



# Downtown Development: A Lifestyle Approach





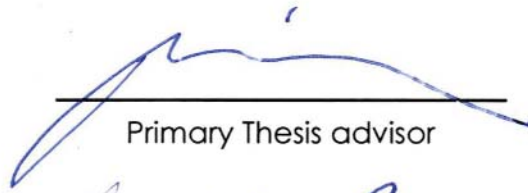
Downtown Development:  
A Lifestyle Approach

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

By

Travis Wilke

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



Primary Thesis advisor



Thesis Committee Chair

September 2009  
Fargo North Dakota



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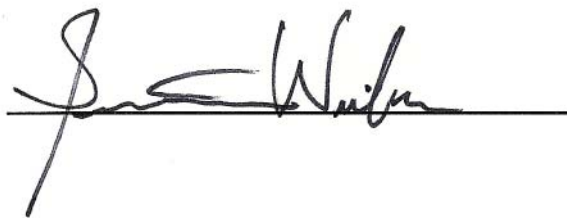
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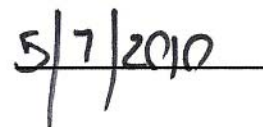
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A handwritten signature in black ink, appearing to read "Travis Wilke", is written over a horizontal line.

A handwritten date "5/7/2010" is written in black ink over a horizontal line.

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## Thesis Abstract:

### Downtown Development: A Lifestyle Approach

This thesis provides some answers to the question: how can the implementation by architects of minimal energy consumption and better material utilization in design begin to stop the wasteful ways so prevalent in our current society?

The typology for the examination of this problem is a mixed commercial/residential building.

The Theoretical Premise/ Unifying Idea that guides the research is, "Manifest destiny, and a growing American population have created unsustainable patterns of material and energy consumption."

The project justification is that this project will explore the impact on the environment of the things we design, and help promote the idea of sustainability by showing how it can be done.

The project will be located in Fargo, North Dakota. The exact location will be downtown, and the structure will 280,000 sq. ft.

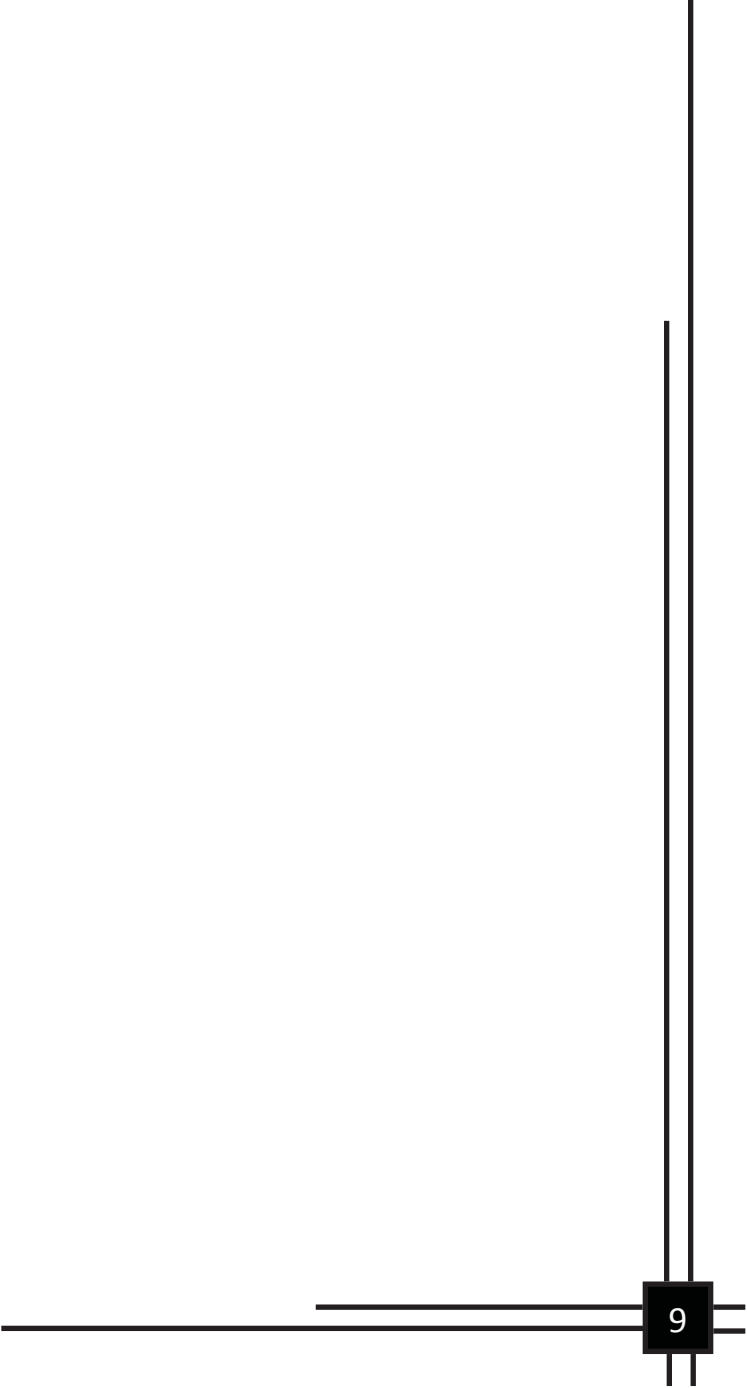
#### KEYWORDS:

ENERGY  
MATERIALS  
SOCIETY  
EXPLORATION  
TECHNIQUES

## Problem Statement:

How can the implementation by architects of minimal energy consumption and better material utilization in design begin to stop the wasteful ways so strongly coupled to our current society?





STATEMENT OF INTENT

## Typology:

The project typology will be a residential tower connected to an urban commercial complex

## The Theoretical Premise/Unifying Idea:

Manifest destiny, and a growing american population have created unsustainable patterns of material and energy consumption.

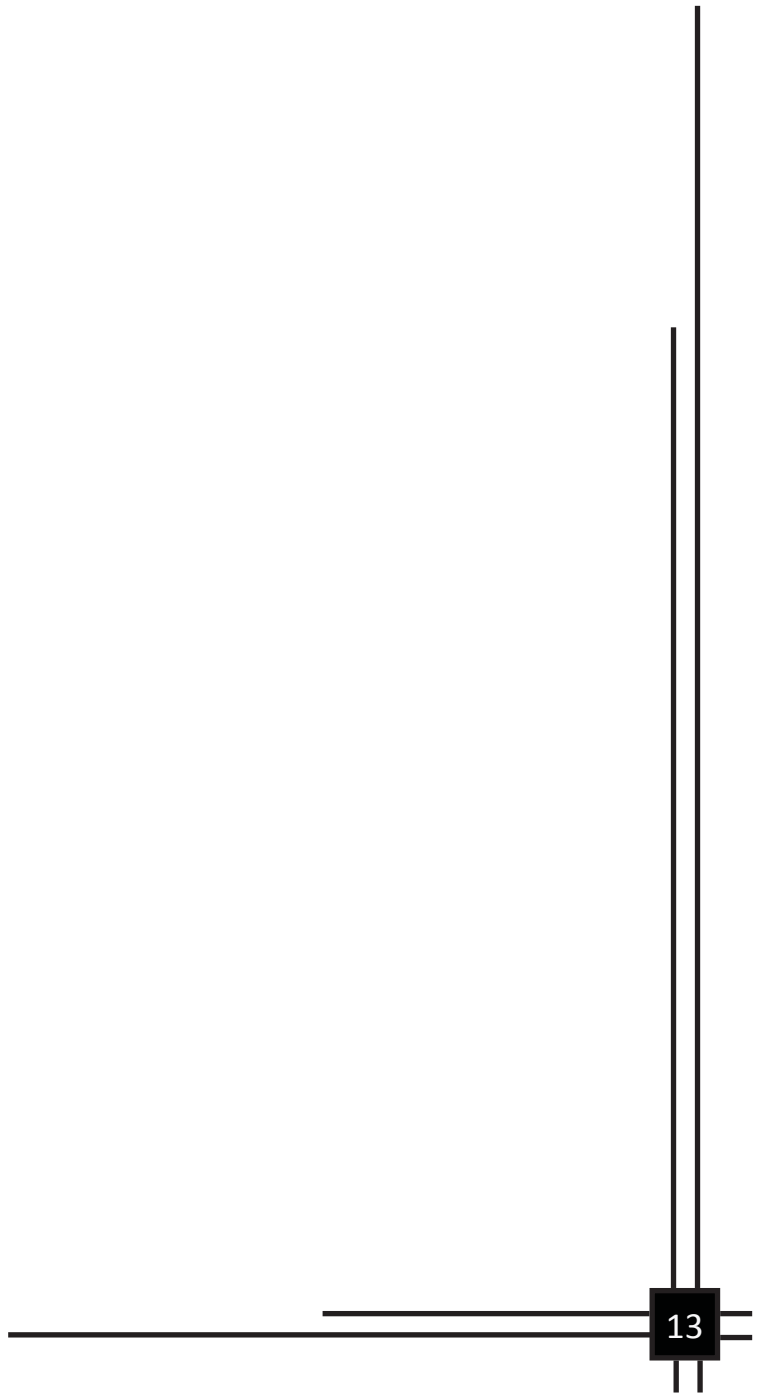
The American population constitutes every reason for designing, building, and Consuming. Everything the population consumes and how much they consume of it has established the patterns of consumption of the American Population. Materials and Energy are known to belong to the major categories of unrenovable and renewable resources. The consumption of the American Population that cannot be replenished within a persons lifetime has established patterns of unsustainable resouce consumption.

This thesis will explore the possibility of the design and conctruction fields ability to minimize unsustainable consumption during the design and construction phase, by exploring materials and energy conserving techniques.

## The Project Justification:

This project will explore the impact on the environment of the things we design, and help premote the idea of sustainability by showing how it can be done.

PROPOSAL



## The Narrative:

America is growing at an increasing rate each year. The vast amounts of land and natural resources that are being consumed are also increasing each year as the cities fall victim to the monster that is urban sprawl. The amount of resources required for this to happen are producing unsustainable patterns of consumption at an alarming rate.

Urban centers of all sizes are having to become places of revival and places of increasing population density. The Midwest has been experiencing this revival as well as this push towards ever increasing densities through such ideas as revitalized commercial and business centers, and a push towards implementing residential areas of concentration within the downtown centers.

The ability of design to be approached from a sustainable, responsible, and healthy standpoint has become a second thought within the profession. The ability to pull people into these centers of revitalization has started to occur, but the ability to be resourceful has been lost.

Growing up in both the rural and urban areas of America, I have experienced the wasteful ways and practices ingrained in the very core of the American population. I have found that the ability of the urban areas to provide better ways to use

resources lies in the higher concentration of residences. However, the majority of the American population has chose to reside in the more rural or suburban areas surrounding the city centers.

The simple truth is that if the American population is going to continue to populate this planet, they must change how they consume. The best way in which to approach new, more sustainable ways of life is to change the way we live down to the very core.

Fargo, North Dakota, like so many other urban center-across the Midwest, has fallen victim to unsustainable ways. The downtown has been long evacuated for the ever expansive fields surrounding the city. However, through the introduction of the new mixed commercial/residential structure in downtown, the new NDSU downtown campus, and the expansion of retail and business, the city has recently started to find ways to revive the downtown.

The only area in which the city has fallen short is the development of more housing communities to allow residents to begin to support the downtown areas of business and retail. Therefore, a mixed commercial/residential structure is sorely needed.



## User/Client Description:

This mixed commercial/residential structure will be owned and managed by one user. The commercial and residential properties will be rented out by individuals. The user will be responsible for the acceptance and admittance of the residential and commercial users. The multiple users of this development will be accommodated for and the primary users are listed below.

### Dwelling Residence:

The primary use of this development will be residential dwellings. Those who live in the development will be the most important users. The development will allow a wide range of diversity in the areas of income, demographics and age. The residents will include college students, young adults, families, and retired residents. The development will be designed accordingly to provide for these residents.

The secondary users will be the commercial users. The commercial spaces will allow for apparel, food and offices.

### Amount:

The residents of the development will make up the majority. The number of users able to fit within the development will be determined later. There will be a vast difference in the number of residential users and commercial users.

### Peak Usage:

The residents of this development will be using the dwelling spaces at all hours of the day. Evenings will be the peak hours of usage for the residents.

The commercial spaces will be used during the day and evening, with each commercial user using the space at varied times in the mornings.

### Parking:

The residents will be provided parking. However, the parking will not be the most major concern considering the development's location in the downtown area.

The commercial areas will need parking that allows for access to the shops and restaurants. There will also have to be parking for their staff and this will be addressed with four spaces per commercial space.

There will have to be loading areas and other areas for the maintenance staff and others.

### Physical Restrictions:

The spaces within the development will be accessible by all of the residential and commercial users.

### Medical or Mental Health Issues:

The medical and mental health issues that occur will be on an individual basis for both the residential and commercial users.



### Special Needs:

College students in the development will require late nights, early mornings, and many varied social interactions. College students will also want to be able to have guests at all hours of the day and night. The need for some minimal noise reduction will have to be accounted for.

Families and parents with young children will have lives that will require lives driven by the best interest of their families. They will need and want spaces that allow for entertainment and family gatherings. These users will want safety and the ability to relax and have family time.

The elderly will require safety and silence for their more relaxed and quiet lifestyle. Therefore noise reduction will be an important feature.

### Maintenance Staff:

The development will need a maintenance staff that will have access to all parts of the development, along with spaces for storage of the supplies needed to complete their tasks.

## Major Project Elements:

The project typology will be a mixed use commercial/residential building. The construction process will be approached with sustainability in mind. The major project elements that comprise the typology are defined below.

### Residential Dwellings:

One of the major design approaches will be the ability for pedestrian travel to and from the development. The development, therefore must be located within close range to working, school, and entertainment locations. The major element of the project will be an assortment of dwelling units comprised of various sizes, and features. The residential dwellings will be apartments for rent and condos for purchase, depending on the choice of the tenants.

### Residential Open and Green Space:

Allowing for personal access to open or green space will be one of the major concerns. The access to these space will promote healthy living. The open or green spaces will be provided for every dwelling and they will offer an area to relax within the urban landscape.

### Retail spaces:

The development will provide retail spaces to help

support the daily needs of the residents dwelling within the development. The retail spaces will allow easy access for the residents and the users. The automobile will be a second thought, and pedestrian access will be emphasized.

### Public Open and Green Space:

The urban landscape of downtown Fargo is full of cold and lifeless landscapes that do not promote the idea of healthy living. The suburbs and rural areas are a stark contrast to this.

Therefore the idea of open and green spaces must be addressed. These open and green areas will have to be spread throughout the development.

### Parking:

The project will provide parking as required by the residential occupants, retail occupants and the users of the retail spaces. The emphasis will not be on parking, but it will be required because of the daily living of the residents of Fargo.

### Secondary Spaces:

- Mechanical Space
- Residential Storage
- Retail Storage
- Property Management Offices
- Service Corridors
- Entertainment and Group Facilities

- Entrance Lobbies
- Exercise Facilities
- Maintenance Storage
- Lobbies to, access Green  
Space
- Laundry Facilities
- Elevators
- Atrium Space

## Site Information:

### Midwest Region:

The Midwest region of the United States is made up of twelve states. It is located in the north central part of the United States, and is one of the four regions of the United States.

The Midwest region is one with four very distinguishable seasons. The climate is one that demands the most of its architecture in the areas of heating and cooling. The region has various precipitation types including rain, snow, and mixed. It is a land locked region except for the ability to access the major freshwater bodies that comprise the Great Lakes. The climate's major storms and changes in temperature are attributed to the warm humid air of the Gulf mixed with Canada's cool and dry air.

The economy of the Midwest region is made up largely of agriculture. It is known as the grain belt, and this nickname is made possible because of the large expanses of fertile land. The area also emphasizes tourism, manufacturing, and food production. Oil and natural gas are largely available.

The largest city in this region is Chicago (Encarta, 2009).



Midwest States:

Ohio  
Michigan  
Indiana  
Illinois  
Wisconsin  
Missouri  
Iowa  
Minnesota  
Kansas  
Nebraska  
South Dakota  
North Dakota

## Site Information:

### Fargo, ND:

The City of Fargo is located in eastern North Dakota. The city is located in Cass County near the head of the Red River of the North.

It is the largest city in North Dakota and it is the commercial, financial, cultural, and medical center of the region. Money is also accumulated through grain, sugar-beet, and livestock production. Farm equipment and fabricated metal are also manufactured here.

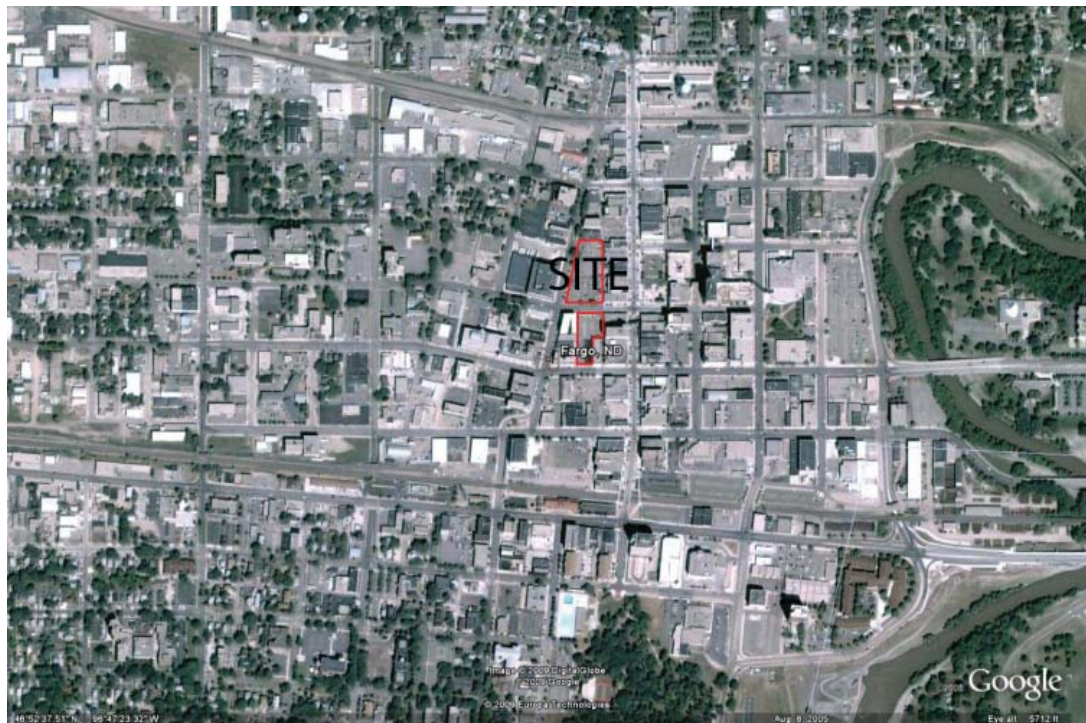
North Dakota State University is also located in Fargo and was established in 1890. Fargo was incorporated as a city in 1875, and as of 2006 had a population of 90,056. The downtown area is composed of approximately 240 buildings.

The climate of Fargo is diverse. The average temperature in the city in the summer is 82 degrees F, and the average temperature in the winter is 16 degrees F. This is a huge difference throughout the year.

Fargo today is experiencing rapid growth even in a less than great economy. The major commercial center is West acres and the majority of the new growth is occurring in the south and southwest portions of the city. The ability of the city to expand to the south has left the downtown area in a state of disrepair (Encarta, 2009).



The City Of Fargo and the Surrounding Cities



The Downtown Area of Fargo

## Site Information:

### The Project Site:

The project site is located at the northwest corner of Roberts St. N. and 2nd Ave. N. Currently the site is a surface parking lot designed to hold approximately 270 cars. There is little to no vegetation on the site. The lot is very full during normal business hours and almost completely empty at night. The only parking at night is by people going downtown to enjoy the Fargo night life.

The site is located directly behind Dempsey's local pub and Atomic Coffee. Roberts St. has relatively low amounts of traffic. Even though the site is located next to the Fargo post office there is limited traffic.

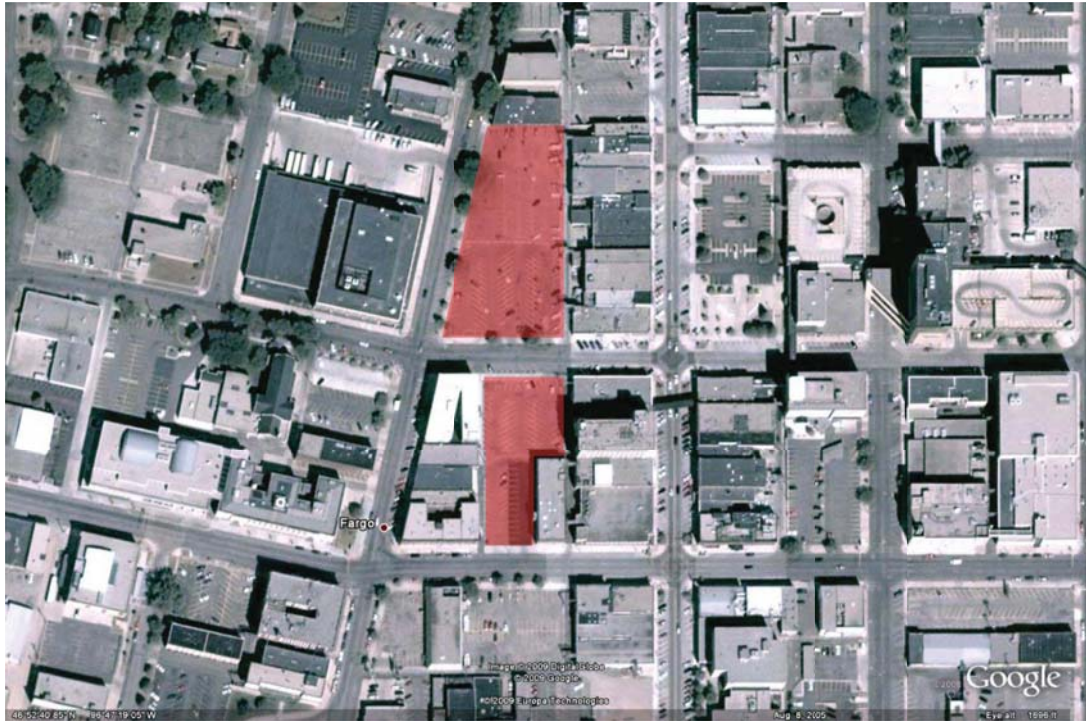
The site is very close to bus transportation routes. Also, the site is just one block east of the new business and architecture college. The major bus route passing the site is the NDSU bus route. With NDSU campus having approximately 13,229 students and has 96 buildings.

The topography of the site is almost completely flat. This is very typical of all open parking in downtown Fargo. However, the Red River offers amazing greenery and is located just four blocks to the east.

The site is located amid many historical downtown buildings, and is only one block away from the popular black building and access to the Fargo skyway.

South of the site there has recently been construction of new mixed use NDSU apartments. This building will have numerous commercial shops located within them which will only add to the appeal of the site.





The Development Site in  
Downtown Fargo

## Site Importance:

Fargo, North Dakota is a metropolitan area that has been growing extremely fast and has been pushing the boundaries of what is rational. The city has a very established downtown area that has, through my time at NDSU, experienced a definite push for revitalization and restoration. The downtown area is, however, still in need of residential dwellings.

That is why mixed commercial/residential development is so important to the efforts to revitalize downtown.

NDSU is the largest school in North Dakota and Fargo is the largest city, so the push for more downtown housing is a must. The ability to start implementing mixed use developments into the downtown area with resource reduction in mind could help to promote a higher population density with less resources being used.



## Project Emphasis:

This thesis will focus on countering the idea of manifest destiny, and the growing American population's need to create sustainable patterns of material and energy consumption. The focus will be on how to provide reduced consumption of energy through the construction process and well as energy efficiency that still satisfies the population's needs.

This project will also focus on the materials used during construction and the materials consumed by residents and commercial users of the development.

In addition, this thesis will focus on the building's ability to react to the harsh environment of Fargo, North Dakota. The idea of a mixed use commercial/residential development also helps to "hit two birds with one stone" by having two uses within one structure.



## Definition of a Research Direction:

The direction of research will be conducted in various areas to ensure the thoroughness of the thesis, including; the Unifying Idea, Project Typology, Sustainable Issues, Urban Design Issues, Historical Context, Site Analysis, and programmatic requirements.

## Design Methodology:

Research for this thesis will use a mixed method of quantitative and qualitative approaches as well as graphic and digital analysis. Interviews and surveys will be used to gather data and an idea of requirements.

The collection of the data will be gathered through a concurrent transformative strategy that will be guided by my unifying idea. This strategy will ensure that quantitative and qualitative data will be gathered concurrently with the priority being established through the use of and focus being on the unifying idea. The data will be integrated at multiple stages throughout the research process and it will be analyzed, and reported. Texts and graphics will be used to present the findings.

The quantitative data will be statistical data found locally or through research and the scientific data will be obtained through instruments or experiments.

The qualitative data will be from direct observation, surveys, interviews, or research.

## Documentation:

The data and design process throughout this thesis will be documented digitally, and evaluated. Any data that is encountered or produced in digital format will be compiled and organized digitally. Any data that is produced in hard copy will be scanned to ensure that the digital format will be constant.

The data documentation will be presented in this design thesis. The most important parts of the design process will be highlighted in the final presentation.

All documentation will reflect on previous discoveries and the design process will be documented to ensure it is thorough.





## Previous Studio Experience:

### Second Year:

- Fall Semester 2005 Arch 271-Vincen Hatlen
  - Form, Space, and Order Design Studies
  - Hand Graphics Studies
  - Place of Reflection
  - Teahouse-Moorhead, MN
  - School for the Blind-Moorhead, MN
- Spring Semester 2006 Arch 272-Joan Vorderbruggen
  - Private Residence/Visitor Center-Pelican Rapids, MN
  - Branch Library-West Fargo, ND
  - C.I.D.I Research Center-Fargo, ND

### Third Year

- Fall Semester 2006 Arch 371-Mike Christenson
  - City Museum Redesign-Ahmedabad, India
- Spring Semester 2007 Arch 372-Mark Barnhouse
  - Artifact, Experience, and Connection Studies
  - Fargo Skyway Expansion-Fargo, ND

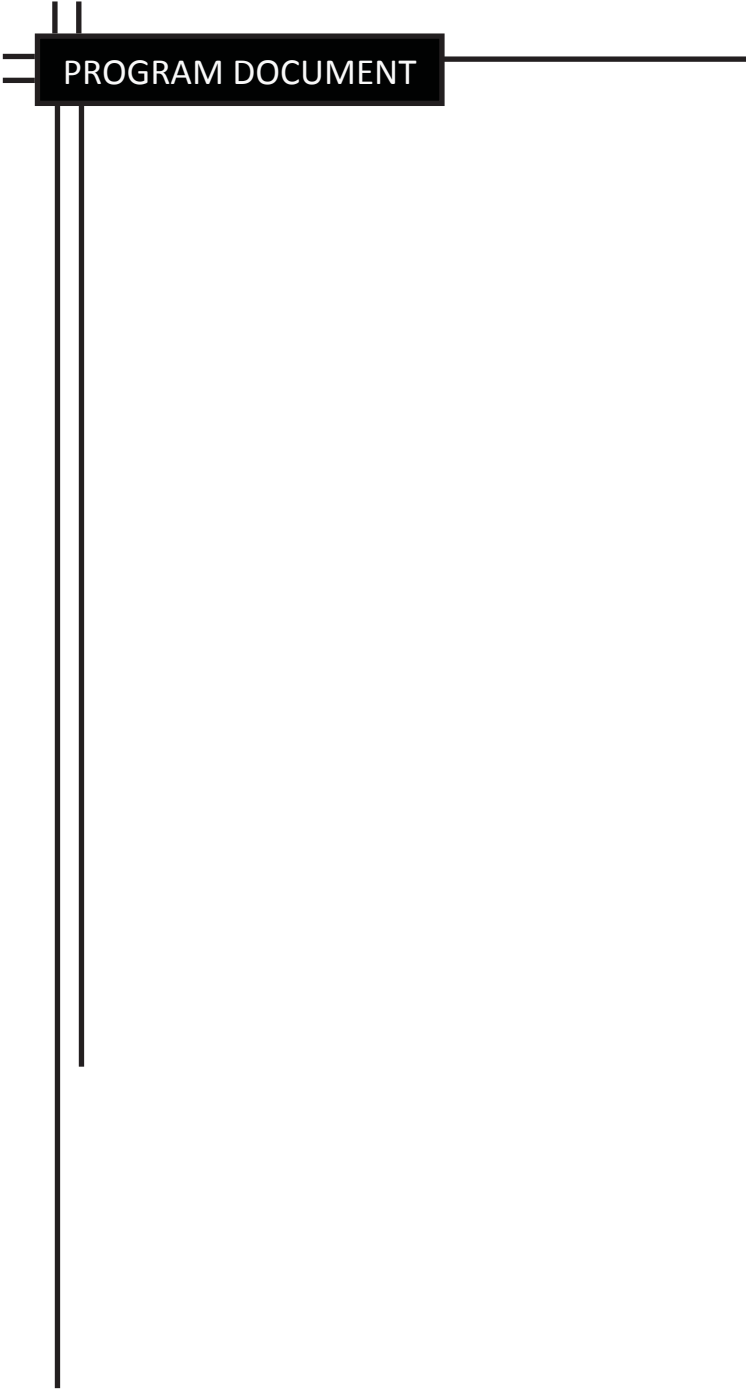
### Fourth Year

- Fall Semester 2007 Arch 471-Regin Schwaen
  - Urban Design Master Plan-Winnipeg, MB
  - Graphic Representation Study
- Spring Semester 2008 Arch 472-Bakr Mourad Aly Ahmed
  - Mixed-Use Sustainable High-Rise-San Francisco, CA
  - Marvin Windows Exploratorium-Prairies of North Dakota

### Fifth Year

- Fall Semester 2008 Arch 771-Frank Kratky
  - Educational-Research Facility for RiverKeepers-Fargo, ND





PROGRAM DOCUMENT



## Theoretical Premise Research:

Within every aspect of life and in the human psyche there exist established patterns brought forth by sociological ideals and the behaviors these ideals have produced in the ones before us.

Below is the study of how we have become the nation we are today and how it has and will affect us tomorrow.

### Manifest Destiny:

Originally the term was used as a “catch phrase” to inspire the people of the United States to push across the North American continent.

It is defined as “a term used in the 19th century to designate the belief that the United States was destined, even divinely ordained, to expand across the North American continent, from the Atlantic seaboard to the Pacific Ocean” (Davidson,2005,10).

Eventually the catch phrase and defined idea of “Manifest Destiny” caught on and in 1845 was used by a New York journalist, John L. O’Sullivan, to call for the annexation of Texas (Tremblay, 2006). Later these ideas used for the annexation of Texas eventually led to Americans creating settlements like the colonial Europeans, and even brought forth the annihilation of Native American lands in the Great Plains and the west.

Although, Falling out of favor in the early 20th century, the ideas that “Manifest Destiny” had

ingrained in America’s psyche were there to stay.

In Woodrow Wilson’s 1920 message after the war he stated, “This is the time of all others when Democracy should prove its purity and its spiritual power to prevail. It is surely the manifest destiny of the United States to lead in the attempt to make this spirit prevail” (Tremblay, 2006,7).

The true background of “Manifest Destiny” is one of expansion, extension, and growth of the United States of America. Even though “Manifest Destiny” was not itself an official government policy, it led to the passage of the Homestead Act.

The Homestead Act made westward colonization and territorial acquisition an important role in American thought.

This thought process still existed with Woodrow Wilson, and it exists in many Americans today.

Although “Manifest Destiny” was a catch phrase and a definition of the American policy of land ownership, the ideas ingrained within us in two centuries of this phrase’s use have left ideals and beliefs instilled in us that filter down to our everyday decisions.

The simple idea that America is the land of dreams shows the very essence that “Manifest Destiny” has left on our nation’s principles.



Spirit of the Frontier 1872  
John Gast

Even in the art of the 19th century the ideals of “Manifest Destiny” were so strong that they showed up in the aesthetics of America’s great artists

This painting displays the push toward the West with settlers being led by an angel.

## Theoretical Premise Research:

### American Population Growth:

The American population is a fluctuating and ever changing organism that has been increasing since the ratification of the Constitution in 1788.

Since the beginning of the 20th century the American population has more than tripled. Being at roughly 76 million in 1900, the United States has grown by roughly 1.3% every year. In the year 2000 the population ballooned to 281 million people.

As of today the population of America is 308,116,000 (US Census Bureau, 2009). With daily births and deaths this number changes daily.

The rate of growth last year was roughly .95%, which puts the United States under the average growth rates of other industrialized countries (US Census Bureau, 2009). However, there is still an amazing amount of growth going on, and even if it were to slow or stop our existing population of 300 million would still be difficult to provide for.

Out of the 300 million people, 81% of the total population of the United States lives and resides within the cities and suburbs (US Census Bureau, 2009).

With the vast majority of people living in the urban centers of the United States there is a major focus on how to control, arrange, revive, and better the standard of living.

With the population of the United States on the rise comes the hopes and dreams of all the individuals themselves. As stated before, America has long been considered the place of dreams. As shown above the belief that you can have anything has been long ingrained into our society.

With the ever-fluctuating population that has always been on the rise, the ability of us as a nation to provide the dream has become harder and harder to attain.

Every American, young or old, seeks the big house with the white picket fence in the country with rolling hills and a beautiful yard spread out before them.

The reality is that the American dream and this ingrained idea of "Manifest Destiny" has created the new monster known as "Urban Sprawl".

Also known as "Suburban Sprawl", the term generally has negative connotations because individuals living within these areas of sprawl usually have longer transports to work, higher car dependency, neighborhoods that tend to emit more pollution per person, and a higher rate of obesity since there is less walking and biking to destinations (Frumppkin, 2002).





(Frumpkin, 2002)  
A Housing subdivision in Calgary,  
Alberta, Canada

Above shows a prime example of  
the urban sprawl caused by the  
push outward and away from city  
centers.

## Theoretical Premise Research:

### Patterns of American Resource Consumption:

America is considered to be one of the richest and most economically powerful countries in the world, yet we as a nation only constitute 4.5% of the six billion people in the world (US Census Bureau, 2009). However, on the world scale America has long been the leader in natural resource consumption.

As a nation we have been led to believe that the lifestyle we lead is normal, sustainable, and can be provided for indefinitely. Yet, the truth of how we consume is alarming. No longer as a nation are we required to make the most of what is around us. We import materials from all over the world and have them brought to our doorstep without thinking about how they arrived there. We as a nation consume 24% of the world's energy and think that it comes without cost (Shah, 2008).

The belief of unlimited resources has been so entrenched in us that we don't even realize what we do. With the technological advances we have made, we as a nation can promote lifestyles that some people can only dream of. Twenty percent of the poorest people in the world account for only 1.5 percent of the world's entire resource use (Shah, 2008).

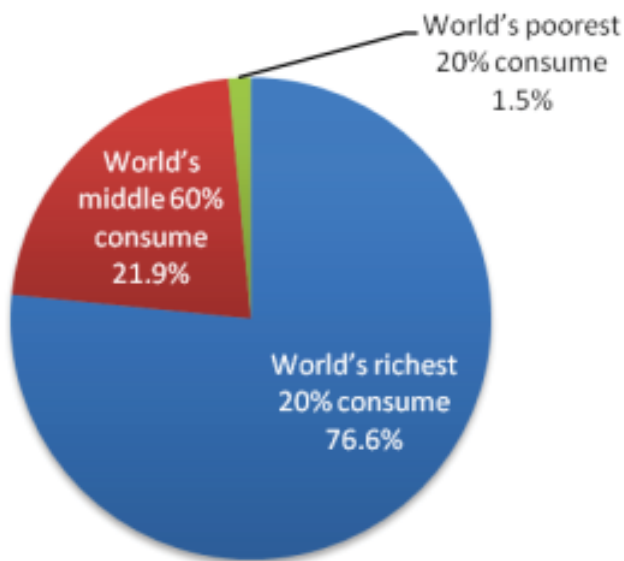
Although we may think our hand in the consumption of resources only extends outward,

our nation has been consuming its most precious resources for almost two centuries at an unsustainable rate. Unsustainable is defined in Webster's as, not able to be maintained or supported in the future, without causing damage or depletion of a resource."

As a nation in the last 200 years we have destroyed 50% of our wetlands, 90% of the Northwestern old-growth forests, and 99% of the tall-grass prairies (Shah, 2008). We look at our land and its resources as a limitless expansion that we must conquer, harvest, and sell for a profit.

It is true that in order for us to live we must consume. We must use resources to keep up the ways in which our society has become accustomed to, but at what cost? There are many ways that we can slow the destruction and depletion of our resources. We no longer have to individually create 52 tons of garbage by the age of 75 (Shah, 2008).

## Share of world's private consumption, 2005



(Shah, 2008)

This figure displays the private consumption of the world's upper, middle, and lower economic classes.

"In the U.S. the Reagan administration relaxed the efficiency standards of automobiles (standards that had already been met by Chrysler). If these regulations had been kept in place, within a decade or so the amount of petrol saved would have been equivalent to the entire amount of oil estimated to underlie the Arctic National Wildlife Refuge. That single step could have both removed a threat to one of the last really wild places on Earth and would have reduced pollution in cities" (Shah, 2008, 2).

## Theoretical Premise Research:

### Creating More Sustainable Resource Consumption:

In recent years the knowledge of the way the American population lives out its dream has been pushed to the front of our psyches. Thousands of environmental organizations have sprung up throughout the country begging us as a nation to make a change.

There is no overnight fix to the problems we have created, but with the technology that has led us to this spiral of destruction comes the knowledge of how to change what we have done.

With massive efforts on the part of our government and private groups we have discovered renewable ways to provide energy for the American people.

Sustainable practices such as recycling, alternative fuels and more restrictive measures for carbon dioxide controls on cars have shown that we are recognizing our impact on the national and world scale.

Many of the ways we have begun to approach our astonishing consumption rates can be seen in the products we push in the stores around the United States. The idea of cold water washing of laundry to conserve energy, and the replacement of older light bulbs for new energy efficient bulbs displays the subtle push of conservation in Americans' everyday lives.

We have also been pushing for less energy and resource consumption on a larger scale. Through things such as hydro-electric power, solar panels for homes, and wind power on a national scale. President Obama's website states his goals and his push for "New Energy in America".

Just a couple of his goals laid out in his new energy plan state that by 2012 he wants 10% of our nation's energy to come from renewable resources such as solar, wind, and geothermal (Obama, 2009). The idea that this is possible and is being pushed for by the most powerful man in our nation is a good sign.

As stated before there is no short term solution to more sustainable consumption. It must be a national effort, and every individual must try to do their part. The United States is the 22nd most energy efficient country among the major economies in the world, which means we spend more on energy than we need to because our lifestyle and our built environment are wasting too much excess energy (Obama, 2009). The renewable energy economy in the United States in terms of venture capital alone topped \$2.6 billion dollars in 2007 (Obama, 2009).

Renewable energy is not a myth. Solar and wind energy exist, and are being used with success in our nation and even our region today.



Both photographs were taken by the author.

## Theoretical Premise Research: Summary

America and the unsustainable consumption patterns we have created from our embedded sense of “Manifest Destiny” are what we have known and become comfortable with through time tested habits and ways. We have let ourselves fall into a cycle of destructive patterns that have led to an overall decline in our nation’s health.

Although we have started to take steps toward the reversal of our absurd trends we are just starting our journey toward the reconstruction of our natural environment. The fact that our nation as a whole has 81% of the population living within urban and suburban areas allows us the ability to focus our efforts on a smaller part of the whole.

By creating sustainable patterns that can be obtained by our government and individuals themselves, we have begun to reverse what we have done over the last two centuries. It is a losing effort as of now. Gaining support of private individuals is the first step to attaining a universal acceptance by the whole.

In order for us to fulfill the American dream we must first morph the original ideals instilled in us through “Manifest Destiny” to incorporate what we know of our impact on the world around us. We have to accept that as a nation we will continue growing. However, if we practice better and more sustainable ways to

achieve our dreams we can live in a nation where our destruction is diminished.

We must first act as individuals, and set examples to be followed by the whole.

By focusing our efforts on urban settings we can affect a majority of people’s habits in this nation. Yet, in focusing on these urban landscapes we must first realize that we need to provide a sense of security, privacy, and comfort, while also providing a sense of community and neighborhood that does not drastically change the ways instilled so deeply in us.

By providing urban communities that meet the needs and dreams of the people, we can begin to focus our efforts on individual projects that as a whole have a greater impact than individual homes. By creating the dreams of the people in the urban scene we affect more people with not only less money spent, but also more materials and resources conserved.

It is not going to be easy to change the ways of our nation’s thought process toward the white picket fence and green lawns of the suburbs, but we must try.

If we can begin to change the way people approach the achievement of their dreams, we will be able to make a difference in our society for years to come.



## Case Studies:

Humboldt Mill Condominiums  
Minneapolis, MN, USA  
2004:

Architect: Julie Snow Architects  
 Inc.

Located in the historic mill district of Minneapolis these condominiums have a light and precise industrial feel that allows vast amounts of light into the living spaces.

Starting with just a shell after a fire claimed the guts of the historic building, the condominiums have essentially nothing but columns to block the light.

As can be seen in the floor plan below the architect tried to show the flexibility and lightness that can exist in any historic structure. The only things that seem to be walled are the vertical axes through the structure.

The building is a mixed use structure which is comprised of parking, retail, and residential spaces.

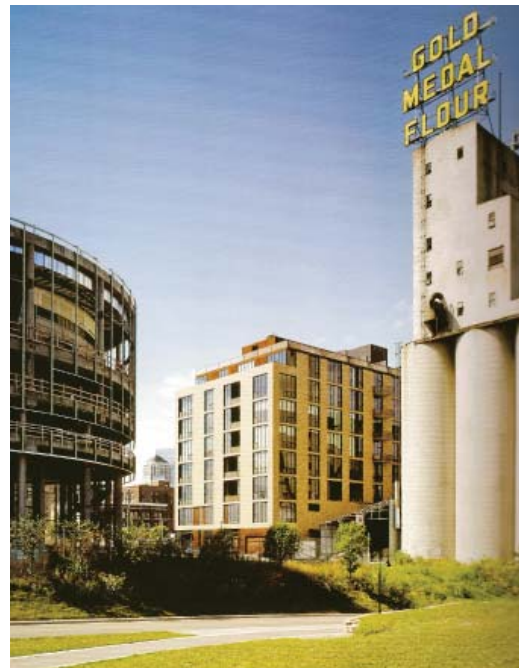


First floor plan

The building uses vast amounts of glazing with floor to ceiling windows in most of the structure. With all the weight transferred through the columns this glazing becomes possible.

The vast amounts of glazing offer unrestricted views of Minneapolis's skyline.

In order to provide the best views the building has interlocking two story units on the third and fourth floors which enables all the bedrooms the privacy they need by facing the Gold Medal Grain Elevator to the north while letting the living and kitchen spaces face the city side to the south of the structure.



All images are from (Canizares, 2002)





Due to the mill district's specifications for a brick exterior with vertically proportioned windows and a restricted building height, the architect chose to overlay the concrete structure with brick and glazing. The overlay roughly corresponds to the pattern of the living units and where this was not possible more glazing was added to compensate.

The building is a beautifully designed urban addition to the mill district. Yet, it still has a contemporary feel that marries amazingly well with the industrial feel of the surrounding district.

This marriage is displayed in the elevation shown at the bottom of the page.



Elevation

## Case Studies:

### Charlottehaven Copenhagen, Denmark 2001:

Architect: Lundgaard &  
Tranberg

Charlottehaven in Denmark is truly a mixed use development. The housing scheme contains 178 apartments located on six floors.

Adjacent to the initial 178 apartments is a courtyard, which is the median between the remainder of the development which contains 44 more units and a service center that provides a gym, restaurant, and a day-care center for the residents.

The project seems to be inspired by the continuous mass of large buildings typical of this city street.”

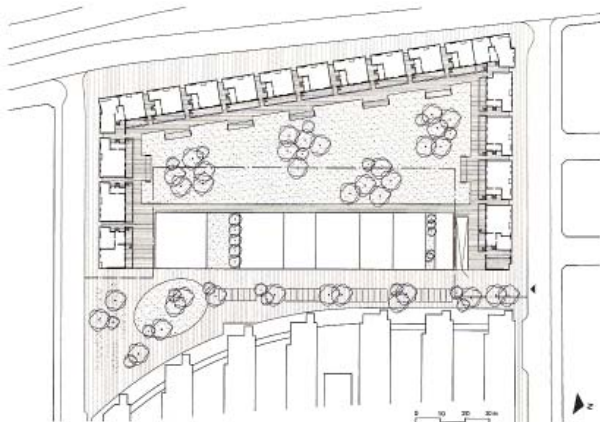
The Charlottehaven complex has similar volume, layering effect, and staggered feeling as the rest of the complexes around it.

The blending effect is achieved through the use of balcony railings, bay surfaces, and extensive use of glazing.

As shown in the picture below the complex offers a unique feature by allowing all the apartments to have balconies. The way in which this achieved is by raising the ground floor four feet.

The upper apartments of the complex have their own balconies, but they also have access to private roof terraces. This not only adds value to the complex but also adds a green aspect to the project.

Another green aspect to the project is the use of natural ventilation throughout the space made possible by the open floor plan.”



Site plan





All the units within the complex range in size from 540 to 1720 sq. feet. This adds variety, and allows for a range in the class of tenants.

The large balconies in the project open up toward the main street. They allow for beautiful views of sunsets because they all face south by southwest.

The structural support of the project is provided by a concrete frame construction scheme. This allows for lightweight interior partitions to be moved as needed, thus providing a very flexible arrangement of space.

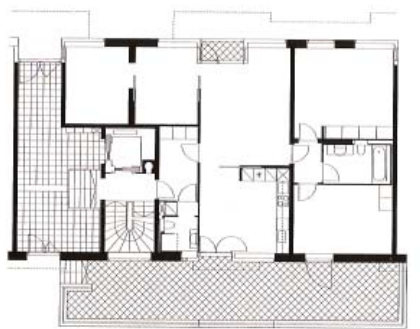
The facade itself exposes both the concrete structural elements of the complex along with a salt glazed brick that is widely used in the region.

The complex tries to tie itself back to the city. Even the roof connects the city's traditional architecture because it is designed with the typical mansard shape.

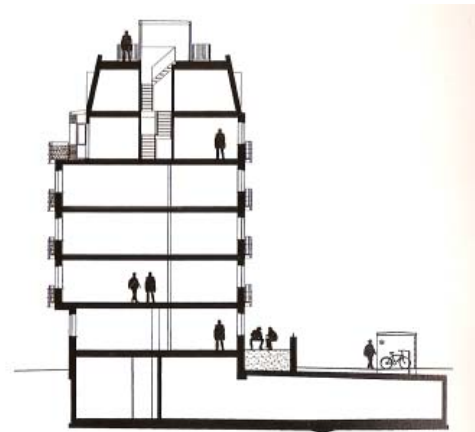
However, it is given a contemporary feel by sheathing the slope with a seamless zinc panel.



All images are from (Canizares, 2002)



Type plan



Section

## Case Studies:

[State Street Village, IIT |](#)  
[Chicago, IL, USA](#)  
[2003:](#)

Architect: Murphy/Jahn

The project started as a competition concentrated on enhancement of the Mies van der Rohe campus. It was thought that by having a competition the new student housing would be a more attractive and productive place to study, live, and work in the 21st century.

The complex itself is located at the heart of IIT's main campus. The project consists of three five story buildings that face State Street.

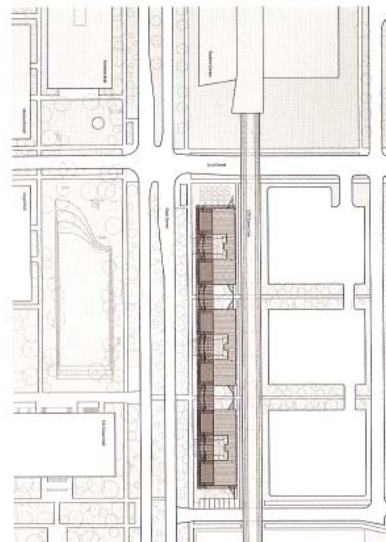
Located next to Chicago's Green Line, the building is poured in place concrete and is laid to rest on top of an 18-inch thick mat foundation designed to lessen the noise and vibrations of the train.

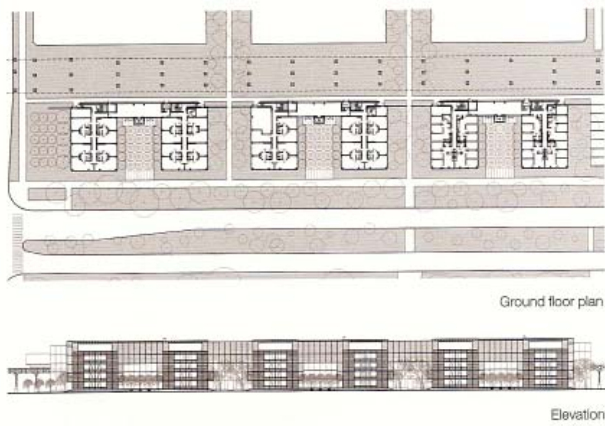
The buildings west elevation is clad in glass and stainless steel panels that morph into decorative screen walls higher on the building. These screens are used to lessen the impact of the setting sun.

The east side is composed of concrete and has very thick walls. Since this elevation faces toward the Green Line this is a great way to help with noise and vibration reduction.

The buildings contain 367 beds. Two of the structures are suite style living, allowing two students to live in each suite. The other building has one bedroom apartments with a full kitchen and bathroom.

The three structures are separated by beautiful atrium spaces which in the harsh urban setting of Chicago are rare.





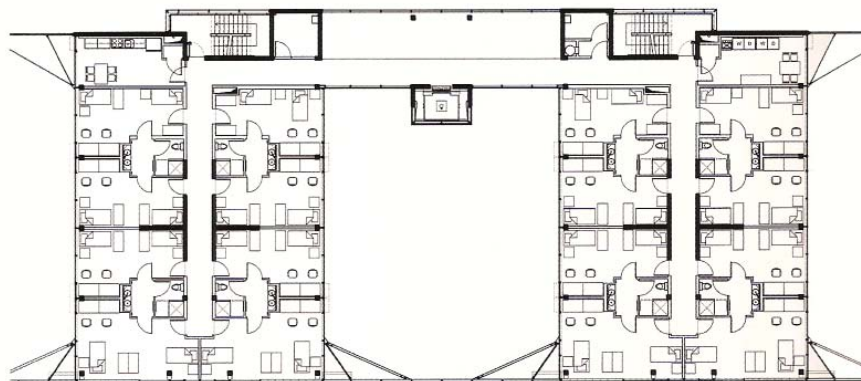
The way the apartments and suites are arranged allows for maximum exposure to daylight and views of the atrium.

With the circulation of the project located on the east side there becomes another barrier between the noise of the passing trains and the tranquility of the apartments and suites themselves.

Shown in the fourth floor plan it is easy to see how each of the suites are set up. The atriums run vertically through the entire structure, and are tied into the overall composition through the use of the shading/screen devices.



All images are from (Canizares, 2002)



Fourth-floor partial plan (suite units)

## Case Study Series and Typological Summary

Focused on the Midwest region and the construction styles that closely resemble the style found in the Midwest region the sequence of these case studies moved from the use of existing structure, as in the Humboldt Condominiums, to the replication of style shown in Charlottehaven, to the newer design techniques of State Street.

Even though these complexes differ greatly from each other in many ways there are major similarities between the designs of all of them.

First, that ability of each complex to address site specific conditions is very apparent.

Humboldt dealt with the need to design within the specifically set parameters of Minneapolis's mill district. Yet, even with detailed restraint the architect was able to give a clean unique look to the complex.

Charlottehaven had to consider the surrounding structures and the historical design elements of the city. While doing this the architects also added a very nice layout and flow through the complex which gave it uniqueness all its own.

State Street, although the most contemporary project, had to deal with the site limitations of the IIT campus, while addressing the issue of the Green Line located adjacent to the site.

Second, the ability of the designers to consider sustainable practices was very apparent in all of the studies done.

Humboldt, with its massive amount of daylighting on the north and south exposures shows that the architect understood the simple climactic consequences of opening up buildings to the cold north winds of Minnesota.

Charlottehaven addressed the need of natural ventilation through the use of the open floor plan and the duel balcony system to allow breezes to penetrate all of the structure.

State Street adopted the sustainable practices with the inclusion of the atrium spaces and the western sun shading devices.

Third, all the complexes gave the inhabitants what they needed to perform their everyday tasks and in some cases went above and beyond to provide additional features most residents would not expect.

Humboldt addressed the needs of its inhabitants by providing such things as a commercial market place to buy every day things and underground parking to lessen the devastating cold of Minnesota winters.

Charlottehaven gave its residents their own interior green space and even above and beyond with the insertion of a day-care into its overall programming.

State Street allowed the users to have a unique green experience within the confines of Chicago's urban scene.

From the similarities present in these projects it is shown that there are many ways for a designer to create a sustainable mixed use structure that addresses multiple aspects needed for habitation.

Practices such as these are important to consider in every project, but become even more important when they are included into the structures and spatial arrangements of places people live in everyday.

To create an environment that assists individuals with everyday problems, architects should provide frequent and easily accessible spaces that allow the user to feel tied to the outside and not trapped or tucked away from it. The architect should allow ties to the site's surroundings and not try to create seclusion.

Another important feature to consider is the material palette and the ability of the materials to perform the dual tasks of both providing aesthetics along with adding to the structural supports and environmental aspects of the design.

Lastly the high density of mixed use complexes can deter people from wanting to live in these places. So the architect must go above and beyond the generally

accepted practices and focus on a way to provide a unique experience that caters to the individuals residing within their works.

In general, all three of these case studies show how a mixed use development in an urban setting can provide the American dream, and help create a higher density of population to combat the urban sprawl and help to conserve our natural resources.

## Historical Context:

### 1870-1879:

Originally Fargo was just one steamboat stop along the Red River of the North. It wasn't until 1871 that the town was founded. Fargo received its name from the Northern Pacific Railroad director William G. Fargo. The original settlers staked out homestead claims at the point where the Northern Railroad would cross the Red River. Started in 1871, the bridge was constructed using a steamboat as a barge, and it wasn't completed until 1872 (Caron, 1999).

rough and rowdy frontier town", it was able to grow rapidly as more and more settlers began to arrive. They were being driven by the cheap and fertile farm land along the Red River (Caron, 1999).

### 1880-1889:

During the 1880's Fargo continued to grow at a steady pace. Some historians believe that this was due to the lenient divorce laws that allowed people to come into town on Saturday and be divorced on Sunday. During this time Fargo became known as the



(Caron, 1999)

Above the steamboat named Skelkirk was built early in 1871 to help with the bridge project.

Fargo grew slowly at first, and by 1876 the town had grown to a population of 600. Even though Fargo was known as "a

"Divorce Capital". However, the draw of vast amounts of farmland are what historians view as the real draw (Caron 1999).



1890-1889:

Due to the proximity of the railroad, by 1892 Fargo had more than 8000 residents. The rapidly growing population felt that the tents and wood shanties of the 1870s were no longer what Fargo deserved, and by 1892 they had replaced them for mainly wood framed buildings (City of Fargo, 2009)

On June 7, 1893 the worst fire in the history of Fargo began in downtown and rapidly spread from building to building destroying most of the business district and the homes of around 600 residents. The fire originated and spread from Front Street, today known as Main Avenue, and by the end of the day more than 160 acres and over 31 blocks of businesses were lying in piles of ash (Caron, 1999).

The picture below shows downtown after the fire. The ashes are still smoldering.



(Caron, 1999)

## Historical Context:

### 1900-1930:

After the devastating fire of 1893 Fargo rebuilt and the town continued to grow. Every year they experienced a constant battle with the Red River. The flood of 1909 left the city damaged and hurting. However, with much of the same resiliency shown in the 2009 flood the city rebuilt itself and continued to grow (Coran, 1999).

The picture below shows the devastation of the 1909 flood.



(Coran, 1999)

Despite the annual flooding, by the end of the 1920s Fargo had emerged as the retail and large commercial center for all of North Dakota. It was the home of the Pokodot Cereal Company founded in 1922 and the Pence Automobile Company, founded in 1905.



(Coran, 1999)

### 1957:

Besides the seasonal flooding, Fargo didn't experience another huge disaster until 1957, at 7:40pm, when a tornado hit the Northwest side of town. Ten people were claimed, more than 100 people were injured, more than 300 homes were destroyed, and another 1000 were damaged. Roughly 2000 people were displaced within a matter of minutes. The total damage of the tornado was more than \$20 million.

The photos above show some of the damage done to the city of Fargo during the 1957 tornado.

1958:

In 1958 a master plan for downtown Fargo was developed by I.S. Shattuck, and nearly \$3 million was provided by the federal government for the redevelopment and the creation of a new public library and civic center.

The plan was the first urban renewal project in the state of North Dakota.

1961:

In 1961 the city underwent its second renewal project. The project was for the revitalization of Main Avenue. The project was a success, and it helped keep the vibrant social life of the downtown area going. It took about ten more years for the next major project to happen in Fargo.

1972:

1972 brought with it the opening of the West Acres Shopping Mall. This started to pull business away from the downtown area. The Mall was located at the extreme southwest edge of the city of Fargo. Located next to I-29, the mall took away the business that would normally go to the downtown area and started to create hardships for many of the commercial stores located on Main Avenue and Broadway.

However, it wasn't until West Acres drew Sears and deLencres away from the downtown area that the downtown businesses in Fargo started to really feel

the heat.

The movement of the department stores out of the downtown areas was the beginning of suburban sprawl in the Fargo area. Nearly 50 other smaller stores leased space in the new shopping center (Coran, 1999).

Below is a picture of West Acres Shopping Center.



(Coran, 1999)

## Historical Context:

### 1975:

After West Acres began to draw businesses away from the downtown area, the city decided to create the Red River Mall. The mall was located on Broadway and it was purely meant for pedestrian travel.

The “mall” itself transformed Broadway into a twisting pedestrian street with flower beds lining the walkways. The plan removed all parking along Broadway and it was thought that this decision would help promote the people of the downtown area to walk from store to store.

The fact that Fargo weather is some of the coldest in the continental United States was overlooked when developing this plan. The comfortable environment that West Acres offered pulled people away from the downtown area in droves.

By 1986 the mall project in downtown Fargo was decommissioned. The businesses along Broadway petitioned to return parking, and in this case the city listened (Coran, 1999).

### 1999:

During the 1990’s most of the inner city neighborhoods such as Hawthorne, Jefferson, and Horace Mann were essentially abandoned for the sprawling suburbs in the south and western portions of the city. In 1999 the state took drastic action with the formation of the Renaissance Zone Act.

The Act allowed for North Dakota cities to apply to the state to create a Renaissance Zone within the city. The boundary of the Fargo Renaissance Zone is contained within the boundaries of the Fargo Central Business District (City of Fargo, 2009).

After the Renaissance Act was adopted in the city of Fargo, the city came forth and stated that, “downtown Fargo is an economically vital, culturally rich mixed-use district where there are well designed public and private spaces for residents, visitors, employees, and employers, and where an appreciation for the districts historic character and natural amenities is paramount (City of Fargo, 2009).

Today the revitalization of the downtown area in Fargo is an ongoing process. With the addition of the new business and architectural buildings the act seems to be working well.

The additions of the mixed-use buildings located at the corner of 2nd Avenue North and Roberts Street, and the addition of the mixed-use building just south of the historic Fargo Theatre illustrate the importance of the downtown area to the city.

On the city of Fargo website it states that in the next five years the city would like to see an additional 500 living units go up in the Renaissance Zone of Fargo.



(City of Fargo, 2009)

The above image is of the  
Annual Fargo Street Fair.

## Goals of Thesis Project:

### The Academic:

The academic goal of this project is to explore the possibilities of architectural design. Analyzing the way in which we approach resource consumption and interpreting what makes individuals willing to move into an urban landscape are the two major focuses of this project.

My thesis will lay out ways to provide available design solution to experts who are trying to focus on what can make people disregard their current habits and move away from their suburban dreams.

This thesis emphasizes the importance of creating higher density living that both provides the American dream while requiring less resources to obtain it.

The academic goal of this thesis is to develop design concepts that focus on minimizing resource consumption while still providing all that is necessary to live a comfortable lifestyle.

This thesis will also focus on ways to incorporate sustainable ideas into urban development and higher density complexes.

In academics it is up to present education to provide examples for future students that can be used to improve the value of architecture as a whole.

### The Professional:

The professional goal of this project is to design a habitable environment that provides for various economic classes while still providing benefits and opportunities to the community.

This thesis suggests various design models for sustaining environmental resources and minimizing the impact built structures have on our environment. It is the architect's responsibility to provide the best quality dwelling while still being conscious of that dwelling's effect on the world around it.

The thesis' professional aspects will focus on ways to solve problems in society, provide better living conditions, and provide a place for people to pursue their social and cultural activities.

### The Personal:

The personal goal of this project is to explore and begin to understand the architect's ability as an individual to affect society itself and the individuals within that society.



## Qualitative Site Analysis

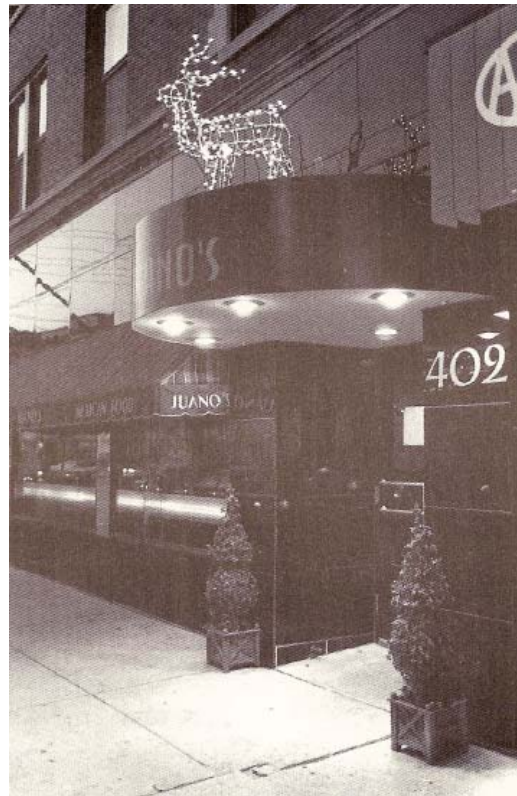
Living in downtown Fargo one comes to recognize the various aspects that make up the city. Fargo without Broadway would seem empty. The amount of history contained within the five downtown blocks of Broadway is amazing. From old Mom & Pop stores, to restaurants such as Juano's, Broadway seems to have it all.

Recently it has been said that the downtown of Fargo is undergoing a revitalization process. I would have to disagree. It seems as though Broadway is undergoing this process, and it shows.

There is always activity, restoration, and redevelopment occurring along this street. The various scaffolding and constant sight of construction trucks is a testament to this.

Although this is great for the city, it has dawned on me that the rest of the city has been left alone. Besides the addition of the NDSU Student Apartment complex not much attention has been paid to any of the other major avenues of downtown Fargo.

Walking down Roberts Street on my way to the Architecture Library I noticed that besides the elegantly handled sidewalks of Broadway the downtown area seems to be composed of scattered sections of historical buildings with the spaces in between being paved over for excess parking.



(Dolajak, 2000)



One of the most massive parking expanses in downtown Fargo runs from 2nd Avenue North parallel to Roberts Street for approximately two city blocks. It is a sore spot and has been treated that way. All of the buildings along Broadway use this area to house their dumpsters, and load their stores up with such things as food, beverages, and collectables.

The area has extremely high potential for an urban complex. It is located two blocks from both the Renaissance Hall, and the new Architecture and Business College. There is an NDSU bus stop route that runs right past the site, and being one block off of Broadway, there are stores and restaurants not more than a stone's throw away.

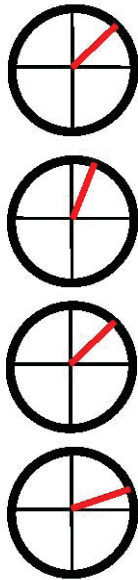
The site itself is as flat and plan as the long stretch of highway connecting Fargo to Grand Forks. The wind sweeps across it as though it was just another field located out on the huge North Dakota expanse of farmland. The site is composed entirely of an impermeable hard paved surface and everything about it reads cold.

However, the site will not remain this way. Soon it will become a sustainable, green, natural, and effective space. It will become the detour you want to take off of Broadway.



(Wollschlaeger, 2000)

## Quantitative Site Analysis:



### Sun Angles & Diagram:

FARGO, North Dakota, USA  
(96.47W, 46.52N)

Spring Equinox (3/21)  
Azimuth Range: 188.9  
Max Altitude: 43.4

Summer Solstice (6/22)  
Azimuth Range: 163.4  
Max Altitude: 65.8

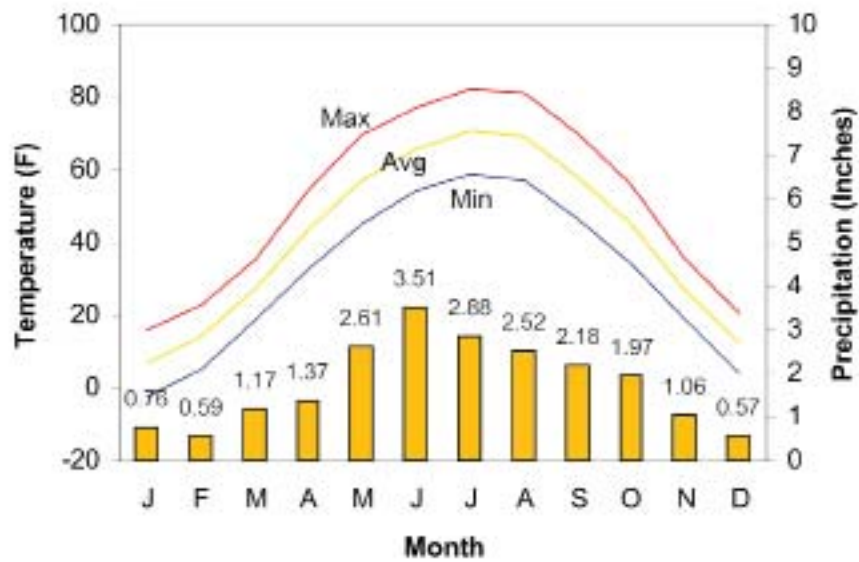
Fall Equinox (9/23)  
Azimuth Range: 173.5  
Max Altitude: 42.5

Winter Solstice (12/22)  
Azimuth Range: 173.7  
Max Altitude: 19.5



Fargo is located near the northern most part of the continental US. This leads to very low sun angles in the sky.

These low sun angles are mostly responsible for the low average temperatures displayed on the adjacent page. The low temperatures help give Fargo the nickname “Frozen Tundra” used by many of my friends and co-workers. (The photo at right was taken by the author, 2007)



1971-2000				
Month	Max	Min	Ave	Pcprn
J	15.9	-2.3	6.8	0.76
F	22.8	5.4	14.1	0.59
M	35.3	19.0	27.2	1.17
A	54.5	32.4	43.5	1.37
M	69.5	45.3	57.4	2.61
J	77.4	54.5	66.0	3.51
J	82.2	59.0	70.6	2.88
A	81.0	57.0	69.0	2.52
S	69.9	46.1	58.0	2.18
O	56.1	34.4	45.3	1.97
N	35.2	18.7	27.0	1.06
D	20.8	4.2	12.5	0.57
<b>Year</b>	<b>51.7</b>	<b>31.1</b>	<b>41.5</b>	<b>21.19</b>

Average Temperature (F) Average Precipitation (in):

Even though Fargo is well below the national averages for precipitation, the rain that does come can cause massive amounts of trouble in the area of flood control.

## Quantitative Site Analysis:

### Soil Composition:

FARGO, North Dakota, USA  
(96.47W, 46.52N)

I457A Urban Land, 0 to 2 Percent  
Slope

4'-0" Sample of Soil

The top 24" of the soil are  
comprised of silty clay.

The remaining 24" of the soil  
are comprised of clay.

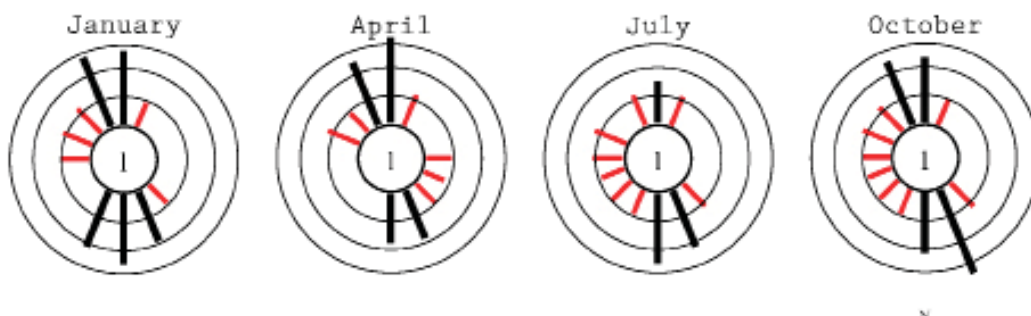
### The Soil:

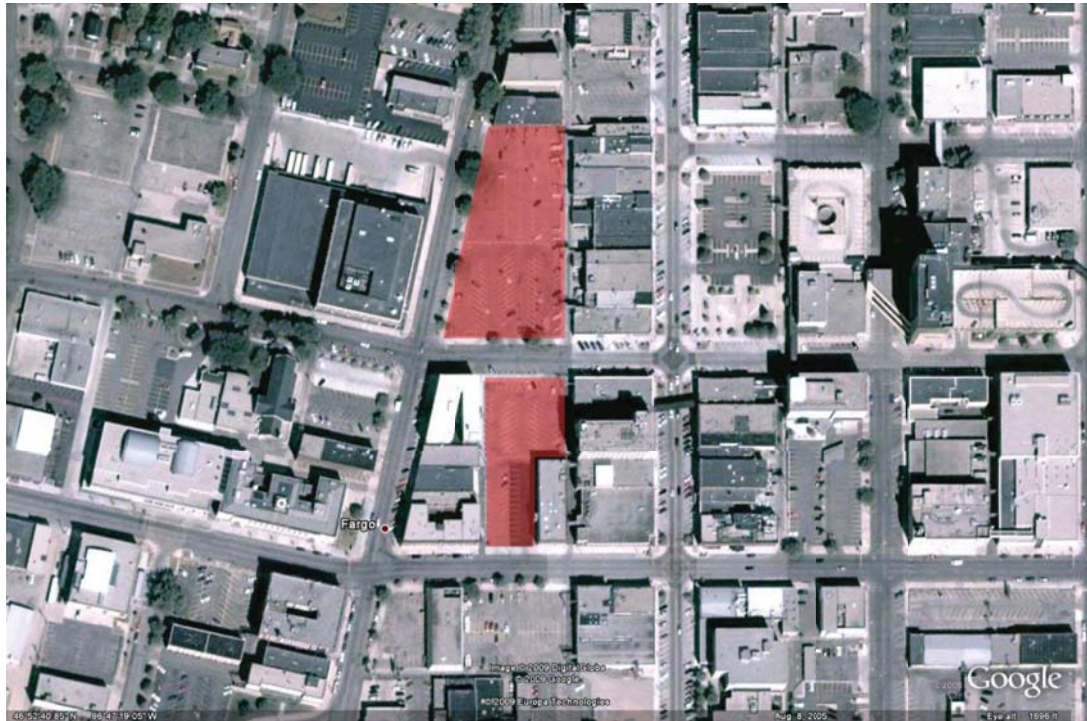
The Red River of the North  
is very prone to seasonal flooding  
in many areas along its banks.

My site, although located  
downtown Fargo, has experienced  
flooding a few times through out  
Fargo's long history.

### Surface Wind Rose:

Shown below are the  
seasonal wind roses for Fargo,  
ND. The black is the primary wind,  
while the red is the secondary  
wind. The roses count out by 5%  
intervals for each circle.





Aerial Photo with site outlined:

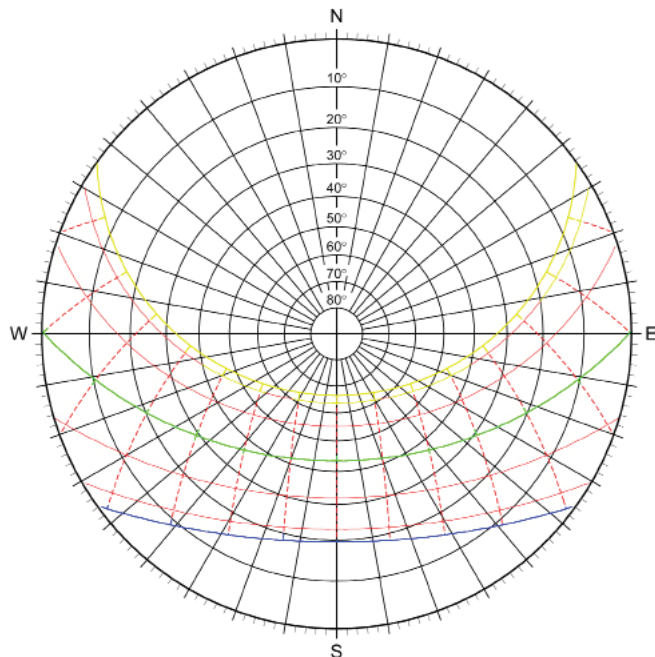
As shown in this aerial photograph the site is very linear. It is located in the heart of downtown Fargo.

Sun Path Diagram:

The Summer Solstice is represented by yellow.

The Fall/Spring equinox is represented by green.

The Winter Solstice is represented by blue.



## Quantitative Site Analysis:

[Images Looking North: \(Photos by Author\)](#)





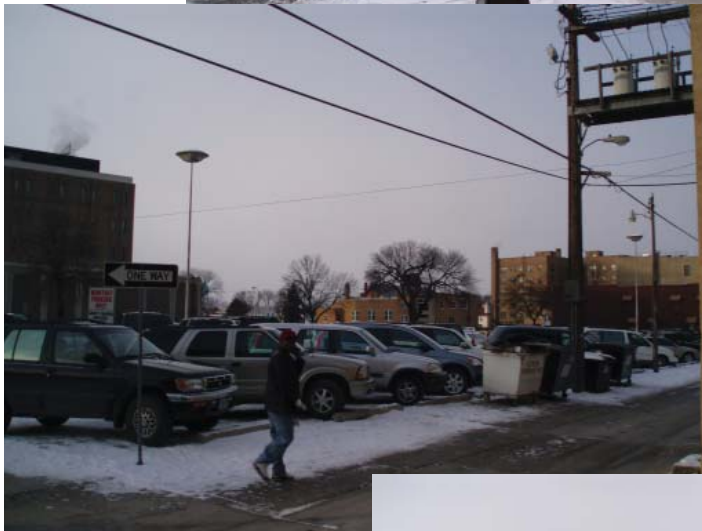
Images Looking East: (Photos by Author)

## Quantitative Site Analysis:

[Images Looking South: \(Photos by Author\)](#)







Images Looking West: (Photos by Author)

## Programmatic Requirements:

### Residential Tower:

Living Spaces		
Apartments	20%	55,000-65,000 sf
Condominiums	15%	41,250-48,750 sf
Outdoor Space	10%	27,500-32,500 sf
Recreation Space	3%	8,250-9,750 sf
Circulation	10%	27,500-32,500 sf
Residential Office	2%	5,500-6,500 sf

### Commercial Center

Commercial Space		
Retail	15%	41,250-48,750 sf
Mechanical	3%	8,250-9,750 sf
Support Space	2%	5,500-6,500 sf

### Parking:

Underground Parking	15%	41,250-48,750 sf
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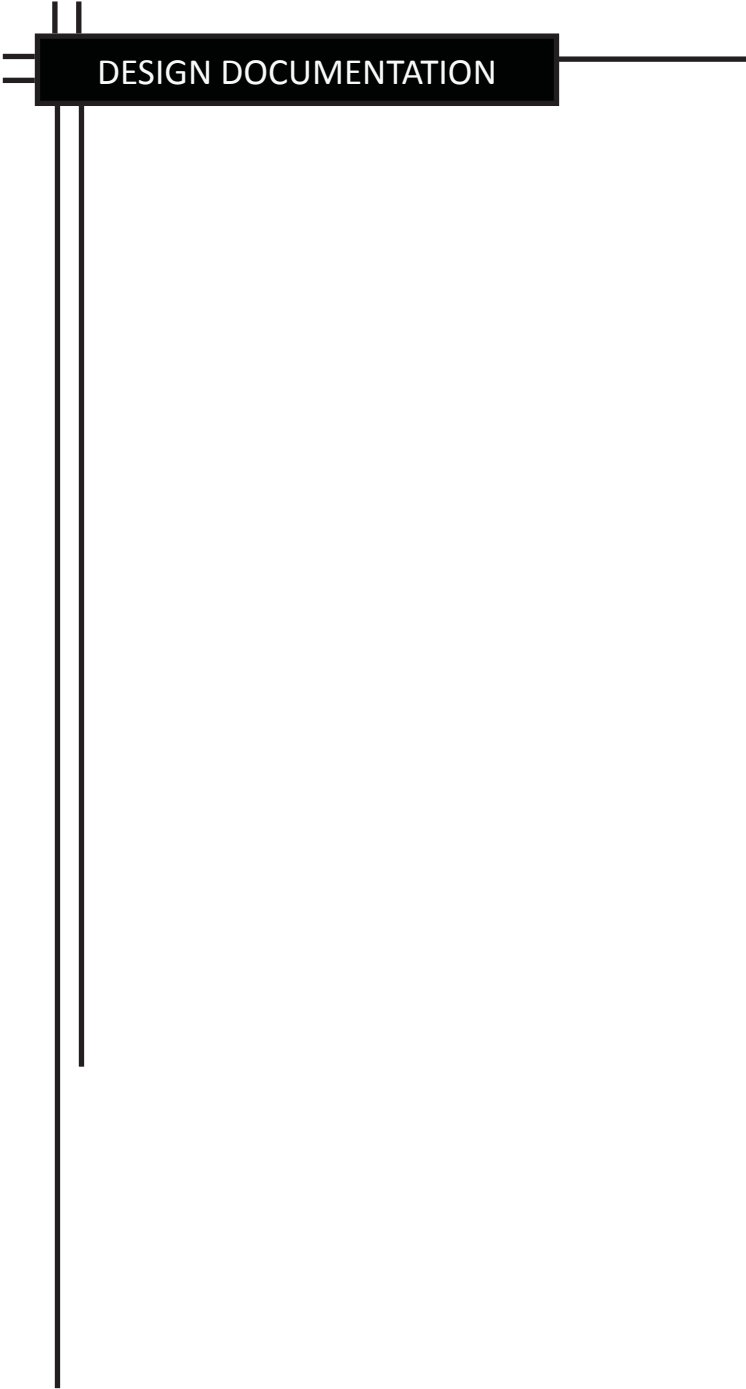
### Atrium:

Interior Atrium	5%	13,750-16,250 sf
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Total	100%	
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Total Area 275,000-325,000 sf





# DESIGN DOCUMENTATION



## Process Documentation:

The current design approach in the Midwest is one of build and spread. The availability of open tracks of land allows us to continue an outward push from the city centers.

Fargo not only embraces this unsustainable approach, but creates new ways of converting lush green farmland to asphalt and concrete. The inability of the city to keep its limits contained is most displayed in the brand new Wal-Mart located at 52nd Avenue South.

To fight this trend we must redevelop the urban landscape of the downtown area, and try to pull people back inward by providing the necessities of life within or urban developments.

Approaching this project from a urban design approach really helped me to address the issues I wanted to explore in my thesis.

Below is a image of the downtown area as it exists today. As can be seen the only green area that exists is the outside seating area north of the new business college.

By choosing such a large site for my thesis I really had an opportunity to create large amounts of green space within a concrete and asphalt landscape.



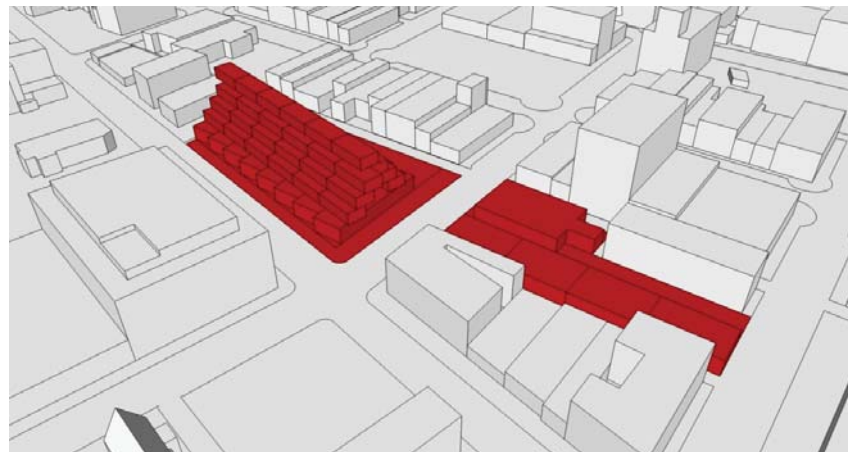
Setchup Image of downtown Fargo

When approaching the schematic design for my downtown development I really attempted to design to the square footage of the programmatic while also including techniques to reduce the overall impact of the project as a whole

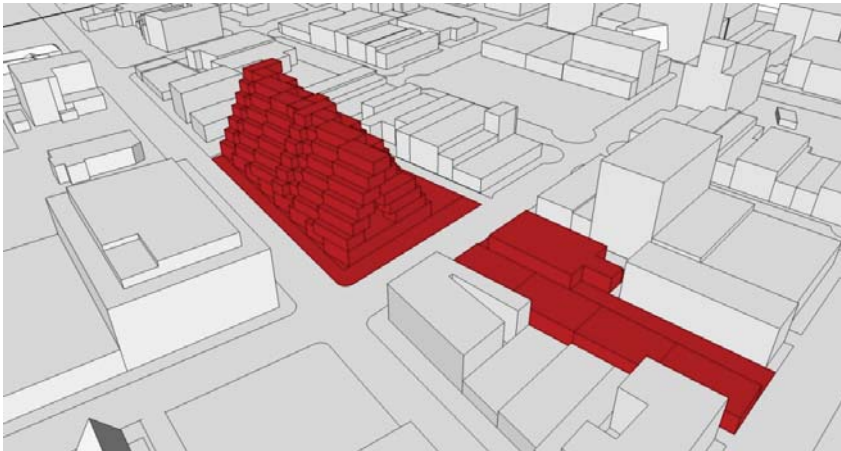
Working mainly with simple massing programs like Sketchup pro; I was able to set up spatial boxes and design different layouts and arrangements of the boxed spaces in order to reach the required square footage.

The use of simple massing programs like Sketchup pro allowed me the ability to do such things as sun and shadow studies. These studies led directly to the orientation of the structure on the site.

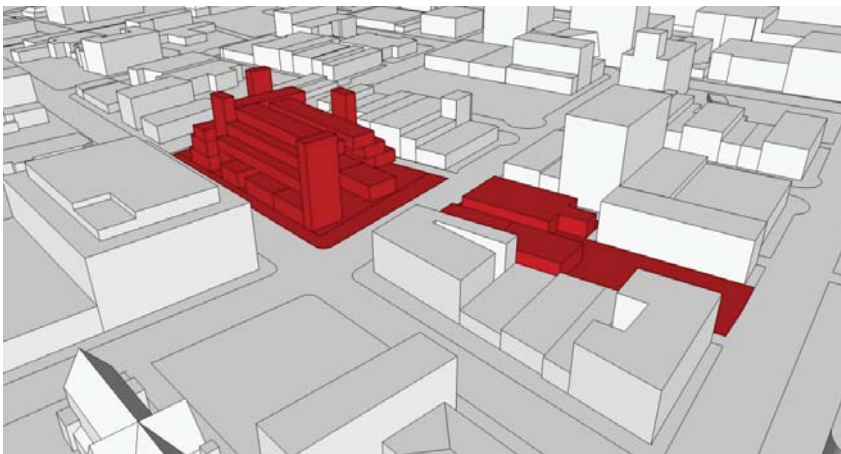
The following images were all taken from sketchup pro. They are images of the different spatial arrangements that I attempted in trying to find a solution to my thesis. Every one of the mass studies underwent sun and shade studies, and studies to see how much available green space they would provide.



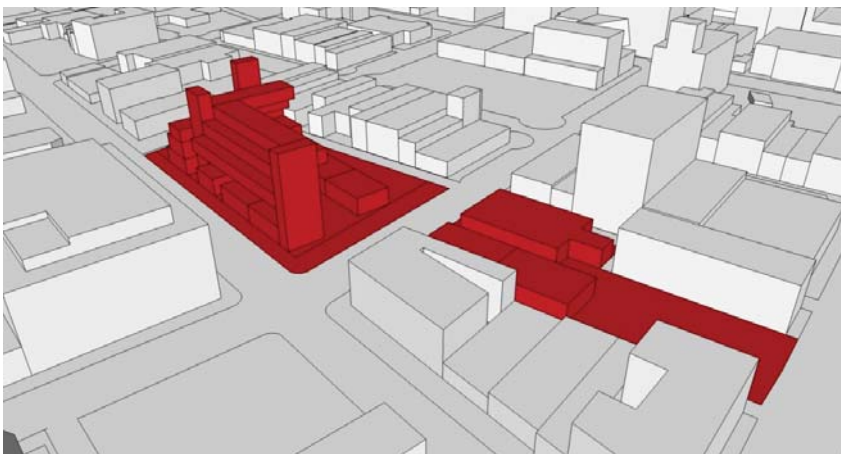
Pyramidal Apartment Structure



Staggerd Apartment Structure

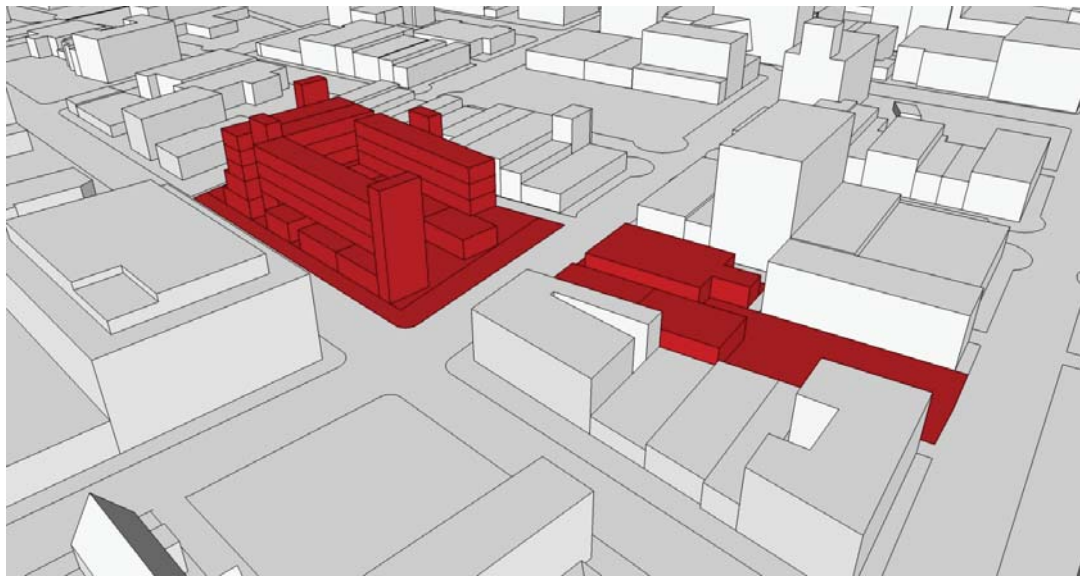


Pyramidal Floating Apartments

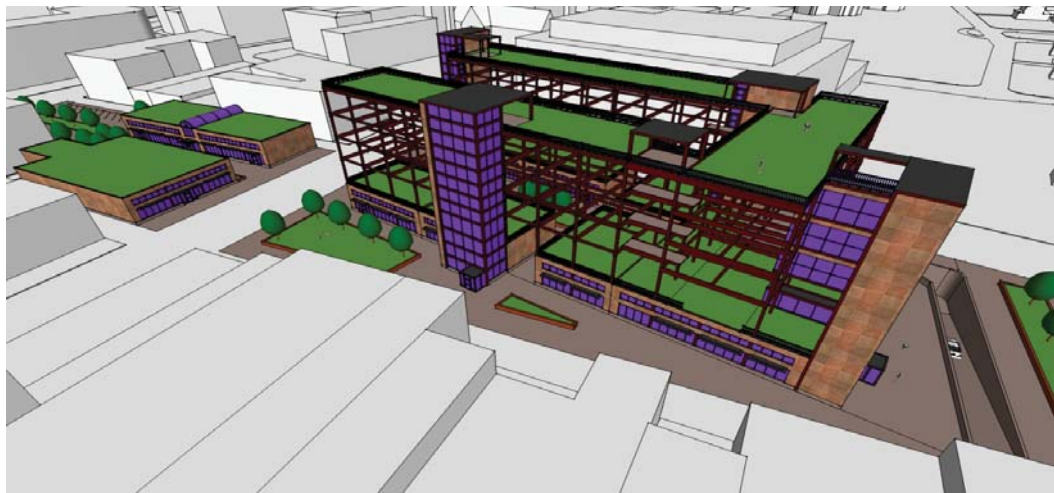


Exposure to the South





The final schematic design can be seen here. The four main vertical spaces really stand out in this design, as well as the floating of the apartment wings.



The structure of the development lies independent of the retail floor below. This independence allows the floor plans of the apartments and condominiums to be entirely free flowing with no columns.

## Project Solution:

Due to the nature of the floating apartment structure, my development really addressed the commercial center and the living spaces as two separate entities.

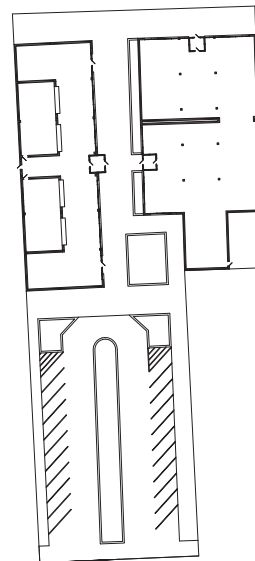
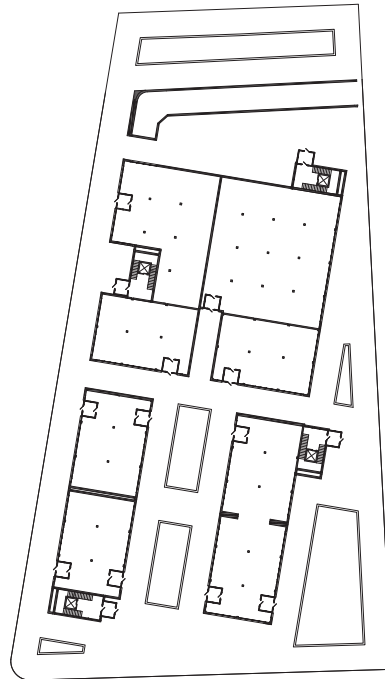
By addressing the site in this way, it is a lot easier to see the ties between the south part of the development and the north.

The retail centers within this development are set up with three main purposes in mind.

The South part of the development is used to tie the new NDSU apartments to the north part of the development.

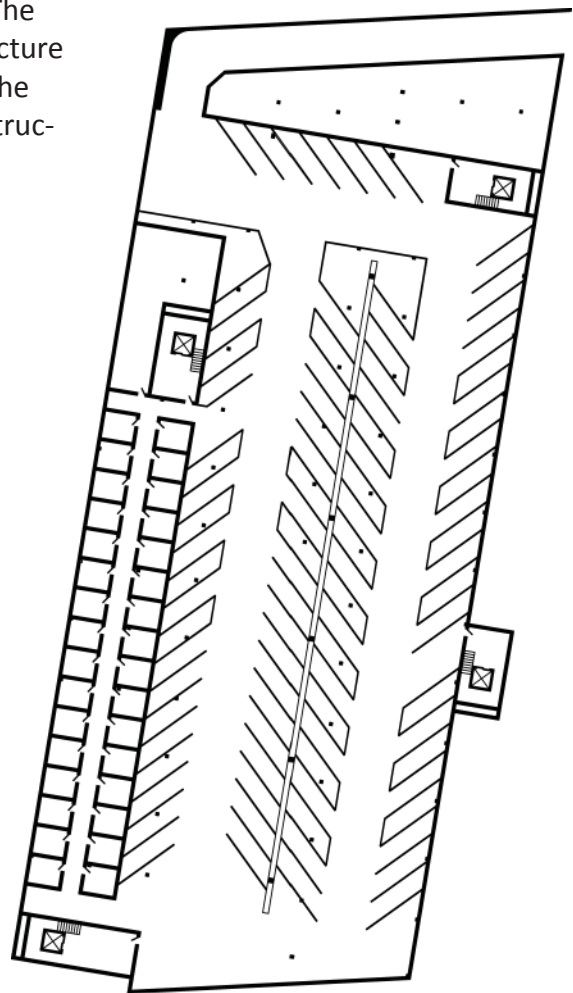
The South portion is set up to be a food center and hub for the students and new residents of the development made up of cafes, a restaurant, and a bar.

The North portion is made up of a workout facility, daycare, grocery store, and four retail shops that are to serve the downtown residences thus enabling them to be less dependent on the automobile.



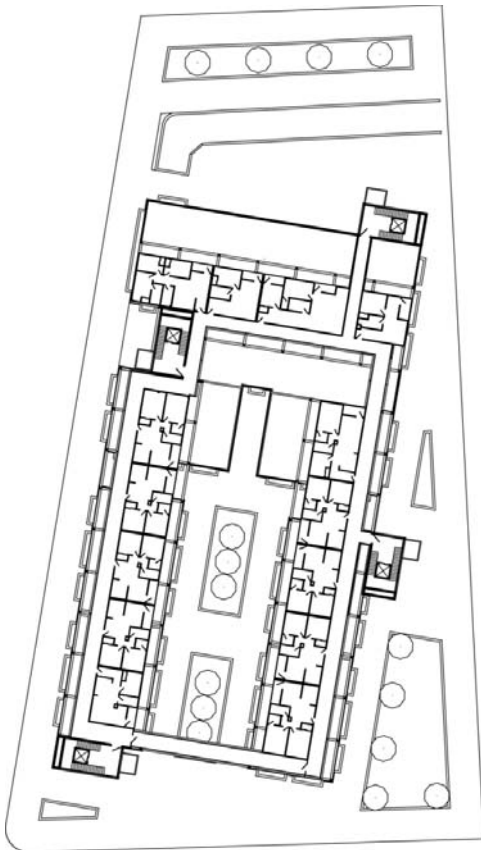
Although parking floors are usually the least interesting places within a structure; the downtown developments parking level has four very distinct functions.

The parking level provides two parking spots for every retail space located above. The parking level provides one storage space and one parking space for each resident. The parking level allows access to all four of the vertical spaces in the development. The North end of the parking structure provides a storage space for the water runoff created by the structure



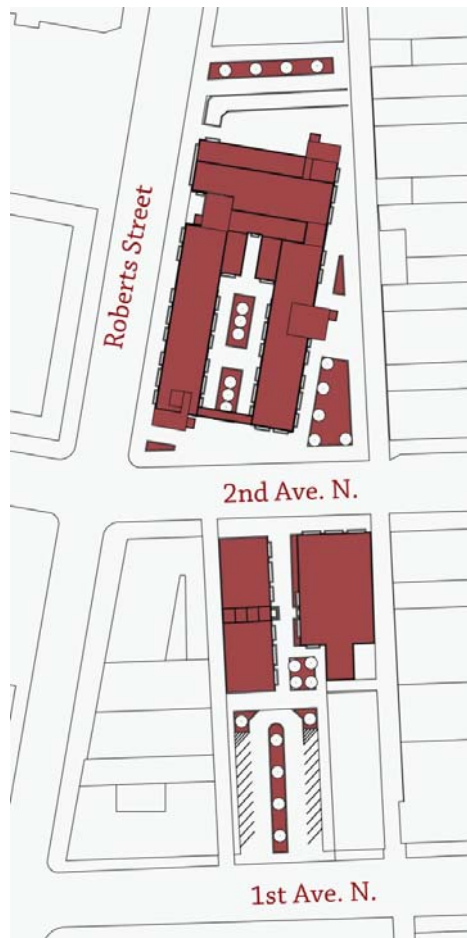
Every floor of the apartment and condominium levels will have five one bedroom apartments, five two bedroom apartments, and four condominiums made up of two one bedrooms, one two bedroom, and one three bedroom condo.

Every living space will have access to the green roofs located on the top of the structure and the second floor. All the apartments will have a deck looking into the courtyard of the development, and will be accessed from the exterior side of the structure.



One of the more serious problems with the developments of within the downtown area of Fargo is the lack of green space.

This new development will allow the site to have an amazing ability to provide green space, and to retain water. The runoff that this new development creates should be little to none, with the overflow being collected within the storage space of the parking level. Everything in red in the image to the right will be a functioning green roof system.



The Development will have four main materials. These will be glass, steel, concrete, and a tile façade treatment that will absorb sunlight allowing the reflection from the building to be minimal, and also roughly match the material makeup of existing downtown structures.

Designed to fit into a fairly Complex site, this new development will provide the various necessities that have not existed within the downtown area of Fargo to this day.

Made up of a fairly simple palate of materials the complex itself will provide numerous features that will support the residence's everyday lives.



Interior Courtyard



Courtyard View From Bridge



NW Corner Perspective



Food Court

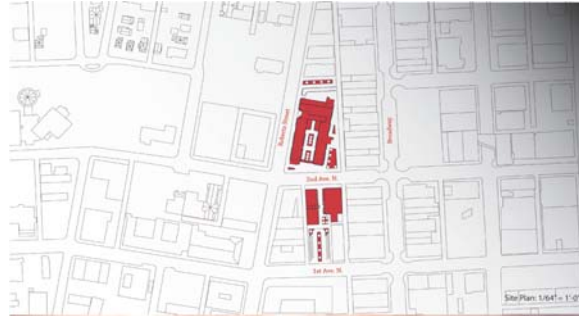


Entire Complex

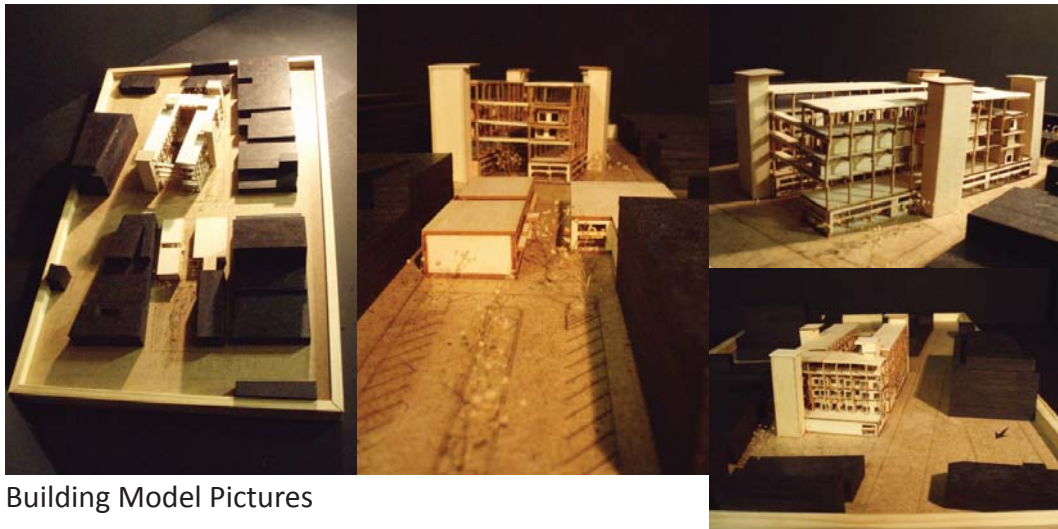
The downtown development is an example of the way in which we as architects need to design in order to provide the necessities for people in urban areas. We must begin to take a holistic approach that enables the users of our developments to live within the urban centers of our country.

My personal goal for this project was to explore and begin to understand my ability as an architect and an Individual; the ways in which I can begin to affect society and the individuals within that society through my design.

# Project Installation:



Final Boards



Building Model Pictures





Project Installation on 5th Floor of Renaissance Hall

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NDSU

"I came to look at NDSU cause of the program and tuition; I stayed cause of the people"