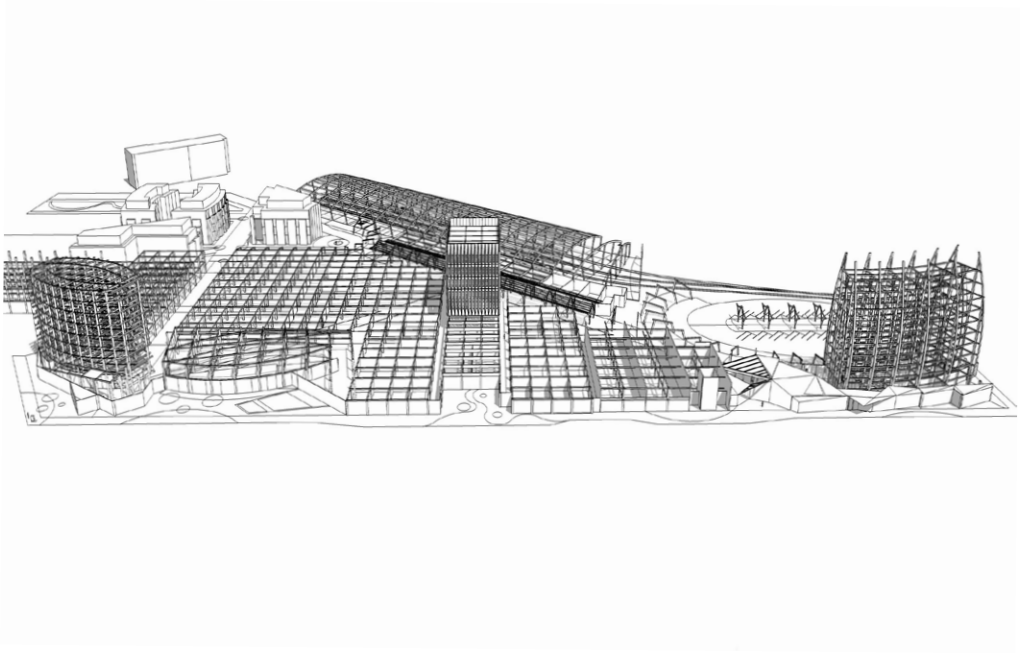

EMERGENT URBANISM:

Architectural Place-Making in response to a Minnesota High Speed Train Network.

N I C H O L A S S O R T L A N D

EMERGENT URBANISM

Architectural Place-Making in Response to A
Minnesota High Speed Train Network.

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

by

Nicholas J. Sortland

In Partial fulfillment of the Requirements for the Degree of Master of Architecture

5/7/2013

Steve C. Martens; Architect
Associate Professor and Thesis Primary Adviser

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Thesis Committee Chair

May, 2013
Fargo, North Dakota

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All images were created by the author of this book, Sortland, N. (2012) Unless otherwise noted.

THESIS ABSTRACT

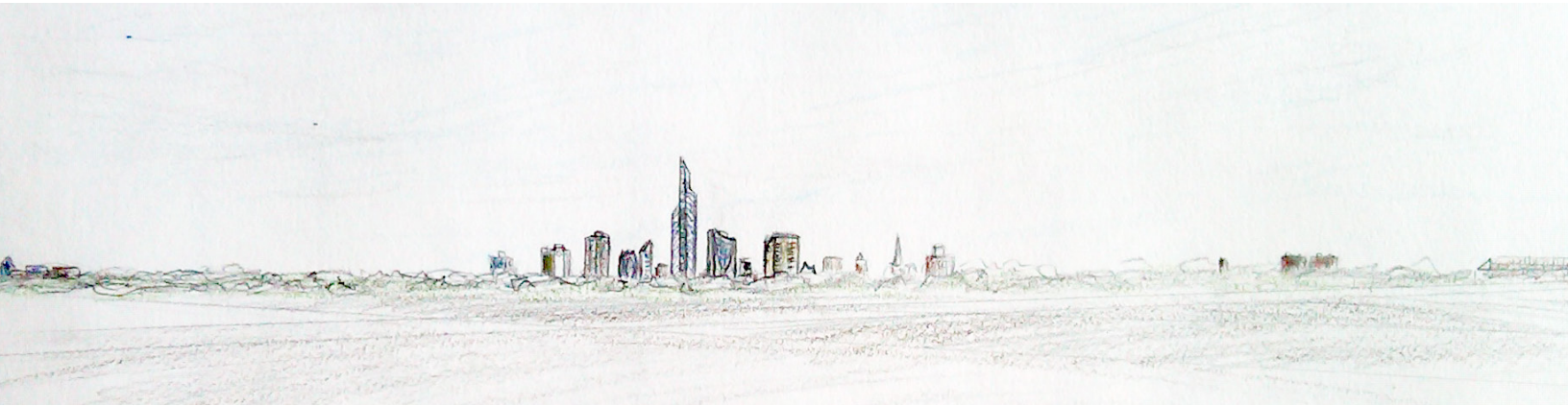
The way existing cities are set up and built is unsustainable, and risky. The bulk of new growth is occurring on the fringe of cities, where the streets and buildings have been designed for the automobile as the primary mode of transportation. With the price of gasoline continually climbing, it is not unexpected that this type of development would collapse with the loss of affordable gasoline. If given another way of getting around, the people may change their perceptions of cities and how to live and build within them. It is important to have an alternative form of transportation in Fargo-Moorhead as well as the greater region. This thesis proposes to explore the architectural impacts of using pedestrian focused transportation as a catalyst for new urban growth within downtown Moorhead, MN.

Keywords: Fargo-Moorhead, Urban Development, Transportation, Commerce

PROBLEM STATEMENT

How can a new form of transportation create an environment with demand for a more sensitive, humanly scaled, and ethical architecture?

STATEMENT OF INTENT



PROJECT TYPOLOGY

Regional Transit Station

CLAIM

A cities predominant form of development can be changed by changing the types of transportation available.

PREMISES

Transportation is essential for a thriving civilization.

To change the form of transportation, a reliable and economical new form must be created.

For the last half century in the United States, it has been the first time in human history that the predominant lifestyle is geographically irrelevant in regards to living, working, going to school, or shopping.

UNIFYING IDEA

A transit center in the middle of downtown Moorhead has the ability to significantly alter the future of development within the city. This has the potential to alter people's perceptions of what a city is, how to live and build within one that is more sustainable. This pedestrian based transit will alter the way people build, for it will respond to the demands of this transit, train based and more foot traffic. The architecture/urban design response will be one that is pedestrian served and will comply by being human scaled, instead of scaled to the automobile. This transit center will serve as a model for how these goals can be met, not simply in aesthetics, but in how the surrounding will be researched and integrated with the person being the primary consideration.

By changing the modes of transportation available, development will follow to be more urban and built-up. This more pedestrian based “walk on, walk off” transit will foster a environment for a desired walk able city area. A walkable environment can be described as, “..you could satisfy most everyday needs, such as school, shopping, parks, friends, and even employment, within walking distance or transit of one’s house.” (Leinberger, 2009, P3)

PROJECT JUSTIFICATION

Transportation types can influence people’s perceptions of cities, towns, and regions. Since the beginning of civilizations peoples connections with places have been important, however, since the adoption of the automobile people have become increasingly numb to their surroundings when they interact with a city. The development that has risen since has been large and bland, does not take into account its surroundings, or even its own existence; cheap and disposable. The ‘Big Box’ vernacular has little interaction with where it is, other than to draw drivers-buy in, with often no thought to the other sides of the structure, or how they integrate with the streetscape or greater city. It is a set-up that is detrimental to architecture, the environment, and the human psyche. With a revival of pedestrian and train traffic, the built environment can be changed to be more humanly scaled, with the emphasis to design for a person, instead of an automobile.

THE PROPSAL

NARRATIVE

A USER/CLIENT DESCRIPTION

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A PLAN FOR PROCEEDING

PREVIOUS DESIGN AND STUDIO EXPERIENCE

NARRATIVE

The general form which architecture has taken, since the general public has moved to live in the automotive realm, can be characterized as big bland boxes in an asphalt sea of parking lot. This type of development has become the norm for post-war sections of cities, where the area has been designed with the automobile as the primary mode of transportation. In Fargo and Moorhead, little attention is paid to the approach or scale of buildings, or how they fit into the rest of the city. Prior to this, cities had been designed for pedestrians, who would be walking from place to place, or taking a streetcar or bus. Most everything was accessible within a fifteen-minute walk (Leinberger, 2009). This form was derived from having more human scaled cities, where pedestrians were important to attract to, or interact with, buildings. This has since been lost, and what happens often now is that the automobile has created an inhuman scale, where it is difficult to travel around without it. Large featureless buildings are set back hundreds of feet from the arterial roads, where they wait for people to pull up and park to enter them.

From this it seems that the main factor for the transformation of our cities has been the addition of the automobile, and the near elimination of other modes of getting around a city. However, this force can be used to re-establish the urban realm, by adding a new form of transit, which is heavily pedestrian focused. If a city were able to re-establish a pedestrian identity, it is possible, that a development and architectural response would have to be more sensitive and be more humanly scaled.

To return to a more humanistic approach in architecture, the development would have to responding a new situation, where the person is the object interacting with the building, instead of the car. This new form getting around can best be brought about through the creation a regional and local, ground transit center. Pedestrian traffic would create an environment where designing for the human scale has importance. Before the rise of the automobile, train stations used to play a vital role in the center of a community; from these, people were able to walk to hotels, restaurants, stores, offices, and homes. With an inclusion of a re-stored streetcar system, the car would no longer be a necessity, and development would be allowed to move away from the current model, where a building sits in the middle of a parking lot.

During the spring semester of 2012, I had the opportunity to live in the Eura-Lille development in Lille, France. The development was a grand scheme for a new train line connecting Lille with the rest of Europe, with the station integrating itself with the old city center only blocks away. I have been intensely interested in transportation design since living in Lille, and how cities function by the efficient movement of people. This is also demonstrated within a multi-model transit hub, where one has regional train lines coming in, next to local ones, and with access to bus or other ground transit. These facilities have to create an efficient and user-friendly layout to work and to be a pleasant experience for the users to return.

The site chosen for development is Moorhead Center Mall, in downtown Moorhead. It is a little used shopping mall, struggling to compete with West Acres Mall, which is located nearer to the interstates. This site allows one to establish a new form of transportation, adjacent to the previous modes of transport; the riverboats area, the previous passenger railway tracks, and near to the old highways. This allows the new form of transportation to re-invigorate an existing urban area, as opposed to establishing a new community outside of a larger city.

Nationwide there has been an interest in moving back into, and inhabiting, the historically urban centers of towns (Ehrenhalt, 2012). These forces have allowed other cities to have a re-birth (Jacobson, 2012). The streetscape for Fargo's Broadway, downtown, has been re-worked so that it gives more attention and care for pedestrians, which has been quite successful. By integrating new rail service into downtown Moorhead, the two cities should be able to a very dynamic and active pedestrian core. I feel that the more pedestrian focused transit, can allow development to be free the parking lot dilemma, and begin to move toward a human scaled architecture that is responding to the people.

There has been a resistance in the United States towards rail, and most public transportation, for fears of how much funding these need, versus the building and upkeep of roadways. However, it has been shown that in actuality, driving down a public road is the most subsidized form of transit, when compared to the ticket prices paid for using rail transit (Harris, 2012). Most people alive today also tend to have never experienced America when it had working train lines, as these have mostly now disappeared. With this lack of experience, the general public continues the usage of the automobile, when other forms a transit could be much more convenient and affordable.

USER-CLIENT DESCRIPTION

In this facility there would be primarliy three types of users:

Shoppers and Diners, Transit Users, **Mall and Transportation Employees**

SHOPPERS AND DINERS

These groups would be people from the surrounding communities who are there for casual shopping and dinning. Students and faculty from the surrounding colleges, families from the community, and shoppers from just outside of town.

TRANSIT USERS

People using the local transportation system and switching transit lines would be the primary transit users on a day to day basis. There would also be transit users who are there for intercity travel, such as from Moorhead to Minneapolis, who may be: students on college visits, professionals in town for business, and people visiting family members.

MALL AND TRANSPORTATION EMPLOYEES

The employees manage each-other, the facilities, and the transportation system. They deal with keeping all of these systems running smoothly and efficiently, so that the people they help serve will want to use the systems again.

MAJOR PROJECT ELEMENTS

PLATFORMS

These would include the area where people board and unload from trains or buses, while also providing space where people can lounge before for their next mode of transportation.

TRANSIT OPERATIONS

Operations would consist of ticket and information booths, transit coordination offices, and employee break rooms and rest rooms.

RETAIL

The retail would be where people from the local community and transit users can shop for living, or while on the go between places.

RESTAURANTS

These would be serving people both of the local community, and the transit users, from quick grabs to sit down meals.

HOTEL

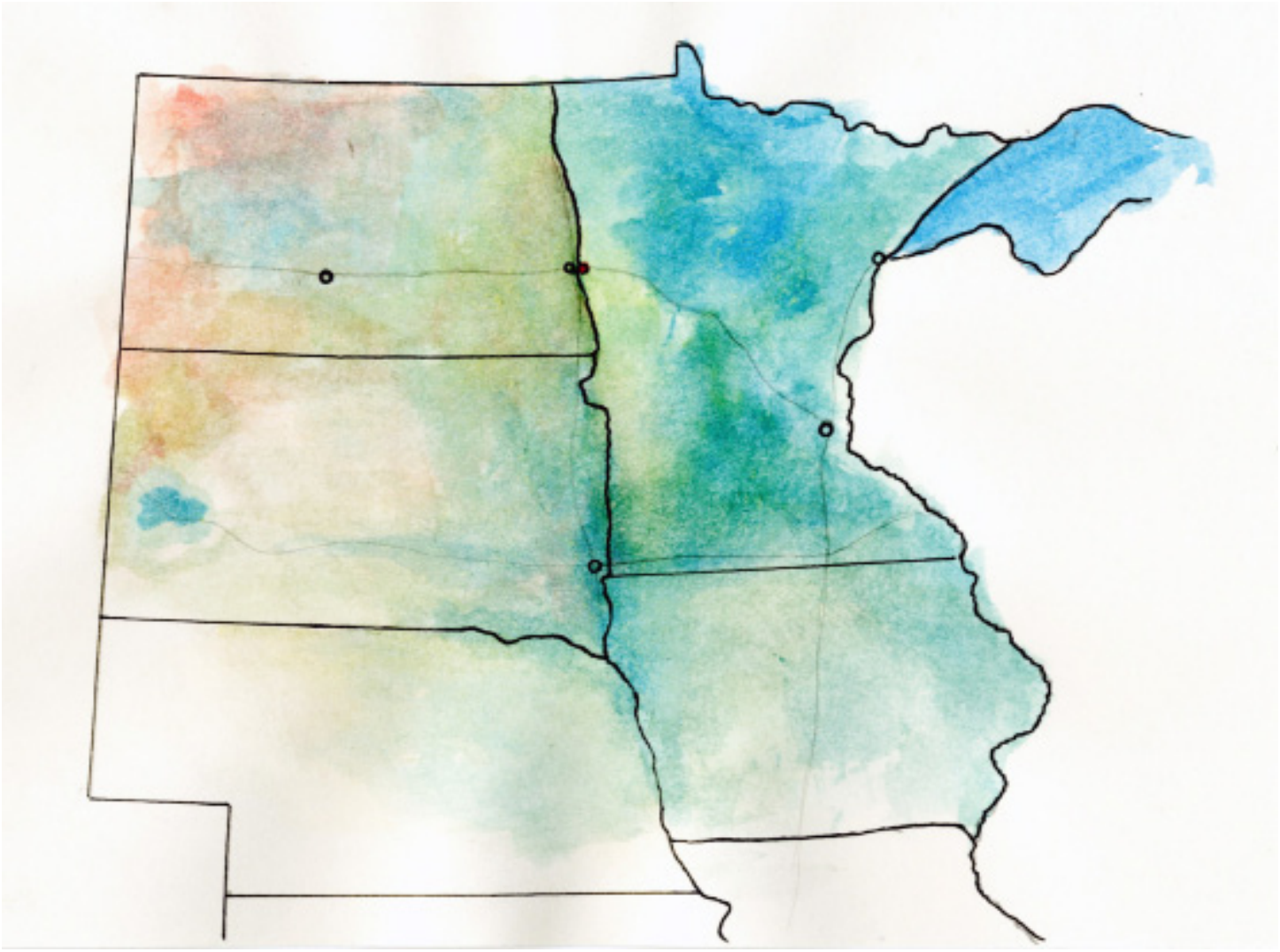
A hotel where people in town for work, checking out a college, or waiting for the next day's transport can stay overnight.

PARKING

Parking for people using the mall, or storing their cars for long term travel plans.

S I T E

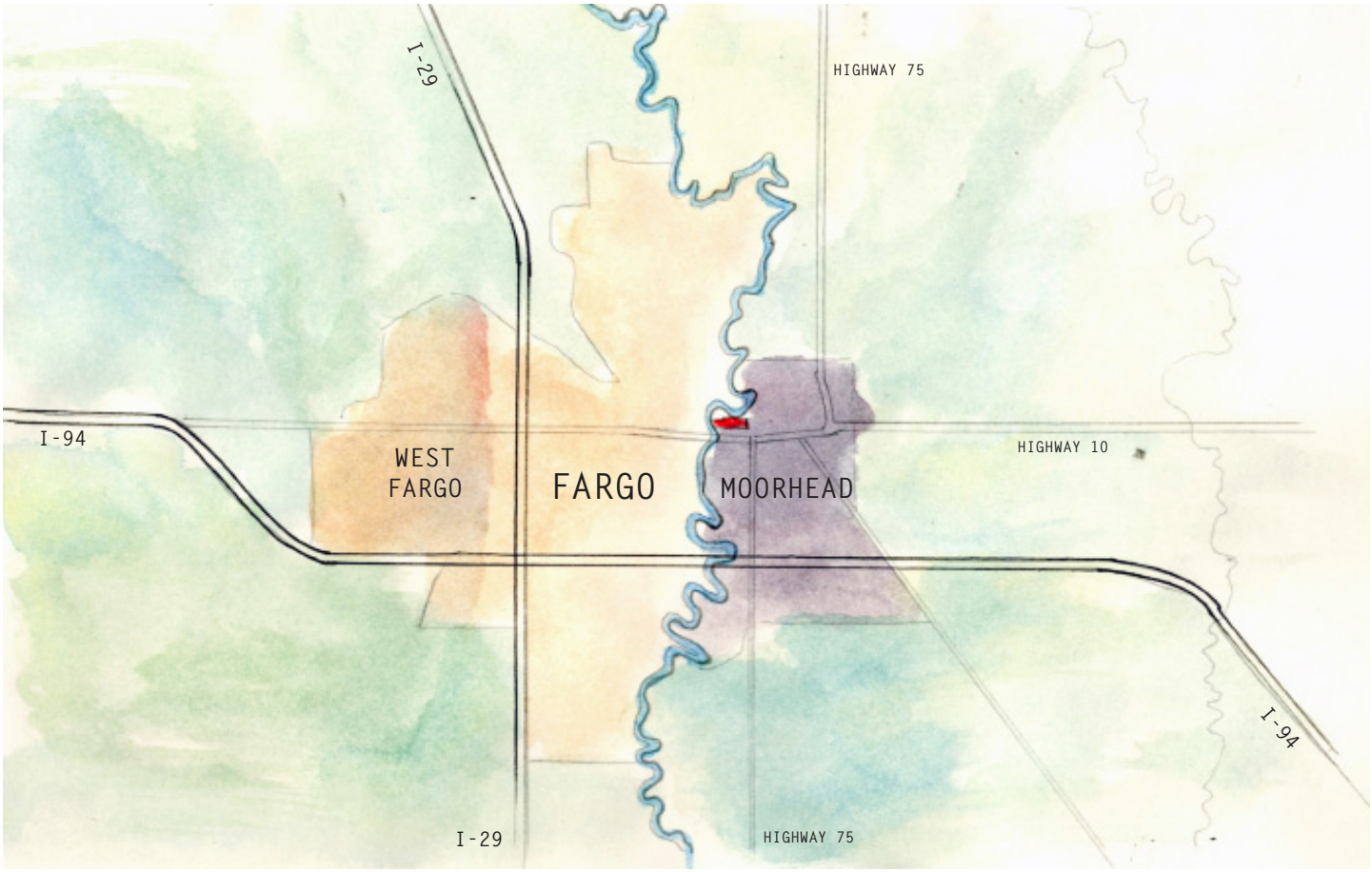
R E G I O N



Fargo-Moorhead is located in the upper Great Plains, along the border of North Dakota and Minnesota, in the Red River Valley of the North. This fertile valley, is made up of clay-loam soil, which is left over from glacial Lake Aggaziz (Wishart, 2004).

S I T E

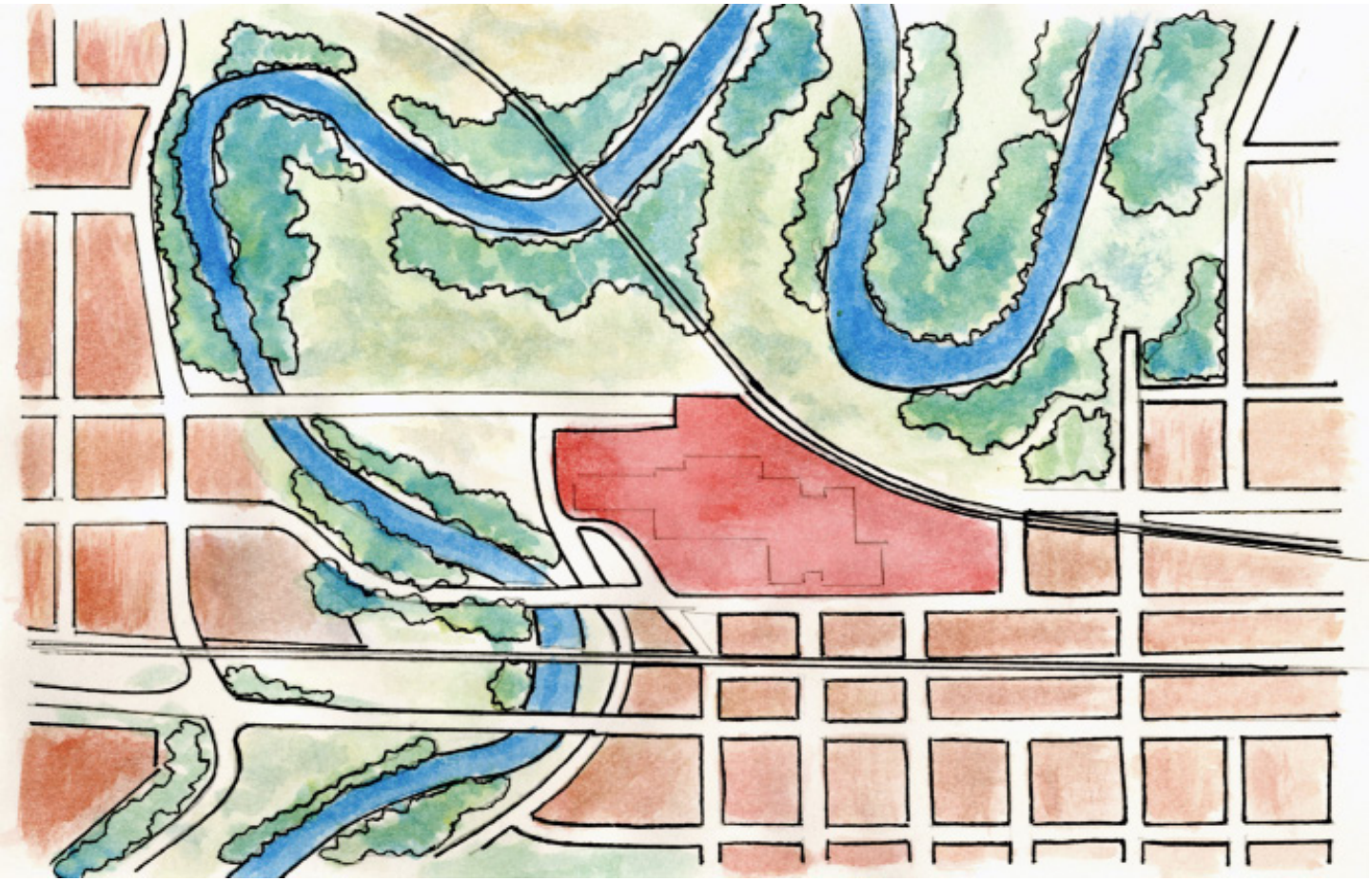
C I T I E S



The cities of Fargo and Moorhead have developed where the railroads cross the Red River of the North. This has since been the intersections for highways 10 and 75, and Interstates 29 and 94. The largest city is Fargo, with 105,549 residents, which is on the West banks of the Red River (City of Fargo, 2012). Moorhead Minnesota has historically been smaller, with an estimated population 38,065 (City of Moorhead, 2012). The fastest growing city in the area, is the city of West Fargo, with a population of over 25,000 (City of West Fargo, 2012).

S I T E

N E I G H B O R H O O D



The site is located in the center of Downtown Moorhead, between the old Great Northern tracks to the North, and Center Ave to the South. This area has views of the Red River to the West and to the North. It is currently a struggling shopping mall, facing strong competition from West Acres Mall, which is nearer to the interstates. Though downtown Fargo a few blocks west is experiencing a resurgence in street life and retail, downtown Moorhead is continuing to stagnate.

PROJECT EMPHASIS

This thesis will explore the opportunities and implications of modifying a city's mode of transportation, and its affects on urban growth. Instead of establishing new development on the fringes of the area, this will seek to reinvigorate the centers of the two cities, with a vibrant, active, and pedestrian based city center. By developing fast and economical transit for the regional and local area, Fargo Moorhead can be one of the nation's leaders in walk ability/sustainable urban design.

PLAN FOR PROCEEDING

RESEARCH DIRECTION

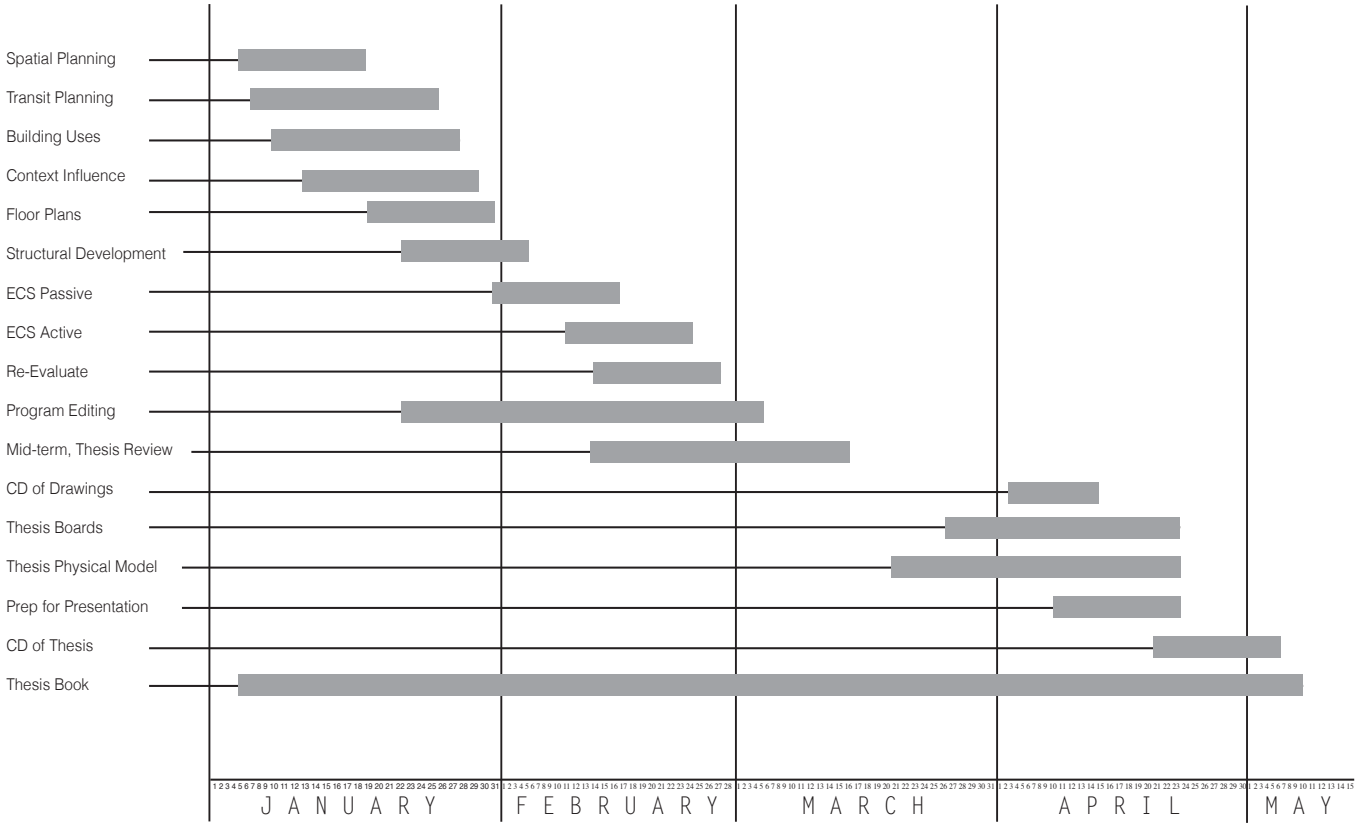
Research for this thesis was conducted throughout the fall semester to ensure that all category fields have up to date information. This research will be on going to also better understand the relationship of these fields to each other throughout the fall semester; theoretical premise/unifying idea, project typology, historical context, site analysis, and program requirements.

DESIGN METHODOLOGY

Research will be conducted in a fashion, where information will be analyzed using a mixed method approach; meaning that quantitative and qualitative information will be used together to show the most accurate set-up for the problem/solution. With the two types of information collected, it will produce the most complete view of what is happening within the theoretical premise.

The design process will be documented into computer files, and updated biweekly; this will include pictures of any physical models, scans of drawings, and writing of information integration into the design project. Much of which will be brought into the thesis book, for future readers to better understand how I reached my design conclusions.

VISUAL SCHEDULE



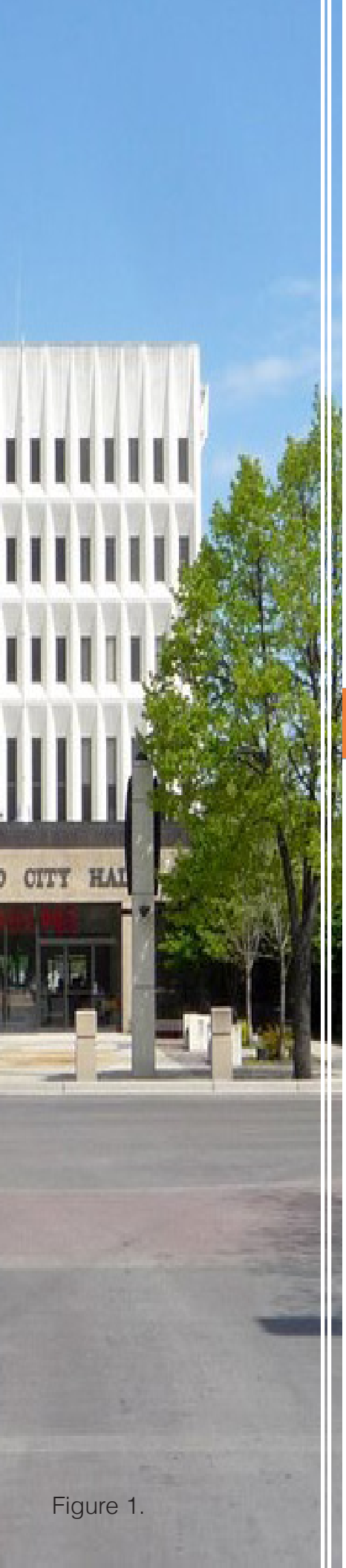


Figure 1.

PROGRAM DOCUMENT

RESEARCH RESULTS AND GOALS

SITE ANALYSIS

PROGRAMMATIC REQUIREMENTS

PROGRAM INDEX

THEORETICAL RESEARCH

To understand the current of state of downtown Moorhead, it was necessary to research how and why the city did what it did. **Currently there is the Moorhead Center Mall, with few remaining historic buildings, and a few new developments**, but they have not been able to draw many people in. It does currently have major civic and cultural institutions, such as the City Hall, post office, and main library for civic draw. The Hjemkomst Center for the Scandinavian culture of the area, and the Rourke Art Museum for cultural draws, yet the city center is not currently a commercial or social draw like downtown Fargo.

RETAIL IN THE POST WAR ERA

The research has led to a man named **Victor Gruen, who has been named the father of the American Shopping Mall.** Gruen immigrated to America in the late 1930's to escape Vienna during Hitler's rising (Hardwick, M. 2004). He was trained in architecture and started working on storefronts in New York City, where he had gained a significant reputation in retail design and psychology (Gladwell, M. 2004). Following the second world war, Victor set his eyes on an entirely new world of retail, the creation of the new America in suburbia. He had imagined that this would include all of the functions of a normal city, but within a designed and thought out center, without the dirtiness of the city.

The first enclosed design of his was opened in Edina Minnesota, as the Southdale Center. Gruen has been quoted as saying that without the traffic, streetlights, trees or weather: **"...shoppers will be so bedazzled by a stores surroundings, that they will be drawn unconsciously, continually to shop."** (Hardwick, 2004. Page 4)

Shopping malls were conceived of as being impervious to weather conditions, and the griminess of city centers, as to have no barriers to shoppers (Hardwick, M. 2004). He had designed these to be full of sensory delight, fountains for noise and sculptures to visually activate the spaces for people.

URBAN RESPONSE

Gruen in the late 1960's, after having seen some of the consequences malls had on cities' cores, began work on turning city centers into pedestrian malls (Gladwell, M. 2004). **These being streets closed off to all traffic except for pedestrians, his first being in downtown Fresno**, along its historic retail street, Fulton. The street was still open to the air and elements of the weather, with no enclosures, but also featured fountains and sculptures as to mimic what he had done within shopping centers. This new pedestrian mall had worked for the remainder of the 1960's and well into the 1970's, but it today is found to be empty, with the stores having closed and moved to malls outside of the city center.

LOCAL RESPONSE

Downtown Moorhead had also suffered retail loss, and the midst of urban renewal in the late 1960's, the city decided to level many of the buildings along Center Ave. and replace them with a downtown shopping center, and combined new city hall.

Downtown Fargo, across the river, suffered a large blow when West Acres Mall was built in 1972, as it took major stores away like Sears, JC Penney, and DeLendrecies (which has morphed into Herbergers). Smaller stores left too with the decrease in shoppers, and in reaction Fargo created the 'Red River Mall', which was pseudo pedestrian mall, loosely based on Nicollet Mall in downtown Minneapolis. The Red River Mall consisted of a geometric canopy system over the sidewalks to protect pedestrians from the weather, reduced traffic to two lanes, removed all parking on Broadway for several blocks, and its place had plantings and benches, to create an environment suitable for pedestrians.

Though Fargo's Red River Mall on Broadway tried to emulate Nicollet Mall, Nicollet was created as a 'Transit Mall', where bus lines ran up and down the mall, as to have more uses than just shopping (Walker, J. 2012). Five years after Nicollet Mall was created, the IDS Center was constructed, and since the mall has been the center of Minneapolis, sandwiched between its theater street, Hennepin, and its financial street, Marquette (Millett, L. 2007).

URBAN RESULT

In Fargo there was no transit involvement, and the pedestrian traffic continued to diminish. The Red River Mall his has since been deemed a failure, as stores continued to leave, and citizens had complained about how it was difficult to drive down Broadway and that there were no longer places to park. In 1985 most of the mall was removed, which allowed for a return to four lanes of traffic and on street parking.

The canopies remained until the early 2000's when the 'Renaissance Zone' was created, and a new streetscape was adapted for Broadway; back to two lanes of traffic, which gave more precedents to pedestrians at crosswalks through curb extensions, and diagonal parking that increased the number of parking spaces. This followed the newer idea of 'Complete Streets' where every mode of transportation is given more equal an equal standing. Shops along Broadway began to use the money from the tax breaks to fix up the storefronts, and soon began to see an increase in business. However, it was not until NDSU created its downtown campus that apartments began to fill up and be constructed, and the shops and restaurants downtown began to cater to a wider, younger audience.

PSYCHOLOGY OF URBAN SPACES

In the book, 'Companion to Urban Design', the author discusses how instead of analyzing urban spaces for their physical or visual form, we should be looking into **how we use spaces, and how this affects our behavior**. The way we interpret spaces, such as a plaza, city street, or district, is a combination of a cognitive label and an emotional reaction, which leads to an individual's behavior. If a place is to be successful, the user's behavior needs to be match up with the intended purpose for the space (Bengerjee, T. 2011). Humans instinctively look for meanings in their surroundings, for instance, slight signs of urban decay, most often brings up the psychological fear of a collapse in social order. People want an order, and a place with a clear purpose and set-up.

This does not mean that people want everything to be the same, actually most individuals **want an environment with some surprise, and build up or reveal**. This variety of environments also goes directly with a variety of uses; people often want to be in areas that have people there from more than one background, and are there for other purposes. If everyone is visiting a civic building solely for paying parking tickets, it will likely be the most despised public building in the town, and a place to avoid. Mixing uses like, commercial, residential, civic, cultural, and more social venues for food and entertainment can be the most conducive to having a meaningful and enjoyable urban center.

It is interesting, then, to examine **downtown Moorhead, and find that it has a significant amount of civic and cultural venues**, which are highly desirable for citizens to have in convenient central area. However, downtown Moorhead is not a convenient place to get to, or once there, get around in. The area then has no social or commercial reasons for people to be there, for instance people do not want to see or be seen in downtown Moorhead. It is missing out by not having a retail scene for younger age groups, and by not engaging the very near college students from MSUM and Concordia. These could be involved by having jobs for college students, shopping, food, and entertainment.

CULTURAL, CIVIC, COMMERCIAL

In contrast, **West Acres Mall has the social and commercial success which has drawn people for decades**, and has changing cultural venues such as small concerts by the local colleges, that has worked very well at attracting people to the mall for reasons other than shopping. This area of town, however, is completely lacking in any real civic institutions; it has no libraries, no city offices, no schools, and no parks or natural spaces. It is interesting that they both lack in what the other has in abundance, an extreme dichotomy that tended to emerge from zoning lead planning.

CULTURAL, CIVIC, COMMERCIAL

With examining places as fulfilling civic, cultural, commercial, social, and ease of getting around, **Nicollet Mall in Minneapolis** appears to score high in all categories. It is near to the convention center, central library and Hennepin County Government Center and city hall. Located on Nicollet is the Orchestra Hall, it is near to Target Field and the Target Center, and one block from Minneapolis' Theaters.

The street itself has always been the major retail street downtown, and has stores such as Macy's and Target today. **People also stroll down the street to see other people,** and be seen in the area while either taking a break from work, grabbing lunch, or out for the evening. Down the center of Nicollet are free bus lines, and crossing it nearer to the river, is the Minneapolis light rail line. Nicollet either has, or is in very close proximity to these factors that can generate a successful urban center.

← LIBRARY/TWINS

CURRENT TRANSIT SET UP

The way in which we move in the United States today, is predominantly the automobile. Cities, since the insolvency of the public streetcars have supplemented many of their former routes with public buses, though often public opinion pulls find that few desire to use the current public transportation set-up. In reaction to this, cities, or regions, such as the Metropolitan Council for the Twin Cities seven county area, have set up **transportation plans that involve the incorporation of the automobile, buses, trains, and other public transit** that is listed as favorable in surveys. In the report, ***'The role of transit in creating a livable metropolitan community'***, by *the national research council*, they **defined effective transit, as a form that would be the most convenient for people getting people to get to and return, from their destination.** They found that the current setup is very inconvenient for people who cannot afford a car, gas, or repairs on such a vehicle; necessary for travel in the United States. But that was not for the majority of citizens, and that for more people to use desired public transit, personal conveyance can be used for a short distance.

←NORTHSTAR COMMUTER TRAIN

For new communities, they recommended that they could be designed to be more compact, and walk able to other places, or a transit connection. **Though the most sustainable course of action would be to retrofit existing communities** with new increased public transit, all for less money in an already developed and established area. One of the ways is to have a transit system that is set up around a 'Feeder system', so that the outer areas have express transit stations where one can park their car off of a major intersection or freeway, and take an express bus or train, to the central transit station, where they can then find a mode that reaches within a few block of their destination.

RETHINKING THE SUBURBS

For this to be effective, a **city may have to change their traditional form of development**, such as St. Louis Park, MN. This is a city that was mostly filled out by the late 1960's as a suburban alternative to Minneapolis, but has for decades been a suburb that had been over looked by families that want to live further out; with larger lots and houses. There was no way for the city to have this, so they re-examined various parts of the city that were predominantly single and two story office or industrial parks, and redeveloped them as five story mixed use apartment urban walk able districts. Excelsior and Grand, The West End, and Hoigards Village, are examples of how the city has become denser, without loosing its single-family homes. These new areas were also developed along the proposed South West light rail line, which is supposed to stretch from downtown Minneapolis and out to the suburb of Eden Prairie.

← WEST END THEATER

The development has already occurred with the proposal, and not yet the finalization, or even approval of the project; but **millions have been privately spent in preparation for new apartments being near to proposed rapid transit (Feyder,S. 2012)**. The final system is intended to have parking facilities for city users near the light rail line, and walk able districts immediately around the area for people to not have to have a car at all. Other existing bus lines are also intended to have shuttle bus service, directly from existing bus station to the proposed light rail stations, in order to have a viable and easily accessible train line for many public transit users, even when outside of the city being served by the light rail.

FEEDER SYSTEMS

A 'feeder system', is set up where outlying areas are served by a bus and parking facility, where that bus takes users to a central transit facility. For St. Louis Park, this would be to the under construction, 'Interchange' project in downtown Minneapolis. This is going to be a future hub for the intersection of three light rail lines: Central, Hiawatha, and the Southwest. As well as the existing Northstar line commuter rail, and bike paths that meet underneath Target Field; where the station is being constructed immediately to the West. This is designed to be an 'Intermodal Transit Center', though informal, as it is not enclosed, it has access to trains, buses, light rail, parked cars, and bikes.

TRANSIT ORIENTED DEVELOPMENT

The incorporation of transit and denser development has now been called, 'Transit Oriented Development". Nicollet Mall, in downtown Minneapolis, was the first pedestrian mall to incorporate transportation, and because this, it is now one of the few remaining North American pedestrian malls. It is been seen that the incorporation brings more people to an area than just retail would allow, and has since been seen as an example of how transit can be used for an economic stimulus.

Conclusion of research for typology and related areas. From this research it is reasonable to conclude that the area must have its problem properly examined, and its solution specifically designed to fit the area, and not just applied from another project in another city. It seems necessary that for the redevelopment of downtown Moorhead to succeed, that there must be a series of steps to be taken for this to work. It must include the incorporation of the colleges and its students, the repurposing of commercial property so that is both residential and commercial, and the introduction of multiple modes of transportation.
With the modern set up of a city where the car is main form of transportation, it seems apparent that this is detrimental to urban environments, and there must be alternatives to it for an urban population to exist. With this new urban environment,

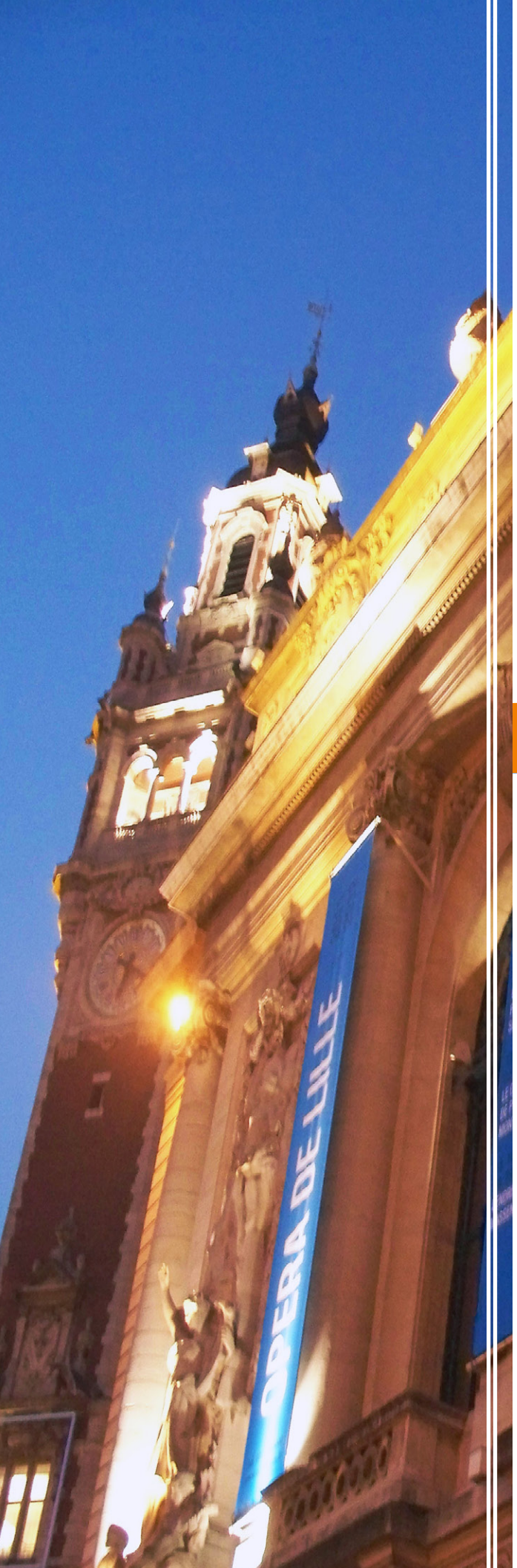
it must be one that allows for people to meet while going from place to place, and step aside from their rushing, to a place that allows them to sit, stand, and mingle. These areas should also be very public, but with slight levels enclosure so that they are still in the public eye, but a have a distance from the main flow of traffic and are allowed to sit and enjoy areas around the edges. It is also essential to have a reason to be walking or traveling to and from place, transit based around destinations is the most efficient and profitable, and has the spontaneous benefit of private development

It is also important to have the places for people be designed with delight, so that they want to be in places, not just because they have to pass through. With this goes along visual and auditory surprises, slowly reveal what's around the corner, which would be difficult with keeping it all in public, but worth while.

A transit facility can be broken down into a few components: Path to station, station platform, platform tickets, platform waiting, and loading/unloading space.

For a transit facility, it means for it to be efficient, near to other already popular from a transportation standpoint, and link ups for people out of the typical city boundary. Where a station is integrated into its surroundings should be done in a way that is keeping in scale with a neighborhood, is situated near intersections, and should be taking into account immediate attractive features of the area. In my interview with Katie White, who is a current transportation planner with the Metropolitan Council, she put great emphasis on how a station integrated has a large effect on ridership.

If the station is perceived as being in an unsafe area, or a pedestrian has to cross a road to get to it that does not crosswalks, it can severely limit the number of riders. She went on to say that the station must be welcoming, and that there must be a gateway from the neighborhood to the station, so that residents know to and want to walk down, towards the station. This has been done in subtle ways in St. Paul already, in the 'Frog Town' neighborhood; they have curb extensions that shorten the distance across a road that one has to walk, in the residential blocks that lead to a transit stop, as well as little sculptures of frogs, and different colored pavements.



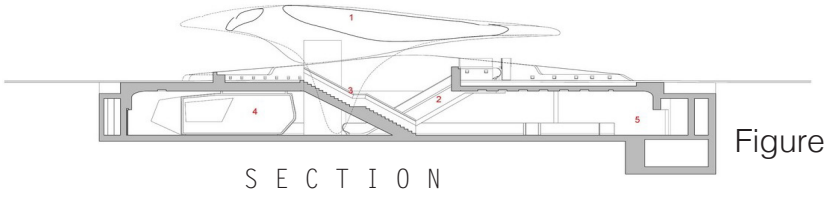
CASE STUDIES

INNSBRUCK STATION
D.C. BICYLE CENTER
SOUTHERN CROSS STATION
EURALILLE
NICOLLET MALL
RED RIVER MALL
UNION DEPOT

Figure 2.

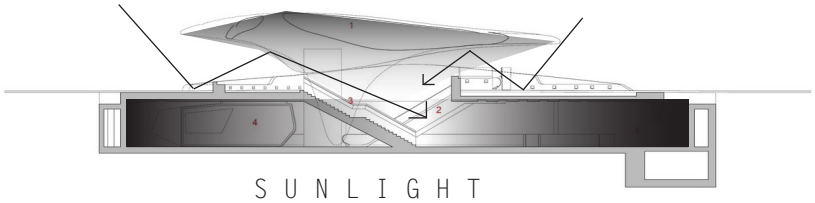
INNSBRUCK STATION INNSBRUCK AUSTRIA

This is one subway station, along a line, which was designed by Zaha Hadid. It is smaller and for local commuters within the city, and is notable for its science fiction appearance, and how the shell wraps down into the ground, allowing for natural light below grade.

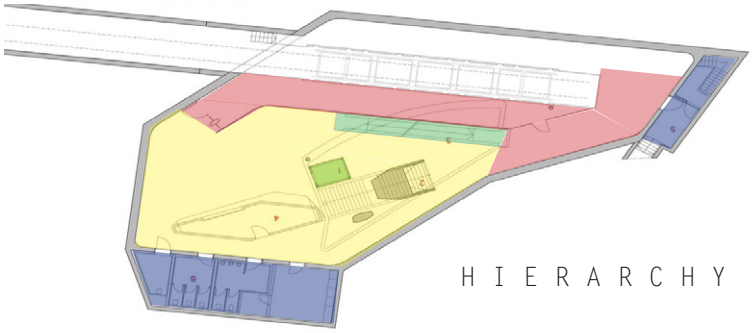


S E C T I O N

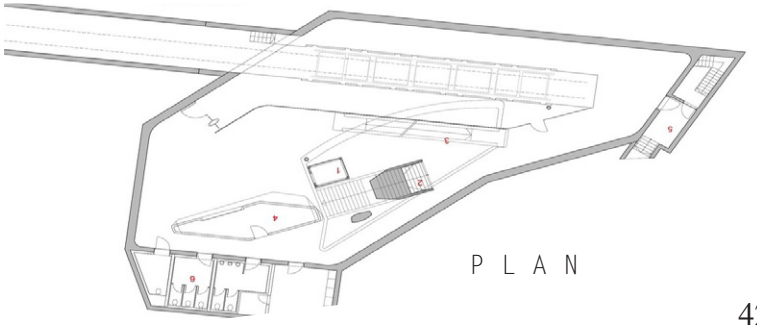
Figure 3



S U N L I G H T



H I E R A R C H Y



P L A N

MORPHIS

DYNAMIC

OPEN

SIMPLE

PERSONAL

FLOWING

PLAN

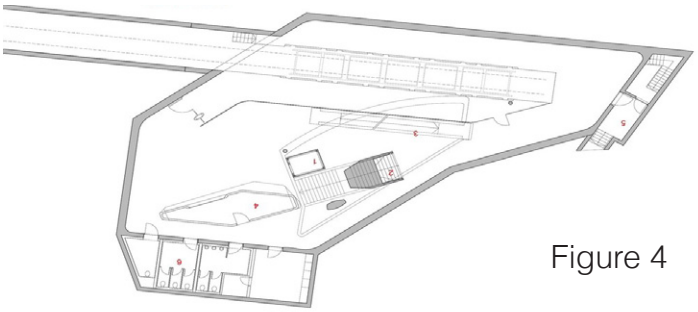
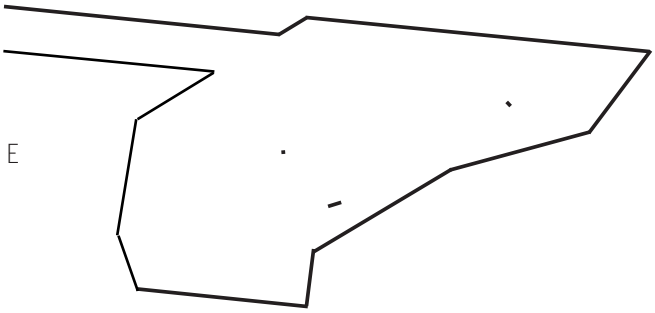
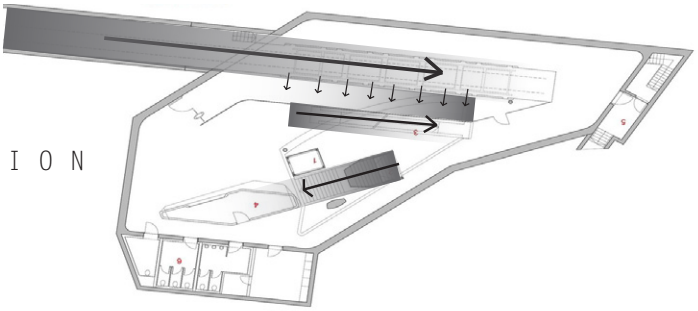


Figure 4

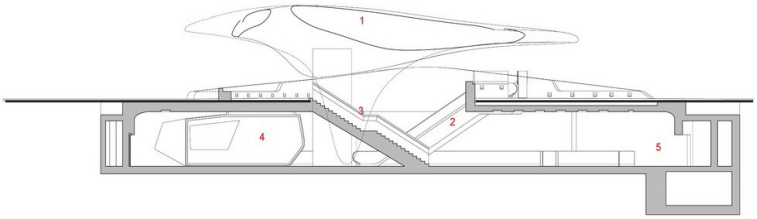
STRUCTURE



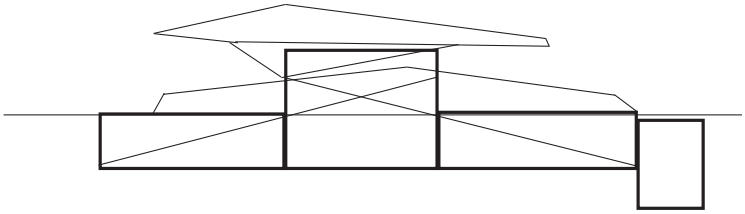
CIRCULATION



SECTION



GEOMETRY



MASSING

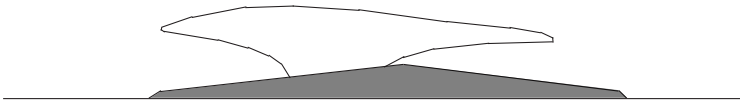


Figure 5.

BIYCLE CENTER WASHINGTON D.C.

This is a Bicycle Transit Center located outside of the D.C. Union Station. It is a rather small structure, with a soul purpose of storing bikes for commuters, who get off the trains in town and who then choose to bike to work. It is the first bike sotrage of its kind to have a design that is not simply a bike locker.

SECURE

PERSONAL

PUBLIC

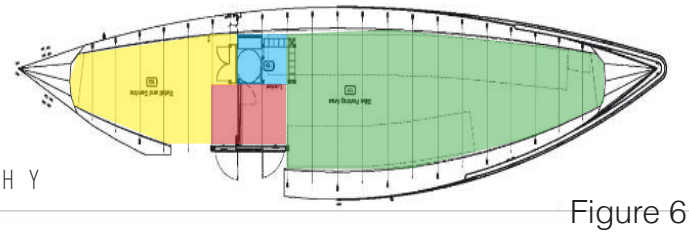
SHARED

MODERN

GLASS

EXPRESSIVE

STEEL



H I E R A R C H Y

Figure 6.

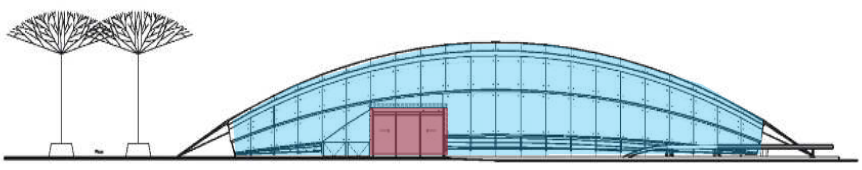
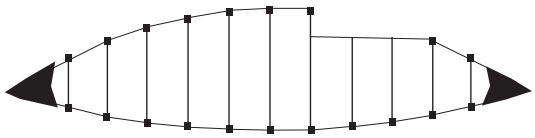


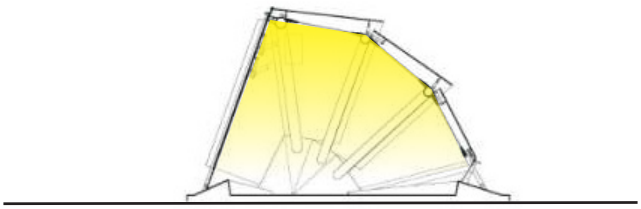
Figure 7.

STRUCTURE

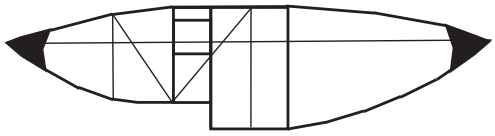


MASSING

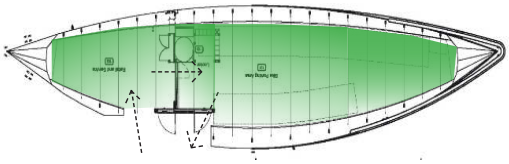
SUNLIGHT



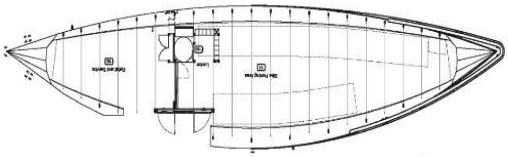
GEOMETRY



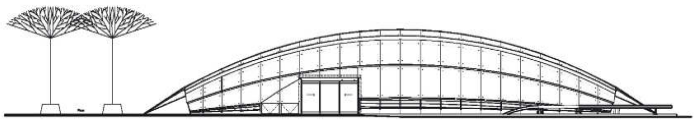
CIRCULATION



PLAN



ELEVATION



SECTION

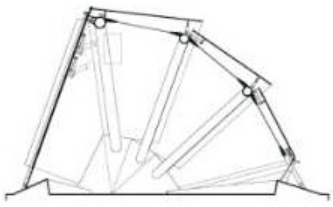


Figure 8

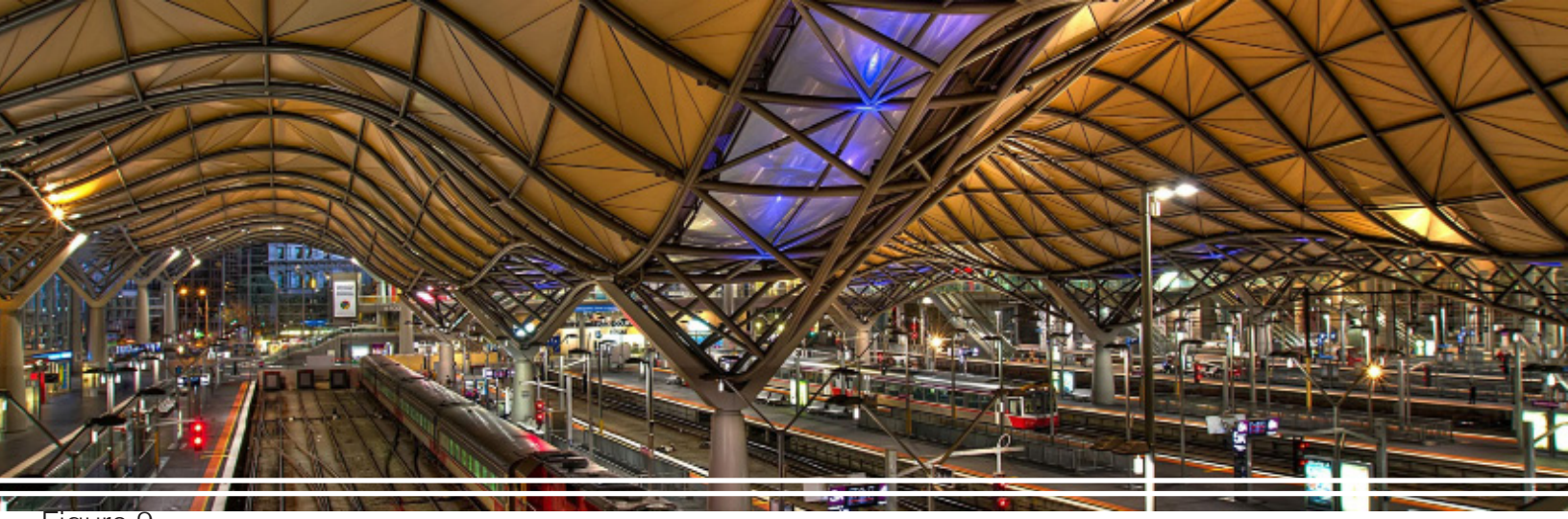


Figure 9

SOUTHERN CROSS STATION MELBOURNE, AUSTRAILIA

This is the Southern Cross Railway Station, situated between the central business district of Melbourne Australia, and its changing ‘docklands’ district. It is a larger railway station and has connections to multiple types of ground transit, such as: buses, streetcars, personal vehicles, pedestrian, and bikes.

BUS

TRAIN

STREETCAR

REGIONAL

LOCAL

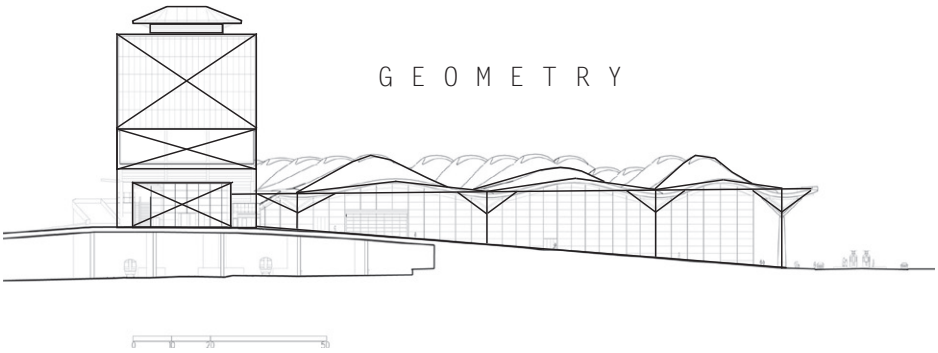
STRUCTURE

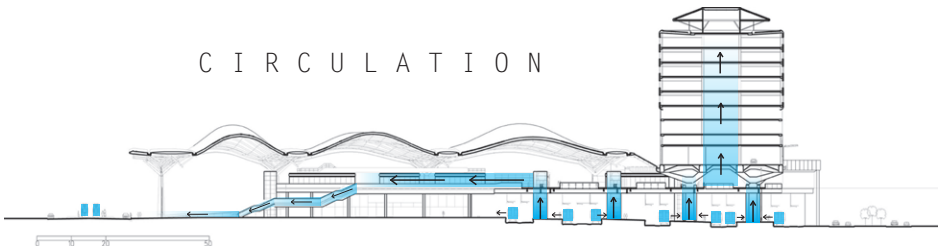
NATURAL

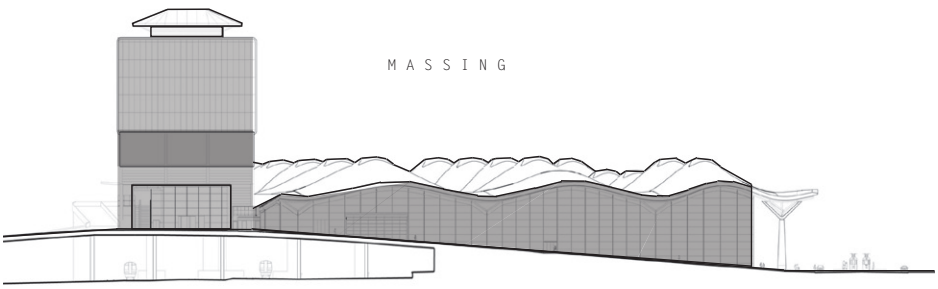
LIGHT

URBAN

BUSY







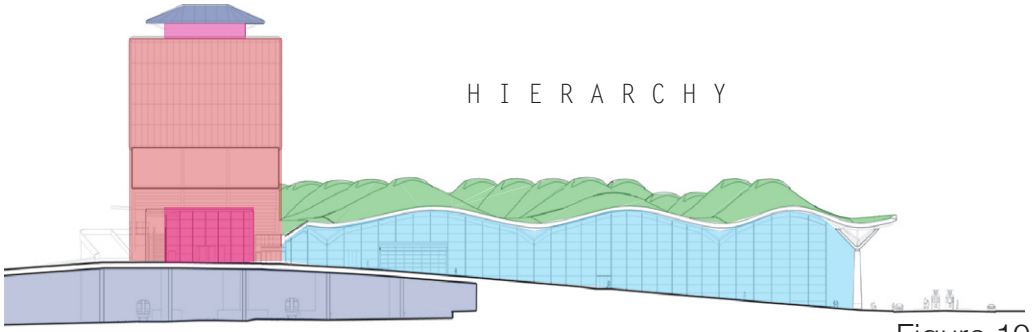


Figure 10

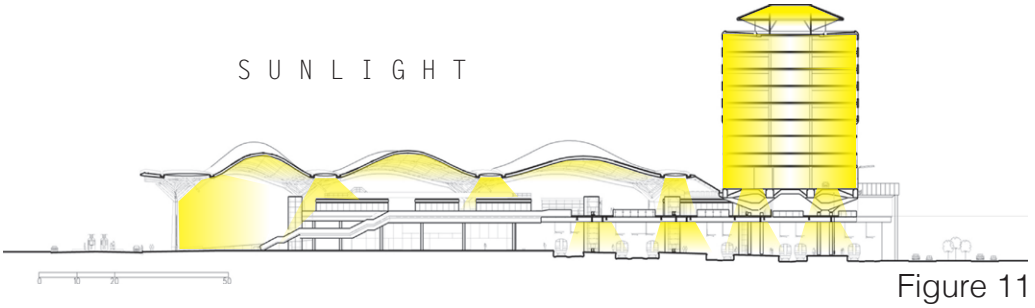


Figure 11

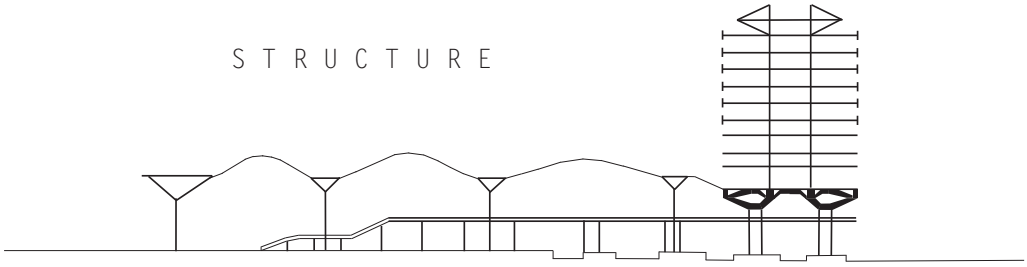
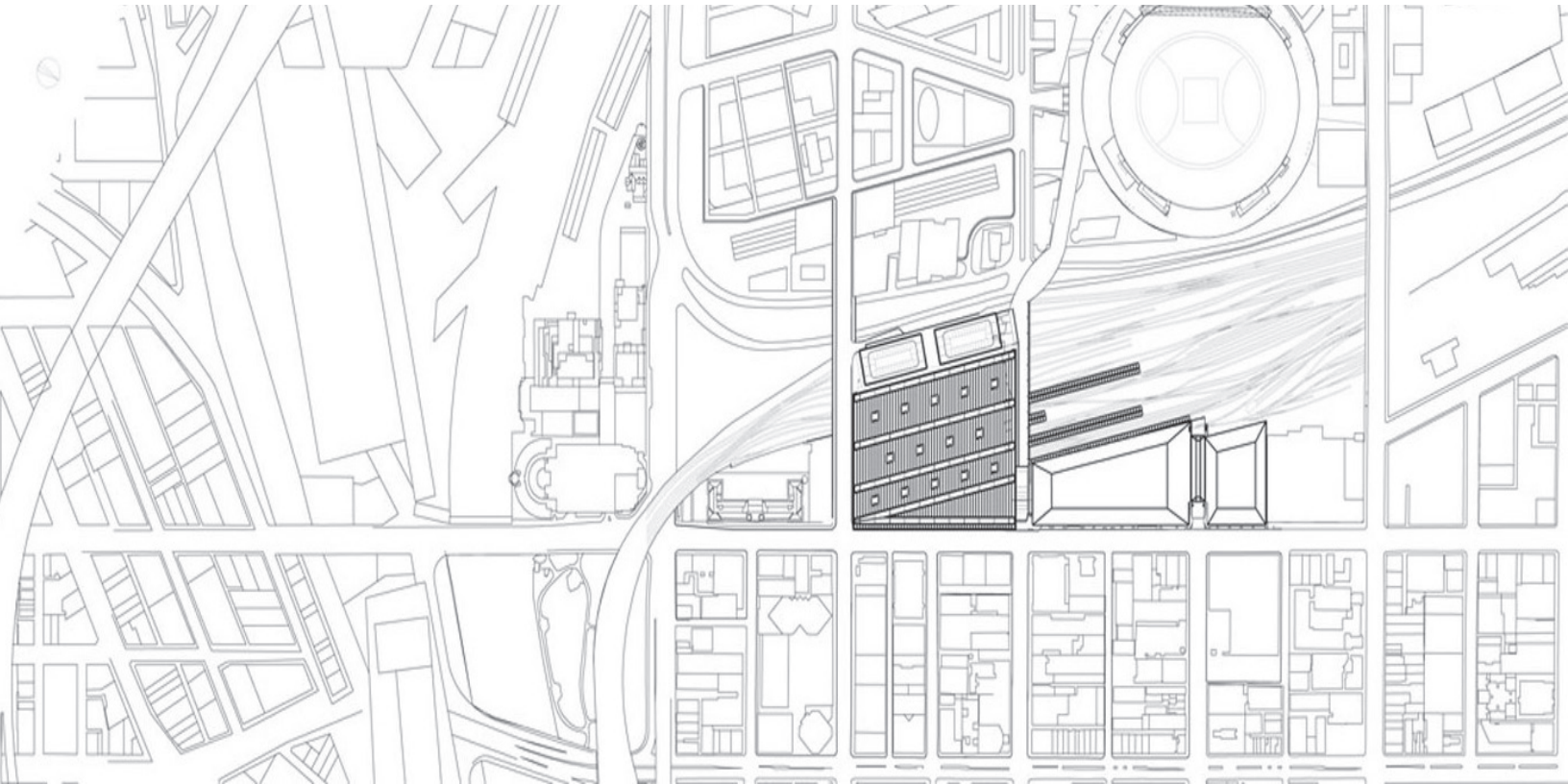


Figure 12



EURALILLE - LILLE, FRANCE

TRANSIENT

HUB

VIBRANT

MIXED

OFFICE

HOTEL

RETAIL

MARKET

TECH

EuraLille is an office, retail, and apartment complex, situated over a mix of transit uses. The main part of the complex, the high-speed rail line, connects the city directly to London, Paris, and Brussels. The development was completed in 1992, and is located on former, little used, French military land situated in the center of the old city. This wide swath, allowed Lille to build a modern office, retail and residential district in the center of the city, without having to demolish any existing structures. In the book, 'Informal', by Cecil Balmond, he talks of visiting Lille before and after the construction of EuraLille. Before the construction of the complex, he goes over how run-down and empty the town was in the 1980's and 1990's, after suffering a huge blow from the loss of the coal and textile industry that Lille was once known for.

When visited now, one is aghast with the volume of people packing Lille's sidewalks, and the number of families that populate this growing and vibrant city; when many others are facing population decline. Every half hour the city is injected with people from London and Paris, visiting, doing business, or in town on a layover between trains. Today the town of Lille, is known as the next cultural center of France, and the place to do business with tech companies.

The primary designer, Rem Koolhaas, was adamant at the time that this would be a modern complex with a modern, non-historic or post-modern architecture. This was designed in the mid-eighties when post-modernism was at its height, and Koolhaas refused to let historic dogma dictate architecture of the modern era.

This project is minimal in its details, grand in its scale, and collides with the city as an arriving ship. With this large visual and architectural disconnect from the old city, one is surprised to learn that the citizens of Lille love the project. Baldmond goes on to say that when walking down one of the cities historic cobblestone pedestrian streets, one looks over the orange clay tile roofs, and gets a glimpse of the turquoise glass on the main tower.

When one sees this, one knows instantly that they are in Lille, and not another northern French city.

HISTORIC LILLE

NICOLLET MALL, MINNEAPOLIS, MN

Nicollet Mall in Minneapolis, was opened in 1967, as an attempt to keep shoppers downtown, and not going out to the growing suburban mall complexes. The mall at the time consisted of a large portion of Nicollet Avenue being converted into a 'Transit Mall', the first in the United States, where much of the street was changed to a meandering stretch of landscaped streetscape, with a two lane road down the middle, dedicated for public transit use only. At the time, converting a typical street into a pedestrian mall was thought of the best way to combat urban decay, and Lawrence Halprin & Associates were hired for transforming this historically retail centered street, into an urban mall. This design resulted in scaled down streetlamps, planters with embedded benches, and places fro people to meet and mingle between going places.

Minneapolis has historically had a unique set-up for its downtown, the three main avenues, Hennepin, Nicollet, and Marquette (going from West to East), have very distinctive and different functions. Hennepin has always been downtown Minneapolis' entertainment street, filled with the cities theaters, performing arts, and restaurants. One can stroll down this from the Mississippi River, to the Walker Art Center and catch the best that Minnesota culture can offer. The next block over is Nicollet Ave. which since the early 1900's, has been the cities retail spine. The original Dayton's, now Macy's, has been on the street for decades, and today there is a two story urban Target, and their headquarters, with outdoor cafes that spills over into Peavey Plaza. Marquette Ave. marks the next block over, which has always been the center of Minneapolis' Business community. It has the historic Foshay tower, the prominent IDS Center, and other large office buildings such as the Wells Fargo Center.

AMERICA'S FIRST TRANSIT MALL

Many pedestrian malls created in the 1960's and 1970's had over time failed to draw enough shoppers or visitors to turn more profits for the retail stores, many of which then abandoned urban centers for a spot at the local mall. Nicollet is one of the few that has been deemed successful, and is still thriving. One of the main differences between it and other projects, is that transit was an essential component of the mall. Nicollet Ave was re-established as the go to street for catching a bus in Minneapolis, as it has no other formal transit center.

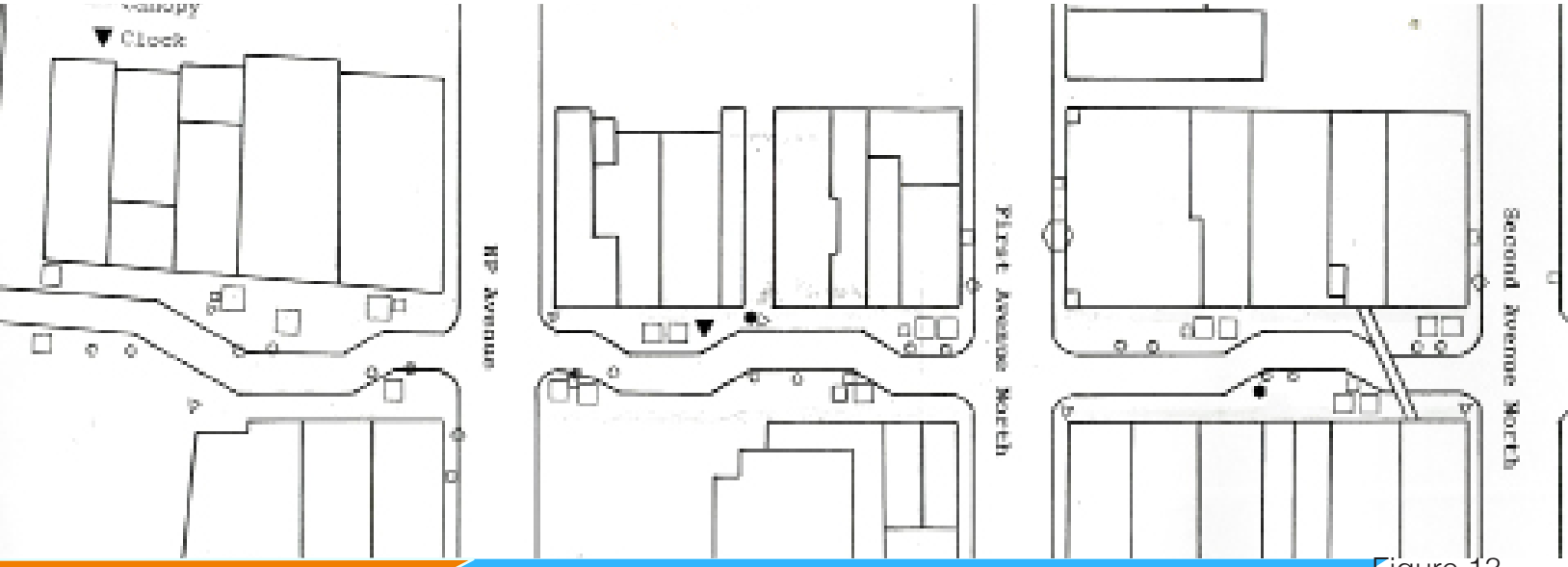


Figure 13

RED RIVER MALL, FARGO ND

The Red River Mall was constructed in downtown Fargo in the mid 1970's, as an attempt to keep shoppers and stores downtown, as West Acres Mall grew in popularity. This project consisted of re-working several blocks of Broadway into a curvilinear two-lane road, with no parking, influenced heavily by the Nicollet Mall in Minneapolis, which was created a few years earlier.

Along Broadway the sidewalks a geometric canopy system was installed to shelter pedestrians from bad weather, scaled down street lamps were installed, and many large planters and trees were installed to break up the former street into areas for people to sit and mingle. In a report put together by the NDSU Department of Community & Regional Planning, titled 'An Evaluation of the Red River Mall.' the author, Gerald McCullough, goes on to say that much of the improvements were meant to visually have a cohesive streetscape; from the modern planters, the geometric canopy and covering up of historic building fronts.

Figure 14

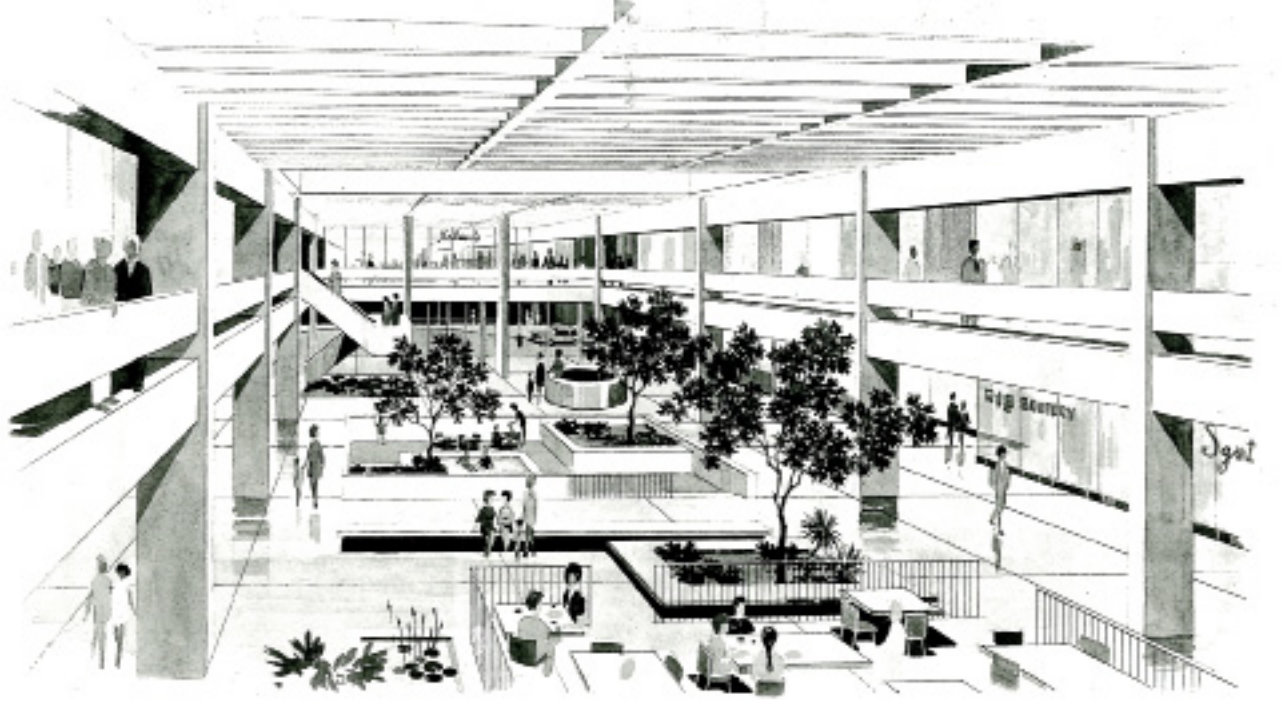


Figure 15

The report also says that despite being an attractive project initially, it has not been successful in re-invigorating the downtown business district. The city of Fargo, though responsible for funding the initial project, did not allow funding for the malls upkeep, which was faced with littering, graffiti and defacement. In 1985 the project was looked upon as the cause of the continuing lack of business, by storeowners, saying that without parking near any storefronts, people are less likely to stop at all downtown to shop. Soon after, the street was converted back into four lanes, and much of the mall was removed except for the canopies and a few planters that were not in the way of traffic.

BROADWAY MALL, FARGO ND -UNBUILT-

Before the Red River Mall, there was a plan for enclosing Broadway for three blocks, and turning it into the 'Broadway Mall'. This would have been a two story, concrete double tee constructed structure, with room for more stores, shoppers, and events. The plan was not followed over fear of costs, and research was put into another smaller scale project, which turned into the Red River Mall.

Figure 16

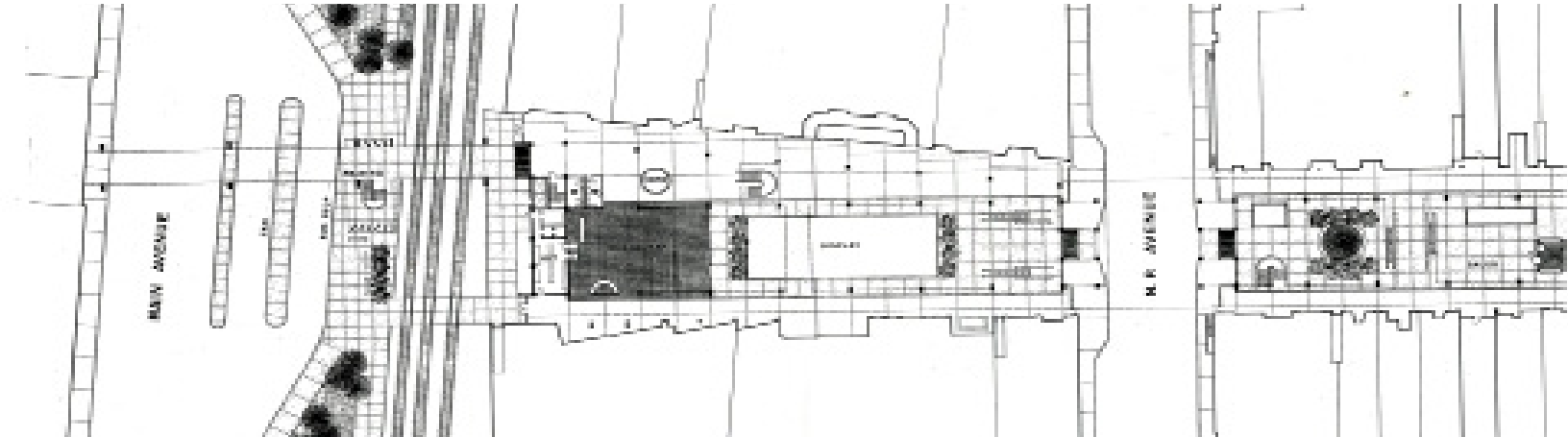


Figure 17

UNION DEPOT ST. PAUL MN

The Union Depot in downtown St. Paul was completed in 1926, and was the city's main train station. Here people could catch trains to Chicago, Seattle, and out to other places in the country from one location. Train service started to diminish in the post world war years, which continued until a passenger Amtrak train last served the station in the late 1970's. From then up until 2010, the station functioned as a storage facility for the downtown post office, and conditions of the building were allowed to deteriorate. Starting that year was a renovation to turn the building back into a station, but this time it would be set-up as the transit hub for downtown St. Paul with multiple types of transit.

CONNECT

DINE

DANCE

REST

GO

Figure 18

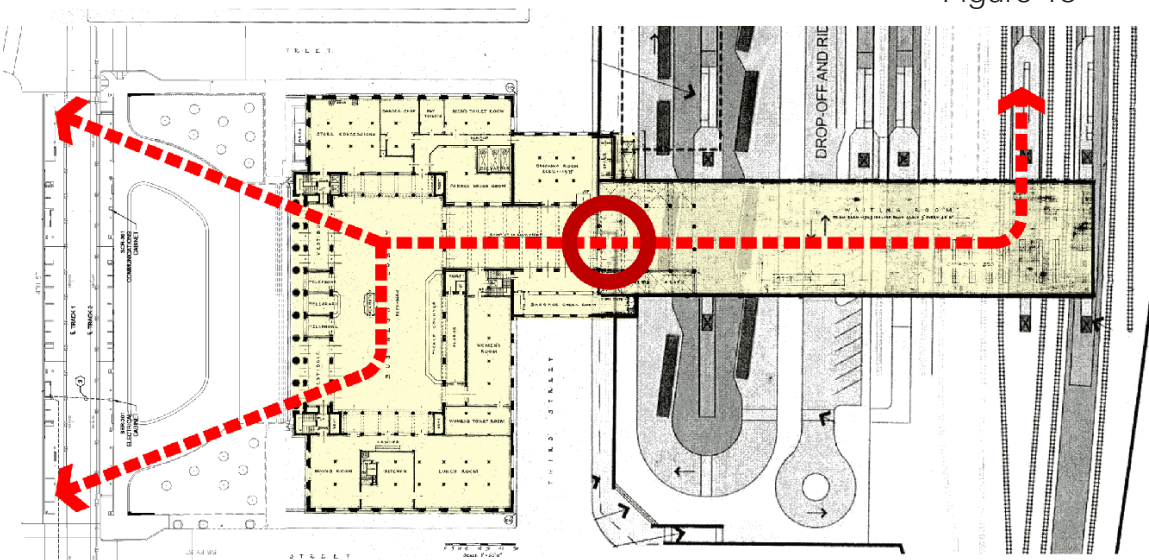


Figure 19

THE REVIVING LOWERTOWN ST.PAUL

Union Depot will be served by the Central Corridor light rail line, which will go from downtown St. Paul over to downtown Minneapolis. Where some train lines used to meet, the area has now been turned into a buss transfer station, where all major bus routes in St. Paul come through and exchange passengers, as well as being the stop for Jefferson Bus Lines. The only passenger train line, will be Amtrak's Empire Builder, that currently stops in less dense 'Mid-Way' St. Paul station. The new layout for the train platforms, has been done in a way so that new train lines can be easily accommodated, such as new light rail lines from Eastern and Southern communities, and a much anticipated High Speed Rail line, expected to come from Chicago.

The internal layout, as showed in the diagram, has been around a pedestrian spine, that comes from the incoming lines of transit, and goes outside towards the rest of the city. Along this spine they have incorporated ticket areas, waiting seats, stores, and restaurants.

CASE STUDY SUMMARIES

Common elements of these case studies, were that many of them were trying revitalize an urban neighborhood, most by transit or streetcape investments. The transit that was encouraged was not the automobile, but trains, buses, bicycles, and pedestrians were very encouraged as a new means of transit.

Many of these case studies were in predominantly urban areas, which often have more of a means and the ability to re-invest in itself. These covered urban district decay in larger cities, there is an ongoing problem with rural city decay, but they often do not have the funding in place necessary to carry it out.

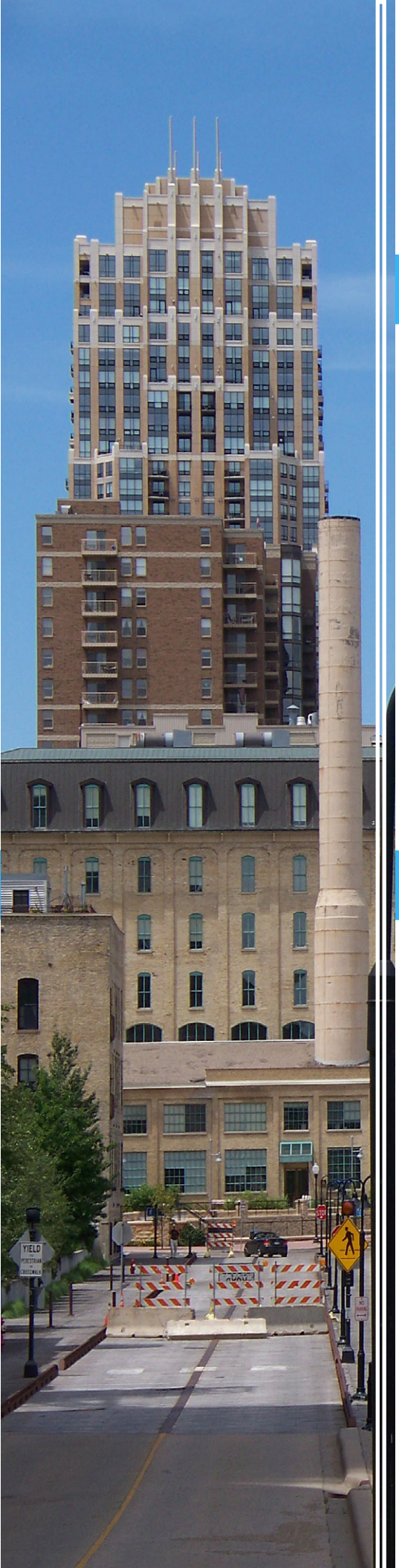
The most unique case study would have to be the Innsbruck subway station, in actuality the entire line has Zaha Hadid designed stations, this was the most explained online. Here it is organic, structured, and very small for a subway station, the other projects were often massive on scale. It is important to know that not all urban design projects need to be on a large scale to have an impact on a neighborhood.

The one urban case study that was not successful, was the Red River Mall, in Fargo ND. The problems it later faced were neglect from the city for upkeep and repair, frustration over lack of parking on Broadway, and the lack of incorporation of transportation.

These lessons learned can be used for the Moorhead site, as they all show different methods to revitalize many different parts of towns in unique ways. Each of these ways should be considered when moving into the design process, and when proposing these for areas, it should be looked into the potential impact that these features would have on the area.

It is important to note that many of these case studies did not typically fit into the context of the areas they were put into. The public still likes them very much, as the architectural interventions do add a uniqueness to the area and the city, the design process should allow for some opportunity to explore the unique things that could be done.

The case study buildings may be beautiful architecturally, but they are successful because they work in layout; the structure does not impede traffic flow, but offers delight in the spaces.



CHANGING DEMOGRAPHICS

Today is a time of great change in the geopolitical landscape, and just as a big a change is happening where people desire to live. People under 30, sometimes known as 'Millennials', by in large prefer to live in urban areas more than the previous two generations. There a quite a few reasons, the first is that they prefer to live in an urban area, close to cultural institutions, venues, and restaurants, second they want to live in a place that does not require one driving everywhere, and thirdly, with the economic recession it is not as easy to get loans for houses, nor do they have the same desire for a single family home (Ehrenhalt, A. 2012). The city of Minneapolis is going through a tremendous building boom, not of single family home, but of apartments. The Star-Tribune reported in the summer of 2012, that the demand for housing in urban Minneapolis has flipped fifty years worth of traditional demand for single family homes in the expanding suburbs.

URBAN HOUSING

The demand for living in Minneapolis reached sixty percent of the metro area, and only forty percent wanted houses, this is the first time since the late 1940's that urban living in the metro area was more desired than living in the suburbs (Jacobsen, D. 2012). At a Fargo city planning meeting on Nov. 30th, it was released that of the growth in downtown population was over two thousand new residents for the last 5 years. Many residents in urban Fargo before NDSU opened up its downtown campus were lower income, and living paycheck to paycheck in subsidized housing. Now the area is near to one hundred percent occupancy, (Nowatzki, M. 2009) and because of this, new apartment buildings have been going up every year since.

With this new urban focused generation, **it is important for cities, and Fargo-Moorhead to have livable and desired urban centers for them to attract the next population of people to stay competitive (MPLS 2025 PLAN!). Fargo has gone to great strides to re-invent its downtown, while** Moorhead has lagged behind, and many in the city feel that its urban center is doing at its worst state than it has ever been. There have been new buildings built since the mid-2000's, and many of the apartments in them are full, but their first floor retail spaces have failed to attract many stores or restaurants that stay longer than a few years.

PUBLIC RESPONSE

In the summer of 2011, the residents and city tried to outlaw smoking shops from the Main Ave corridor of Moorhead, as many felt that was what has become of downtown Moorhead. It was also proposed in the summer of 2012 that a few blocks of vacant property be turned into apartments in the east end of downtown, that brought much resident opposition. **The viewpoints stressed by the residents, was that they did not see downtown Moorhead as a place to live, but a place to do business or shop for supplies**. With this much of an existing disconnect, it seems that moving forward may involve much more of an understanding and educational approach for residents. When the city of Fargo proposed putting bike planes down 10thst. and University, it was hit with overwhelming objections from residents, and one of the City Commissioners said that with this response, from progress that the city has made, that the city may have failed in educating the general public in the benefits and the reasons for why they were doing what they were doing.

URBAN MOORHEAD

The condition in which we find downtown Moorhead, is one of neglect; from both residents and the city. The three main roads that go East/West through downtown: 1st Ave. Center Ave. and Main Ave. have almost no development that would foster a pedestrian climate, nor do the roads and sidewalks themselves encourage people to walk around. The area is considered a 'has been' site, where it once was a center for the community, but in its present state, people have switched to the out lying area of the town to live, shop, and have their offices; this thesis proposes to alter that equation.

The downtown, while being only blocks from Concordia, and MSUM, has almost no student presence in the area, or venue for students to enjoy. **If Moorhead were to capture the audience of the existing nearby colleges,** continue the building of apartments, encourage a pedestrian atmosphere through street enhancements, and re-introduce a form transportation other than the automobile, it is possible for downtown Moorhead to once again become the cultural and commercial center of the community.

URBAN RELATIONSHIPS

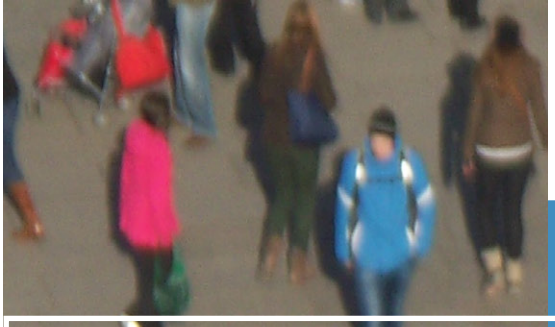
When urban design is looked at through a sociological perspective, (for instance how people act in groups in certain places,) we can examine how people interact with architecture in mass. In the report, 'The City as a Mechanism For Sustaining Human Contact', Alexander (1966) studies this phenomenon and how different groups use spaces differently. Living today in an urban environment, though even more so than when observed in the 1960's, people have various ways of blocking people out whom they wish not to interact with. When we are walking down a sidewalk and come across a group of people from a different socio-economic standing than ourselves, we tend to open our phone, make sure our headphones are in, or ready ourselves to look straight ahead.

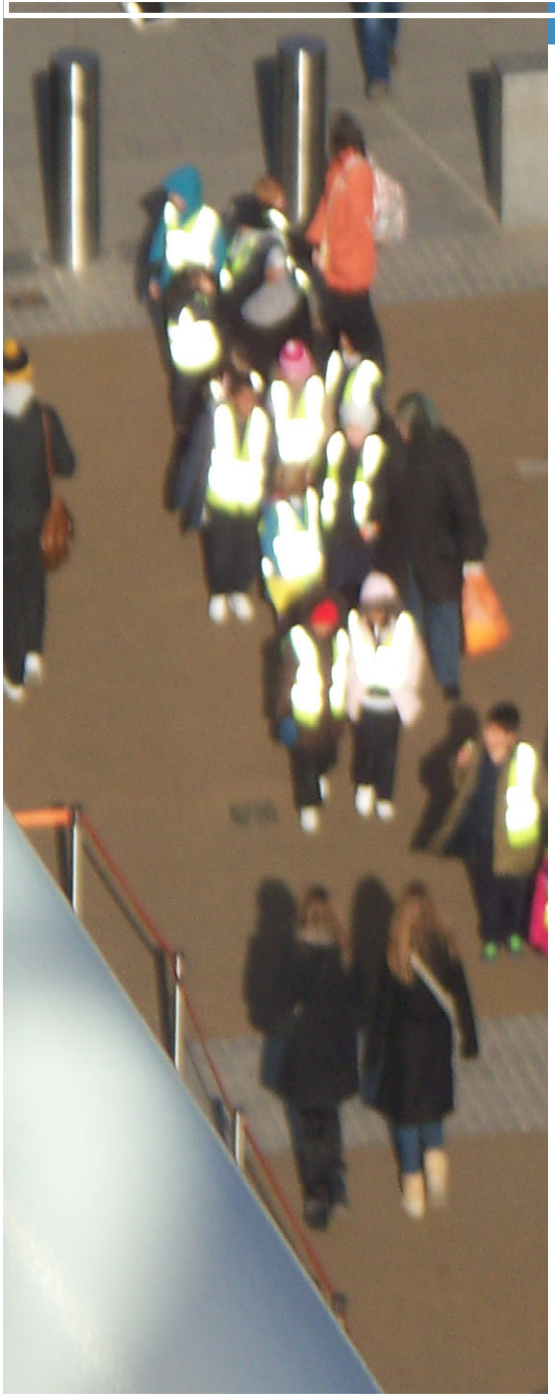
In an authentic urban environment, one is confronted with people from every level of society, and a person has to face that straight on, which many find uncomfortable. In the suburban setting, many lower income people simply cannot afford to live in a suburb, the homeless cannot afford the time or money for transport from one place to the next, and then do not frequent the suburbs. This creates by geography and lack of transportation, a very specific area where groups of people become isolated, and fearful of what may happen when they one day come across the others.

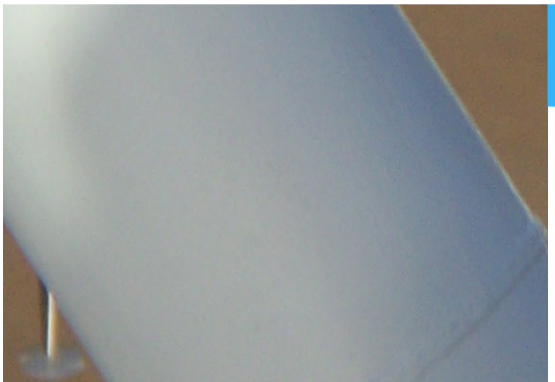
HUMAN CONTACT

This also does not just isolate people by economic standing, but it also **isolates many people from random encounters when going from place to place.** For example, with the car, people are going everywhere from everywhere. Now this is true across all cultures, but the means of transit have never been so personal and closed off, as with the automobile. The thing that is unique, is that for the most part, geographic proximity to other places is not important, such as walking from home to school, work, or shopping. What has become important is the proximity to the main freeways and roads, and how fast it is to get someplace. On these journeys, one can pass by a person they know in another vehicle, but they lack the ability to pause and have a conversation of how things are going, or what they are up to. The cell phone does give us the ability to do this while driving, but it is cumbersome, dangerous on the road, and less natural than seeing the person calling you, than conversing them face-to-face.

Genuine human contact, as defined by Alexander, is having a relationship or situation, where person-to-person interaction can be spontaneous and personal. Since the post war period, because much of where we live is over a great distance, one, much of the time, needs to plan out in advance when we choose to meet other people, go out for coffee, or simply catch up.







HUMAN INTERACTIONS

Alexander stresses in his writings that the bureaucratic and physical environment, which we live, needs to be set up in a way that encourages mingling, and random meetings. A quality environment to enjoy being with people in public, also needs to exist for society in general to function more cohesively. With this, different groups within society act differently in the same environments than other people. Every town center through history has been designed intentionally or unintentionally, in a way that allows people from different groups to want to be together in an area, in which all people do end up getting along. For instance, while I lived in Lille, France, the thing which I had to get most used to first, was that street people could come up to you anywhere, and try and sell you a trinket, a wristband, or donate change for their children; a thing that I have never encountered while living in the suburbs in America.

The next thing I noticed was that all levels of society were attracted to be around the city's two historic centers: Le Grande Place, and Le Palais De Beaux Arts. Between which were major pedestrian only shopping streets. Both featured very large open expansive areas to walk through, going from one end to the other, to shops, cafes, or just to stroll. In their centers were large fountains, historic and modern, around which people sat and spoke with each other in small groups, one on one, or families sitting and enjoying the weather outside together. No one was fearful that the people next to them were different, or that someone may come up to them from the masses and ask them for money, it was all very natural and nonchalant.

LILLE PLAZAS

The way the plaza at Le Palais De Beaux Arts was laid out, it had two fountains separated by a large pedestrian through way. Both were constructed at the same time in the early 1980's, however one is more popular to mingle around than the other. The one that people want to be around is a large circle in front of the Beaux Arts Museum, and it consists of simple brick materials, which slowly step down fro the fountain, creating many opportunities to sit at. It is also surrounded by a series of concrete and earthen mounds, which are lined with seating, incorporated existing mature trees, there by separating the plaza from the busy streets. This area has multiple levels of enclosure, while at the same time always visible for people to see other people.

HARDSCAPE AFFECTS

The landscaping is only a foot and half above the sidewalks, which people use easily as an impromptu seat. The fountain on the other end of this plaza is less visited, and most likely because it does not have many of the features of the other. It consists of a large circle in front of a prominent historic building, but has no planters between it and the streets. The fountain is also sunken down twelve feet below the pavement, and the hard-scape surrounding it is over three feet high, not allowing people to sit around its edge. It does have a stadium like seating arrangement from the center of the fountain, upwards to the level of the main plaza, but I had never seen anyone sit there. It may be because it is out of view from people, and that someone in there would then be the center of attention. It is valuable to analyze this plaza, as it was designed by the same people, and built at the same time, and that it has one very successful space, and one that fails to attract any people.

WHAT WORKS IN EUROPEAN PLAZAS

What can be drawn form this, is that when in urban spaces, people like to sit on the edges of an active area, even when seated on a fountain, one is not in the center of the fountain but on its edge, enjoying the presence of the people around them; and feeling part of the area. When on the edges of plazas, people take spots that are off the beaten path, but still have a direct visual connection to the area around them.

The city of Minneapolis has adapted much of what relates to this into their city plans, and now call it, 'Crime Prevention through Environmental Design.' When designing a new city park, or urban development, lines of sight to others, being that pedestrians or first floor worker, shoppers, or cafes, it is important to have a visual connection. By making public space viewable by the general public, the public to casually "police" areas by sight and their presence.

European plazas tend to be very organic, and the attitude of the people was relaxed and understanding. They were not surprised or shocked when other people came up to them, but even with that going on, **they still managed to have intimate and personal conversations with one another in public.** In Fargo-Moorhead, one is surprised to find someone they know at their destinations, at stores or restaurants. It is not really possible to have this random but liked encounter of people one knows in the U.S. when traveling from place to place as we are using our own personal means of conveyance. This thesis design proposal will change this existing condition, so that people from all walks of life can enjoy public spaces.

PEOPLE'S ATTITUDES

Alexander goes to make the point that we as Americans, may like our privacy too much, and that we do not like being dropped in upon without prior warning. We like to live in suburbs, where we know that primary people living there will be like us, and that one can avoid a person, or an entire group of people, if they so choose. We in a way live in a fantasy world in its present form that is not sustainable, and extremely detrimental to the human psyche. He goes on to conclude, that **the way we build our world, shapes in many ways how we interact with each other.**

PROJECT GOALS

PERSONAL GOALS

A goal for this thesis is **to expand my personal knowledge for urban and transportation design, and how to best architecturally meet those challenges**. I am hoping go into an architecture firm that either is, or has an internal branch committed to urban design projects. I like doing master plan studies, looking over city planning documents and seeing where cities hope to expand, and where they hope to reshape themselves. I find it more interesting to think about how current established cities would adapt to new needs, rather than making new cities from scratch. I prefer this because to me using an existing city is better than making a whole new one, and there is much more to work off of, and more real existing problems that are there to be solved with an existing framework and set of parameters.

The character of urban places is important to me, since **I grew up in a 1960's suburb, that they are allowed to be brought into the 21st century**. The city of Golden Valley, has been redeveloping areas of town that are dated, single story, office parks, and turning them into denser, walkable districts . Most cities designed post WWII do not often have a pedestrian center, and now they are looking at fostering new dense growth in certain distracts.

To adapt an existing suburb to a form of transportation that is not the car, and to explore the effects of this is extremely interesting.

ACADEMIC GOALS

I would have to say that **I would like to be able to correctly analyze and interpret what is the problem with an area, and recommend what would be the best course of action** based upon research and the nature of the problem. Simply applying what has worked in other cities, without properly identifying the problem, can lead to the problem continuing, even with millions of dollars having been spent. With Moorhead, a few streets have been constructed to standards that would be considered pedestrian focused, however at the moment, there seem to much larger issues at hand than just redoing sidewalks and streets.

PROFESSIONAL GOALS

I would like to be able to present a thesis that thoroughly demonstrates a problem, how creative and well refined architectural interventions can dramatically improve urban vitality and quality of life. This emphasis would appeal to architecture firms with a strong focus in urban design and master planning, **I hope that this thesis can help show firms what how creative design exploration can contribute to an urban design problem**.

SITE ANALYSIS

SITE NARRATIVE

APPROACH

When walking towards the site from downtown Fargo, along Northern Pacific Ave, the most prominent structure is the Moorhead City Hall, which seems to align directly up with the street. One crosses over the Red River, and has to walk down a very narrow and intimidating sidewalk on the edge of the bridge, sandwiched between the busy road and the rusting guardrails. Once across, the South West parking lot for the mall appears, and along with it a large number of outdated signs, comical fonts, and colors with the message: ‘ MOORHEAD CENTER MALL: *Another Great Place To Shop!*” This sign structure is showing signs of age, and the electronic display below it is broken. Walking towards the mall, over the cracked parking lot, one is met with a faceless façade, and dated mismatched materials. The surface is barren, with a few signs of stores on the other side of the walls, but no visual or physical connection exists from the outside. The same large, dated, sign marks the entrances of the mall, and is the only things marking the entrance. The mall architecture is as flat as the rest of the building, however, here there is an indentation with black doors. With more stated entrances, and well kept landscaping, the entrance experience can be greatly enhanced.

When entering the mall, one is met with a run down sports bar, that feels as if is from the side of a freeway. It is distressing, as it is in worse condition than the mall corridors, and cheapens the corridor immediately. The floor materials appear to be a dark brown glazed brick and are featured throughout the structure. The corridors are of different size from each other, and are noticeably smaller than other shopping malls in the area. The storefronts that are still open are either surprisingly updated, or seem twenty years old. When one gets to the center area, where the City Hall sits above, one finds concrete pillars and brick surfaces, with no real plants, and the area is lined with closed shops. From here, the corridors head south towards Center Avenue. Here the mall appears to be the most vacant, and the stores inside that are closed have paint jobs that look like they are from the late 1980’s, only perpetuating the building sense that this mall is decades out of date. All of these new attractions proposed in my thesis, will strngthen the economy of the mall and allow for more and better shops to open.

The outside of the mall along Center Ave features the most landscaped and urban portion of the mall, however none of the stores have entrances towards this street. The sidewalk and surroundings are nicely scaled, and the physical and psychological separation from the busy road is done nicely with mature trees, planters and street lamps that form a good barrier from traffic. The area where 5th street ends at the mall is done nicely, as the structure is pushed back and it reveals the city hall above, also there is an area in southern light for people to sit. Unfortunately this area shows sign of neglect, and the wind has brought in a lot of garbage. The planters seem unused, and the storefronts inside empty, making the place feel abandoned. If there were more windows towards the exterior, the outdoor space would feel less abandoned.

Moving around towards the northeast entrance, one is presented with a parking lot and the same dark brown brick wall as on the south side, however located here is a restaurant that's front is towards the outside of the building. One finds it pleasing to have found windows in this otherwise unsupervised section. There is a large, mature, row of spruce pine trees separating the parking lot and very close railroad line here. Which also seem to block some of the North wind, the noise from the railroad, but also block any potential for views towards the river. With varied wall textures and materials, different sections of the mall exterior would feel less monotonous and more lively.

The North City Hall entrance is set back from the main structure, consist of a mix of concrete and brick, and is in shade much of the time as the city hall structure blocks much sun from the entrance. There are also no restaurants or shops facing towards this section of the site, and it feels very barren, as there are hardly signs of life. Across and North from this entrance, is where the rail line crosses over a street, and at that same location a parking structure extends over the road. The road below has recently added flood protection walls, which look nice and updated when compared to the mall. North facing views, would provide for a grand view of the Red River.

Further west from the city hall, though still on the North side, there are two entrances to the structure, one original and the other from a 1990's addition into its own store. There is a very large contrast in materials and colors where the addition meets the original mall, as the dated brown brick runs into light pastel pink and green over what may 'Eifs' or stucco. The original entrance is architecturally the same as the rest of the mall structure, and is only noticed because of the large, comedic, sign above it. The additions entrance is much more noticeable, with a play in height, distance from the wall, and a change in colors.

The west end of the mall appears to have a second floor, where a three-story concrete parking garage is attached. This area has the greatest views of the Red River, where it can be seen to the West and South. It is also worth mentioning that this area is frequently flooded in the springtime with high water from the river, where the first floor of the parking garage is flooded. Any new structures built along this side would have to be made to withstand a flood, as the lower portion of the parking structure floods often.

MATERIALS

The site is filled up with many paved surfaces, many of which mismatched and contrasting such as different ages and colors. The new paced surfaces around the mall do not need to be the same material or color, but they should all be able to age together well.

GEOMETRY

The site is surrounded on sides by the city grid, and others by roads that are curved due to the river. The section of the mall that interacts directly the city geometry is the section at the end of 5th street. Here is indented and set back from the continuation of the road.

SHADE

There is little to report on shading for this site, the most notable is the completely shaded North entrance to City Hall, and the South entrance on Center Avenue. The rest of the mall structure is low and consistent, not many opportunities for the structure to block sun or provide shade in its current form.

NUMBER AND KIND OF BUILT FEATURES

The site is dominated by the Moorhead Center Mall and City Hall structure. This is mostly a single story mall building, with a noticeable 5 story City Hall structure in the center. On the West edge of the mall is a two story addition, and three story parking facility. The garage is much denser than much of the surface parking lot that surrounds the mall. This height difference can be acknowledged with an increase in density on the current parking lots, by having new structures as tall as the parking garage.

MATERIALS

The light quality is harsh with the lack of vegetation surrounding the main structure, with only very bright or dark hard surfaces for the light to bounce off of. This often has one perceiving the mall area as cold, and bleak. The light in the South area is consistently bright, despite the dark outer surface, and to the North it is quite grey as the mall is dark on the North side and has nothing to brighten it up. Materials should be chosen so that light is either played up or down, depending in the side of the mall.

VEGETATION

The vegetation is mostly on the South side of the mall, between it and Center Avenue, where it consists of mature Ash and Lyndon trees. There are planters there as well, though they often empty, and materials they are made of is showing age. The North end of the site, along the railroad, has a full line of Spruce pine trees, between the railroad and the parking lot. This creates a break from the North wind, as well as a noise and visual interruption from the trains. This also blocks the possibility of a view of the river from this end of the site.

WATER

The site is located along the East edge of the Red River, where it runs along smoothly and silently. The water appears muddy and the shoreline is badly eroded along its edges. The bike trail that runs along it seems to be slipping into the river at sections, and has many ridges and dips that could be dangerous for bikers and walkers alike.

WIND

The most notable and persistent wind is coming from the Northwest of the site, the pine trees on the Northeast block some wind for the parkers behind it. The wind along Center Avenue is mostly block from the North by the mall structure itself.

HUMAN CHARACTERISTICS

It is an urban site that has been changed many times over the last century, and each time it has been massive change.

DISTRESS

The entire site shows many signs of distress, from the buildings on it, to the planters, and down to the rivers edge. The signage for the mall is hopelessly out of date, with purposefully crooked letters and varying font, which now only serves to visitors that the mall is very out of touch with the modern times. Many of the lampposts around the mall have yellowed over time, and quite a few of them are now crooked and leaning from the building. The architecture has materials that have visually aged, and now look tired and stained, they have also cracked in a few places. The sidewalks have uneven pavers, and are made of different materials at different times. The buildings along Center Avenue look unkempt and few have functioning retail, which send off a message of economic distress. The river has eroded away much of the edge, and it has distorted much of the bike trail along its front. Half of the trees on the site seem to be Ash trees, which show very fast when they are not being kept trimmed up.

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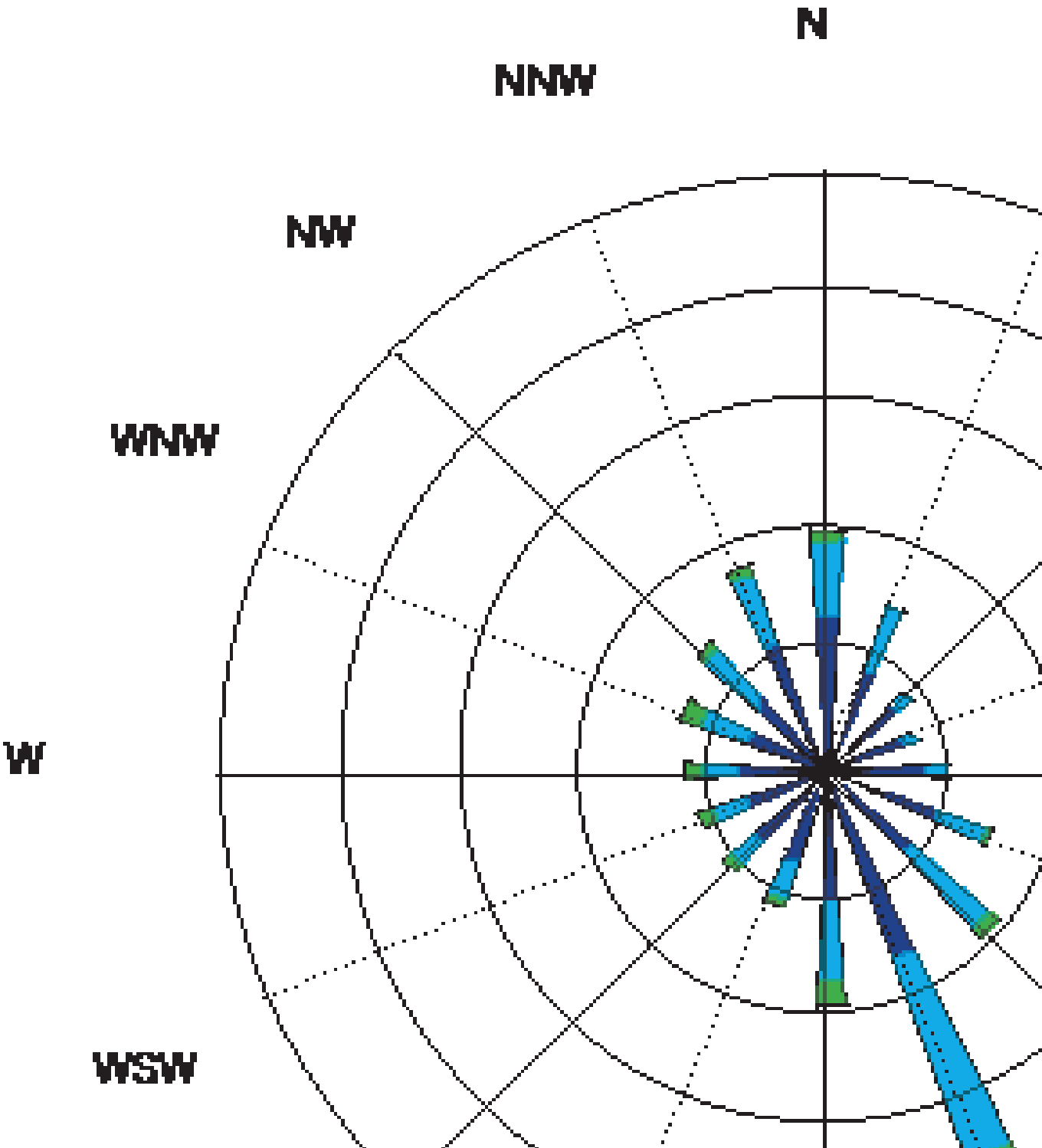

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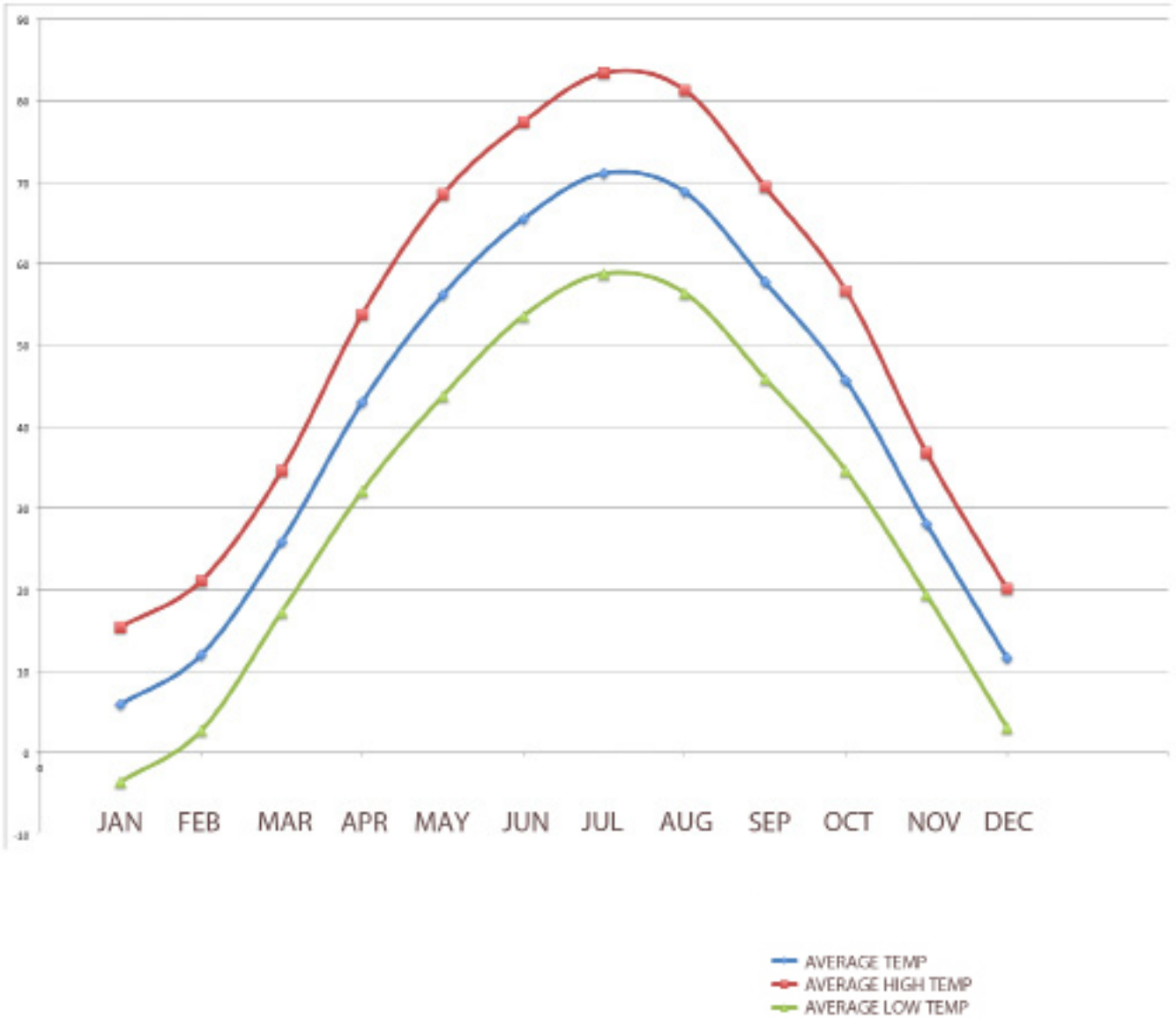

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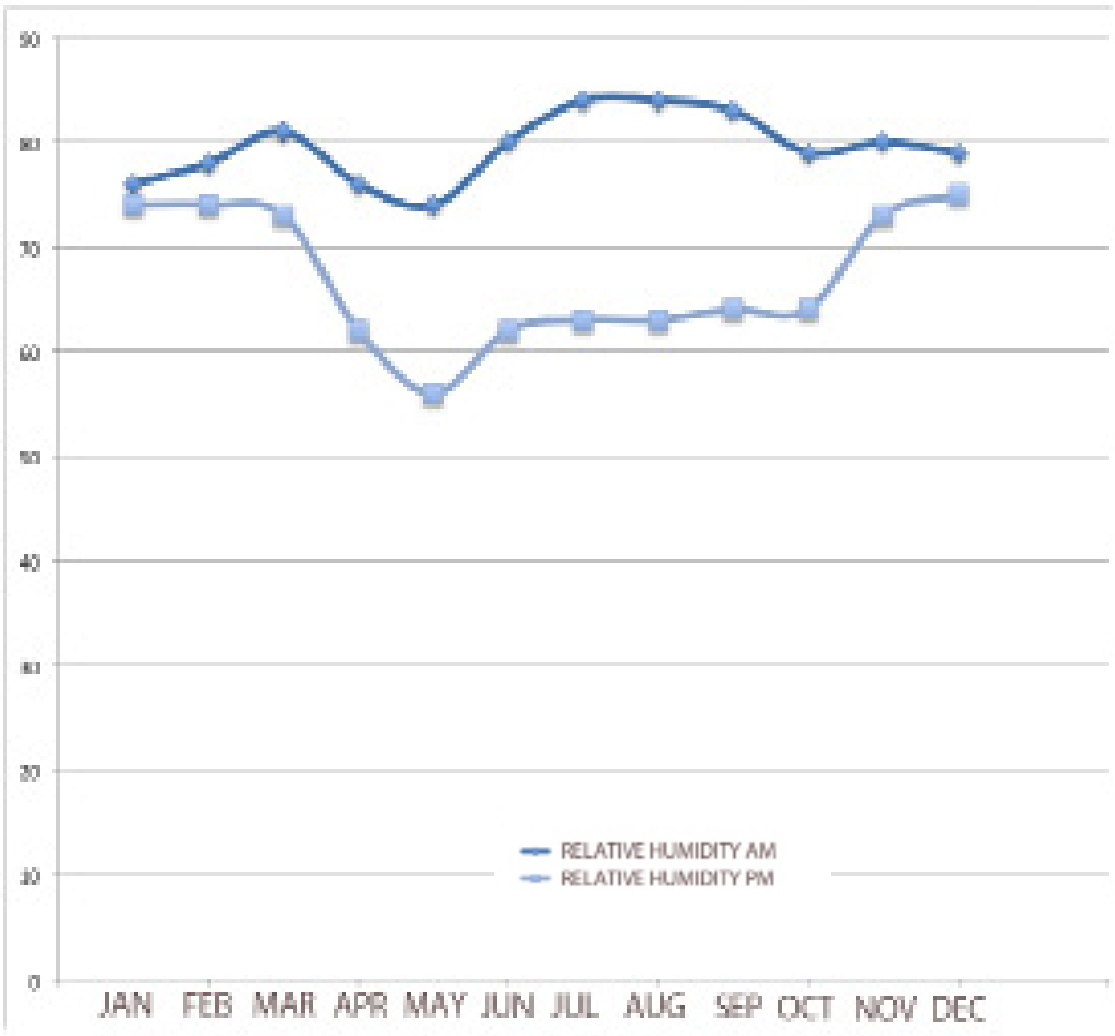

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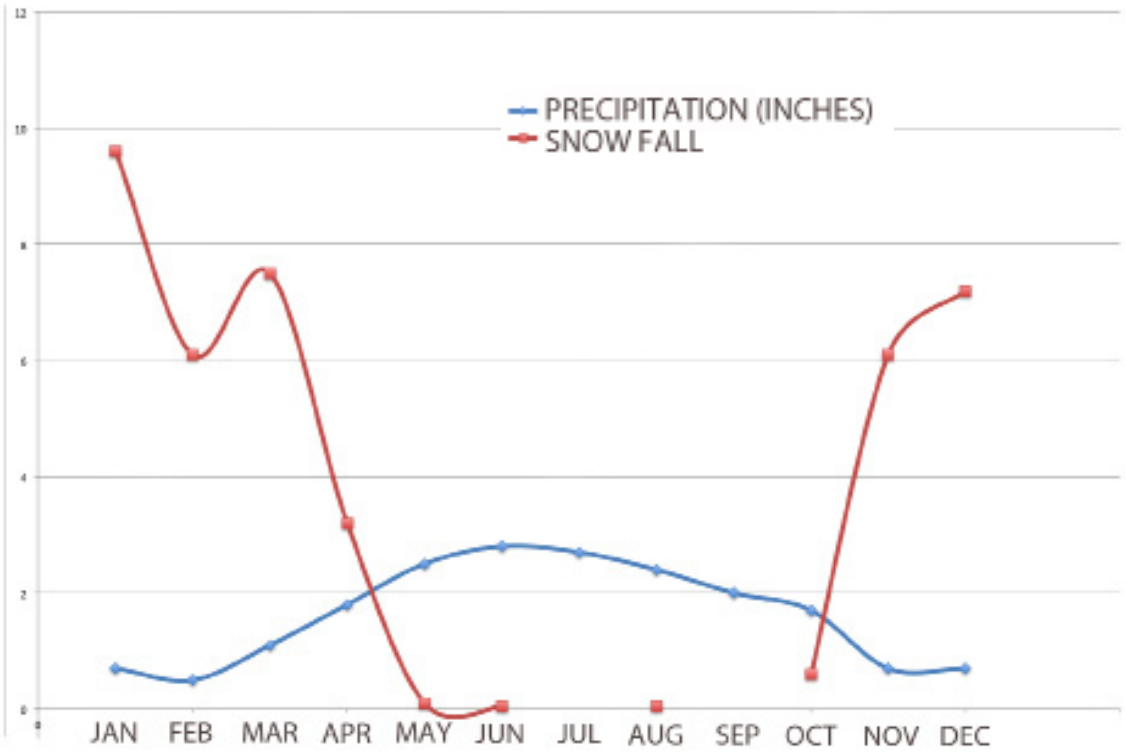

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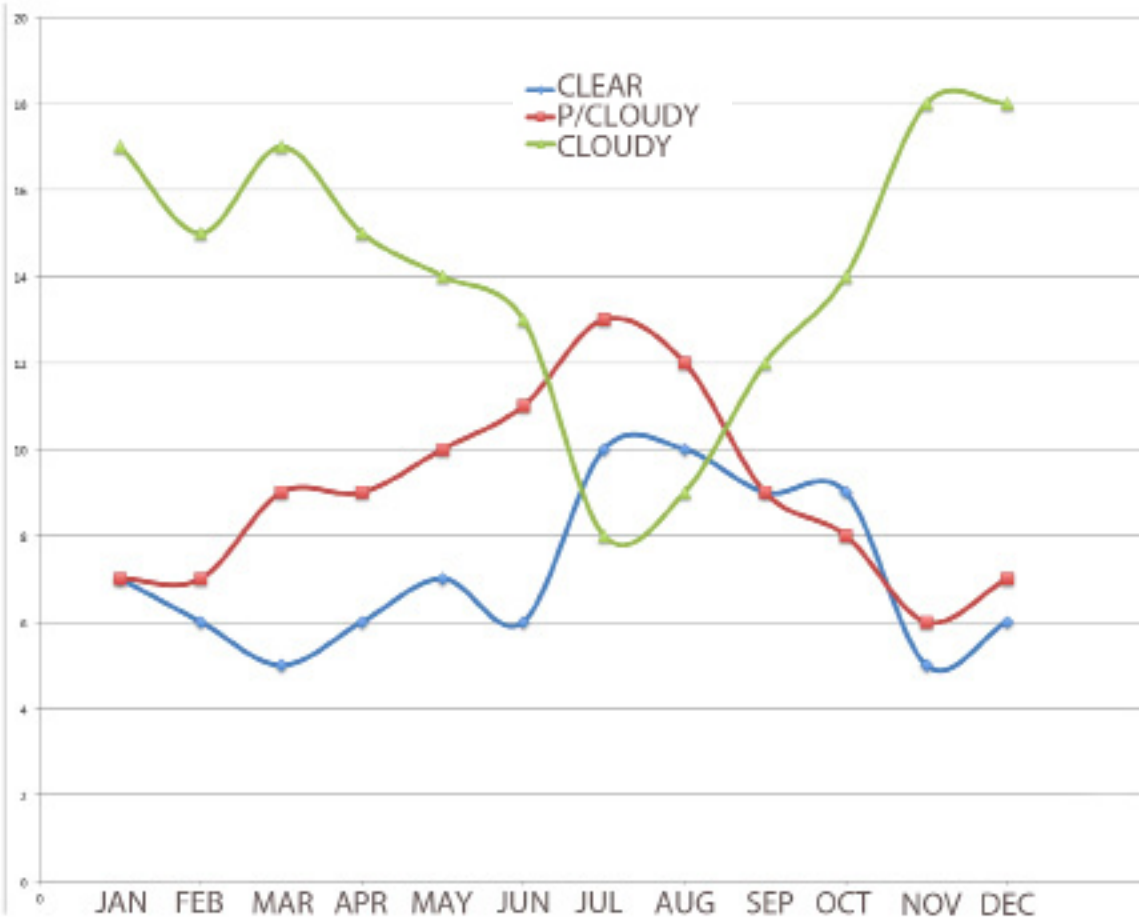
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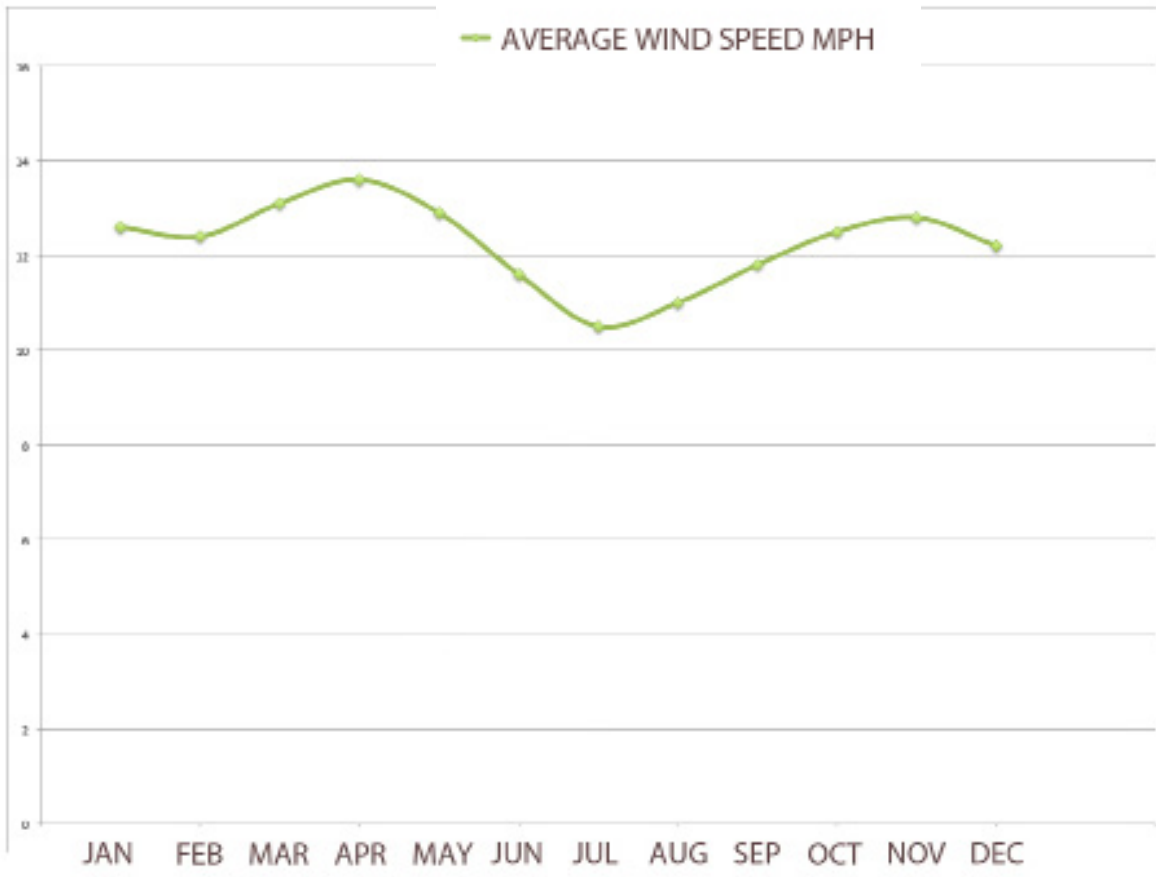
AVERAGE WIND SPEED



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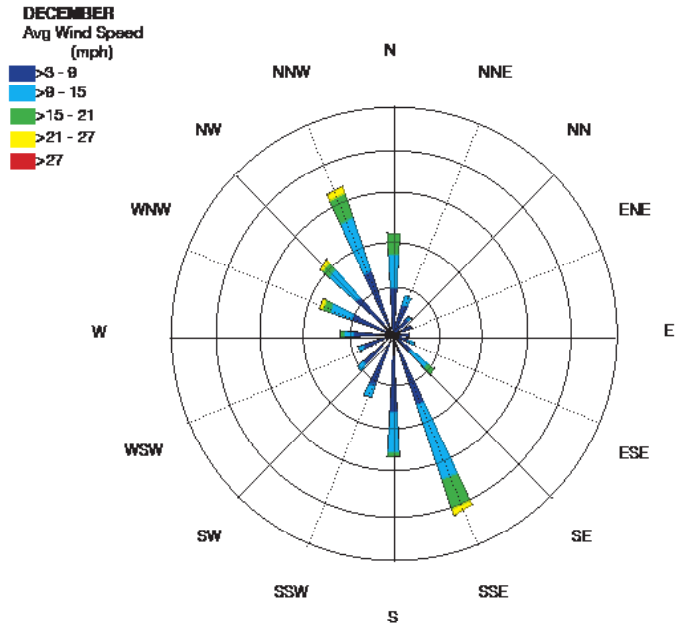
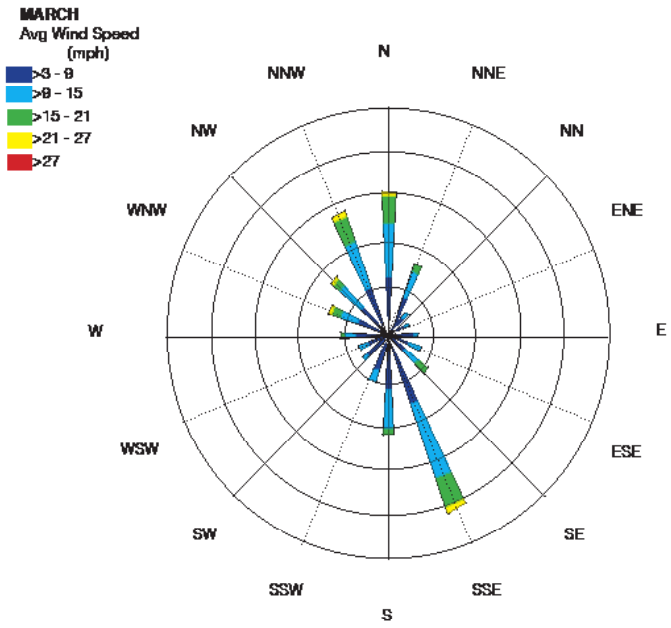
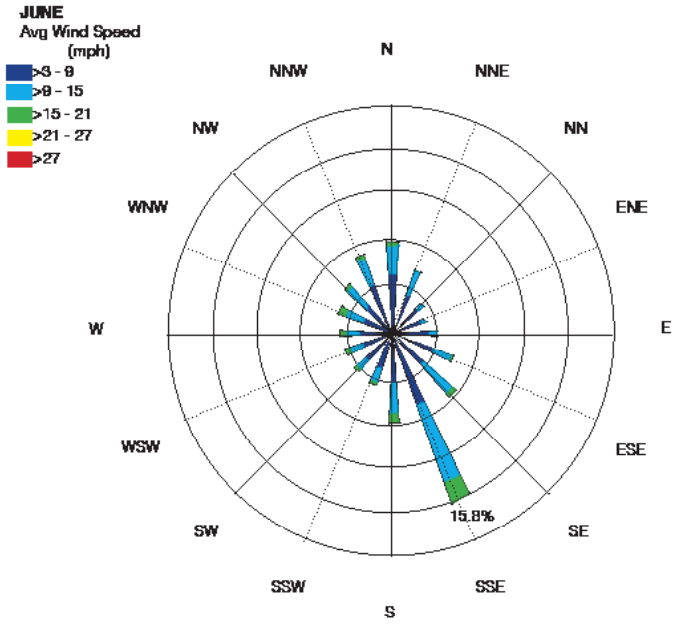
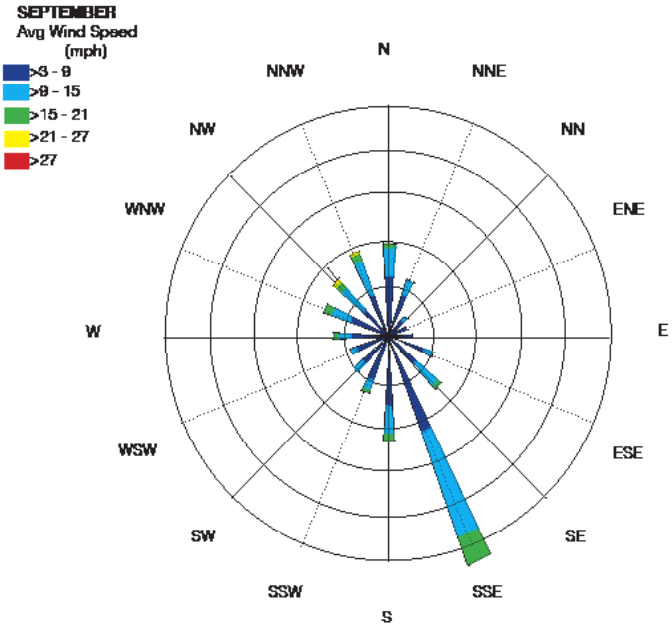
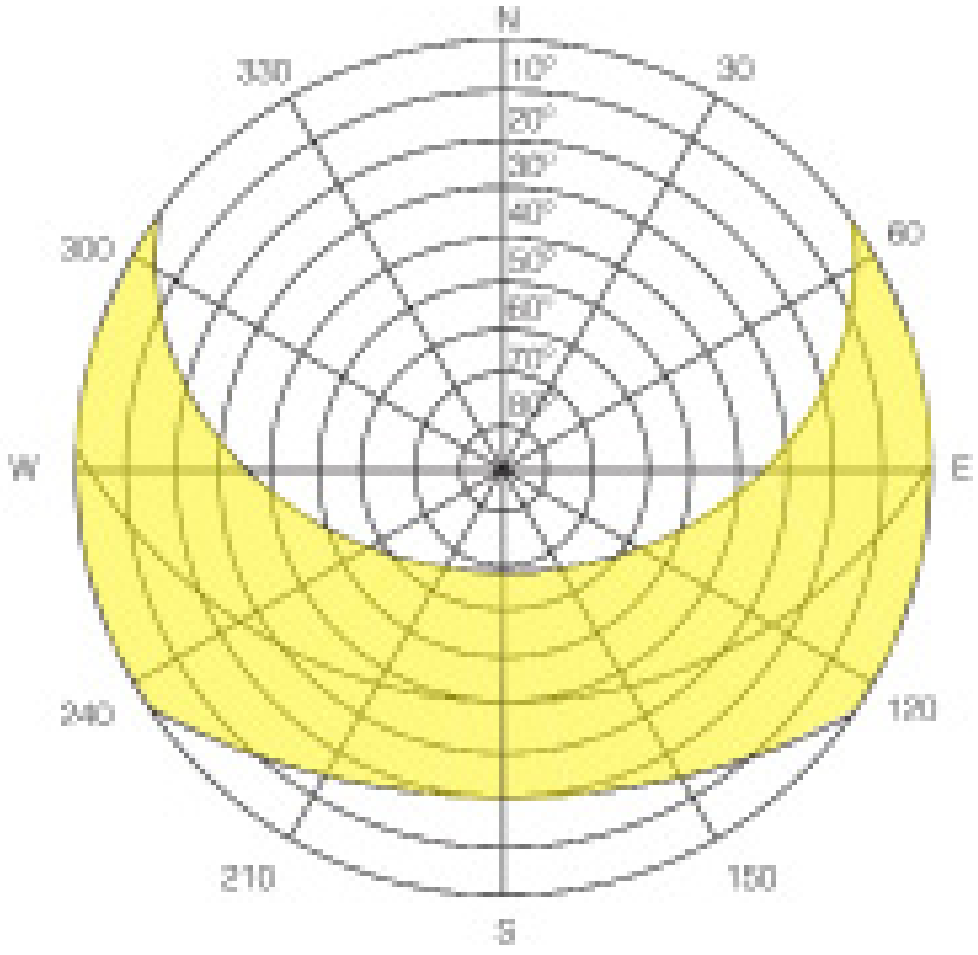




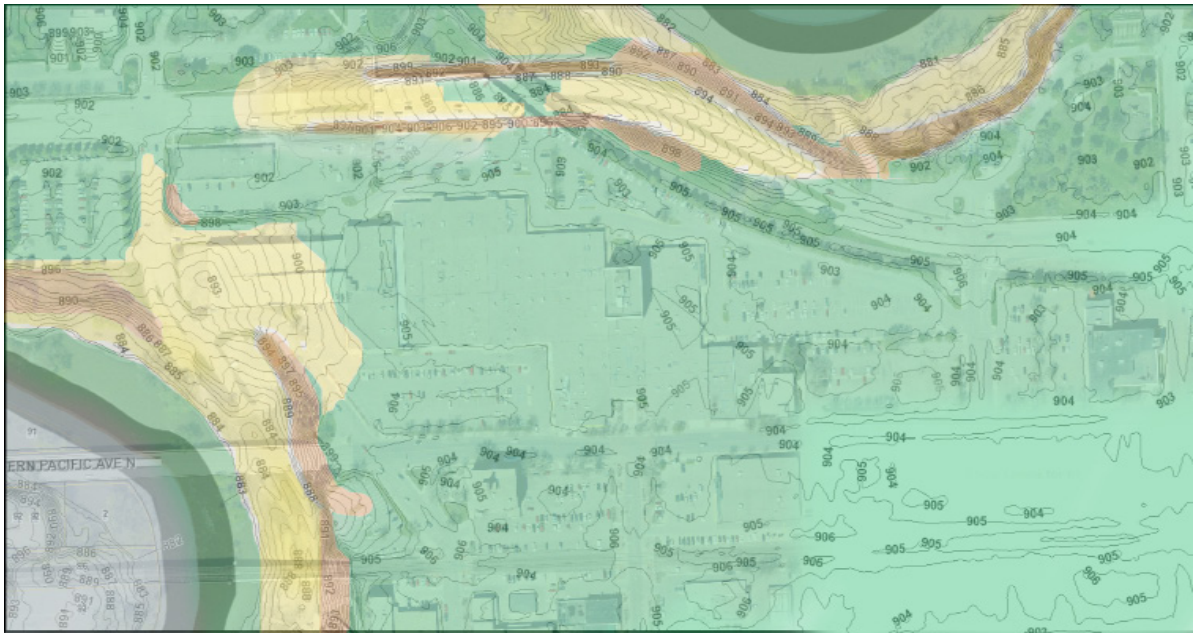






SUN PATH

TOPOGRAPHY & SLOPE



NOISE

CLIMATE DATA REVIEW

TEMPERATURE

It is important to take into account several things from the climate information gathered, the most notable being that Moorhead, MN, has extreme temperature swings from Winter to Summer. With these swings, it will be important to design a structure that has a high thermal resistance from heat and cold, and when possible should take advantage of passive systems for heating and cooling. For instance in winter is will be important to gather direct sunlight into the interior spaces for passive heat gain, while not losing it through the glass when the sun is not shining.

HUMIDITY

The relative humidity stays fairly constant all year, however the actually humidity levels very greatly from winter to summer. In the winter months, materials dry out and often shrink; in contrast to in the summer with more humidity, materials such as wood expand, and may not fit properly with other materials around it.

PRECIPITATION

The area has fairly consistent rainfall averages from early May through to September. With the recent years of flooding, there is speculation that this area may be getting wetter, and for this site it should be taken seriously to not allow water run-off to get into the river. It is recommended to have things such as rain gardens, green roofs, and retention ponds, in order to minimize the site's impact on river levels, as well as keeping pollutants out of the watershed.

The area is also prone to large amounts of snowfall from single storms, such as blizzards. Ways to mitigate blowing snow, through winds screens and shelterbelt type planting, should be investigated in the design stage. The roof structure should also be built to support large amounts of snow, as snow weight from single storms, have collapsed buildings in the area previously.

CLOUDINESS

When looking for passive cooling or solar heating, it is important to note that the summer months are primarily sunny, and that the winter months, Nov.-March, are much cloudier. This is going to be an issue for designing with solar heat gains in the winter, with it being cloudier, as the windows are met to gather sunlight, but on cloudy days or cold nights, may leak heat out of the building. There may be ways to mitigate this heat loss, such as windows covers, adding insulation to the windows when needed. In the summer months, great emphasis should be placed on blocking direct sunlight from penetrating into the building, which could be mitigated by window louvers, or window/roof placements.

WIND

It is interesting to find that the windiest months of the year are in mid spring, and late fall; April and November. April is the windiest month of the year, with winds mainly from the south and strong. As a five year resident of the area, it is interesting that April being windy goes unnoticed, but it is a generally warm and welcoming wind. At its peak in November, the North wind is the most bitter to deal with, it is also the most consistent across all months. Steps to block this from entrances and surrounding pedestrians should be taken to help create a more hospitable environment.

SUN PATH

In the summer time the sun sets much further North of West, and tends to heat up West facing walls by sunset. To mitigate this, strategies to combat it such as vertical louvers, or window placement, should be investigated in the design process. In the winter months, the sun is much lower in the sky, and is out less during the day. The South facades of buildings get most of the solar heat, and this should be taken advantage of for this site. For passive solar heating in winter, as well as getting natural light into the structure for patrons, who most likely have not gotten much sun exposure during this time of year.

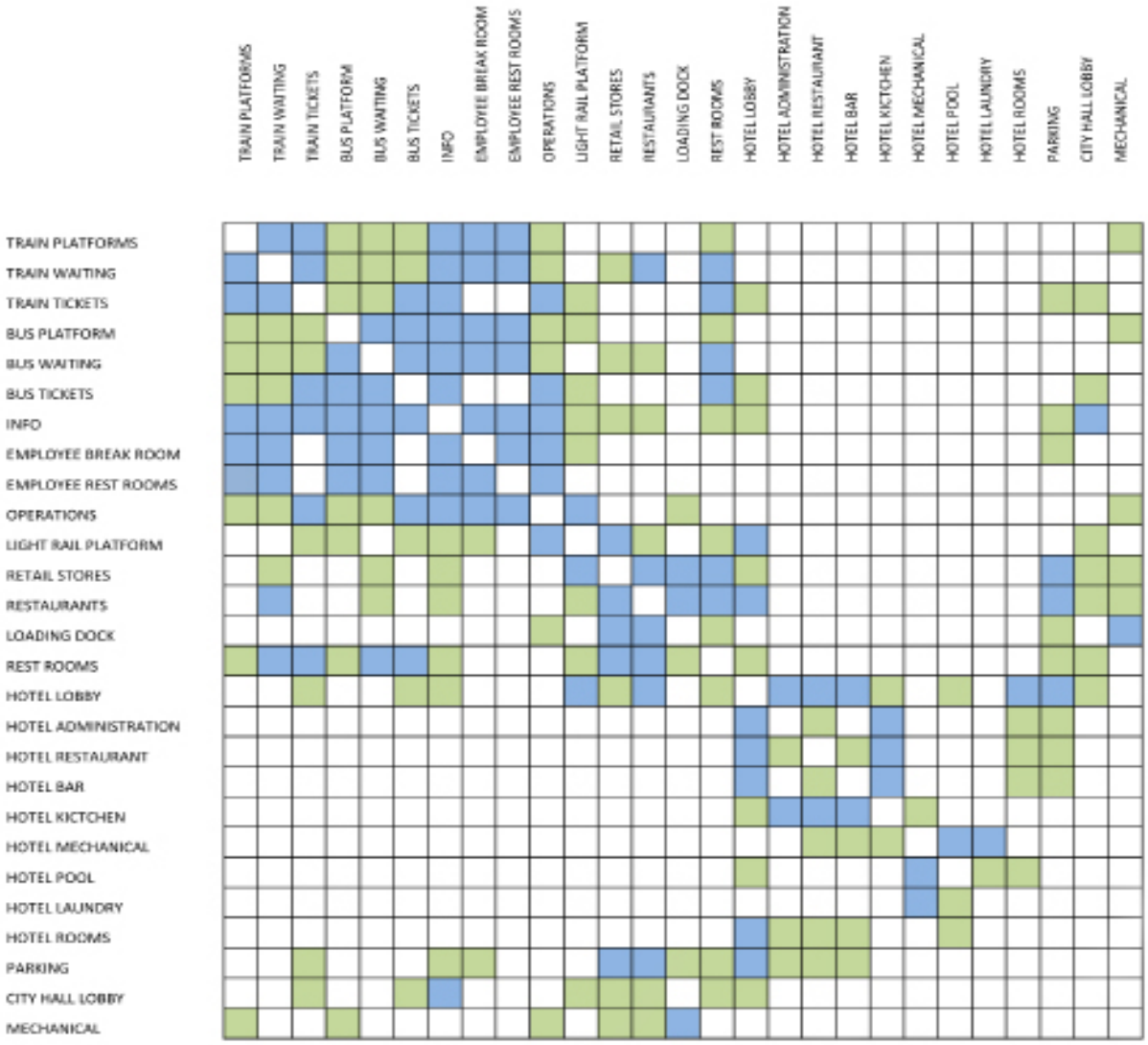
GEOGRAPHY AND SLOPE

Much of the site is on the same elevation that is about 905' above sea level. The areas where there is noticeable slope are adjacent to the river, where a parking garage has been positioned; due to its allow ability to be flooded and not damaged.

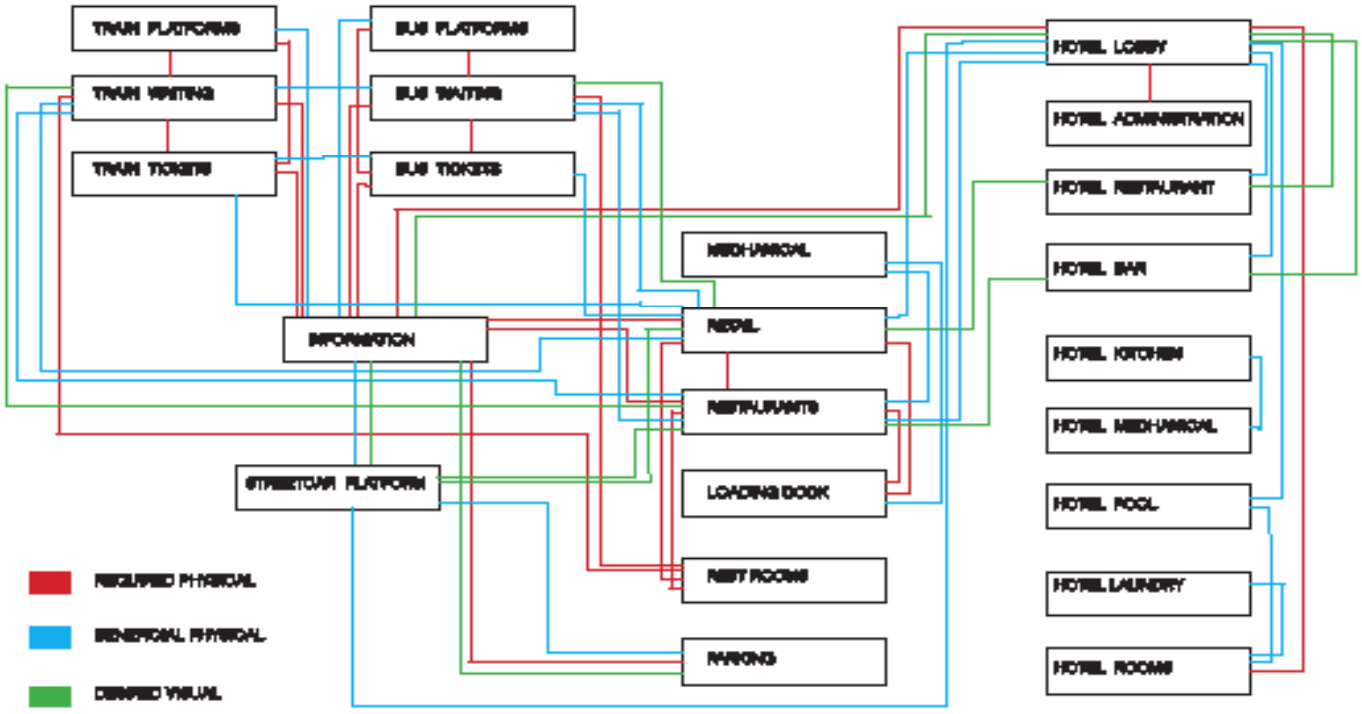
NOISE

Much of the noise on the site comes from the streets bordering it, most notable from Center Avenue to the South. The other main source of noise comes from the train tracks to the North of the site, though it is less used than the ones half a block south, it is closer and more noticed when in use.

INTERACTION MATRIX



INTERACTION NET



SQUARE FOOTAGE ESTIMATIONS

PLATFORMS - 6,000 SF

TRAIN WAITING - 3,000 SF

BUS WAITING - 3,000 SF

TICKETS - 400 SF

INFO - 350

EMPLOYEE BREAK ROOM - 900 SF

OPERATIONS - 800 SF

RETAIL STORES - 25,000 SF

RESTAURANTS - 10,000 SF

LOADING DOCK - 500 SF

REST ROOMS - 500 SF

HOTEL - 30,000 SF

PARKING - 25,000 SF

MECHANICAL - 1,000 SF

TRANSIT STATION PROGRAMMING

The programming for transportation facilities, as according to the Metropolitan Council's document, 'Station Design and Support Facility Design Guidelines User Guide', transit facilities serve two functions: for all patrons to have easy access to transit and providing clear, up to date, travel information for users. This being said, much of the design guidelines are very straight forward and open ended, with the ultimate goal for efficiency, and to have as little impediment, or obstructions, between the user and access to service.

CONTEXT

A transit facility can be broken down into a few components: Path to station, station platform, platform tickets, platform waiting, and loading/unloading space.

APPROACH

Where a station is integrated into its surroundings should be done in a way that is keeping in scale with a neighborhood, is situated near intersections, and should be taking into account immediate attractive features of the area. In my interview with Katie White, who is a current transportation planner with the Metropolitan Council, she put great emphasis on how a station integrated has a large effect on ridership. If the station is perceived as being in an unsafe area, or a pedestrian has to cross a road to get to it that does not crosswalks, it can severely limit the number of riders. She went on to say that the station must be welcoming, and that there must be a gateway from the neighborhood to the station, so that residents know to and want to walk down, towards the station. This has been done in subtle ways in St. Paul already, in the 'Frog Town' neighborhood; they have curb extensions that shorten the distance across a road that one has to walk, in the residential blocks that lead to a transit stop, as well as little sculptures of frogs, and different colored pavements.

STATION PLATFORM

The stations can only be successful if they are open to, and easily accessible, people from all levels of society, and various needs. They need to have universal design, so that people with wheelchairs may get anywhere on the platform, or in the waiting area. Generally as one walks up into a platform area, it is best to have an electronic ticket machine, which is to be located within site of the loading area, and the entrance to the station.

WAITING

The waiting area should be just off of the Loading space, highly visible to the transit form, and to users walking up towards it. The seating area should be well lit, and when possible, take advantage of the passive solar heating in colder months, and passive shading from either plantings or structure. The materials should be of sustainable origins and be selected so that they can age consistently, and be easily replaceable and cleaned. It is also required that platforms be able to protect against: Rain, snow, wind, and sun.

SIZE

The sizing of the station should be based upon several factors such as the average maximum number of users at peak times, and the average wait time. These can be used to help determine the size of the structure, how much seating could be provided, if the facility warrants restrooms, and number of exit paths.

PLATFORM PLACEMENT

The type of transportation intended for a station has a large affect on where the station is placed and then oriented.
Generally if the type of transit is one that runs down the center of street or highway, such as local rail lines, or express busses, the platform is located in the center between to tracks. This is done to take up less space, as the otherwise two platforms, are combines, having trains going different directions sharing the same platform. If the transit route goes along the side of a major road, or goes onto a highway, the station platform is located on the side of streets and the station serves only one direction of the transit line.

PARK AND RIDE

Park and Ride facilities should be developed in areas that are less dense, and generally where functions of the community are more dispersed. People living in and around these areas, use primarily the automobile to get around, and if commuting toward an urban center, Park and Rides can be extremely popular. The site can be located at an intersection of a freeway/highway and a local circulator transit route, and can have convenient access by cars and buses. They should have good visibility from nearby highways, located on often-congested roadways, and be on the inbound side of traffic.
These facilities commonly consist of: a parking structure or lot, waiting room, and the load/unload area. Depending on the amount of riders, the waiting area can be designed with seating, bathrooms, and transit information displays. The sites may also be designed

LARGE TRANSIT FACILITIES

Transit facilities that serve multiple routes, and that have different modes of transit, bus, train, bike, have a more complex set-up, and have the focus on fast ways to navigate ways between different lines. Generally these are structured in a way that is focused on the users path through the facility, which are going between transit lines, and off to their sides have retail and restaurants for people with longer waits. These often consist of different sections, such as a shared concourse type waiting area for several different modes of transit, the platforms for the various forms of transit, and other non-transit related uses like food and retail.

INCORPORATION OF THE COMMUNITY IN DESIGN

It is recommended that 0.5% of the cost of the project goes towards designing an art installation. This art installation can range from decorative tiles, a fountain, and sculpture, or even the design for parts of the transit structure. In downtown Rochester MN, the glass walls on the back of the bus waiting structures, were designed as artful splashes of color on otherwise modern, non-descript, structures. These are panels of glass that have various deigns in them, and react to direct light from the un differently depending on the time of day, and at night they light up with differently colored L.E.D. lighting.
For this to work efficiently and safely is it important to have sight lines that let a pedestrian where the station is, how they can safely access it, and how well they can see who is also waiting at the platform. The platform area must be easy to surveillance, and have a great amount of transparency; in order make sure users can stay safe.

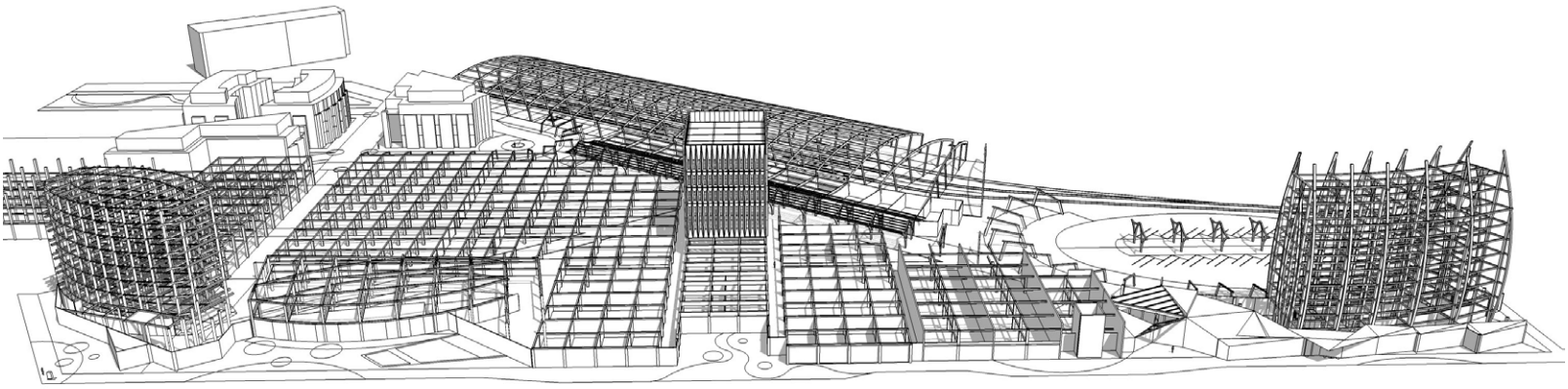
DESIGN SOLUTION

PROCESS

FINAL DESIGN

DIGITAL PRESENTATION

INSTALATION



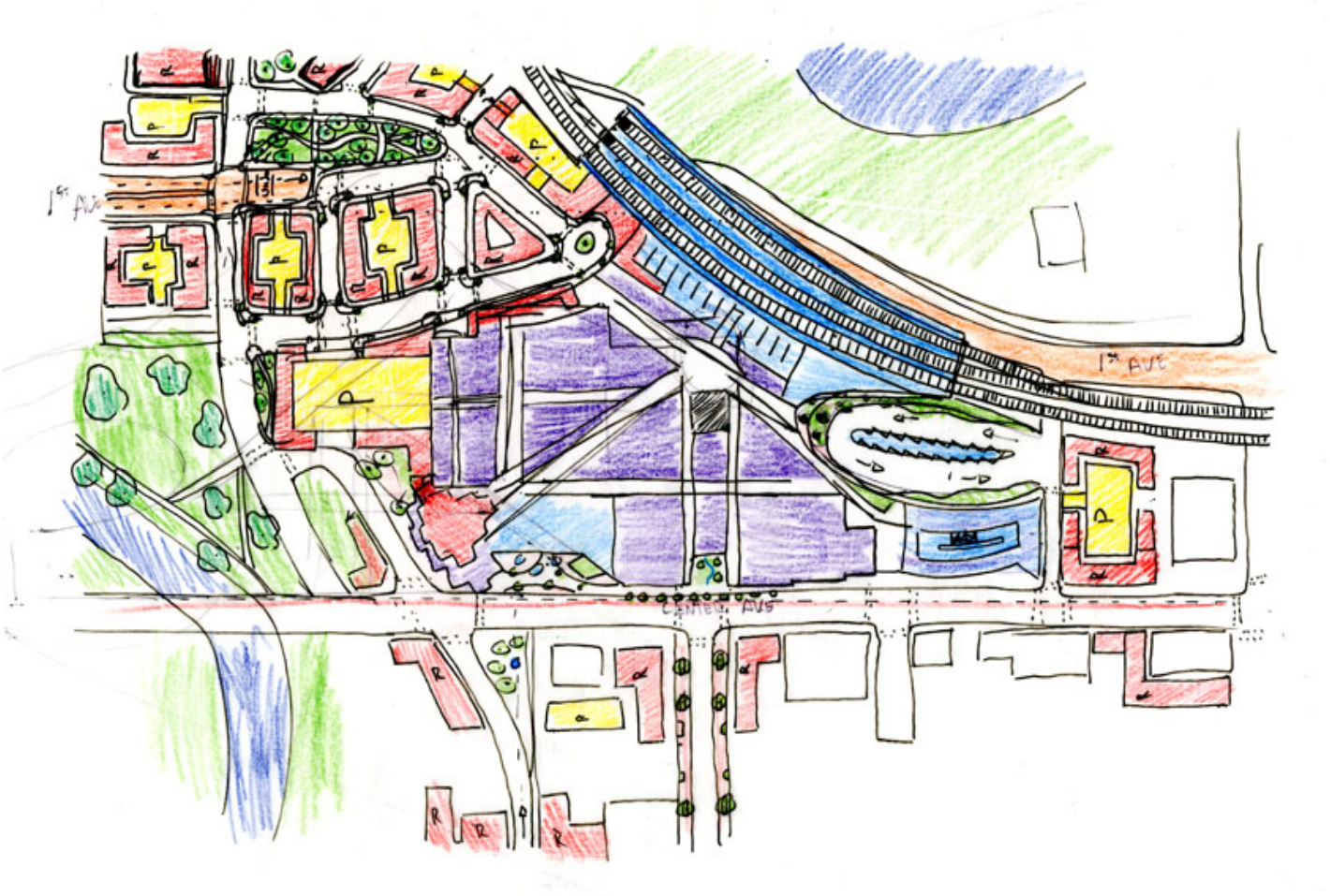
PROCESS

PROCESS

The project began with trace paper, overlaid on top of satellite images of downtown Moorhead. The sketch above shows the very first design diagram of grouping together functions and uses.

Residential was kept near open and green public spaces.
Transit was located along the existing Amtrak tracks.
Retail remains the large use of the mall.

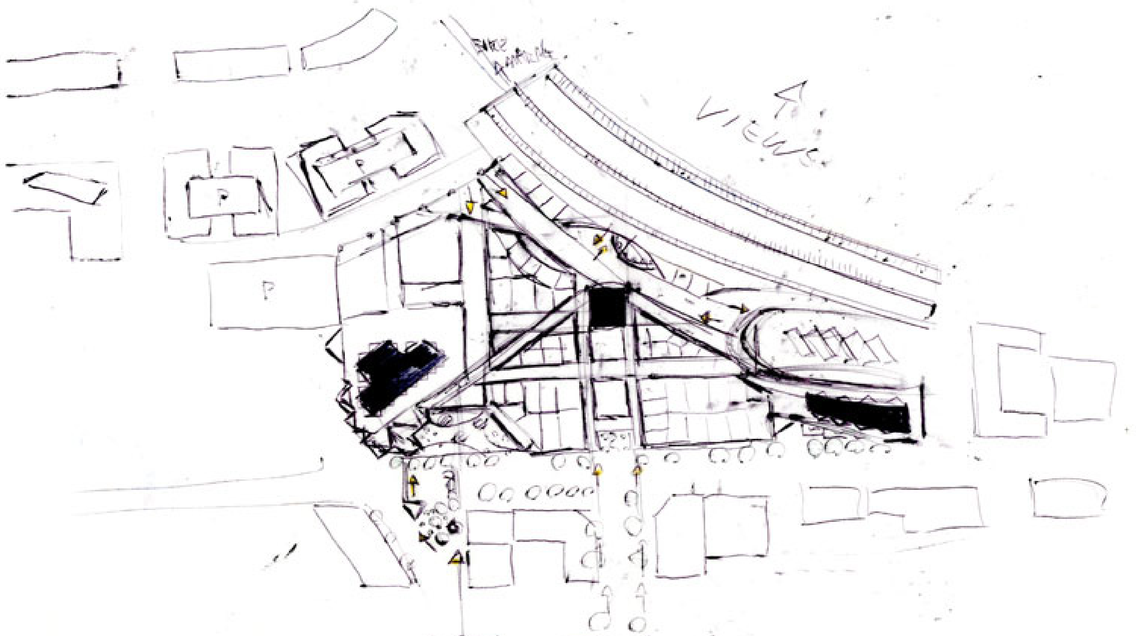
Lines were then drawn between these new focal points of the mall, with the idea that these lines would be turned into new corridors.

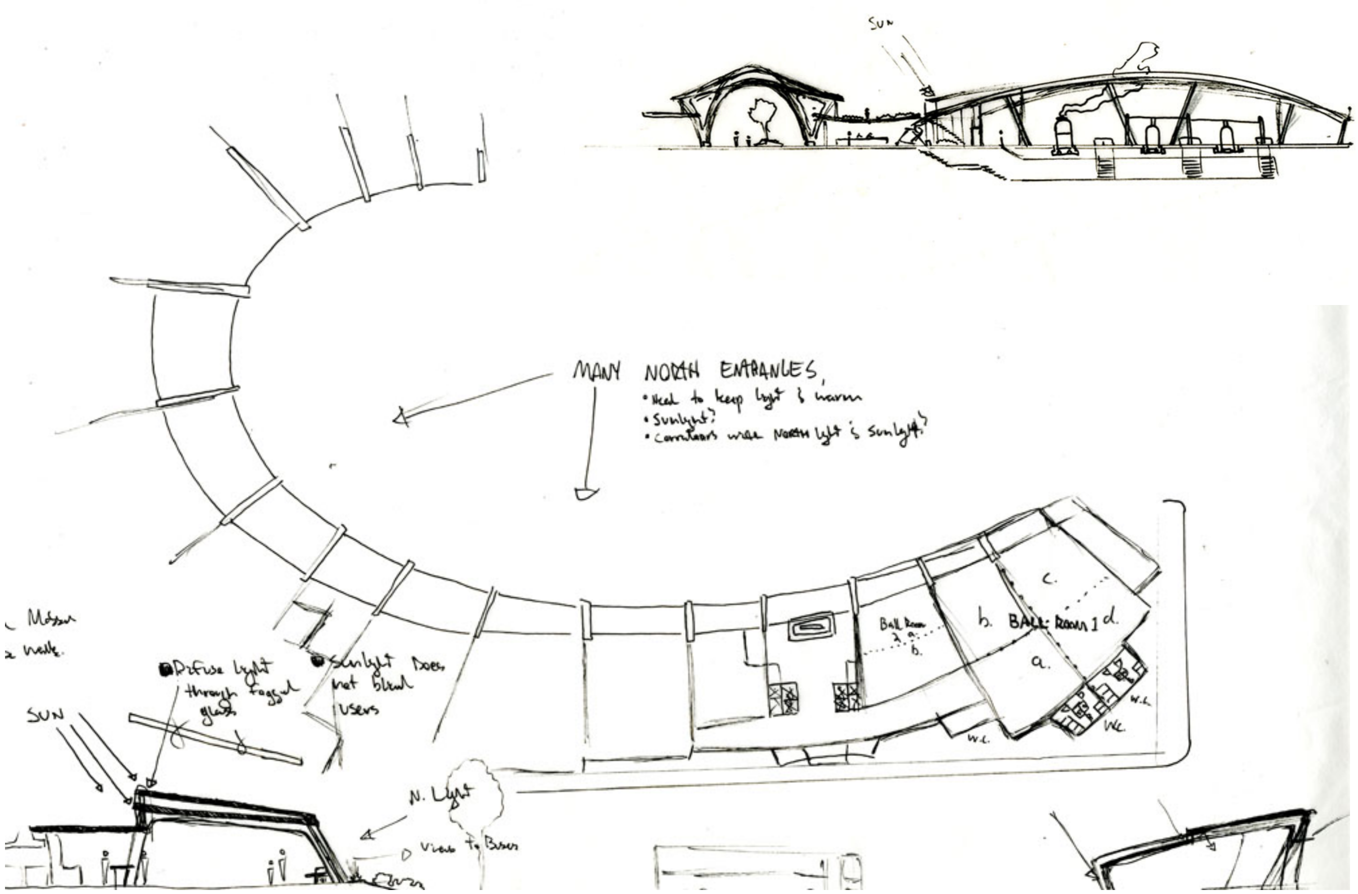


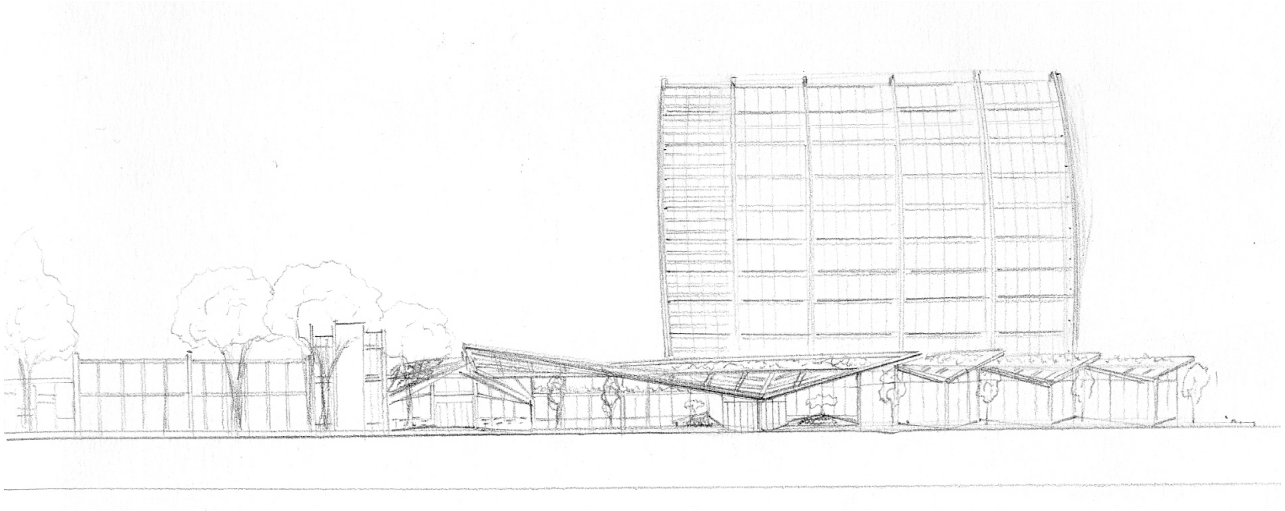
After working on bubble diagram type drawings, I worked on slightly more detailed plans to develop the more finalized image of the new structure.

Here there is a large residential development in the upper left, replacing existing parking lots with apartments.

The rail line has been expanded, and the bus depot has taken shape.

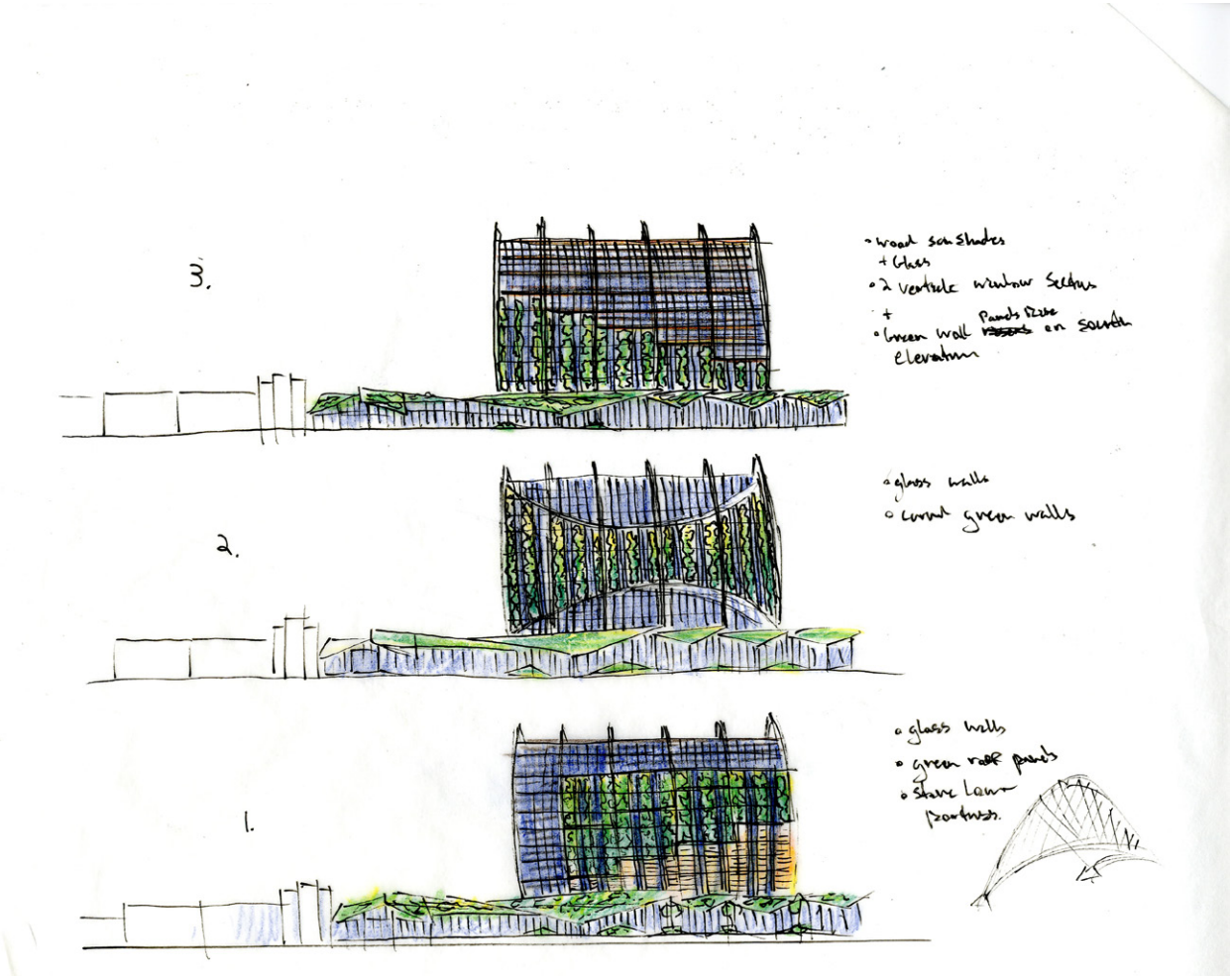

VIEWS

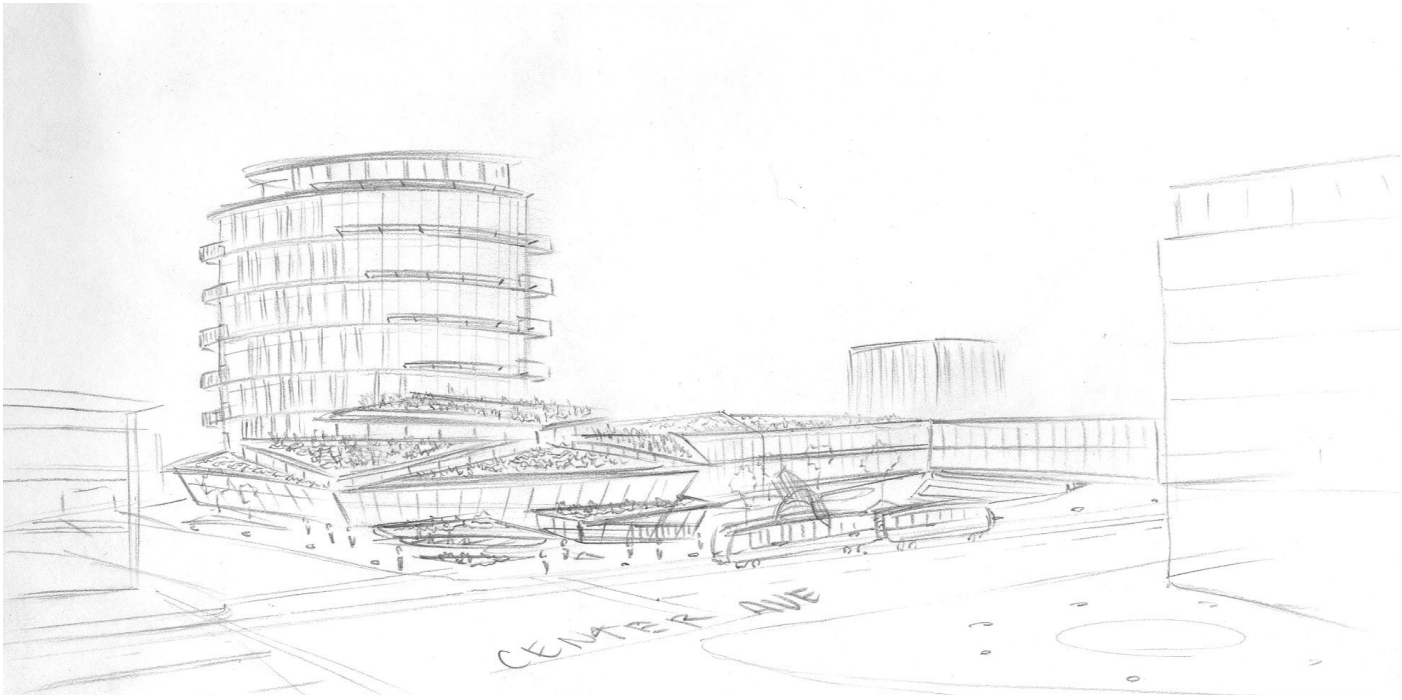

SUN
MANY NORTH ENTRANCES,
• Need to keep light & warm
• Sunlight?
• Corridors w/ NORTH light & sunlight?
BALL ROOM 1
a.
b.
c.
d.
W.C.
Diffuse light through fogged glass
Sunlight Does not blind users
N. Light
View to Buses



After working in plan, I began working out the structure in section and elevation, to better understand what the architecture is interacting with.

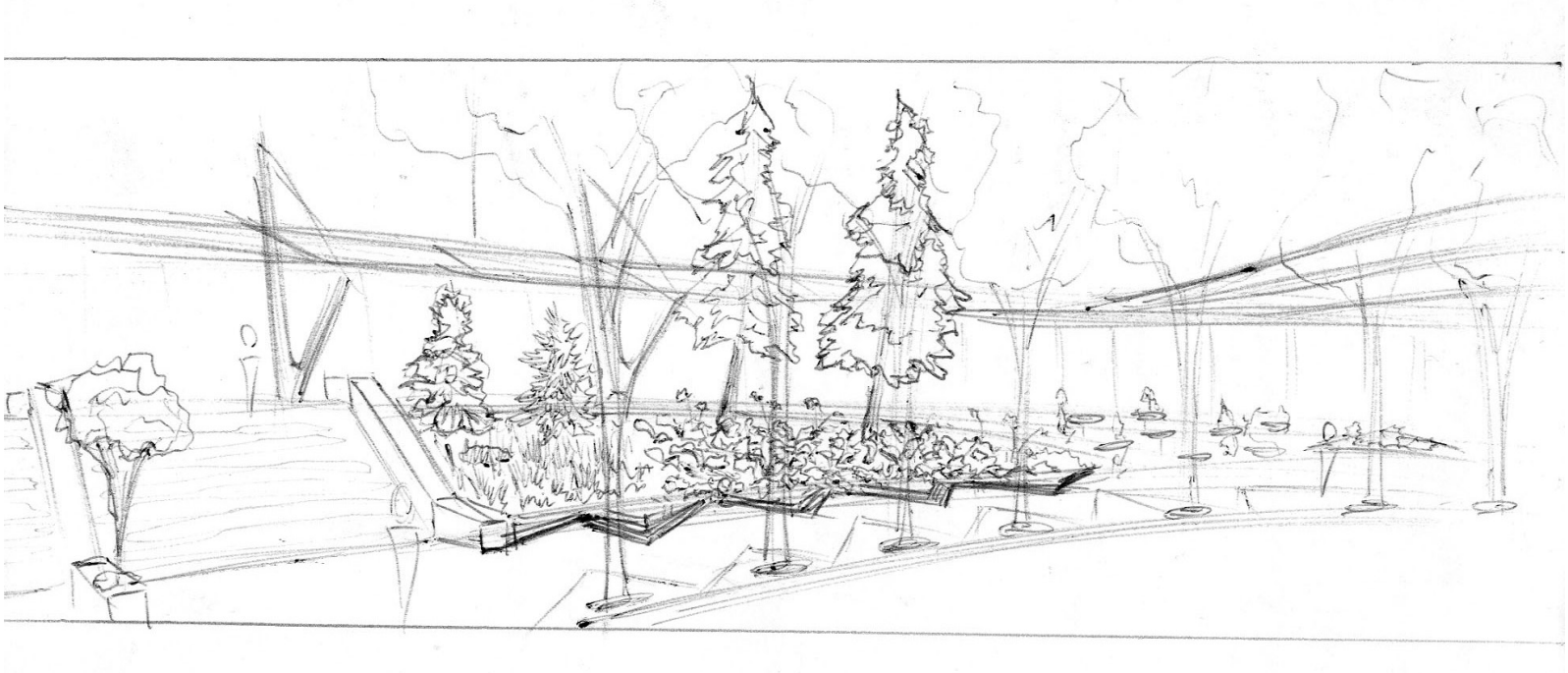
Above and below, are elevation studies for the hotel green wall. The final design chosen was option three, which featured vertical lines of vegetation, alternating with glass.

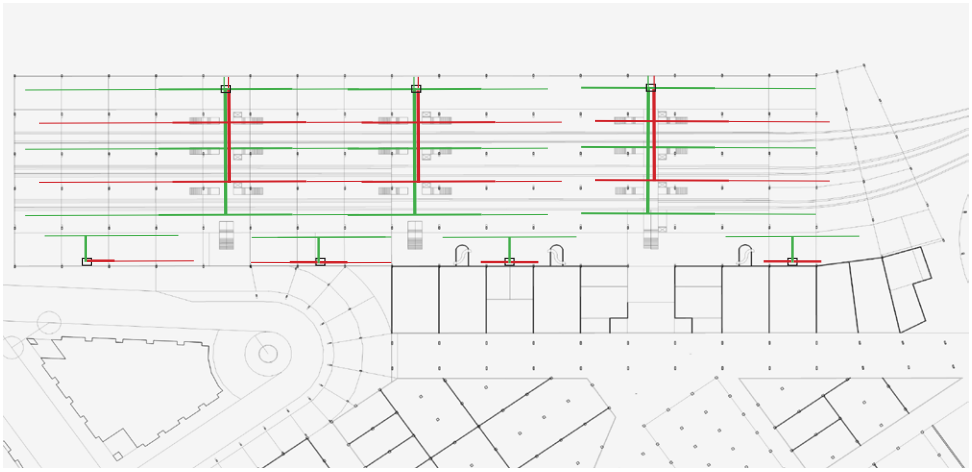




PERSPECTIVES

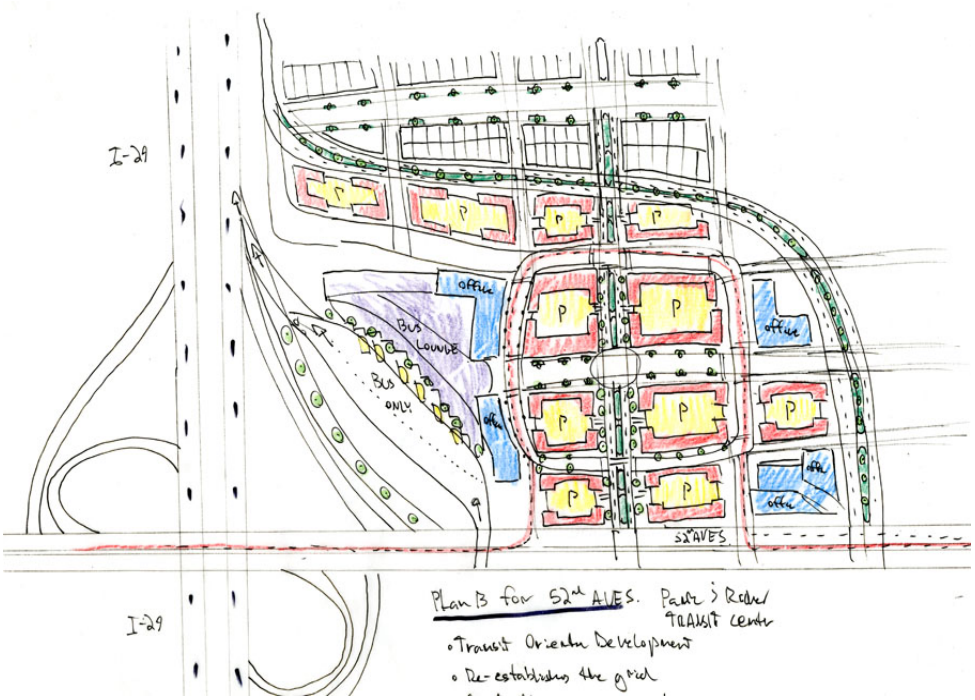
After working in sections and elevations, I began working in perspective to flesh out more of the spaces in the project. Above is a view of the primary apartment building on the site along Center Ave, and below is a sketch for the community space surrounding the Bus Depot.



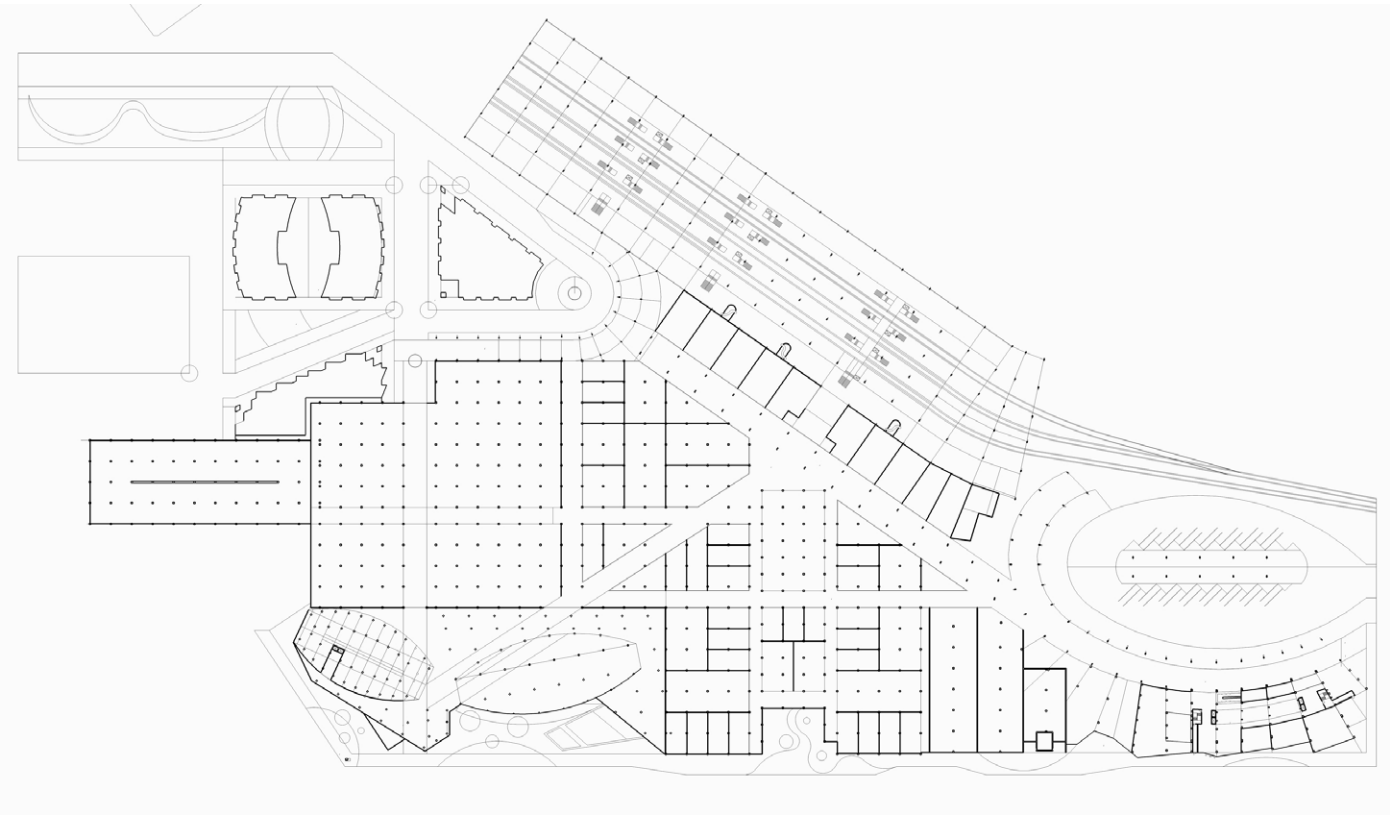


Above is a diagram for the HVAC system within the train station.

Below is a diagram for a proposed park and ride facility, that is in the form of a transit village. Apartments line the outer walls of parking structures, in a new walkable district, with a bus station nearer to the interstate for rapid bus trips to downtown.



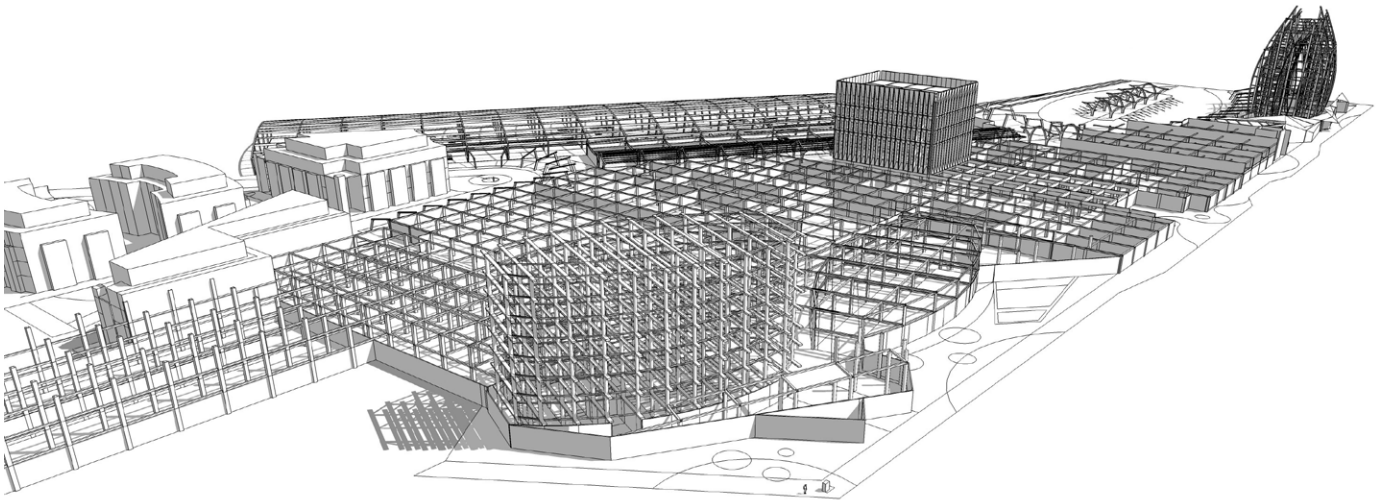
FINAL DESIGN

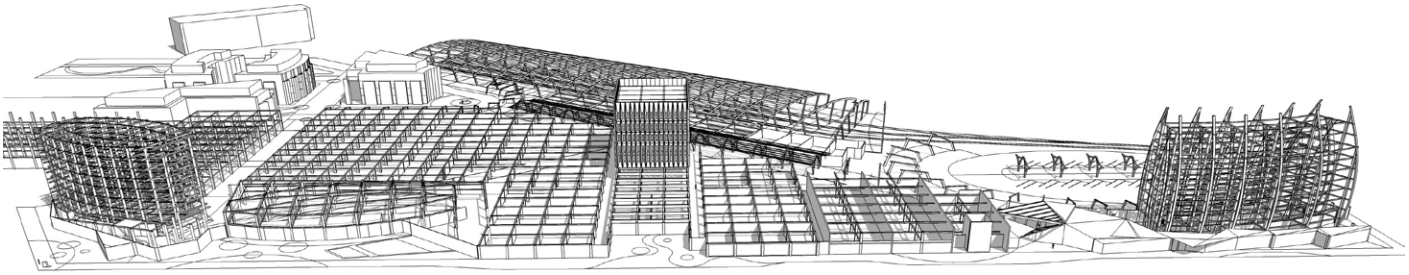


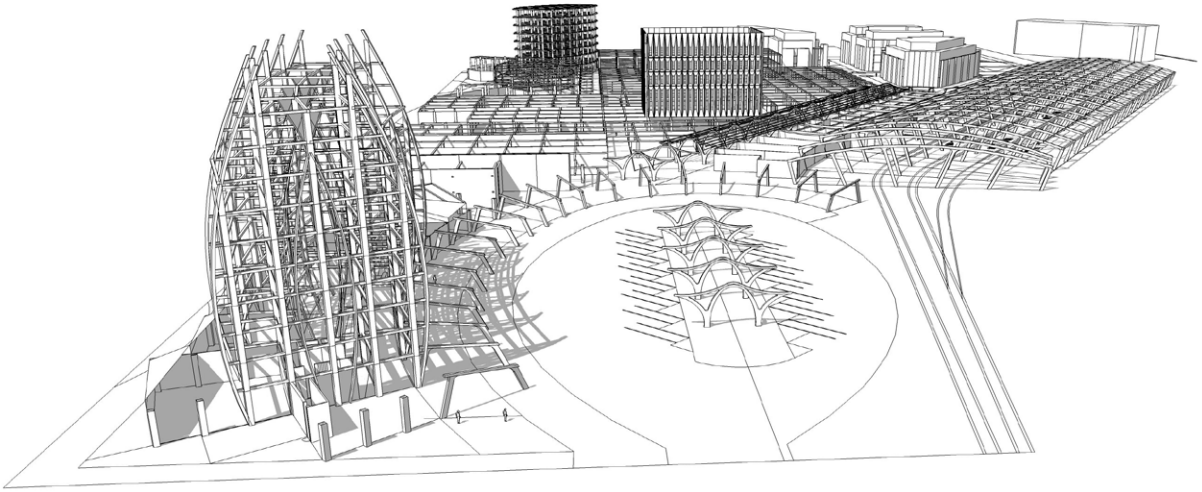
Solution:

My proposed solution to the depopulation and loss of interest in the downtown Moorhead area is to erect a transportation center built around the existing Moorhead Center Mall. This proposal will provide a catalyst for new urban growth within downtown Moorhead by adding residential units and urban venues to explore. By designing the new center with primarily pedestrian ideals in mind, and developing free of the parking lot dilemma, this allows us to begin to move toward a human scaled architecture that responds to people.

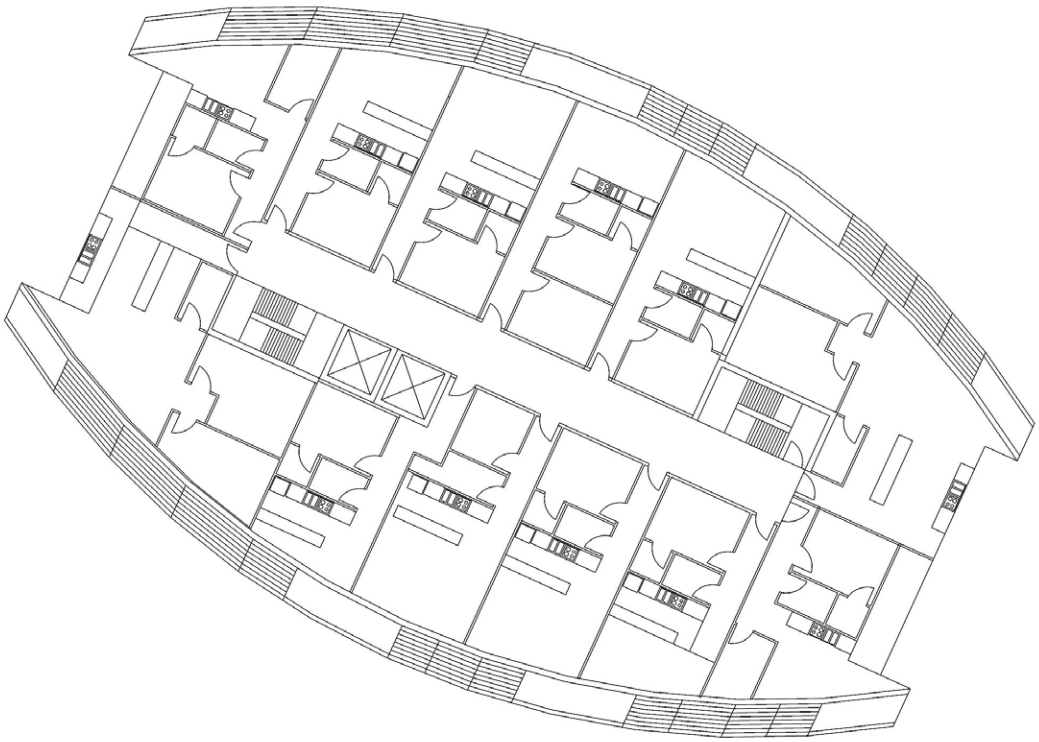
This thesis explores the opportunities and implications of modifying the modes of transportation within Moorhead and its effects on urban growth. Instead of establishing new development on the fringes of the city, this will seek to reinvigorate the centers of the two cities with a vibrant, active and pedestrian based center.







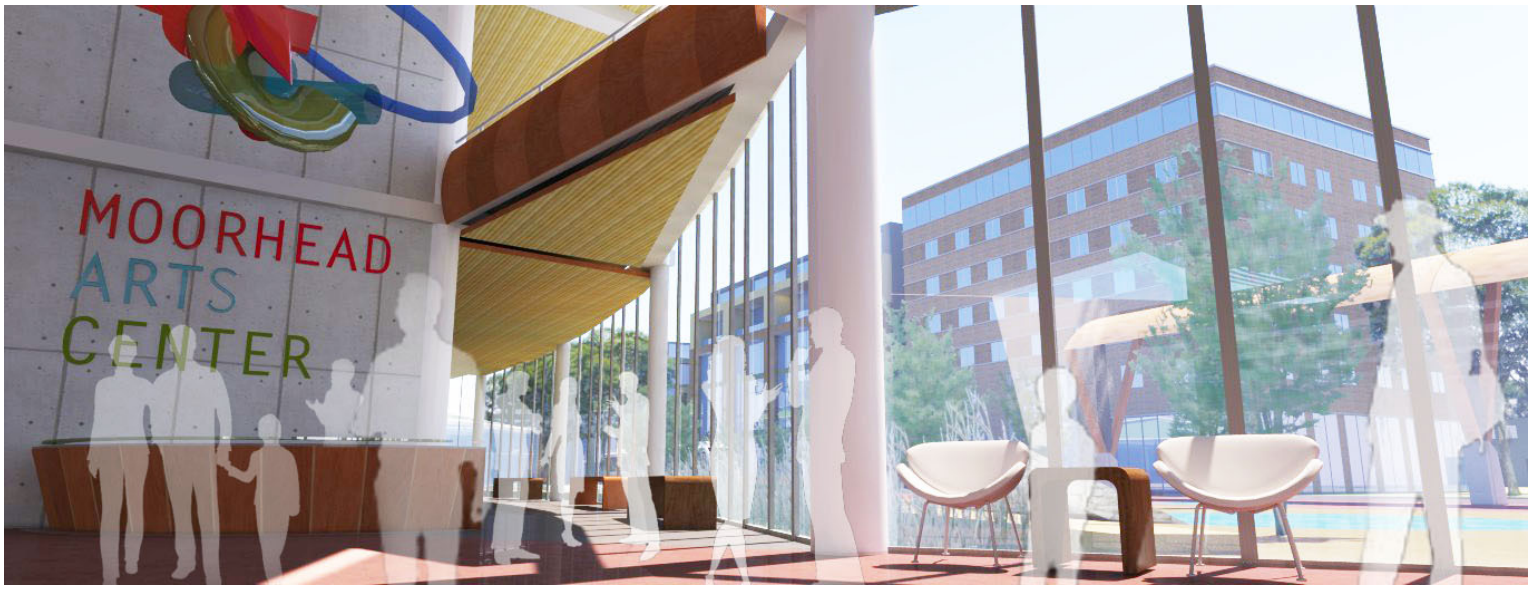
APARTMENTS



Over the past decade, interest in urban growth has increased exponentially, as renters enter the market and choose to live in urban areas. For Moorhead to compete in the emerging new market, more options for housing downtown should be considered. This solution proposes more residential development in the area, focusing on offering housing options for a wider audience. Here, the apartments are set in the center of the community, located adjacent to the bikeway along the river, parks to the north, and new play areas in the urban center.

PUBLIC SPACE

The urban spaces in this proposal are open to the public, with trees, benches, and fountains acting as slight levels of enclosure, so that they are still in the public eye, but distanced from the main flow of traffic. These interventions allow people to sit and enjoy areas around the edges of the spaces, where one can mingle, sit, read, or people watch.



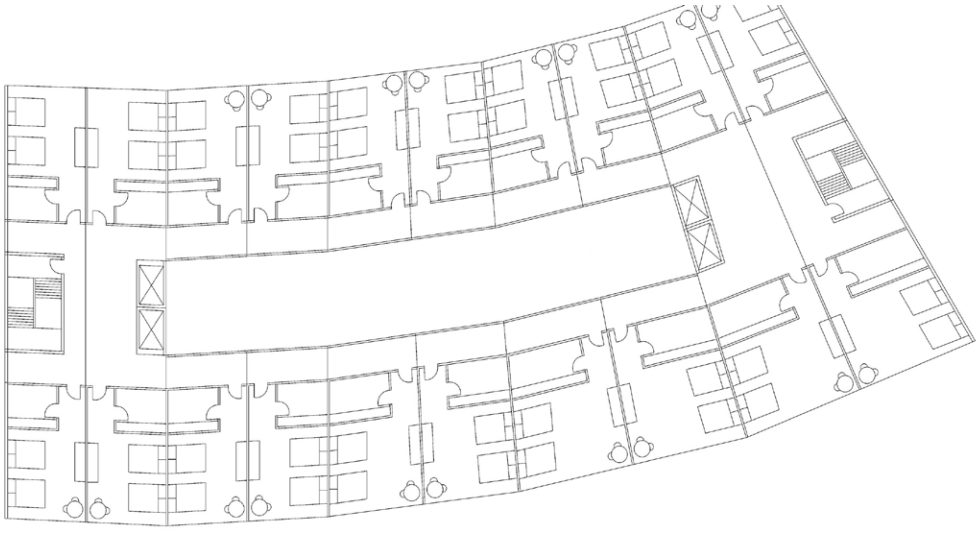
MOORHEAD ARTS CENTER

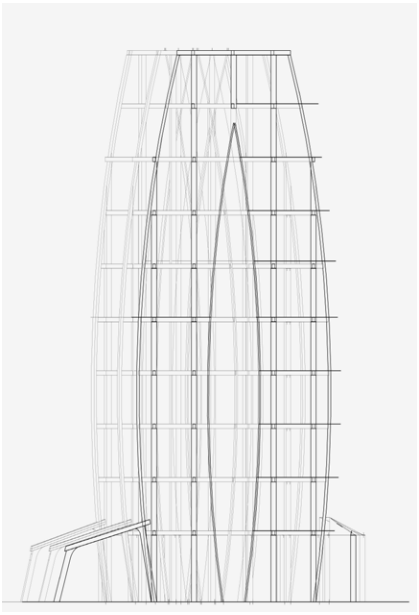
The Moorhead Arts Center is located along Center Ave. and offers the community an exterior view of selected works along the outer corridors of the museum. The transparency between the architecture and the people passing allows for a visual interaction of exterior and interior to take place.

The location for the Moorhead Arts Center is between the Hjemkomst center and the Rourke Art Museum, and acts as a bridge between the two separated established cultural institutions in downtown Moorhead. Here, the community, and transient guests, can observe and interact with the new exhibits and enjoy what the community has to offer.

HOTEL

Located adjacent to the bus terminal, and visually from the train station, is a hotel. This hotel is for guests of the community, bringing in a wide audience, such as visiting college prospects and their parents, business travelers, families visiting relatives, and vacationers. This structure consists of arching exterior beams, with a conventional steel girder grid allowing for an atrium to have natural lighting down to the first floor lobby, which boasts exterior green walls.





BUS DEPOT

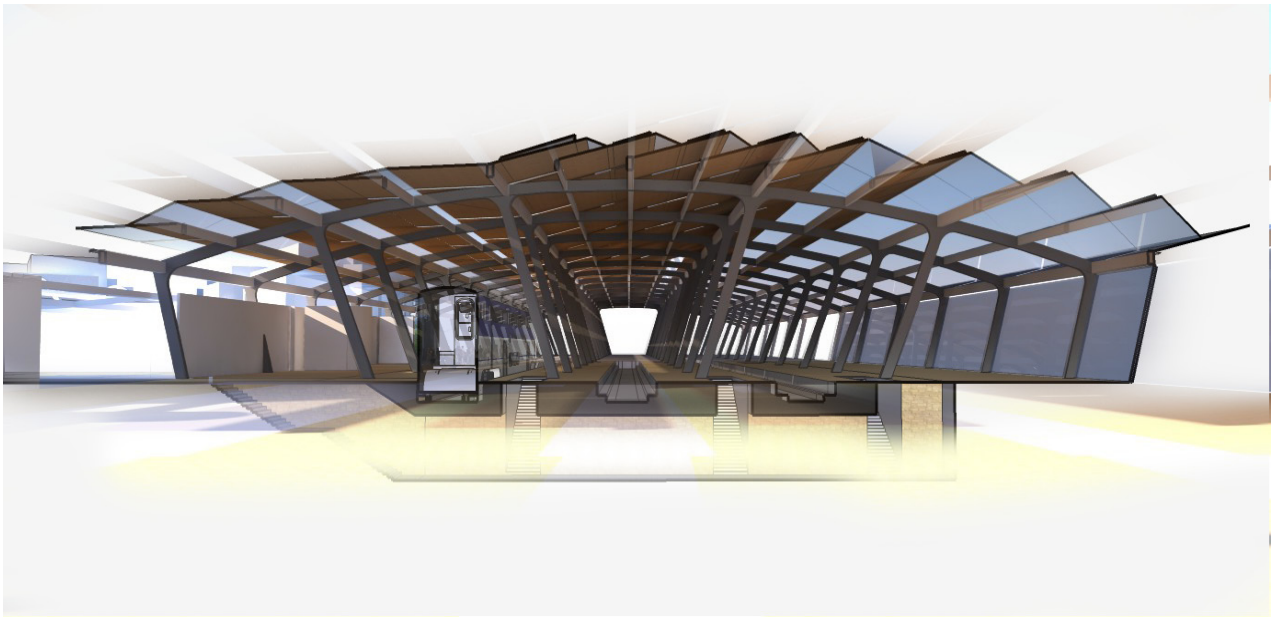
In order to handle an increase in urban living and working, there is a need for a form of transportation that allows many more people to live and work in the downtown area. Featured in the above image, the proposed bus terminal allows people to commute, and visit the Fargo-Moorhead area. The proposed Bus Rapid Transit system would be able to transport people in mass, quickly, over key hours of the day, into and out of the cities.

This bus depot is surrounded by a plaza where people can relax and enjoy the surrounding gardens, and views of the river.

RETAIL / TICKETS

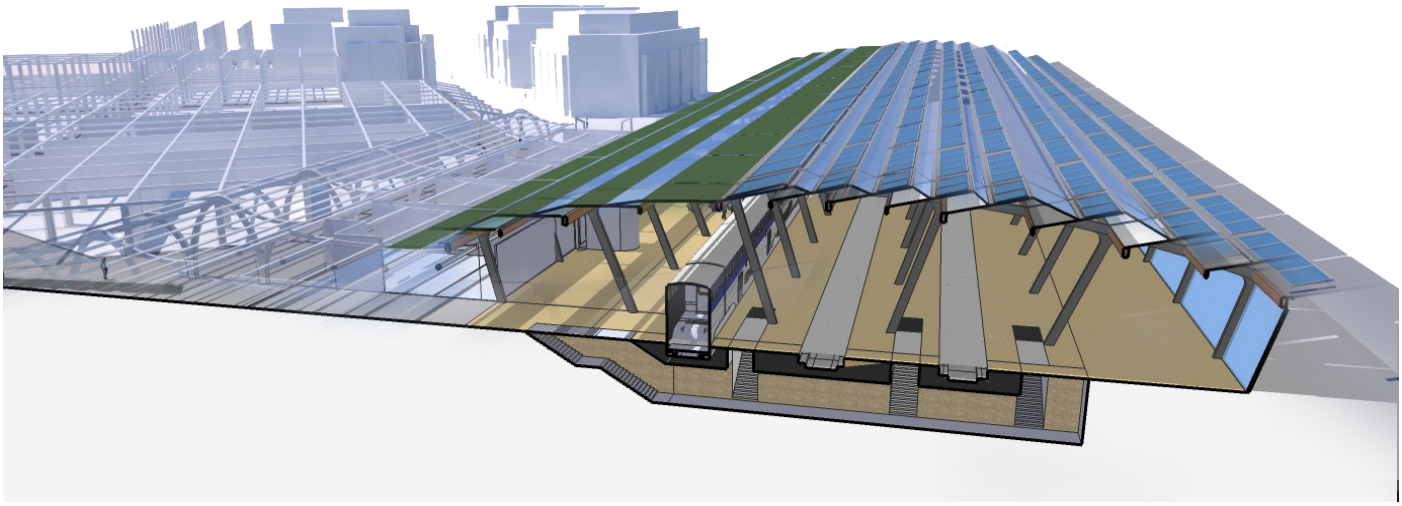
After the mall redesign, many of the stores will continue as retail shops that Moorhead residents and visitors can shop at. A balanced mix of uses for the proposed structure, including commercial, residential, civic, and cultural, as well as providing venues for food and entertainment, will create a vital, meaningful, and enjoyable urban center for guests and the community.

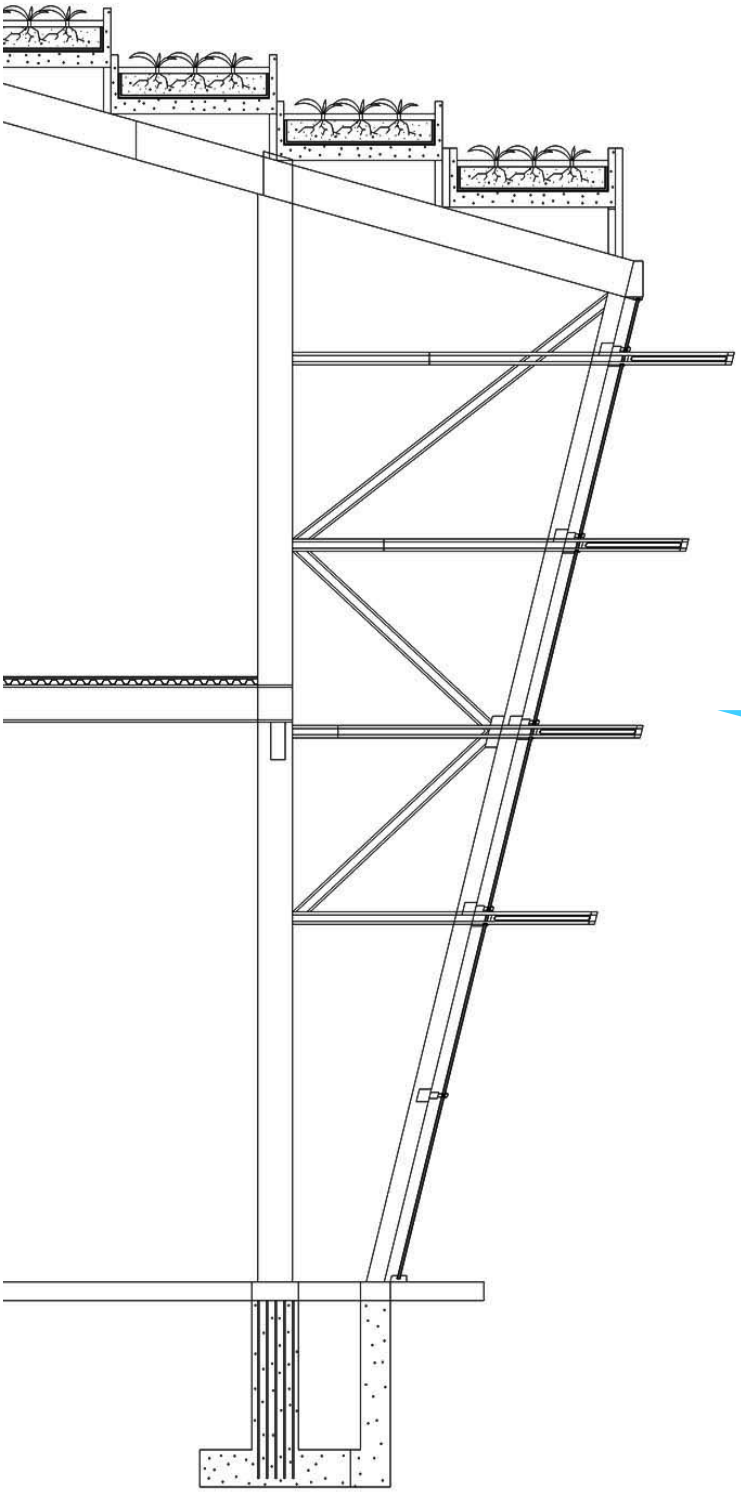
Shown here is a new retail corridor stretching from the bus depot, and along the side of the new train station. Here people may shop at the nearby stores, or purchase tickets for a weekend trip.

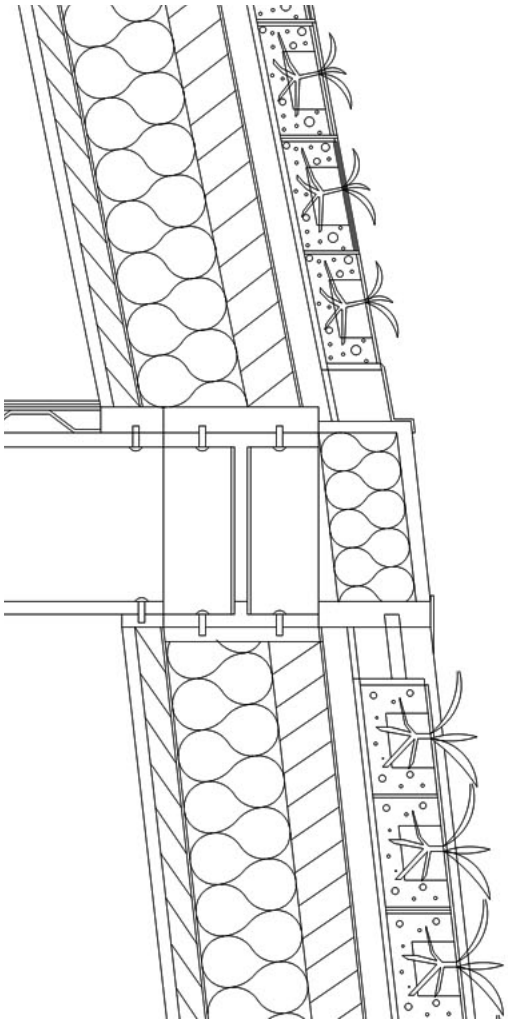


TRAIN STATION

The Red River is largely visible from the train station, where the River bows, and is visible down two directions; approaching and receding. The train terminal is located North of the existing mall, over the current Amtrak tracks, which would be expanded and allow for high speed rail access. The station is open and wide, and features an arching rooftop, allowing for the dispersal of train exhaust, by moving it up and out of the station. The passenger lounges supports North-facing views of the river which allow natural light. This Northward orientation provides natural shade in the summer, avoiding large increases in temperature. The passenger lounges flanking the terminal provide spaces for travellers to situate themselves and their belongings, and relax in a comfortable environment between departures.

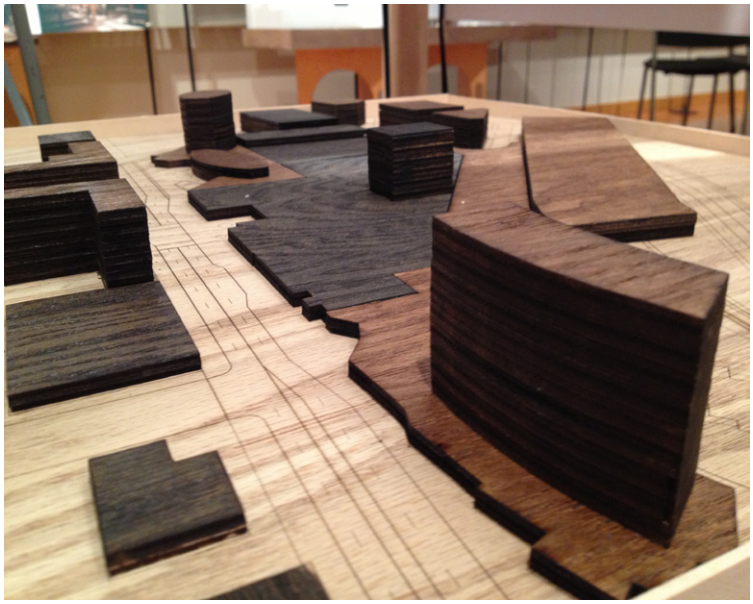


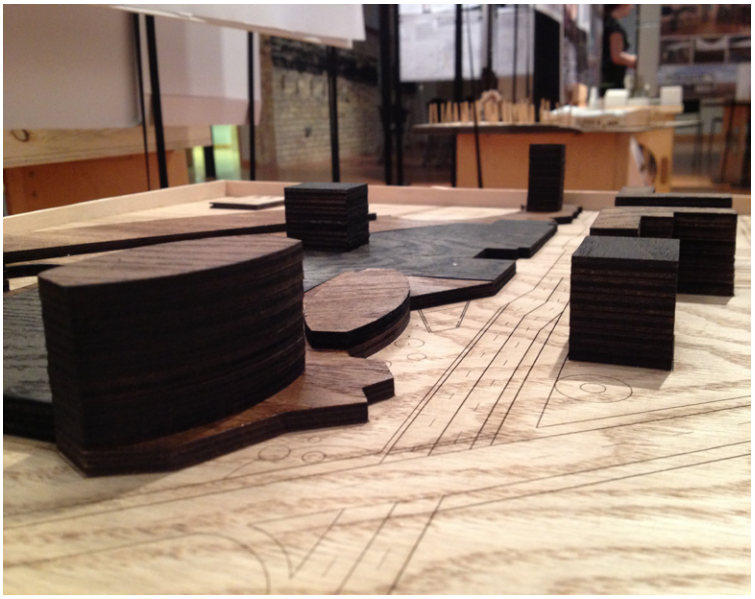




In the image above, the green wall panels are designed to be easily assembled and replaced, making them easily manageable. The green walls are offset by horizontal louvers that extend along the curve of the wall, as the building curves to the north. In the planters, wrapped growth medium is placed into a panel on the side of the building so that plants can flourish.

Left shows a section through the curtain wall, where solar panels can slide inside at night, or in inclement weather.





THESIS BOARDS

EMERGENT URBANISM:

Architectural Placemaking in Response to a Minnesota High Speed Train Network

Background

In the late 1960 s, Moorhead was hit hard by urban renewal. The downtown area lost not just buildings, but an urban scale, replaced by parking lots and enlarged building setbacks. At the time, it was thought of as progress; the older buildings needed expensive maintenance and new looking fa ades every few years, to keep up appearances as places to do business in the modern world. Many of the previous buildings that were torn down were built with stores facing outwards and with an architecture welcoming to the human scale. With the change in thinking, the idea was to build a new, modern, enclosed shopping center, surrounded by parking for automobiles in the center of the city, with a City Hall. The structure we are left with today faces inwards, leaving its largely featureless exterior and parking lots to face the downtown.

Premise:

The main premise for my thesis is that development will occur around the most commonly used form of transportation. Therefore, the built environment will be altered by this change to suit the needs of the predominant form of transportation.

Idea:

Changing the predominant form of transportation can encourage a change in the architecture within a city.

Solution:

My proposed solution to the depopulation and loss of interest in the downtown Moorhead area is to erect a transportation center built around the existing Moorhead Center Mall. This proposal will provide a catalyst for new urban growth within downtown Moorhead by adding residential units and urban venues to explore. By designing the new center with primarily pedestrian ideals in mind, and developing free of the parking lot dilemma, this allows us to begin to move toward a human scaled architecture that responds to people.

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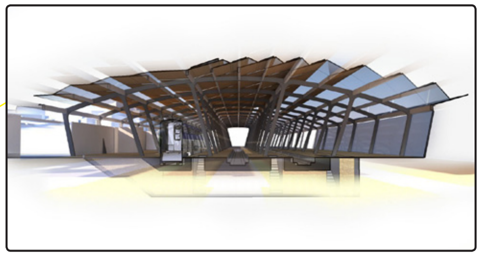
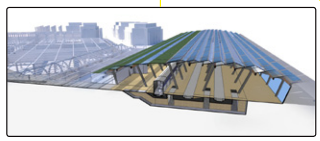
STATION PERSPECTIVE





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TRANSPORTATION

BUS DEPOT

FAMILY APARTMENT

LIVABILITY

By attracting the residential population of existing nearby colleges, the revitalization of downtown Moorhead will benefit from substantial growth of residential apartment dwellings, and will encourage a pedestrian atmosphere.

Over the past decade, interest in urban growth has increased exponentially, as renters enter the market and choose to live in urban areas. For Moorhead to compete in the emerging new market, more options for housing downtown should be considered. This solution proposes more residential development in the area, focusing on offering housing options for a wider audience. Here, the apartments are set in the center of the community, located adjacent to the bikeway along the river, parks to the north, and new play areas in the urban center.

TICKET DESK

In order to handle an increase in urban living and working, there is a need for a form of transportation that allows many more people to live and work in the downtown area. Featured in the above image, the proposed bus terminal allows people to commute, and visit the Fargo-Moorhead area. The proposed Bus Rapid Transit system would be able to transport people in mass, quickly, over key hours of the day, into and out of the cities.

This bus depot is surrounded by a plaza where people can relax and enjoy the surrounding gardens, and views of the river.

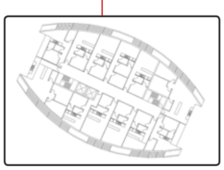
HOSPITALITY

SOCIAL

CIVIC

RESIDENTIAL FLOOR PLAN

ARTS & CULTURE



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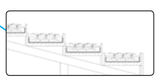
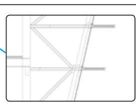


The above diagram depicts a section of the south elevation along Center Ave. The green roof is made up of stepped concrete planters, so that the growth medium will not spill off of the roof.

Below shows a section through the curtain wall, where solar panels can slide inside at night, or in inclement weather.



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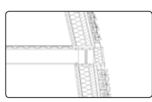
HOTEL



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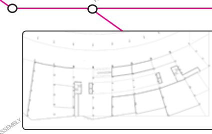
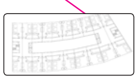
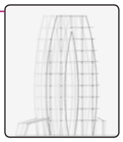
HOTEL PLAN

HOTEL FLOOR PLATE



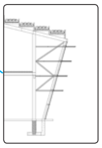




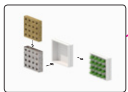
MUSEUM LOBBY

The Moorhead Arts Center is located along Center Ave. and offers the community an exterior view of selected works along the outer corridors of the museum. The transparency between the architecture and the people passing allows for a visual interaction of exterior and interior to take place.

WALL SECTION



GREEN WALL ASSEMBLY

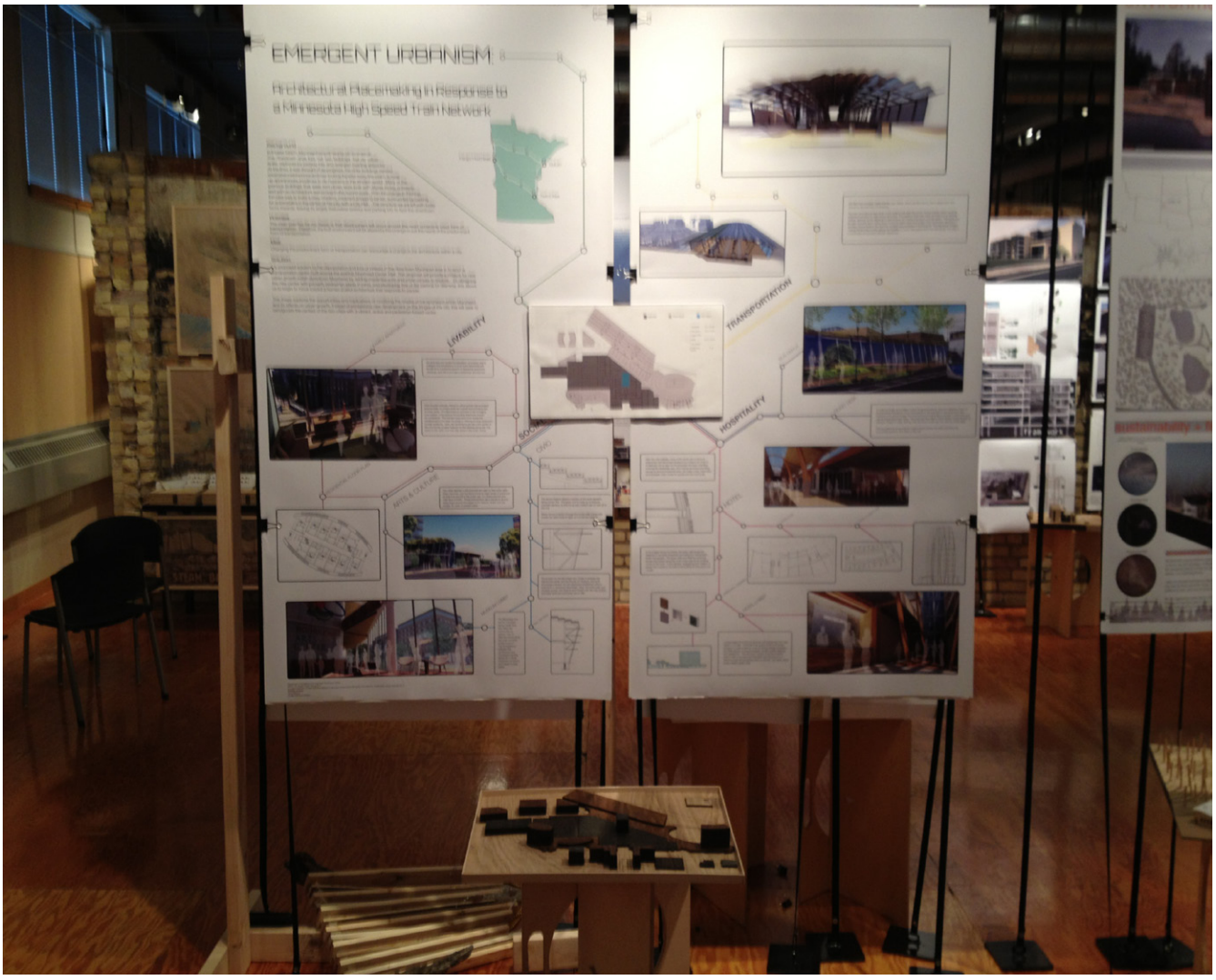


HOTEL LOBBY

Located adjacent to the bus terminal, and visually from the train station, is a hotel. This hotel is for guests of the community, bringing in a wide audience, such as visiting college prospects and their parents, business travelers, families visiting relatives, and vacationers. This structure consists of arching exterior beams, with a conventional steel girder grid allowing for an atrium to have natural lighting down to the first floor lobby, which boasts exterior green walls.

Department of Architecture and Landscape Architecture, NDSU
ARCH 772, Design Thesis, Spring 2013
Emergent Urbansim: Architectural Place-Making in response to a Minnesota High Speed Train Network, Transportation Center, 426,895 SQ FT
Nicholas Sortland
Steve Martens
Google Sketchup/ Podium

THESIS INSTALLATION



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INTERVIEWS:

White, K. (2012, December 6th). Telephone interview.

Crutchfield, N.(2012, December 6th). Personal Interview

PREVIOUS STUDIO EXPERIENCE

SECOND YEAR

Fall 2009: Darryl Booker
- Tea House
- Rowing Club

Spring 2010: Stephen Wischer
- Twin House
- Airport Expansion

THIRD YEAR

Fall 2010: Cindy Urness
- Food co-op
- Fitness Center

Spring 2011: Ronald Ramsey
- Shaker Barn
- Chicago mid-rise

FOURTH YEAR

Fall 2011: David Crutchfield
- San Francisco High Rise

Spring 2012: Paul Gleye
- Lille, France: Riverfront Redevelopment
- Foch Park and surrounding neighborhood redevelopment

FIFTH YEAR

Fall 2012: Ronald Ramsay
- Chapel Addition

PERSONAL IDENTIFICATION

I am Nick Sortland, a grad student currently in North Dakota State University s Masters of Architecture program.

I am intensely curious as to how structures can be put together in innovative ways according to the surrounding conditions. My goal is to always create structures with an experimental and pragmatic interface. As well as adopt communities to become less car dependant, while at the same time being interested in automotive design.

I am also interested in how 20th century suburbs will be integrated into the 21st century; I enjoy exploring topics such as transportation options and central node districts.

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Hometown: Golden Valley, MN

Quote: “Being a student at NDSU’s downtown campus, one gets to experience an active and on going urban revival first hand.”