

# Retrofitting for Change

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# FARGO

Chidozie Ehiemere

# **Environmental Revitalization**

**FARGO**

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

**By  
Chidozie Ehiemere  
In Partial fulfillment of the Requirements  
For the Degree of  
Bachelors of Landscape Architecture**



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**May 2010  
Fargo, North Dakota**

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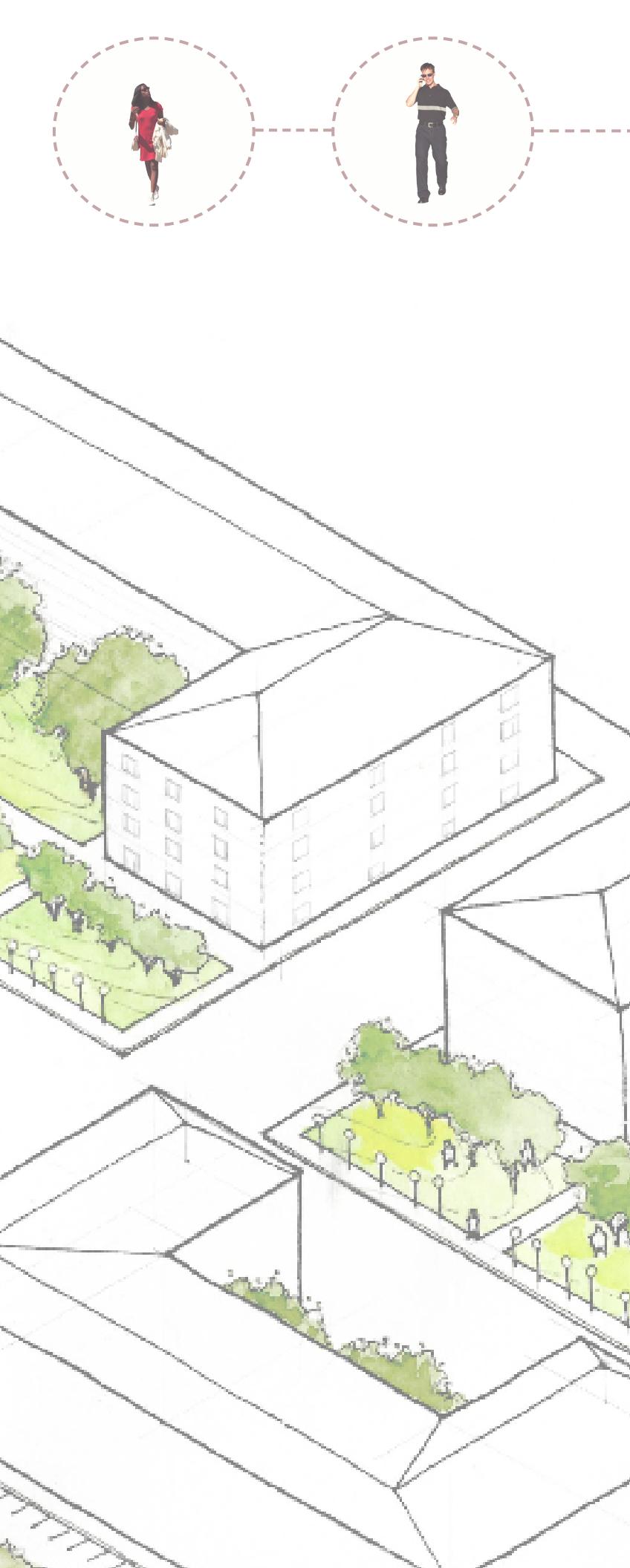


Student Signature

13th May 2010

Date





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## Abstract . .



West Acres Shopping center along 13th avenue South center : A catalyst for growth in South Fargo and a major hot-spot for Fargo residents.



The retro-fitting of urban space enhances the quality of life within an urban setting

**13th Avenue South Fargo** has gradually grown to become the City of Fargo's commercial and residential hub since the introduction of interstates i-29 and i-94 in the late 1950's.

The region surrounding 13th avenue South has thrived as result of cheap land for development and the infusion of business ventures such as the West acres mall. This has brought an influx of business investors and residents to the area hungry for a piece of the profit and economic productivity the region has to offer.

With Fargo's thriving commerce which is predominantly along 13th avenue south Fargo, population figures have been on the rise. These figures have resulted in an increase in population density within the city of Fargo.

It is feared that future projected population growth within the city of Fargo especially along its commercial corridors will not be able to align with the current trends of spread development and urban sprawl that Fargo has been so used to in respects to its current planning trends.

If urban sprawl and spread development are not addressed through design and planning within the city of Fargo to meet the needs of the growing population, then we will begin to see future scenario's along commercial corridors in Fargo (such as 13th Avenue South) where economic and aesthetic demise becomes a trend. This will in turn gradually affect economic productivity and standards of living along such commercial corridors within the city of Fargo and other areas of similarity within the state of North Dakota.

This thesis aims to indicate practical solutions to rectifying urban sprawl and spread development along commercial corridors such as 13th avenue south Fargo.

## Abstract .



San Diego Uptown Pan: Conversion of a former Sears' store into commercial and residential development.

This is being done through the implementation of urban development principles of retrofitting , infill, smart growth and urban greenification .

This is all being done with the aim of catering to Fargo's present and future growing population as well as protecting and improving Fargo's economic viability for present and future inhabitants of the city.

## Problem statement . . .



This thesis aims to implement the principles of Infill / Smartgrowth and urban greenification through the retro fitting of exsistent commercial space along the 13th avenue south Fargo's commercial corridor

This is being done with the aim of improving 13th avenue South's economic viability, growth and continuity as well as catering favorably to the prospective population growth Fargo will experience over the next century.

# Statement of Intent

## Typology

Infill growth through Urban retrofitting

## Key words

The keywords for this thesis are centered on the existent planning principles ,economic terms and conditions that have already been established along 13th avenue south corridor and the area of South Fargo.

Urban retrofitting comes in as a catalyst veering these exsistent planning principles economic terms and conditions towards regions of positive outcome for the commercial corridor of 13th avenue South Fargo.

In this case the positive nature of the design thesis becomes a scenario in which commercial space is efficiently utilized to cater to mixed use purposes [ commercial , residential and industrial] in a manner that is beneficial to both 13th avenue south , its inhabitants and users of its space.

Negativity is assumed to occur if the catalyst for proposed positive environmental balance (Urban retrofitting ) is not adequately applied properly over the course of a set timeline and the keywords stated below are adversely affected.

The key words are as follow:

**Economic development:** Economic development is typically measured in terms of jobs and income, but it also includes improvements in human development, education, health, choice, and environmental sustainability.

**Economic productivity:** It is a measure of the output of a worker, machine, or an entire national economy in the creation of goods and services to produce wealth.

**Standard of living:** A minimum of necessities, comforts, or luxuries considered essential to maintaining a person or group in customary or proper status or circumstances.

**Urban growth:** The rate of growth of an urban



Urban Greenification:Proposed plaza space blockbuster video on 13th avenue south fargo



Urban beautification and Greenification: Fountain plaza silver springs.

## Statement of Intent



Pedestrians enjoying a nice evening at Orchard pedestrian mall along orchad road in Singapore.

**Built environment:** Artificial or man-made surroundings built to serve for a particular purpose, e.g. human activities ranging from the large-scale civic surroundings to the personal places

**Natural environment:** A natural environment is one in which human impact is kept under a certain limited level.

**Balance:** A harmonious or satisfying arrangement or proportion of parts or elements, as in a design.

### Claim

With the occurrence of a developmental boom along 13th Avenue South Fargo, there has been very little attention paid to the effective utilization of commercial space.

With its continued dismissal in developmental planning along 13th Avenue South there is the notion that limited land availability for growth and development will present itself along the 13th avenue south corridor and other corridors similar to it within the city of Fargo. in the future.

This limited availability of commercial space for growth within the city of Fargo will lead to a reduction in potential business investors, population influx ,standard of living and future economic development/ growth along 13th avenue south and the region surrounding it .

**Actors:** City of Fargo planning Commission Residents ,Developers and users of 13th Avenue South.

**The Action:** Proper and effective utilization of exis-tent commercial space along 13th avenue south Fargo using the infill principle of retrofitting in proposed areas for design and development along 13th avenue South.

# Statement of Intent



One of the three sites for retrofit: Sunmart/ Cvs site on 13th avenue south Fargo.

**Manner of Action:** The identification of under utilized commercial space and abandoned commercial locations along 13th Avenue South Fargo will lead to a proposal embarking upon the suggestion of ideas and design solutions to make such areas not only commercially profitable to the city of Fargo and current/potential business investors but also present a frame work for future design along other commercial corridors within the City of Fargo.

## Premise

**The Actors:** The actors implimenting Urban retrofitting and its design principles will affect the manner in which 13th avenue south Fargo develops and the standards of living it maintains.

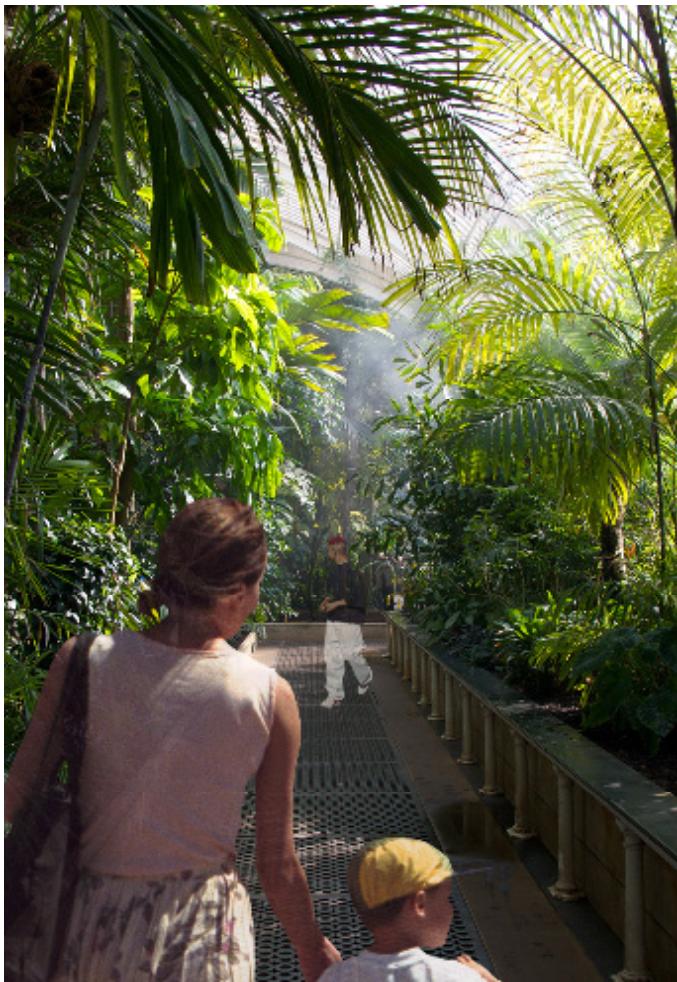
**The Action:** improving standards of living and economic growth/development along 13th avenue South Fargo through infill growth in the form of **Urban retrofitting**.

**The Object:** Ensuring future economic stability , development and growth along 13th avenue south Fargo by implimenting urban retrofitting as an important principle of design along 13th Avenue south Fargo and other commercial corridors within the city of Fargo.

**Manner of Action:** Design ideas and principles that stem from **Urban retrofitting** as a concept will be used in conjunction with an action/ implementation time line.In this way 13th Avenue South will achieve structurally planned and implimented growth.

## Conclusion

The implementation of the infill concept of **Urban retrofitting** along specific locations within the 13th avenue South Fargo corridor will improve commercial activity along 13th avenue south, enable future economic development within the area, provide potential population influx with job opportunities and residency ,while also enhancing the aesthetic quality of the exsistent enviroment along 13th avenue South Fargo.It will also serve as a template for future development and growth within the City of Fargo.



Addition of green house unit to site above: This is aimed at improving standards of living and use of proposed cvs/ sunmart site along 13th avenue south Fargo.

# Statement of Intent



## Project Justification

1) The city of Fargo's push for a **long range transportation plan** that supports denser / compact development within Fargo . This will cater to a growing diverse demographic and limit excessive/ cumbersome long distance transportation around the city of Fargo.

Excerpt from Metro-cog ; Fargo/ Moorehead long range transportation plan November 2009.

Many of the assumptions and outcomes of the plan are based on the premise that the metro area will continue to grow in the future in much the same way as it has over the past few decades.

In the travel demand forecasting model, for the Alternative Growth Scenario, anticipated future households and jobs were assigned to the already developed urban area, representing more compact and mixed-use development. Overall, this redeployment of growth resulted in an increase of 5% to 10% of the number of households that currently exist within the traffic analysis zones.

Once the households and jobs had been reassigned the cost savings were calculated from the miles of roadway that no longer needed to be built, the sewer and water lines that did not need to be extended, and the additional police and fire department personnel that did not need to be hired to serve the fringe growth areas of the urban core. The result was that over 9,000 acres of land did not need to be developed, translating into a region-wide cost savings of over \$819,295,000 over 25 years.

From the above excerpt it is clear to see that the city of Fargo has already noted the importance of condensed growth and development both economically and in terms of proximity to its growing population.

[www.urbansprawlrepairkit.com](http://www.urbansprawlrepairkit.com)



The city of Fargo planned unit development code allows for the comprehensive retrofit of exsistent abandoned and non functional architectural structures along 13th avenue south Fargo.

Urban sprawl Repair kit: repairing the Urban Fabric by Galina Tachieva  
A major driving force in the thesis proposal.

2) The presence of the **PUD (Planned unit development )** within the city of Fargo's Land development code which makes exceptions to flexible land planning and site design that differ from conventional zoning districts .

The presence of such a development code shows that the city of Fargo is willing to embrace change that is beneficial to its overall growth and economic productivity.

Excerpt from the city of Fargo Land development code ( republished 2005)

## Article 20-03

### Overlay and special purpose district

#### 20-0302 PUD, Planned unit development

##### A. Description

The **PUD , planned unit development district** is an overlay zoning district that permits greater flexibility of land planning and site design than conventional zoning districts.The PUD regulations:

- 1) Provide flexibility in architectural design , placement and clustering of buildings ; use of open areas a d outdoor living areas; provision of circulation facilities and parking ; and related site and design considerations;
- 2) Encourage the conservation of natural features;
- 3)Provide for efficient use of public services and improvements;
- 4)Promote attractive and functional business environments in non residential zones that are compatible with surrounding development; and
- 5)Promote attractive and functional business environments in non residential zones that are compatible with surrounding development ; and
- 6) Promote an attractive and safe living enviroment in residential zones.

##### B. Applicability

# Statement of Intent

A PUD district may be approved only when an applicant demonstrates to the satisfaction of the Board of city commissioners that a proposed PUD project would result in a greater benefit to the city than would a development under conventional zoning district regulations.

## C. Developers statement of intent

Each applicant for PUD zoning and Master Land use plan approval must include a comparison of the proposed development with the standards of underlying zoning district and otherwise applicable standards of this Land development Code. Applications must also include a statement by the applicant describing how the proposed development provides greater benefits to the city than would a development carried out in accordance with otherwise applicable land development regulations.

## D. Effects of other zoning standards

Except as expressly authorized by the regulation of this section and approved as part of a PUD plan in accordance with the procedures of sec. 20-0908, all of the standards of this land Development code apply to a development within PUD.

## E. Standards Eligible for Modification

The following otherwise applicable standards may be modified by the Board of City Commissioners during the PUD Master Land use plan approval process. Standards not listed are not eligible for modification.

### 1. Allowed uses

The board of city commissioners shall establish the list of uses allowed in a PUD zoning district during the PUD Master Land use Plan approval process (see Sec. 20-0908). The Board of city commissioners may approve only those uses allowed in the underlying base zoning district, provided that PUD's in Mr-3 and more restrictive districts may include retail sales and service use up a ratio of 40 square foot per dwelling unit.

### 2. Lot size

The minimum density standards of the underlying zoning district may be reduced by the the board of city Commissioners during the PUD review and approval process.



# Statement of Intent

## 3. Residential density

The maximum density standards of the underlying zoning district may be increased by the Board of City Commissioners during the PUD review and approval process.

## 4. Setbacks

The minimum setback standards of the underlying zoning district may be reduced by the board of city commissioners during the PUD review and approval process. Unless otherwise expressly approved during the PUD review and approval process, buildings located on the periphery of the PUD must be setback a minimum of 30 feet from the PUD district boundary. Setback standards imposed by the residential protection standards of sec 20-0704 shall not be reduced.

## 5. Height

The maximum height limits of the underlying zoning district may be increased by the board of city commissioners during the PUD review and approval process. Height limits imposed by the residential protection standards of sec. 20-0704 may not be increased.

## 6. Building Coverage

The maximum building coverage standards of the underlying zoning district maybe increased by the board of city commissioners during the PUD review and approval process.

## F. Additional Requirements and standards

### 1) Approval Procedures

PUDs must be reviewed and approved in accordance with the procedures of Sec. 20-0908. The approved PUD Final Plan shall control development within a PUD.

### 2) Road way access

Unless otherwise expressly approved during the PUD approval process of Sec. 20-0908, principal

# Statement of Intent

vehicular access to PUDs must be from collector and higher classification streets. Any PUD containing over 50 dwelling units or 30,000 square feet of non-residential space must provide at least 2 access points, wherever possible.

## 3) Open space

At least 10 percent of the gross land area in PUDs must consist of open space.

## 4) Preservation of Natural features

Mature trees, vegetative cover, water courses and other natural site features must be preserved to the greatest extent possible.

## 5) Additional Conditions

The planning Commission shall recommend and the Governing Body shall impose such other conditions as are necessary to accomplish the purposes of this Land development Code.



3) **Agriculture** a major economic resource to the state of North Dakota makes available a great quantity of capital income to the state of North Dakota. As a result quite a bit of the available state land is set aside for agricultural practices.

Fargo is part of this practice and as such has a substantial amount of land set aside for agricultural purposes. These fractions of land set aside are zoned accordingly for agricultural purposes and will not be changed in ordinance anytime soon being that agriculture brings in as much as it does capital wise (GDP) to the state of North Dakota.

This leaves Fargo with the options of maximally utilizing available land zoned for commercial purposes or continuing in the notion of spread development which as we can tell will not be able to eventually cater to the growing population demographic and density the City expects to experience in decades to come.

# Statement of Intent



Farmers hard at work : A normality within the North dakotan landscape..

Excerpts from various sources that stipulate the importance of agriculture to The State of North Dakota and the city of Fargo.

North Dakota had the nation's fastest economic growth rate in 2008, according to the U.S. Department of Commerce. The largest contributors to the **7.3%** growth rate were agriculture, forestry, hunting and fishing.

Of the **21** categories that contributed to the North Dakota state gdp in 2005, Agriculture was ranked **6th** in importance.

**90%** of North dakota's land space (of which Fargo is included) is covered by Farms.

The region of Cass county ( of which the city of Fargo is located ) has fertile soils that yield an abundance of grains and beats ( about 500,000 acres). This is more than any other county in the United states of America.

City of Fargo Land development code; Agricultural district.

## A. Description

The AG, agricultural district is intended to accommodate agricultural landuses and provide an interim zoning classification for lands pending a determination of an appropriate permanent zoning designation.

## B. Allowed use

Uses are allowed in the AG district in accordance with the use table of sec.20-0401.

## C. Dimensional standards

Development within the AG district is subject to the dimensional standards of Article 20-05.

# Statement of Intent



A glimpse of the future : Fargo's growing population expected to hit **408,000** by 2050.

4) Fargo's projected **population growth** has been an issue for discussion with regards to planning and alteration of its exsistent urban fabric .It is postulated that with the continued rise in population figures and a reduction in the land availble for development due to increasing population density, the notion of retrofitting exsistent commercial space to cater to mixed use purposes and population figures is something that iwill have to be embraced by the City of Fargo.

Statistics to back the city of Fargo's growing population figures, population density/ land availability.

## Population figures for Fargo

**1900: 9,598**

**2010: 192,417 [ estimates ]**

**2050: 408,000 [ estimates]**

## Land available in Fargo

**37.9 sq/mi**

## Population Density for Fargo

**1900: 253.01 / sq mi**

**2010: 5076.96 / sq mi [estimates]**

**2050: 10,765.17/sq mi [estimates]**



Fargo's climatic conditions : A huge problem especially during the months of November to March.

5) Climatic conditions are a reason you hear most prospective residents say they avoid living within the city of Fargo and the state of North Dakota.North dakota weather is unpredictable and the city of Fargo is no exception. Our most extreme weather months (**November-March**) are centered around torrid winter weather that freezes roadways and deposits large amounts of snow detrimental to vehicular and pedestrian traffic .

This most of the time hinders most out-door activites other than those winter related .This weather is duly more intensified by winter winds that drop tempreatures to unbearable lows.

## Statement of Intent

Location : DC Logan Grocery

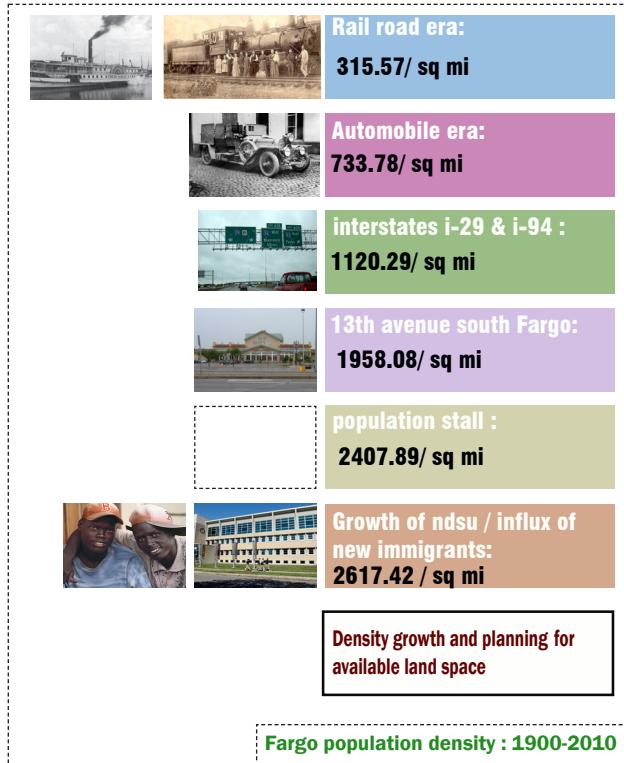


Consumer patronization : A huge factor in the retro-fitting of 13th Avenue South Fargo

Being that 13th avenue south is a major commercial hot spot for the city of Fargo, the notion of retrofitting major commercial sites within the area leads the city of Fargo to acquire certain benefits from the reto-fitting of commercial sites within the area. They include:

- 1) Further consumer patronization due to bearable micro-climate adjustments.
- 2) Creation of micro-climates conducive to outdoor activity.
- 3) Reduction in snow pile up/ build up within retrofitted sites.
- 4) Reduction in frozen hardscapes and roads within retrofitted commercial sites along 13th avenue south Fargo leading to a reduction in vehicular and pedestrian accidents.

## Proposal : Narrative



### FARGO'S CONTINUED GROWTH PATTERN

Historically speaking Fargo has been a city affected by eras of transportation and growth.

Occuring firstly in the Northern area of the city of Fargo, also aptly called downtown Fargo, there has been the introduction of the steam boat, railroad and automobile eras from the late 1800's to early 1950's.

All three eras are responsible for increasing populations figures in the downtown area and creating the initial growth spurt growth experienced in North Fargo .

Census	Population	% increase in Population	Median % growth	Era of Growth within Fargo	Location of Growth within Fargo
1900	9,589	—	24.75%	The End of the steam boat era and beginning of the rail road era.	North Fargo : Downtown Fargo
1910	14,331	49.5	32.43%	The beginning of the automobile era and the stalling of the railroad era.	North Fargo : Downtown Fargo
1920	21,961	53.2	19.7%	Introduction of interstates i-29 and i-94 to Fargo , North Dakota.	South Fargo : 13th Avenue South Fargo
1930	28,619	30.3	14.68%	Growth of 13th Avenue South Fargo as a result of i-29, i-94 and Westa acres shopping center.	South Fargo : 13th Avenue South
1940	32,580	13.8	-0.71%	Stall in population growth	-----
1950	38,256	17.4	9.27%	Growth of North Dakota state University and the influx of New immigrants into the City Of Fargo.	North Fargo : Downtown Fargo
1960	46,662	22.0			
1970	53,365	14.4			
1980	61,383	15.0			
1990	74,111	20.7			
2000	90,599	22.2			
2001	91,599	1.10			
2002	91,291	-0.34			
2003	91,121	-0.19			
2004	91,953	-0.91			
2005	90,672	-1.39			
2008	99,200	9.27			

Fargo's population growth in respect to its various eras



Interstates i-29 & i-94 : A huge factor in the growth and commercialization of 13th Avenue South Fargo



West acres mall : A huge factor in the growth and commercialization of 13th Avenue South Fargo

From the early 1970's to present another era of growth was introduced to the city of Fargo through the erection of interstates i-29 and i-94.

These interstates brought growth to the southern region of the city of Fargo aptly called south Fargo.

Its catalyst for growth, 13th avenue south has introduced a mix of business establishments, residential housing and some industrial plants to the region of South Fargo and has become the commercial hub for the city of Fargo on a whole.

Since establishing this commercial hub status , 13th avenue south has continued to pull in swarms of consumers and potential business investors to the Sourh fargo area.This has in part supported the economical growth of south Fargo.

With its growing popularity, the need for commercial space to continue to expand positively and the reduction in land availbaility due to increased population density and zoning codes/ordinances , 13th avenue south Fargo is faced with the task of ensuring maximum use of its available commercial space .

Infill using the principles of retrofitting is one of the many solutions 13th avenue south can begin to look into to rectify its projected space availability problem.

We have talked about the word retro-fit quiet a bit during the course of this document but to get a better understanding of it one has to discern its definitions and its applidcations to the the commercial corridor of 13th avenue south Fargo.

## What is Retrofitting

**retrofit - a component or accessory added to something after it has been manufactured**



**Urban sprawl Repair kit: repairing the Urban Fabric by Galina Tachieva**  
A major driving force in the thesis proposal.

To add or substitute new parts or components to some device, structure etc., that were not previously available; to modernize

To fix an older version (or older versions) as part of the same process of fixing the newest version

**Why is it necessary to Retrofit the 13th avenue south Fargo commercial corridor?**

The book **Retrofitting suburbia** makes available certain points for the retrofitting of commercial strips and residential households within given urban and suburban setting most of which apply to the 13th avenue south Fargo strip. These points are as follows:

#### Aging , Out of date properties

Dead malls and strip retail centers, old industrial parks, and small tract house sub-divisions adjacent to transit stops make excellent retrofit sites. A fear of blight often trumps Not in my backyard (NIMBY) resistance and may lead to the creation of public- private partnerships and the provision of tax increment financing (TIF) regeneration initiatives.

#### Booming New Agglomerations in Edge cities or "Edgeless Cities"

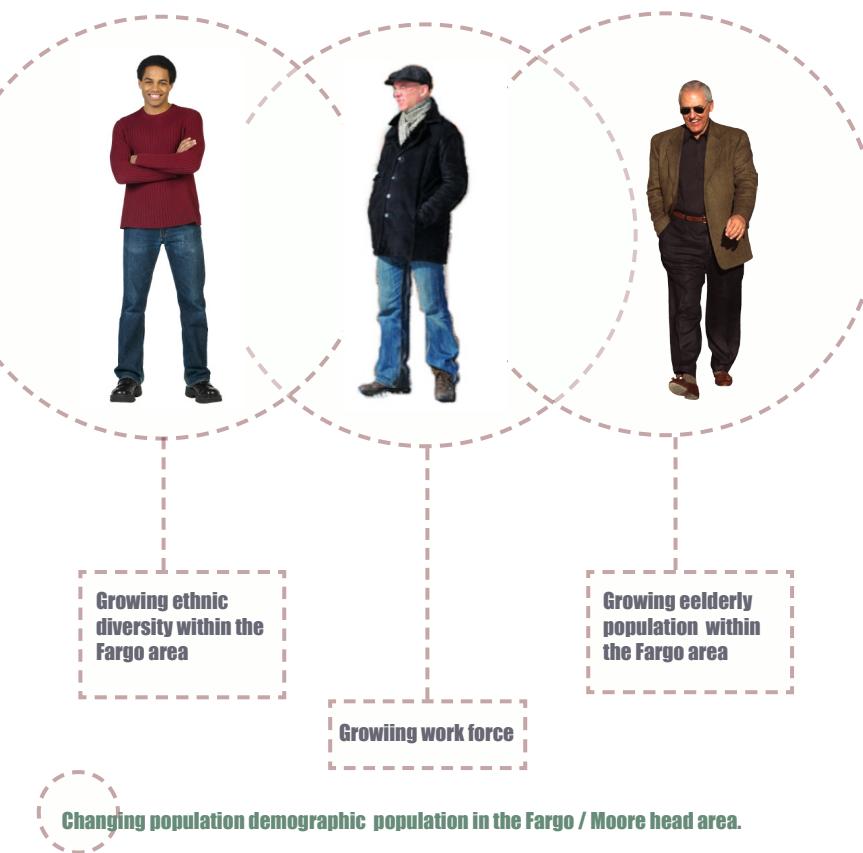
Concern over traffic and air quality triggers transit-oriented development (TODs), planning for mass transit and a market for more intown locations . “Underperforming asphalt” is replaced with a mix of uses , dwellings and business organized on walkable streets and blocks.



Block buster video site : A site filled with out of date aging property set for retro-fitting.



West acres mall : A site abundant with large expanses of asphalt parking set for alternative mixed use development.



## Changing Demographics and Markets

Between the aging baby boomers and the surge of young echo boomers, increasing percentages of households are without children, even in suburbs. In addition, suburbia is increasingly characterized by diversity in income, race and ethnicity. These factors are leading to a growing market for a more diverse selection of urban housing types and places.

## Smart growth practices and policies

Recognizing environmental limits to unchecked growth, suburban governments are planning for the future by implementing new policies that rethink zoning, anticipate the arrival of mass transit, and encourage the construction of affordable housing.

## Other factors thesis will focus on?

The thesis aims to address predominantly with in the south fargo area :

**Climatic conditions :** predominantly winter winds and winter weather months (**November - March**) that inhibit the use of external open space within the sites for retro-fit in the south Fargo area.

## Conclusion

Dealing with these above stated factors it is believed that South fargo and its constituents parts will begin to set themselves up positively for both economic and smart growth even as the population demographic begins to drastically change with time..

## Proposal : User/Client Description . . .



1



2



3



Pictures of thesis sites along 13th avenue south Fargo

1. All community members : 192,417
- 2.Tourists and Visitors: vary in figures from year to year

### Description

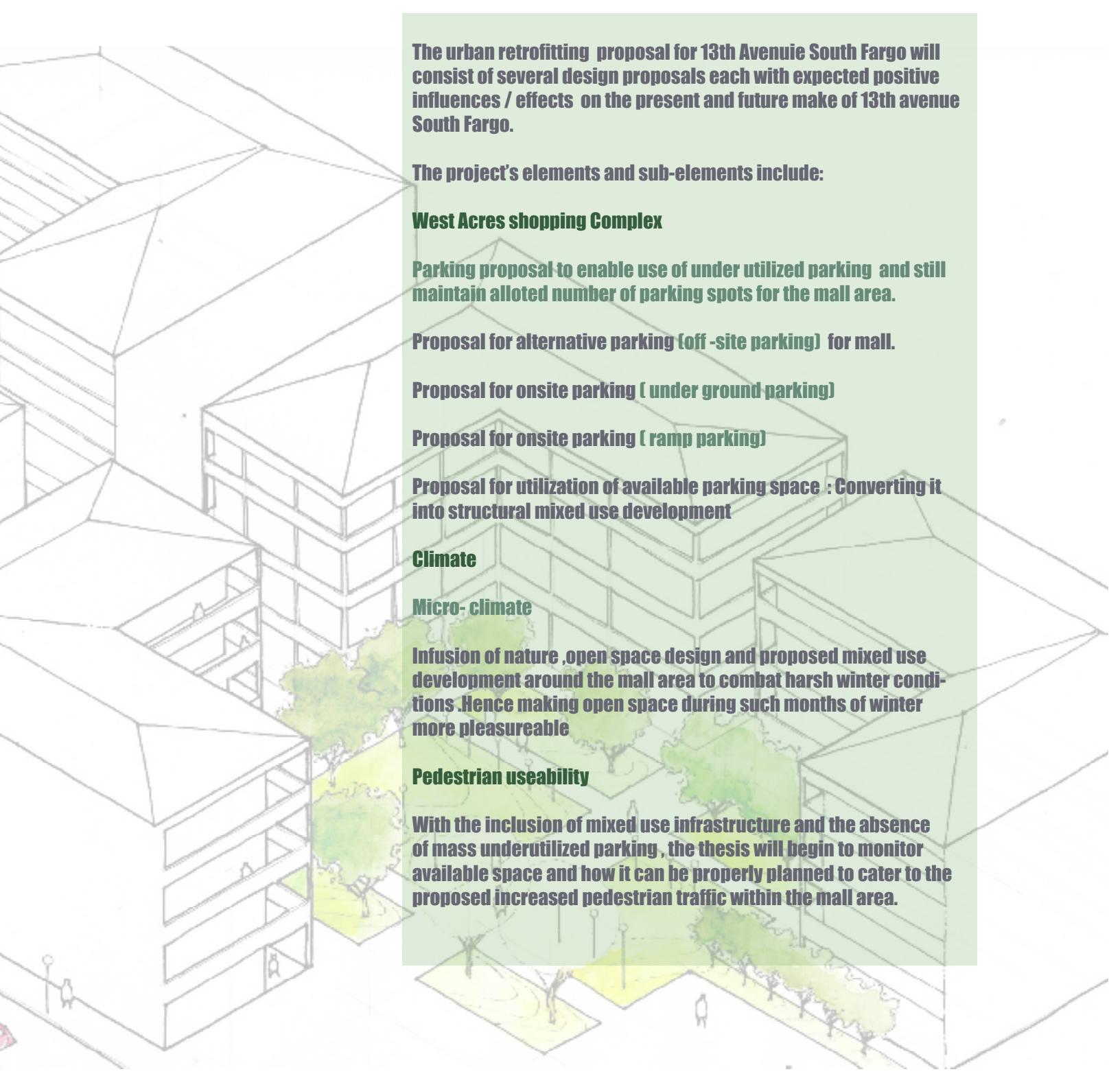
Specific sections of 13th avenue south Fargo:

- 1) West acres mall: 3902, 13th avenue south Fargo.
- 2) Sun Mart: 1200,25th street south , 13th avenue south Fargo.
- 3) Block buster video: 2424, 13th avenue south , # 106, Fargo, Nd.

They will be retrofitted to address issues that relate to :

- 1)The under utilization of parking lots within big box developments along the 13th avenue south commercial strip.
- 2)The utilization of abandoned buildings that possess potential for future mixed use (commercial, residential and industrial) that could be beneficial to the city of Fargo and potential users of the site space.
- 3) Climate : The winter weather , winds and their effects on the use of open space during the 5 predominant months of winter( November- march) we have in North Dakota
- 4) Pedestrian walkability: The issue of limited pedestrian avenues for movement along 13th avenue south Fargo and within specific big box developments noted out for design in the thesis.

Sun mart/ Cvs ; 1200,25th street south , 13th avenue



The urban retrofitting proposal for 13th Avenue South Fargo will consist of several design proposals each with expected positive influences / effects on the present and future make of 13th avenue South Fargo.

The project's elements and sub-elements include:

### West Acres shopping Complex

Parking proposal to enable use of under utilized parking and still maintain allotted number of parking spots for the mall area.

Proposal for alternative parking (off -site parking) for mall.

Proposal for onsite parking (under ground parking)

Proposal for onsite parking (ramp parking)

Proposal for utilization of available parking space : Converting it into structural mixed use development

### Climate

#### Micro-climate

Infusion of nature ,open space design and proposed mixed use development around the mall area to combat harsh winter conditions .Hence making open space during such months of winter more pleasurable

#### Pedestrian usability

With the inclusion of mixed use infrastructure and the absence of mass underutilized parking , the thesis will begin to monitor available space and how it can be properly planned to cater to the proposed increased pedestrian traffic within the mall area.

## Sun mart: 1200, 25th street south, 13th avenue south Fargo

### Parking

Proposal for reducing functional parking (on -site parking) for users of the sun mart site area.

Proposal for utilization of available parking space : Converting it into structural mixed use development

### Climate

#### Micro- climate

Infusion of nature ,open space design and proposed mixed use development around the Sun mart area to combat harsh winter conditions .Hence making open space during such months of winter more pleasureable

#### Pedestrian usability

With the inclusion of mixed use infrastructure and the absence of mass underutilized parking , the thesis will begin to monitor available space and how it can be properly planned to cater to the proposed increased pedestrian traffic within the sun mart area.

## Block buster: 2424, 13th avenue south Fargo

### Parking

Proposal for reducing functional parking (on -site parking) for users of the sun mart site area.

Proposal for utilization of available parking space : Converting it into structural mixed use development

### Climate

#### Micro- climate

Infusion of nature ,open space design and proposed mixed use development around the Sun mart area to combat harsh winter conditions .Hence making open space during such months of winter more pleasureable.

## Pedestrian usability

With the inclusion of mixed use infrastructure and the absence of mass underutilized parking , the thesis will begin to monitor available space and how it can be properly planned to cater to the proposed increased pedestrian traffic within the sun mart area.



## Proposal : Site Information ( Macro location)

The city of Fargo is located in the North Dakota's Cass county in the upper- midwestern region of the United states of America.

13th avenue South Fargo (**the city of Fargo's commercial core**) is located in the southern sector of the city of Fargo. It lies just within the city of Fargo limits and is a premium connection point for interstates i-29 and i-94 the two major interstes within the city of Fargo.



Macro location of 13th avenue south Fargo on a google earth image.

## Proposal : Site Information (micro location)

The area marked out with dotted lines defines the borders of the Fargo downtown area . Within this area several smaller highlighted areas will be regions for major design emphasis related to the thesis. These major design elements are covered in more detail in the subsequent pages of this document.

### South Fargo



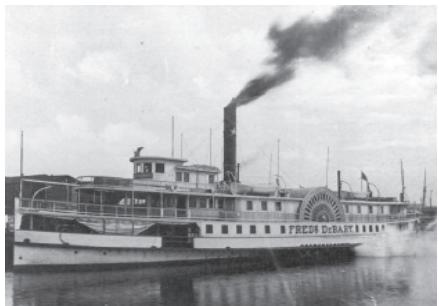
Micro location of 13th avenue south Fargo on a google earth image.

A:	West acres shopping center : South Fargo
B:	Block buster video : South Fargo
C:	Sun mart : South Fargo

## Proposal : Site Information (history) . . . . .

### History

The city of Fargo wasn't always the thriving urban hub it is today.



The Steam boat era of the mid 1800's brought initial change to the City of Fargo.

The growth of Fargo or "Centralia" as it was initially called, started in the 1800's with the occurrence of transportation along the Red River. The Red River served as a stop off port for steam boats involved in the lucrative fur trade of the time. It was used as a connection to other destinations within the United States of America.

The city of Centralia was renamed "Fargo" in the mid 1800's in honor of "William Fargo", the director of Pacific Northern Railway and Wells Fargo express company. The northern railway was in part responsible for Fargo's growth at the time. As such, it was named after the individual who ran it. The title "Gateway to the west" was given to Fargo because of its flourishing rail way industry.

On June 7th, 1893, the downtown area of Fargo experienced a setback in terms of urban growth with the occurrence of the Fargo fire. The fire destroyed hundreds of homes and businesses in the area. Historians believe the great impact of the fire on homes and businesses was as a result of the city's initial build with wood which was the primary construction material at the time. Fargo bounced back strong and learned from its mistakes, rebuilding its core streets and water system as well as emphasizing the use of brick in the restoration of buildings within the downtown area.

By 1890, North Dakota State Agricultural College was founded as North Dakota's landgrant institution. The college was accredited in 1915 by the North Central Association. By 1960, North Dakota State Agricultural college became known as North Dakota State University.

In the early 1900's with the recognition of automobiles as a means of transportation came about the rise of the automobile industry in Fargo, North Dakota. Pence automobile company picked the City of Fargo as one of its homes and was a pioneer of the automobile industry in the area.

After the end of World War two in the mid 1900's, Fargo continued its rapid growth, but this was hindered with the occurrence of a violent tornado in 1957. This devastated a large portion of Fargo's north end, but in time these areas were redeveloped.

With the introduction of Interstates (I-29 and I-94) came about a change in the way vehicle transportation was initiated within the city of Fargo. This resulted in a shift in the city's growth to the southwest sections of the city limits.



The Automobile era of the early 1900's brought development expansion to areas beyond downtown Fargo



Interstates i-29 and i-94 allowed access to 13th avenue south fargo and other municipalities within the state of North Dakota

The Interstates, though a blessing to the city of Fargo, created dismal times for the downtown area of Fargo. By 1972 the West acres shopping mall was built close to the intersection of (I-29 and I-49). The mall became a catalyst for the growth of retail outlets along the southern area of the city pushing consumer needs and purchase away from the downtown area in the northern area of the city limits.

Over the past two decades, 13th avenue south Fargo, the location along which West Acres and other big box commercial outlets are located has experienced exponential growth.

As such Long range urban planning is being driven by the Fargo planning commission and local municipalities to ensure that the growth being experienced along 13th avenue south Fargo is sustainable over a lengthier period of time and not just fixed to a limited time frame. Instant design gratification though great is not the long term goal of design sustainability for the city.

One key factor that make 13th avenue south and the city of Fargo a neat place to live and invest in is its low unemployment rate. As of the late 1990's, Fargo boasted one of the lowest unemployment rates in the United States, according to the Fargo Metropolitan statistical data. As a city, Fargo also boasts low crime rates and a decent supply of affordable housing.

With all this positive development and activities occurring within the city of Fargo, it is sad to note that the city is not maximally utilizing the available space it has for commercial development.

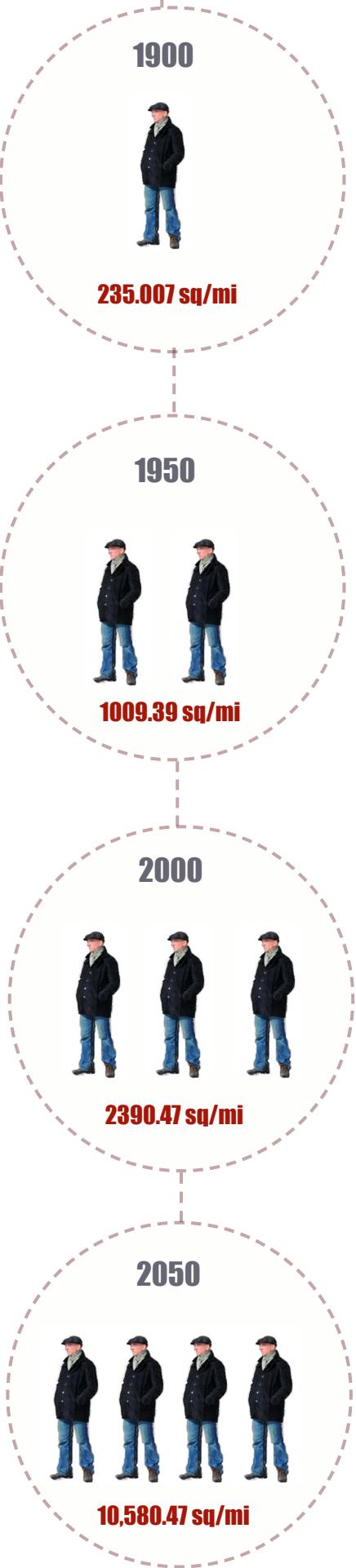
This coupled with the growth in population figures Fargo has experienced over the last century may eventually lead to a future rift between a larger population and limited developable areas within Fargo for mixed use purposes .

Below is a table that indicates the population figures from the early 1990's to present. From this, one is able to denote Fargo's population rise.



West acres mall was the catalyst that spurred commercial growth along 13th avenue south Fargo.

## Proposal :: Site Information (history)



Census	Population	% increase in Population
1900	9,589	—
1910	14,331	49.5
1920	21,961	53.2
1930	28,619	30.3
1940	32,580	13.8
1950	38,256	17.4
1960	46,662	22.0
1970	53,365	14.4
1980	61,383	15.0
1990	74,111	20.7
2000	90,599	22.2
to date	192,417	-0.44

The goal of retro-fitting 13th avenue south Fargo is to rectify to some extent the foreseen problem of inadequate commercial space planning / allocation and the overbearing presence of a large population who will require such space for daily activities . It is safe to remember that 13th avenue south Fargo is only one of the many commercial corridors within Fargo. Therefore we want to use this project as a catalyst to spur similar design innovations within other commercial corridors within the city of Fargo, creating a balance between populations figures and available developable commercial space around the city of Fargo and eventually the state of North Dakota.

### Importance of site choice

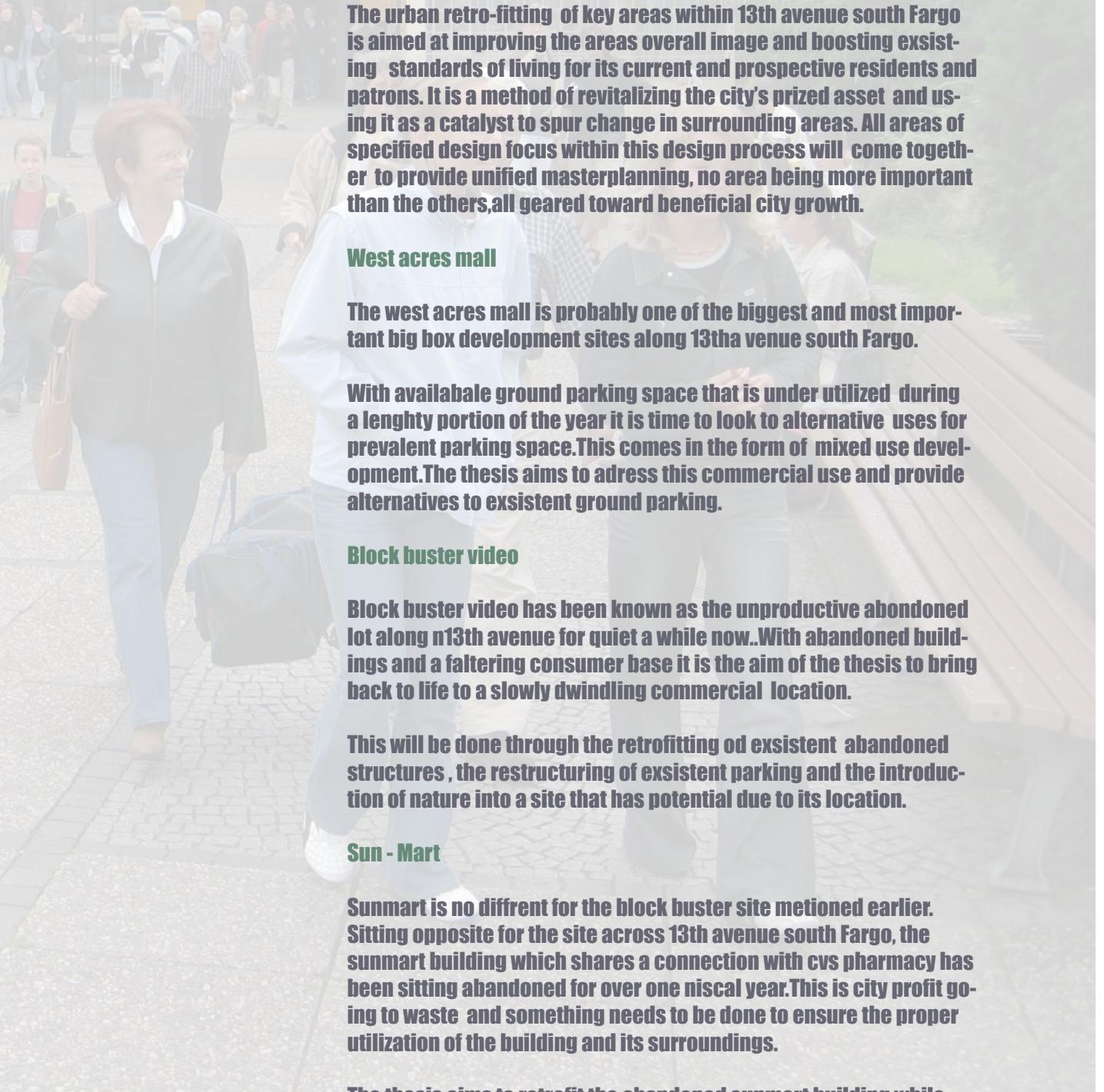
13th avenue south Fargo is of great importance to the City of Fargo as it is the city's major commercial hub. The idea of smart planning through the art of urban retrofitting should be a phenomena that occurs first and foremost within the major commercial hub in Fargo. The 13th avenue south area of Fargo should serve as a design framework other commercial corridors within the city should follow in terms of innovation. If it does not provide this innovation, then scenarios such as the shift of major businesses to other areas within the city of Fargo might occur. A great example of this shift happening was increased consumer traffic towards 13th Avenue South Fargo predominantly for its array of shopping outlets, businesses and restaurants.

Improving the downtown area's overall image is not the only aim of this project. With the introduction of urban beautification, in a manner that is both functional and aesthetically pleasing, the standards of living are altered and improved in the area. This will affect health and work productivity of the individuals living and working within the area, and provide an enticing area of choice for prospective emigrants looking to better their overall well being.



13th avenue south serves an important commercial purpose to the city of Fargo on a whole commercial retrofitting will enhance that purpose and increase the value of 13th avenue south on a whole.

### Master Plan



The urban retro-fitting of key areas within 13th avenue south Fargo is aimed at improving the areas overall image and boosting existing standards of living for its current and prospective residents and patrons. It is a method of revitalizing the city's prized asset and using it as a catalyst to spur change in surrounding areas. All areas of specified design focus within this design process will come together to provide unified masterplanning, no area being more important than the others, all geared toward beneficial city growth.

### West acres mall

The west acres mall is probably one of the biggest and most important big box development sites along 13th avenue south Fargo.

With available ground parking space that is under utilized during a lengthy portion of the year it is time to look to alternative uses for prevalent parking space. This comes in the form of mixed use development. The thesis aims to address this commercial use and provide alternatives to existing ground parking.

### Block buster video

Block buster video has been known as the unproductive abandoned lot along n13th avenue for quite a while now.. With abandoned buildings and a faltering consumer base it is the aim of the thesis to bring back to life to a slowly dwindling commercial location.

This will be done through the retrofitting of existing abandoned structures, the restructuring of existing parking and the introduction of nature into a site that has potential due to its location.

### Sun - Mart

Sunmart is no different for the block buster site mentioned earlier. Sitting opposite for the site across 13th avenue south Fargo, the sunmart building which shares a connection with cvs pharmacy has been sitting abandoned for over one fiscal year. This is city profit going to waste and something needs to be done to ensure the proper utilization of the building and its surroundings.

The thesis aims to retrofit the abandoned sunmart building while adding additional mixed use development and nature to site to bolster its potential and cater to the growing need of Fargo residents.

The scope of this project will cover three areas of emphasis:



**Urban beautification** as a tool for design aimed at changing individuals perception of what is presumed aesthetically pleasing design. This will be done while at the same time serving functionally in use along 13th avenue south Fargo.

**Urban retrofitting** as a tool for design aimed at utilizing abandoned buildings and infrastructure within the sites for design along 13th avenue south Fargo.

**Urban greenification** a term coined for its purpose within the urban fabric of suburbia and city life. It will serve as a tool to reintroduce nature into the three sites for design, restoring the balance between the natural and built environment along 13th avenue south Fargo.

All three issues mentioned in the scope for design should in some way affect the primary users of the sites along 13th Avenue South Fargo.

Emphasis on research will be related to material that addresses **urban culture, retrofitting suburbia and nature in cities**. This material will identify a common unifying theme that relates back to the term “urban retrofitting”. How does a designer identify a place as urban and natural without skewing the delicate balance that lies between both worlds?

On a large scale, how will this phenomena of urban beautification affect vicinities close to the downtown area of Fargo? Will it be adopted readily? Will it boost standards of living within the downtown area? On an individual scale, will it frequent downtown users visitation of the area? Will it bring about the rise of tourism in the downtown area?

These are questions the thesis aims to answer with the greatest element of viability.

## Nature in Cities



Central Park, New York City. A perfect blend between nature and its city surrounding

The literary document chosen for discussion regarding this thesis was "Nature in Cities" a compilation of thoughts and ideas from various designers in the field of Landscape Architecture on certain criteria that should be met when designing naturally for a city and its inhabitants.

As a literary piece it is most focused on the intermeshing of natural and artificial design of the built city, something **Retrofitting for Change** as a thesis aims to address.

The literary piece is split into five different areas of focus, namely:

- 1)The philosophical context of nature in cities
- 2)The ecological content of nature in cities
- 3)Natural history in cities
- 4)Natural character in urban spaces
- 5)Landscape planning and management

Of the five subtopics mentioned three were of relevance to pushing the thesis forward. They are:

- 1)The philosophical context of nature in cities
- 2)The ecological content of nature in cities
- 4)Natural character in urban spaces

These three subtopics possessed elements of psychology, phenomenology, sociology, biology, mathematics, urban theory and philosophy. Elements I felt were necessary in explaining a lot of the ideology behind the readings in the subtopics.

## Philosophical context of nature in cities



Carbon pollution is a typical example of mans hypocrisy towards maintaining the natural environment in which he lives in



Forcefitting nature into the built environment not only is awkward and telling in manner but also is unappealing to the eyes and user of the urban space.

The philosophical context of nature in the cities is best defined as the phenomenology, psychology and sociology of the natural environment and its effects on the urban fabric when implemented positively or negatively.

The content of this subtopic is focused around quotes and descriptions based on man and nature's relationship, past and present, its positive and negative impacts on both parties involved in the relationship, and the possible solutions to rectifying this relationship where lapses have occurred over time for future benefit to both parties involved.

To start, a quote from Dr. E. Strain brook , a professor of Psychiatry at the Southern California School of Medicine during a symposium on Man and Nature in 1968.

**"Apart from the too infrequent moments of deep self -refection , modern man seems determined to seek his own elimination as natural man and to ignore, disguise, transform and frequently to despoil unconcernedly the naturalness of the earthly space in which he lives. We must urge a general insistent concern about the meaning and functions of the natural environment for reasons other than romantic agony over the loss of natural man and of natural nature.**

**Our basic task is assessing what man should do with nature is perhaps not so much a problem to be solved as a value to be established - not so much a discovery as a decision.**

**But we are confronted by what exists and certain inter- relations between urban man, particularly and his natural ambience are the concern of every institution and agency."**

Dr.E. Stainbrook looks at the general idea of the push for nature within cities citing the hypocrisy of the naturalistic man who only appears where situations within the urban environment such as pollution and environmental degradation cause moments of self -reflection. We, as designers, are all guilty of this at some point or another in our every day practices. We push for the need to satisfy the "now" in our urban environments and are ever caught up in the struggle of conformity versus stewardship in design.

It begins to address the importance of stewardship as a value rather than a title in the definition of what a Landscape Architect or Architect is. Many times we deem ourselves stewards but follow the trends of the modern day minds in the profession. We aim for the fame and recognition, producing stereotypical work

## Philosophical context of nature in cities



The natural environment in its purest form is slowly disappearing from the urban / built environments we live in.

that possesses artificial form and function adapted to meet man's most pressing needs, "himself". We fail to realize that there is a broader environment outside the one we live in where the natural environment plays a key role in our sustainance. After all who are we kidding, we are part and parcel of the natural environment. No matter how hard we try to shape and form it to best fit our viewpoints on how it should be.

The philosophical context of nature in the city goes into further greater detail, defining how one should begin to design for nature in the cities. It's a preamble to a breakdown in steps for the preceding chapters within the subtopic.

As stated in the quote you are about to read, the philosophical context addresses the absence of influence the city/urban environment feels it has, and states the dominance of nature over all processes artificial in design.

**"A city of a kind has been made.....the tidy townships, suburbs that climb hillsides towards the sun, and the honeycomb of factory and office buildings, where each man has his appointed job under the eye of the clock. These are the works of the city, finite, exact and reasonable, designed for the fulfilment of limited aims. But alongside the human city, indifferent or even hostile, remains the wilderness, whose time is still that of the sixth day creation and whose works belong to the power that created her....The city is never truly self sufficient for it possesses only the power to use and organize a world which it has not created."**

(Nature in the cities : preamble 1.1 : Baxter 1969)

I find this a powerful quote in addressing design within a city or urban space; especially "Landscape Architecture" related design. There is always a need to forcefit nature in design within the city, but actually listening and observing the lay of the land can influence the design of the differing planes of the urban city (ground plane/ horizontal plane, the vertical plane and the overhead plane). This is not to say that we as designers cannot be creative in our endeavours to accommodate nature in the urban city. We can still implement our design ideas to suit what we term urban but at the same time we need to realize the ever important presence of nature and introduce her where she is best suited for introduction.

A definition of design is then addressed within the philosophical context of cities to notify the way we as designers should begin to look at and address the issue of design within the urban city.



Forced naturalistic design of nature makes the composition of the built and natural environment look awkward.

## Philosophical context of nature in cities



Good design is problem solving and lasting in span and relevance.....

**"Design is a problem solving , decision making activity , the means of arriving at some organization of objects, events or ideas so as to achieve a desired purpose in the most efficient , convienient and agreeable manner possible.If nature is to be fully restored to the urban enviroment , it must be by carefully considered endeavours to create the right circumstances and that means by conscious design."**

From the understanding of design one is now able to advance into the introduction of Landscape architecture.This section was pertinent to research as it gave a premise for one to begin to understand what really and truly landscape architecture was and its relation to naturalistic/natural design in the urban city. It sets the the tone for sub-topics related to the field of landscape design/ Landcspe Architecture and provides the designer with a mission or goal to accomplish from the onset of design, through its elaborate explanations. A quote from this section of the literary peice is one I thought did in a sense,summarize the profesion of landscape architecture /landscape planning and its relationship to context and space within the urban city.

**"Landscape design as described above follows the formal design tradition: formal , that is, not in the sence of "geometrical" but in that a controlled pre-conceived form of structure has at the designer's discretion been imposed upon the object of the designer . Indeed, according to the traditional expression, the landscape designer is an architect. The term "Landscape Architecture" may be mentioned here if only to point out that it is both accurate and yet highly misleading. Designed landscapes are rarely tied to or dominated by specific buildings, but in the sense that a degree of formal control exists over the relationships of objects and events to one another, then landscape design is still " architecture". Significantly, architecture has often been the landscape designers first qualification."**

### (Owen Manning : Nature in Cities)

The philosophical context of nature in the cities in its conclusion aims to set a starting point for the introduction of the ecological content of nature for nature in cities. We as readers are able to acquire certain viewpoints on nature,design and landscape architecture. These view points are subjective to the individualism of the writers and as such are not meant to shape the thought process of the designer, but rather to provide some information that will aid the designer on in his quest for classification in design based around " nature in cities".

## Ecological content of nature in the city



A drift of wildlife from the natural environment to the cities....one of the many phenomena to factor in when designing for the presence of nature in cities

As a segment within “Nature in cities”, ecological content of nature in the cities focuses predominantly on the biology and mathematics behind ecological implementations and practices that take place within the urban fabric called the city.

The ecological content of nature in the city aims to identify the two basic biological factors that make up ecology within the urban city premise and how they intentionally and inadvertently affect human interaction with them. These factors also are considered according to how they affect the artificial environment around them. The factors for discussion are:

- 1)Natural resources: The assessing of natural resources**
- 2)The climate of the cities**

The assessing of natural resources takes into consideration the presence of natural resources within the urban setting and aims to determine how logically as designers we can begin to systematically organize, preserve and maintain these resources. Two sections within the natural resource section of the literary piece pertain directly to the thesis. They were **the fundamental categories of resource use and open space/ open space classification**. I will not delve into a detailed description of the two criteria but rather present a brief description under each, and its relevance to the thesis .

Open space in the urban landscape addresses the availability, positioning and multiple use of natural and artificial space within the the urban scape with an emphasis on the blend of natural and artificial space. There are some quotes within the literary peice that help the designer better understand the importance of space not only in design but on a whole in reference to the way people's lives are governed by nature and space. There also occurs the phenomology of the state of balance /imbalance occurring in natural systems at the suburban and urban scale of design development. This phenomology of imbalance helps the designer to decipher methods of correcting this imbalance through stewardship design that takes into consideration the natural system's occurrence in the the artificial urban scape.

Below is a quote by Christopher Degenhardt an author of the book “Nature in cities” that addresses the way nature and open space begin to govern the belief systems and way of life of its users.

**“This ability to examine nature objectively has displayed itself in a variety of ways through man's history. His response to nature has**

## Ecological content of nature in the city

ranged from form acceptance , through intelligent use, to misuse and destruction . At one end of the scale are those groups whose religion or philosophy sets man apart from a dietied nature to be used, if at all, only with reverence.In some cases , such belief systems stem form careful observation of nature as it is experienced in their immediate enviroment. Often associated with a simple subsistence economy , they generally recognize the fragility and unreliability of natural systems.For example , the social religious systems of the Yoruba people limits on individual ownership and continuos cultivation of land, recognizing its potential for exhaustion .The Hopi, an agrarian people in a dessert enviroment, focus on their religion and ritual on rain .In other cases , the classical example being perhaps the Hindus, the deification of nature may actually be counter- productive , however , and present the rational use of resources.

At the other end of the scale , mans seperation from nature has permitted him to use or abuse it without regd to the long term consequences to himself.His powers of perception have been blunted by belief in mans supremacy over nature.Natural systems and symbolic relationships have been destroyed by exploitive practices , the consequences of the quest for power and territory and by technological processes.

Here there is a clear understanding of the fact that on level of reverence for nature no matter how extreme or lackadisical , indirectly affects the way we use nature and her resources.It is important to figuratively blur the boundaries between the use of natural space and its importance to its users.Once natural space bears significance and importance to both the designer and user, it is then appreciated to a much higher degree.We then begin to see scenarios where a call for natural space in an urban setting begin to occur.This intergration of the natural in unision with the artificial creates a blend of unity that will have telling effects ( positive) on both the urban enviroment and its users.

A defining of open space use is also an important criteria to the designer of the natural urban spaces.One needs to determine space use before natural space design and natural resources can be adequately introduced into the the urban landscape.A criteria for space use is more tha helpful in such accord.Within the literary reading “Nature in cities” such a criteria is given.This helps us to determine who and what to design for within an urban setting.The author “Christopher Degen Hardt” , provides tghis listing below one i feel really helps push this thesis forward , hekping me to determine what type of spaces I would need to design for .Below is the open space clessification criteria:

## Ecological content of nature in the city

### 1) Open space for managed resource production

This determines the viability of open space as areas set about for the production and distribution of both natural and artificial resources in the urban setting (eg) A corn producing farmstead focused basically on the production of corn or a lime stone quarry set about primarily for the excavation of limestone.

### 2) Open space for preservation of natural human resources

This type of open space classification deals primarily with the conservation of limited natural resources that are of beneficial value to the environment they occur in. (eg) the preservation of oilwells in Alaska for future American consumption and use.

### 3) Open space for health , welfare and wellbeing

This criteria of openspace is based solely on the physical , emotional and social effect of open space on the individuals that use it within the city.

### 4)Open space for public safety

This presents open space as a criteria for the maintenance of public safety within the city

### 5)Open space for corridors

This presents open space a channel of movement through the urban city. (eg) the connection of alleyways to boulevards , green way connections within cities (etc)

### 6)Open space for Urban expansion

This presents open space as an available means for present and future expansion within an urban setting (eg) the conversion of a once exsistent parking space into a city square public building(etc)

A determination of **points 3-5** as references for introduction within the design portion of the thesis were made from this criteria listed above .They begin to provide an avenue for further investigation into natural design in cities.

Climate in the city takes into consideration , factors in the atmosphere at both the macro and micro levels of occurrence and explains how they begin to affect the way urban natural spaces are designed within the city. It is a more design oriented portion of the literary reading with figures and calculations being the preamble for further design. The literary piece does give a step by step pattern for the introduction of these climatic factors whether they be wind , radiation , sunlight and shadow (etc) and indicates how each should be introduced and dealt with accordingly when a designer goes about building natural spaces within the urban environment.

### **Ecological content of nature in the city**

This begins to further help the thesis along in the sense that it provides parameters for which i as a designer can begin to follow without making assumptions of my own that may lead to mistakes in the later portion of the design thesis. This doesn't mean that the literary piece itself controls my thesis but rather, it provides a framework for which i can comfortably begin to build upon in the later design portion of the thesis.

## The natural history of cities



New York city: A historical icon of nature and its relation to the city.

The natural history of cities was a portion of the literary piece in which a focus on wildlife within the city was reviewed. It addresses biology and mathematics related to the introduction of wildlife species into the city's urban fabric. Obviously one does not address the design of natural space within the city without the inclusion of wildlife. Nature and wildlife go hand in hand with the one supporting the other as equally. A determination of the type of wildlife conducive to living within urban settings is noted in the reading with an emphasis on birdlife and aquatic life with an emphasis on fish, within the city. It points to a manner in which one can begin to introduce such wildlife within the urban setting while still providing parameters for their survival within the city. This is all done through subsequent design. It begins to help me determine to an extent the categories of wildlife naturally designed space within an urban setting can attend to and sustain while also serving the purpose of functionality for human interaction and use.

## Summary of the literary reading

Nature in cities as a literary piece provides an understanding into the working of the natural space in the urban tapestry as well as the very importance of the natural environment to human existence. It readily addresses the theoretical premise of **urban beautification** while at the same time laying emphasis on the positive social and health benefits the introduction of the natural environment in the city has on its users. When I refer to **urban beautification** in the case of the theoretical premise it is more than just a beautiful facade for the site at hand being designed, it is rather a tool that begins to shape and form the very core of the city area for design. It also provides the notion of an improved standard of living and way of life for those who follow its principles. In essence it is a specific factor for consideration in city design that should control the way, the city space is used and the process affecting the way we as users of the space begin to view nature within the city.

According to the three parameters acquired from the book of which relate to my theoretical premise, the philosophical context of nature in cities aims to set up the notion of nature as a relevant piece of the puzzle in urban city design. It makes the user of the natural space in the city aware of the fact that despite our despite our mindless endeavors to create design that appeals to the age or generation we reside in, we still have an obligation to the preservation of nature in the city be it through sustainable smart design or activism. It also explains in detail the fact that we live in a symbiotic relationship with nature, nature needing us just as much as we need her. Rather than being parasitic and destroying this symbiosis through design centered around norms of the time, we should figure out a way to integrate the artificial and natural in a manner beneficial to both.

The ecological content of nature in the city takes into consideration the proper siting and utilization of resources within design, centered around nature in the city. It makes a designer aware of the fact that ideologies such as sense of place and location, climate of an environment and culture play important roles in the creation of natural spaces within the city. We as designers should not strive to produce the generic prototype of what we term "perfect design" from other cities around us. These cities are site specific and as such certain design criteria and resources fit in such areas perfectly. In other areas such design would seem out of place. From the siting of and utilization of resources, we as designers can begin to create a sense of place unique to our given area, following certain cultural phenomena and forms. This not only makes our environment unique in a sense but also provides more of an ample opportunity for the sustenance, growth and preservation of the natural spaces we create within the city.

## Summary of the literary reading

The natural history of cities is almost similar in content to the ecological context of nature in the city as it goes into defining wildlife and conservation based on location and place. It makes a designer aware of the presence of wildlife in nature and its proposed positive and negative effects. It also presents the inevitability of wildlife's presence where nature is. The literary piece determines the need for man's interaction with wildlife as a basis for continual and healthy growth. Therefore seeing this as a means for further development we as designers should consider factors relevant to wildlife sustainability within the spaces we design in cities. Doing this will enhance the overall urban tapestry making room for future growth and productivity.





Cross section of the Boston Square press courtyard  
During the day

## Case study one

**Project name:** Boston Court square press courtyard

**Project type:** Urban court yard design

**Location:** Boston Court square press building , Downtown Boston, Massachusetts.

**Size/ area :** 4500 square foot.

### Distinguishing characteristics of the case:

The ability of the landscape architecture team ( Land work studios) lead by Micheal Blier ( asia), to produce an exotically themed landscape oasis that blended in perfectly with the exsistent dominant residential high rises of the Boston court yard square press building.

### Exsisting programme elements:

- 1) 2 species of dark green naturally gowing bamboo
- 2) One fern specie
- 3) Lilly turf
- 4) Aluminium floor boars
- 5) Wood floor boards
- 6) Concrete floor base for support of garden structure
- 7) Plastic/ wood seating elements that serve lighting purposes

8) The incorporation of oblique angle to create walkable spaces through the courtyard which contrast against the vertical 90 degree angkles of the buildings surrounding the courtyard.

### Keywords:

Natural versus artificial (material)

Sence of space

Sence of place

This case study has the element of nature and urban beautification in the fabric of the city. It shows the regionality of green design and its noted benefits at the individual, group and communal state of use.

The location , size and use of the the plantmaterial seperate this cas study from the proceeding two case studies for research.

The court square press courtyard is a spectacle of simplicity and efficiency. It was a commisioned project by a private investor ( Tim pappas& Pappas enterprises) who happened to own the Boston courts square press building which had previously been a printing press factory. Tim Pappas from 2002- 2004 began the renovation

Section cut through the courtyard

## Case study research



Aerial plan view of the Boston square press court-yard at Night.

of the building turning it into a 130 residential unit high rise apartment with two retail units at ground floor level. As a result of the rectangular nature of the building and its hollow courtyard center, Tim Pappas decided he would take the initiative and convert this hollow center into an area / space that his building residents could use for recreation and social purposes.

The Landwork studio owned by Micheal Blier (asla) was called in to see what they could create to fill the hollow courtyard center of the building with a limited budget \$360,000. An oasis of exotic bamboo plants, ferns and lily turf, immersed around an elevated board walk system comprising of changing materials (aluminium / wood) was the solution.

Micheal Blier wanted a courtyard that would captivate the user at eye level as well as the residents who happened to view the courtyard from windows above eye level, in their apartments. His plan to achieve this was to fragment the boardwalk that runs through the center of the courtyard design piece. This fragmentation occurring at oblique angles enables viewers to see different standout points of the garden when above ground level and at ground level enables the user of the courtyard to enjoy full view of the garden.

The garden comprises of a central piece made up of fragmented, oblique angled board walk with the occurrence of seating at the fragmented sections of the board walk. The seating elements serve the dual purpose of seating and lighting at night providing the users of the space with a differing experience during the day and night. To the left and right of the elevated board walk are naturalistic bamboo plantings, fern plantings and lily turf grass that run the entire length of the courtyard. These plantings begin to provide a micro-climate, sense of privacy and fragmented use of space. This is in part due to the vast growing of the bamboo stalks expected to reach heights of 40-50 feet once fully grown. The ferns and lily turf provide a moist surface of lush green to counter the tall, stalky, lankiness of the bamboo shoots.

The courtyard piece exemplifies the use of nature in the artificial to arouse a sense of place to its users. It may depict a climate regional to the Chinese forests but it still stands unique and natural to the urban environment around it.

## Analysis

**Structure:** as a structure the courtyard piece aims to counter the artificial presence of the Boston court square press building. It stands on its own identity wise but requires the presence of the the apartment complex to give it the contrast it needs to stand out as natural.

## Case study research

**Natural light:** Due to the nature of the openness of the building surrounding the courtyard, an adequate amount of natural light is let into the courtyard during the daytime. The bamboo units within the courtyard serve as adequate shade providers reducing the quantity of light directly hitting the base of the courtyard.

**Massing:** This occurs in layers within the boardwalk, which comprises of alternating units of aluminium and ipe wood. A contrast that is both visual and audial when one comes into contact with the board walk.

**Circulation to space:** Circulation to space occurs within this courtyard at fragmented oblique angles. This is easily manoeuvrable by the users of the space and allows visual quality of the garden for those who view it from above in the tiered apartment buildings.

**Geometry:** Geometrically the courtyard is asymmetrical with none of its three sides matching the other in spatial composition / organization.

**Hierarchy:** Hierarchically the Courtyard's focal point is its central boardwalk. The Bamboo and fern beds provide the contrast to the board walk that enables it to standout.

## Conclusion

To understand the theoretical premise or unifying idea one only has to look at the concept of urban beautification as a tool to improve standard of living and its very presence in the courtyard design of the Boston press building. Though organised spatially, it still provides a sense of beauty that happens to be naturalistic whilst conforming to the urban fabric around it.

The theoretical premise still remains unchanged, urban beautification and standard of living are factors that go hand in hand when we consider nature in the city. As we clearly see a piece of nature does nothing but boost the appeal of the boston court square pre building to potential residents while enhancing the standard of living of its current residents.



Aerial view of the Peggy Notebaert museum



Sections of the museum's roof top

## Case study two

**Project name:** Peggy Notebaert museum green roof

**Project type:** Urban green roof design

**Location:** Chicago Academy of Sciences, Lincoln Park, Chicago, Illinois.

**Size/ area :** 17,000 square foot.

### Distinguishing characteristics of the case:

The use of the Peggy Notebaert museum as a sustainable outlet with means to cut down the museum annual energy needs, retain rainfall runoff, reusing it to water roof plants. The creation of micro-climates and the aesthetic enhancement of the roof top environment for visitors of the museum to enjoy.

### Existing programme elements:

A green roof system comprising of:

- 1) 17,000 square foot green roof.
- 2) 2,400 square foot intensive green roof system demonstrating garden.
- 3) Open prairie section of the green roof
- 4) Extensive green roof system

### Keywords:

Sustainability

Efficiency

The case study of the Peggy Notebaert museum possesses elements of natural design mostly embedded in the theoretical premise of urban beautification. It occurs within the urban landscape of Chicago, a major epicenter of the state of Illinois. It genuinely provides the notion of sustainable and beneficial natural design with emphasis on individual, group and communal use of facilities in the urban setting of Chicago.

The location and size of the case study separate it from the other two case studies being touched upon within this series. Being the largest in area (square footage) of the three case studies discussed it provides a broader perspective on the integration of the naturalistic environment with that of the existing built environment.

The Peggy Notebaert green roof project was a design project taken on by Conservation Design Forum's (CDF), David Yucca and Intrinsic Landscaping, a landscape company specialized in the construction of green roof systems. Solely for the purpose of teaching the general public about the importance of ecology, sustainability

## Case study research



Sections of the museums roof top

and conservation of the urban environment.

The green roof itself is split into two differing systems namely the intensive and extensive. Intensive green roofs are generally green roofs requiring reasonable depth of soils to grow large plants or conventional lawns. They are usually labour intensive requiring irrigation, feeding and other heavy duty maintenance practices. Extensive green roof systems on the other hand are designed a self sustaining and require minimum maintenance. They are usually established on a thin layer of soil and are used to support the planting of sedum species and mosses.

The extensive part of the Peggy Notebaert museum comprises of a wetland area with sedges, rushes and other light duty wetland plants. It is used exclusively as a catcher and delay of rainfall or storm-water atop the building. This storm water is trapped and held up for about an hour during periods of rainfall before being released slowly into the intensive demonstration wetland system that exists within the roof's green roof design.

The intensive system of the Peggy Notebaert museum's green roof is the part most visible to the public and at 2,400 square foot serves as a demonstration garden comprising of a wetland with a water circulating pump that keeps trapped storm water continuously circulating around the wetland system. This shows the reuse and viability of storm water in the conservation of water. A prairie section also exists within this intensive area of the roof providing a home to various species of grasses that provide the cascading and cooling effect one would get if immersed in prairie land. It gives its users the opportunity to experience a prairie setup within an urban setting, something that would be impossible to find in Chicago's urban fabric. The two parts of the intensive green roof system also provide a micro-climate to the museum's roof top and entire vicinity normally cooling it down at peak hours of temperature rise within the city of Chicago and reducing costs and losses associated with the urban island heat effect. This comes in handy considering the ever presence of the "urban island heat effect" that occurs in Chicago's urban area.

Attached to 3,500 square foot of the museum's green roof vicinity also lies solar panels that store and convert solar energy into electrical energy that is used by the museum to power between 2-3 % of its annual energy needs. This is innovation and sustainable in the sense that it reduces dependency on local energy sources within the Chicago area and it reuses a natural resource that is ever present within the atmosphere that surrounds the museum, one that is non-extinguishable.

## Case study research



Sections of the museums roof top

On a whole the Peggy Notebaert museum sets a standard for sustainability and ecology that most large scale buildings within urban settings should begin to follow .This trend not only begins to improve exsistent standards of living and health but also provides an avenue for the advocacy of nature and the predominant role it plays in human sustaintance and interaction.

### Analysis

**Structure:** The size of the building is realltively large but the ossurence of its surrounding landscape and green roof camoflague its large presence and cause it to appear as a blended blended part of nature rather than an artificial mass of built material.

**Natural light:** The use of solar panels atop the building requires the presence of natural light which is ever present around the the buildings premises as result of its open nature.In regards to the building structure , clear see through glass panels occur at areas around the building where sunlight and its angles are pertinent .Thuis allows adequate lighting of the building during the day without the intervention of an electrical source.

**Massing:** Segmentation is the form of massing that occurs in the green roof design of Peggy Noteabeart museum.This we see in the location of the different type and sizes of green roofs around the roof perimeter of the building.

**Circulation of space:** The circulation of space along the green roof is fragmented within differnt parts of the green roof occurring at different levels of the buildings rooftop.One is required to use the elevator or stair apparatus of the museum to get to these individual parts of the green roof.

**Geometry:** There is no geometrical organization to the location of the green roofs constituent parts .The green roof constituent parts do begin to take on the ceratin geometrical shapes some of which include trapeziums, rectangles, triangles and squares.

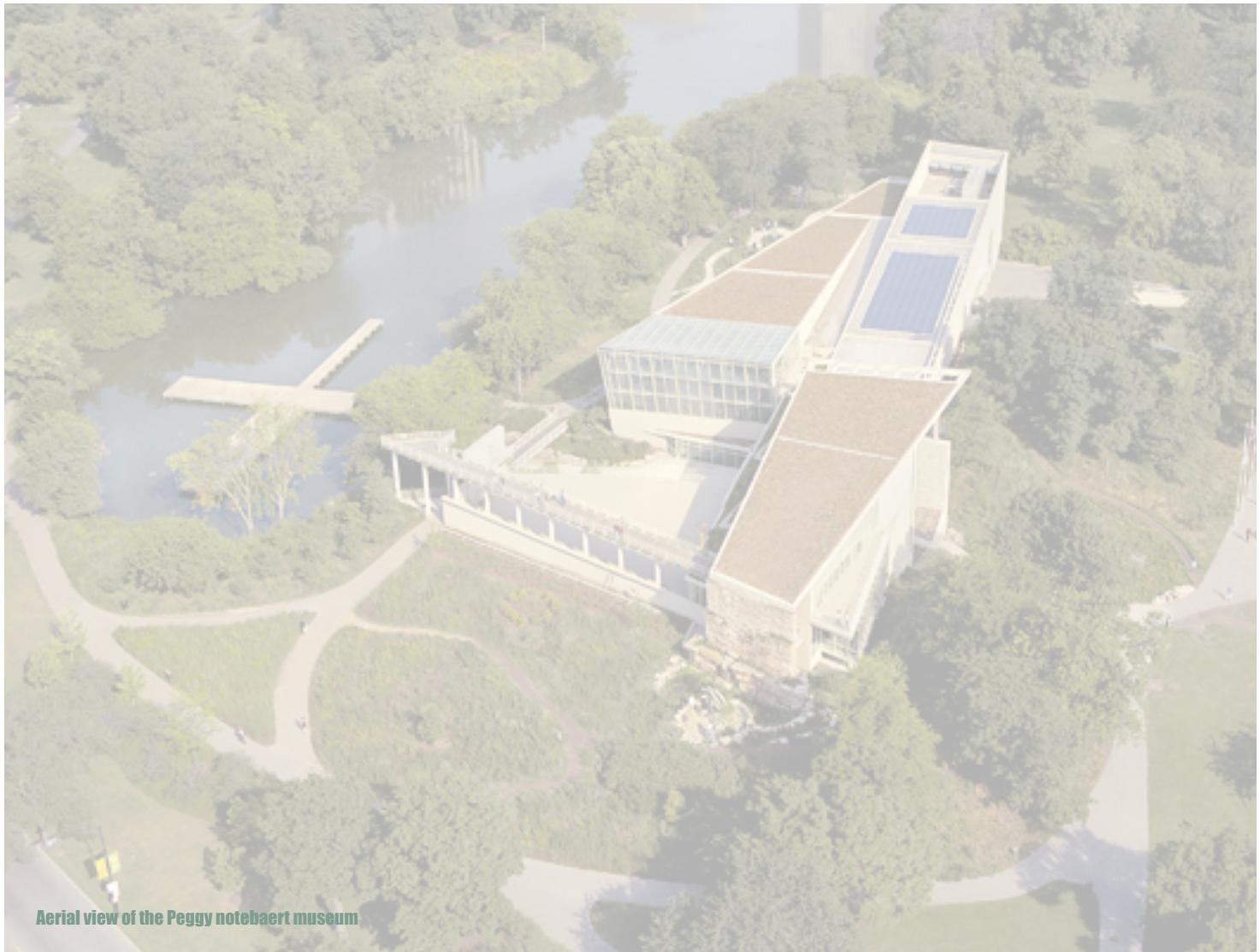
**Hiererachy:** There is an occurence of hierachy involved iamongst the museums intensive and extensive green roof systems with the extensive systems comprising of the demonstaration garden taking central focus atop the roof.All other proceeding extensive and intensive portions of the green roof taking the backseat to it in terms of presence.

## Case study research

### Conclusion

The case study provides the parameters of naturalistic design ,sustainability and conservation of resources something the term urban beautification encompasses. It determines the importance of natural design in the city and its noted effects on human interaction and standard of living on a whole.

The theoretical premise / unifying idea is left unchanged as the key terms , urban beautification and standard of living are both actively seen in the design and effects of Peggy Notebaert museums green roof on its immediate vicinity and surrounding urban context.



Aerial view of the Peggy notebaert museum



## Case study three

**Project name:** Chess park

**Project type:** Urban park

**Location:** Downtown area, Glendale suburbs, Glendale, Los Angeles, California.

**Size/ area :** 4,500 square foot.

### Distinguishing characteristics of the case:

#### Existing programme elements:

An urban park comprising of:

- 1) 28 foot tall lanterns modelled after chess pieces
- 2) Performance stage
- 3) Stepped seating
- 4) Regular wood/ cement bench seating
- 5) Shade canopies
- 6) Cypress plantings
- 7) Hedges

#### Keywords

Alleyway park design extensions

Adjoining parking

Boulevard park design extension

The casestudy of chess park possesses the elements of nature and urban beautification within the urban fabric of Glendale,Los Angeles.It shows the regionality of the urban landscape with subtle hints of green design.It represents the effectiveness of well designed open space and its effects on its frequent users.

With regards to case studies 1 and 2 , it differs in the sence that it lays less emphasis on the inclusion of green (natural) plantlife in its design. It focuses rather on the positioning of certain design elements within its vicinity as well as the element of spatial organization , something of importance and significance to the thesis at hand.

Chess park was intially created as the name entails as a chess park aimed to reach out to the Glendale area's Armenian population who happen to be astute students of the game of chess.It is a stretch of linear , rectangular concrete defined by buildings to its north and south while open to the east and west .Its east exterm leads into an exsistent alleyway and the west entrance leads into adjoining public parking.

## Case study research

Its main components comprise of precast concrete tables with chess boards inscribed atop them. These chess boards are supplemented by pre-cast concrete benches. Towering above these tables are shaded canopies that border across the buildings to the north and south of the chess park location. These are wooden strips draped over with synthetic canopy material. They provide shade to specific points within the park. Towering high above these shade locations at strategic points across the park are chess shaped lantern pieces that provide sculptural and lighting functions to the park at differing times of the day. Alternative seating not centered around chess tables in the park are provided with complementary green hedging. This provides a natural contrast to the stark magnitude of concrete in the area while at the same time performing the important function of shading its users. The park's most used feature is funny enough not its chess tables but rather a stage. This is frequently used for many an alternative event carried out in the park.

Chess park exemplifies the notion that an urban space (urban beautification) once designed well will more often than none attract an array of users despite its initial purpose of design or use. No one space should be subject to a particular use but rather should be open to the possibility of change at anytime. All good design should strive to do this. It may not necessarily be a completely naturalistic park itself but chess park is a piece of the urban fabric that encourages continual and consistent use, something all open urban spaces should do.



Chess park in the evening

## Analysis

**Structure:** The structure of chess park is predominantly artificial and open. It provides an avenue for easy permeability and use by pedestrian traffic in the Glendale area of Los Angeles.

**Natural light:** Due to the open nature of the park, natural lighting is something experienced on a daily basis during hours of daylight in Los Angeles. At Night though the parks towering chess piece lanterns take over as the source of lighting.

**Massing:** The occurrence of massing is something not seen readily in chess parks organization. Rather elements within the park are spatially spread out to work in unison with one another rather than being literally massed.

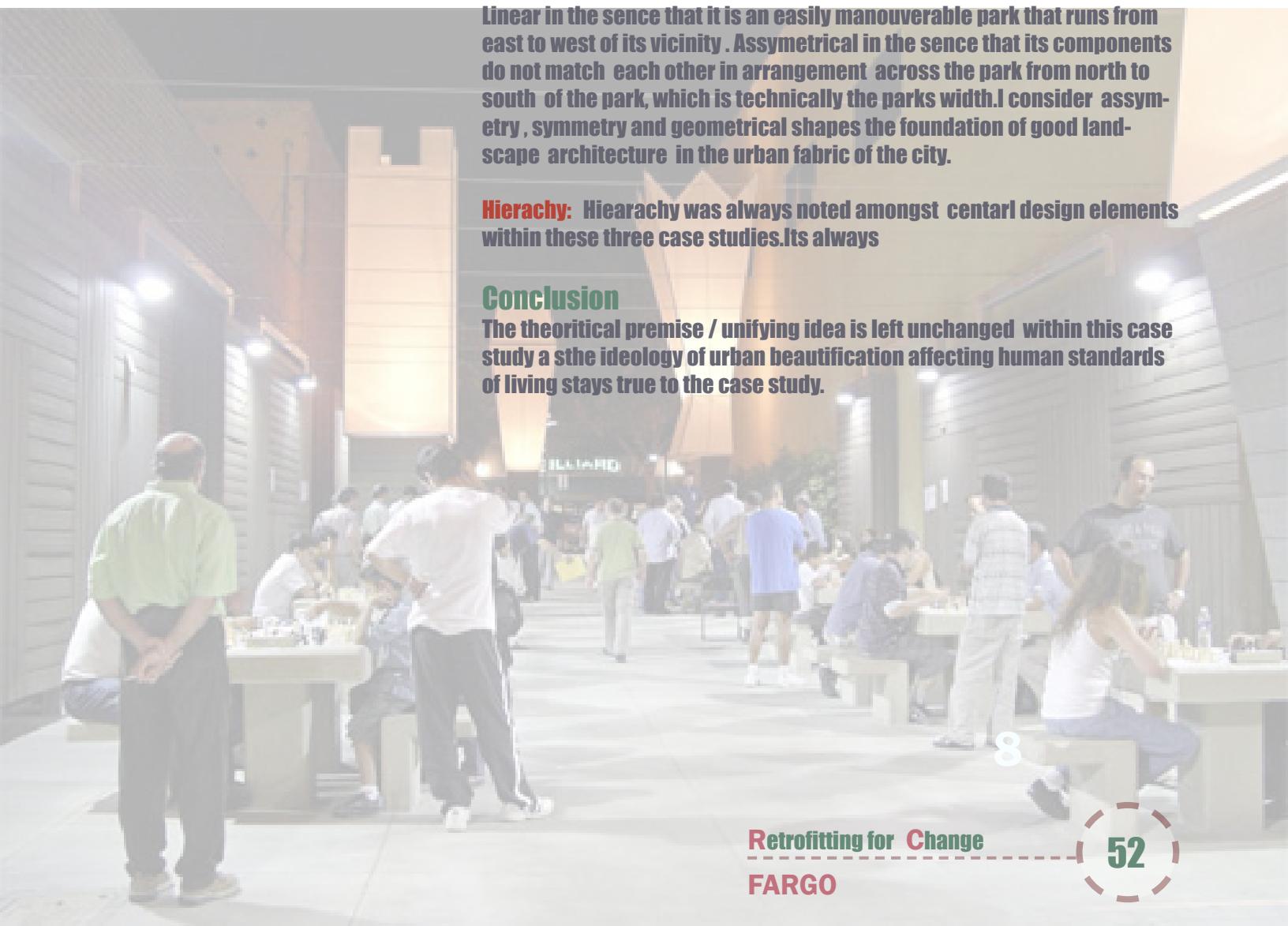
**Circulation of space:** Due to its linear nature, chess park allows the free and easy movement of pedestrians through its vicinity.

**Geometry:** Chess park possesses a linear but asymmetrical geometry. Linear in the sense that it is an easily manoeuvrable park that runs from east to west of its vicinity. Asymmetrical in the sense that its components do not match each other in arrangement across the park from north to south of the park, which is technically the park's width. I consider asymmetry, symmetry and geometrical shapes the foundation of good landscape architecture in the urban fabric of the city.

**Hierarchy:** Hierarchy was always noted amongst central design elements within these three case studies. Its always

## Conclusion

The theoretical premise / unifying idea is left unchanged within this case study as the ideology of urban beautification affecting human standards of living stays true to the case study.



### Summary

The case study series researched evolved around the positive influences of urban pocket parks, court yards and green roof design in the urban environment around them. These are three important elements in the introduction of naturalistic design within an urban city.

The theoretical premise of urban beautification and its positive effects on improved standards of living is clearly noted within all three individual case studies and so therefore, the theoretical premise / unifying idea remains unchanged. This helps the thesis forge along quite well as it does not require alteration of its bias, the theoretical premise/ unifying idea.



## Analysis



Boston court Square press courtyard.

**Structure:** Structurally all three case studies presented design case that stood quiet well on their own but blended in a lot better with the built environment around them. This is a criteria for good naturalistic design in the urban environment as it provides an inter-relationship/ symbioticism between the built and the built and natural environment, something every well designed urban city should possess.

**Natural light:** Natural lighting was a factor needed for the growth, sustainability and in some cases conservation practices of the three design cases that were studied. We all know that all natural environments require natural light for plant growth, humans beings require vitamin D readily from natural light sources and a design piece can use this through its design elements to attract both human and natural growth within its vicinity and the surrounding area.

**Massing:** Massing in two design cases (The chess park and the Boston court square press courtyard) was sequential and fragmented on a horizontal ground plane respectively. This allowed the easy, linear movement of users through the respective spaces avoiding the presence of a vertical continuing plane to continually climb and maneuver through.

The Peggy Notebaert museum green roof case study on the other hand took into consideration, sequential fragmentation and vertical massing. This was in part due to the nature of the project which was an attachment to the building it was created for.

**Circulation of space:** In all three case studies circulation of space is mostly linear. Although we do find situations in which fragmentation occurs reducing the free linear movement of the design space users.

**Geometry:** The geometry in the case studies was based around on the principles of asymmetry, symmetry and presence of geometric shapes. The phenomena of asymmetry and symmetry were evidently noted in the chess park and courtyard case studies while the museum case study took on the phenomena of geometrical shapes. I consider asymmetry, symmetry and geometrical shapes the foundation of good landscape architecture in the urban fabric of the city.

**Hierarchy:** Hierarchy was always noted within central design elements in the three case studies. It is always good to possess a central design feature for which your other design elements begin to focus around. In the case of the chess park, this central focus happens to be its numerous pre-concrete chess tables. The Peggy Notebaert museum boasted of its demonstration garden as its central piece while the Boston Square Press courtyard retained its boardwalk as its central piece for focus.



Chess park

## Conclusion

Common characteristics portrayed by the three case studies resound around the theoretical premise/ unifying idea of urban beautification and improved standards of living .All three studies aimed at pointing out the effects of naturalistic space or well designed space can have on human congregation within the space, use of the space and the overall well being these spaces provide to their users.

The uncommon characteristics such as differing sizes of projects, locations and plant type used are only site specific to the areas in which they are implemented. They do not affect the Unifying idea / theoretical premise of “ urban beautification and standard of living ” .

There is no given effect of perceived underlying conceptual ideas on the theoretical premise or unifying idea that is brought about in the case studies

**Weather and climate** played an important role in the quality and quantity of plantlife used in the design of these case study sites.The chess park case study focused more on the utilizing the natural heating and lighting of its environment while the courtyard design of Boston press courtyard and the green roof design in Chicago utilized the elements of natural design and plant life to create micro- climates not conducive to their specific areas , naturally.

**Culturally , politically and socially** all three design case studies were governed to an extent by their environments .There was the occasional exception such as the courtyard in Boston where culturally it adopted a plantmaterial native to the asian region of China.Other than this parameters set by the environment, the local government and other municipalities were followed judiciously by the three design case studies.

**Functionally** all three case studies address the principles of preservation, sustainability , dual functionality , interaction and social well- being.

**Spatially** two of the case studies namely the chess park and Boston courtyard addressed the issues of linearity , geometry and fragmentation in pedestrian motion and design component arrangements within these individual designs.The museum case study addresses the issue of massing , geometrical shaping and fragmentation in the positioning and design of the green roof structures that exist atop its building premises.

**Technical issues** from all three case studies were very minute in nature and were predominantly site specific to the use of the site rather than general in nature.

## Analysis

Overall the **three case studies** reviewed for the thesis addressed the ideologies of urban beautification and standard of living .This helped me forge ahead with certain design ideas and principles at hand pertaining to naturalistic design in the urban setting.



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## Historical context



Interstates i-94 and i-29 major influences in the move of commercial activity to 13th avenue South Fargo

At a point in time within the history of Fargo North Dakota, downtown Fargo was a rich hub of commercial, industrial and residential activity. From the early 1900's to 1970's, it was the central location for commercial activity within the City of Fargo. This trend abruptly changed with the introduction of interstates i-29 and i-94 which brought about economic development along 13th Avenue South Fargo.

**"The coming of the two interstates (I-29 and I-94) revolutionized travel in the region and pushed growth of Fargo to the south and west of the city limits. In 1972, the West Acres Shopping Center, currently the largest shopping mall in North Dakota, was constructed near the intersection of the two Interstates. This mall would become the catalyst for retail growth in the area. It would also catalyze decline for the downtown area of Fargo."**

(Early History of Fargo, North Dakota: wikipedia.org)

These interstates were not the only cause of downtown Fargo's regression. There are four main reasons for this decline and they are as follows:



The red river : Responsible to some effect for the movement of commercial activity to 13th Avenue south Fargo.

- 1) Planning around the Red river: A blessing and a curse to the Downtown area Fargo.**
- 2) The limited space for proposed expansion and planning in Downtown Fargo.**
- 3) The occurrence of interstates i-29 and i-94 around South Fargo.**
- 4) The cheapness and availability of land within South Fargo.**

These will be discussed in some detail within this portion of the thesis document. From the explanation of these points we will be able to ascertain the following:

- 1) How the initial planning of the Downtown area of Fargo led to its gradual demise.**
- 2) The shift in economic development from downtown Fargo to 13th Avenue south Fargo (leap frog development).**
- 3) The effects of leap frog development and urban uglification on 13th Avenue south Fargo.**
- 4) Urban beautification and smart planning: how could these terms rectify the effects of leap frog development and urban uglification on 13th avenue south Fargo?**

## Historical context

### Planning around the Red river: A blessing and a curse to the Downtown Fargo.

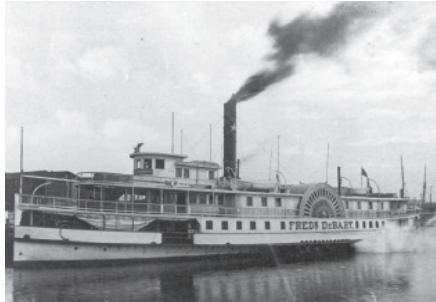


Planning around the Red river has been a blessing and a curse for Downtown Fargo.

The location of downtown Fargo was strategically planned around the Red river. This planning has ironically plagued present day downtown Fargo. Downtown Fargo planning revolves around the Red River, the fur trade era and the rail road era which brought initial settlers and economic development to Fargo North Dakota.

Downtown Fargo is built with proximity to the Red River because of its initial affiliation with the water and rail transportation systems. These transportation systems were responsible for Fargo's growth both in terms of population and infrastructure.

#### The blessing: The early history of Red river



Early steam boat trade in Fargo Northdakota responsible for the initial development of Fargo.

At first the water transportation outlet (The Red River) was used mainly as an avenue for fur trade between the local Indian tribes (Hidatsa & Mandan) and white settlers and traders who came from Canada and Europe.

These traders and settlers saw that the Red river valley was rich in soil deposits and capable of supporting food crops and (Buffalo) which was ample hunting game at the time. From this analysis the traders decided that it was a feasible option to set up homesteads within the region of Fargo North Dakota.

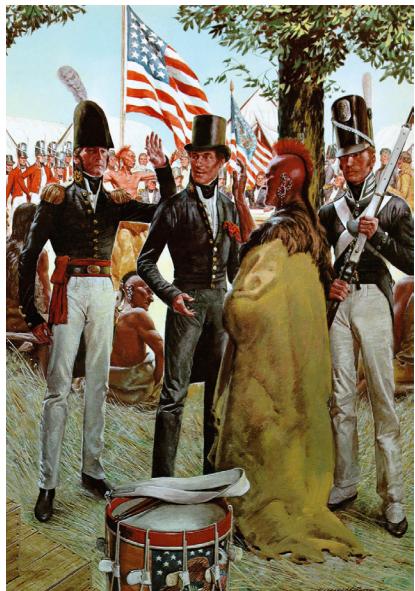
**"Relations between the Indians and the occasional white explorers and settlers were generally peaceful in the early decades of the 19th century. The fur trade changed native life, bringing guns, metal implements and cloth. Contact with the whites also introduced disease and the Mandan and Hidatsa in particular were hit hard by smallpox in 1837."**

Realizing the potential for fur trade within the region of North Dakota, these new settlers embarked on the fur trade business themselves using steam boats as a mode of transportation. Fargo and other parts of North Dakota became major terminal points for business activities related to the fur trade. The Red river served as a major transportation channel for this fur trade within Fargo, North Dakota and other potential trading points in differing states.

**"The area that is present-day Fargo was an early stopping point for steamboats floating down the Red River during the 1870s and 1880s."**

After a while water transportation became cumbersome for the existent settlers and traders within the United States. This was due to the seasonality of weather within specific parts of the United States and its effects it had on the Red river and other river components within the United States.

## Historical context



Early fur trade in America with emphasis on Fargo North dakota.



Railroad transportation brought great development to the Fargo area

This in part hindered the fluid movement of the fur trade. The overall cumbersome nature of cart to water transfer of trade goods within the water transportation era also had its part to play in the dissolution of water as a major source of transportation. As a result of water transportsations short comings a different approach to trade transportation was developed. This presented itself in the form of steam engine trains and the railroad network.

**"The fur trade relied on cumbersome and seasonal water transportation: ox carts traversed from St. Paul, Minnesota to the Red River, connecting with steamboats plying the river north to Winnipeg. Steamboats also navigated the Missouri River, transporting furs on the western side of the state south to St. Louis. The steamboat era came to an end with the coming of the railroad." (North Dakota History of agriculture: [www.ag.ndsu.edu](http://www.ag.ndsu.edu))**

### The introduction of Railway Transportation

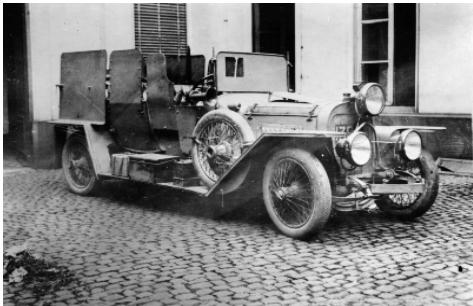
By 1871, The Northern pacific, a major railroad courier at the time crossed the Red river into the Dakota territory at what is termed present day Fargo and completed tracks across the state of North Dakota by 1881. River towns that had depended on rivers for a sources of economic productivity and transportation began to die out but Fargo was given a new lease on life as a result of the railroads presence in the state of North Dakota.

**"Fargo's founding dates back to 1871, when the first settlers staked out homestead claims at the point where the Northern Pacific Railroad would cross the Red River. Railroads played a major role in the development of Fargo"**

In 1880, what became known as the Great Northern Rail Road crossed into North Dakota further north at Grand Forks, and soon railroad tracks extended north, connecting Fargo and Grand Forks to Winnipeg, Canada. River towns died, while railroad towns sprang up.

**"The railroads led the way to mass settlement of the state, and the evolution of agriculture depended on their coming. Railroad companies aimed to build across the country to the Pacific coast, and they were granted massive tracts of land along the track right of ways by the government to finance the enterprise; the rail companies could sell these lands, or use them to exchange stock for land. It became vital for the railroads to attract land buyers, and they became active in enticing settlers to the region".**

## Historical context



The automobile era in the city of fargo brought about the creation and paving of roads which allowed easy access to other parts of Fargo

The railroads brought about development to the Fargo area with an emphasis on the downtown area which still served as a major terminal stop off point for steam engine trains within the state of North Dakota. This new form of land transportation brought physical and economical growth of the downtown area and other parts of the North Fargo. This economic growth and development occurred from 1871-1893 and was halted by the Fargo fire of June 7th 1893. This caused devastation to a lot of the built infrastructure within the Downtown area most of which was wooden in nature.

**"By 1892, Fargo had grown to a city of more than 8,000 inhabitants; the tents and shanties of earlier days had been replaced by mainly wood-frame buildings. But on June 7, 1893, disaster struck the growing city. A fire began on Front Street (now called Main Avenue). Fanned by strong winds from the south, the fire consumed most of the downtown area. By the time it was over, more than 31 blocks were reduced to piles of rubble."**

The city of Fargo including its downtown area was able to recover from this devastating fire and rebuild stronger brick buildings in comparison to the wooden structures that had been constructed before the fire. As such growth continued within downtown Fargo until the advent of roads which quickly replaced the railroad tracks in terms of use and relevancy.

This is not to say that the rail networks are still not in use today.BSNF Railway Company and Amtrak still make ample use of the railway network that still exists within the City of Fargo at present.

From the time of the railroad infusion to the introduction of road networks, the downtown area of Fargo grew exponentially surpassing the limits initially planned for its original growth plan.

A setback to this exponential growth occurred when a tornado in 1957 stuck the Northern region of Fargo North Dakota and devastated it. Coupled with the limited space for growth and development in the downtown area, residents and business investors looked to available land for potential development and growth. This presented itself in the form of South Fargo with the introduction of interstates i-29 and i-94 which brought development around 13th Avenue South Fargo.

## Historical context

### The curse: Flooding of the Red River and its effects on Downtown Fargo

In this portion of the document we will look at the negative effects the Red river has had on the Downtown area of Fargo, its residents and frequent users. From an analysis of its past and current flood situations we will be able to understand why Downtown Fargo's initial planning was skewed, how this has warranted the past and present regression it has experienced and why most commercial, residential and industrial development to some respect has moved to South Fargo.

North Dakota is plagued with a big problem and its name is flood. The factor responsible for this flooding is the Red river. Due to North Dakota's location within the Red River Basin it and affiliation with the Red river which runs through it, several major cities within the state of North Dakota get continuously flooded. Fargo unfortunately bears quiet a disadvantage to the other areas within the state by nature of its location to the Red river and it terrain.

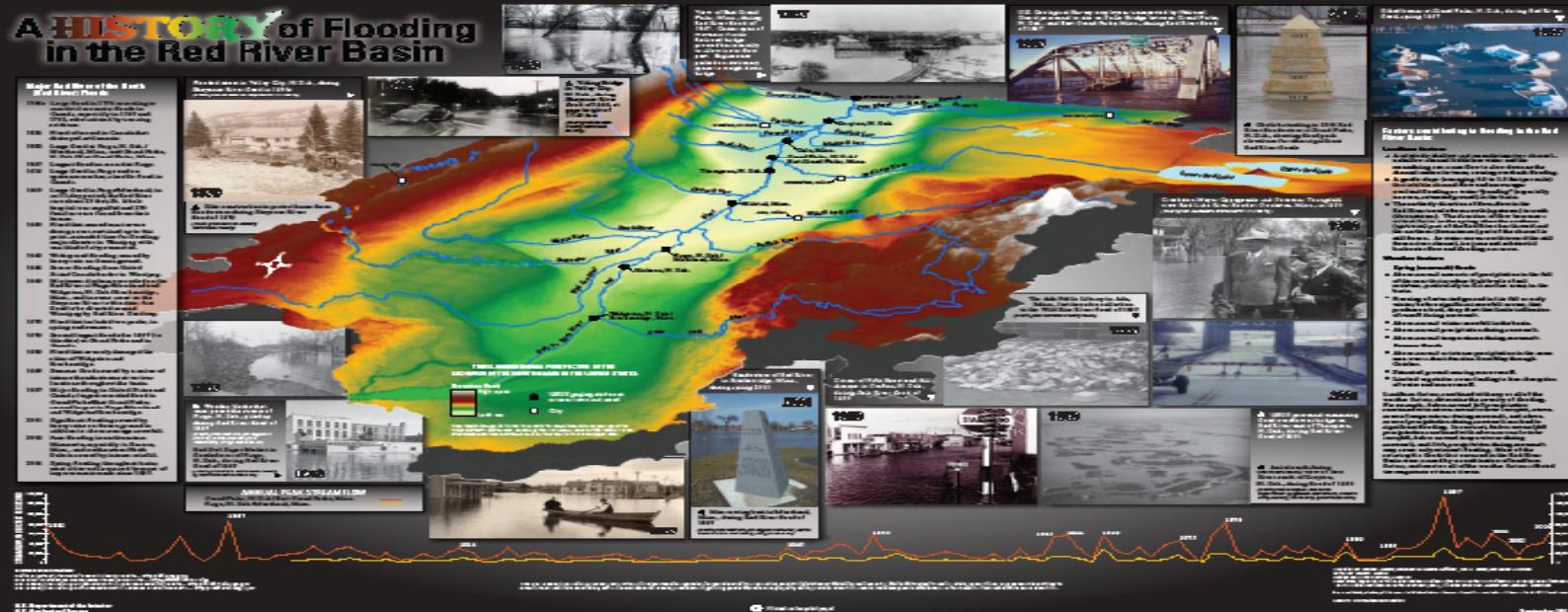
Due to its proximity to The Red River, the Downtown area has been at the mercy of the Red river and its irregular flooding activities despite being protected by flood levees. The relatively flat terrain of Fargo North Dakota, the highly impermeable soil around the area (**Clayey, loam**) , Fargo's elevation above sea level (**900- 904 ft**) and the directional flow of the Red river (North as supposed to South) have all contributed to the continual flooding of downtown Fargo. A flooding chart showing a history of flooding in the red river basin, within which the downtown area of Fargo is built, can clearly be seen below:

# Historical Context of Downtown Fargo



**Red River Joint  
Water Resource District**

Upper Sheyenne River  
Joint Water Resource Board



### Historical context



West Acres mall along 13th Avenue South  
Fargo

At the time of its completion in 1972, West acres shopping mall became the largest regional shopping center in the state of North Dakota. Due to its array of retail and service outlets it instantaneously became a point of attraction to consumers, residential developers and business investors within and around the Fargo area. Consumers commuted to the area around 13th avenue south to take advantage of the convenience services the mall had to offer. Business investors moved to area to set up profitable ventures that would attract consumer traffic the mall happened to have accrued. Residential developers saw the opportunity for expansion within South Fargo especially with land availability and the economic productivity around 13th Avenue South.

### Urban sprawl and Leap frog Phenomena along 13th avenue south Fargo

From 1972 till present, urban sprawl has occurred along 13th avenue south to meet the growing residential, commercial and recently industrial needs of the South Fargo area and its residents.

Urban sprawl is defined as: development of low-population-density settlements around high-density cities, either by emigration from the core cities or by influx of new residents from elsewhere.

Though urban expansion in the form of urban sprawl is good for economic growth, productivity and development, it can go awry if not properly handled. This has been the case along 13th Avenue South. An article titled *Growth plan 2007: Fargo North Dakota* talks about the effects of urban sprawl in general on a city's urbanized center and surrounding environment:

**"One result of leapfrog development is urban sprawl, described as a "shotgun" disorderly pattern of development on the fringes of an urban area. Urban sprawl results in an uneconomical pattern of extended urban services, disjointed development patterns and some of the typical commercial mall areas and large lot suburban subdivision styles that have occurred in the last 20-30 years. The public generally finds this rambling, disorderly style of development unattractive and heavily oriented toward automobile use rather than transit, pedestrian or bicycling. Carefully planned extensions of the city as a result of demand for housing help to counter disruptive leapfrog development."**

## Historical context



Sunmart/ cvs store a constituent of the leap frog development phenomena that has occurred along 13th avenue south Fargo

One word that stands out in the section of writing above is the word Leap frog development. This stands for: Least Expensive Available Property Forces Reckless Objectionable Growth.

**"Leap frog development is described as an extreme form of urban sprawl because it skips over available land and gobble up large tracts. Development leaps to outlying and isolated areas because the cheapest land is at the farthest distance."**



Block bustre video lot , a constituent of the leap frog development phenomena that has occurred along 13th avenue south Fargo

The jump in development from the downtown area of Fargo, to 13th avenue South Fargo depicts Leap frog development within the City of Fargo .An uncharacteristic move from the City core in North Fargo to the City's outskirts in south Fargo.

Shouldn't the smart thing to have done at the time of Leap Frog development been to evoke smart planning and growth (Concept discussed in preceding pages of the document) In this case carefully planned extensions of the city could have been developed stemming from the city's existent core which happened to be its downtown area .This could have been implemented with the aim of coping with the Fargo populations increased demand for housing and expansion. Apparently the availability of land and finances spoke otherwise and today we see the disconnect between Fargo's existent downtown area and the new development along 13th avenue South Fargo. This is not to say the economic orientated goals of 13th avenue south Fargo were not achieved.

**"Smart growth is an urban planning and transportation theory that concentrates growth in the center of a city to avoid urban sprawl; and advocates compact, transit-oriented, walkable, bicycle-friendly land use, including neighborhood schools, complete streets, and mixed-use development with a range of housing choices.**

**Smart growth values long-range, regional considerations of sustainability over a short-term focus. Its goals are to achieve a unique sense of community and place; expand the range of transportation, employment, and housing choices; equitably distribute the costs and benefits of development; preserve and enhance natural and cultural resources; and promote public health."**

Growth along 13th Avenue South has been mostly built in nature due to the phenomena's of both Urban sprawl and Leap frog development. Initially both phenomena's were deemed feasible in 1972, when the area along 13th avenue South Fargo was experiencing initial signs of growth brought about by The West acres mall .continue at a set pace.

## Historical context

But then again should the development along 13th avenue South Fargo even have occurred where it did irrespective of the location of interstates i-29 and i-94? Yes and No. Yes because the City of Fargo (including the downtown area) had pushed their limits for original planned growth and needed space for continued expansion and development. Development would have sooner or later have gotten to South Fargo. No in the sense that smart growth and development needed to have been applied in the expansion of City of Fargo, with expansion having occurred from the center of downtown Fargo.

**“Although the city of Fargo has pushed to the limits planned for in the original growth plan, the city still has substantial amounts of land available for growth.”**

As at 2010, the goal of economic expansion and growth has been achieved along 13th avenue south and the areas that surround it in South Fargo. This is why I term it the new downtown area of Fargo. All social amenities needed can be found along this avenue including Restaurants, shopping outlets, small scale and large scale business outlets (etc).

Its housing is mostly new development in the form of apartment complexes, condos, town houses and community development neighborhoods (etc).

Most of this development is sought after by college students who find it beneficial to live close to the amenities 13th avenue south offers, employees of business outlets along 13th avenue south and Families looking for a comfortable and affordable way of life.

This all sounds very appealing to any potential business investor, consumer or resident that would want to make 13th avenue south an area of continual visitation or a permanent location, but there is a catch to this development area and it's called urban uglification.

**“Urban uglification is defined as the poor design orientation of the built and natural environment (open space) within an urban setting, disrupting structural order and reducing economic productivity and human development on a whole.”**

In its rush to become economically self sufficient, the region around 13th avenue south Fargo, built continuously without taking into consideration the importance of nature and well planned open space.

We can see this today in the acres of paved parking lots, bland vistas that border the roads which exist within 13th avenue South Fargo and the randomness of green space that occurs in patches around.

## Historical context



Open space in a recreational context

To make matters worse the highways and intersections that usher traffic into the region surrounding 13th avenue South Fargo have taken on the premise of built design with disdain for the natural and well planned open space. An argument for the importance of open space rests in a quote acquired from (Metro green: Connecting open spaces in North American Cities):

**"open spaces ", are essential to the quality of life downtown, providing alternatives to steel and glass skyscrapers and perhaps more importantly, a physical and psychological center around which the city can grow. Public open spaces stimulate and promote private and human development."**

### What is open space?

Open space in relation to nature is talked about as a tool for physical and psychological development. In order to fully understand what this means open space has to be defined:

From the book (Metro green: Connecting open spaces in North American Cities), three different understandings of the term open space are given by differing authors according to three differing criteria. They are namely:

#### 1) Open space in a recreational context.

**"Open space or green space , can be thought of as a mix of traditional parks and reserves , hiking or biking corridors , scenic vistas and other areas that provide for informal recreation and natural resource protection."(Karen Payne)**

#### 2) Open space as green space based on spatial and environmental qualities.

**"Green spaces are places – areas of land with mainly unsealed surfaces within and around the city – these 'places' carry human activity as well as plants, wildlife and water and their presence influences quality of life , as well as local air quality and water quality."**  
**(Anne Beer)**

#### 3) Open space as a medium for wildlife habitat.

**"Open space is undeveloped sites that don't meet the criteria for natural areas because of human disturbance , but still provide habitat, scenery and other benefits. Open space can include areas such as farmland, recreational areas and utility corridors."**  
**(National Wildlife Federation)**

## Historical context

13th avenue South Fargo does not touch on any aspects of the above mentioned definitions at present. This nullifies the existence of whatever may be deemed open space with relation to nature within the area. If there is no alternative to the built environment within such an area what happens? Exactly what happened in the desertion of downtown Fargo's city core but for differing reasons. People are bound to begin to move to areas within or outside the state of North Dakota that begin to offer the amenity of open space.

As determined earlier from the quote in **(Metro green: Connecting open spaces in North American Cities)** that stated the importance of open space within an urban setting (Page 8: Historical content), we can clearly see that open space promotes a physical and psychological center for urban space while promoting private and human development. We as human beings require open space in some form or the other to remain physically balanced (healthy) and psychologically balanced (in the right state and frame of mind) in order to carry out daily activities.

The built environment requires an infusion of natural and structural open space to remain attractive and appealing to potential users while the general composition of urban fabric requires a balance between its built and natural environment to experience development that is both compact and efficient.

How can this be achieved? The keywords are smart planning and growth. The three definitions of open space given in the earlier parts of this document share the ideology of smart planning which in some sense or the other must have a positive impact on the human population and wildlife population. These are the most sensitive entities of the environment we live in. If they are not catered for then what's the purpose of creating an urban environment.

### Smart growth/ planning: A concept for consideration

What is smart planning you may wonder and how does it tie back into the current predicament facing Downtown Fargo and 13th avenue South Fargo?

Firstly we define the term **smart growth/ planning:**

**"Smart growth is an urban planning and transportation theory that concentrates growth in the center of a city to avoid urban sprawl; and advocates compact, transit-oriented, walkable, bicycle-friendly land use, including neighborhood schools, complete streets, and mixed-use development with a range of housing choices."**

## Historical context

From the definition stated above it is clear to see that concentrated growth at the center of the City of Fargo which happens to be its downtown area has not been properly implemented. There are elements of transit oriented, walkable and bicycle friendly land use and some natural parks and trails (Island Park and The Dyke west with the natural trail that runs along the Red river) within the downtown area and they all work in conjunction with the existing built infrastructure but there is a catch.

This sort of development stops at a certain point within the downtown area (**12th avenue north and Main avenue**) and a disconnect in planning is noted. What occurs from here on is sporadic development with patches of lifeless open space followed by areas of built development. With the location of the city of Fargo Dump and other industrial and commercial developments that exists solely on their own along 45th street North, it is clear to see the presence of steady leapfrog development.

From the area where 45th street North meets up with 13th Avenue South Fargo, a noted developmental stretch of Commercial, Residential and industrial use can be seen. This scene in itself is not a pretty one with such compact mixed use development lacking natural design to balance its existing hardscape which comprises of buildings, paved roads and parking lots.

Along 13th avenue South, two major transit lanes run parallel to each other separated by a stretch of boulevard that lacks vibrancy and exists solely for its functional purpose (Lighting, storm water retention and separation of the two transit lanes that make up 13th Avenue South). There is no sign of pedestrian activity or bicycle friendly land use within this area as most of the transportation activity is tailored towards automobiles. There is no sign of natural open space conducive for human interaction; the area of 13th Avenue South seems cold to human existence.

### Questions for Consideration?

How do we begin to change the existent culture of 13th avenue South and infuse smart planning / growth? How do we implement urban beautification within an environment that is currently the definition of urban uglification? How do we prevent future leap frog Development from occurring to some other given location within the City Of Fargo limits because of the need for natural and open space?

## Historical context

This is what the design portion of the thesis attempts to answer to some degree .

This will be done by analyzing three differing locations along 13th avenue south Fargo and addressing the problems of urban retrofitting and planning they may have through design. The thesis will also look at the 13th Avenue South Boulevard suggesting through design ways to boost its appearance and appeal to its users.

Lastly the final portion of the design thesis will look at implementing green pedestrian corridors that connect the downtown area to 13th Avenue South bridging the gap caused by leap frog development.

It is believed that through specific site design of certain areas within 13th Avenue south, current and future development within the area will be affected and the trend of urban beautification and smart planning/ growth will catch on .



## Goals for thesis

### The Academic



Academically the “ Environmental Revitalization” of Fargo, North Dakota aims to answer the age long question of the feasibility and importance of naturalistic design “ Landscape Architecture” and its effects on the urban environment in which it is implemented. One should be able to assume through the thesis the very same idea the designer has , which is the importance of urban beautification to the very essence of 13th avenue South Fargo. The thesis should be able to teach its readers and users about the importance of nature and design oriented around the urban city. This will inturn provide a platform for future design whether it be along 13th avenue South Fargo or within our vast planet .In this sence designers and advocates of the built environment will first and foremost consider nature as an intergral tool for design that cannot be done without.

### Professionally



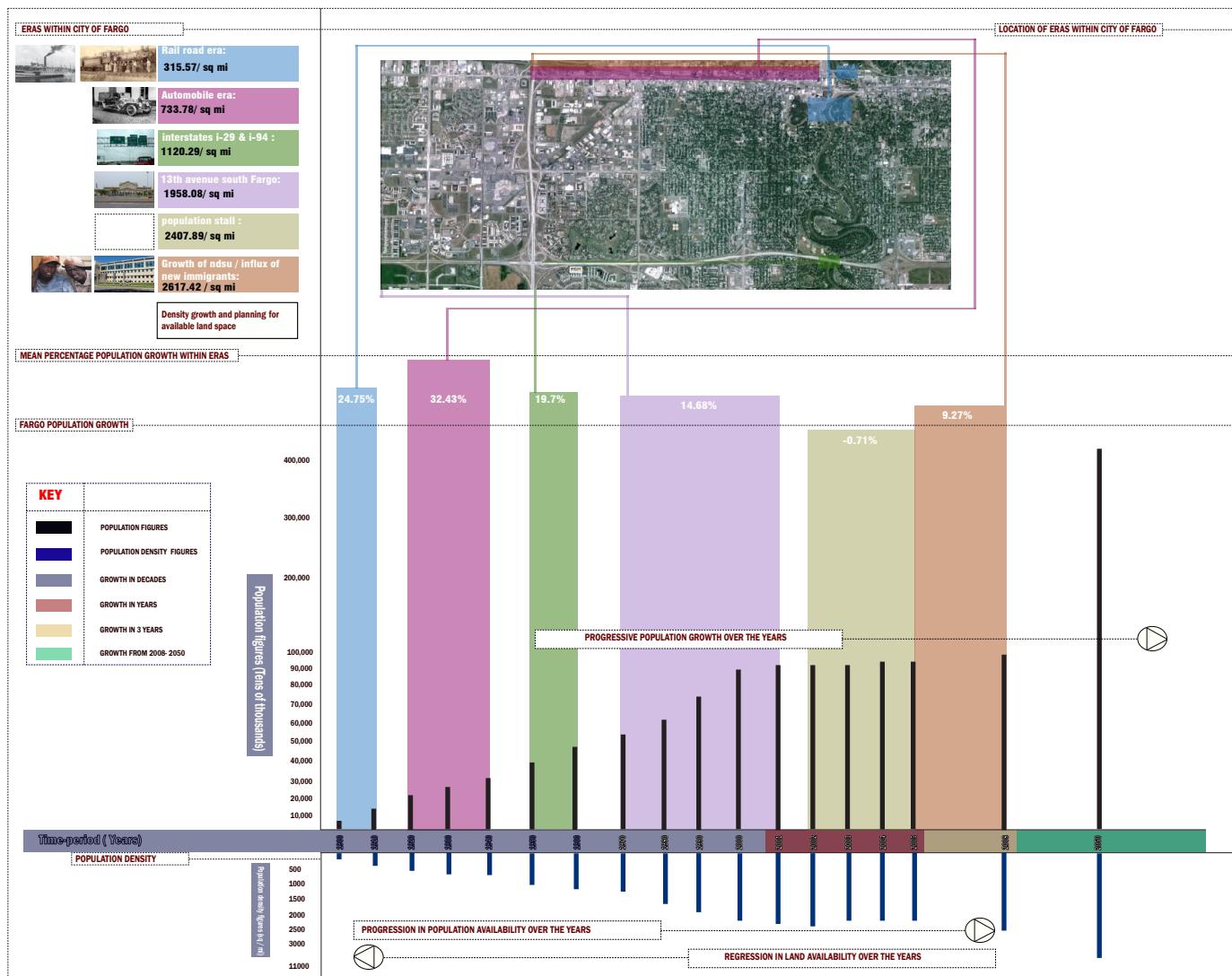
The thesis aims to push for an emphasis on naturalistic design and sustainability within the design fields of Architecture and Landscape Architecture .We as advocates for design within our varying fields should begin to encourage the push for nature within our cities. We clearly can see the benefits of nature on human health,human work productivity and settling patterns within the United States of America and the world on a whole. As human beings despite a push for urban and suburban living we still crave that relation to nature at some level because of its noted benefits. The thesis aims to push for an increased occurrence of natural/ sustainable design within the fields of architecture and landscape architecture. This push should also be seen within the the communities we happen to design no matter how large their scale.

### Personally



The thesis aims to help me acquire a sence of understanding for the terms natural and artificial in design .As a designer I have been introduced to a world in which the built environment takes advantage of many an artificial material to produce a certain stereotypical type of design .The natural enviroment has taken a back seat until recently with the push for sustainability through advocacy as a result of the state in which we find the enviroment. Floods , toxic emissions , forest fires , the destruction of the ozone layer just to name a few are in some way related to the life style we as individuals live and the design choices we as designers have made over a lenghty period of time. The need for more naturalistic environments that abide by the unseen rules of nature are required and I hope to as a designer begin to explore this more aggressively within this thesis and beyond, in whatever endeavours i find myself in after college.

# RFP : Site Analysis



## DEMOCRAPHICS : FARGO

**The need for improved diversity growth within the city of Fargo to encourage future diversity growth within the city of Fargo.**

**The occurrence of a present day working force orientated population that will continue to grow with the increase in population within the city of Fargo.**

**The need for the growth of future mixed use business outlets to cater to the need of the growing work force population.**

**The possible absence of such available land for mixed use business outlets with the continued growth in population and the estimated limited nature of land availability around the city of Fargo in the future.**



Fargo population size **99,200** (as at 2008)



**50% male  
50% female**

Median age of population **30.10**  
Median age for females: 31.20  
Median age for males: 29.20

A 1:1 ratio in terms of men to women within the City of Fargo makes Fargo an optimal location to find a potential spouse for people young or old looking to settle down.

### Unemployment rate in Fargo as at 2008

**2.8%**

Ranked 7th in CNN's poll of best cities to find a job in 2008.

2004

2005

2006

2007

2008

2009

Fargo

United states

Unemployment rate comparison graph

Fargo always falls beneath  
unemployment rates

### By 2050 in Fargo, North Dakota

Fargo population size **408,000**



**22% Ethnic Diversity  
78% Caucasian**

"The millennials also will help shape an increasingly culturally diverse America which by 2050 will be roughly half made up of ethnic minorities."

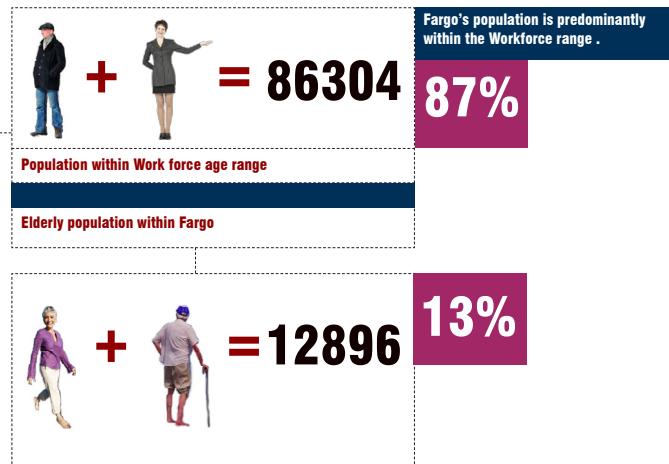
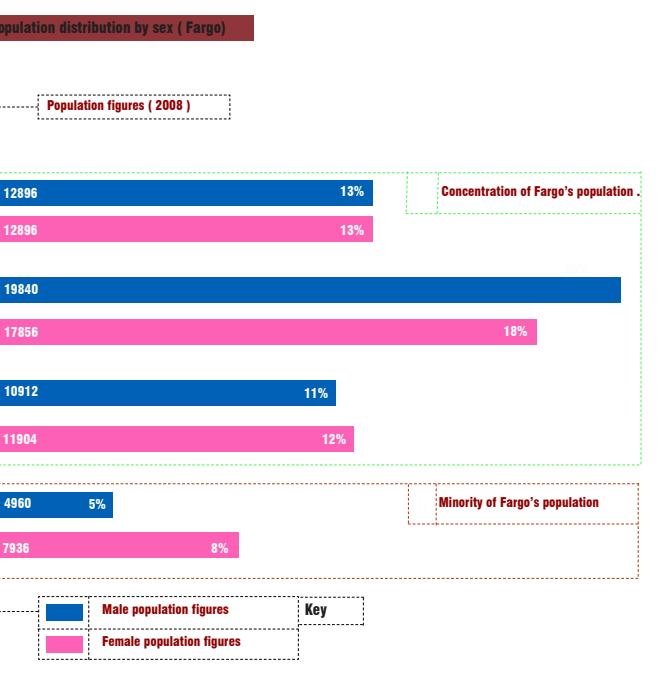
Under 20-60  
62832  
222,768

Over 60  
26928  
95472

"30% of american will be over 60 in 2050  
age in most areas of the United states."

Caucasian  
Ethnic diversity

# RFP : Site Analysis

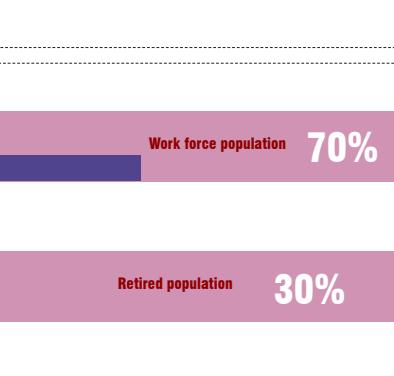


**POINT TO NOTE :**

Though there happens to be low unemployment rates in the city of Fargo, there is still an absence of a bountiful workforce to take on such available jobs .

This most times boils down to the location of Fargo with regards to its climate as well , the manner and level of development within the city of Fargo and diversity within the state .

With the general US unemploy-



**Analysis**

1) How does Fargo create a Favorable present day scenario for attracting potential immigrants from other states within the USA and other countries around the world through diversity, planning and design of its urban spaces?

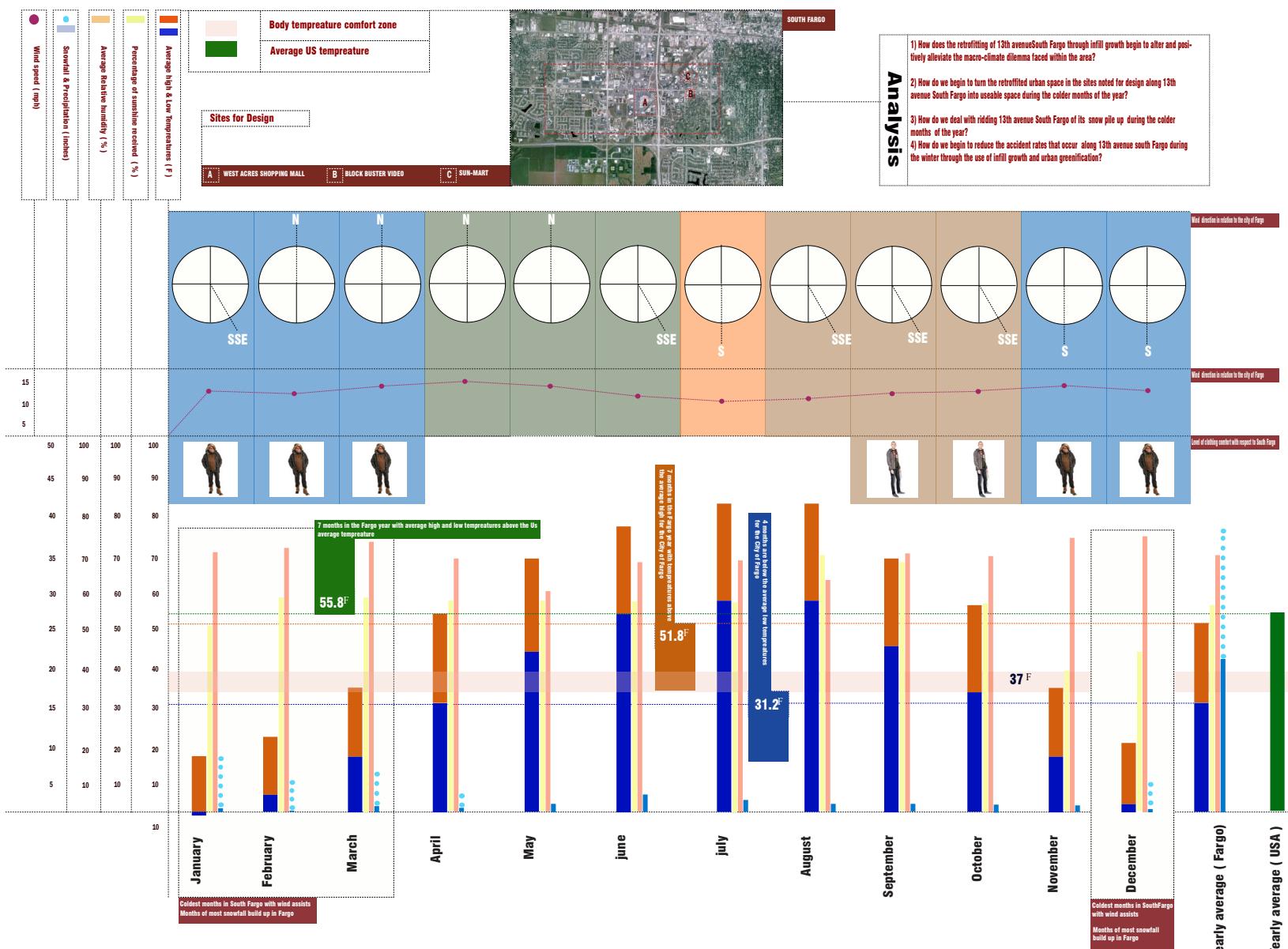
2) How does Fargo generate jobs and improve diversity to cater to its growing Workforce that will take on a new dimension in ethnic make up by 2050?

"The U.S.'s greatest priority will be to create opportunities for its ever-expanding population. The New America Foundation estimates the country needs to add more than 125,000 jobs a month simply to keep pace with population growth in 2010."

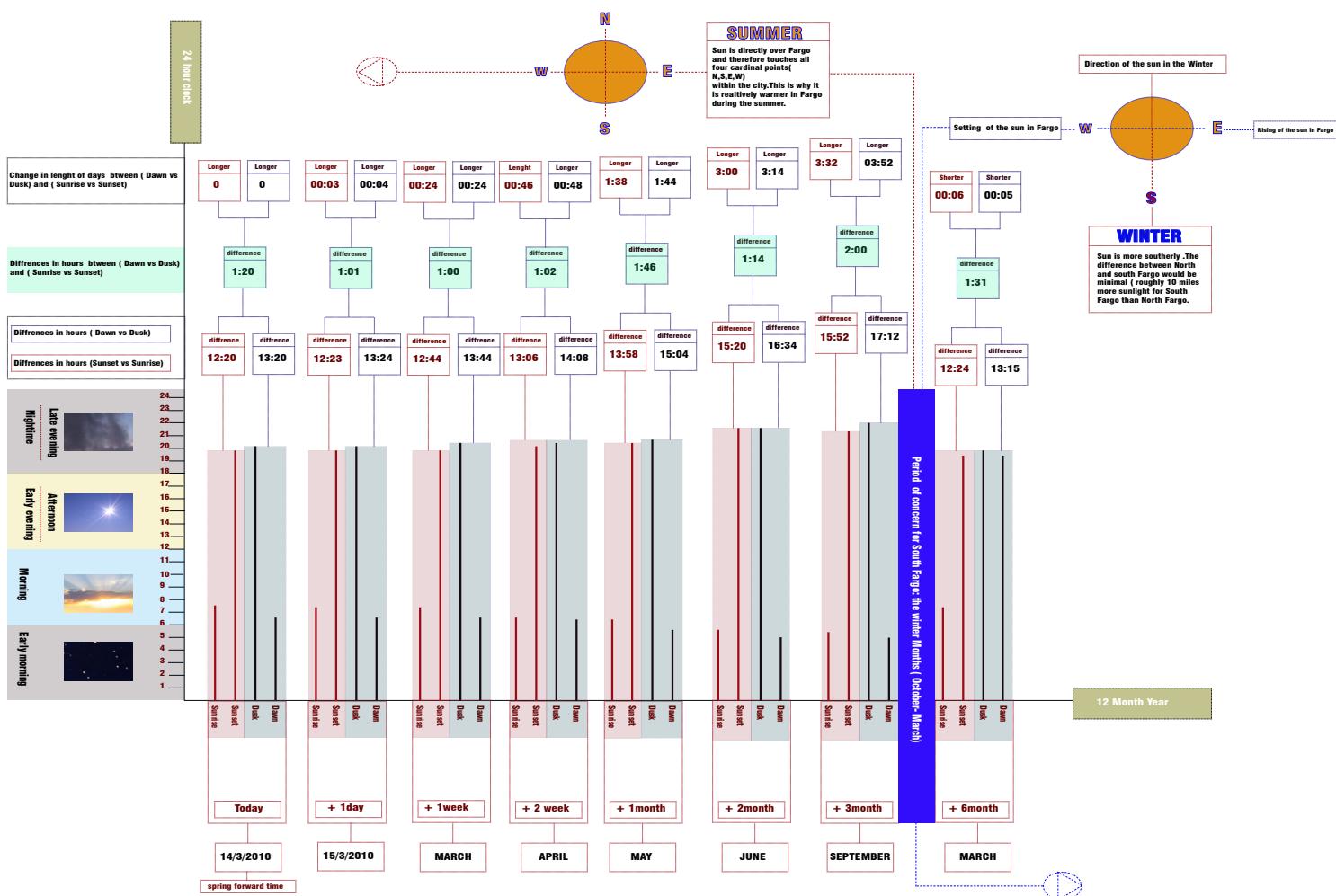
"The millennials also will help shape an increasingly culturally diverse America which by 2050 will be roughly half made up of ethnic minorities. This emerging post-ethnic future contrasts dramatically with the ethnic politics common among the nation's chief global rivals."

3) How does Fargo cater to its growing elderly population in the year 2050?

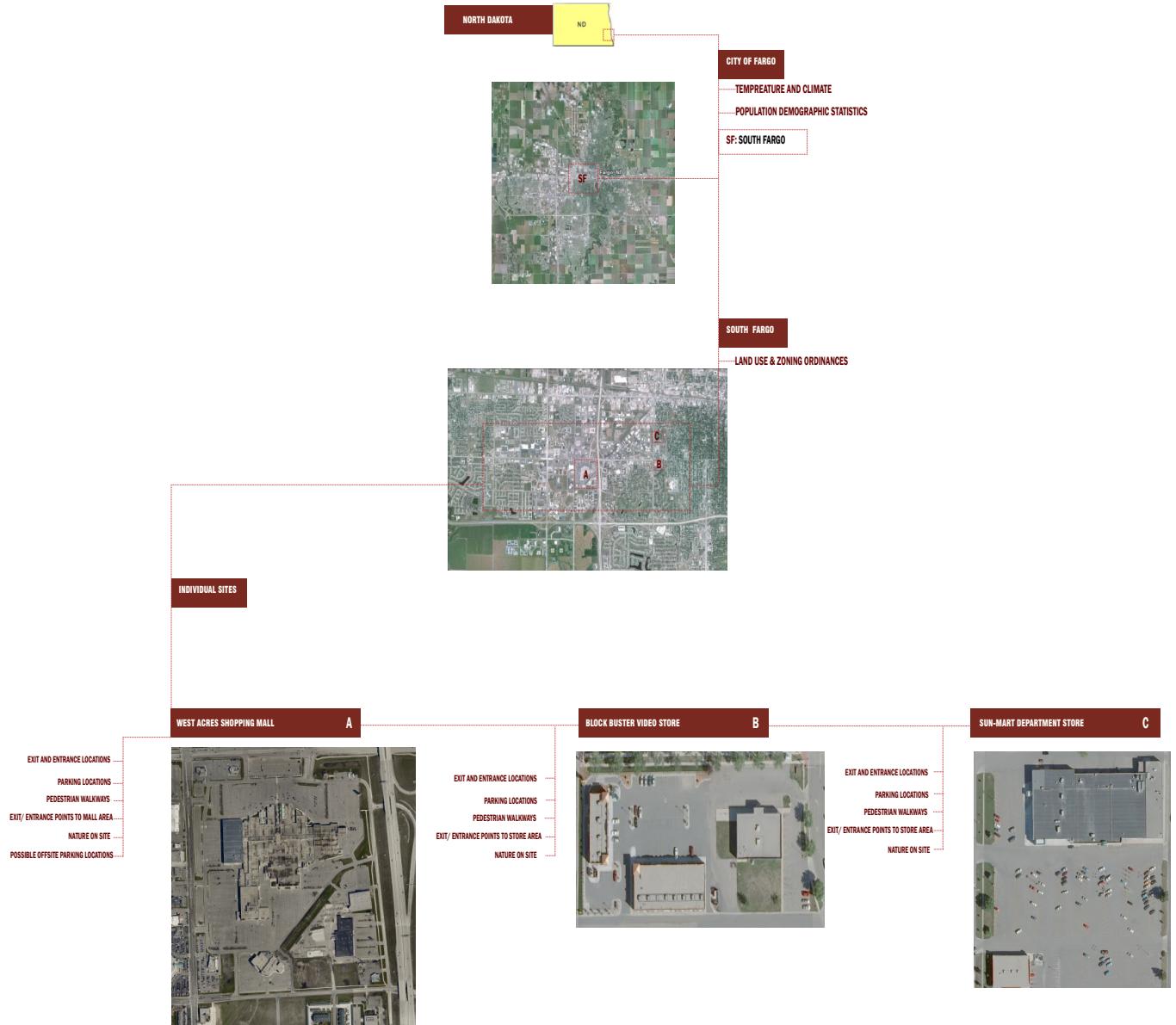
# RFP : Site Analysis



# RFP : Site Analysis

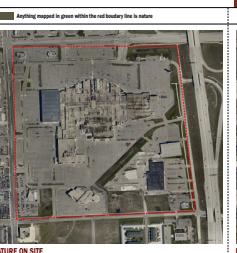
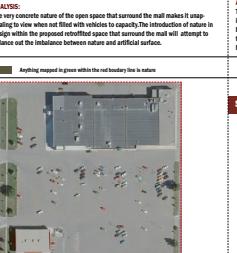
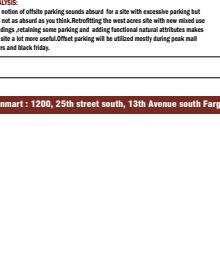
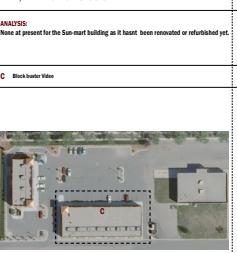
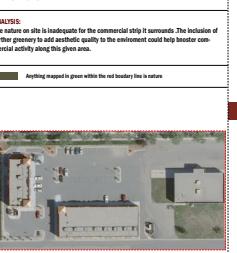


# RFP | Site Analysis

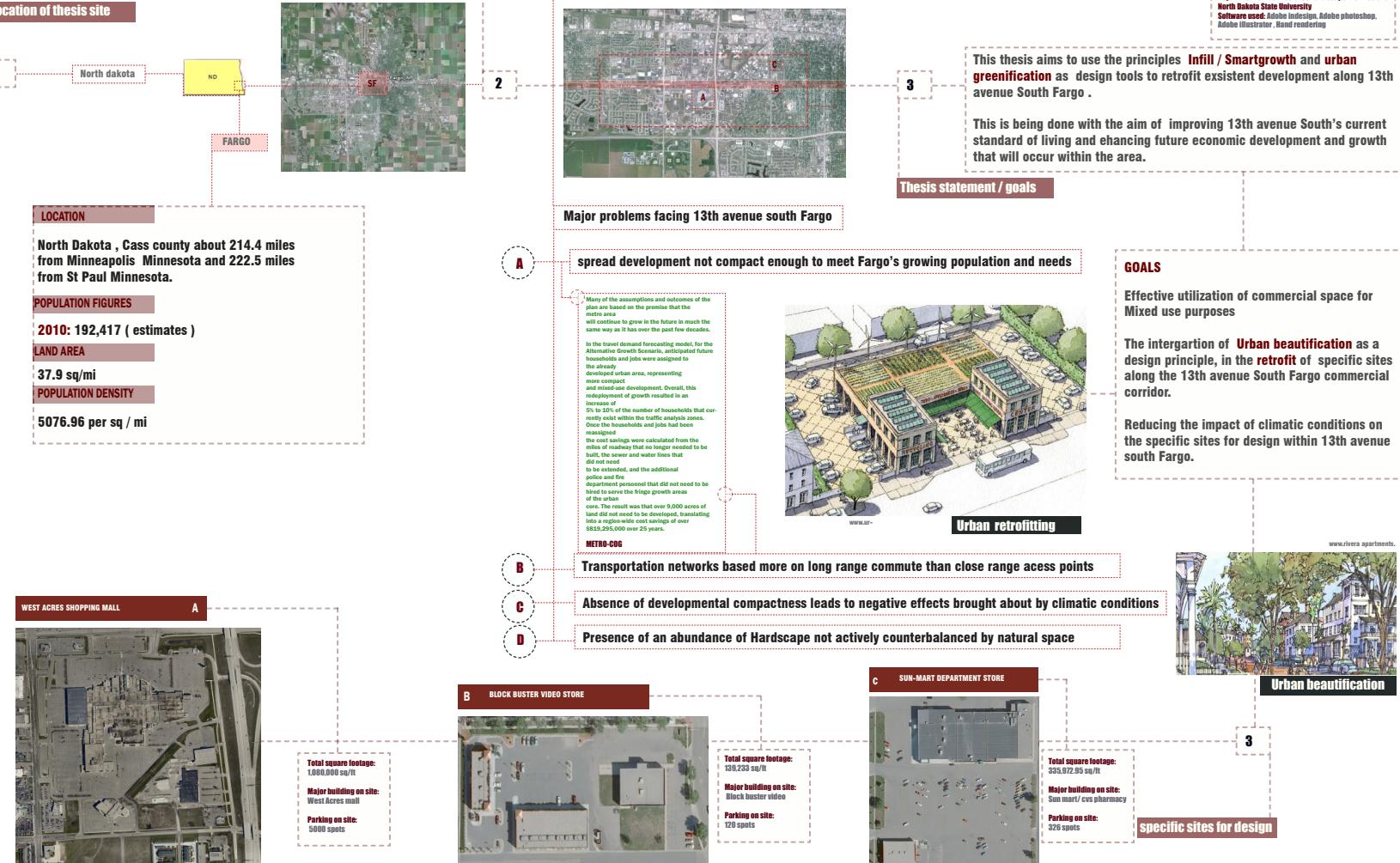


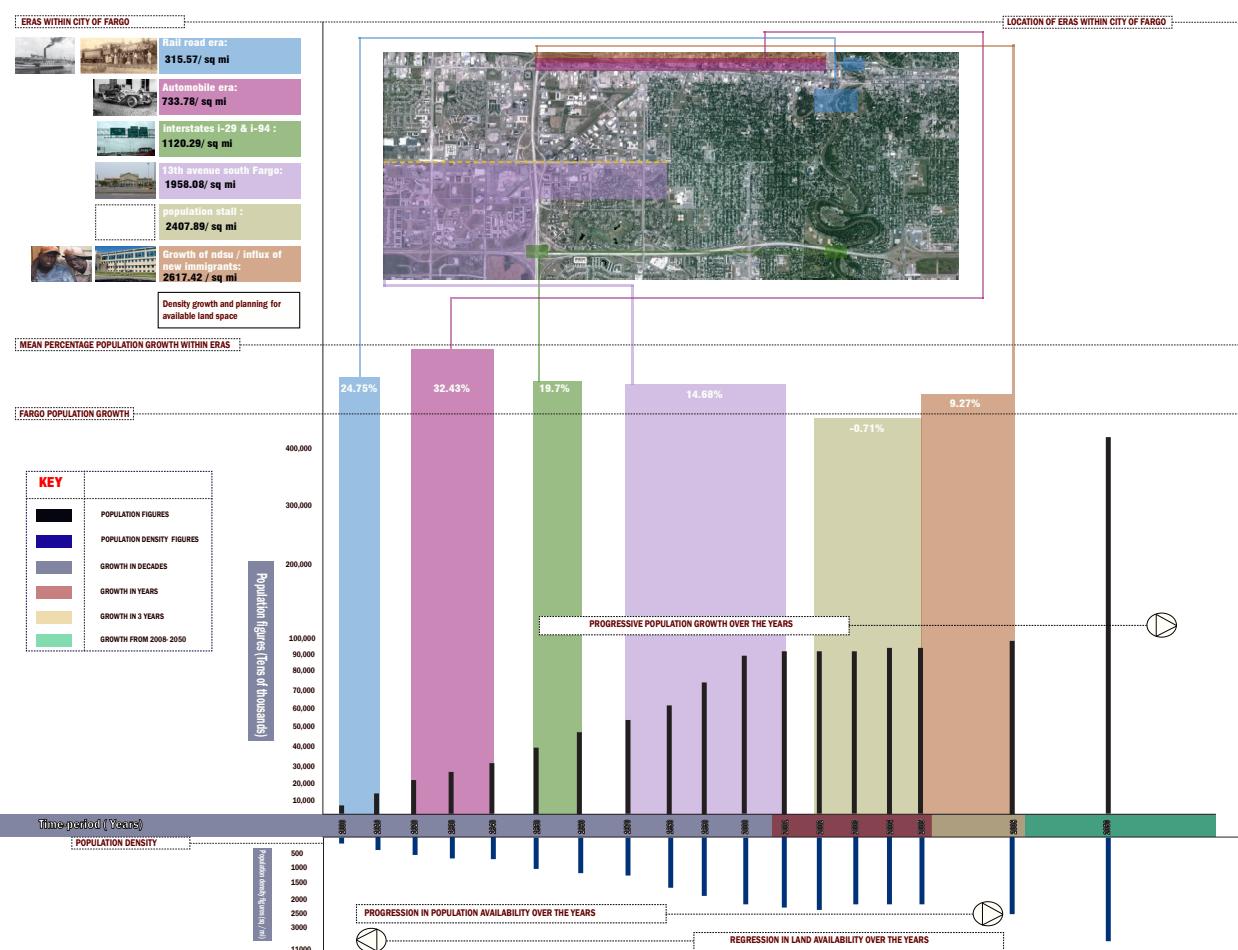
# RFP | Site Analysis

**West acres mall : 3902, 13th Avenue south Fargo**

					
<b>MALLS EXIT AND ENTRANCE LOCATIONS</b>	<b>PARKING LOCATIONS</b>	<b>PEDESTRIAN WALKWAYS</b>	<b>EXIT/ ENTRANCE POINTS TO MALL BUILDING</b>	<b>NATURE ON SITE</b>	<b>POSSIBLE OFFSITE PARKING LOCATIONS</b>
<b>ANALYSIS:</b> Entrance and exit points are major locations for the occurrence of accidents something 13th Avenue south Fargo is quite noted. How do we retrofit and reduce the number these entrance/ exit points to limit accidents and add value to the mall space.	<b>ANALYSIS:</b> With 5900+ parking spots available at a gross square footage of 1,080,000 sq' it there is more use the west acres mall can make of its under populated parking lot. Retrofitting the buildings to implement the enclosed mall space seems a plausible idea for mall which continues to grow in popularity and size.	<b>ANALYSIS:</b> Pedestrian walkways define the boundary of the West acres site. In the presence of mostly paved spaces there has been an absence of pedestrian walkable space or paths. This due to the lack of planning of pedestrian walkways implemented within the site. With the retrofitting of Wests acres mall space , this will hopefully change.	<b>ANALYSIS:</b> During the winter months people prefer to park closer to the entrance/ exit points of the West acres mall building. The location of retrofitted building locations will be due to the lack of parking space and the need for people to park closer to the site. With the retrofitting of Wests acres mall space , this will hopefully change.	<b>ANALYSIS:</b> The very concrete nature of the open space that surround the mall makes it unappealing to visitors not fitted with vehicles to capacity. The incorporation of nature in design will make the area more appealing to visitors. The inclusion of nature will attempt to balance out the imbalance between nature and artificial surface.	<b>ANALYSIS:</b> The lack of offsite parking spaces current for a site with excessive parking but the site is as about as you think.Retrofitting the mall areas over who have mixed use buildings relating some parking and adding functional natural attributes makes the site a lot more useful.Offsite parking will be utilized mostly during peak mall hours and black Friday.
					
<b>EXIT AND ENTRANCE LOCATIONS</b>	<b>PARKING LOCATIONS</b>	<b>PEDESTRIAN WALKWAYS</b>	<b>EXIT/ ENTRANCE POINTS TO STORE AREA</b>	<b>NATURE ON SITE</b>	<b>Summary : 1200, 25th street south, 13th Avenue south Fargo</b>
<b>ANALYSIS:</b> Entrance and exit points are major locations for the occurrence of accidents something 13th Avenue south Fargo is quite noted. How do we retrofit and reduce the number these entrance/ exit points to limit accidents and add value to the commercial hub.	<b>ANALYSIS:</b> Most of the parking within this residential blockbuster location is underutilized and lacks in quantity. Redesign the site of same parking and retro-fitting a building to inhabit the available space brings commercial value to the area and ensures utilization of left over parking efficiently.	<b>ANALYSIS:</b> These walkways are decent in quantity and size for the location being retro-fit with buildings. The site in the blockbuster building and inhabitation of the block buster building we will see available open space supporting more pedestrian traffic within the area.	<b>ANALYSIS:</b> None at present for the Sun-mart building as it hasn't been renovated or refurbished yet.	<b>ANALYSIS:</b> The nature on site is indispensable for the commercial strip it surrounds. The inclusion of further greenery to add aesthetic quality to the environment could help booster commercial activity along this given area.	
					
<b>EXIT AND ENTRANCE LOCATIONS</b>	<b>PARKING LOCATIONS</b>	<b>PEDESTRIAN WALKWAYS</b>	<b>EXIT/ ENTRANCE POINTS TO STORE AREA</b>	<b>NATURE ON SITE</b>	
<b>ANALYSIS:</b> Entrance and exit points are major locations for the occurrence of accidents something 13th Avenue south Fargo is quite noted. This project is looking to retrofit and reduce the number these entrance/ exit points to limit accidents and add value to the commercial hub.	<b>ANALYSIS:</b> Too much hard artificial surfaces is made available for parking within this strip mall. Converting portions into commercial value like buildings and retro-fitting the parking to be more natural is an aim of the project at hand.	<b>ANALYSIS:</b> Pedestrian walkways along the strip mall that surrounds block buster are adequate enough for the use they have been assigned.	<b>ANALYSIS:</b> None at present for the block buster building as it hasn't been renovated or refurbished yet.	<b>ANALYSIS:</b> The nature on site is indispensable for the commercial strip it surrounds. The inclusion of further greenery to add aesthetic quality to the environment could help booster commercial activity along this given area.	

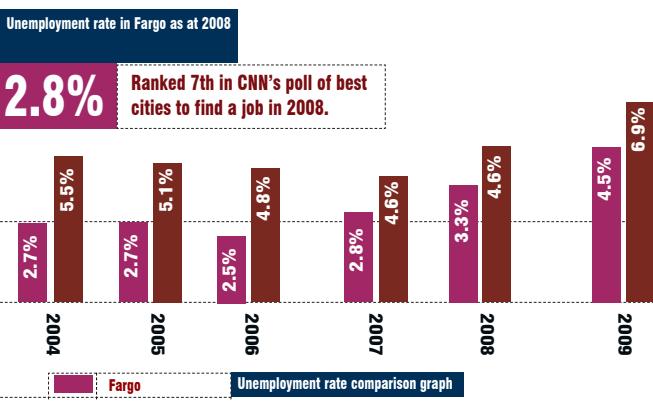
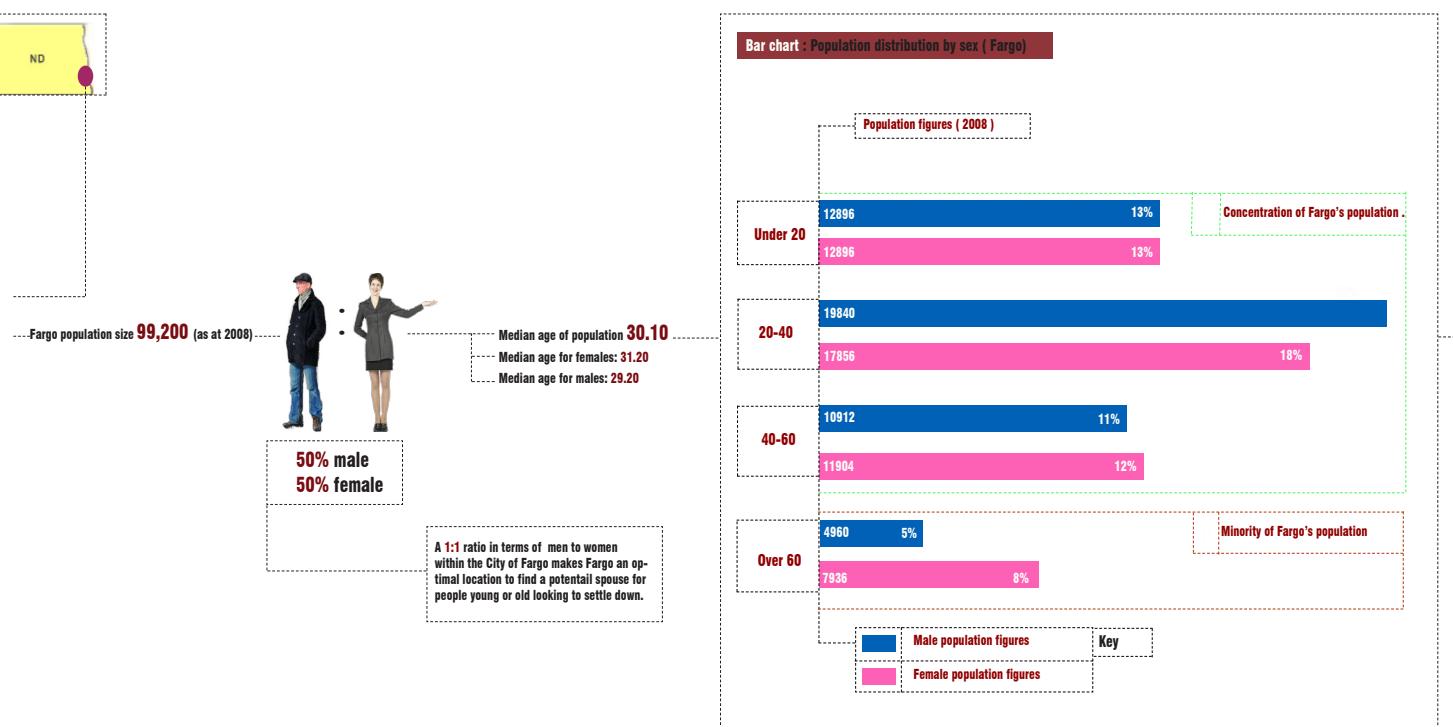
**FINAL**





### Analysis

With Fargo's growing population and increasing population density it is important for the city to begin to develop more compactly / densely to accommodate population growth with greater quantities of mixed development along major commercial corridors.



**POINT TO NOTE :**

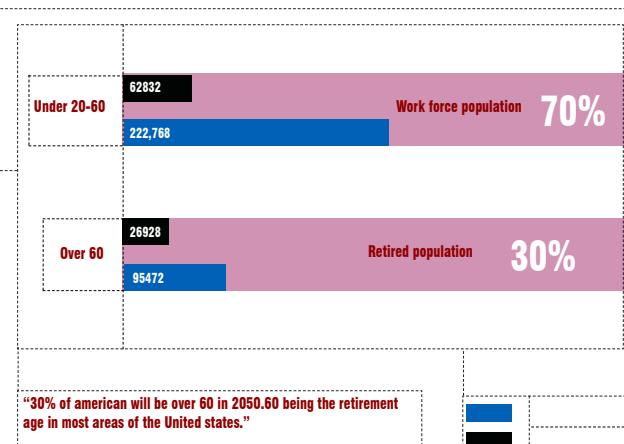
Though there happens to be low unemployment rates in the city of Fargo, there is still an absence of a bountiful workforce to take on such available jobs .

This most times boils down to the location of Fargo with regards to its climate as well , the manner and level of development within the city of Fargo and diversity within the state .

### By 2050 in Fargo, North Dakota



"The millennials also will help shape an increasingly culturally diverse America which by 2050 will be roughly half made up of ethnic minorities."

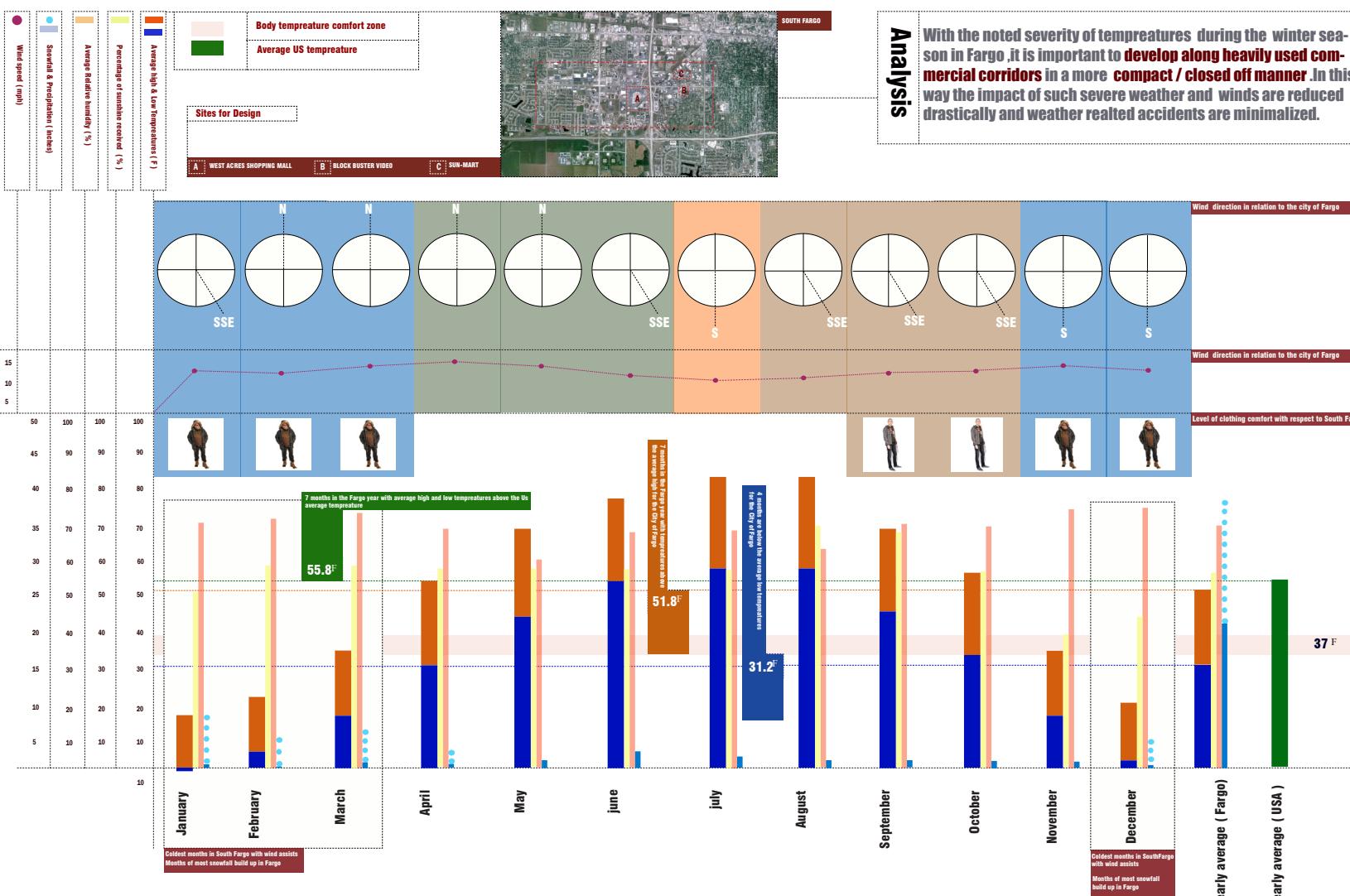




## Analysis

With a present population figure of 192,417 , 87% of which is currently orientated around the **work force** age it is important for the city of Fargo to begin to present avenues for commercial development along **commercial corridors** to accomodate potential population growth and related work force abundance.

In this way it will be able to maintain its **low rate of unemployment** currently at **4.5%**





West acres mall : 3902, 13th Avenue south Fargo

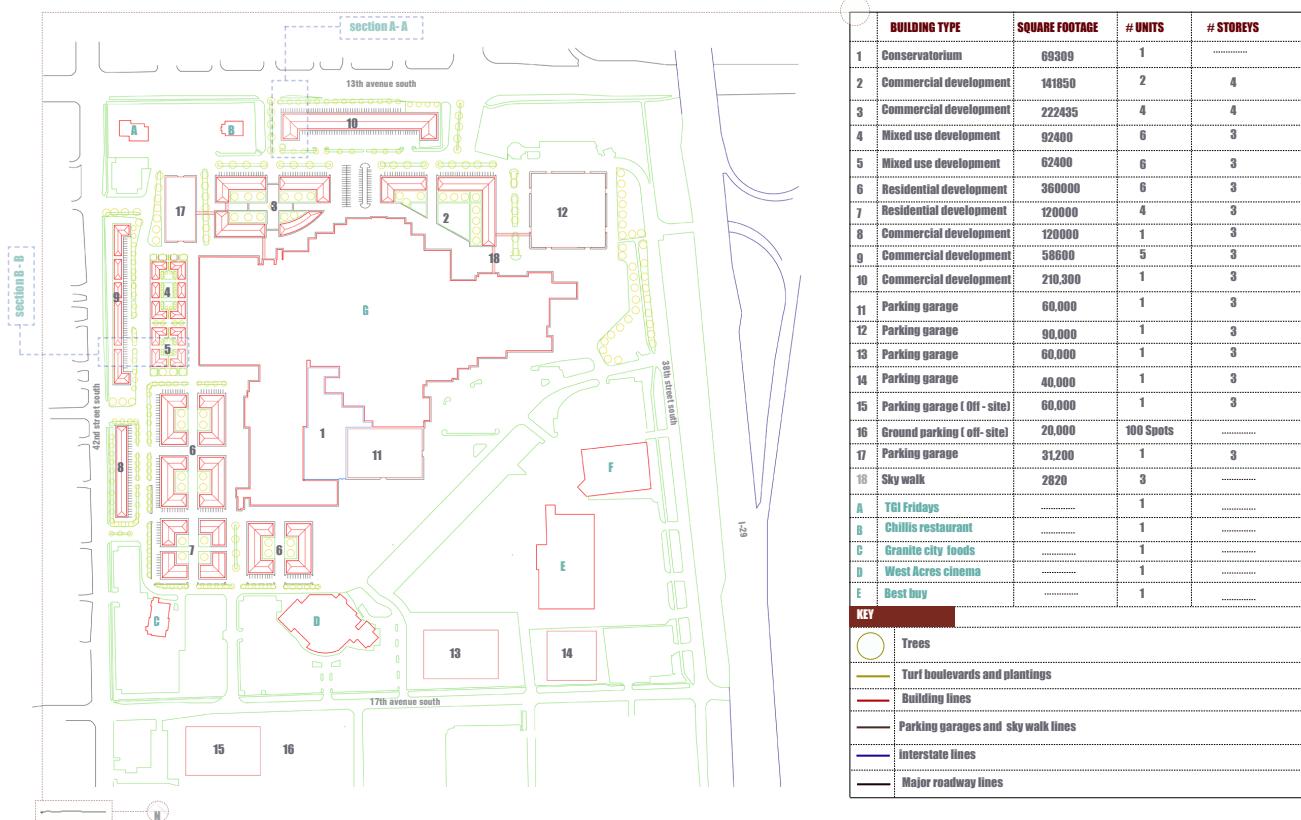
## AIM OF MASTER PLAN DESIGN

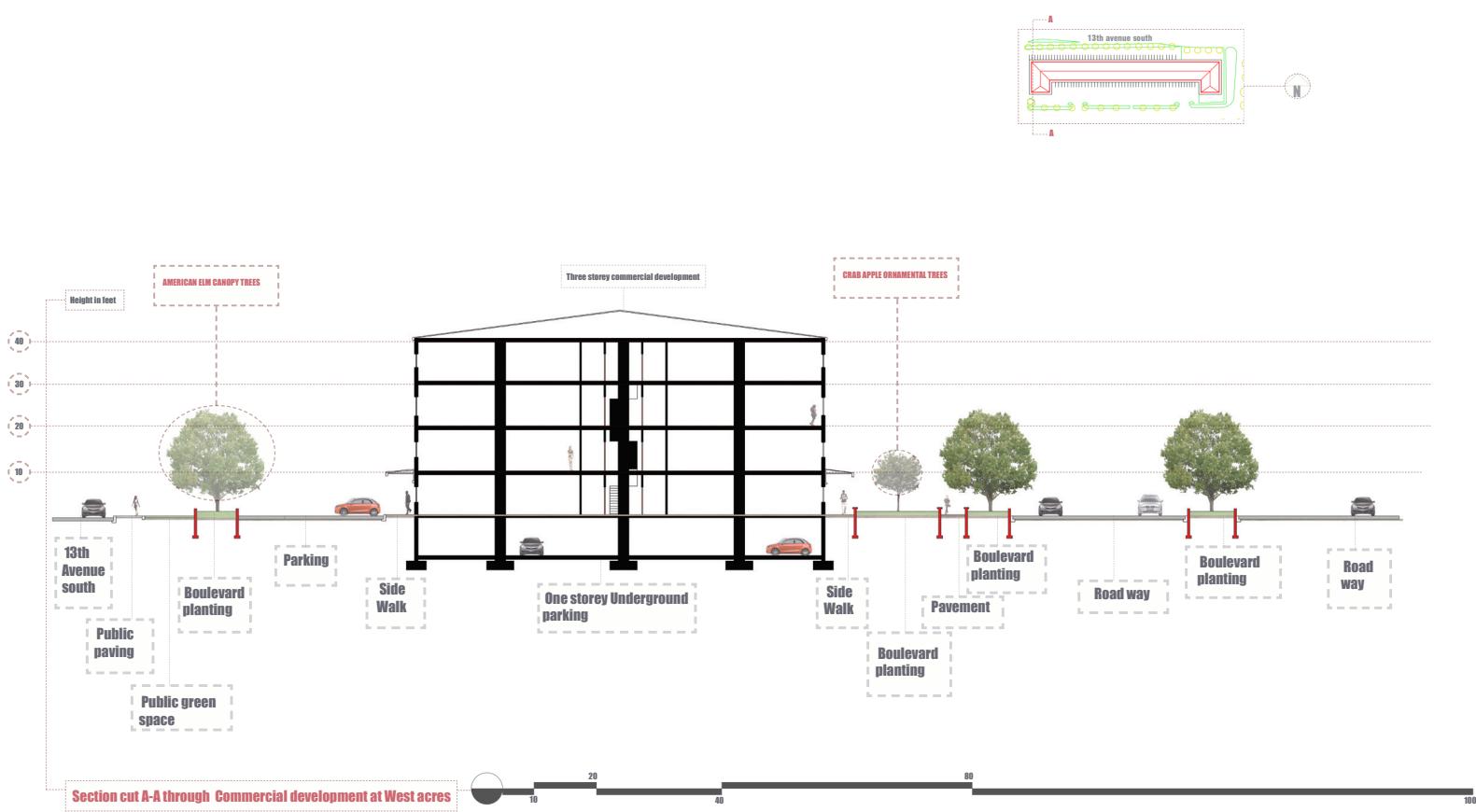
To create an avenue for more mixed use development within existent mall lot through the utilization of existent parking for development purposes.

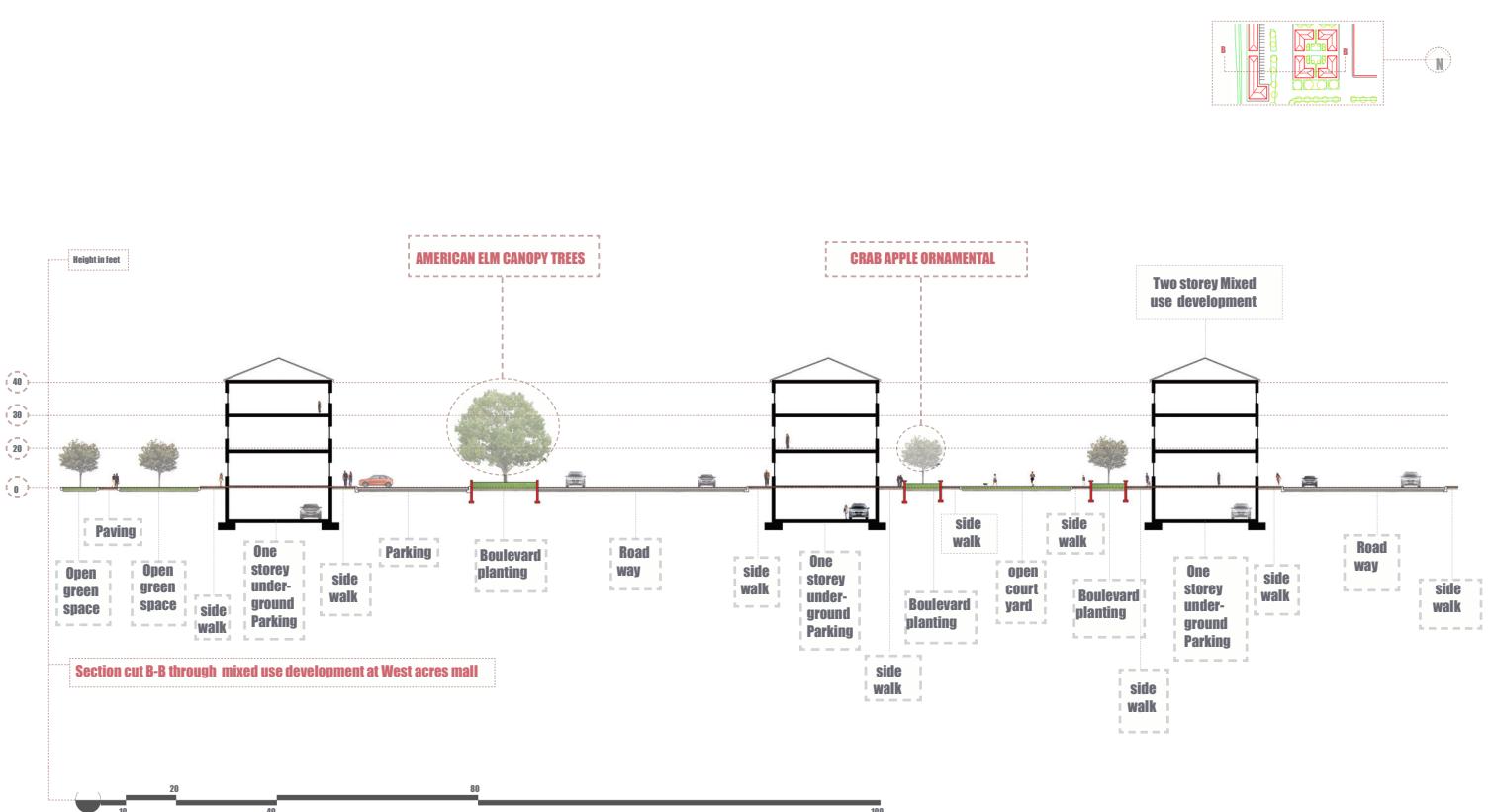
## ANALYSIS

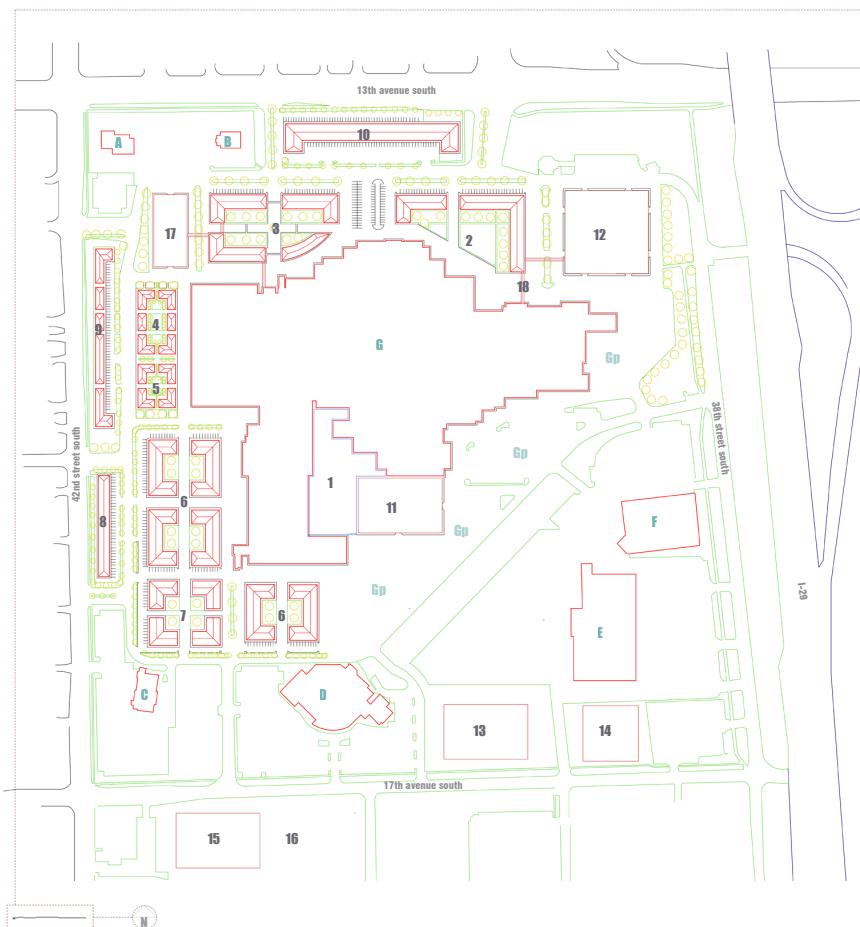
entrance/ exit points	Parking lots that belong to other Business establishments Parking lots that belong to West acres Mall.	Pedestrian walkways	Major entrance/ exit points : Mall building	Anything mapped in green within the red boundary line is nature	
MALLS EXIT AND ENTRANCE LOCATIONS	PARKING LOCATIONS	PEDESTRIAN WALKWAYS	EXIT/ ENTRANCE POINTS TO MALL BUILDING	NATURE ON SITE	POSSIBLE OFFSITE PARKING LOCATIONS
<b>ANALYSIS:</b> Entrance and exit points are major locations for the occurrence of accidents something 13th Avenue south Fargo is quiet noted .How do we retro-fit and reduce the number these entrance/ exit points to limit accidents and add value to the mall space.	<b>ANALYSIS:</b> With 5000+ parking spots available at a mass square footage of 1,080,000 sq/ft there is more use of the west acres mall can make of its under populated parking lot. Mixed use high rise buildings to supplement the existent mall space seems a plausible	<b>ANALYSIS:</b> Pedestrian walkways define the boundary of the West acres site.In the presence of mostly parking space there has been an absence of pedestrian walkable space or pathways due to dangers of pedestrian and vehicular traffic interaction	<b>ANALYSIS:</b> During the winter months people prefer to park closer to the entrance/ exit points of the West acres mall building. With the introduction of retrofitted building locations unto the West acres site parking lot such a premise will not be the case as there will equal access to building space and possible connections to the mall building.	<b>ANALYSIS:</b> The very concrete nature of the open space that surround the mall makes it unappealing to view when not filled with vehicles to capacity.The introduction of nature in design within the proposed retrofitted space that surround the mall will attempt to balance out the imbalance between nature and artificial surface.	<b>ANALYSIS:</b> The notion of offsite parking sounds absurd for a site with excessive parking but it is not as absurd as you think.Retrofitting the west acres site with new mixed use buildings ,retaining some parking and adding functional natural attributes makes the site a lot more useful. Offset parking will be utilized mostly during peak mall hours and black friday.

Most analysis is implemented within design

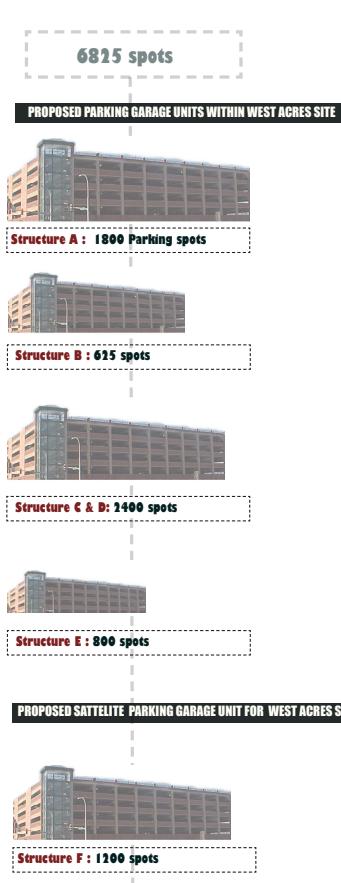






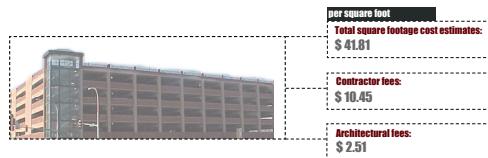


BUILDING TYPE	TYPE OF PARKING	# STOREYS
1 Conservatorium	None	-----
2 Commercial development	underground & ground	1
3 Commercial development	underground & ground	1
4 Mixed use development	underground	6
5 Mixed use development	underground	4
6 Residential development	underground & ground	6
7 Residential development	underground & ground	4
8 Commercial development	underground & ground	3
9 Commercial development	underground & ground	5
10 Commercial development	underground & ground	1
11 Parking garage	Overhead & Underground	4
12 Parking garage	Overhead & Underground	4
13 Parking garage	Overhead & Underground	4
14 Parking garage	Overhead & Underground	4
15 Parking garage (Off - site)	Overhead	3
16 Ground parking (off - site)	Ground	-----
17 Parking garage	Overhead & Underground	4
18 Sky walk	None	-----
A TGI Fridays	-----	-----
B Chilis restaurant	-----	-----
C Granite city foods	-----	-----
D West Acres cinema	-----	-----
E Best buy	-----	-----
F Casa Ramos	-----	-----
G West Acre Mall	underground & ground	1
Gp West Acres Mall parking	Ground	-----

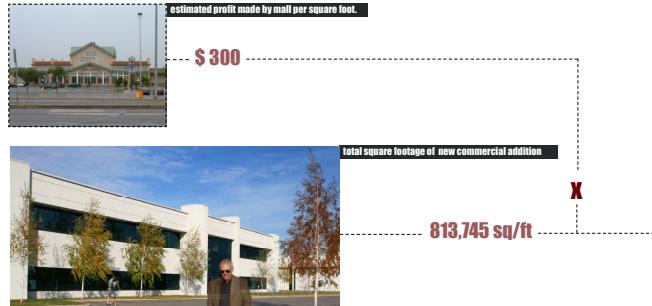


Information to decipher amount of parking needed for the West acres area retrofit was acquired from the City of Fargo land development code: Ordinance number 4167: Parking, access, residential protection, Landscaping.

- Commercial parking:**  
Other retail, sales and services not specifically listed: 1 parking spot per 250 square foot.
- Residential parking:**  
Group living: 1 parking spot per 100 square foot of sleeping area  
note: since it is indoor parking 250 square foot was used for underground residential parking and 100 square foot was used for ground parking related to residential.

**COST PER SQUARE FOOT OF ERECTING A OVERHEAD PARKING STRUCTURE****Total square footage of all overhead parking structures on West acres site****COST PER SQUARE FOOT OF ERECTING AN UNDERGROUND PARKING STRUCTURE****Total square footage of all overhead parking structures on West acres site**

**\$ 93,690,936**

**ADDRESSING COST THROUGH PROFIT OF NEW COMMERCIAL DEVELOPMENT****estimated profit made by new commercial development per square foot.**

**\$ 244,989,620**

**Conclusion:**

A years profit from new commercial development when run at its peak on the west acres retrofitted site will more than sufficiently handle the cost of new structural parking on the west acres site.

**note:**

In terms of profit residential development hasn't been factored in. Also taxes from the use of parking structures and leasing of parking structures hasn't been factored in too.



**\$ 154,442,944**

## why commercial &amp; residential development ?

## Commercial development

Financial benefits in terms of taxes , rent and sales to the city of Fargo

## Open market competition

Proposed competition in terms of business and sales related activities between old and current development

Proximity to other commercial outlets along 13th avenue south reduces long range transportation process for commercial purposes

## Residential development

Closer to other residential outlets along 13th avenue south Fargo.

Provides potential residents with easy access to places of work and intrest along 13th avenue south Fargo.

Provides city of Fargo with potential revenue form taxes paid by renters of residential space.

## Type of commercial / residential development

**A= 30 BY 40 FT**

**B= 40 BY 40 FT**

smaller office and retail space better suited to the the growing entrepreneur/ small business owner

The smaller spaces are the cheaper they are and the faster they are rented out.

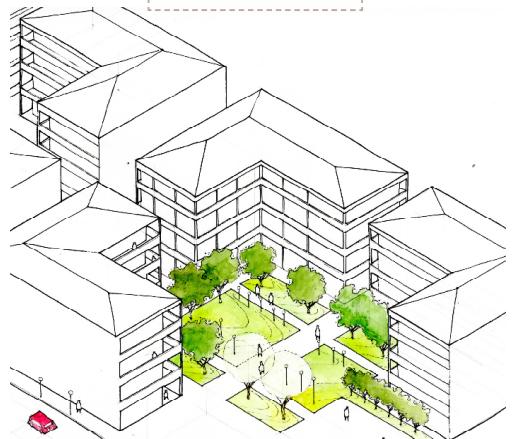
**A= 50 BY 50 FT**

**B= 20 BY 20 FT**

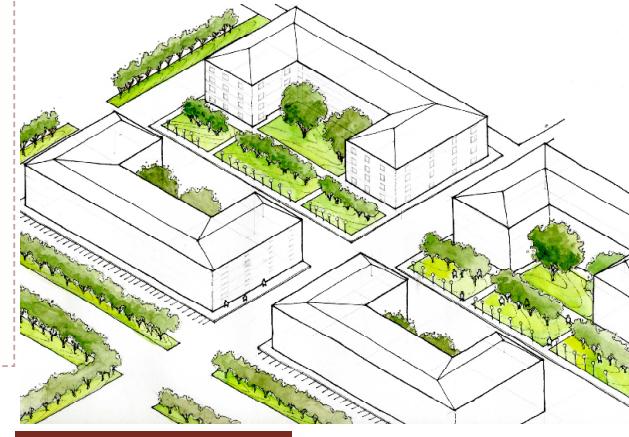
**C= 30 by 40 ft**

Due to its proximity to 13th avenue south and the mall such residential spaces will be rented out by younger adults and elderly individuals predominantly for socialization and access to facilities around .

## Images of development



MIXED USE DEVELOPMENT PREDOMINANTLY COMMERCIAL



PREDOMINANT RESIDENTIAL DEVELOPMENT

**COMMERCIAL BUILDING / COURTYARD****ELDERLY INDIVIDUALS**

Commercial outlets within **close proximity** to each other provide a **variety** of options that are different from west acres mall. They provide the elderly with optimal socializing options.

**OLDER ADULTS**

**Reduces** walking, driving or biking distance from one commercial outlet to the next as West acres offers **variety**, boasting of several floors of commercial space within a natural setting.

**YOUNGER ADULTS****CHILDREN**

Are able to carry out **more activities** that entail movement from one location to the next as locations are close by. The issue of **distance and danger** are reduced drastically.

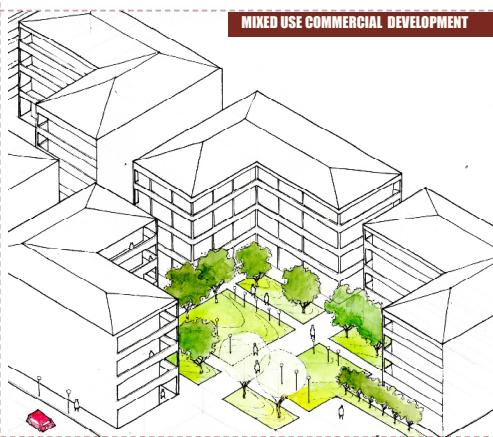
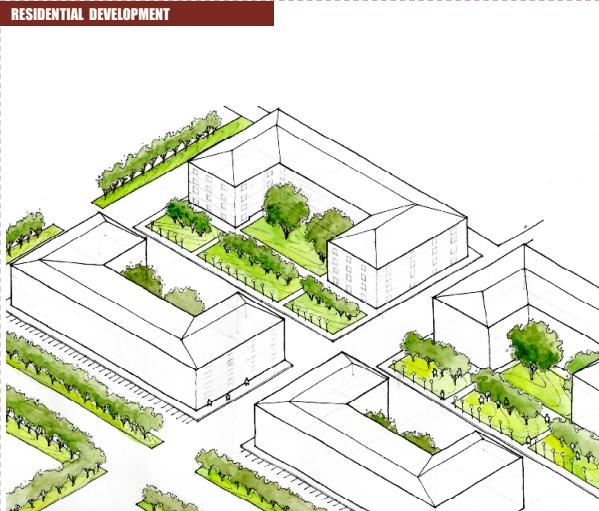
**GENERAL POSITIVES**

Presence of **trees** which serve as stimulant for the release of **feel good hormones** in the body

provide **adequate accommodation** for new and present potential residents within the city of Fargo limits.

**walkability** to other commercial and residential developments along 13th avenue south Fargo.

Enclosed shape of residential units provide an unconscious sense of **security** for resident and shield against **harsh weather elements**.

**MIXED USE COMMERCIAL DEVELOPMENT****WEST ACRES LOT****GENERAL POSITIVES**

Provides the city government with ample **profit** from the utilization of semi dormant space that had been sitting in the form of **ground parking**.

Provides West acres with a **steady consumer base** that lives directly within the west acres premises.

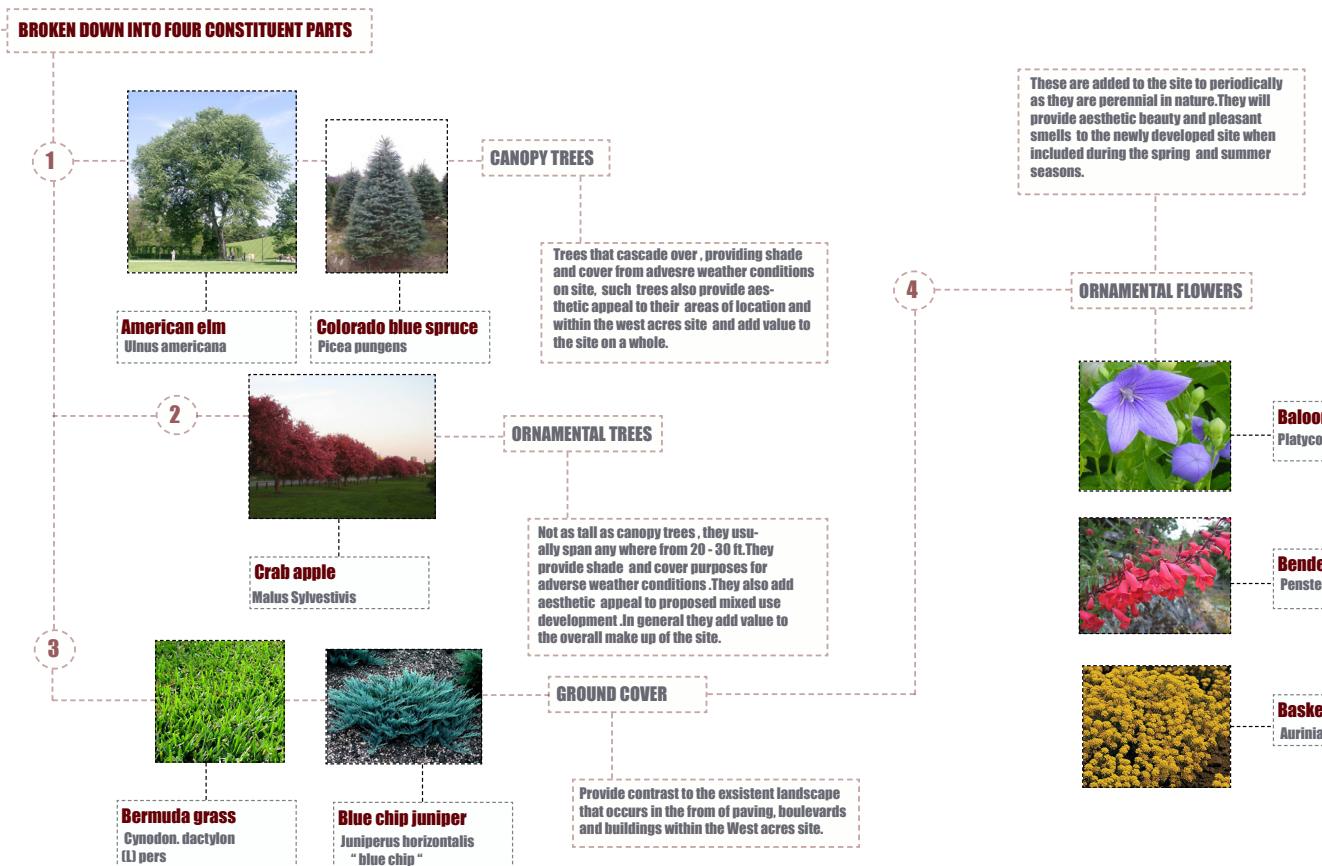
**RESIDENTIAL BUILDING/ COURTYARD****ELDERLY INDIVIDUALS****OLDER ADULTS****YOUNGER ADULTS****CHILDREN**

Provides a vicinity closer to the mall for active socializing and presents 13th avenue south fargo as region of access to medical, physical and social

Provides proximity to individual places of work around 13th avenue or areas within close range, provides access to big box stores within 13th avenue

Residential building provides and area in close proximity to the mall and other commercial outlets along 13th avenue south

Are able to enjoy the green space made available to them under the **watchful eyes** of residents and parents alike.





Block Buster : 2424, 13th avenue south, # 106.

## AIM OF MASTER PLAN DESIGN

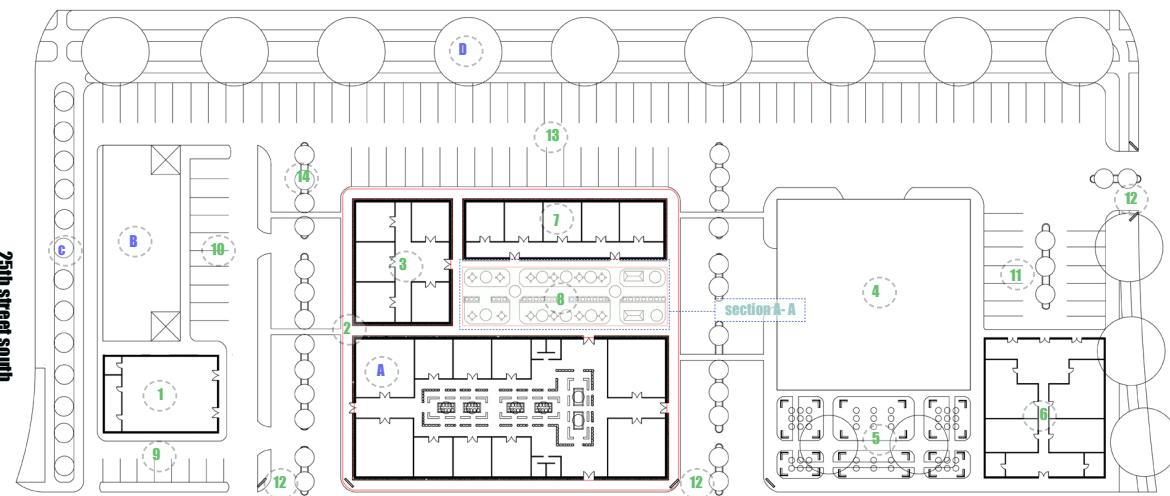
To create an avenue for more mixed use development within exsistent block buster lot through the utilization of exsistent parking for developmental purposes.

ANALYSIS				
	entrance/ exit points	Parking within the strip mall	Pedestrian walkways	Block buster Video
EXIT AND ENTRANCE LOCATIONS	PARKING LOCATIONS	PEDESTRIAN WALKWAYS	EXIT/ ENTRANCE POINTS TO STORE	NATURE ON SITE
<b>ANALYSIS:</b> Entrance and exit points are major locations for the occurrence of accidents something 13th Avenue south Fargo is quiet noted .The project is looking to retro-fit and reduce the number these entrance/ exit points to limit accidents and add value to the commercial hub.	<b>ANALYSIS:</b> Too much hard artificial surface is made availbale for parking within this strip mall outlet. Converting portions into commercial mixed use buildings and retro-fitting the parking to be more natural is an aim of the project at hand.	<b>ANALYSIS:</b> Pedestrian walkways along the strip mall that surrounds block buster are adequate enough for the use they have been assigned.  With the retro-fitting of the new block buster building and its surrounding much more space will be allotted to cater to pedestrian needs on site.	<b>ANALYSIS:</b> None at present for the block buster building as it hasn't been renovated or refurbished yet.	<b>ANALYSIS:</b> The nature on site is inadequate for the commercial strip it surrounds .The inclusion of further greenery to add aesthetic quality to the environment could help booster commercial activity along this given area.

Most analysis is implimented within design



13th avenue south



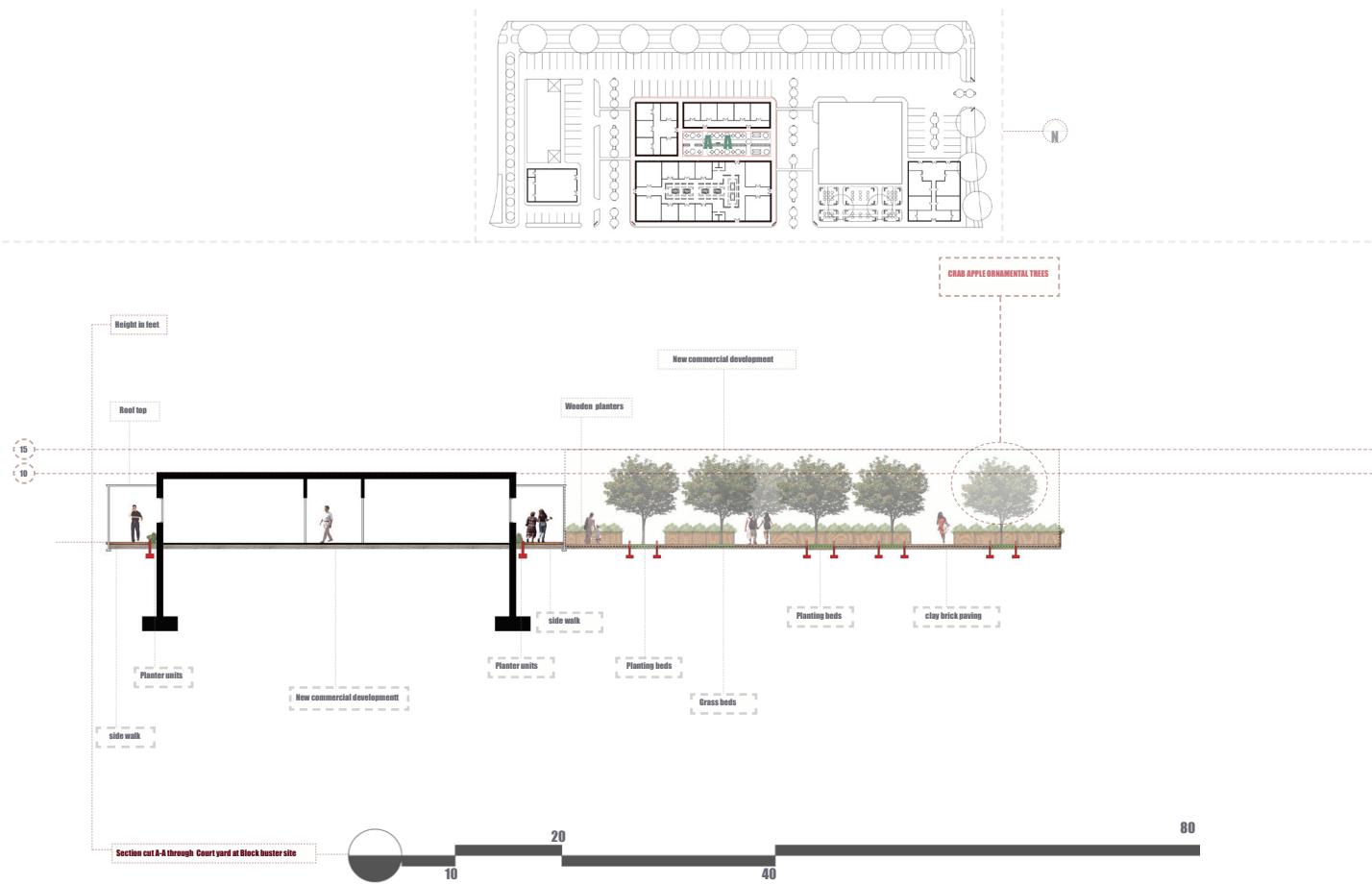
25th street south

23rd street south

BUILDING TYPE	SQUARE FOOTAGE	# UNITS	# STOREYS
1 Commercial development	2400	1	.....
2 Roof cover	.....	1	.....
3 Commercial development	3150	1	.....
4 Parking garage	57600	1	3
5 Plaza space	2912	1	.....
6 Commercial development	4473	1	.....
7 Commercial development	3120	1	.....
8 Courtyard space	4200	1	.....
9 retrofitted parking	1400	1	.....
10 retrofitted parking	2000	1	.....
11 retrofitted parking	2800	1	.....
12 exit/ entrance points	.....	1	.....
13 retrofitted parking	15000	1	.....
14 planting beds	.....	1	.....

**EXISTING DEVELOPMENT AND KEY PLANTS**

- A Blockbuster video
- B Starbucks coffee
- C Ornamental conifers
- D American elms



**why commercial & recreational development?****Commercial development**

Block buster lies within neighbourhood space chalked full of residential housing so there for the need to build small scale residential makes no sense.

**Lot size**

Block busters lot size of **139,232 sq/ft** is small and insufficient for differing types of residential apartments as proposed at the west acres site.

Majority of the activity that occurs within the block buster site is commercial in nature. Continuing this trend will maintain balance within the site.

**Recreational development**

is a direct contrast to the residential and commercial development occurring around the block buster site.

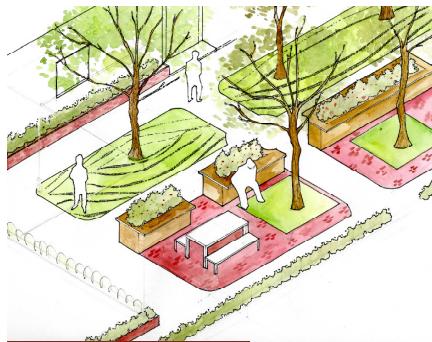
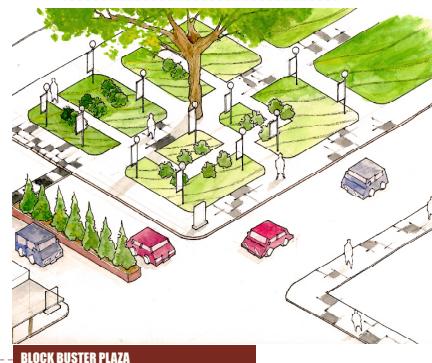
will attract potential consumers from the neighbourhoods surrounds block buster and along the 13th avenue corridor.

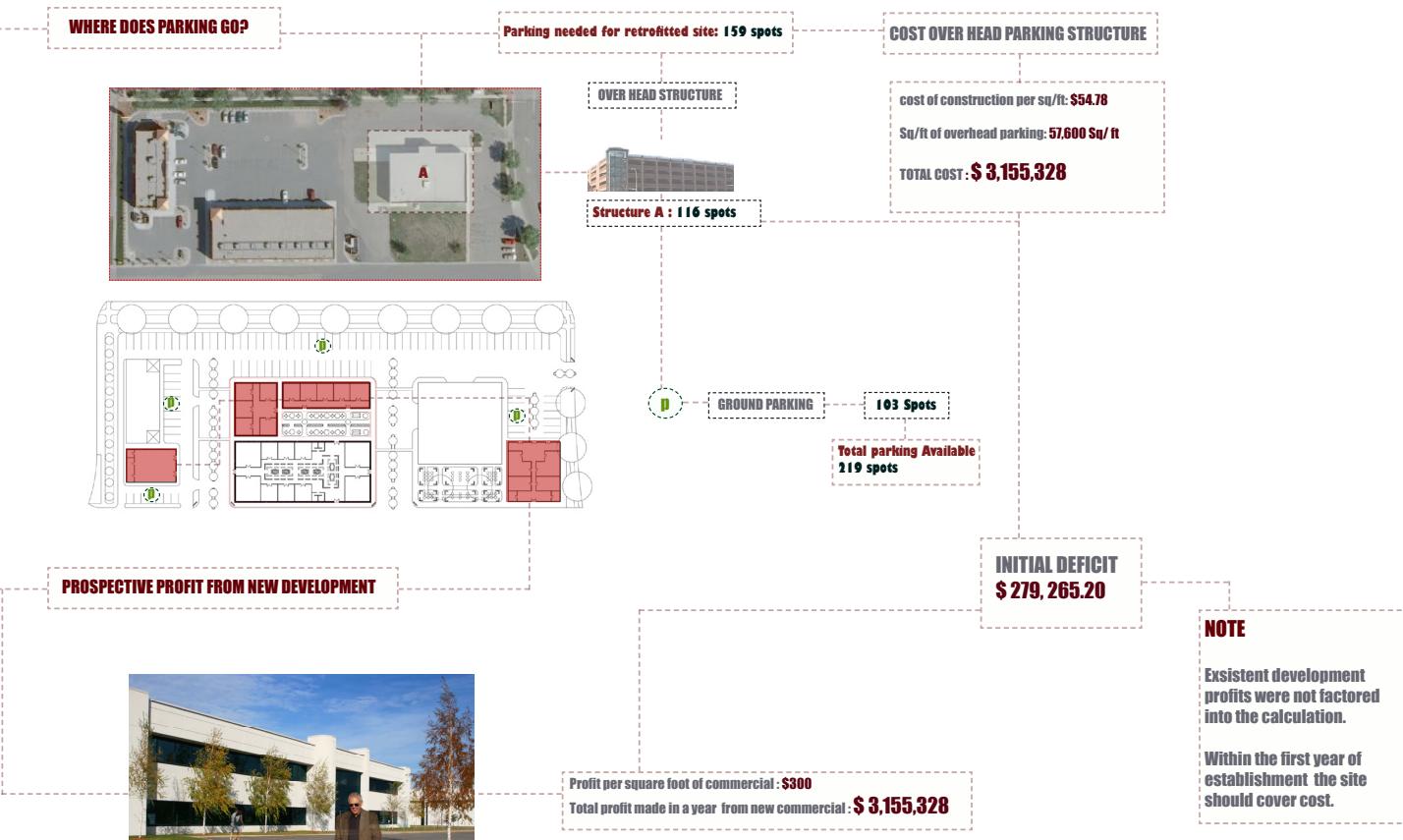
Provides the block buster site with natural features it previously did not possess.

**Commercial additions****Additional 4 commercial buildings**

**Old block buster** is retrofitted into a 3 storey parking structure.

**Block buster** as an existent retail outlet is presented with alternative space fitting to maximize use of building and generate greater profit.

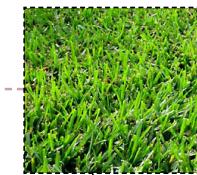
**Images of recreational development**



**BROKEN DOWN INTO TWO CONSTITUENT PARTS****1****CANOPY TREES**

Trees that cascade over , providing shade and cover from adverse weather conditions on site, such trees also provide aesthetic appeal to their areas of location and within the west acres site and add value to the site on a whole.

**American elm**  
*Ulnus americana*



**Bermuda grass**  
*Cynodon. dactylon*  
(L) pers



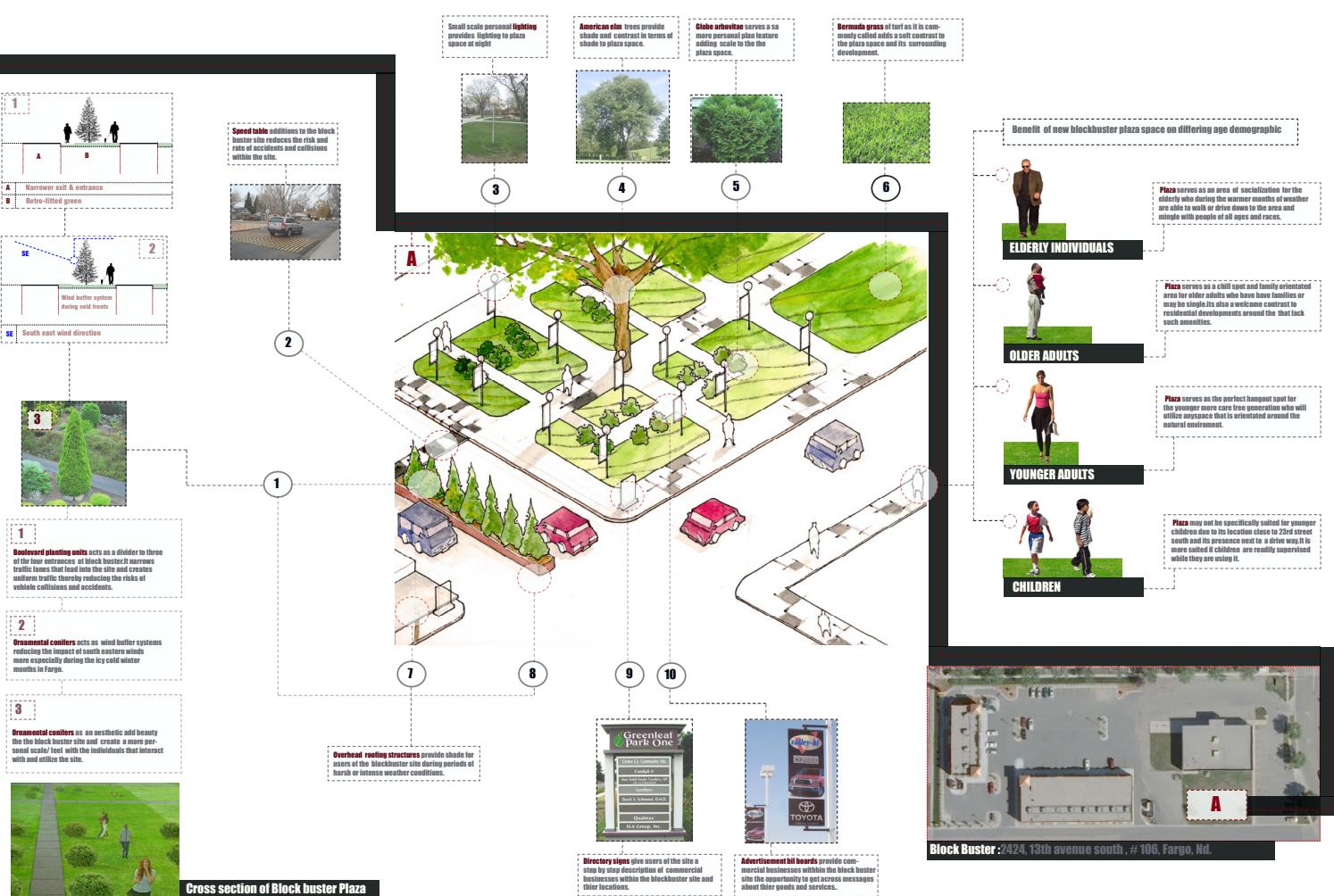
**Blue chip juniper**  
*Juniperus horizontalis*  
“blue chip”

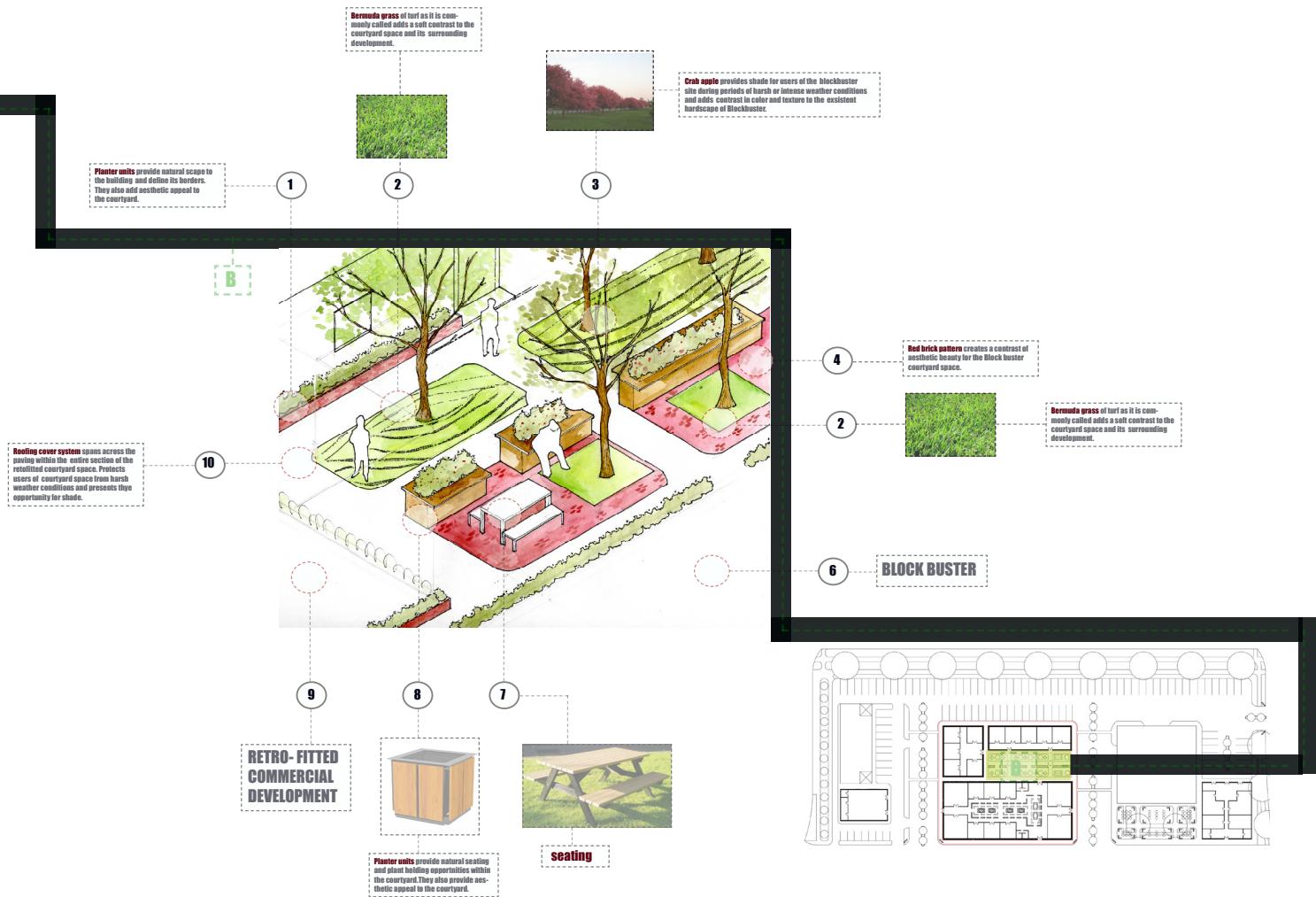


**Globe Arbovitae**

**Cross section : users of site****GROUND COVER**

Provide contrast to the existent landscape that occurs in the front of paving, boulevards and buildings within the block buster site.







Sunmart: 1200, 25th street south, 13th Avenue south

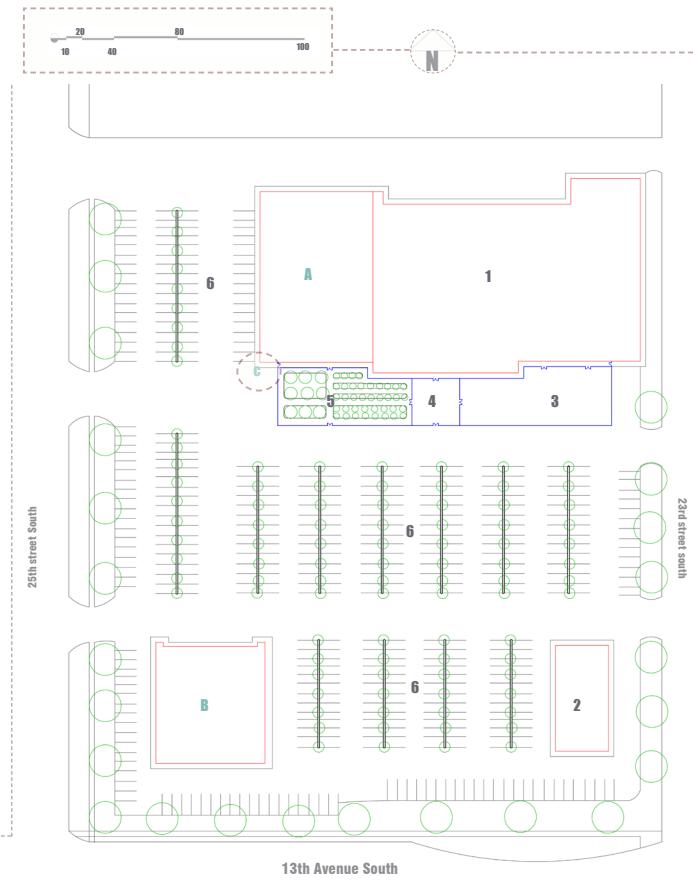
## AIM OF MASTER PLAN DESIGN

To create an avenue for more mixed use development within existent block buster lot through the utilization of existent parking for developmental purposes.

## ANALYSIS

entrance/ exit points B Sun-mart C CVS Pharmacy	Parking within the strip	Pedestrian walkways	Sun-mart	Anything mapped in green within the red boundary line is nature
<b>EXIT AND ENTRANCE LOCATIONS</b>  <b>ANALYSIS:</b> Entrance and exit points are major locations for the occurrence of accidents something 13th Avenue south Fargo is quiet noted. How do we retro-fit and reduce the number these entrance/ exit points to limit accidents and add value to the commercial hub.	<b>PARKING LOCATIONS</b>  <b>ANALYSIS:</b> Most of the parking within this residential blockbuster location is underutilized and excessive in quantity. Ridding the site of some parking and retro-fitting a building to inhabit the available space brings commercial value to the area and ensures utilization of left over parking efficiently.	<b>PEDESTRIAN WALKWAYS</b>  <b>ANALYSIS:</b> These walkways are decent in quantity and size for the location being retro-fitted. With an addition to the blockbuster building and refurbishing of the block buster building we will see available open space supporting more pedestrian traffic within the area.	<b>EXIT/ ENTRANCE POINTS TO STORE</b>  <b>ANALYSIS:</b> None at present for the Sun-mart building as it hasn't been renovated or refurbished yet.	<b>NATURE ON SITE</b>  <b>ANALYSIS:</b> The nature on site is inadequate for the commercial strip it surrounds. The inclusion of further greenery to add aesthetic quality to the environment could help bolster commercial activity along this given area.

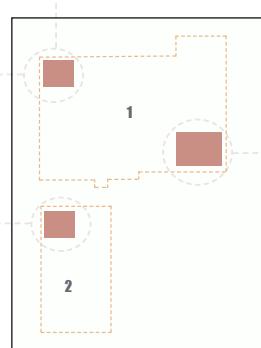
Most analysis is implemented within design



## MASTER PLAN INFORMATION

BUILDING TYPE	SQUARE FOOTAGE	# UNITS	# STOREYS
1 Commercial development	57,894	1	1
2 Commercial development	5000	1	1
3 Sales section green house	7348	1	1
4 Enclosed courtyard space	2025	1	1
5 Tropical green house	6565	1	1
6 Retrofitted parking	52,416	1	1
A CVS Pharmacy	11,227	1	1
B Advanced autoparts	11,427	1	1
C CVS Pharmacy entrance		1	1

## Office space



## key

(Green circle)	Boulevard planting American elm
(Yellow circle)	Crab apple trees
(Red line)	Building lines
(Blue line)	Green house lines

## why commercial &amp; recreational development?

## Commercial development

Current sunmart lot is predominantly commercial, a continuation of commercial development within the lot spurs continued commercial growth within the lot.

Small scale commercial offices are an invite to small scale business investors looking to set up business along the 13th avenue commercial corridor.

The total square footage of the site 335,972 sq/ft is small enough to accommodate limited commercial additions while still maintaining adequate parking standards and spots.

## Recreational development

Aesthetic decoys such as the green house structure lure potential consumers into the sunmart site as their inquisitiveness gets the better of them. Once on site they readily will patronize new, old and refurbished commercial development.

A potential hang out spot during the 365 days of the year has been presented to residents around the 13th avenue area. This differs from all the commercial and residential development along 13th avenue south Fargo.

## Commercial additions

1 south facing green house facade / structure that sits directly in front of cvs and the refurbished sunmart.

Its sales section and court yard sections are commercial in nature.

One additional small scale commercial office to the south east of sunmart.

the refurbished sunmart building converted into small scale offices.

COMMERCIAL DEVELOPMENT



SALES AREA OF GREEN HOUSE

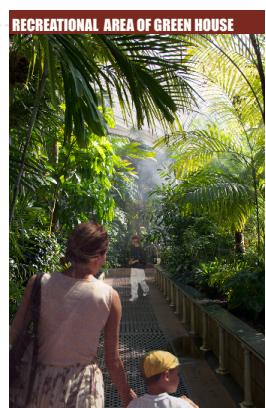
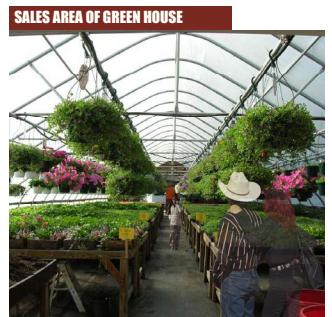
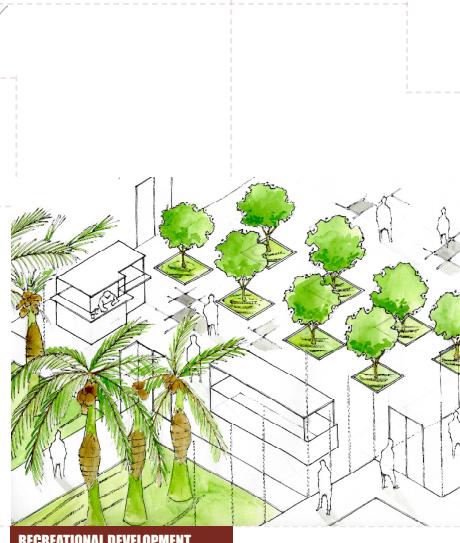
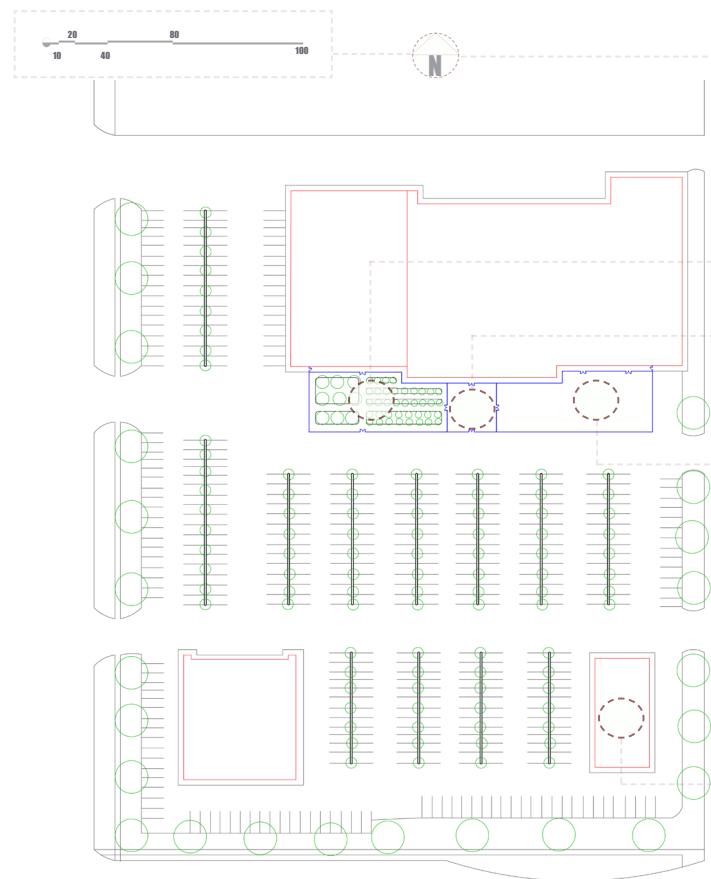


RECREATIONAL AREA OF GREEN HOUSE



## Recreational additions

1 portion of green house dedicated to recreational public use for Residents with the city of Fargo.



The summart site is able to accomodate existent parking of 326 spots and add 38 additional splots to meet the parking criteria of 36 spots for the new building at hand. This leaves a minimal excess of 2 parking spots.



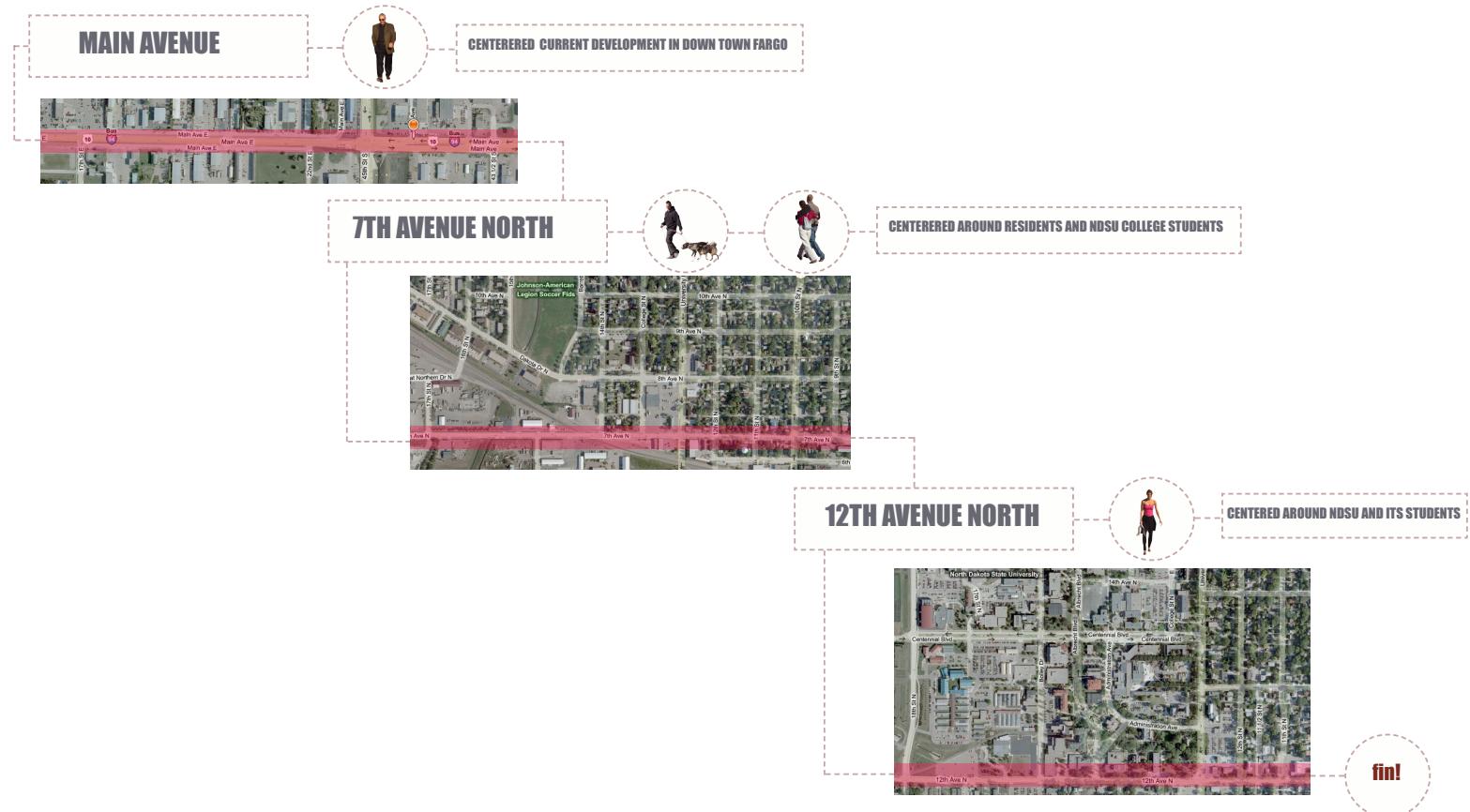
### GROUND PARKING

### PROFIT FROM DEVELOPMENT



Lets hypothetically say that cvs makes 100 dollars per square foot.Using this we can analyse that in a year cvs makes **\$ 1,727,735.80**.If we take in to consideration the refurbishemnt of the summart commerical space , the addition of the green house and 1 new commercial development it is safe to say that the lot would make , **\$ 7,997,697.00**.An **\$ 6,269,964.20** more than it would have before refurbishment.

This is not taking into consideration the autoparts store as it has not been hypothetically determined as to how much it would make.





## Second Year

Fall semester ----- Catherine Wiley (2006)

**Creation of my ideal Landscape Enviroment (Conceptual)  
West Fargo High School Landscape Redesign (West Fargo, ND)**

Spring semester ----- Mark Lindquist (2007)

**Mahnomen Health Care Center Courtyard Design (Mahnomen, ND)  
Nathan Phillips Square Design Charette (Nathan Philips Square,  
Toronto, Canada)  
Valley City State University Campus Planning (Valley City, ND)**

## Third Year

Fall semester ----- Stevie Famulari (2007)

**Cooperstown Project (Cooperstown, ND)  
Ice Project (Revelations) (Downtown Fargo, ND)**

Spring semester ----- Kathleen Pepple (2008)

**Microsoft campus (living accomodation master planning) (West  
Fargo, ND)**

## Fourth Year

Fall semester ----- Mark Lindquist (2008)

**Urban Design Studio (bike path implimentation and alleyway design)  
(Seattle , WA)**

Spring semester ----- Stevie Famulari (2009)

**Phytoremediation Studio (Green roof design and 2nd floor redesign  
klai hall) (Downtown Fargo, ND)  
Phytoremediation of Carlifornia Gulch, Colorado (Carlifornia Gulch,  
CO)**

## Fifth Year

Fall semester ----- Catherine Wiley (2009)

**Regent,North Dakota (Master planning ) (Regent, North Dakota)**

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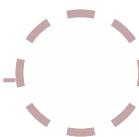
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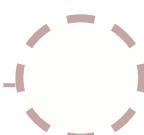


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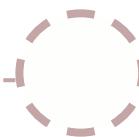


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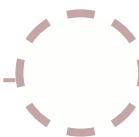
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