why all people in all places are enchanted with the sunset, why we look up at the moon no matter what language we speak. An instinctual beating of the heart. Architecture should embrace this and bind together the visible with the invisible. We are surrounded by static spaces of the conventional and we desire a poetic, dynamic, and fictional architecture. The goal is not necessarily to pursue a dream world, rather to build spaces that resist collapse of imagination. Art and architecture are powerful representations of our culture, they provide a meaning we recognize. It is what helps us reach for the other side.

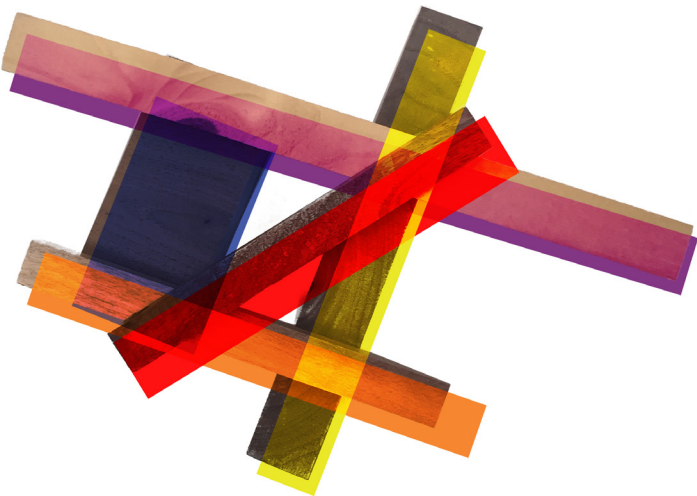
I hope to achieve this with a museum of art and culture. The site located on the rail yards of the Union Depot in Lowertown St. Paul. Due to the ever growing problem of available areas, it was important to find a site that hadn’t changed in a century and would still function the same way it historically intended. Thus space in the city can be found where none was thought to be. In addition the Union Depot station is a beautiful place with no one in it. A connection between the river and the site could help pull people through the marble halls. The station could have a dual purpose as a portal transporting people not only by trains but between the busy city streets and the silent riverfront. My goal is to have an experience beyond the materials of conventional architecture and to provide a truly different experience than what is considered the norm. An experience that allows the users in interact with their space and perceive how others take in their surroundings. To really make people think and to curate a program that initiates conversation and deeper meaning. Architecture can become a point of passage for the mind to interact with the tactile world and resist the collapse of our imaginative senses.

OBJECTIVE

PROJECT TYPOLOGY

Typology: Arts and Culture Museum
Facility includes: Exhibit Space, Classrooms, Auditorium, Administration Offices, Public Courtyard, Artist Studio, Rentable Conference Space.

Research regarding these typologies would examine into further detail how these programs could flow together. Landscaping would not only contribute to the user's wellbeing and aesthetics, but would also allow for the public to use the land to its up most potential.





OBJECTIVE

TYPOLOGICAL RESEARCH

Typological research elements were contributing factors for the chosen case studies. It became extremely important how these projects converged athletics and health within their program. Common research elements are as follows: Context, Typology, Site Integration, and Sustainability.

Primary typological researched case studies:

The Nelson-Atkins Museum of Art

Architects: Steven Holl Architects
Location: Kansas City, MO, USA
Area: 165,000 sq. ft.
Budget: US \$200,000,000
Project Year: 2007

The expansion of The Nelson Atkins Museum of Art fuses architecture with landscape to create an experiential architecture that unfolds for visitors as it is perceived through each individual's movement through space and time. As visitors move through the new addition, they will experience a flow between light, art, architecture and landscape, with views from one level to another, from inside to outside.

Remai Modern

Architects: KPMB Architects
Location: Saskatoon, SK, Canada
Area: 126,000sq. ft.
Project Year: 2017

The form and massing respond to the low, flat topography of Saskatchewan's prairie landscape and evoke regional agrarian traditions of low-rise, rectilinear sheds and barns. Four cantilevered horizontal volumes engage the River edge to the south and 2nd Avenue to the east. The south elevation spans the length of the site and the ground floor is fully glazed to provide continuous day-lit public spaces with access to the River. Entrances at each end integrate the gallery into the new pedestrian flows along the river bank.

Toi o Tmaki Auckland Art Gallery

Architects: FJMT
Location: Auckland, New Zealand
Area: 161,459 sq. ft.
Project Year: 2011

The architecture has developed from a concept that relates as much to the organic natural forms of the landscape as it does to the architectural order and character of the heritage buildings. The entry sequence into the gallery follows a progression from the street forecourt, under a generous and welcoming canopy, through into a lower foyer to emerge via a broad stair into the large, light-filled atrium..

01. NELSON-ATKINS MUSEUM OF ART

KANSAS CITY, MO, USA

CLIENT:
Nelson-Atkins Museum of Art (Addition)

TYPE:
Art Museum

SIZE:
165,000 sq. ft.

CREDIT:
Steven Holl Architects

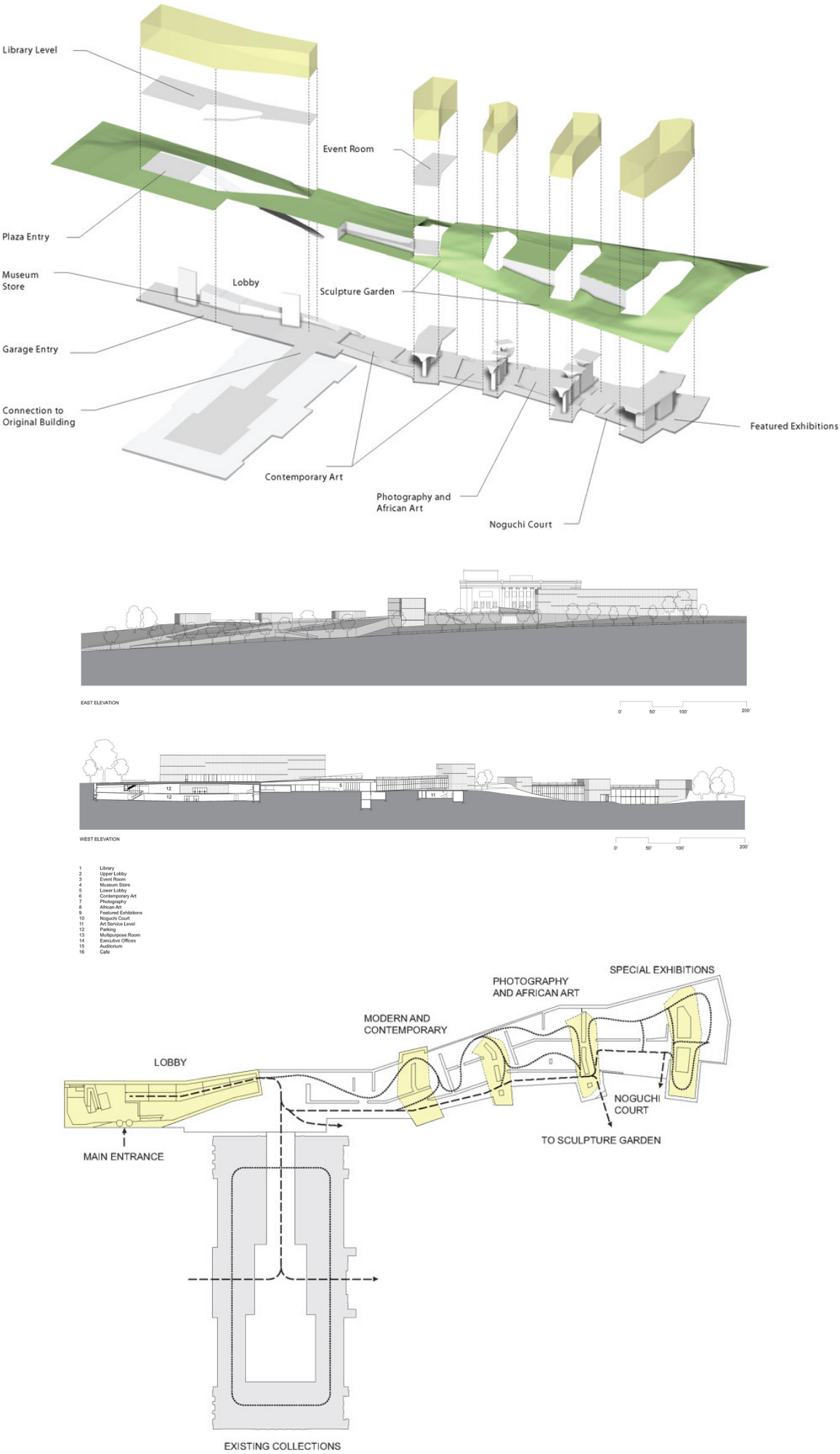
PROGRAM:
Lobby, cafe, art library and bookstore, galleries, sculpture garden.

PROJECT YEAR:
2007

As described by Steven Holl Architects, the expansion of The Nelson Atkins Museum of Art fuses architecture with landscape to create an experiential architecture that unfolds for visitors as it is perceived through each individual’s movement through space and time. The new addition, named the Bloch Building, engages the existing sculpture garden, transforming the entire Museum site into the precinct of the visitor’s experience. The new addition extends along the eastern edge of the campus, and is distinguished by five glass lenses, traversing from the existing building through the Sculpture Park to form new spaces and angles of vision. The innovative merging of landscape, architecture and art was executed through close collaboration with museum curators and artists, to achieve a dynamic and supportive relationship between art and architecture. As visitors move through the new addition, they will experience a flow between light, art, architecture and landscape, with views from one level to another, from inside to outside.

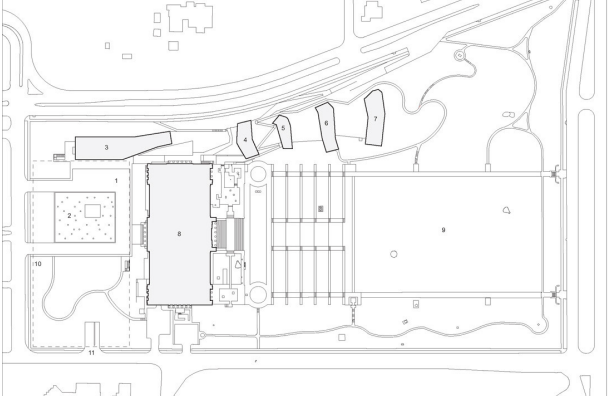
The threaded movement between the light-gathering lenses of the new addition weaves the new building with the landscape in a fluid dynamism based on a sensitive relationship to its context. Rather than an addition of a mass, the new elements exist in complementary contrast with the original 1933 classical “Temple to Art”:

The first of the five “lenses” forms a bright and transparent lobby, with café, art library and bookstore, inviting the public into the Museum and encouraging movement via ramps toward the galleries as they progress downward into the garden. From the lobby a new cross-axis connects through



to the original building's grand spaces. At night the glowing glass volume of the lobby provides an inviting transparency, drawing visitors to events and activities. The lenses' multiple layers of translucent glass gather, diffuse and refract light, at times materializing light like blocks of ice. During the day the lenses inject varying qualities of light into the galleries, while at night the sculpture garden glows with their internal light. The “meandering path” threaded between the lenses in the Sculpture Park has its sinuous complement in the open flow through the continuous level of galleries below. The galleries, organized in sequence to support the progression of the collections, gradually step down into the Park, and are punctuated by views into the landscape.

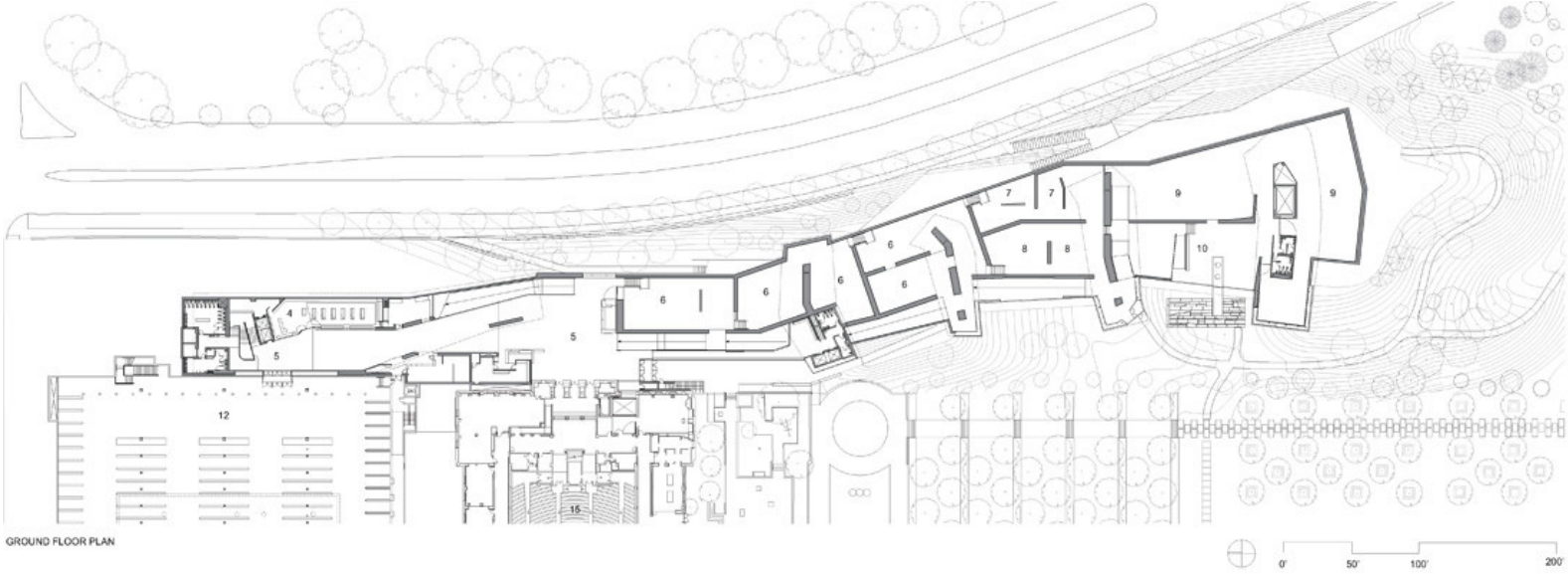
The design for the new addition utilizes sustainable building concepts; the sculpture garden continues up and over the gallery roofs, creating sculpture courts between the lenses, while also providing green roofs to achieve high insulation and control storm water. At the heart of the addition's lenses is a structural concept merged with a light and air distributor concept: “Breathing T's” transport light down into the galleries along their curved undersides while carrying the glass in suspension and providing a location for HVAC ducts.



- SITE PLAN
- 1 Entry Plaza
 - 2 Reflecting Pool
 - 3 Lens 1 Lobby
 - 4 Lens 2
 - 5 Lens 3
 - 6 Lens 4
 - 7 Lens 5
 - 8 Original Museum
 - 9 Sculpture Park Lawn
 - 10 Garage Below
 - 11 Garage Entrance

The double-glass cavities of the lenses gather sun-heated air in winter or exhaust it in summer. Optimum light levels for all types of art or media installations and seasonal flexibility requirements are ensured through the use of computer-controlled screens and of special translucent insulating material embedded in the glass cavities. A continuous service level basement below the galleries offers art delivery, storage and handling spaces, as well as flexible access to the “Breathing-Ts”.

The ingenious integration of art and architecture included a collaborative effort with artist Walter De Maria, one of the great minimalist artists of our time. De Maria's sculpture, One Sun /34 Moons, is the centerpiece of the expansive granite-paved entrance plaza with a reflecting pool that forms a new entry space shaped by the existing building and the new Lobby “Lens”. The “moons” of the art work are circular skylight discs in the bottom of the pool that project water-refracted light into the garage below. Conceived as a vehicular Arrival Hall, the garage is generously proportioned, directly connected to the new museum lobby on both levels, and spanned with continuous undulating vaults by an



- GROUND FLOOR PLAN
- 1 Library
 - 2 Upper Lobby
 - 3 Event Room
 - 4 Museum Store
 - 5 Lower Lobby
 - 6 Contemporary Art
 - 7 Photography
 - 8 African Art
 - 9 Featured Exhibitions
 - 10 Noguchi Court
 - 11 Art Service Level
 - 12 Parking
 - 13 Multipurpose Room
 - 14 Executive Offices
 - 15 Auditorium
 - 16 Cafe

innovative pre-cast concrete ‘wave-T’.

A strong relationship between the architectural concept and the Museum's important oriental art holdings is illustrated by works in the permanent collection such as Verdant Mountains (12th century) by Chiang Shen or The North Sea (16th century) by Chou Ch'en, which demonstrate the timeless merging of art, architecture and landscape. The new addition celebrates this fusion with the new Isamu Noguchi Sculpture Court, setting a binding connection to the existing Sculpture Gardens.



02. TOI O TMAKI AUCKLAND ART GALLERY

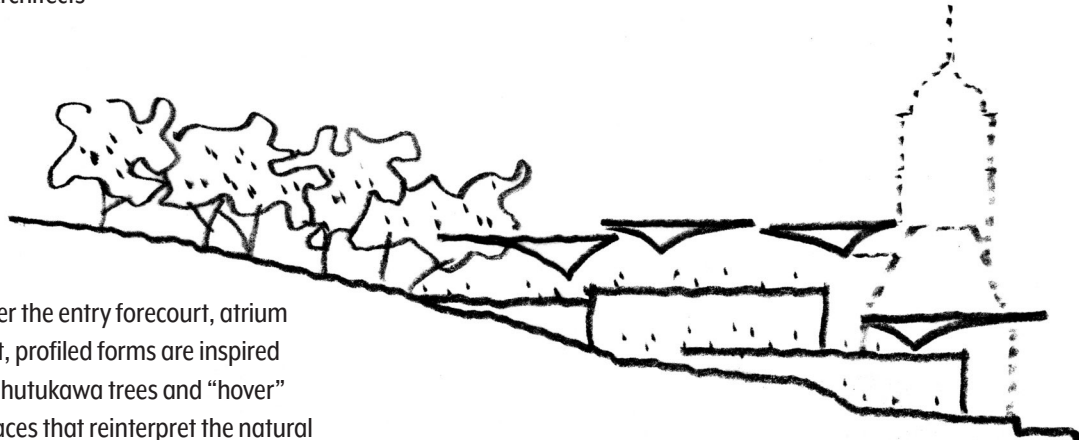
AUCKLAND, NEW ZEALAND

CLIENT: PROJECT YEAR:
Albert Park Public 2011
Projects

SIZE: TYPE:
161,459 sq. ft. Art Gallery

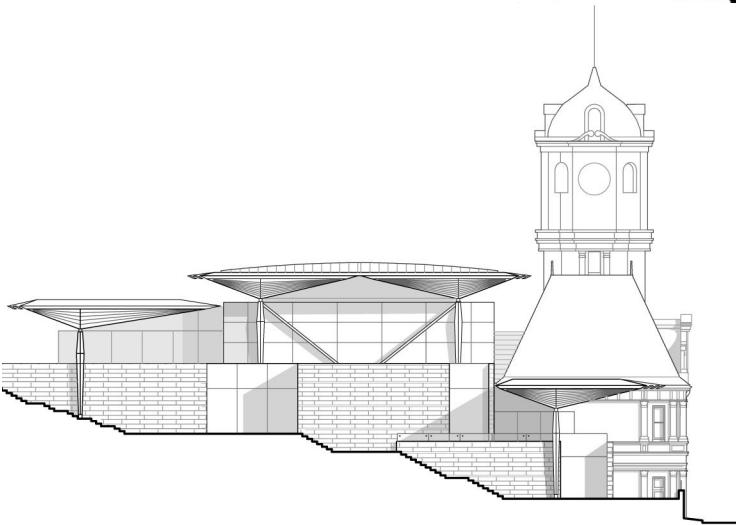
PROGRAM: CREDIT:
Gallery, atrium FJMT Architects

The new Auckland Art Gallery Toi o Tmaki is an extensive public project that includes the restoration and adaption of heritage buildings, a new building extension, and the redesign of adjacent areas of Albert Park. The architecture has developed from a concept that relates as much to the organic natural forms of the landscape as it does to the architectural order and character of the heritage buildings. The new building is characterized by a series of fine tree-like



canopies that define and cover the entry forecourt, atrium and gallery areas. These light, profiled forms are inspired by the adjacent canopy of P hutekawa trees and “hover” over the stone walls and terraces that reinterpret the natural topography of the site. The ceilings of the canopies are assembled from carefully selected Kauri, profiled into precise geometric patterns and supported on slender and tapering shafts. These emblematic forms give the gallery a unique identity that is inspired by the natural landscape of the site.

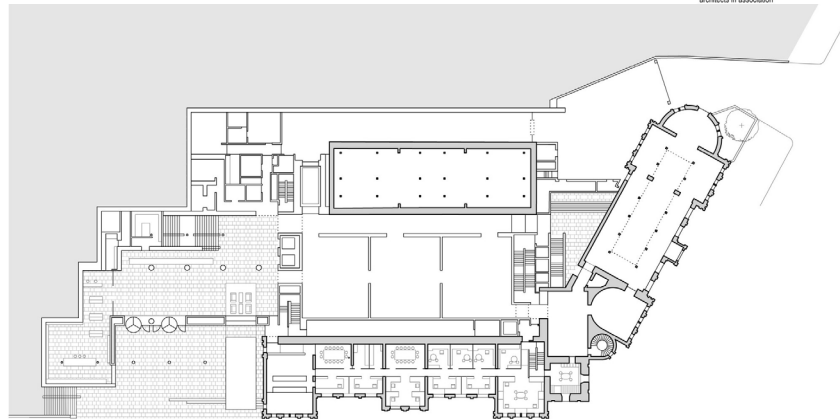
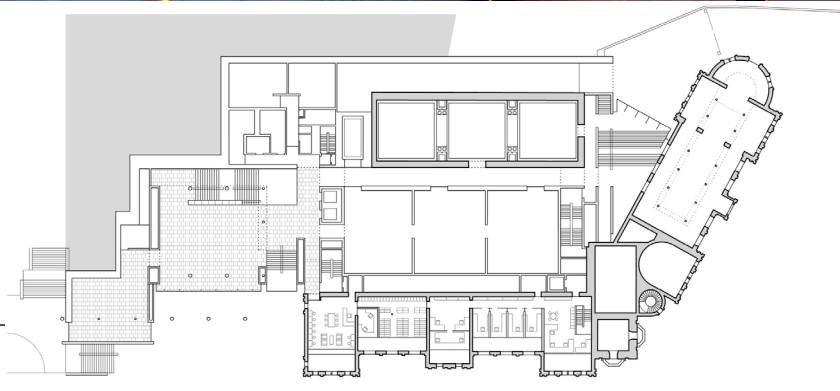
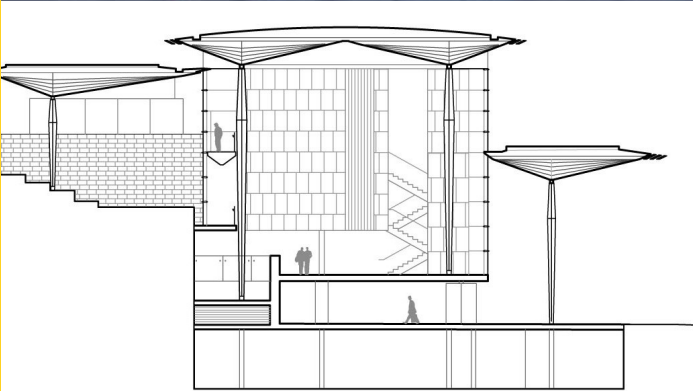
Between the stepped stone podium and hovering canopies, an openness and transparency is created to allow views through, into and out of the gallery circulation and display spaces and into the green landscape of Albert Park. In this way the gallery opens to the park and adjoining public spaces in an inviting and engaging gesture of welcome.



The entry sequence into the gallery follows a progression from the street forecourt, under a generous and welcoming canopy, through into a lower foyer to emerge via a broad stair into the large, light-filled atrium. The atrium provides a central orientation and display space for all visitors. Gallery circulation extends from the main atrium in a clear series of loops interconnecting all gallery spaces via the smaller southern atrium that mediates the junction with the existing Wellesley Wing.

A diverse range of exhibition spaces and rooms are created,

both fixed and flexible, formal and informal, heritage and contemporary, naturally lit and artificially lit, open and closed, high spaces and lower spaces.



03. REMAI MODERN

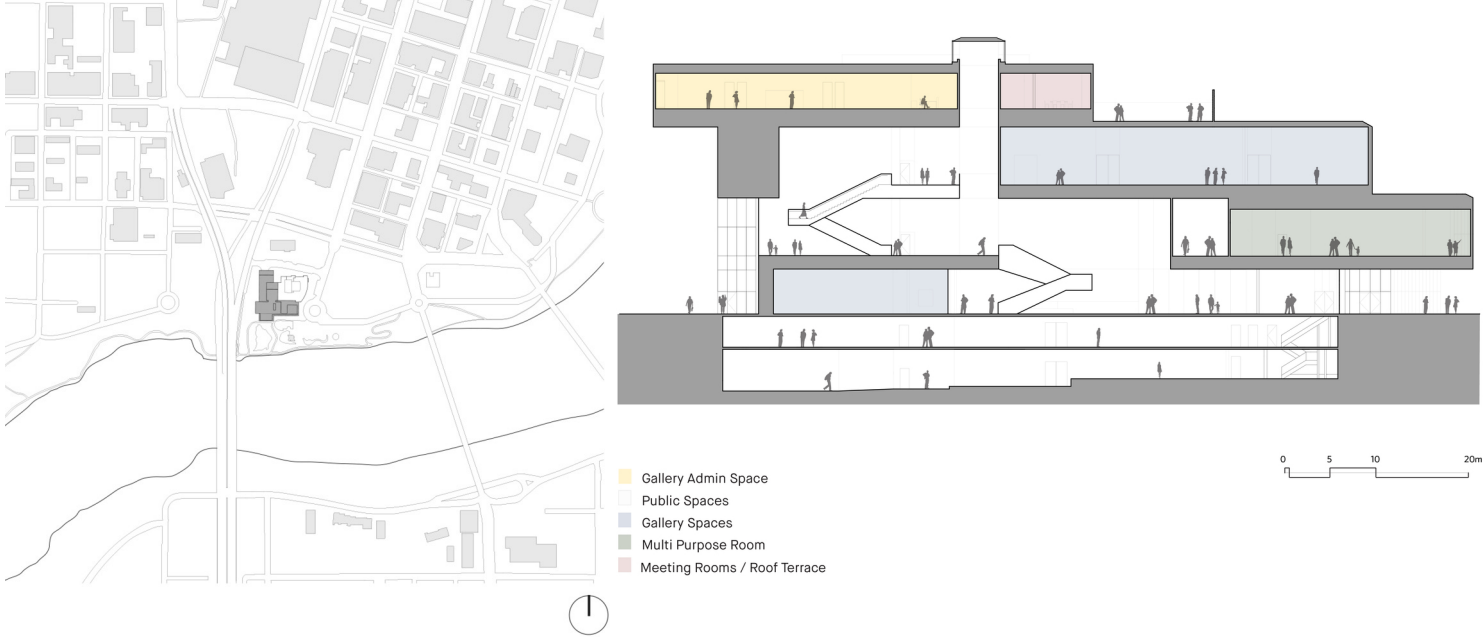
SASKATOON, SK, CANADA

The form and massing respond to the low, flat topography of Saskatchewan's prairie landscape and evoke regional agrarian traditions of low-rise, rectilinear sheds and barns. Four cantilevered horizontal volumes engage the River edge to the south and 2nd Avenue to the east. The south elevation spans the length of the site and the ground floor is fully glazed to provide continuous day-lit public spaces with access to the River. Entrances at each end integrate the gallery into the new pedestrian flows along the river bank.

Public spaces on every level are organized to maximize the connection to the river. A central atrium organizes the plan and offers a community gathering space. A generously-scaled connecting stair on the ground floor is located to initiate a continuous path through all levels.

The exterior is clad in a copper-colored metal screen and was inspired by Saskatoon's historic architectural landmark, the Bessborough Hotel (CNR, 1932).

The architecture of the Remai Modern simultaneously looks back and forward. It forges a strong relationship to the legacy of the Mendel and creates a platform to reinforce the role of art for the "advancement of Saskatoon as a creative city dedicated to lifelong learning."



CLIENT:
Saskatoon Public Art
Museum

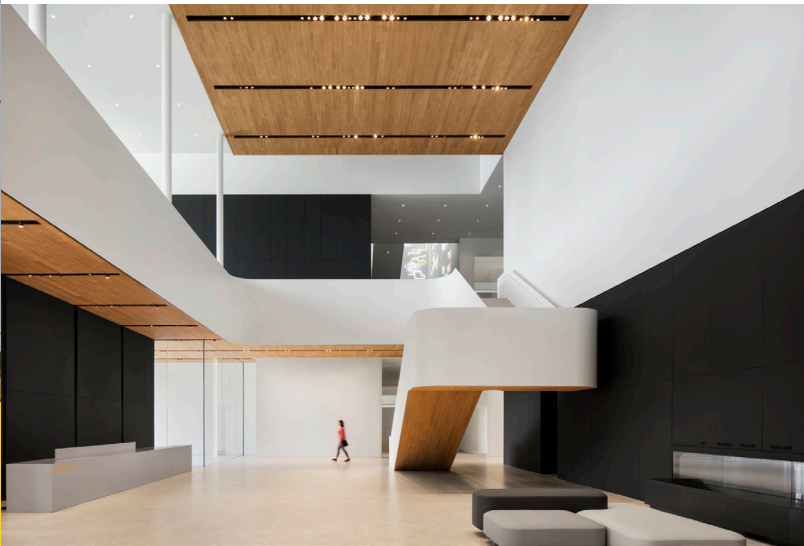
PROJECT YEAR:
2017

SIZE:
126,000 sq. ft.

TYPE:
Art Museum

PROGRAM:
Gallery, atrium, cafe.

CREDIT:
KPMB Architects



OBJECTIVE

MAJOR PROJECT ELEMENTS AND USER CLIENT DESCRIPTION

Entry
Entry vestibule, lobby, admissions, museum store, and back storage for museum store.

Activity and Program Areas
Exhibit floor, art classrooms, kitchen and café.

Administration: Finance and PR
Reception and waiting area, executive director, associate director of administration, office manager, bookkeeper, store manager, director of external affairs, PR Coordinator, future staff, copy room, mail area, work room, small meeting and planning area, filing and storage.

Administration: Programs
Operations associate, youth programs coordinator, museum educator, floor managers, museum artists, volunteer coordinator, future staff, volunteer break area and planning, and volunteer personal storage area.

Exhibit Shop and Warehouse
Exhibit shop, design area, flammable storage, warehouse, facilities manager, and near exhibit floor supply storage.

Circulation and Systems
Bathrooms, mechanical, and circulation.

Auditorium
Stage storage, sound and light booth, seating, and stage.

Specialty Equipment Rooms
Computer server space, hepa filtration of air and water quality.

OBJECTIVE

USER CLIENT DESCRIPTION

Requirements
The facility will be used year round and must incorporate sustainability and wellbeing for it's users.

Parking will be managed by the current Union Depot with parking under and to the North of the site.

All parts of the facility must be made accessible as per ADA restrictions.

Designed For: Employees and Visitors
Major design forethought will be made for every day inhabitants of the building including employees and visitors. Design decisions will also be made to provide visitors and the public the means to explore the exterior and landscaping.

Project Ownership
The gallery will be owned and managed by the city of St. Paul, Minnesota with a partnership with the Union Depot.

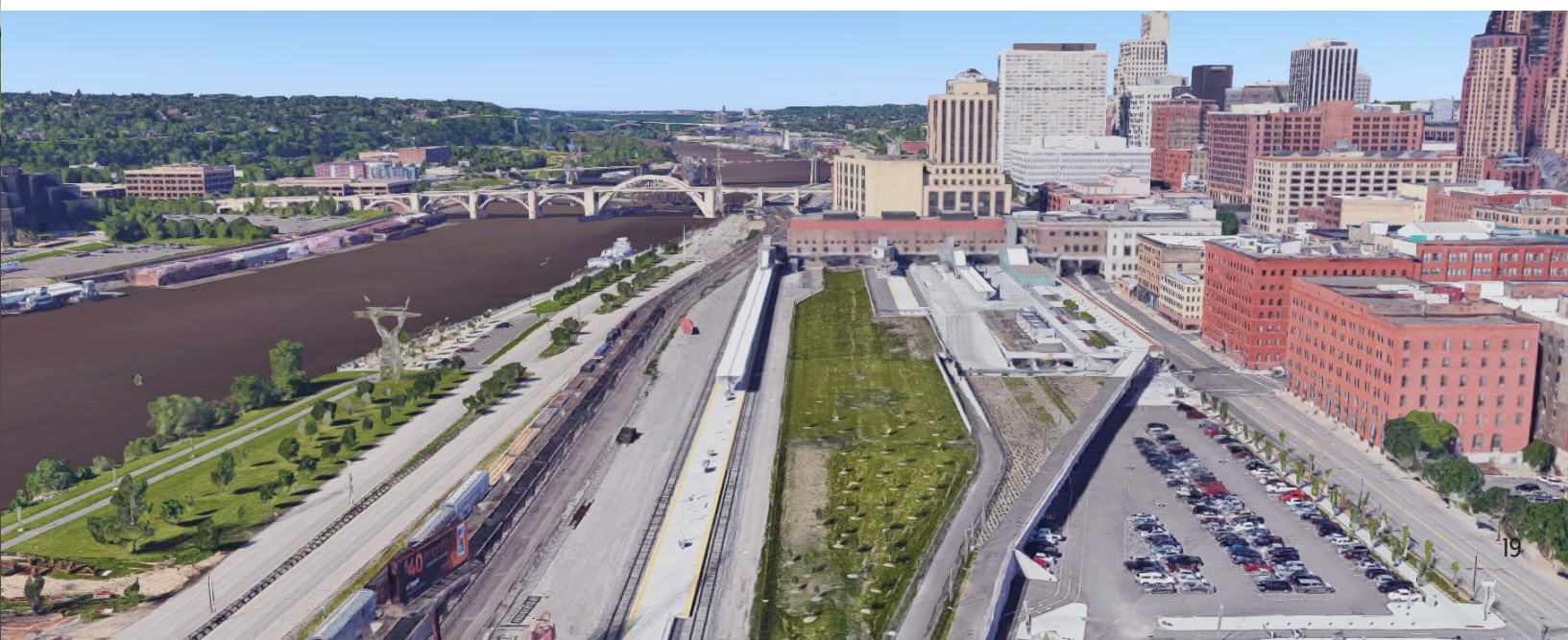
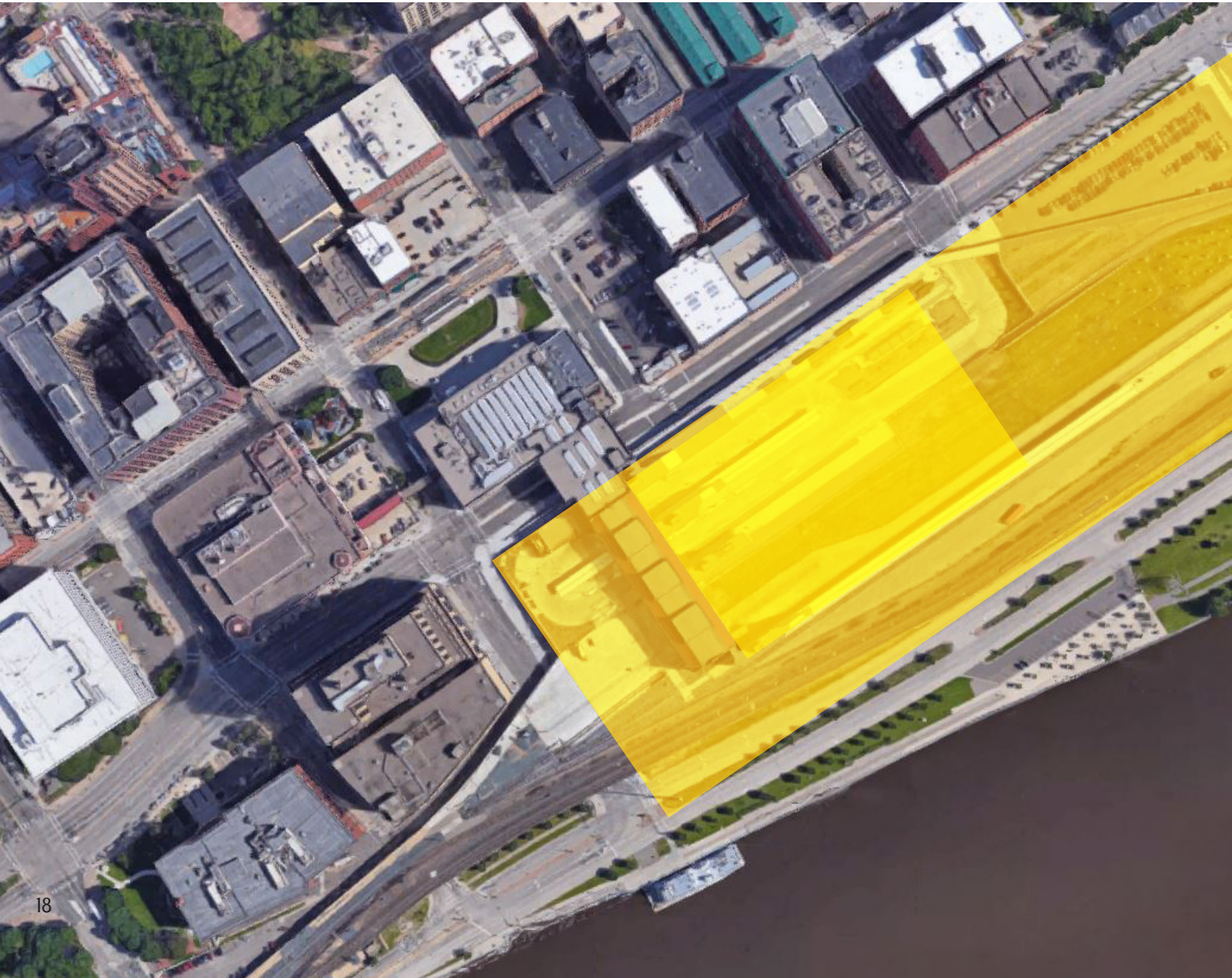
Unique Requirements
To appeal to the public a walkway must branch from the public area of the building and onto the waterfront to provide safe access.

OBJECTIVE

SITE INFORMATION

Lowertown Neighborhood, St. Paul
Minnesota USA

This site is positioned along the Mississippi river in the Lowertown neighborhood of St. Paul. Historically, this site was a place of industry with the railway and steamboat businesses. During the Early 1900s the area transitioned into a major pedestrian transportation train station up until it's closure in 1971 (Union Depot, 2017). The site was left abandoned until 2011 (Union Depot, 2017). Due to federal, state, and local grants the Union Depot underwent an extensive historic restoration and is now back to being a functional station.



OBJECTIVE

SITE INVENTORY

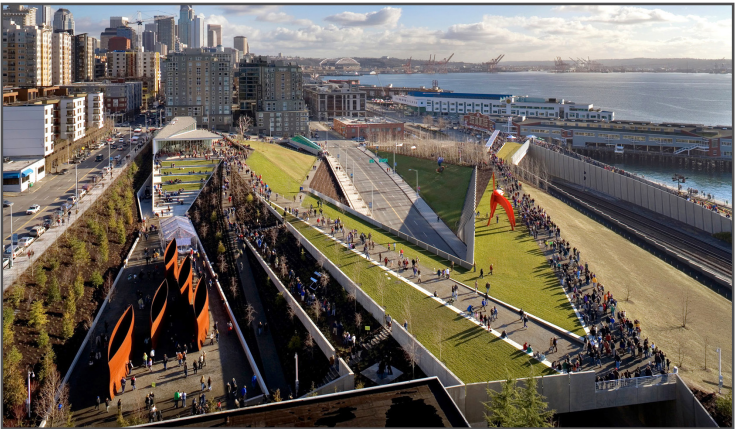
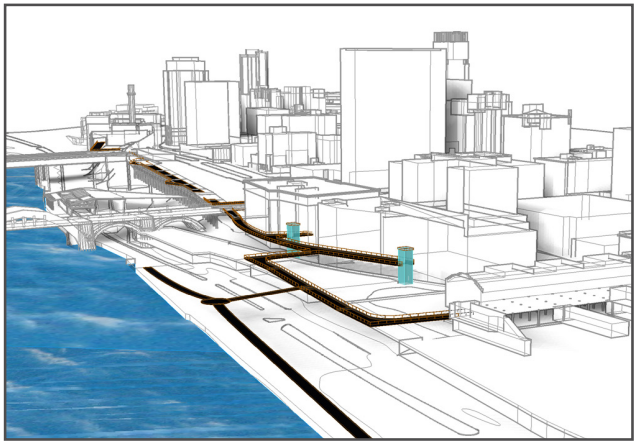


SAINT PAUL RIVER BALCONY

The Saint Paul River Balcony will be an elevated pedestrian walkway overlooking the Mississippi River in downtown Saint Paul. This dramatic public promenade will travel from the Science Museum of Minnesota to Union Depot and link vibrant downtown places with restaurants, offices, shops, and other gathering spaces.

HIGHLIGHTS

- 1.5-mile elevated pedestrian walkway
- Extends from the Science Museum of Minnesota to Union Depot
- Designed to accomodate walking, outdoor seating, gathering, and public activities
- Mixes both urban and natural elements of the city and river
- Encourages people of all ages to interact with the Mississippi River in new ways
- To be financed through public-private partnerships



Olympic Sculpture Park, Seattle, Washington

A LONG-TERM VISION

The River Balcony was first conceptualized in Saint Paul's Great River Passage Master Plan, the City's vision to better connect people to Saint Paul's 26 miles of Mississippi River shoreline. The City of Saint Paul is in the process of preparing a master plan for the River Balcony, which will be completed in 2017. The River Balcony will then move into schematic design.

stpaul.gov/RiverBalcony

Lowertown Neighborhood

A vibrant artists' quarter located on the edge of downtown St. Paul. This urban village was once filled with warehouses, railroads, banking, and distribution buildings making up Minnesota's largest manufacturing district from the 1870s up into the 1920s (Lowertown Landing, 2017). Today, the area is full of lofts, beautiful workspaces, cafes, restaurants, and the new CHS baseball field. Photos courtesy of Cunningham Group.





OBJECTIVE

EMPHASIS AND GOALS

Project Emphasis

Sustainability

Projecting a sustainable, green building design focusing on using minimal energy and production of clean energy methods. Providing efficient and well developed spaces will help assure modern, and high quality environmental design elements.

Landscape

It is extremely imperative to have a landscaped area on the site that provides energy for the urban context. The public must be able to enjoy the natural spaces and these spaces must provide safe chaperon to the waterfront.

Technology

The architecture should be integrated into the design and create a sense of interactivity with the users of the building.

Aesthetic Curiosity

Due to the urban environment the design must create a sense of curiosity that makes the site approachable to passersby.

Project Goals

The Academic

To complete an architectural thesis project that exceeds the programs expectations and challenges my design process. I would like to leave the university with an enlightened understanding of how to design sophisticated architecture. Using my past undergraduate education to produce something that is the most advanced aspect of my portfolio and education.

The Professional

My goal, through an intense learning process is to step forward into the professional environment with not only practical aspects of architecture, but to keep hold of my curiosity and spirit for design. I wish to really create a project with understanding, altruism, and a bit of magic. This project will be the highlight of my architectural education and I hope it will direct me in a professional position that best suites my abilities.

The Personal

I feel that when I first started school prior to an internship I knew how to dream. I am immensely thankful for my education and work experience for teaching me the practicalities and preparing me for the work force. However, I can't help but to feel I forgot how to dream along the way. I wish to be inspired by this truly unique project and to bring that spirit with me wherever I go.

OPERATION

PLAN FOR PROCEEDING

Theoretical Premise

Gather further research for why an art museum is valued on this site and urban design to support major design decisions. The goal is not necessarily to pursue a dream world, rather to build spaces that resist collapse of imagination. Art and architecture are powerful representations of our culture, they provide a meaning we recognize.

Project Typology

As an area for the public to go it is important to think about how these spaces will cohesively flow together and produce healthy and beautiful architecture. Wellbeing and lifestyle will be conducted in the building in order to create a healthier architectural environment. I will complete this by looking at additional case studies to find solutions that have worked and solutions that have not worked in the past.

Historical Context

The Lowertown neighborhood has a rich industrial history and a current culture of artistry. It is important to keep this spirit of both industry and art alive in the project. Further understanding of the neighborhood will inform my projects design and creation.

Site Analysis

This site faces many challenges. The railways, busy roads, and unsafe pedestrian access will be the foremost design problems. Understanding how to navigate the site to promote a successful implementation of urban design will be the primary goals of this project.

Programmatic Requirements

Conducting research on how to curate each space will be essential to assessing how the architecture should serve the purpose of the exhibit spaces.

Inclusive Strategy

Throughout all phases of preliminary research, schematic design, design development, and production additional research will be conducted continually. The additional research will help to quantify direction of the theoretical premise and idea. Immense emphasis will be put into understanding the site and how to solve the many urban problems it faces for pedestrian access. Many of these site issues may be solved with preliminary research and schematic design phases in regards to the urban environment.

Research | Report | Analyze | Create | Research



Project Schedule

Preliminary

- Inquiry
- Site Ideas
- Project Typology
- Investigation
- Site Selection
- Typology Refinement

Research

- Proposal
- Complex Investigation
- Analysis
- Inventory
- Program
- Proposal Expansion
- Space Allocation
- Justification
- Evolution
- Further Justification
- Project Maturation

Schematic

- Process
- Design Features
- Space and Massing
- Site Solutions
- Env. Factors

Design Development

- Drawings
- Floor plans, Elevations
- Materials, Structure
- Sections, MEP, Details

Creation

- Presentation
- Model Building
- Deliverables
- Presentation
- Portfolio

October 12th

December 14th

February 16th

March 18th

April 20th

Project Deliverables and Mediums

Deliverables

- Project Book
 - A document to provide all aspects of the design process, such as: Preliminary research, Investigative strategies, Schematic design, Design Development, and all graphics intended for the presentation boards.
- Physical Model
 - Scale model produced out of wood, 3d printed material, and concrete to show for the final presentation. This will provide a 360 view of the site and model relationship.
- Site Models
 - Models to show the urban environment on various scales and to provide additional context.
- Final Boards
 - Large graphic boards to represent my project as a standalone presentation element. A story will be told off all the drawings represented within this document.
- Presentation
 - A graphic and oral presentation will be curated to a jury of my peers and members of the thesis board who will critique the work. This will require my physical models, site models, and a multimedia presentation.
- Documentation Compilation
 - Once all mediums have been completed they will be gathered up to be used as a complete synopsis of the thesis design.

Mediums

- Physical Factors
 - Sketching
 - Physical Modeling
 - 3d Printing
 - Digital illustration
- Software
 - Autodesk Revit
 - Autodesk AutoCAD
 - Rhino
 - Grasshopper
 - Sketchup
 - Lumion
- Depiction
 - Autodesk Render
 - Adobe InDesign
 - Adobe Photoshop
 - Adobe Illustrator
 - Acrobat Pro



RESEARCH

REACTION

THEORETICAL PREMISE RESULTS +
HISTORICAL AND SOCIAL CONTEXT

Introduction:

Examining the methodologies used in previous architectural projects provide a frame work of what worked and what did not. By analyzing case studies a clear outline of past design choices will integrate into my design. This research has allowed me to interpret and summarize reactions to my Theoretical Premise and Unifying Idea.



PRIMARY RESEARCH ELEMENTS:

- 1 EMOTIONAL DESIGN
- 2 GOOD PUBLIC SPACES
- 3 SUCCESSFUL DESIGN IN THE MOBILE TECH ERA
- 4 SUSTAINABLE DESIGN + PASSIVE STRATEGIES
- 5 ARCHITECTURAL BETWEEN CULTURE AND FORM

REACTION

1. EMOTIONAL DESIGN

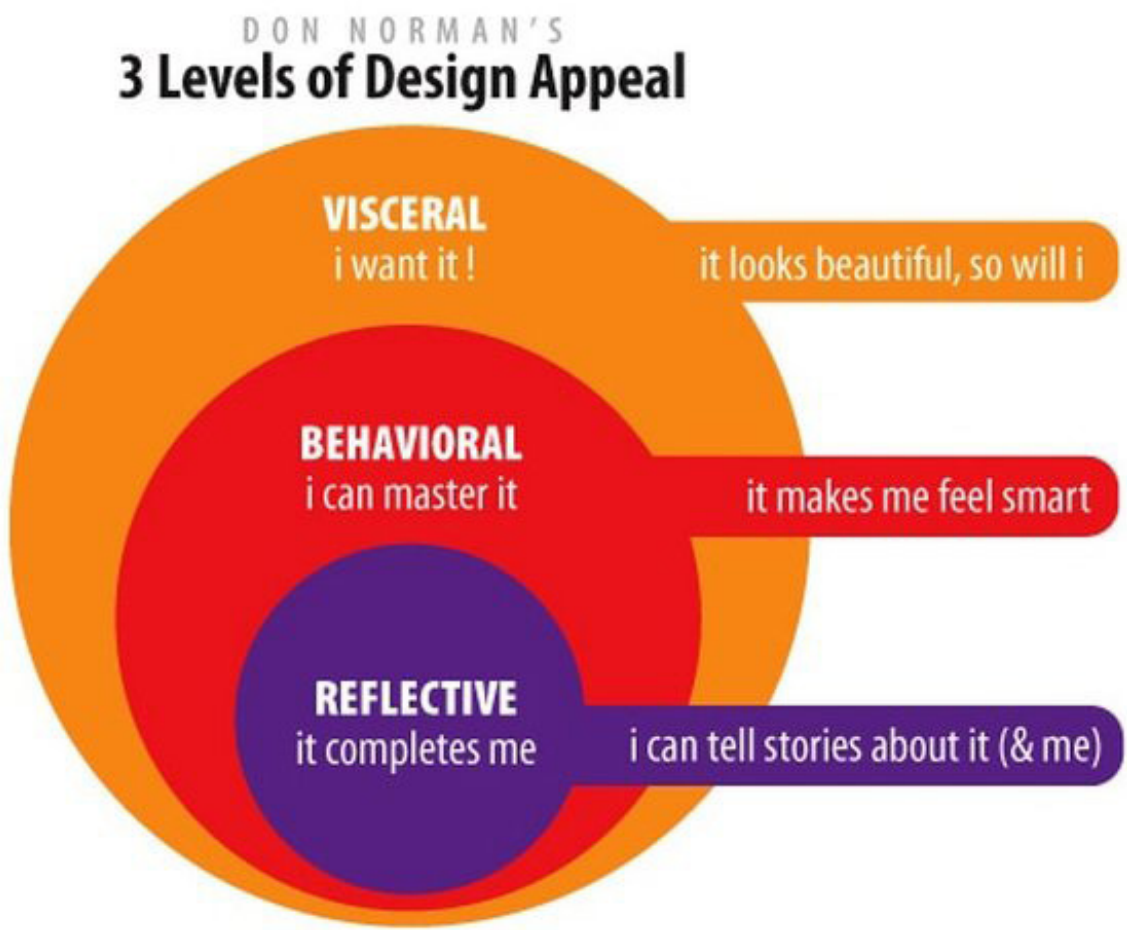
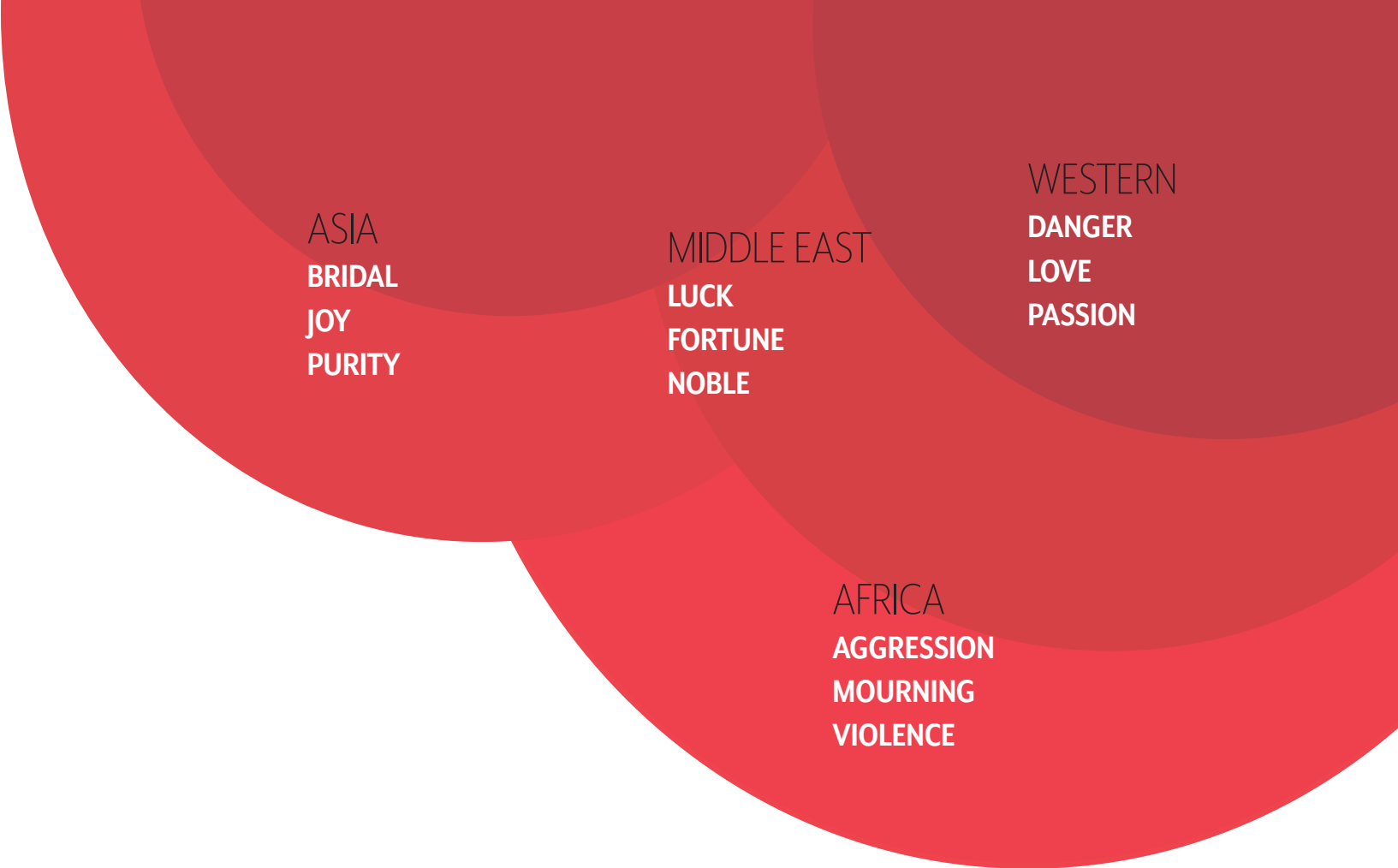
Norman’s research conducted with Ortony and Revelle, professors at Northwestern University’s Psychology Department, developed a study of emotion. This study of emotion in the brain was broken up into three different levels known as the visceral, behavioral, and reflective layers (Norman, 2004). Together these three layers formed a cohesive theoretical premise for the project.

Reflective. The contemplative thought layer viewed in the past and future. Message | Meaning

Behavioral. The everyday behavior layer viewed in the present. Functioning | Accessible

Visceral. The automatic prewired layer viewed in the present. Look | Feel

When all three layers are blended together the best design is achieved.



VISCERAL.

MAKES YOU FEEL.

Design based on first impressions. How does it look? How does it feel? Pr-consciousness, before real thought can be processed. The visceral reaction cannot be controlled as it is a natural response. All cultures can be observed with the same patterns of fear, happiness, and sadness for example. Marketing caters to this response by connecting colors to emotions. A common instance is how the restaurant industry uses a lot of reds and yellows to invoke that this is an appetizing place to eat. Pink is used often for femininity and green is used for Eco-friendly products. It is important however to be mindful of social and cultural connotations. These responses can also differ through time. Take yellow flowers, today they are a symbol of friendship, oppositely during the Victorian era they were a symbol of hate.

BEHAVIORAL.

HELPS YOU DO.

Every design has an experience. Does the function, usability, and performance work well? It relies heavily on user centered design patterns. First, to function well it is important to understand how people will use the space. Secondly, to view the design from the designer, user, and system perspective. Thirdly, usability. The most successful form is universal design, because it is usable across the board and minimizes risk.

REFLECTIVE.

SAYS ABOUT YOU.

This is where our consciousness reside, where our thoughts process feeling, emotion, and cognition. Both thought and emotion are experienced. All interpretation, understanding, and reasoning develop at this level. Of all the levels this is the most vulnerable and mold-able to variability of your culture, experience, education, and individual differences. Make the design memorable and thoughtful.



REACTION

2. GOOD PUBLIC SPACES

We can realize a successful public space even when we're not consciously searching for the attributes that gave the area its qualities. Our backgrounds and interests can influence how we view and make sense of public space. In this section attributes from Path, Portal, Place and ideas from Responsive Environments and Image of the City shaped common attributes to public spaces.

Definition. Clarity of the boundary and



recognizable shape add definition to the space. Both creating a place for activities and place-making are supported by its proportions. An urban room is defined by a perimeter, containment height, continuity, and character.

Identity. The space is memorable and imaginable. We can take the memory of this place with us. It is held together by an anchoring structure or use.

Character. The space has personality, theme, atmosphere, and mood. Good public space has a distinct energy and vibration demonstrating a visual presence. This space has its own political inquiry to its role in public life.

Beauty. An elegant composition that conveys beauty is a good space. A place that uplifts our spirits and almost has a meditative effect on our mood. Aesthetic qualities are unique to us, and should be present with a harmonious canvas.

Habitability. In order to enjoy the space it must be safe, secure, healthy, convenient to use, easily accessible, and share an essence of joy with its users. Choice and options are clear in this place, along with amenity, shelter, and a variety of setting. Large theater like spaces and small intimate spaces should both be present. A feeling of being grounded and connected to the community should create a communal energy.

Significance. This place is valued. There is a story and a history to invoke meaning. We can feel elevated to be in a place of value, substance, weight, density, and depth.

Connectedness. Visual connection between the place to the landscape and city beyond is essential. The urban context must relate to the location, partnership with other places, and interaction with the local neighborhoods.

Sensuality. Any good space awakens our senses and emotions. The emotions can vary from spaces within the place and depending on the effect desired emotions can range from positive to negative.

REACTION

3. SUCCESSFUL DESIGN IN THE MOBILE TECH ERA

The Walking Dead.....?

Streets are desolate with no sign of life. At first there were no plants whatsoever, now nature creeps up at a once civilized society. Every so often a zombie is found wandering about with a stupor. With little aesthetic to look at the zombie’s attention is held within a small glowing box in their hands. It keeps them in a constant daze of starting and stopping. It is much more interesting than the environment beyond. Unfortunately, this is not an episode from the next big zombie flick, but rather the firm grasp that technology has on us. Sometimes it may seem that technology is bad for us, I think more so it is an adaption. Technology is a stepping stone that improves evermore through time. Why did we forget to love the places around us, when we so obviously love the machines we use?

Perhaps we are only content when we can interact. We must have a desire to play an active role to truly feel enjoyment and feel connected to the world. Would a successful environment allow us to interact with each other beyond the constraints of time and space? Can design speak the language that music does and be understood universally? Is there a Chopin, Debussy, or Tchaikovsky present in our designed space? Yes. Just as music works with crescendos and rhythm so does design. Sometimes we forget that and lose our sense of beauty around us by forging public space between parking lots and car dealerships.

A successful design that keeps the zombie in us all at bay is one that focuses on our active role within our environment. A list of big ideas inspired from Jane Jacobs and Jeff Speck provide a thoughtful guide to keeping a city alive and well.

Urban Design in Severe Climate

It’s easy to say that urban design is essential, it’s hard to put into practice given the challenging climate that is Minnesota. After further research I found that climate is not the ultimatum. Try to guess the answer to these questions.
(Answers Below)

- 1. NORTH AMERICAN CITY WITH THE MOST LINEAR FEEL OF SUCCESSFUL RETAIL-FRONTED SIDEWALKS?**
- 2. HIGHEST URBAN WALKING TRIPS INSTEAD OF DRIVING?**
- 3. HOW MANY MONTHS OUT OF THE YEAR DO SIDEWALK CAFES STAY OPEN IN COPENHAGEN?**

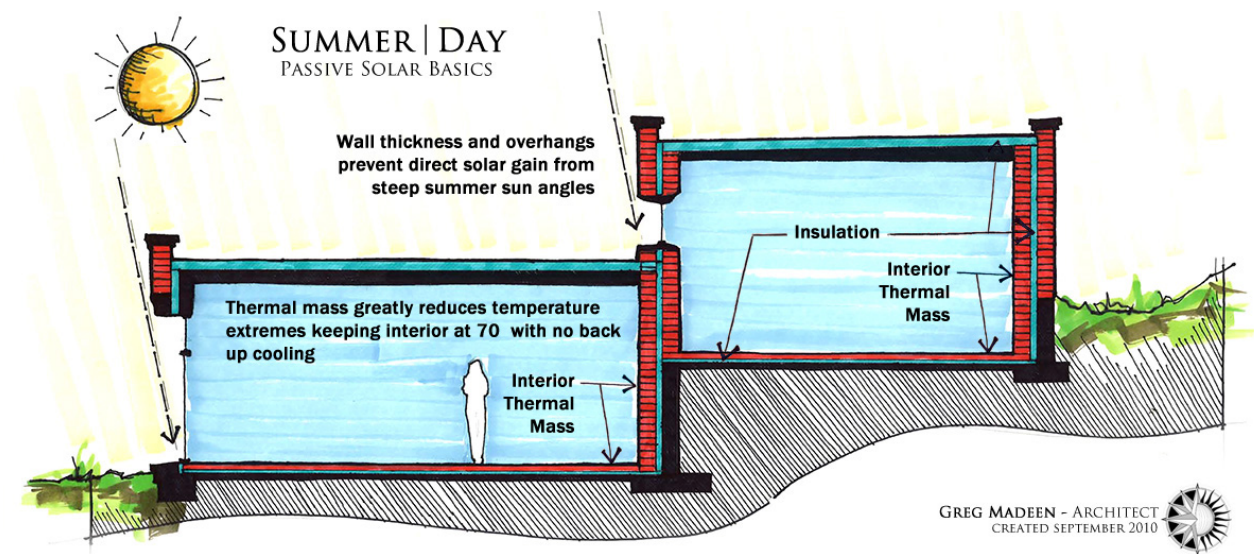
1. Toronto 2. Sweden 3. Twelve

According to these statistics in Speck’s work people will walk in almost any climate if the design is right. Walking in icy or humid weather down a narrow, shop-lined street is a much desired contrast to walking in perfect weather down a street between parking lots and a dead kmart.

Prior to recognizing this research I thought that the severe cold of my site would prevent incorporating many urban design features. Using the big ideas on the next page will help to bring quality walk-ability to the project.

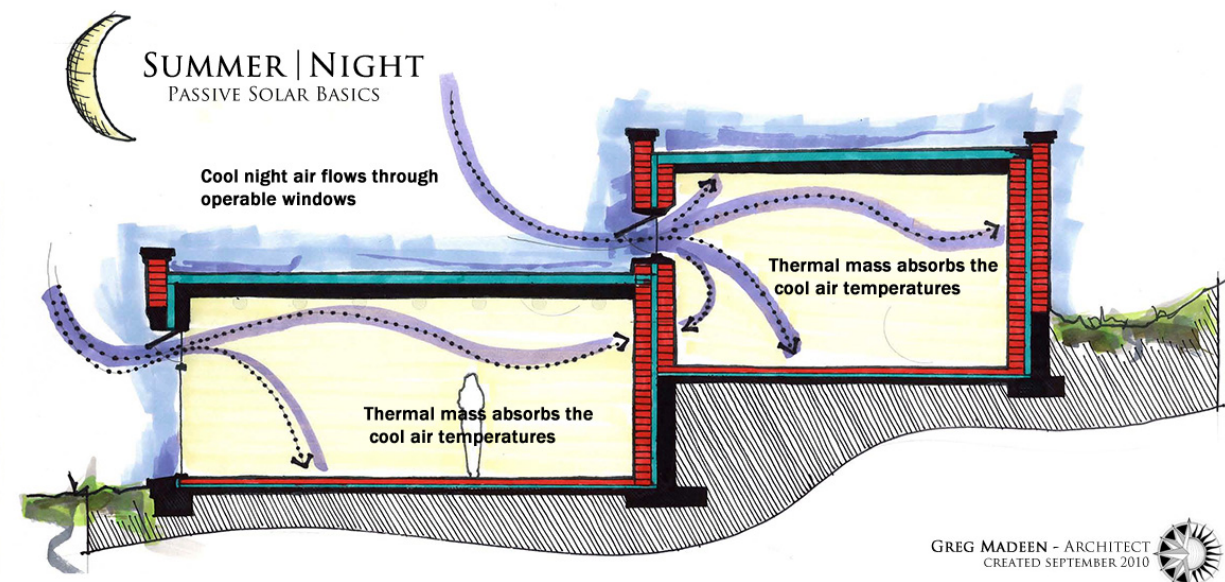
REACTION

4. SUSTAINABLE AND PASSIVE STRATEGIES



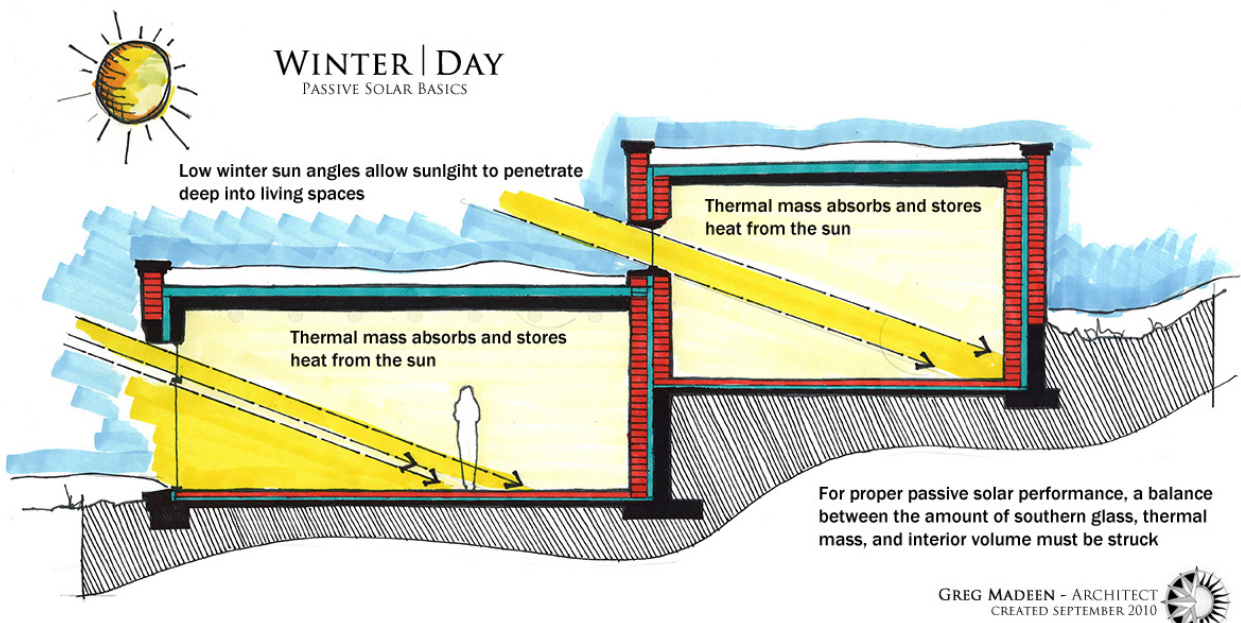
Summer Day
During the Summer the sun is at a higher angle in the sky. This benefits design by allowing overhangs to shade the building from direct solar gain.

Insulation and thermal mass help insulate the building from heat by dispersing cool temperatures absorbed during the night.



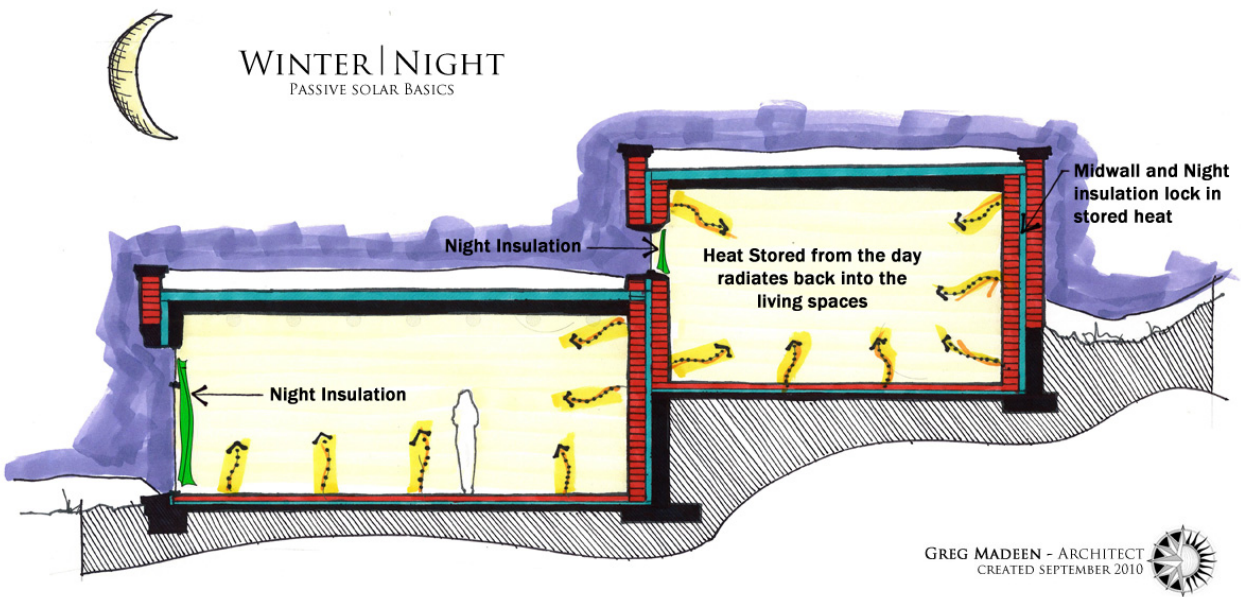
Summer Night
Operable windows help to create an air current of cool night air. These currents can be pulled through the building with openings on opposing elevations.

Insulation and thermal mass help insulate the building from heat by dispersing cool temperatures absorbed during the night.



Winter Day
During the Winter the sun is at a lower angle in the sky. This benefits design by allowing more direct solar gain further into the building.

Insulation and thermal mass help insulate the building from the cold weather and store heat from the sun. A southern window opening up to a thermal mass works best.



Winter Night
Covering up windows with curtains or blinds will greatly help retain heat. The thicker the insulation material the less heat to escape.

Heat stored from the day disperse back into the spaces during the night.

REACTION

5. ARCHITECTURAL BETWEEN CULTURE AND FORM

An extension of Culture

In the Analysis of Critical Architecture by M.K. Hays, he describes architecture an “instrument of culture” and “architecture as an autonomous form” when describing the work of Mies Van Der Rohe.

The first statement believes that architecture is dependent upon social and cultural influences. That the building and its surroundings develop a relationship from the day the building was constructed to its deterioration. Each era of the building is continually influenced by the social culture and environment.

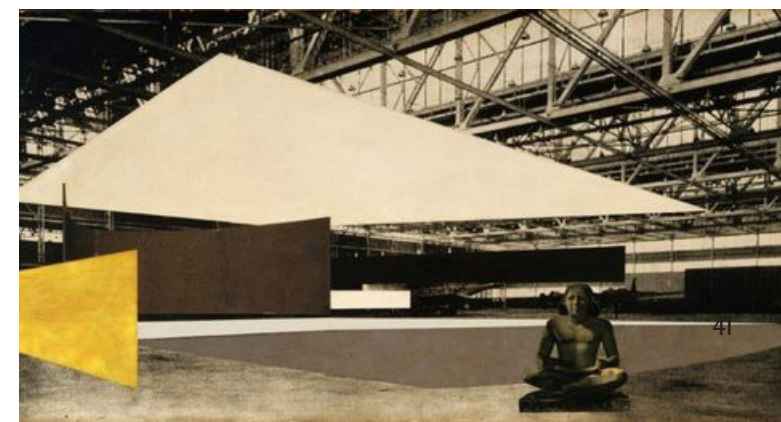
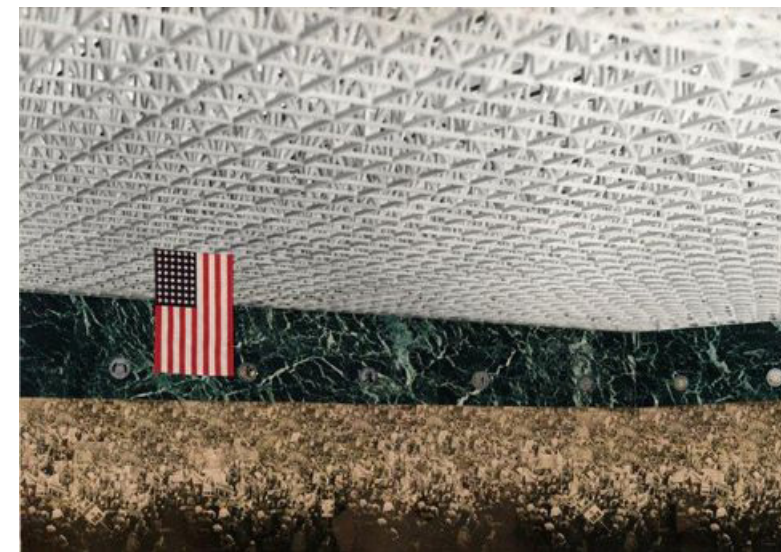
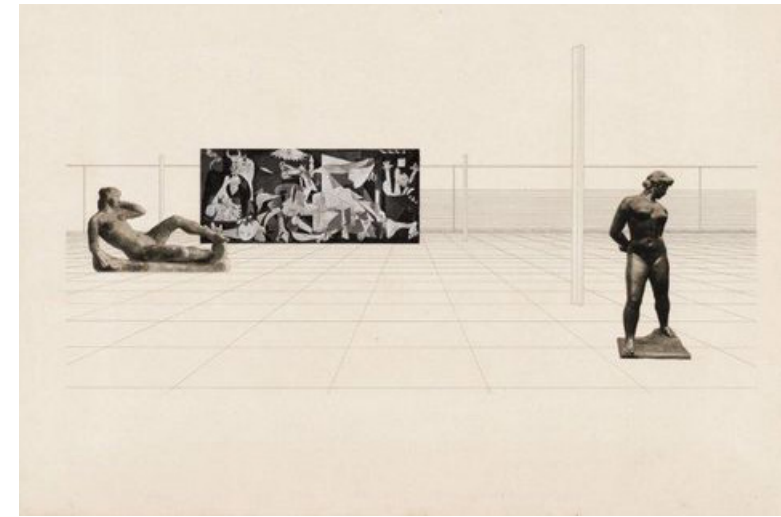
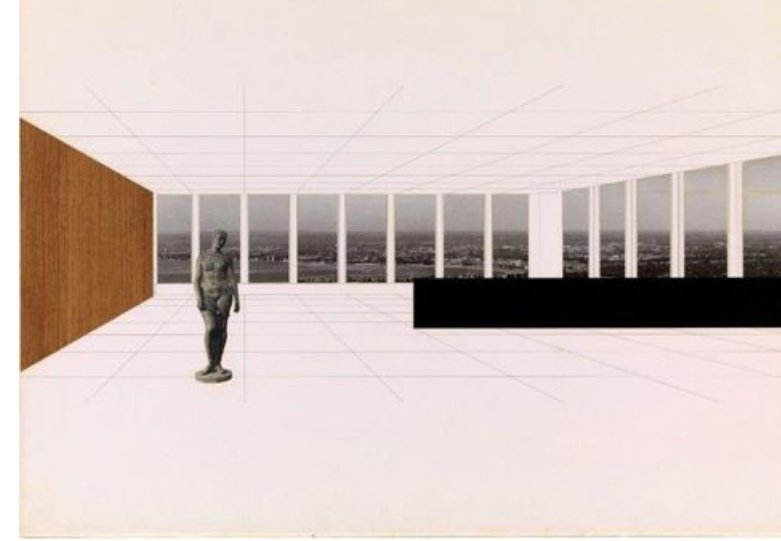
The second belief is that architecture is only a formal entity. To be understood and criticized without taking social and cultural influences under consideration and to live purely for functionality.

Hays describes Mies’ work as “a place in which the motivated, planned, and the rational are brought together”, his work is situated in between the principles of culture and form. Neither kneeling to authoritative culture or an authoritative formal system.



**“I NEVER CREATE AN IMAGE WHEN I WANT TO BUILD A HOUSE.”
-MIES VAN DER ROHE**

Thus Mies van der Rohe stated during interview with the Bauwelt magazine in 1964. He did, however, produce a wealth of collages and montages. These spatial compositions are some of the most interesting and most beautiful works of Modernism.



REACTION

SITE MAP

Primary Observations

- Lowertown has an efficient urban grid that extends to the north (to Wacouta Commons) and west (to downtown), but not the south (riverfront) and east (toward Vento Sanctuary).
- Lowertown is well served by two freeways: I-94 and 35W. The pedestrian environment is worse where the local streets interface with the highways.
- Lowertown is at a nexus of recreational trail connections. 85 miles of regional trails are connected through Lowertown.
- Transit in Lowertown is improving rapidly. With LRT and the renovation of Union Depot, Lowertown will soon be as well connected by transit as any place in the region.

Local Streets

Lowertown's local street pattern is an urban grid, efficiently providing internal circulation. The streetscape is urban - on-street parallel parking on some streets, minimal landscaping and sidewalks up to zero-lot line development. West of Mears Park, most Lowertown streets have one-way circulation and are an extension of the downtown street network. East of Mears Park, most streets have two-way circulation, except the 5th / 6th Street east-west one-way pair.



Local Streets



Regional Connections



Regional Vehicle Connections

Two regional corridors impact Lowertown. The Lafayette Freeway/Highway 52 passes over Lowertown and connects to the 7th Street and the Interstate. Interstate 94 forms the northern boundary of Lowertown. The highways, topography and rail lines block nearly all vehicular access to Dayton's Bluff and the University/Lafayette areas. The result is that a few bridges over I-94 carry the University/Lafayette areas. The result is that a few bridges over I-94 carry high volumes of vehicular traffic. Kellogg Boulevard, 7th Street and Jackson Street are the few exits out of Lowertown, and all carry high-traffic volumes, are wider roads, and are less friendly to non-motorized modes moving along and across the streets. In addition, I-94 ramping connects with the east end of 6th Street so that the 5th and 6th Street one-way pair is a feeder from downtown Saint Paul to the Interstate.

UNION DEPOT FACT SHEET

St. Paul's historic Union Depot is one of America's great rail stations from the early 20th century. A departure from the expected, there's nothing else like it in the Twin Cities. After undergoing an extensive renovation, the fully restored Union Depot, owned by Ramsey County Regional Railroad Authority, is open to the public as a home for celebrations and a hub of travel activity. Magnificent to behold, it's a true gathering place – past, present and future.

About Union Depot

- Union Depot reopened in 2012, and is owned by the Ramsey County Regional Railroad Authority (RCRRA) and managed by JLL.
- James J. Hill incorporated the St. Paul Union Depot Co., representing nine railroads, in order to build one passenger rail station.
- There have actually been two Union Depots in St. Paul. The first depot completed in 1881, but was destroyed by fire in 1913. The second depot, in operation today, was designed by Charles Sumner Frost, was constructed between 1917-1926, and closed in 1971, following the departure of the last passenger train.
- At its peak in the 1920s, almost 300 trains passed through Union Depot daily, carrying 20,000 passengers.
- The Head House was placed on the National Register of Historic Places in 1974.
- The Concourse, Waiting Room and Train Deck were placed on the National Register of Historic places in 2014.
- Union Depot is located steps away from the St. Paul Farmers Market, which operates throughout the year and attracts more than 25,000 people on any given weekend.
- Union Depot is open to the public 24/7.
- Encompasses 33 acres of land, representing approximately one-third of the downtown St. Paul riverfront.
- Eco-friendly amenities include electric vehicle charging stations, car sharing, fuel-efficient vehicle parking, full-service bicycle center, bicycle storage and parking and other bike/pedestrian enhancements.
- Current tenants include Christos restaurant, Jefferson Lines, Amtrak and Agency NORD.
- Union Depot also houses 39 privately owned residential condos.

Awards

- LEED Gold Certification. Restored to its peak 20th century elegance, the building incorporates 21st century green building ideas.
- National Project of the Year: Historical Reservation/ Preservation – American Public Works Association
- Honor Award: Restoration and Renovation – The America Institute of Architects (AIA) – Minnesota
- Minnesota Preservation Award – Preservation Alliance of Minnesota
- Best Project – Preservation Alliance of Minnesota

Transit

- Amtrak service and the return of passenger rail arrived at Union Depot on May 7, 2014.
- The Metro Transit Green Light Rail Line began service at Union Depot on June 14, 2014.
- Hundreds of buses serve Union Depot each week, including Metro Transit buses, Jefferson Lines, Greyhound, megabus.com, Treasure Island Casino Shuttle, Mystic Lake Casino Shuttle and connects to Minnesota Valley Transit Authority.
- Union Depot is also served by regional transitways, automobiles, bicycles and pedestrians.

Events & Activities

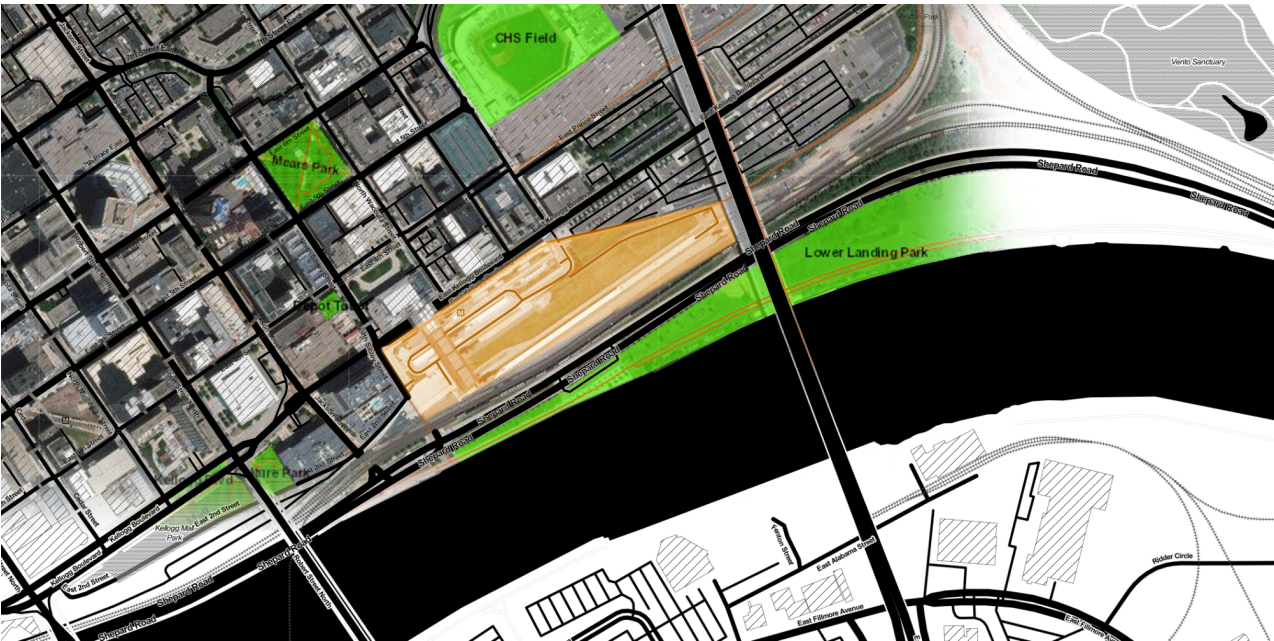
- Four indoor and two outdoor venues make Union Depot the perfect setting for public events, private functions, arts and cultural festivals, concerts and more, with the ability to accommodate groups from 25 to 3,000.
- Free yoga classes are offered two times per week: Tuesday (12:00-1:00 p.m.) and Saturday (9:00-10:00 a.m.).
- Free Family Game Night happens every Wednesday (4:00-8:00 p.m.).
- Public tours available for free every other Tuesday (11:00-11:30 a.m.) and alternating every other Thursday (1:00-1:30 p.m.).
- Private tours are offered to groups with a minimum of 15 persons and must be scheduled at least 30 days in advance – \$6 fee per person requested. For more information, contact tour personnel at 651.202.2700 or email info@uniondepot.org.
- Full calendar of events is available at www.uniondepot.org/events/eventcalendar.



call 651.202.2700 or email info@uniondepot.org
f [facebook.com/uniondepot](https://www.facebook.com/uniondepot) t [@UnionDepot](https://twitter.com/UnionDepot)

REACTION
SITE ANALYSIS

Site analysis incorporated a heavily on historic research, current maps and future goals for the riverfront master plan. An interesting occurrence was that the site was part of three historic registrars. All three encompassing the Depot itself with one also incorporating the rail yard. The parks in the area are within a 5 min walk from the site and the city has plans to expand the parks into a continuous riverfront walking path.



Around the site are vast areas of “lost spaces” that don’t offer the public much in the means of attributes. On top of the site is only one rail track close to the river with the rest of the site left fenced off except for a bus loading area. Throughout my site visits I often found these areas completely abandoned of people, on average there tended to be about 25-50 people on the sidewalks at any given time. This showed that more than likely people ignore these spaces in the city or simply have a place they would prefer to spend time instead.

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY - NOMINATION FORM
(Type all entries - complete applicable sections)

1. NAME
Common: St. Paul Union Depot
AND/OR HISTORIC: St. Paul Union Depot

2. LOCATION
Street and Number: 214 East Fourth Street
City or Town: St. Paul
State: Minnesota
County: Ramsey
Congressional District: 4th

3. CLASSIFICATION
Category (check one): ☒ Building ☐ Public ☐ Private ☐ Other
Status: ☒ National ☐ State ☐ Local

4. OWNER OF PROPERTY
Name: St. Paul Union Depot Company
Address: 214 East Fourth Street
City or Town: St. Paul
State: Minnesota
County: Ramsey

5. REPRESENTATION IN EXISTING SURVEYS
List of surveys: Minnesota Historical Society/Historic St. Paul Building Survey
Date of survey: 1/13/1986
Surveyor: [Name]
Minnesota Historical Society/Library of Congress
Survey for: [Name]

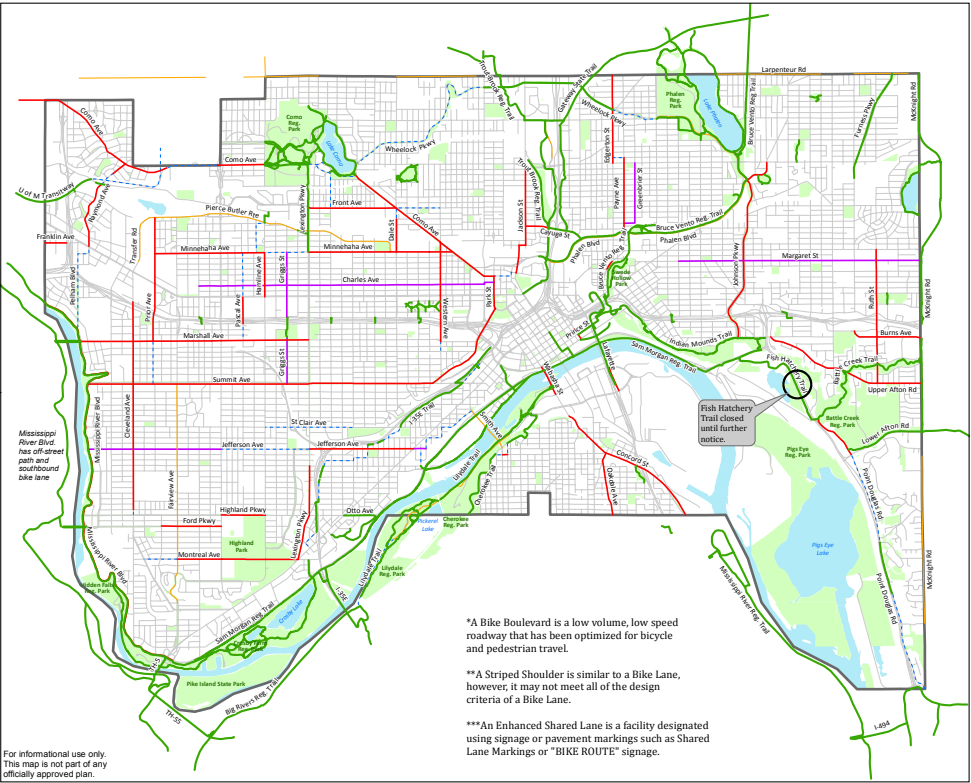
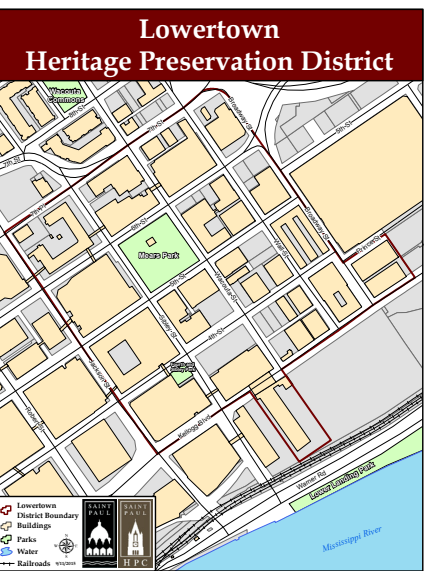
UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
National Register of Historic Places Registration Form
This form is for use in recording or reporting information for individual properties and districts. See instructions for details. (Do not use for National Register of Historic Places nominations.)
Bureau of Land Management, National Register of Historic Places
10-900-108 (Rev. 10-16-2015)

1. Name of Property
Historic name: St. Paul Union Depot
Other names/site number:
Name of related multiple property listing:
"Railroads in Minnesota, 1862-1956"
(Enter "N/A" if property is not part of a multiple property listing)

2. Location
Street & number: 214 East Fourth Street
City or town: St. Paul
State: MN
County: Ramsey
Not for Publication: ☐ A ☐ B ☐ C ☐ D

3. State/Federal Agency Certification
As the designated authority under the National Historic Preservation Act, as amended,
I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.
In my opinion, the property meets does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:
national statewide local
A B C D

Signature of certifying official: [Signature]
Title: [Title]
State or Federal agency/bureau or Tribal Government: [Agency]



Saint Paul Bike Map

Bikeways

- Off-Street Path
- Bike Lane
- Bike Boulevard*
- Striped Shoulder**
- Enhanced Shared Lane***

*A Bike Boulevard is a low volume, low speed roadway that has been optimized for bicycle and pedestrian travel.

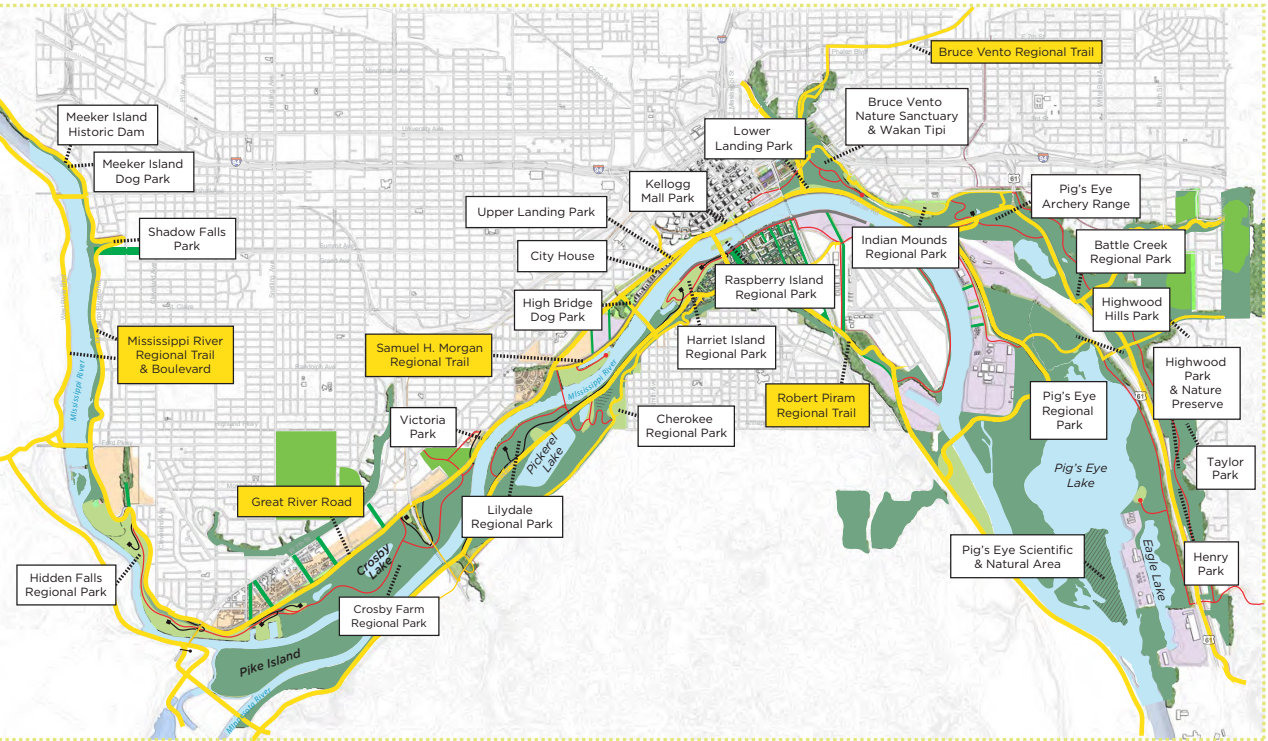
**A Striped Shoulder is similar to a Bike Lane, however, it may not meet all of the design criteria of a Bike Lane.

***An Enhanced Shared Lane is a facility designated using signage or pavement markings such as Shared Lane Markings or "BIKE ROUTE" signage.

Miles
0 0.5 1 2

North arrow

Date: 5/9/2017



GREAT RIVER PASSAGE

1,000 WAYS TO RECREATE

- 17 MILES OF THE MISSISSIPPI RIVER
- 17 PARKS
- 6 MAJOR TRAILS
- 5 HISTORIC & PRESERVE SITES
- 4 LAKES
- 2 DOG PARKS
- 1 ARCHERY RANGE

www.GreatRiverPassage.org

Saint Paul Parks and Recreation

SAINT PAUL
The First Looking City in America

REACTION

MASTER PLAN

Planning

This Plan will be adopted as part of Saint Paul's Comprehensive Plan. It will be the recognized small area plan for Lowertown. As such, the Plan looks to the Comprehensive Plan for policy guidance.

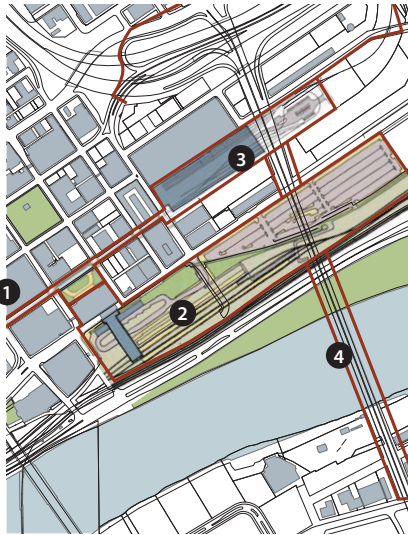
In addition to the Comprehensive Plan, this Plan is coordinated with several other on-going and recently completed initiatives.

Character and Identity (page 8, 1999, White)
Urban Form as Printout of Natural and Cultural Processes (page 10, 1999, White)

Analysis

Lowertown has a wide range of land uses, from residential to industrial rail lines. After decades of being primarily industrial and commercial, Lowertown has evolved into a mixed use neighborhood with a strong residential component. Some retail, restaurant, entertainment, office and arts related uses complement the residential uses. These uses are mostly located on the ground floor of buildings leaving most of the upper floors of the buildings as residential.

The uses are tightly-packed in the urban grid. Within this approximately 20 block area, most of the former warehouses and industrial buildings have been converted to housing, office, or studios



1: Central Corridor LRT
2: Union Depot Multi-Modal Station
3: Operations and Maintenance Facility (OMF)
4: Lafayette Bridge

Downtown Station Area Plan

The Downtown Station Area Plan, completed in 2010, establishes a policy framework for development around the station areas in downtown Saint Paul, including Lowertown. The Plan establishes aggressive targets for growth throughout downtown:

- 5,000-6,000 rental units of housing
- 750-1,200 ownership units of housing
- 1.8 million SF office space
- 100,000-150,000 SF of retail
- 300 new hotel rooms

The Plan assumes these targets will be met by absorbing surface lots, promoting reinvestment in strategic sites, and prohibiting new single-use parking structures.

In addition, the Station Area Plan lays the groundwork for public realm improvements, such as the creation of urban rooms connected by a ring of neighborhood park streets.

Building Type



- Mercantile Building
- Residential Building
- Warehouse/Loft (converted)
- Parking Building
- Industrial Building
- Office
- Podium and Tower
- Other



Warehouse Building



Mercantile Building

Public Engagement In the Master Plan Process

The Greater Lowertown Master Planning process was initiated by community interests in the greater Lowertown area - including parts of the East Side/Dayton's Bluff. The process was led by the Lowertown Master Plan Task Force and the consultant team, with input from stakeholders throughout the community and the City.

The process began in November 2010 and ended in June 2011. Throughout the seven month process, the team gathered input from stakeholders through:

- 36 focus group meetings
- 3 public meetings
- 9 task force meetings
- 2 arts workshops
- Arts survey
- 10 follow-up staff/stakeholder meetings

In total, approximately 900 people participated in the meetings. In addition to the meetings, the team maintained a website (VisionLowertown.com) to distribute and collect information.



Strengths

- Mears Park
- Union Depot
- Farmers' Market
- Arts Community
- Historic Character



Weaknesses

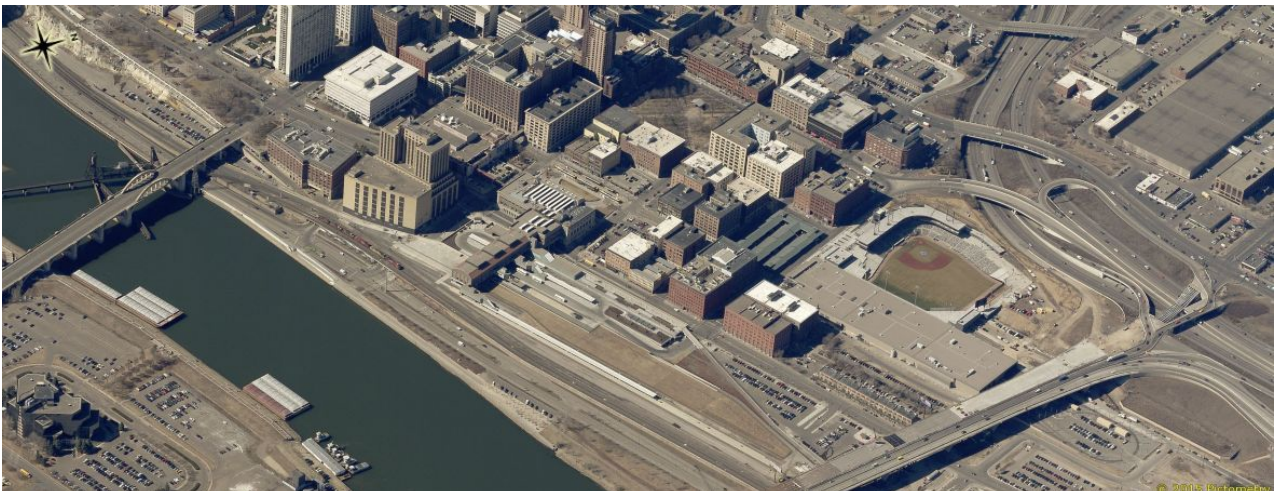
- Gillette Building/
Diamond Products Site
- Shepard and Warner
Roads
- Rail Lines and
Parking Ramp
- Access to River

LOWERTOWN APRIL 24TH 2011



Lowertown has begun a journey of transformation since 2012 after an extensive remodel of the Union Depot. Since then a new baseball field has been constructed and vacant lots have been turned into new residential apartment units.

LOWERTOWN MARCH 17TH 2017

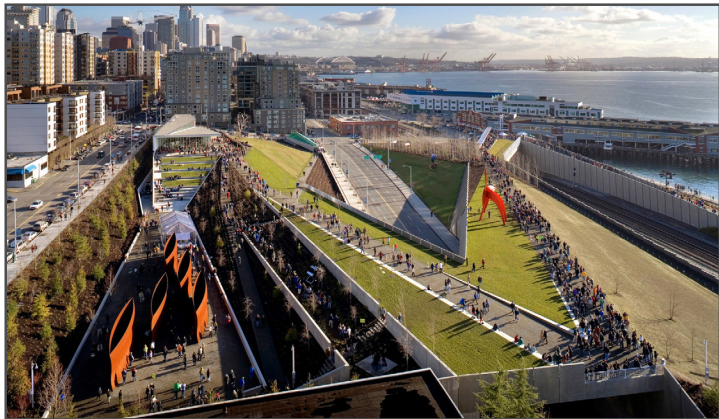
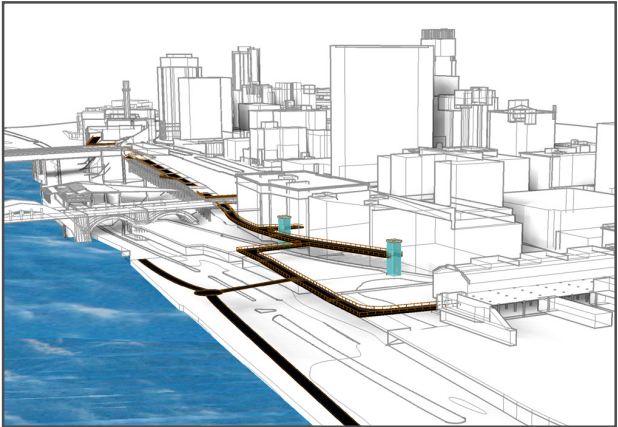


SAINT PAUL RIVER BALCONY

The Saint Paul River Balcony will be an elevated pedestrian walkway overlooking the Mississippi River in downtown Saint Paul. This dramatic public promenade will travel from the Science Museum of Minnesota to Union Depot and link vibrant downtown places with restaurants, offices, shops, and other gathering spaces.

HIGHLIGHTS

- 1.5-mile elevated pedestrian walkway
- Extends from the Science Museum of Minnesota to Union Depot
- Designed to accomodate walking, outdoor seating, gathering, and public activities
- Mixes both urban and natural elements of the city and river
- Encourages people of all ages to interact with the Mississippi River in new ways
- To be financed through public-private partnerships



Olympic Sculpture Park, Seattle, Washington

A LONG-TERM VISION

The River Balcony was first conceptualized in Saint Paul's Great River Passage Master Plan, the City's vision to better connect people to Saint Paul's 26 miles of Mississippi River shoreline. The City of Saint Paul is in the process of preparing a master plan for the River Balcony, which will be completed in 2017. The River Balcony will then move into schematic design.

REACTION

PEOPLE OF LOWERTOWN



The space in front of the Union Depot can be activated with displays and events such as the temporary decking shown in the image above, that can provide a flexible festive space. Art, food service and live performances will all add life to the space and allow the space to be preserved and celebrated.



Food carts and flexible seating



Events and Programming



Functional and Interactive Art

Comparisons to Other Cities

2010 Census	Saint Paul	Minneapolis	Portland	Denver	Pittsburgh	St. Petersburg
White	60.1	63.8	76.1	68.9	66	68.7
Black/African AM	15.7	18.6	6.3	10.2	26.1	23.9
Asian	15	5.6	7.1	3.4	4.4	3.2
Hispanic/Latino*	9.6	10.5	9.4	31.8	2.3	6.6

* Hispanic/Latino is not considered a race, therefore percentages do not add to 100%

Develop more gathering spaces for the neighborhood

Lowertown residents cherish their gathering places. The Black Dog Cafe and Mears Park are two examples of well-loved gathering places in Lowertown. They also represent different types of gathering places: Black Dog is indoor and private, Mears Park is outdoor and public. Gathering places are used for a range of public and civic activities including celebration, collaboration, performance, art, and informal visiting.

As the neighborhood grows and diversifies over the next 15 years, additional gathering spaces will be required to support it. With new visitors coming to Lowertown, it will be particularly important to build the infrastructure of neighborhood-scaled gathering places. New spaces should augment and diversify the overall inventory of gathering spaces in Lowertown. Consideration should be given to creating Wi-Fi hotspots in parks so the parks are more usable and attractive to a broader range of people. In addition, new spaces should be distributed around th neighborhood so all residents have access and proximity to these valuable community assets.



Gathering Places

Reconstruct select intersections of Warner Road to enable safe bicycle and pedestrian crossings

The Sam Morgan Regional Trail is disconnected from Lowertown because of the rail line and the design of Warner Road's intersections. The City should consider changes to safely get bicyclists and pedestrians between Lowertown and the Sam Morgan Trail.

Maintain Warner Road's four-lane cross-section. A four-lane Warner Road will allow more signal time at the Jackson, Sibley, and future Broadway intersections to be dedicated to pedestrian and bicycle crossings.

Maintain Warner Road's double eastbound left turn lanes between Jackson and Sibley to maximize the vehicle capacity of the intersection, and thus maximize pedestrians crossing time.

Modify the intersections at Jackson and Sibley and design the future Broadway intersection to provide safer crossing. At all three intersections, allow pedestrian crossing on both the east and west sides of the intersection, install signals, and provide a center refuge median.



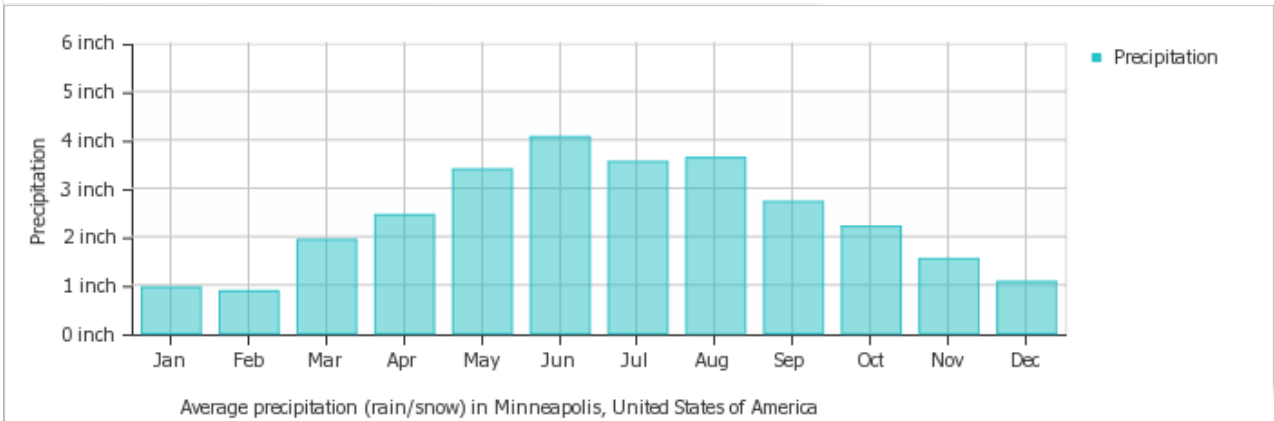
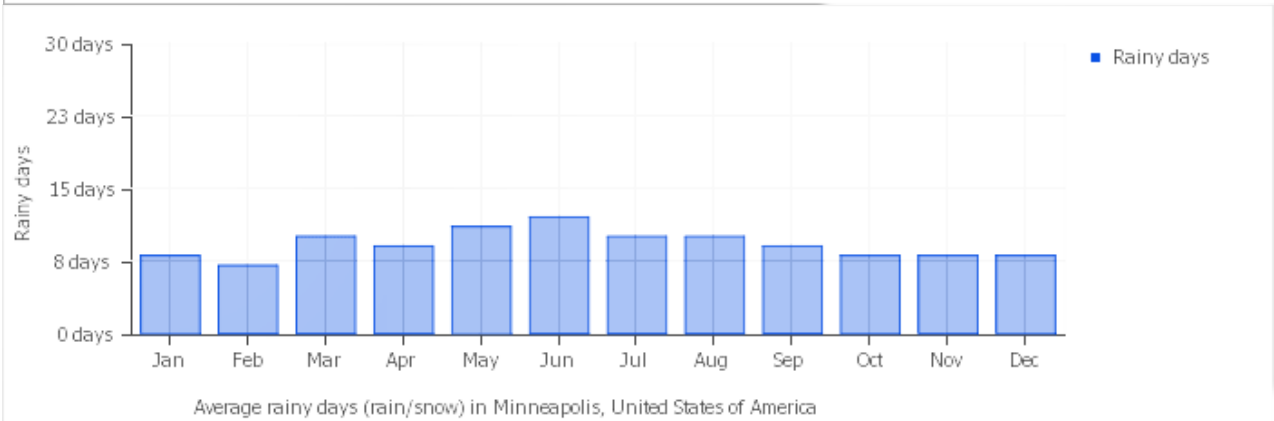
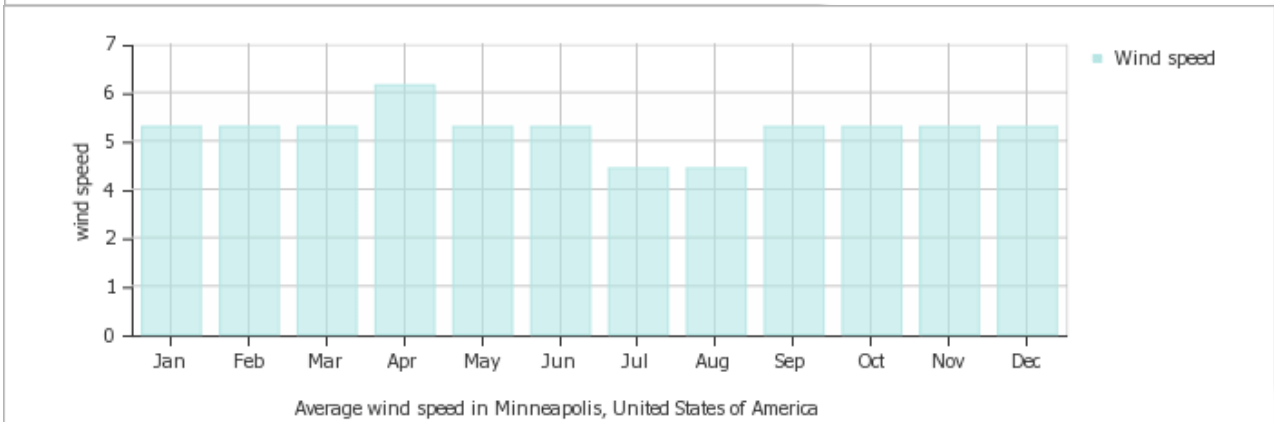
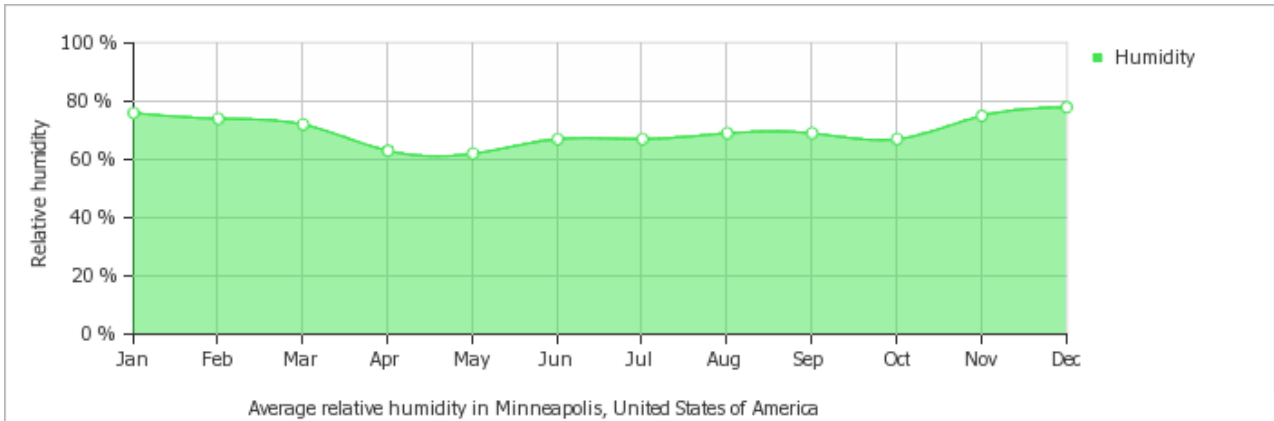
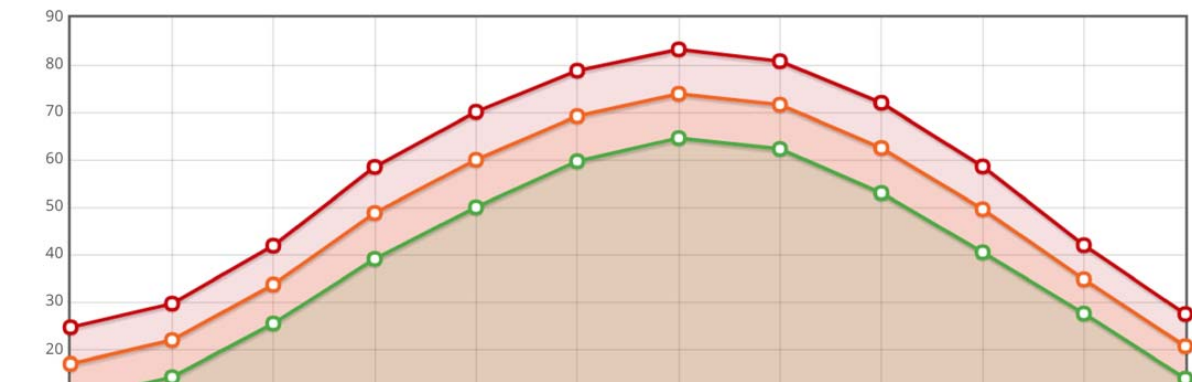
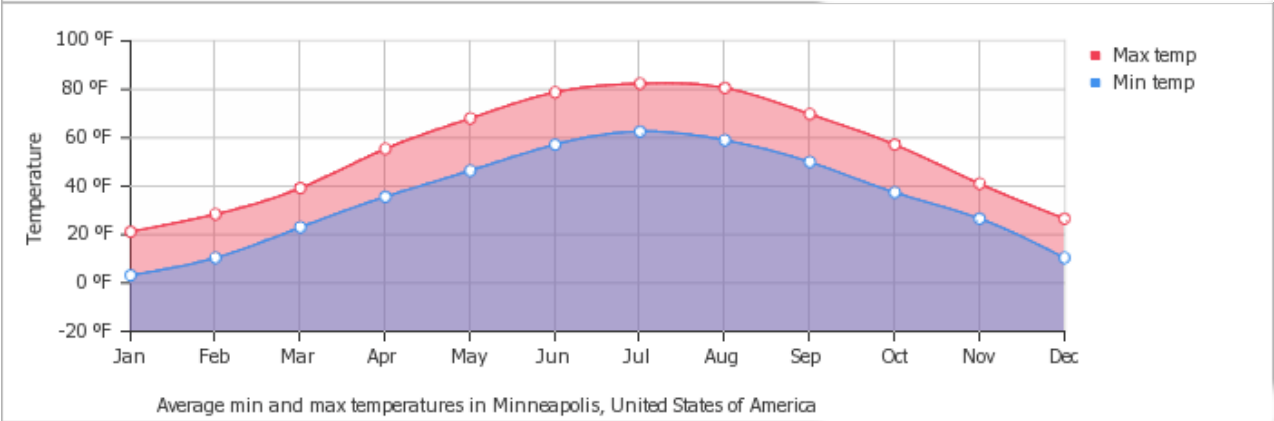
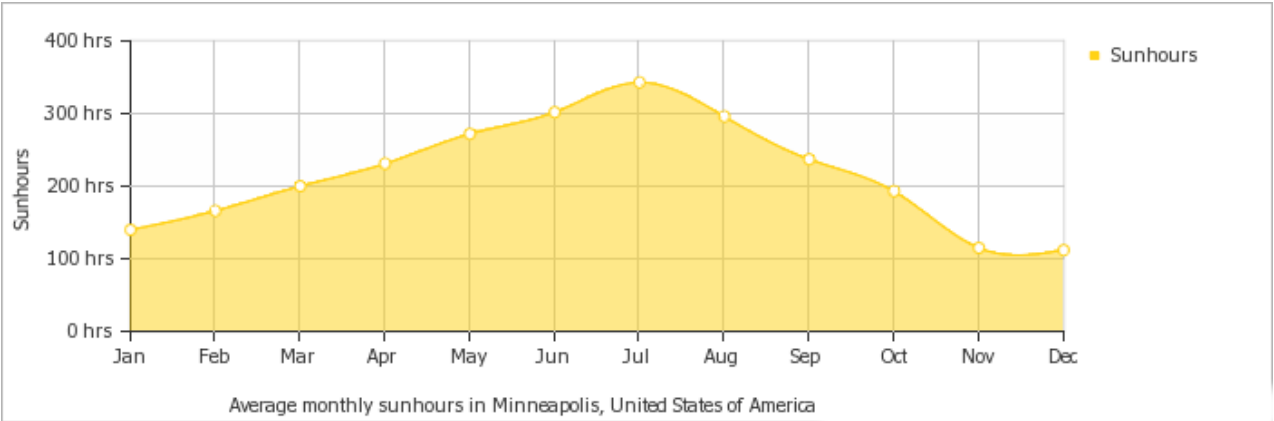
Recommended changes to Warner / Shepard Road

REACTION

CLIMATE ANALYSIS

Climate (F)	
July Weather	85 degree average high 64 degree average low
January Weather	26 degree average high 7 degree low

Climate analysis was included within the proposal to provide a better understanding to how this northern site differs drastically from month to month. It is important for the design process to include detail as to how to combat large snowfall, precipitation, and extreme temperature variations.

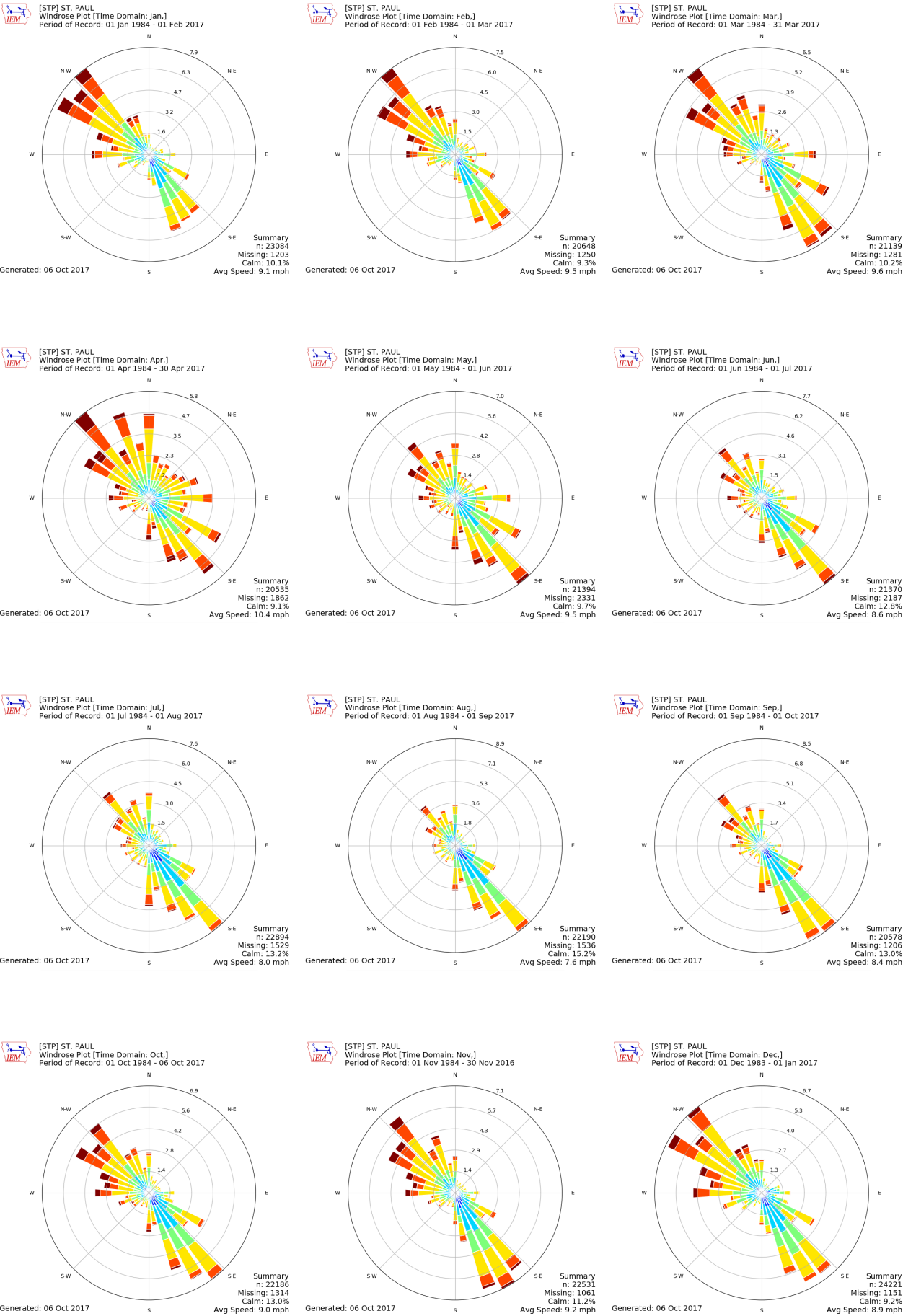
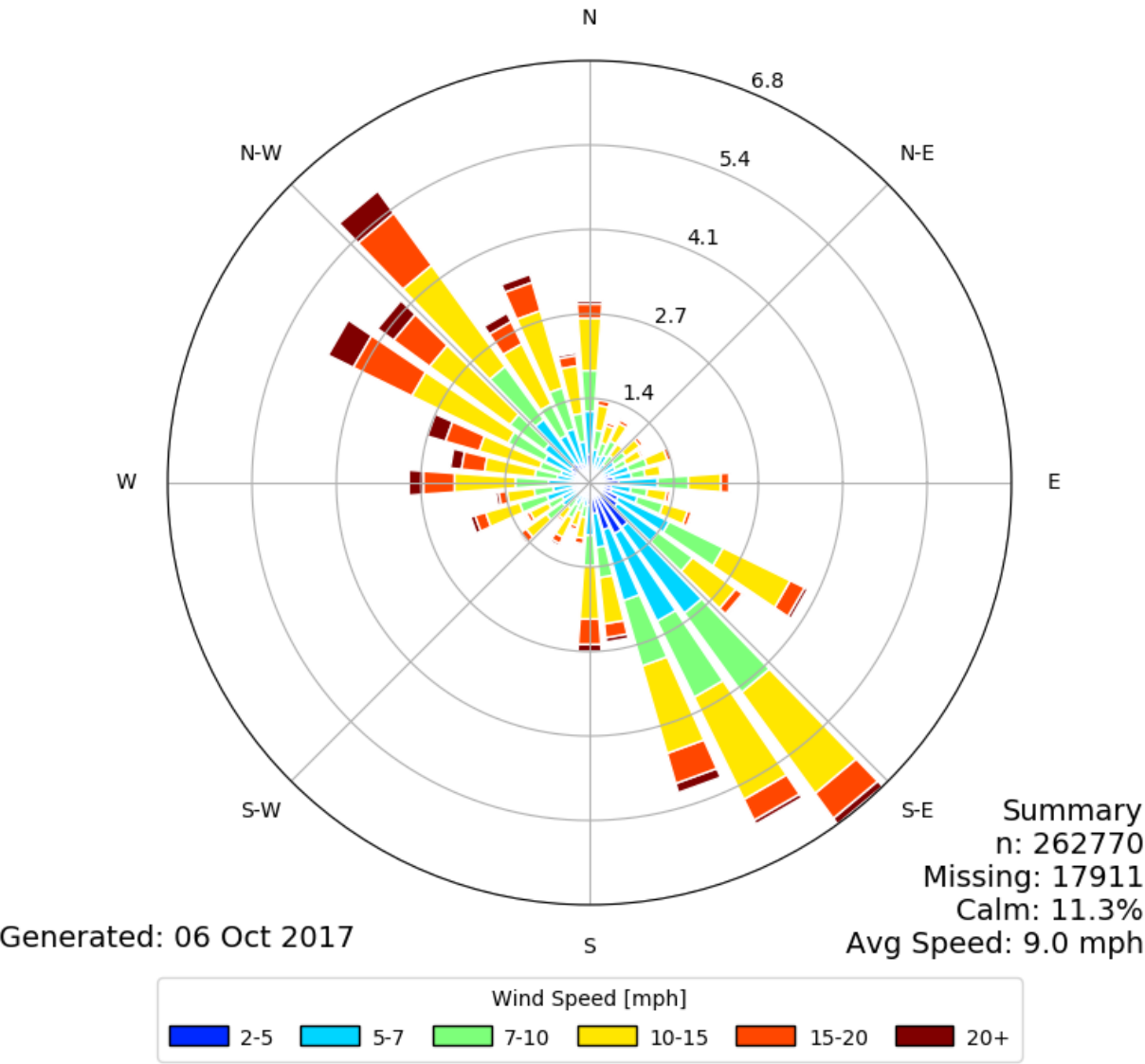


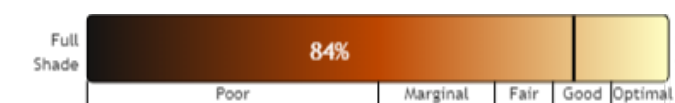
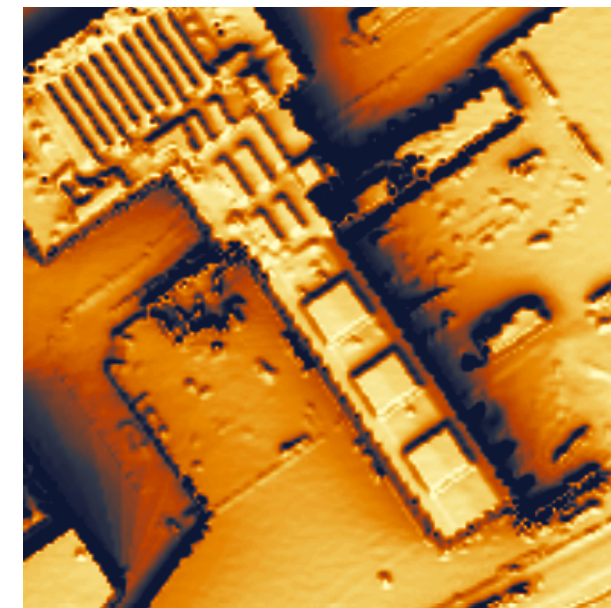
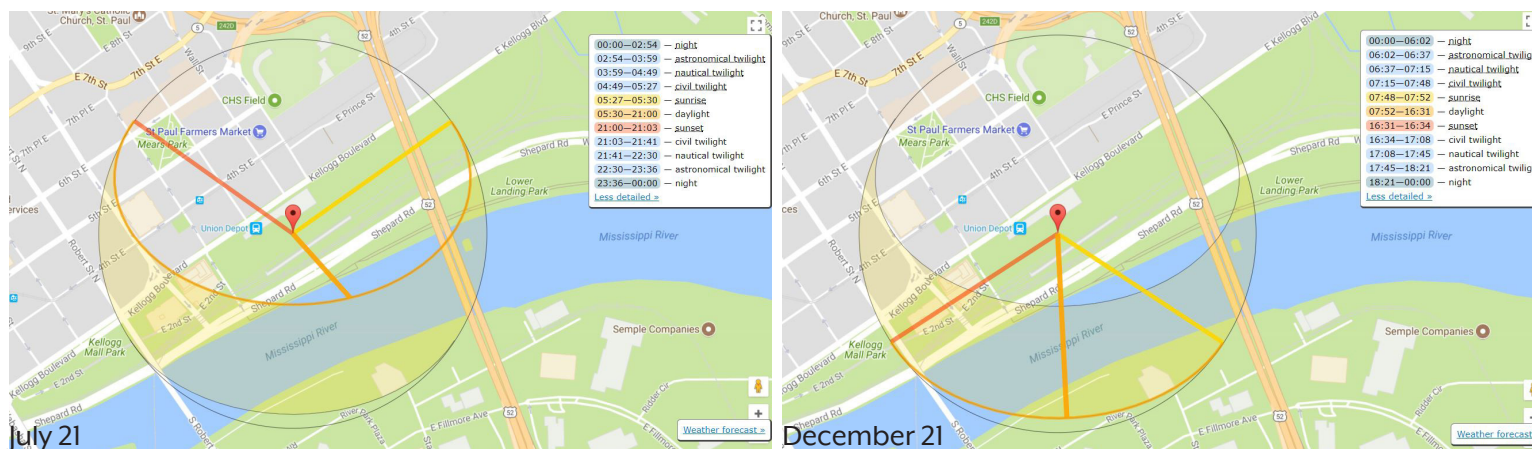
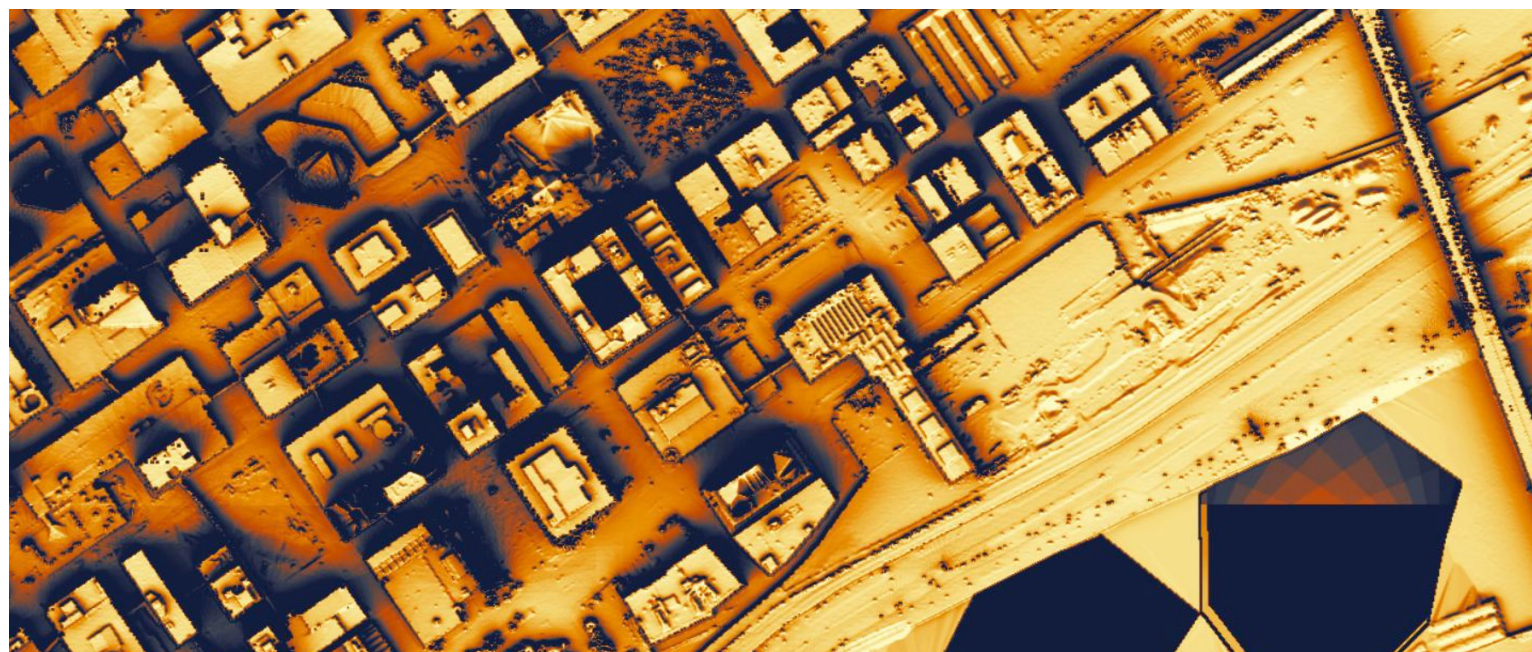
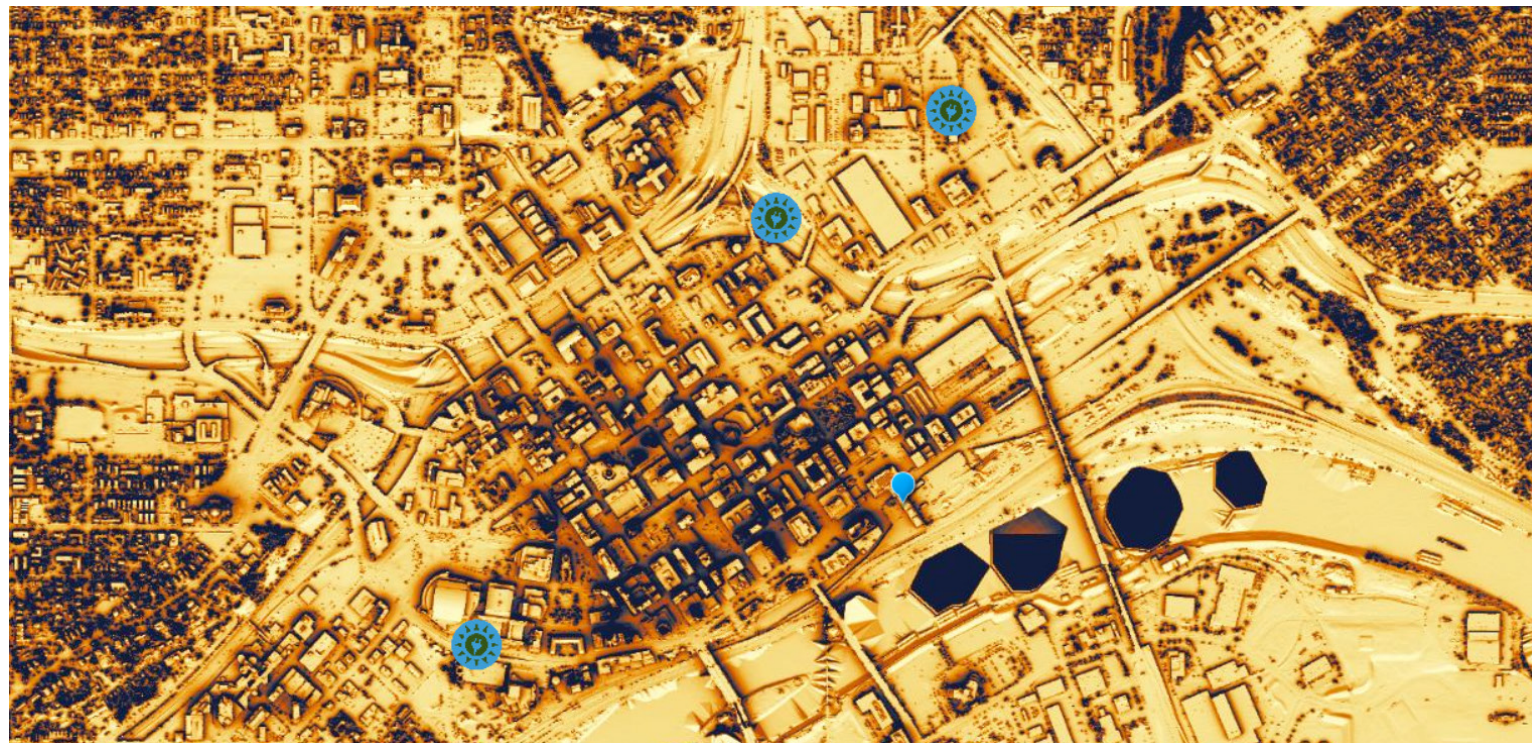
REACTION

WIND ROSE ANALYSIS



[STP] ST. PAUL
Windrose Plot [All Year]
Period of Record: 01 Dec 1983 - 06 Oct 2017





This site is **Good**. It would need a **4.96 kW** system to generate **50%** of average household use. This system would cost approximately **\$23,856**. System payback is **16.4 years** after tax credit.

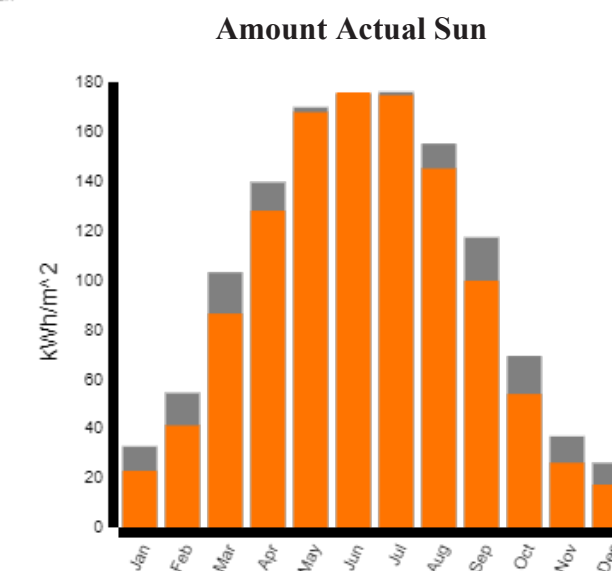
Utility Service Provider:
 , MN

Site Details:

Total Annual Insolation: 1128.75 kWh/m²

Avg Insolation per Day: 3.09 kWh/m²

Source Data: Spring and Fall 2011



The solar study concluded the site could benefit from solar energy and could join the other three sites in the area that have solar energy as shown by the blue dots in the upper left corner. Although, the site would be 84% full sun it would be difficult to gain enough energy during the winter months.



REACTION

PROJECT JUSTIFICATION

I like this quote from Daniel Libeskind
“Our lives are complex; our emotions are complex; our intellectual desires are complex. I believe that architecture ... needs to mirror that complexity in every single space that we have, in every intimacy that we possess.”

Can lost space be revitalized to promote the culture of the city?

This thesis desires to promote creativity and imagination through the experience of the architecture. These experiences explore the mind to reveal human emotions and desires in an intentional, powerful, and poetic new way. This project aims to display a response to the changing experience of space, movement and time. The beauty in art is that it has a particular way of bringing our inner thoughts to the surface.

A place where we cannot go, but merely see into. Architecture can become a form of vision without space. A motion we must make ourselves open to perceive. Instead of space it is the time of experience we are trying to grasp, a true extension of reality as Being in the World.

A skill of uniting reality with dream from the depths where our emotions lie. There is a story beyond what we see, an instinctual beating of the heart. Architecture should embrace this and bind together the visible with the invisible. We are surrounded by static spaces of the conventional and we desire a poetic, dynamic, and fictional architecture. The goal is not necessarily to pursue a dream world, rather to build spaces that resist collapse of imagination. Art and architecture are powerful representations of our culture, they provide a meaning we recognize

REACTION

FINAL SPACE ALLOCATION

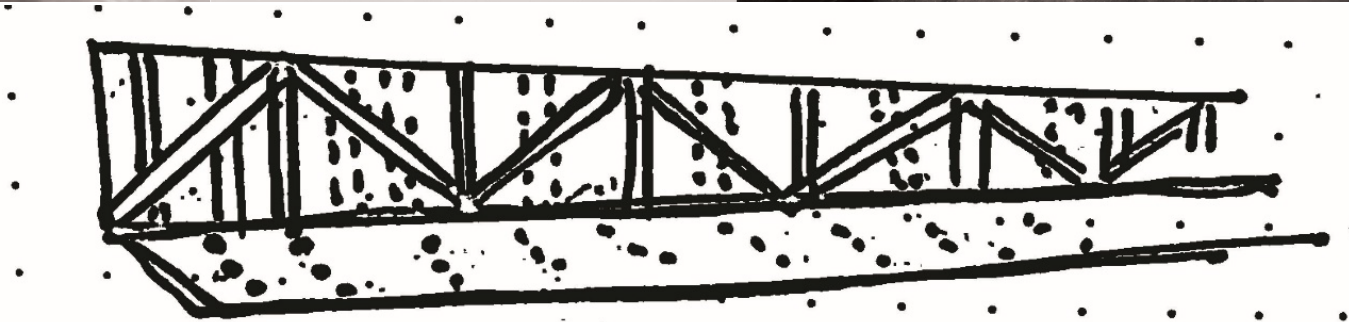
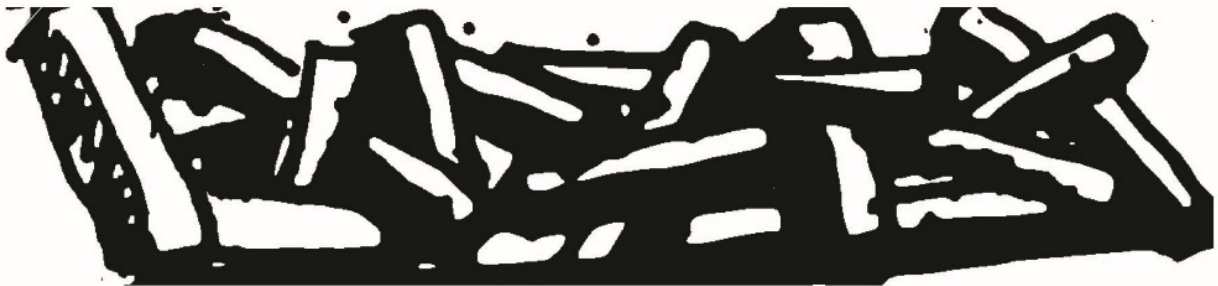
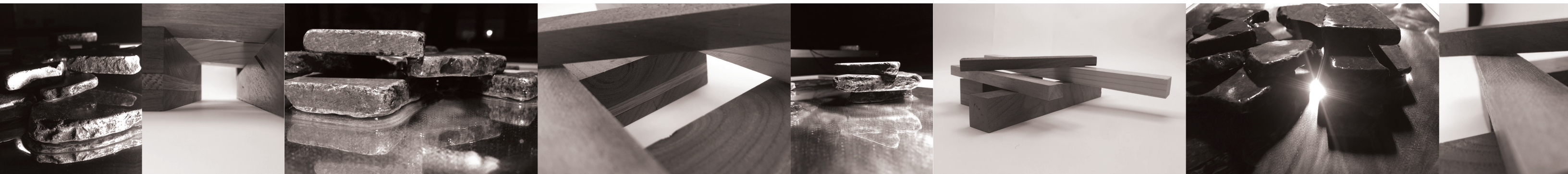
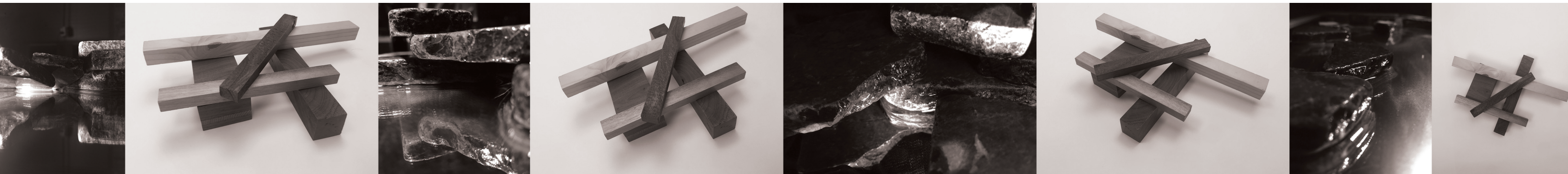
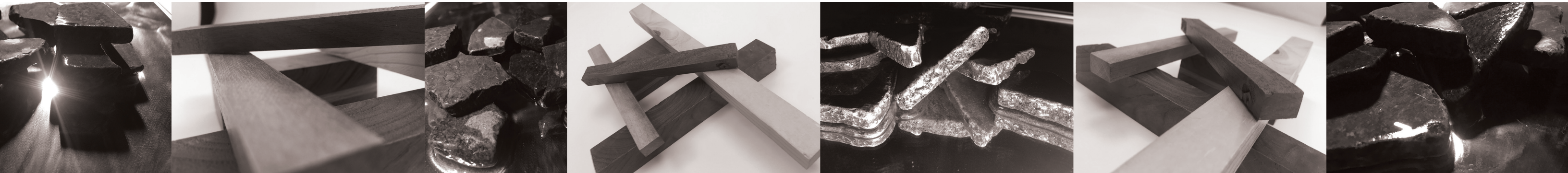
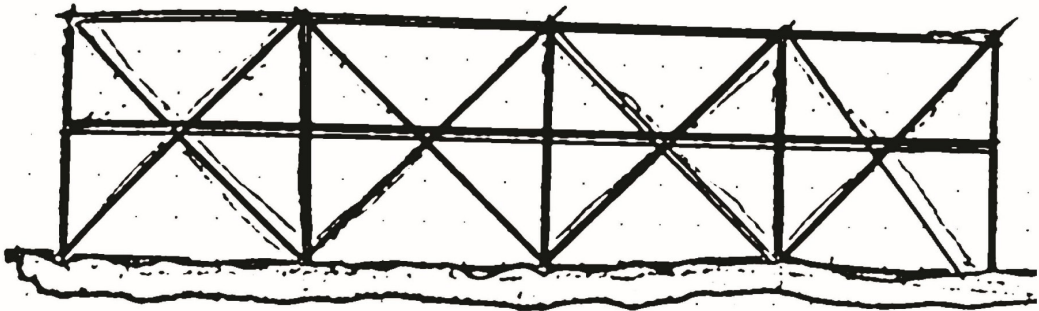
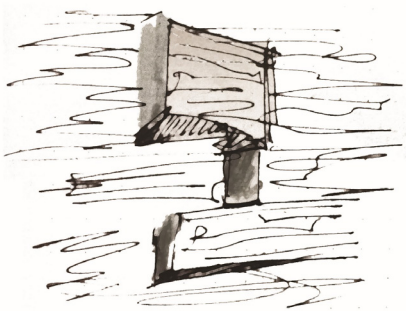
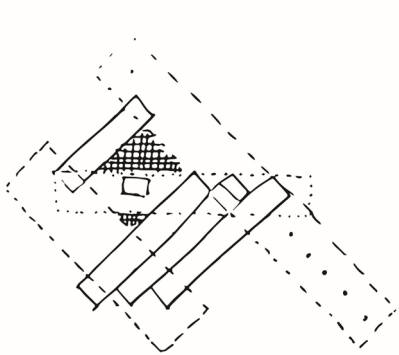
Circulation 18,841 Square Feet Building Circulation, including atrium's, hallways, foyer, stairs, and elevators.
Courtyard 10,260 Square Feet 10,260 sf Open Air Courtyard
Administration 4,261 Square Feet 386 sf Conference Room 424 sf Executive Director 272 sf Associate Director of Admin 272 sf Director of External Affairs 272 sf Bookkeeper 272 sf PR Coordinator 272 sf Future Staff 320 sf Museum Educator 272 sf Floor Managers 272 sf Volunteer Coordinator 272 sf Volunteer Break and Storage 180 sf Toilet 180 sf Toilet 70 sf Office Supplies 350 sf Work Room 175 sf Administration Reception
Auditorium 7,772 Square Feet 3,740 sf Auditorium 632 sf Green Room 1,600 sf Mechanical 1,000 sf Sound and Light Booth 800 sf Auditorium Restrooms

Facilities 12,310 Square Feet 1,700 sf Warehouse 370 sf Facilities Managers 790 sf Workshop 258 sf Flamables 800 sf Large Classroom 550 sf Small Classroom 990 sf Shop Storage 272 sf Shop Manager 1,570 sf Shop 1,660 sf Kitchen 2,040 sf Cafe 630 sf Admission 680 sf Lobby Restrooms
Exhibit Level 2 33,512 Square Feet 780 sf Artist Studio A 780 sf Artist Studio B 1,032 sf Rentable Conference Room 880 sf North Restrooms 400 sf North Mechanical 12,000 sf North Exhibit 5,660 sf Public Lounge and Entrance From Union Depot 600 sf South Mechanical and Storage 480 sf South Restrooms 10,900 sf South Exhibit
Exhibit Level 3 11,800 Square Feet 200 sf Mechanical 11,600 sf Exhibit
Total Building 88,496 Square Feet

DELIVERABLES

PROCESS DOCUMENTATION

The main objectives of the design process were to analyze a form that fit the urban landscape. Creating artifacts like rocks was a first attempt at a design. This transformed into stacking and eventually to creating a lattice like effect with wood sticks.



DELIVERABLES

MODELS

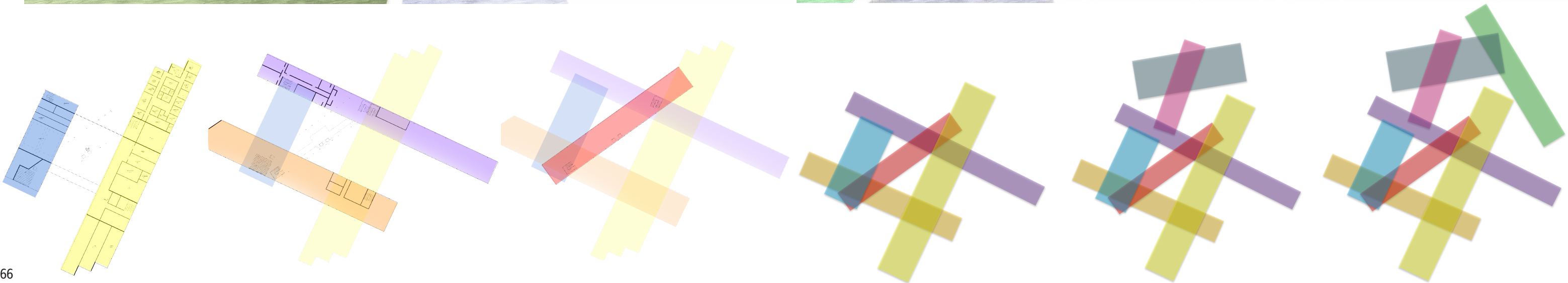
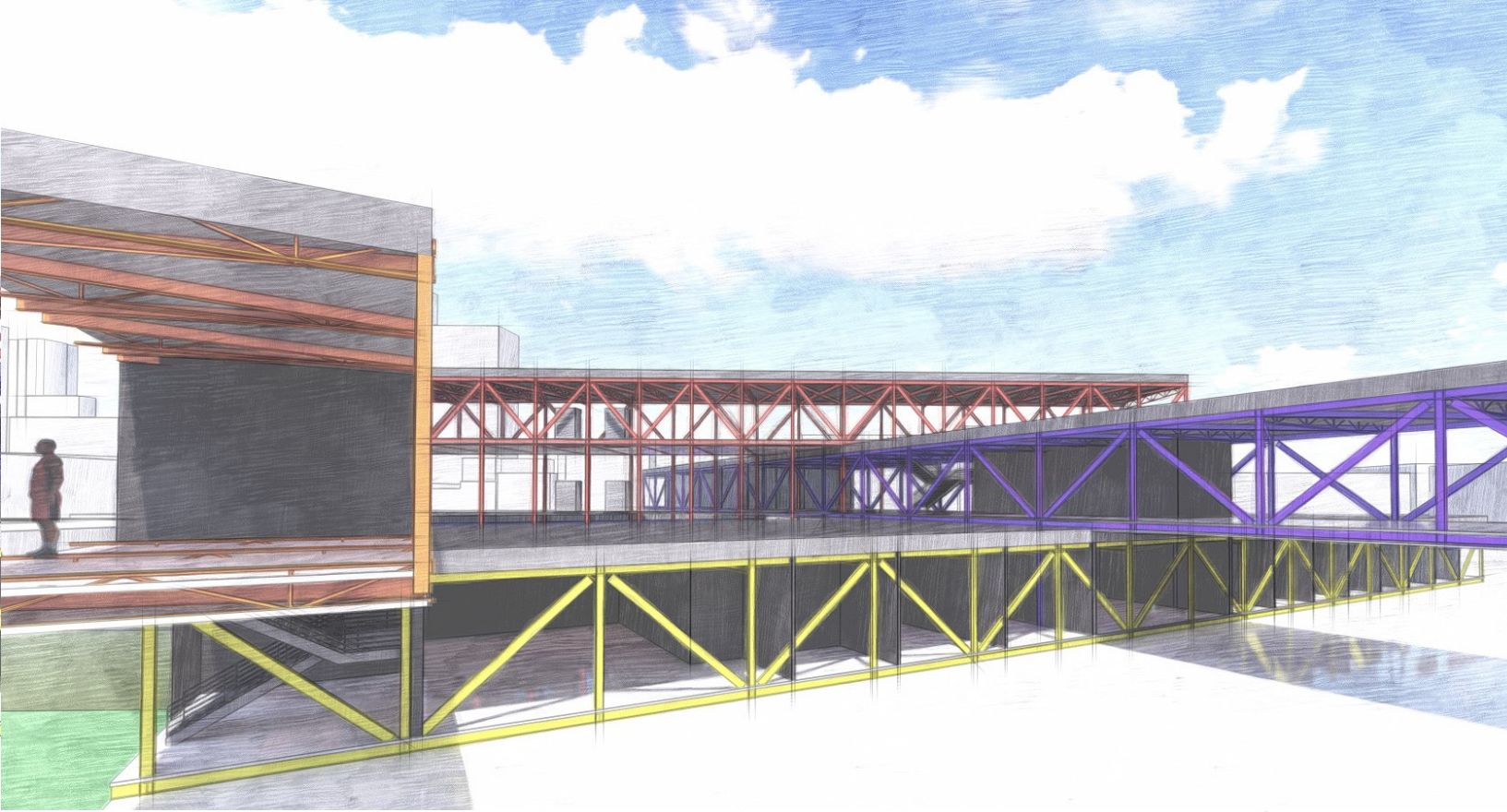
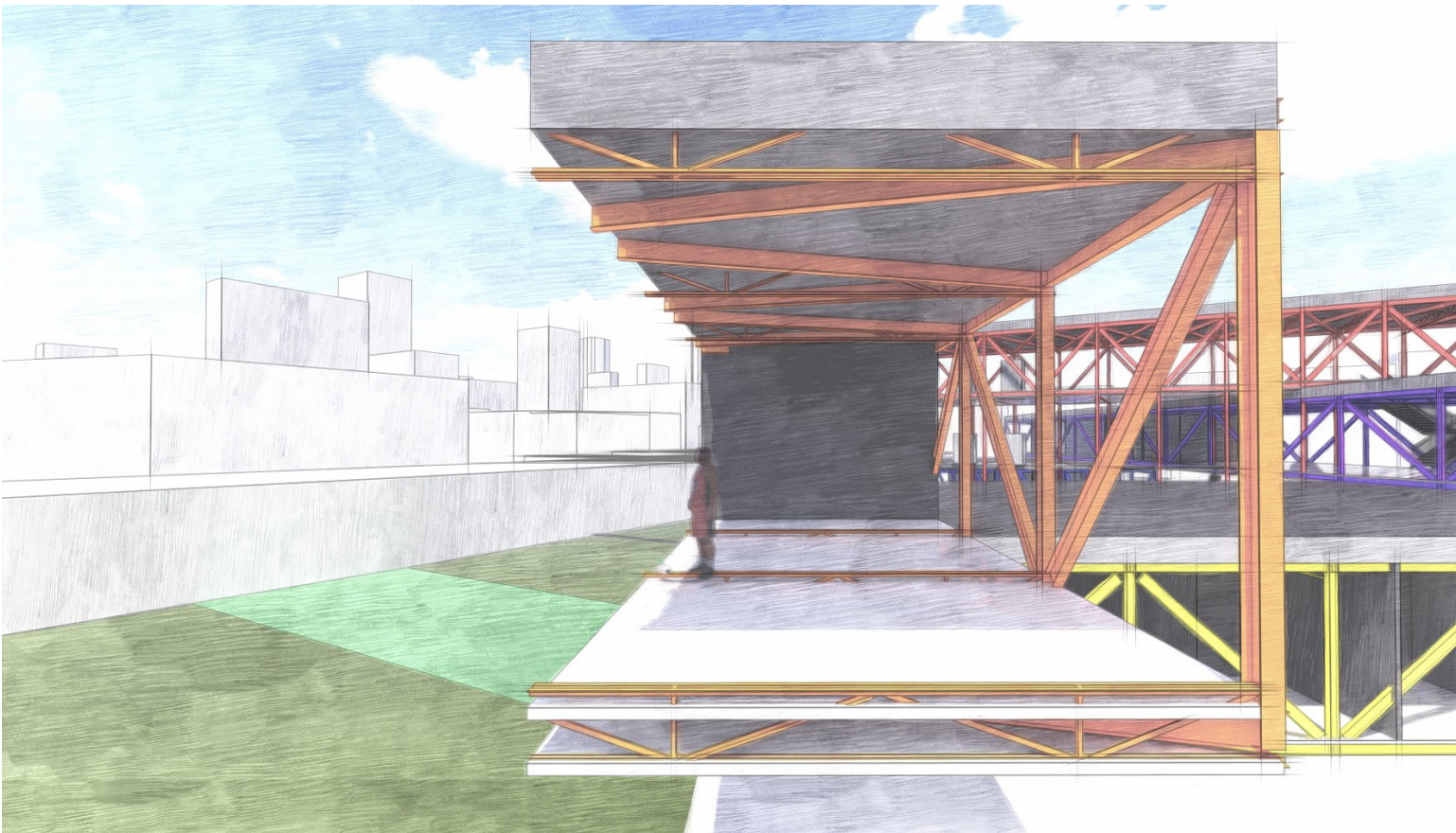
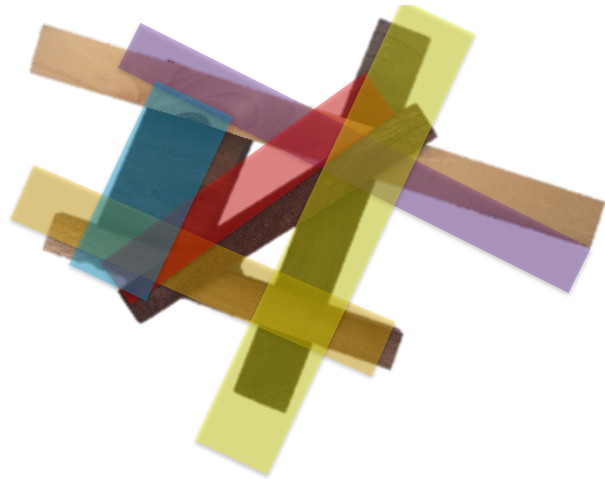
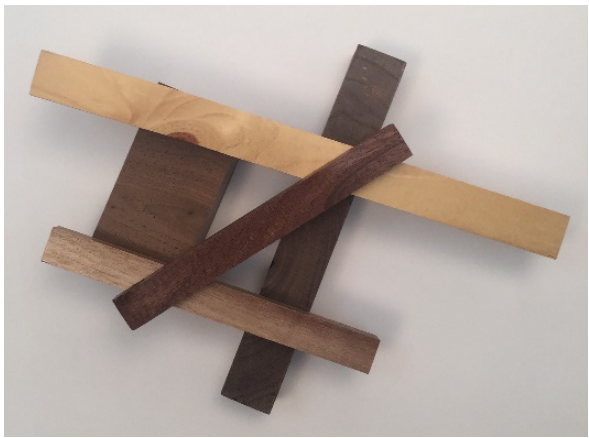
This mass model made through the use of laser cutting technology and the wood shop proved to be a valuable study of the overall layout of the structures in relation to the city and Union Depot.



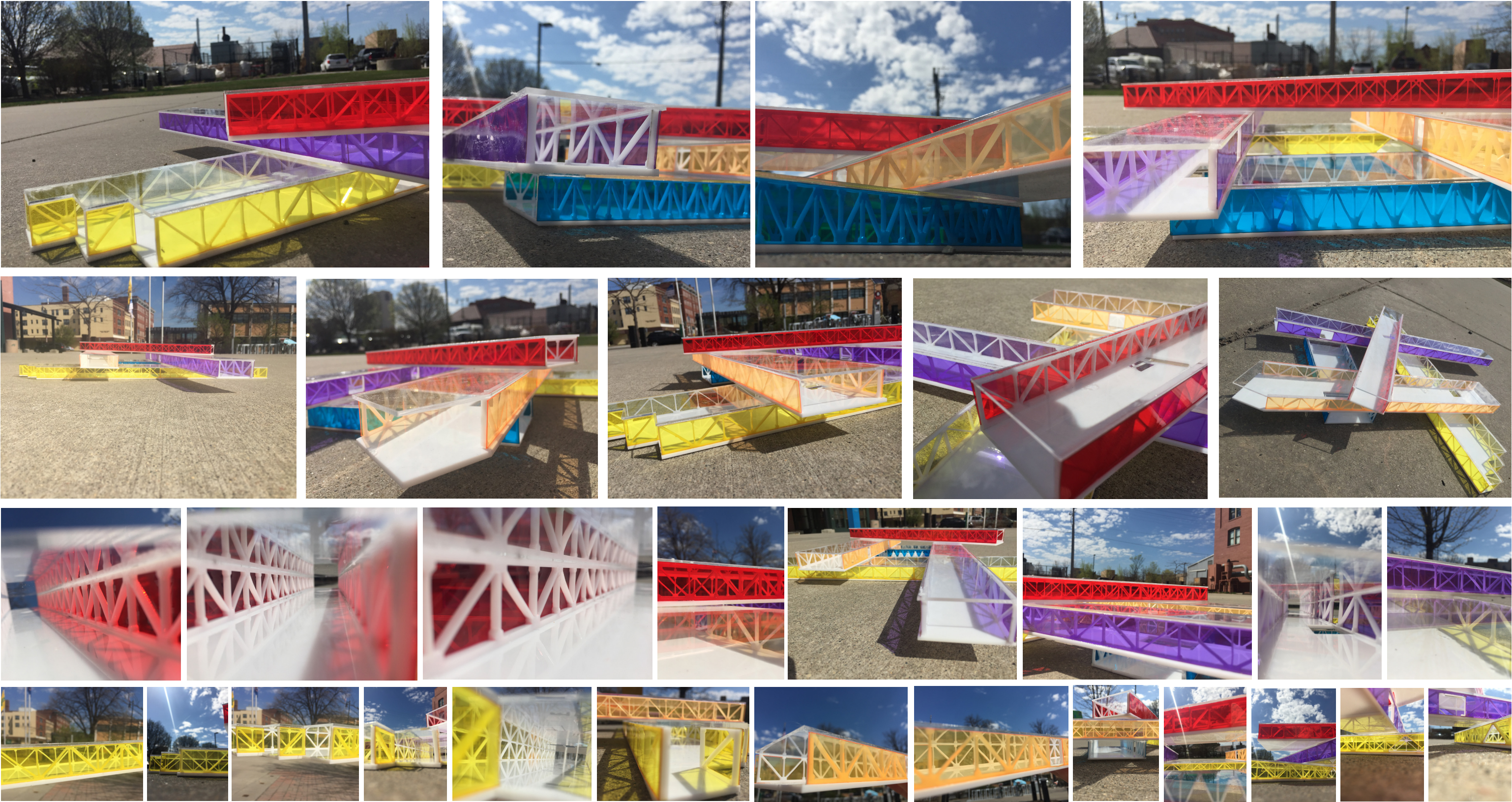
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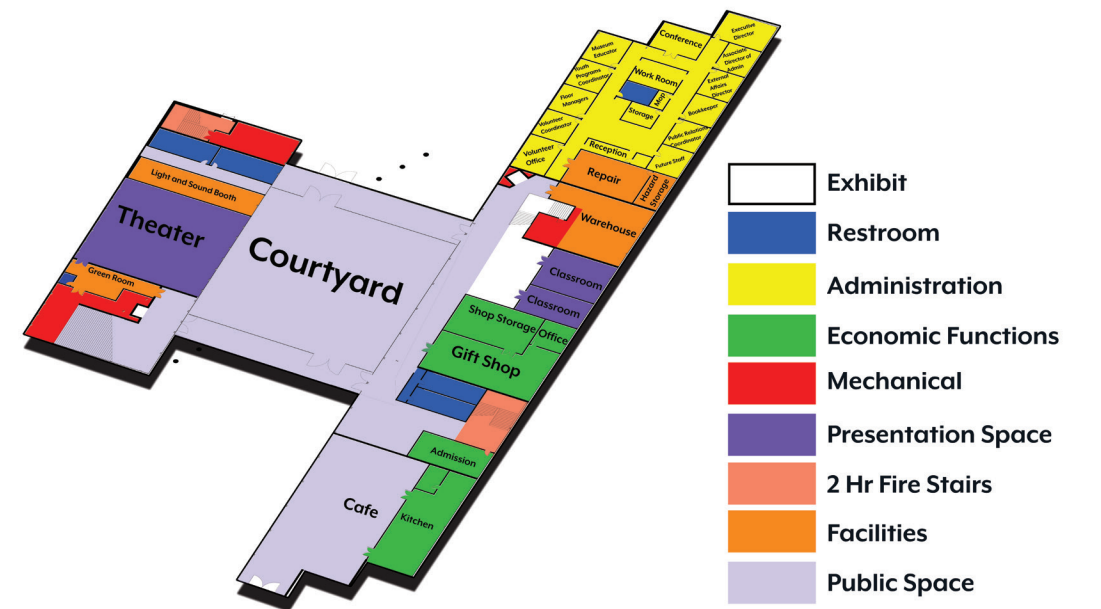
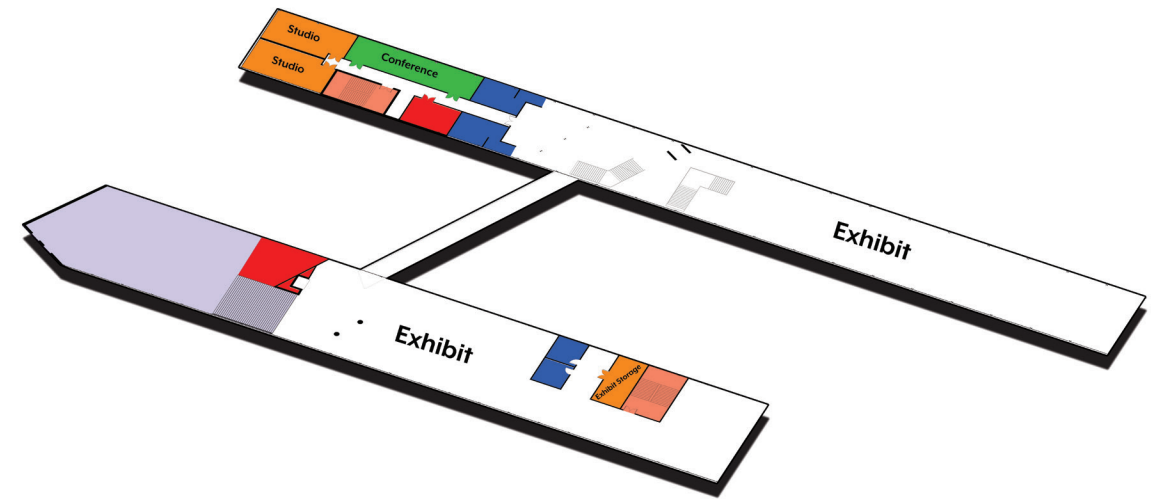
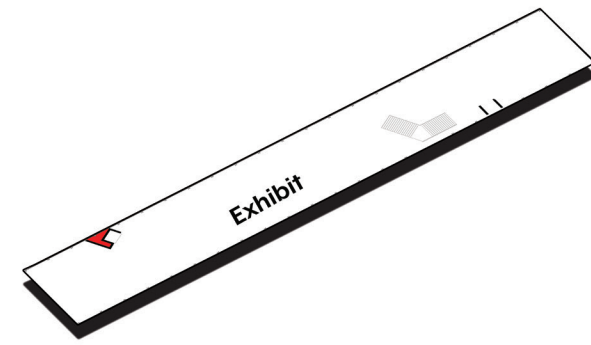
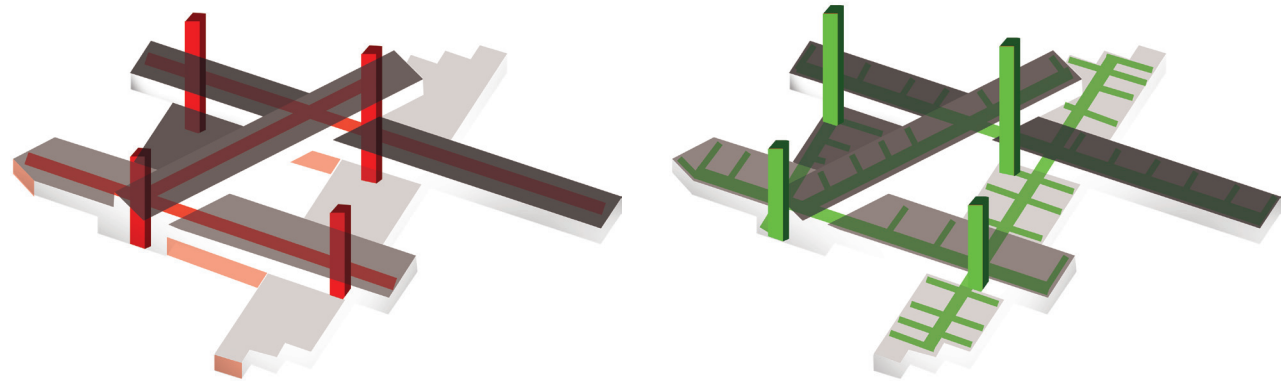
MIDTERM PRESENTATION

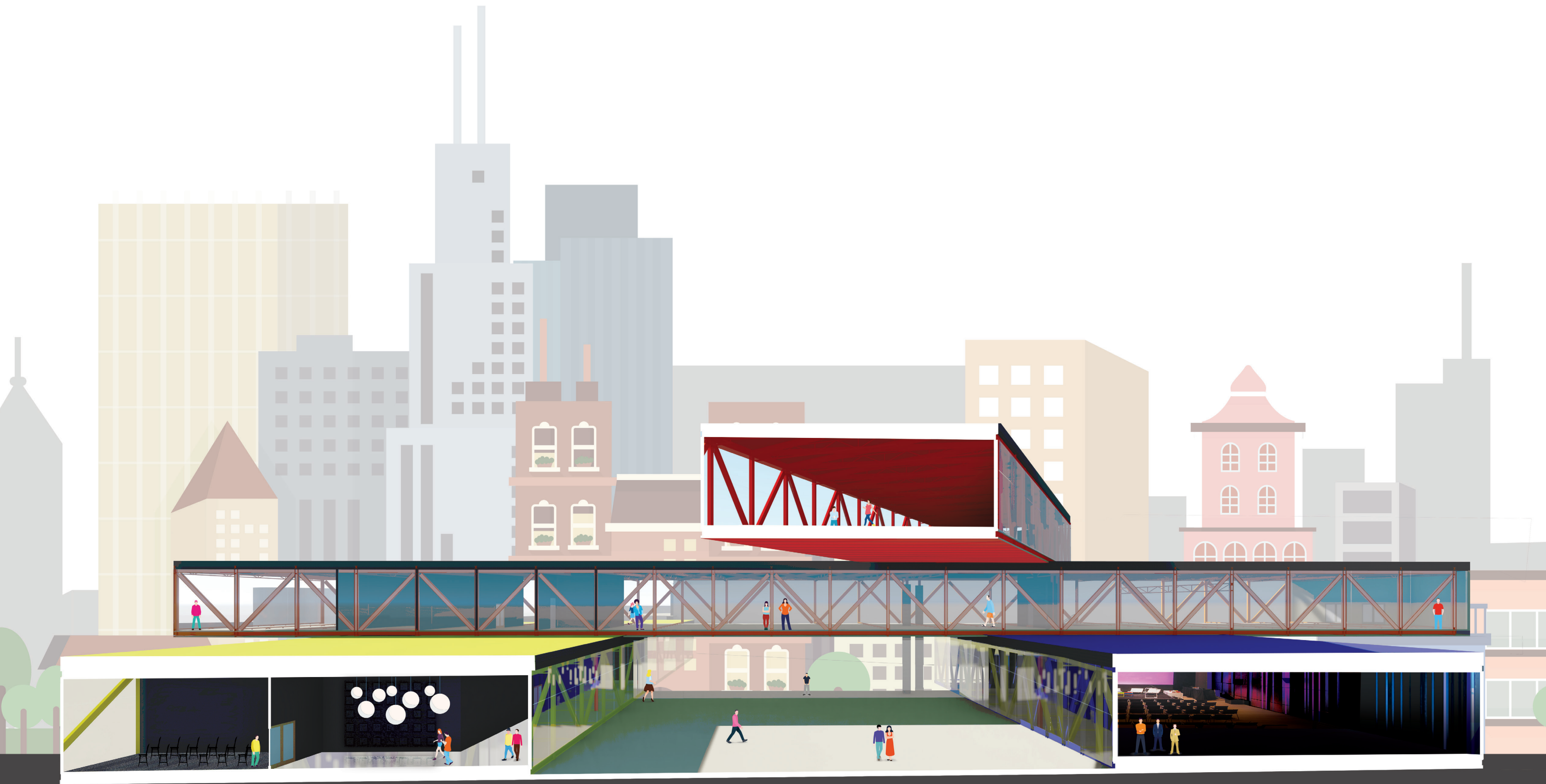
Midterm presentations were a great way for me to test how my ideas stacked up to outside critiques. I spent most of my time talking about the site and what lost space was on the site. Basic design elements were displayed at this point through the use of a presentation.



DELIVERABLES
PHYSICAL MODELING









DELIVERABLES
RENDERINGS



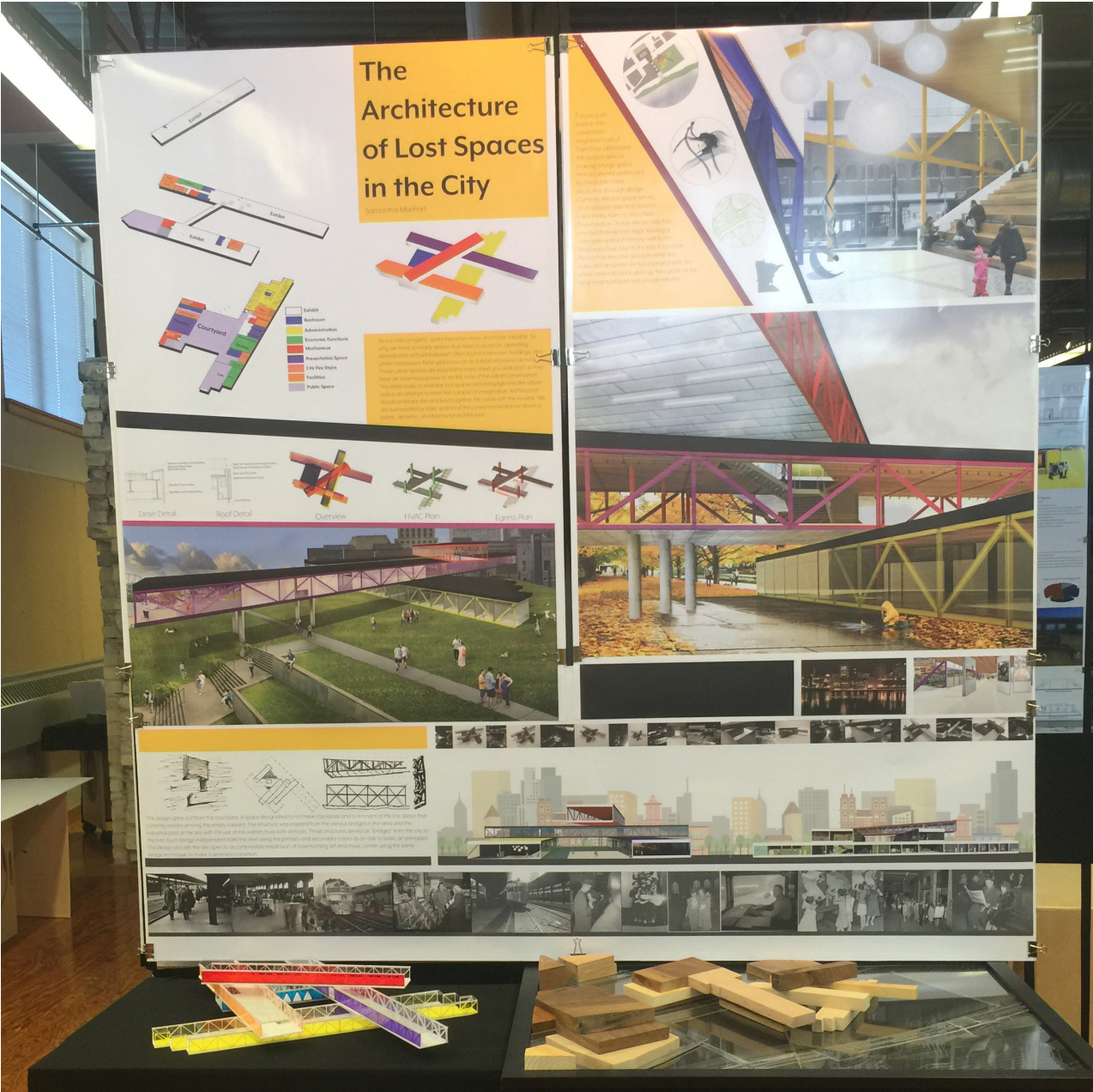
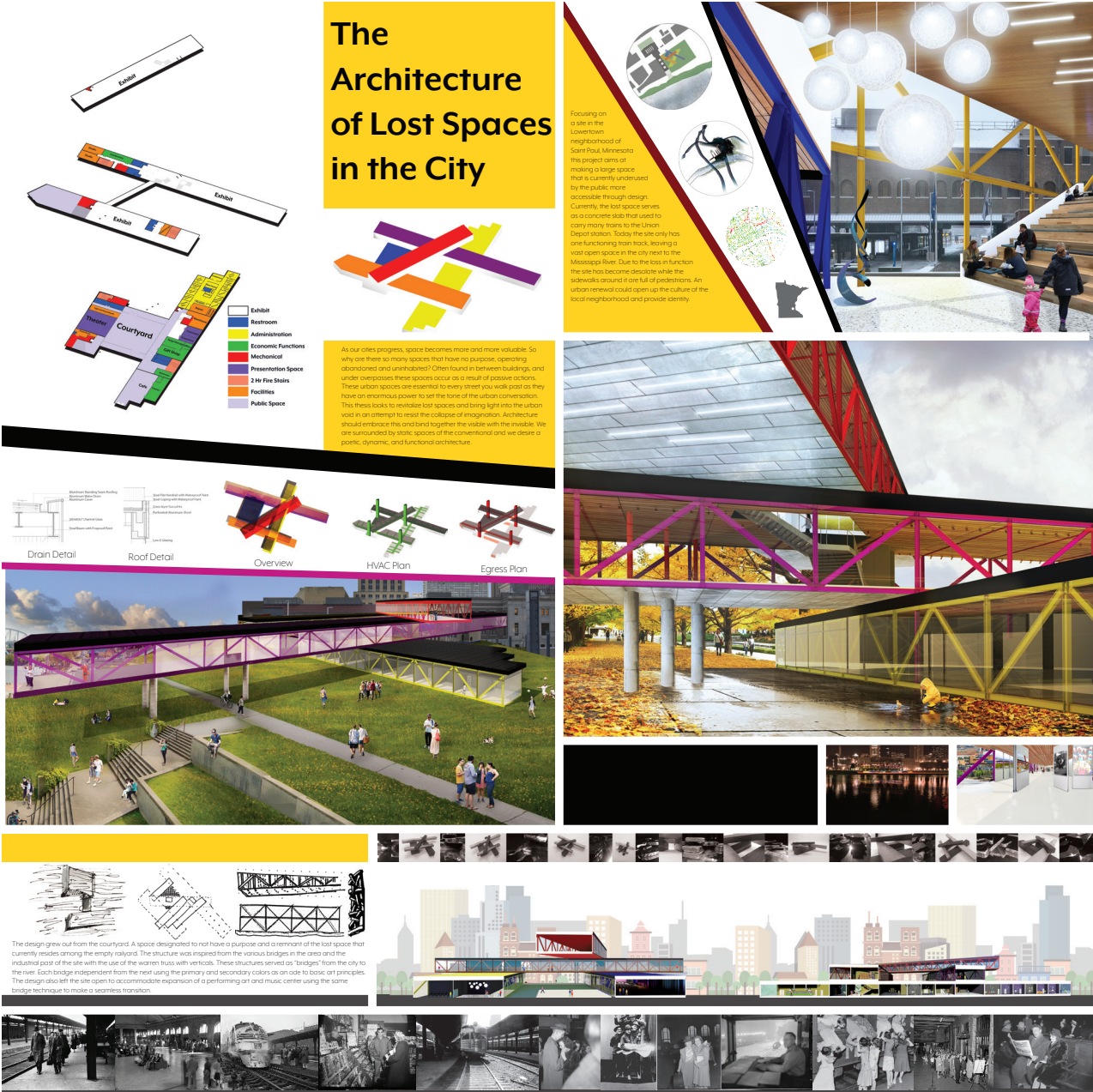






DELIVERABLES

SOLUTION



DELIVERABLES

DA: RESPONSE TO THE SITE

The site was an incredibly large problem to tackle and became a significant aspect of all major design paths. Due to the urban environment it was especially important to make the site accessible for pedestrians and to provide an urban refuge for the public. The project opened up an entrance from the second floor of the Union Depot to the second floor of the orange building structure. This would provide a large flow of people from the street and into the project without having to go outside and endure the winters that are prevalent in Minnesota.

Moving further through the Union Depot was an attempt to expand the southern wall looking out onto the river. By expanding this flow of people a current could be pulled through the Depot. An urban bridge would then span over the train, highway, and bring pedestrians to the riverfront in a safe and direct way. Moving onto the train platform much green space was added to keep the city healthy. A large amount of the train platform was left with only grass to facilitate any future expansion into a performing arts or music venue.

DELIVERABLES

DA: RESPONSE TO TYPOLOGICAL OR PRECEDENT RESEARCH

Various changes to the project were encountered that varied the final results from the precedent studies. One major change was situating the project closer to the Union Depot in order to connect the buildings rather than have them apart. This decision also led to having an entry near the cafe by the train in order to have quick access for passengers to food and restrooms. Having much of the project glazed also parted from the traditional path of galleries. This was done so that the public could see into the museum and that those inside could see through the colored glass into other areas of the museum and living life as art.

DELIVERABLES

DA: RESPONSE TO GOALS AND PROJECT EMPHASIS

The primary goals that stayed with the project from early Fall 2017 until completion were urban design, placemaking, and creating a building that placed an emphasis on interacting with people. The initial project emphasis was on creating a master's quality research thesis, a professional integration of real world systems, and to personally enjoy the architecture's final resolution. I feel at the end of this journey the project emphasis was completed, and additional questions have been added to the list of what ifs.

An important aspect of this project was really encompassing the culture of the Lowertown community and understanding what urban residents want in their neighborhood. This historical research of the site added to the importance of creating a gathering place out of a nothing, lost space.

Finally, the juxtaposition of the structure and color use I found to be successful at playing with the viewers imagination.

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THESIS APPENDIX

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PREVIOUS STUDIOS

Arch 271 - Fall 2014 | Darryl Booker

- Projects
- Tea House | Fargo, North Dakota
- Boat House | Minneapolis, Minnesota



Arch 272 - Spring 2015 | Joan Vorderbruggen

- Projects
- Montessori School | Fargo, North Dakota
- Community Design | Marfa, Texas



Arch 371 - Fall 2015 | Ron Ramsey

- Projects
- Mausoleum | Sao Joao, Brazil
- Shaker Barn | Upstate, New York



Arch 372 - Spring 2016 | Mark Barnhouse

- Projects
- Appareo Manufacturing | Fargo, North Dakota
- Sanford Same Day Surgery | Fargo, North Dakota



Arch 471 - Fall 2016 | Dave Crutchfield

- Projects
- Highrise | San Francisco, California



Arch 472 - Spring 2017 | Ron Ramsey

- Projects
- Marvin Windows Competition | Fargo, North Dakota
- Japanese Architecture Studies | Fargo, North Dakota



Arch 771 - Fall 2017 | Mark Barnhouse

- Projects
- Wetlands Research Facility | Rural Hawley, Minnesota



Arch 772 - Spring 2018 | Ganapathy Mahalingam

- Projects
- Thesis | Saint Paul, Minnesota



REFLECTION

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Understanding the world around me has always intrigued me and provided a passion for learning. I never thought I would go into Architecture in a million years, but now that I'm here I can't imagine being without it. Having the chance to provide a better world and to let lose our imagination into the physical world is truly a blessing. I hope to continue learning and polishing up my skills as I continue in my career. Beyond my passion for architecture, I have an appetite for good music, good food, and big laughs. All of which I hope to achieve as often as possible along with enjoying my love of traveling.