



RETROFITTING SUBURBAN PLAINS

CREATING A
WALKABLE MIXED-USE
NEIGHBORHOOD FOR SOUTH FARGO

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LA 572 Design Thesis
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CREATING A WALKABLE
MIXED-USE NEIGHBORHOOD
FOR SOUTH FARGO

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

By

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In Partial Fulfillment of the Requirements
for the Degree of
Bachelor of Landscape Architecture



Primary Thesis Advisor



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INTRODUCTION

Abstract
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ABSTRACT

This thesis aims to retrofit existing infrastructure and future development plans for a south Fargo neighborhood in order to transform the neighborhood into a walkable mixed-use urban center. Walkability is defined by providing a diverse mix of destinations within a five to ten minute walk along well maintained transportation corridors. A mixed-use urban center enhances walkability by providing a culturally significant neighborhood that locates residential, retail, commercial, and open spaces within close proximity of one another. The research examines smart growth urban planning principles along with implemented urban center designs from around the nation, focusing on the integration of building usages and placements, street networks, and open spaces. The research is then applied to design a retrofit plan for the 320 acre Urban Plains neighborhood in south Fargo.

STATEMENT OF INTENT

Typology: Suburban Retrofit / Walkable Mixed-use Urban Center

Claim: The Fargo-Moorhead metropolitan area is currently experiencing tremendous population growth. According to Census Data, the F-M metro was the fourth fastest growing metropolitan area in 2013 and that growth continues today. With this population growth, the cities of Fargo, Moorhead and West Fargo have been expanding their city boundaries and creating low density, automobile-dependent neighborhoods known as suburban sprawl. Downtown Fargo provides a dense and walkable center for north Fargo, but south Fargo is lacking a pedestrian orientated center.

Premise: To create a walkable mixed-use urban center that allows people to live, work, and play. The development will integrate retail, commercial, residential, civic, and open spaces together to create a walkable community with a unique sense of identity within the region.

Project Justification: The Urban Plains neighborhood is located in a prime area to become an urban center for the region. The neighborhood is near the new Sanford Medical center and already has a major entertainment destination on site with Scheels arena. Urban Plains is also part of the Fargo 2030 plan, which states that the area is to be developed to become a sustainable retail mixed use area.

PROJECT PROPOSAL

Project: Urban Plains Neighborhood
Location: Fargo, ND
Size: 320 acres

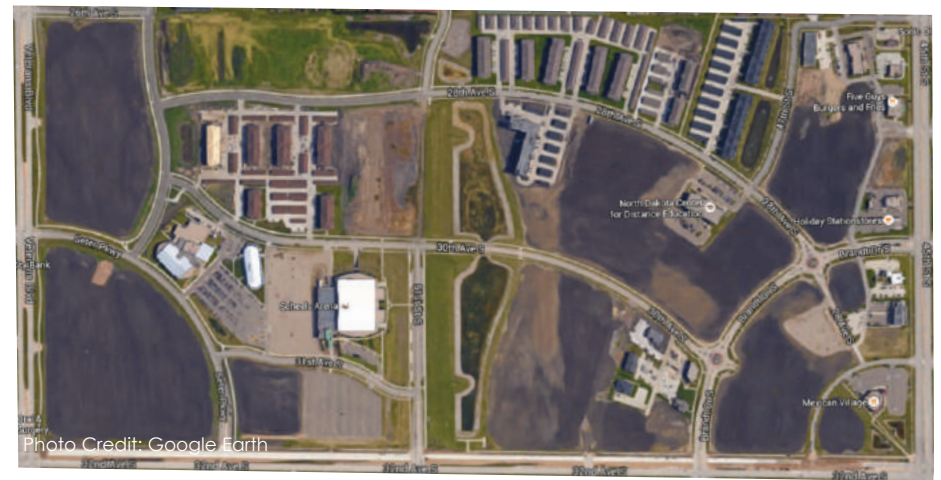
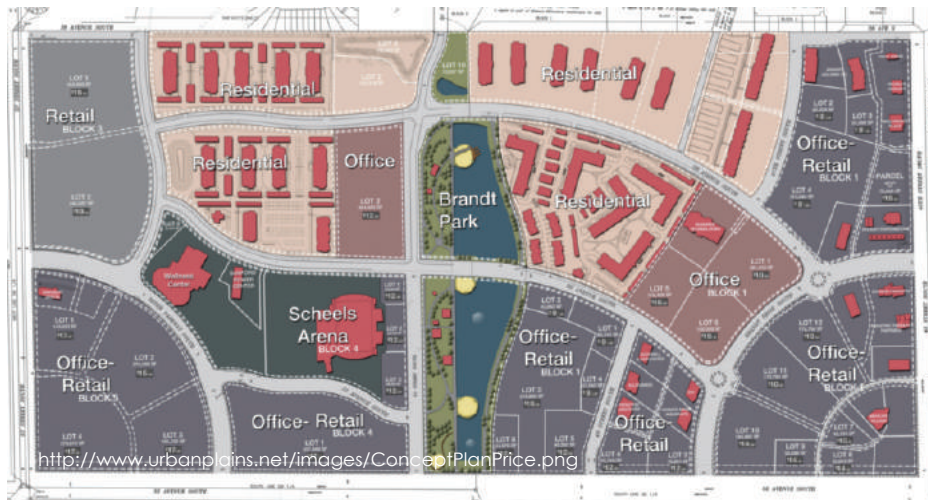
Typology: Walkable mixed-use urban center
Community Programming
Neighborhood Park Network
Streetscape

Strengths:

- Fast growing area of Fargo
- Near to the new Sanford regional hospital
- A large portion of the site is not developed yet
- A body of water available for recreation

Limitations:

- Neighborhood is surrounding by arterial roadways on west, south, and east sides.
- Current development has wide roadways, single use buildings, and large setbacks.



RESEARCH QUESTIONS

Primary Research Question: What programming elements must be achieved in order to create a successful walkable mixed-use urban center in south Fargo.

Supporting Research Questions:

- What existing infrastructure in the Urban Plains neighborhood can be retrofitted in order to create more walkable neighborhood?
- How much land area should be devoted towards retail, residential, commercial, office, and open space?
- How can buildings be positioned in order to create a more walkable neighborhood?
- What role can open space play in enhancing the neighborhoods identity?
- What role can streets play in developing a walkable neighborhood?
- How can the Urban Plains neighborhood create strong connections to surrounding neighborhoods?

RESEARCH HYPOTHESIS

I expect to find that a majority of the existing infrastructure can be retrofitted to create a more walkable neighborhood. Practices such as street narrowing and infilling can be used to achieve a successful retrofit. By studying successful urban centers, I expect to find a balance between uses of buildings, with a higher percentage of mixed-use buildings than is currently in the Urban Plains neighborhood. I expect to find that building placement can create a sense of place in open spaces and along transportation corridors. I expect to find that street widths, sidewalk widths, on-street parking, and setbacks will play a very important role in creating a walkable neighborhood. I expect to find that Urban Plains can have strong connections to it's surrounding neighborhoods through the use of greenways, trails, and public art.

CITED LITERATURE

Place Making | Developing Town Centers, Main Streets, and Urban Villages

ANNOTATED BIBLIOGRAPHY

The book, "Place Making; Developing town centers, main streets, and urban villages" (2002) by Charles C. Bohl aims to promote the creation of new urban center destinations by providing design information collected from successfully built developments and smart growth design principles. The authors go into further depth by explaining what programming elements are needed to create a sense of place, what we have learned from past town centers and main streets, and how to create a design that will create a cultural identity for years into the future. The purpose of the book is to inspire new developments to be more compact, mixed use, pedestrian and transit oriented, and have a strong civic character. Bohl connects to his audience of planners, developers, designers, and builders by providing a mix of history, factual data, and recent case studies.

CRITICAL EVALUATION

This book helped me to understand how town centers have been designed in the past and the successful programming elements that make a town center successful. The Author, Charles C. Bohl also defines the difference between a town center and an urban village. He explains that urban villages focus more on walkable residential communities and town centers focus on balancing residential into a mixed-use environment. "*Place Making: Developing Town Centers, Main Streets, and Urban Villages* is the result of extensive site visits, research, and interviews with the professionals who are involved in the planning, design, and development of the projects that are literally reshaping the American urban and suburban landscape," as stated by Bohl (p. 4). The book breaks down the importance of and current trend of urban "place making," what we have learned from the past and how these ideas can be implemented today, and how to begin designing an urban center.

The Current Trend

New town centers, urban villages, and revitalized main streets are becoming very popular and important design features of our 21st century cities. Slowly, cities are trying to control growth and limit the amount of suburban sprawl that occurs by creating denser, more walkable communities through the use of town centers. These town centers have much more character than the typical suburb as author Bohl (2002) writes, "urban 'place making' – via the effective programming and design of a mix of uses, within a pedestrian environment—is not simply a dream of urban designers and city planners but a marketable development concept that is increasingly being embraced by both the public and the private sectors." (p.3).

Place Making | Developing Town Centers, Main Streets, and Urban Villages

These new developments create a strong identity for the neighborhood and help to put communities “on the map.” Town centers are able to have this strong identity and become a community focal point by being designed as compact, mixed-use, and pedestrian-orientated places. Although our cities may not reflect it, many people would actually prefer to live in a more mixed-use type community. As Bohl writes “...in a recent survey an astounding 86 percent of suburban home buyers expressed support for the concept of a mixed-use town center clustered around a village green” (p. 11). Although suburbanites may be attracted to town centers, they have grown accustomed to having vehicle access to everywhere they go. This creates a challenge for developers, planners, and urban designers to reinvent traditional town centers in a way that is walkable, but can also serve the suburban population. A wide variety of people have recently shown interest in living in a more urban environment including young professionals, empty nesters, and others who are looking to escape traffic congestion. People moving to these town center and main street communities are able to gain better access to urban amenities and find lower-maintenance housing options. Town centers and main streets promote an environment where people can “live, work, and play” all within walking distance.

Implementing Ideas

By looking at traditional city layouts and recent new urbanism projects, we can find what programming elements work the best to create a vibrant core for future developments. A few of the programming elements discussed in the book include; retail, streets, buildings, and open space. Author Bohl mentions a quote from John Williams stating that urban villages are to be “a blend of old-fashioned neighborhood living and 21st-century technology and convenience” (p.16). One of the common misconceptions of town centers is that they must only include upscale boutiques and espresso bars. Projects are disproving this idea all around the country though, showing that big box stores, pharmacies, supermarkets, and video stores can be designed for urban environments. Retail entertainment uses are also beginning to pop up in town centers, in part because these urban environments provide a more interesting and authentic setting which allows visitors to have a better experience in a more unique destination. Hotels can also be memorable sites in a town center because they offer something rarely found in suburbia-- a “room with a view,” which could overlook the street life or public space of the community.

Open Spaces and Streets

Open space is a vital part in creating a successful mixed use town center. As Bohl explains, “Throughout urban history, public plazas, village greens, and town squares have been the focal points of towns and town centers, providing a public realm for everyday social life; housing bustling

Place Making | Developing Town Centers, Main Streets, and Urban Villages

marketplaces and places to meet, mingle, and “people watch” ; and providing a backdrop for more exceptional events such as fairs, festivals, coronations, protests, and even revolutions “ (p.59). Using open space to structure mixed-use buildings allows shops and cafes to be clustered around things like skating rinks and amphitheaters. Movie theaters could spill out onto public plazas rather than into parking lots. Other community events such as farmers’ markets, outdoor concerts, and holiday celebrations can occur in open-air streetscapes and public plazas in town centers which provide a more authentic community atmosphere than parking lots used in suburbia. Using open spaces in these town center can create spaces uniquely tailored for these types of community events. Bohl writes, “Newly created settings, like Mizner Park’s Plaza Real and Reston Town Center’s Fountain Square and ice-skating pavilion, are proving that these types of community gathering places are not simply nostalgic archetypes advanced by urban-history buffs, but real magnets for residents and visitors. Like colonial New England villages, today’s town center projects typically revolve around a central plaza or park that establishes a public atmosphere and provides an ideal setting for the cafes, taverns, and bistros celebrated by Oldenburg” (p.11).

Streets connect urban centers and thus play an important role in creating a unique character for the community. Bohl writes that “Both Sitte and Frederick Law Olmsted emphasized that each street should be designed as an artistic unit” (p.66). Similar to how plazas and squares create a sense of enclosure, streets should also offer a sense of enclosure by being designed on a human scale. This scale is related to the proportion between building heights and the amount of open space or street width. The ratio of suburban areas is typically 1:6 or higher, meaning that if the height of a home is 15 feet, the open space from home facade to home facade is 90 feet. This much open space prevents any sense of enclosure from being produced. Historic urban streets typically have much higher ratios around a 1:1 relationship and are much better at creating some enclosure.

Steps to Begin a Design

The first goal in designing an urban center is designing to include a mix of scales and uses. The principal components of the development must be specified. These components include housing units by type, office and retail square footages, number of hotel rooms...etc. When planning, it is important to take into consideration timing, phasing, allocated acreage, and alternative options. And lastly as Bohl writes, “The mix and scale of uses are derived from several sources—including the creative ideas of the developer and his or her team—and are influenced by a number of factors: the market analysis; the characteristics of the site; the physical constraints and opportunities; the financing environment; any applicable zoning regulations” (p.137).

CITED LITERATURE

The Smart Growth Manual

ANNOTATED BIBLIOGRAPHY

Andres Duany, Jeff Speck, and Mike Lydon in their book titled, "The Smart Growth Manual" (2010) provide guideline for people interested in applying smart growth principles. The authors further describe their smart growth principles by explaining design concepts for the region, the neighborhood, the street, and the building. The purpose of the book is to address good development practices and to allow readers to briefly read over all of the smart growth principles. Duany, Speck, and Lydon connect with their audience of architects, planners, and smart growth supporters by developing a quick argument on each smart growth principle that attempts to contrast typical development standards.

CRITICAL EVALUATION

This book concisely explains many of the important elements in creating an urban center. These elements consist of the region, the neighborhood, the street, and the building. Many useful guidelines are presented and are supported by the authors who have researched other literature and past projects. The main topics that I pulled from the reading that relate to the Urban Plains development include justification of urban centers, neighborhood planning, open spaces and streets, and parking and sidewalks.

Justifying Urban Centers

It is important to be able to justify why an urban center would be successful in a certain environment and understand what society is looking for in a community. Although sprawl seems to be ever expanding, a shift is occurring in America, where people are choosing to live in more compact neighborhoods and districts. The authors write, " Experience shows that, when presented with the facts, a truly representative community group will usually advocate for smart growth, whose popularity has been demonstrated nationwide through visual preference surveys and polls" (p.1.3). Smart growth simply means that developments focus on creating mixed-use, pedestrian-orientated environments rather than sing-use zoning and free-flowing traffic. The movement promoting smart growth began as an aesthetic and social critique against suburban sprawl, but is now working in the service of science.

The Smart Growth Manual

Neighborhood Planning

Planning regionally and integrating neighborhoods into the regional plan is crucial in developing walkable communities. As written by the authors, “think globally, act locally, plan regionally” (p.1.2). The lack of a regional plan including transit systems, natural corridors, and designated urban centers sets local planning up for failure. The authors go on to define neighborhoods as being “compact, walkable, diverse, and connected” (p.1.5). The neighborhood should be compact, in which density is appropriate for the area and market. This also helps to not waste land and creates a walkable environment by spanning no more than a half mile across. The five minute walk, which is about a quarter of a mile, is the distance a person would go from the edge of the neighborhood to the center. The streets should be pedestrian friendly to encourage people to walk to the center of the neighborhood. The neighborhoods should also be diverse in that it can provide all the daily needs including shopping, workplaces, and housing for all ages, incomes, and living arrangements. Lastly, the neighborhood should be integrated into the region’s transit, roadway, and bicycle networks. In order to make all of these aspects work, neighborhoods need to contain a mix of uses. Large and small dwellings, retail, workplaces, restaurants, and civic buildings should all be accessible to the pedestrian. Other amenities that should be within walking distance of residents are “schools, day cares, recreational centers, a variety of open spaces, and opportunities for food production” (p.5.0).

Open Spaces and Streets

Open space play a critical role in attracting residents to a development. As the authors write, “Smart growth communities make the most of their context by preserving and celebrating their natural amenities” (p.4.2). These natural amenities including topography, woodlands, and wetlands help make a community unique and should be open to public viewing. Some of the most valued communities not only preserve their natural amenities, they celebrate and enhance them. Smart growth aims to bring large scale open spaces back into urban areas, something that sprawl has gradually been distancing itself from. Everyone should have the right to access nature, especially those who cannot drive to open spaces. Not only do people need to access nature, most people want to be near nature. The authors explain, “Studies show that creative-class workers- those young, educated innovators who can live wherever they please, and whom every city wants to attract- consistently list ready access to nature as a dominant factor in their choice of place to live” (p.4.10). It is important to keep wildlife in mind when planning a regionally. Large areas of nature function best when they are linked to allow wildlife to travel. Natural corridors usually take the forms of greenways which are wider and do not interrupt the transportation network or narrower slices of nature that can extend into streets or boulevards.

The Smart Growth Manual

Although they may extend past a project boundary, plan should show how green areas link into a continuous system. Neighborhoods should have a variety of uses for open spaces. One of the most important open spaces is a central neighborhood plaza, green or square. This area will serve as the community's social center and gathering space. Neighborhoods also need to provide residents with easy access to other open spaces with specific programming elements. Pocket parks or playground areas should be located so that children do not have to cross any major streets to reach them. Recreational parks, such as ball fields, should be located within biking distance to allow children to reach them. Other parks can connect neighborhoods and incorporate nature trails and community gardens. The authors also state that "In a well-designed regional plan, every dwelling is located within an easy bicycle ride of a continuous park system, so that a day of hiking or trail biking need not begin with a drive" (p.5.9). Parks, greens, squares, and plazas should learn from the past and follow specific guidelines that have proven to be successful. A square for example, is typically 1 to 5 acres and surrounded by at least three sides by streets and buildings. The square contains paved walking paths for strolling and grass areas for playing and should allow for pedestrians to walk through the space the quickest way. It is crucial to follow guidelines, otherwise this square would not function as it is supposed to. Similar guidelines correlate to every other type of open space. Open spaces should be within a short walk from every resident. The authors write "Within the neighborhood, playgrounds and tot lots should be distributed so as to be within a two-minute walk of most households. Each is usually about a quarter-acre in size, containing hard and soft surfaces, benches, and play equipment under ample tree cover. While a pocket park may occupy an undeveloped home lot, it is best placed at a significant location such as a staggered intersection or vista termination" (p.6.3).

Streets need to be worked into the development to create a hierarchical system. The neighborhood should emphasize its center and provide multiple routes to and from all destinations within. Creating smaller blocks can help create a permeating street network. "Jane Jacobs observed that the most walkable parts of towns and cities are found where blocks are the smallest, write the authors (p.7.4). Downtown Portland's block are only 200 square feet and Savannah's original wards have 530 intersections per square mile. Creating smaller blocks, allows for a finely grained street network which has been shown to have residents who walk more, use transit more, and drive less than those in large block and cul-de-sac areas. The streets in a neighborhood should be designed as places of gathering and should provide narrower travel lanes, bicycle facilities, on-street parking, continuous tree cover, ample sidewalks, appropriate street furniture and lighting, and supportive building frontages.

The Smart Growth Manual

The authors write, “When streets become pleasant places, more people are likely to leave their cars at home” (p.8.1). In order to allow easy pedestrian crossing of roads, turning radii of roads should be kept as low as possible, as long as reasonable access is provided curb radii of 15, 10, or 5 feet can be used. The ultimate goal of the street is to make it part of the 24-hour city. The streets should be used at all times of the day to ensure areas do not empty out at night. Places to live, work, shop, learn, and socialize must coexist in close proximity. Street trees are also important to include in streets to help protect pedestrians, slow down traffic, add a sense of enclosure, reduce heat island effects, and absorb stormwater.

Parking and Sidewalks

A key element of smart growth is addressing the issue of parking. The authors explain, “Perhaps the most anti-pedestrian feature of contemporary retail practice is the front parking lot. For retail to attract pedestrians, the shops must open directly onto the sidewalk, with parking lots located to the rear or elsewhere. The rear parking lots should provide easy access to the street through pedestrian passages” (p.10.7). Parking must be included into developments, but it can be done in discreet way in order to keep the character of the neighborhood. Surface parking lots need to be located at the center of blocks so that the building frontages are along the streets and sidewalks. One of the major deterrents of pedestrians in suburbia is the exposed parking lots that are simply too boring to walk past. Parking garages should also be located at the center of blocks, unless they have retail space located on the ground level then they can be located near the street. Not all parking has to be in lots though, on-street parking can offer many benefits including reducing driving speeds, protects pedestrians on the sidewalk by creating a barrier, reduces the demand for on-site parking, decreases the amount of impermeable surface in parking lots, and increases sidewalk activity as drivers walk from car to their destinations. In commercial areas, parking should occur on both sides of the street. Parallel parking is preferred, but head-in or rear-in parking can be used in heavy retail areas. Parking can be added to wide streets to reduce the street width in retrofitting projects. Sidewalks in urban areas should be at least 10 feet wide, and on active retail streets they can be 15-25 feet wide from building to curb.

CASE STUDIES

COMPLETED

Waterway Square	Houston, TX	73 acres
Addison Circle	Dallas, TX	124 acres
Frisco Square	Dallas, TX	148 acres
Legacy Place	Dallas, TX	169 acres
Middleton Hills	Middleton, WI	150 acres



http://visithewoodlands.com/wp-content/uploads/2014/04/wwsq_fact_sheet_2013.pdf
http://www.developmentexcellence.com/presentations/see_week04/r_whitehead.pdf
<http://www.visionnorthtexas.org/2011CaseStudies/docs/LegacyTownCenter.pdf>

CASE STUDIES

ONGOING

Mueller
Villebois
Uptown

Austin, TX 700 acres
 Wilsonville, OR 480 acres
 Minneapolis, MN 123 acres



NEW CONSTRUCTION

Kettlestone
Los Colinas
Lenexa City Center

Des Moines, IA 1,500 acres
 Irving, TX 352 acres
 Lenexa, KS 200 acres



http://www.austintexas.gov/sites/default/files/files/Redevelopment/Redevelopment_Projects/Mueller/Chapter_1_opt.pdf
<http://www.kettlestonewaukee.com/wp-content/themes/kettlestone/pdf/master-plan.pdf>
<http://www.lenexacitycenter.com/center.html>



2

METHODOLOGY AND RESEARCH

Methodology
User/Client Description
Case Study Comparisons
Case Study Analysis
Site Programming
Design Goals



METHODOLOGY

APPROACH TO RESEARCH

The information collected for this research will include both qualitative and quantitative data. The research will be foundational based on literature related to smart growth, developing urban villages, place making, and new urbanism. A number of case studies will be examined, with a mixture of completed projects, projects under construction, and projects in the design phase. These case studies will be analyzed based on their uses, forms, and overall success/impact according to the community. The data collected from the literature and case studies will then be used to develop a survey, which will allow the research to examine what types of amenities people currently living near Urban Plains would like to see.



DATA MEASURES

District Size Study

Land Use Study - Amount of land used for:

- Mixed Use
- Residential
- Office
- Open Space
- Retail

Density Study

Street Layout Study

- Block Sizes
- Number of street intersections
- Street types and widths

Open Space Study

- Types
- Locations
- Sizes
- Programming in each

Other characteristics to be analyzed from case studies:

- Streetscape design/features
- Sidewalk Widths
- Indoor/outdoor relationships
- Programming elements of open spaces

CLIENT/USER DESCRIPTION

City of Fargo

The Urban Plains neighborhood is part of the City of Fargo's GO2030 Comprehensive plan in which this neighborhood is said to become a "sustainable retail mixed use center." The plan calls for the neighborhood to increase density, include more retail space, improve walkability, and incorporate public art. The research gathered from this thesis could help set up form based codes for this development in order for it to meet the GO2030's plan.

Land Developer

By increasing the population and density of the neighborhood, the land developer would benefit from increasing the amount of retail, office, commercial, and residential space since these will generate a higher revenue. By allowing the retail, office, commercial, and residential spaces to occupy buildings together, the mixed-use neighborhood will become more compact and walkable. A more compact and walkable site could help attract young professionals to live in the development who are looking for an urban lifestyle.

Users

The site could have a large variety of users including, but not limited to:

- residents
- employees
- pedestrians
- cyclists
- Sanford Medical patients
- Scheels Arena visitors

CASE STUDY ANALYSIS

KETTLESTONE DEVELOPMENT | WAUKEE, IOWA

Master Plan Design Completed: May, 2014

Current Status: Design Phase

Project type: Greenfield

Size: 1,700 acres

Design Firms: Confluence | Leland Consulting Group | Flynn Wright | Travis Rice Studio

Reason for project: Waukee, IA is a fast growing city located within the Des Moines Metropolitan Area. The development is located in Dallas County, the 7th fastest growing county in the nation and is at the crossroads of Interstates 80 and 35.

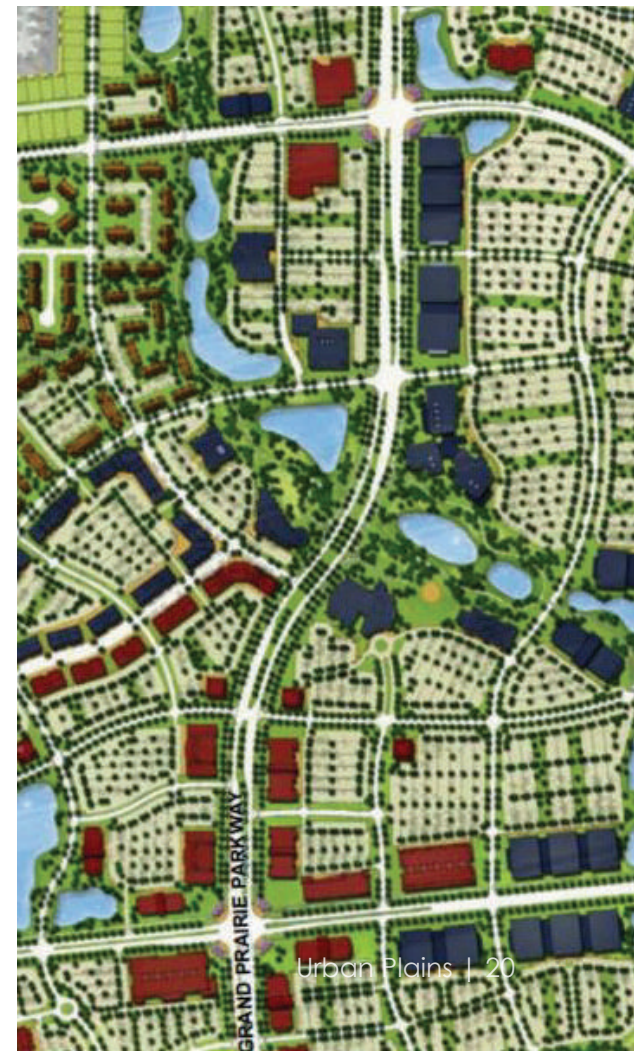
Demographics of area: (As identified by the Tapestry Market Segmentation System):

- Well educated, affluent suburbanites
- Family oriented, but also includes young professionals without children
- Suburban residents that have urban taste in shopping, entertainment, and media

- Main Goals:**
- 1) Build upon the previous master plan
 - 2) Coordinate a grand vision -- think big!
 - 3) Create a brand to match the vision
 - 4) Develop an understanding of the City Investment
 - 5) Create a new center for the community
 - 6) Create a walkable environment, provide a variety of housing options, mix land uses, selectively increase densities, and enhance the community's civic and cultural presence.
 - 7) Create opportunities for family oriented outdoor recreation and non- motorized transportation
 - 8) Connect to community and regional trails
 - 9) Preserve park and open space
 - 10) Strengthen local economy
 - 11) Manage stormwater and protect people and property from damaging floods
 - 12) Encourage physical fitness and healthy lifestyles
 - 13) Create a community event space
 - 14) Attract unique retail and restaurants
 - 15) Utilize greenway as catalyst for development
 - 16) Provide mixed - use and higher density development



“These ideas will enhance Waukee’s quality of life and prepare Waukee for the economic, social, and environmental and cultural advances that will benefit future generations”



KETTLESTONE DEVELOPMENT | WAUKEE, IOWA

Vehicular Circulation:

- Connect Kettlestone to existing roadways and developments
- The roadway network reflects circulation standards, traffic engineering, topography, and other natural features.

Land Use: Multi-family Stacked Medium (MF Stacked Med)

8-14 dwelling units / acre

2 -3 stories tall

Served by alleyway

Multi-family Stacked High (MF Stacked High)

12 - 20+ dwelling units / acre

3 - 4 stories tall

Shared entryway

Mixed Use

- Retail and offices should be located on 1st floor with residential units located on the upper floors

- Should be located close to street and be 2 - 4 stories tall

- Outdoor seating areas and pedestrian spaces should be included

Retail - Neighborhood

- Should be within close proximity to residential areas and provide a limited amount of the daily, short trip, retail needs

- Should be designed more towards the pedestrian than vehicular traffic

- Sites are 5 - 10 acres

Retail - Community

- Located closer in proximity to employment centers

- Sites are 10 - 15 acres and designed to accommodate pedestrians and vehicular traffic

Retail - Regional

- Located in high traffic, high visibility areas

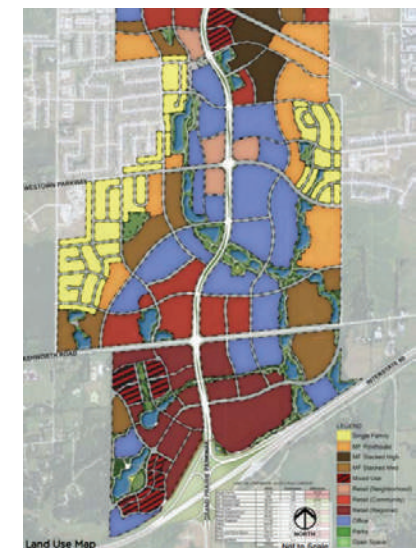
- Sites are 20+ acres

Office - 1 or more stories tall

- Retail uses typically not allowed within office districts



Single Family	118
MF Rowhouse	132
MF Stacked Med	142
MF Stacked High	59.5
Mixed Use	54.5
Retail - Neighborhood	42
Retail - Community	124.5
Retail - Regional	128
Office	312.5
Parks and Open Space	190
R.O.W.	308



Building Massing: - Increased density, roadways fronted by architecture, and unique public gathering spaces are all by-products of properly placed buildings. Generally buildings are close to the setback line, with associated parking behind the building to allow the roadway to have a sense of scale and enhanced landscape features between the building and curb line. Mixed use buildings should shape the public way in a positive way by allowing space for plazas that reinforce the walkability of the site. Residential units should be placed so that they take advantage of the street frontage and offer the best overlooking views possible on each site.



Streetscaping: The design of the streets should ensure both the aesthetic and functional needs of each individual corridor. The corridors should include a series of closely spaced over-story trees in groupings of 5 to 15. Lighting systems and under-story plantings should also be included in the streetscape design.

Uses of outdoor space: Greenway -

- more naturalistic design that allows for an expansive trail network

Market Square -

- Enclosed by boutique retail spaces and offers a strong nightlife scene

Amphitheater -

- Provides views of water features, while having an interesting backdrop with mixed use buildings
- A regional draw for concerts and other public events



Neighborhood Parks -

- Smaller parks mixed throughout the residential areas that provide residents outdoor space for recreation

Central Park/plaza -

- the “heart” of the pedestrian experience
- Skating rink/splash pad to provide year round activity
- connects to the greenway system
- allows for passive and active recreation

Promenade -

- Opportunities for outdoor dining, conversation, and people watching
- Offers wonderful views of the water features on site



Water features: Storm Water pond

- Serves as a way to control storm water in a way that is aesthetically pleasing and in harmony with the natural landscape.
- Is deep enough to allow it to be stocked with fish
- Features a pedestrian bridge that is the focal point of the pond



CASE STUDY ANALYSIS

MUELLER DEVELOPMENT | AUSTIN, TX

Master Plan Design Completed: November, 2004

Current Status: 40% built

Project type: Redevelopment of airport

Size: 700 acre

Design Firms: Roma Design Group

Reason for project: Infill the vacant Robert Mueller Municipal Airport in order to relink this site to surrounding neighborhoods and provide housing for a quickly increasing population.

Main Goals:

- 1) Create a compact a pedestrian-oriented mixed use community.
- 2) Reinforce Austin's role as an increasingly global marketplace and create a wide range of employment opportunities for a diversity of the community's citizens.
- 3) Promote economic development opportunities within the region, giving local residents a stake in the redevelopment.
- 4) Maintain and enhance the quality of life in adjacent neighborhoods, providing complementary linkages, land uses, and transportation patterns.
- 5) Provide a wide range of housing choices in order to create a new community of socially and economically diverse residents.
- 6) The development should be designed to promote energy and water efficiency, reduced auto dependency, watershed protection, resource protection, and green space preservation.

MUELLER DEVELOPMENT | AUSTIN, TX

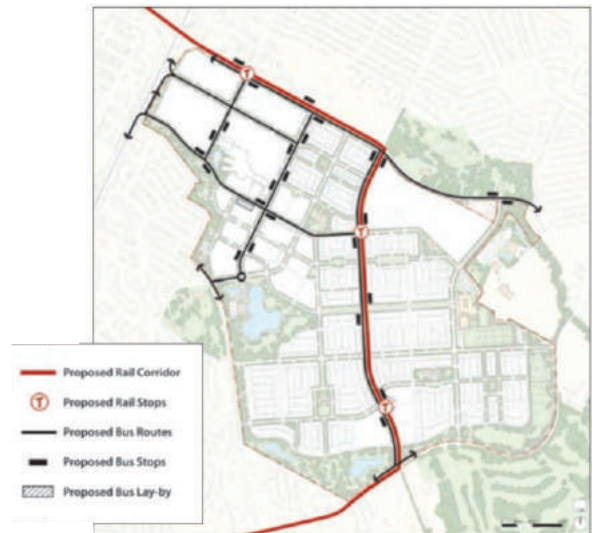
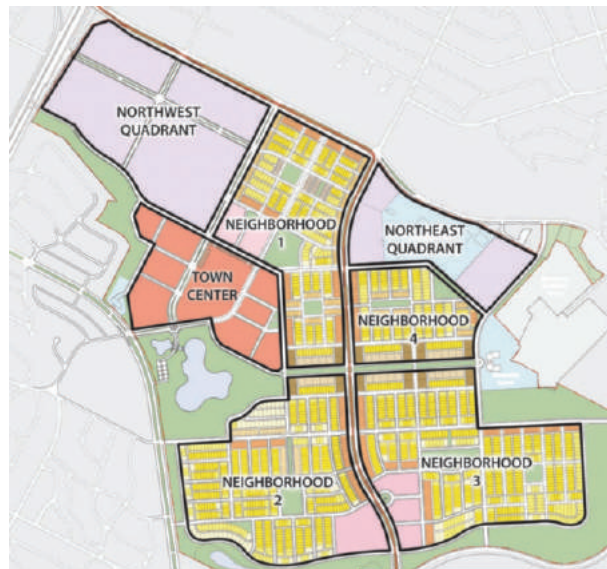
Bicycle Infrastructure Network: - Roadways should serve as an extension of the open space, pedestrian and bicycle network, contributing to the community's sense of place and identity.

- Mueller streets are not only designed as movement corridors, but also as important public spaces that provide a strong sense of place and orientation and contribute to the social life of the community.

Public Transportation: - The pattern and intensity of development is planned in conjunction with a comprehensive program of transit improvements aimed at reducing automobile dependence.

- A central transit boulevard offers a corridor for future commuter of light rail through the community.

Neighborhood Plan: - The plan includes a Town Center, two employment centers, and four mixed-use residential neighborhoods. Each neighborhood will be orientated to a central park, and will include smaller pocket parks with play areas for children. The configuration of the streets and open spaces will provide walkable and bikable connections to the Town Center, greenways, and to transit stations.



MUELLER DEVELOPMENT | AUSTIN, TX

Land Use: Mixed Use Town Center

- The combination of local businesses a friendly pedestrian orientation of the district will make it an attractive destination for the Mueller community and the surrounding neighborhoods.
- Located along a major roadway to enhance the developments identity and connection to the rest of the community.
- A major grocery store will anchor the town center to be convenient for residents and employees.
- The Town Center overlooks Lake Park, the main open space of the development which will provide social interchange and recreation.
- Food, entertainment, and specialty retail gives the area a unique character.
- Mixed use buildings will be set back from the property line 5-10 feet and maintain a continuous street wall for at least 75% of the street frontage.
- Each mixed use building must have at least 40 square feet of exterior common space for each residential unit.



MUELLER DEVELOPMENT | AUSTIN, TX

Open Space and Recreation: - The open spaces should create an expanded network of recreational open space that will significantly enhance the quality of life for the surrounding area as well as reinforce neighborhood structure and community identity.

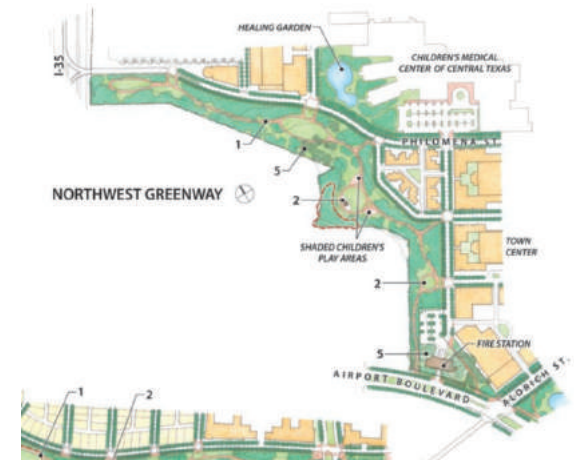
- The open spaces will all vary in size and type but should together create an integrated system that enhances livability, natural appearance, and ecological values.

Types: Greenway:

- Creates a linear progression of recreational activities
- Detains and filters stormwater before the water re-enters the natural creek systems of the area
- Becomes an amenity for the hospital and adjacent residents
- Connects a series of open spaces and neighborhood parks
- Potential recreational uses include walking, jogging, bicycling, exercise fields, sports classes, play areas, picnicking, group events, and nature and ecological discovery
- Provide a continuous path with a width of at least 10 feet

Central Park (Lake Park):

- 30 acres
- Be an integral extension of the greenway system and a central focus and amenity for the entire community.
- Become a “front door” to the Mueller community
- Designed to have a predominantly naturalistic character, with a promenade edge along the more urbanized edge
- Structures included in the park are public restrooms, recreational facilities/concessions





MUELLER DEVELOPMENT | AUSTIN, TX

Lake Park continued...

- Can be used for a variety of purposes including community celebrations, concerts, outdoor theater and performances, special events, weddings, outdoor dining, art fairs, festivals, farmer's markets, jogging, walking, boat/bicycle rental concessions, paddle boats, and canoeing.
- An amphitheater overlooking the lake provides pleasant views and a unique experience
- A parking lot with 80 cars is located within the park, with a minimum of 1 tree for every 4 cars in order to extend the open space character of the park

Neighborhood Parks:

- About 2-3 acres in size
- Become the principal focus and gathering space for each neighborhood
- Include a variety of active and passive recreational facilities
- To maintain a naturalistic character, neighborhood parks can have no more than 50% impervious surface
- Provide space for swimming, multi-use lawns, picnicking, children's play, and a gathering space

Pocket Parks:

- About 1/4 - 1 acre in size
- Placed to ensure that all residents are within 600 feet of a park and configured to create a focus for neighborhood subareas
- Should reflect the demographic character of the neighborhood
- Designed as simple and flexible open spaces suitable for a wide range of informal uses
- Provides space for children's play and formal and informal seating areas



Neighborhood Park Example



Pocket Park Example

MUELLER DEVELOPMENT | AUSTIN, TX

Streetscape Concept:



Streetscape Concept

- COMMUNITY CONNECTOR
- LINEAR PARK CONNECTOR
- GREENWAY STREET
- NEIGHBORHOOD BOULEVARD
- NEIGHBORHOOD CONNECTOR
- TOWN CENTER MAIN STREET
- NEIGHBORHOOD LOCAL STREET
- COMMUNITY GATEWAY

CASE STUDY ANALYSIS

UPTOWN | MINNEAPOLIS, MN

Master Plan Design Completed: February 2008

Current Status: Ongoing development

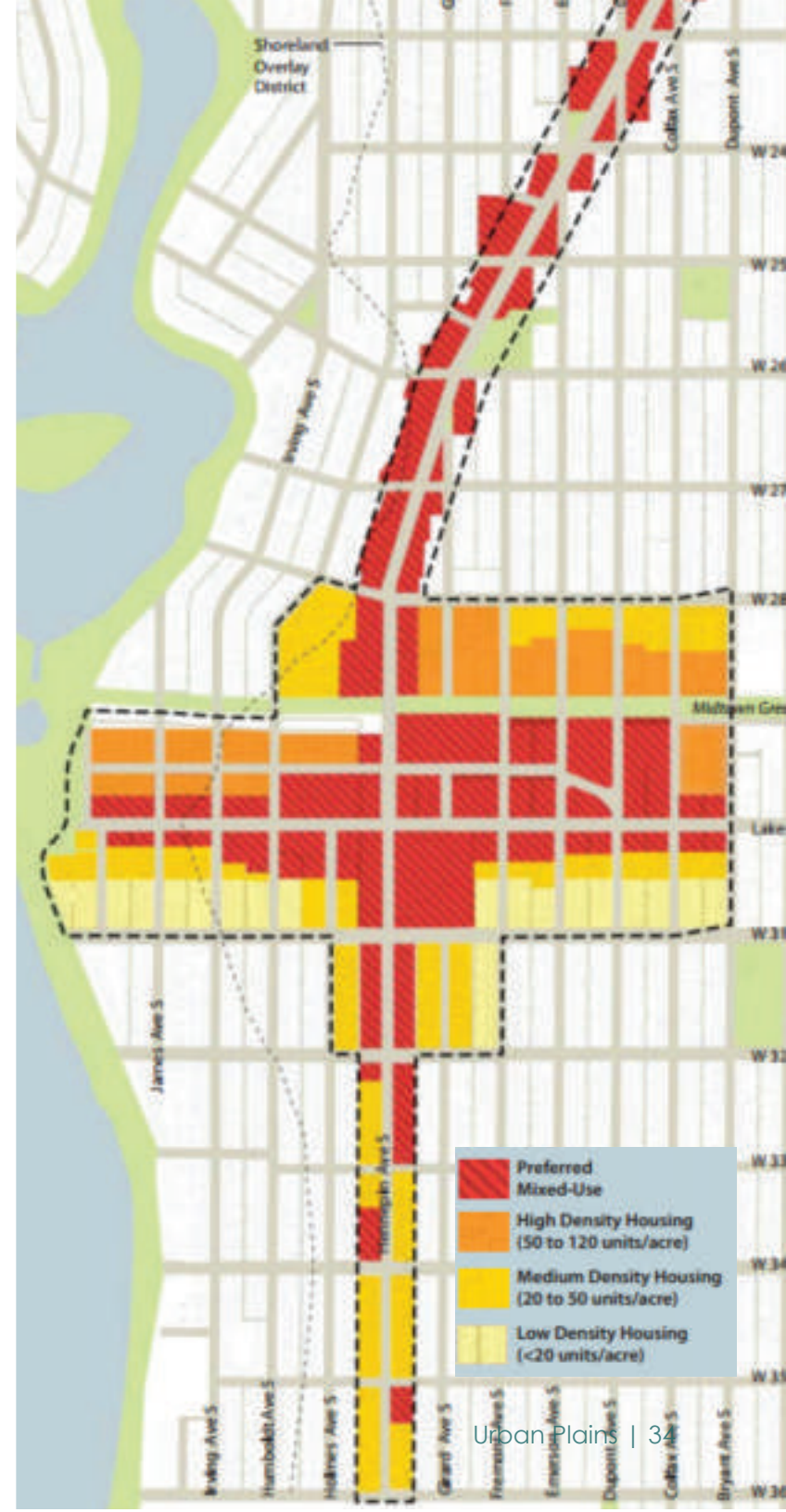
Project type: Urban infill

Size: 123 acres

Design Firms: Cuningham Group, Biko Associates, SEH, Inc., GVA Marquette Advisors

Reason for project: A renewed interest in urban living has brought new growth to Uptown. This plan was created to help guide new developments so that Uptown will not lose its neighborhood identity.

- Main Goals:**
- 1) Continue developing Uptown as a welcoming neighborhood with a diversity of people, places, and architecture.
 - 2) Continue promoting a green community where the streets, lakes, and parks help to form a green cityscape.
 - 3) Offer a dense, mixed-use core of new and old buildings that offers a unique urban character.
 - 4) Create an environment that is a vibrant center of activity where people gather throughout the day and night.
 - 5) Continue to provide a variety of transportation choices for residents and visitors.
 - 6) Recognize, protect, and enhance established surrounding neighborhoods.
 - 7) Prioritize streets as places for social interactions and urban activity rather than just a vehicular corridor.
 - 8) Design the community to a regional attraction as well as a local community.
 - 9) Include the most intense development in the core of Uptown and shape the edges of growth in a way that transitions to other neighborhoods are clear and predictable.
 - 10) Promote taller buildings and higher densities in order to create high quality public streets and open spaces.



UPTOWN | MINNEAPOLIS, MN

Why people value Information gathered from public input sessions

- Uptown:**
- Livability
 - Parks and open spaces
 - transportation options
 - unique and quirky character

Character Areas: Not all of Uptown is the same

- Commercial corridors
 - Primarily mixed use / commercial
 - Primarily 2-4 story buildings
- Live / work streets
 - Primarily residential/live/work
 - Primarily 2-5 story buildings
- Urban village
 - Primarily mixed use / residential
 - Primarily 3-5 story buildings
- Activity center
 - Mixed use / commercial
 - Primarily 3-5 story buildings
- Neighborhoods
 - Residential
 - 1.5-3 story buildings

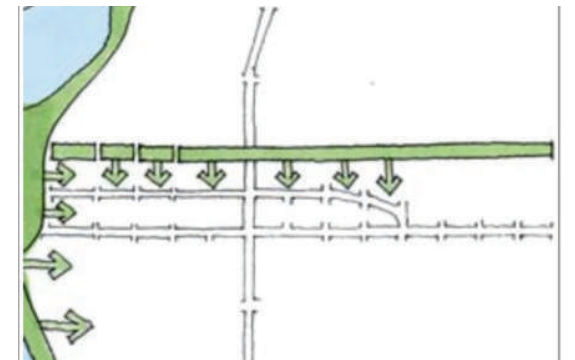


Activity Center and the Urban Village (South Sub-Area)



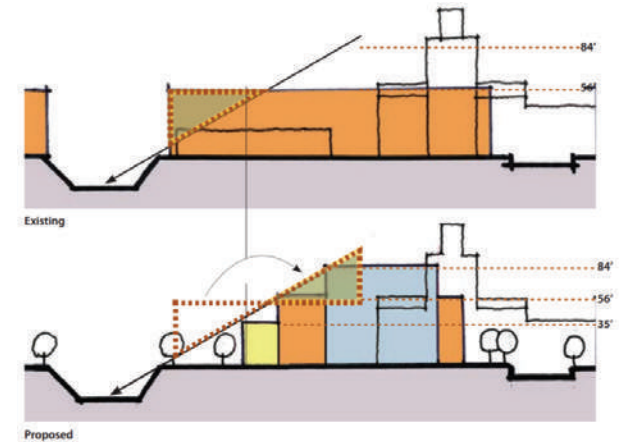
UPTOWN | MINNEAPOLIS, MN

- Open Spaces:**
- Create several small urban gathering spaces
 - Create a year round indoor/outdoor gathering space in major retail locations to attract new, diverse residents and customers
 - Establish pedestrian promenades near the Greenway
 - Create a narrow street with wide sidewalks near major retail locations that could be closed to vehicular traffic on nights and weekends
 - Design sidewalks to be at least 8 feet wide to accommodate outdoor seating and narrower streets
 - Improve the connections between the Greenway, the Lakes, and Uptown by connecting open spaces
 - Establish a central gathering space

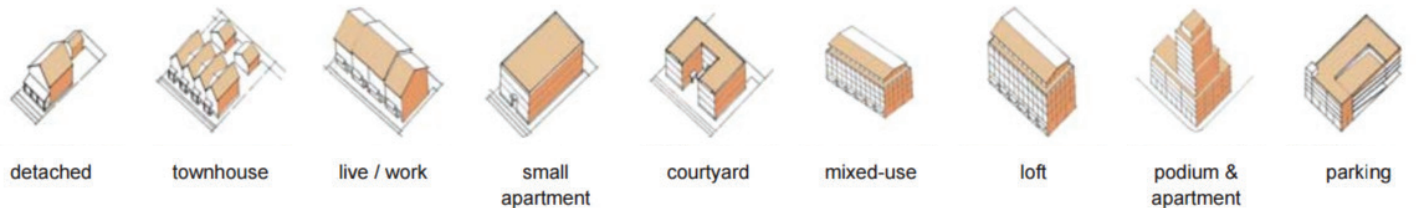


UPTOWN | MINNEAPOLIS, MN

- Building Types:**
- Establish strong gradual transitions between residential and commercial areas
 - Discourage one-story buildings
 - Encourage retail on specific blocks
 - Locate tallest buildings along corridors
 - Step back the upper floors of buildings to limit shadowing on street and greenway



Building Types

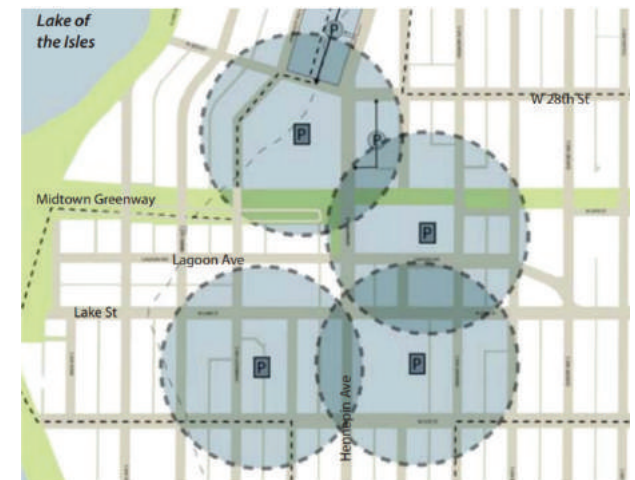


← Neighborhood-Oriented →

← Urban-Oriented →

← Transit-Oriented →

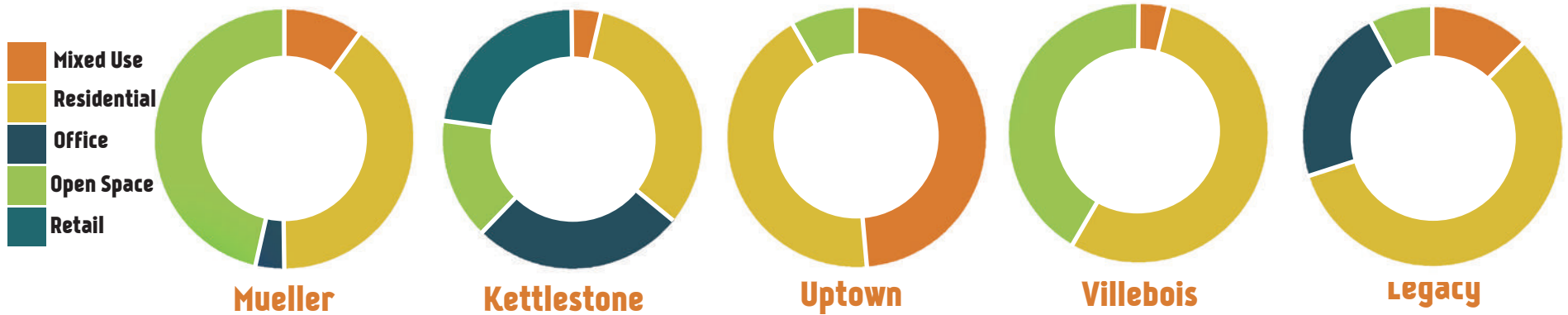
- Access and Parking:**
- Support the possible future development of different forms of public transportation
 - Develop district parking lots in the core to increase wayfinding efficiency and to encourage a “park once” approach
 - Shorten the walk distance by providing bump-outs at signalized intersections
 - Improve bicycle connections



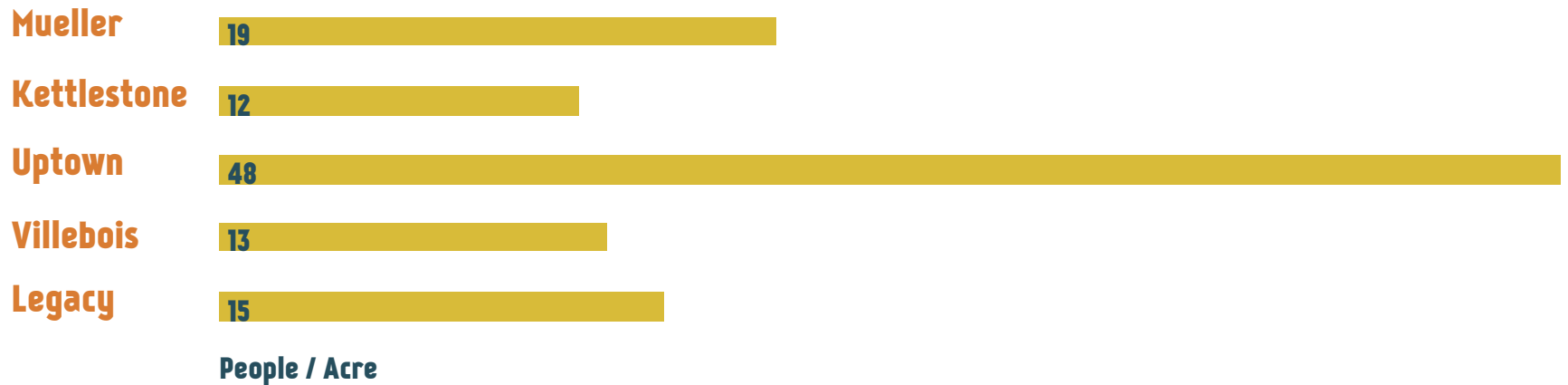


CASE STUDY COMPARISONS

LAND USE STUDY



DENSITY STUDY



CASE STUDY COMPARISONS

BLOCK SIZES



STREET INTERSECTION DENSITY



STREET WIDTHS

		Average Street Width (curb to curb)				
Averages:	Street Type	Mueller	Kettlestone	Uptown	Villebois	Legacy
78.5'	Community Connector	76'	96'	62'	63'	96'
45'	Neighborhood Boulevard	35'	62'	42'	42'	45'
33'	Neighborhood Connector	26'	35'	32'	32'	40'

CASE STUDY COMPARISONS

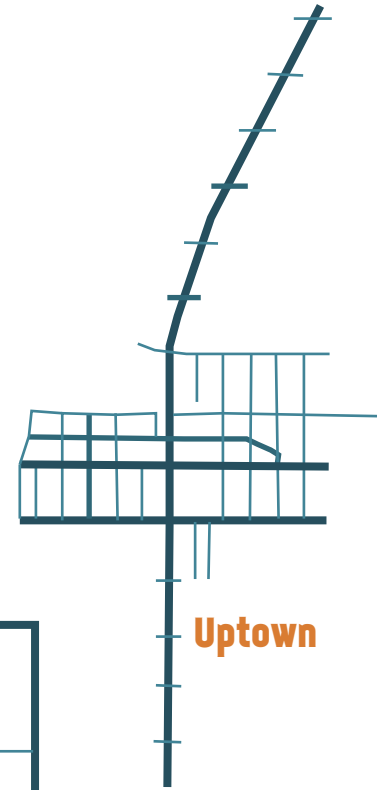
STREET TYPES AND FORM STUDY



Mueller



Kettlestone



Uptown



Villebois



Legacy

- Community Connector
- Neighborhood Boulevard
- Neighborhood Connector

CASE STUDY COMPARISONS

REGIONAL PARKS



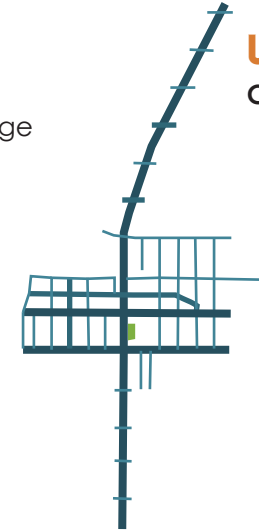
Mueller Lake Park

- 6.5 acre lake
- amphitheater
- playground
- picnic shelter
- trails
- public art
- famer's market



Kettlestone Kettlestone Green

- pedestrian bridge
- pavilion
- public art
- lake
- amphitheater
- skating rink
- splash pad
- promenade



Uptown Calhoun Courtyard

- public plaza
- seating
- street fairs
- markets



Villebois Hilltop Park

- amphitheater
- sport field
- seating
- rainwater elements
- shelter



Legacy Lake Plaza

- 4 acre lake
- fountain
- seating
- shelter
- trails

SITE PROGRAMMING

IMPLEMENTING WHAT I'VE LEARNED



DESIGN GOALS

- 1) Retrofit current development in order to create a vibrant walkable mixed-use urban center.
- 2) Provide a greenway through the site to connect to surrounding parks, open spaces, and regional attractions.
- 3) Create a unique neighborhood that has a strong identity.
- 4) Create a place that is regionally known, yet is still comfortable for the local community.
- 5) Provide multiple types of open spaces, allowing all residents to be within a short walking distance of a park.
- 6) Provide strong connections to the surrounding neighborhoods
- 7) Incorporate public art.
- 8) Provide a variety of transportation choices for residents and visitors
- 9) Streetscape roadways in a way that extends open space into the urban environment

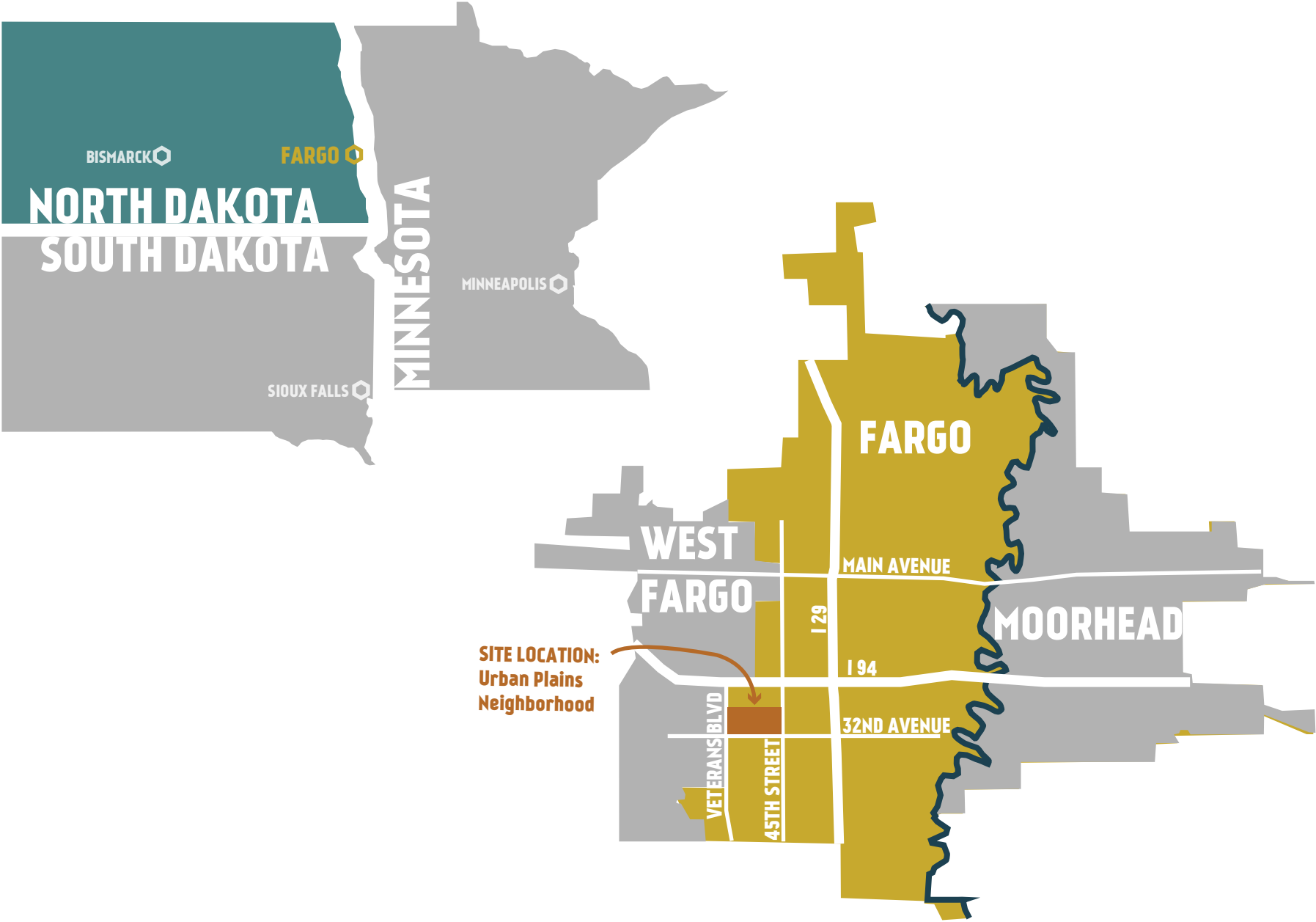
3

SITE INVENTORY

Inventory & Analysis



SITE LOCATION



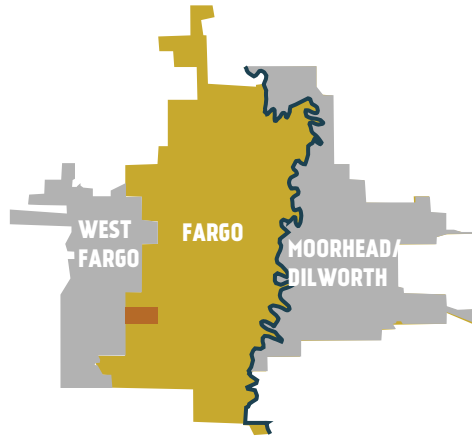
SITE LOCATION:
Urban Plains
Neighborhood

INVENTORY & ANALYSIS

SCALES TO STUDY

Macro-scale

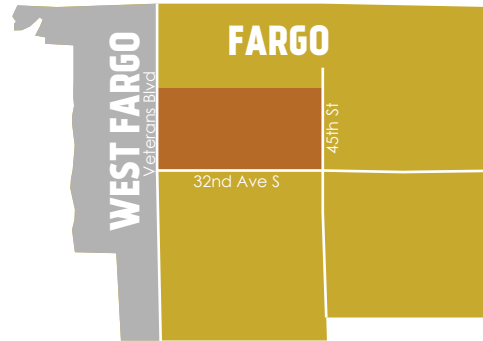
FM Metro



- Population/ Densities
- Weather Patterns
- Go2030 Fargo Comprehensive Plan

Meso-scale

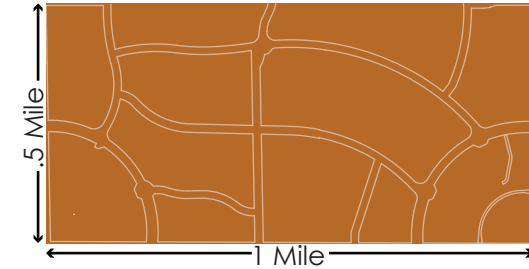
Surrounding Neighborhoods



- Population/ Densities
- Park System
- Regional Attractions
- Public Transportation Systems
- Trail/ Bicycle Networks
- View sheds

Micro-scale

320 Acre Site

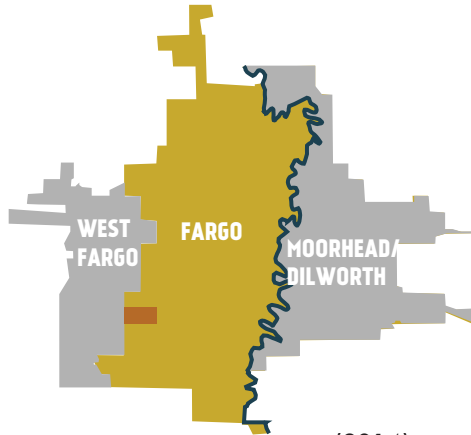


- Topography
- Soil Types & Slopes
- Zoning
- Current Land Uses
- Streets

INVENTORY & ANALYSIS Macro-scale

CULTURAL DATA | Populations/Density

FM Metro Population



	(2014)
Fargo	115,863
West Fargo	31,771
Moorhead/Dilworth	43,981
Surrounding Cities	36,676
Total Metro pop	228,291

Density Comparisons



Population: 115,863	645,149	852,469	305,841
City area (sq. miles): 48.82 sq. miles	48.43 sq. miles	46.87 sq. miles	55.50 sq. miles
Density (people/acre): 3.7 people/acre	20.8 people/acre	28.4 people/acre	8.6 people/acre

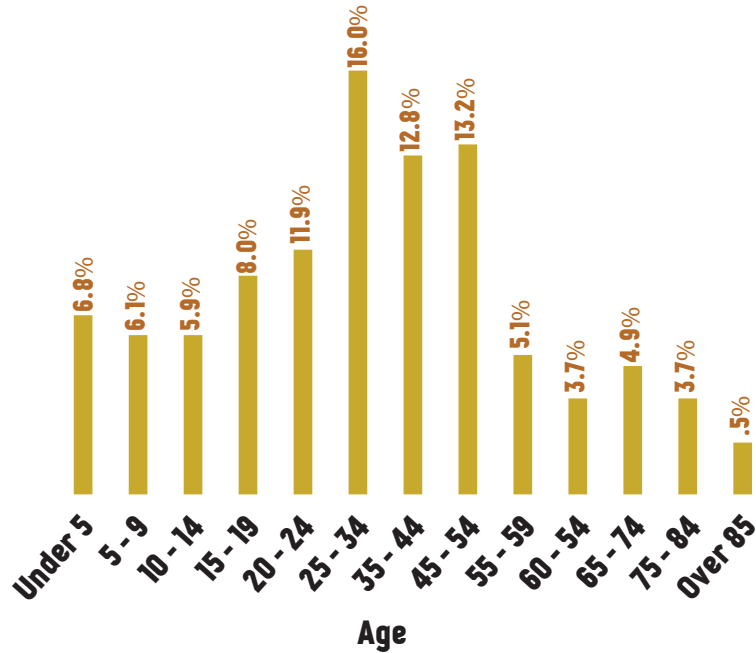
FM Metro Population Growth



INVENTORY & ANALYSIS Macro-scale

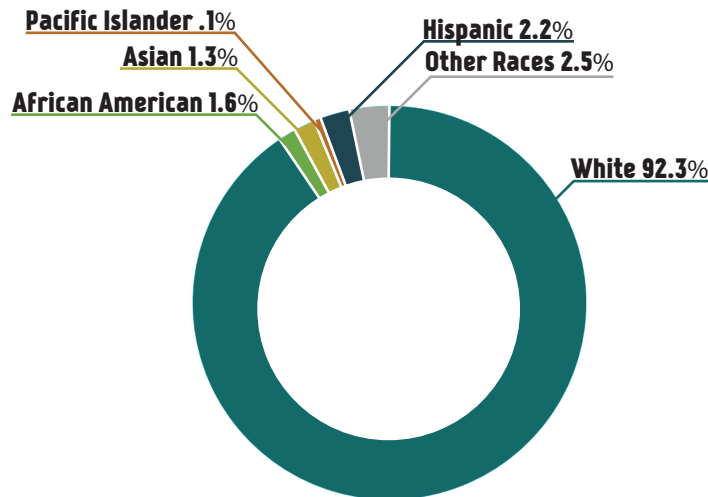
CULTURAL DATA | Populations

FM Metro Demographics

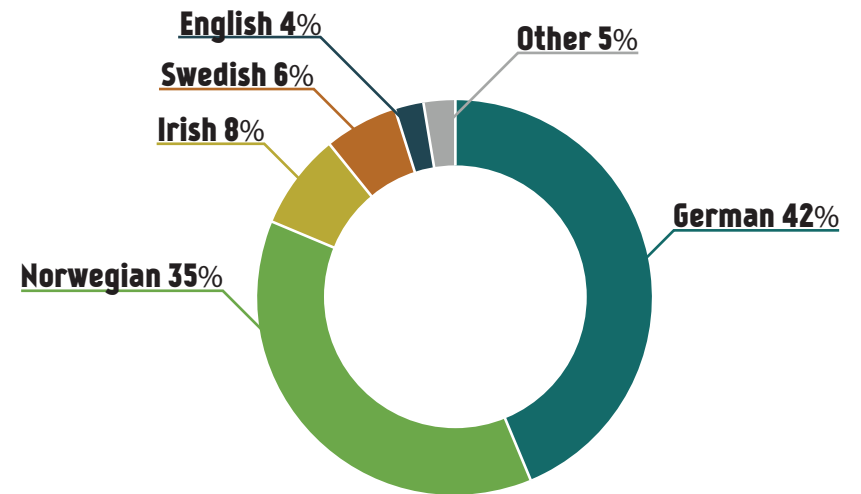


41,500 College Students in the Metro
 [Icon] = 1,000 Students

Race

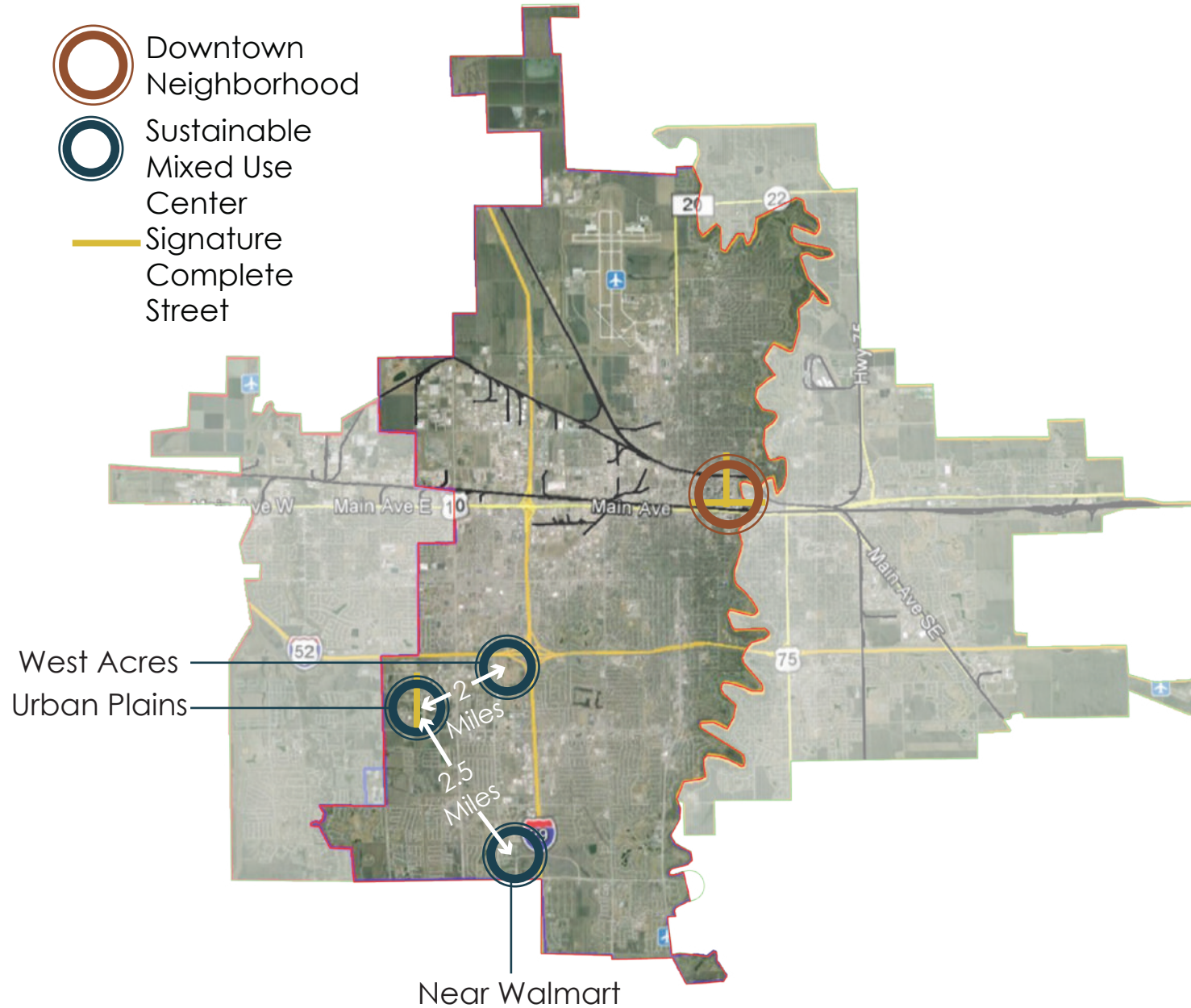


Ancestry



INVENTORY & ANALYSIS Macro-scale

CONTEXT DATA | Go2030 Fargo Comprehensive Plan



INVENTORY & ANALYSIS Macro-scale

CONTEXT DATA | Go2030 Fargo Comprehensive Plan



City of Fargo's sustainable mixed use center development principles:

1. Pedestrian oriented, mixed use streetscape
2. Strong pedestrian access point across busy automobile corridor
3. Walkable block sizes (250' - 450')
4. Building and parking development patterns that create people oriented spaces and street frontage which encourages a walkable environment
5. Connection to greenway
6. Neighborhood park or other prominent neighborhood feature
7. High quality construction

Benefits of walkable mixed use centers:

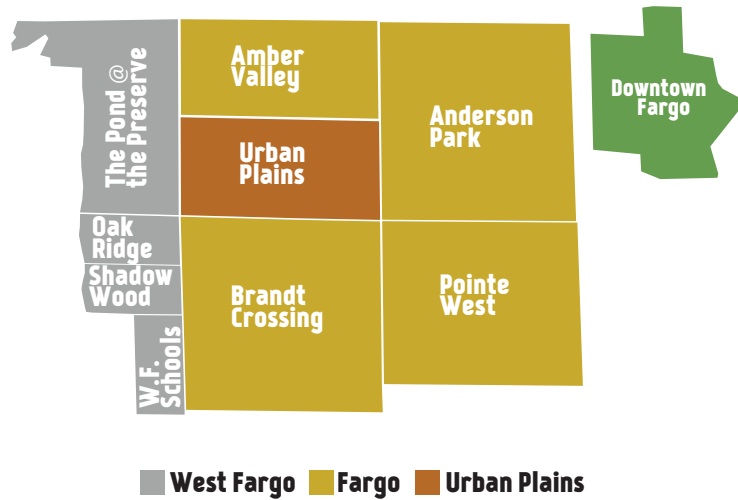
1. Lower infrastructure costs
2. Positive fiscal impact on city budget
3. Saves agricultural land and habitat
4. More aesthetically pleasing
5. Greater economic development potential
6. Stronger sense of community and greater cultural opportunities
7. Greater safety
8. More energy efficient
9. Less time in the car
10. Less stressful
11. Greater historic preservation

Benefits of walkable mixed use centers:

1. Creates celebrated signature streets that enhance the identity of Fargo
2. Improves streetscape and enhances the quality and visual appearance of the city
3. Encourages pedestrian and bicycle activity
4. Public investment in infrastructure catalyzes development in walkable mixed-use centers
5. Uses public art and landscaping to create an inviting urban environment
6. Integrates green stormwater infrastructure to bring more vegetation into urban streetscape

INVENTORY & ANALYSIS Meso-scale

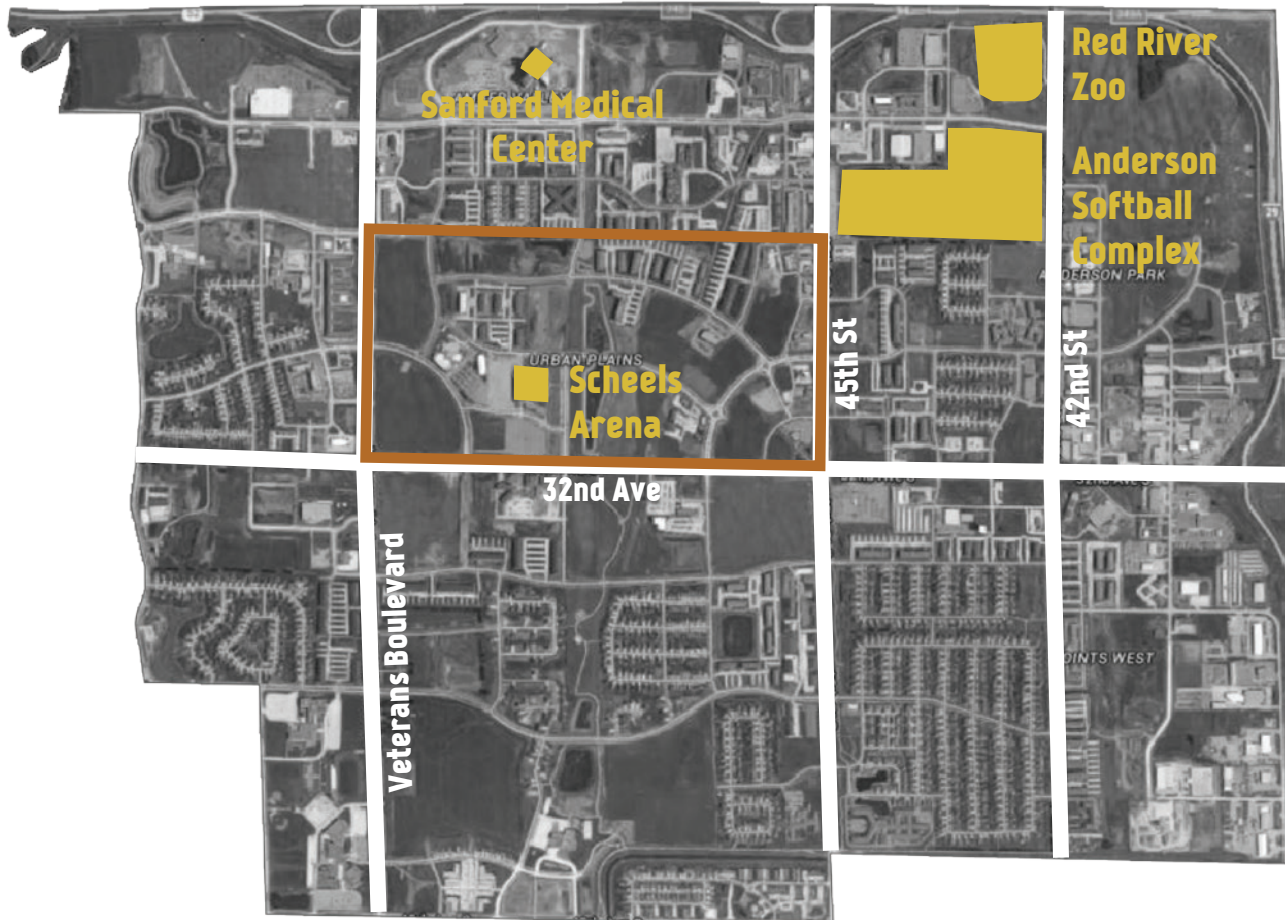
CULTURAL DATA | Populations



Neighborhoods	Population	Area (acres)	Density (people/acre)
Amber Valley	1,143	329	3.5
Urban Plains	1,200	320	3.75
Brandt Crossing	886	570	1.5
Anderson Park	828	638	1.3
Pointe West	2,692	572	4.7
The Pond @ the Preserve	832	320	2.6
Oak Ridge	0	80	0
Shadow Wood	904	80	11.3
West Fargo Public Schools	0	80	0
Downtown Fargo	4,405	512	8.6

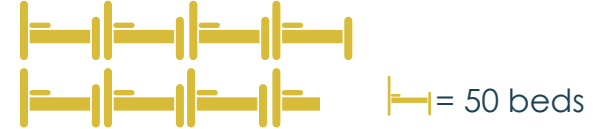
INVENTORY & ANALYSIS Meso-scale

CONTEXT DATA | Regional Attractions



Sandford Medical Center

384 Beds



🚶 .36 miles to Urban Plains

Scheels Arena

6,000 People



- Home of the Fargo Force Hockey Team
- Hosts high school hockey games
- Occasionally hosts NCAA Hockey Regionals
- Concerts
- Basketball games and wrestling matches
- Festivals

Red River Zoo

90,000 Visitors



🚶 1 mile to Urban Plains

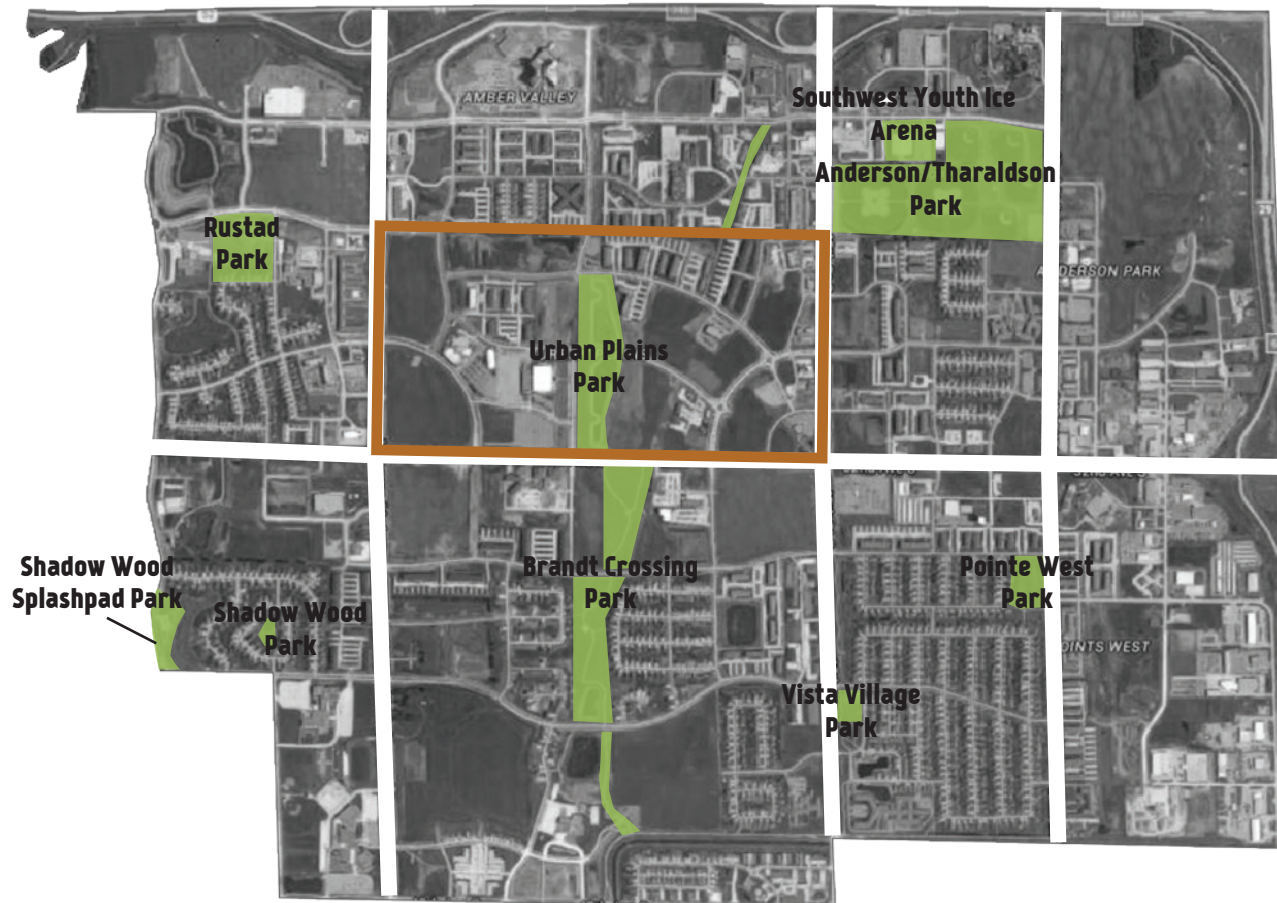
Anderson Softball Complex

Annually plays host to state and national softball tournaments.

🚶 .5 miles to Urban Plains

INVENTORY & ANALYSIS Meso-scale

CONTEXT DATA | Park System



Fargo Parks

Urban Plains Park:

Future plans

Brandt Crossing Park:

Basketball courts

Dog Park

Playground

Shelter

Trails

Vista Village Park:

Playground

Trails

Pointe West Park:

Playground

Anderson/Tharaldson Park:

4 Baseball fields

8 Softball fields

Playground

Restrooms

Shelter

Southwest Youth Ice Arena:

2 Ice sheets

West Fargo Parks

Rustad Park:

Future plans

Shadow Wood Splashpad Park:

Basketball Courts

Playground

Restrooms

Shelter

Splashpad

Trails

Shadow Wood Park:

Basketball courts

Playground

Restrooms

Shelter

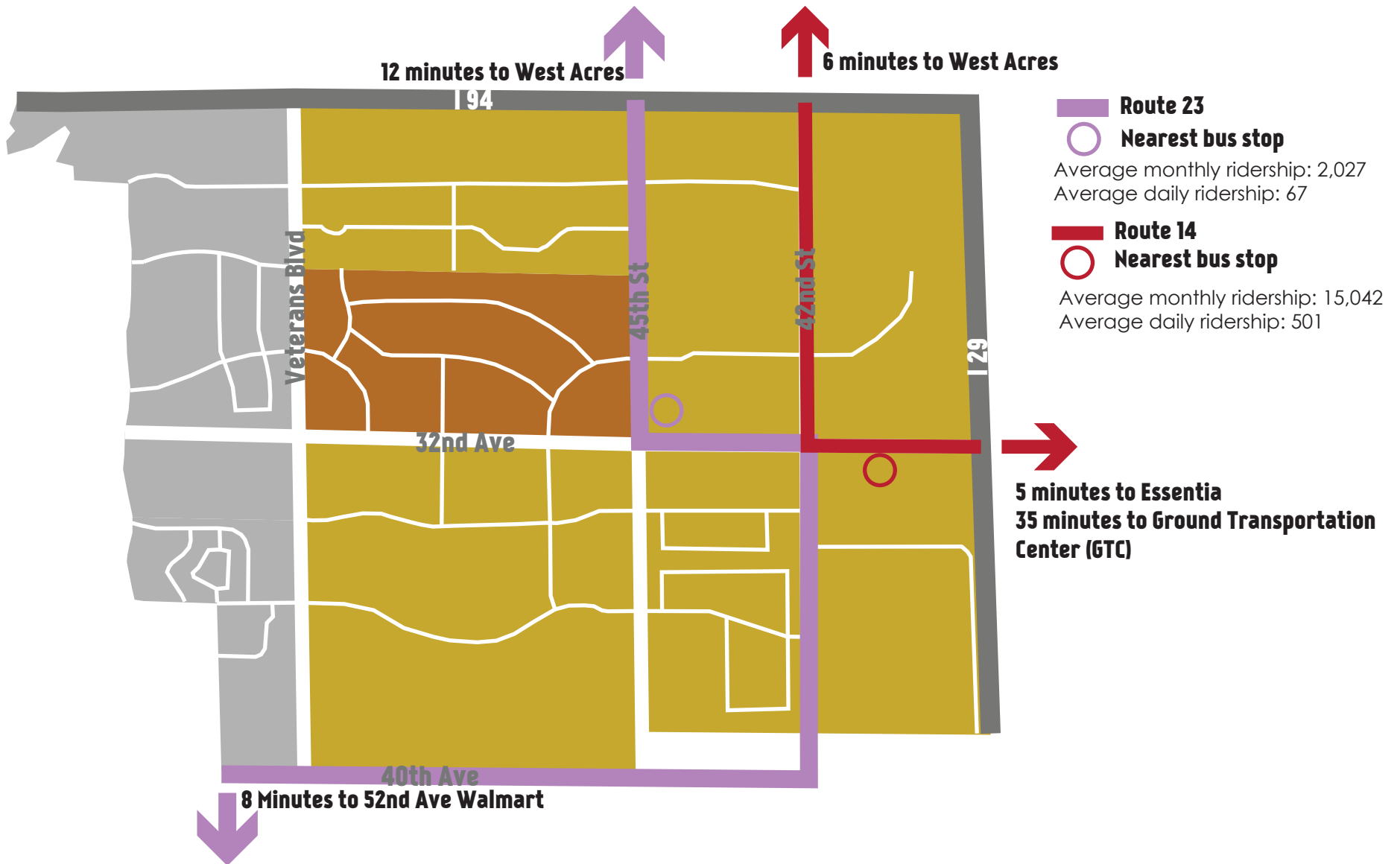
Trails

INVENTORY & ANALYSIS Meso-scale

CONTEXT DATA | Transportation Systems

Public Transportation - MAT Bus Network

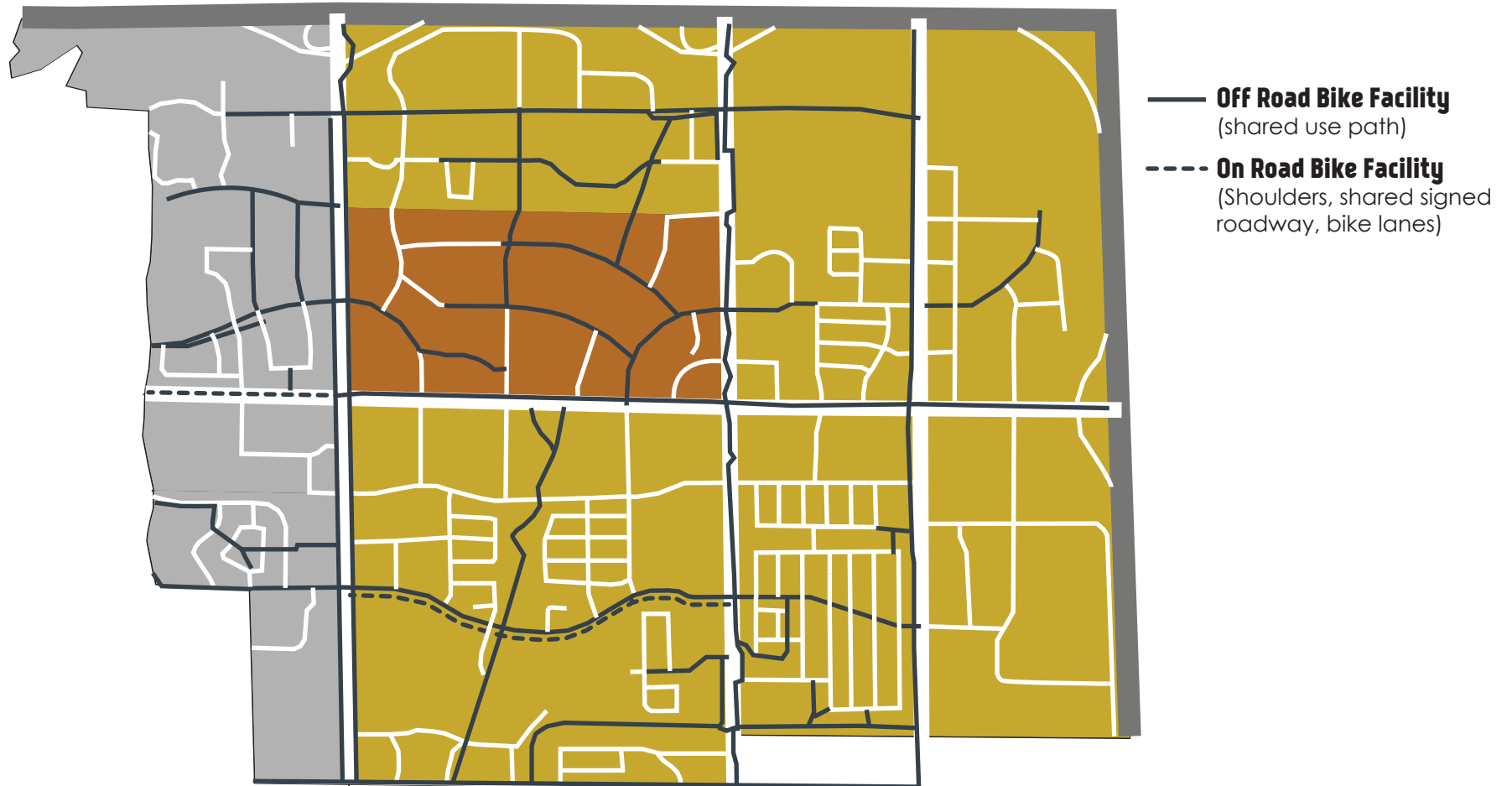
■ West Fargo ■ Fargo ■ Urban Plains



INVENTORY & ANALYSIS Meso-scale

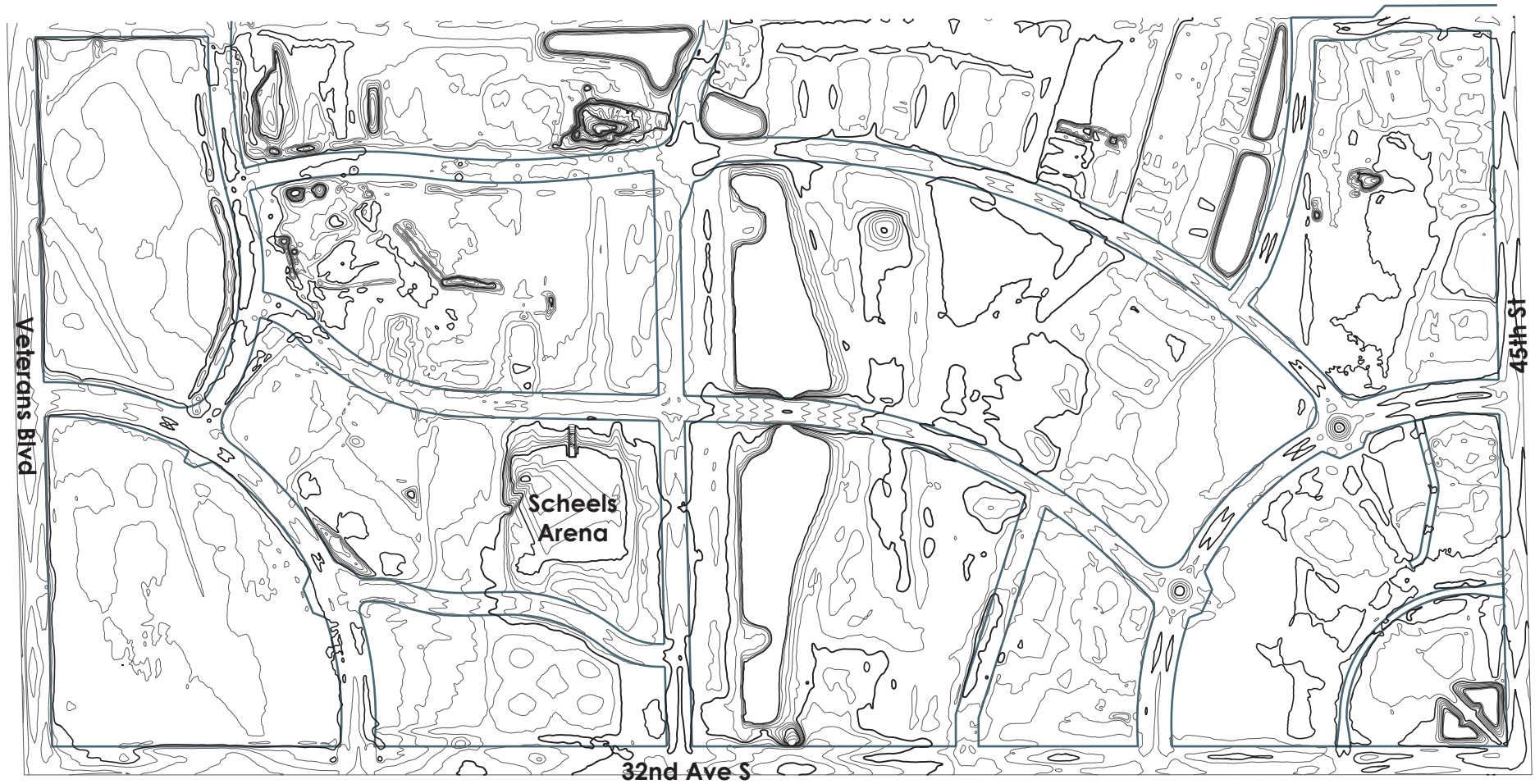
CONTEXT DATA | Transportation Systems

FM Bikeways Map



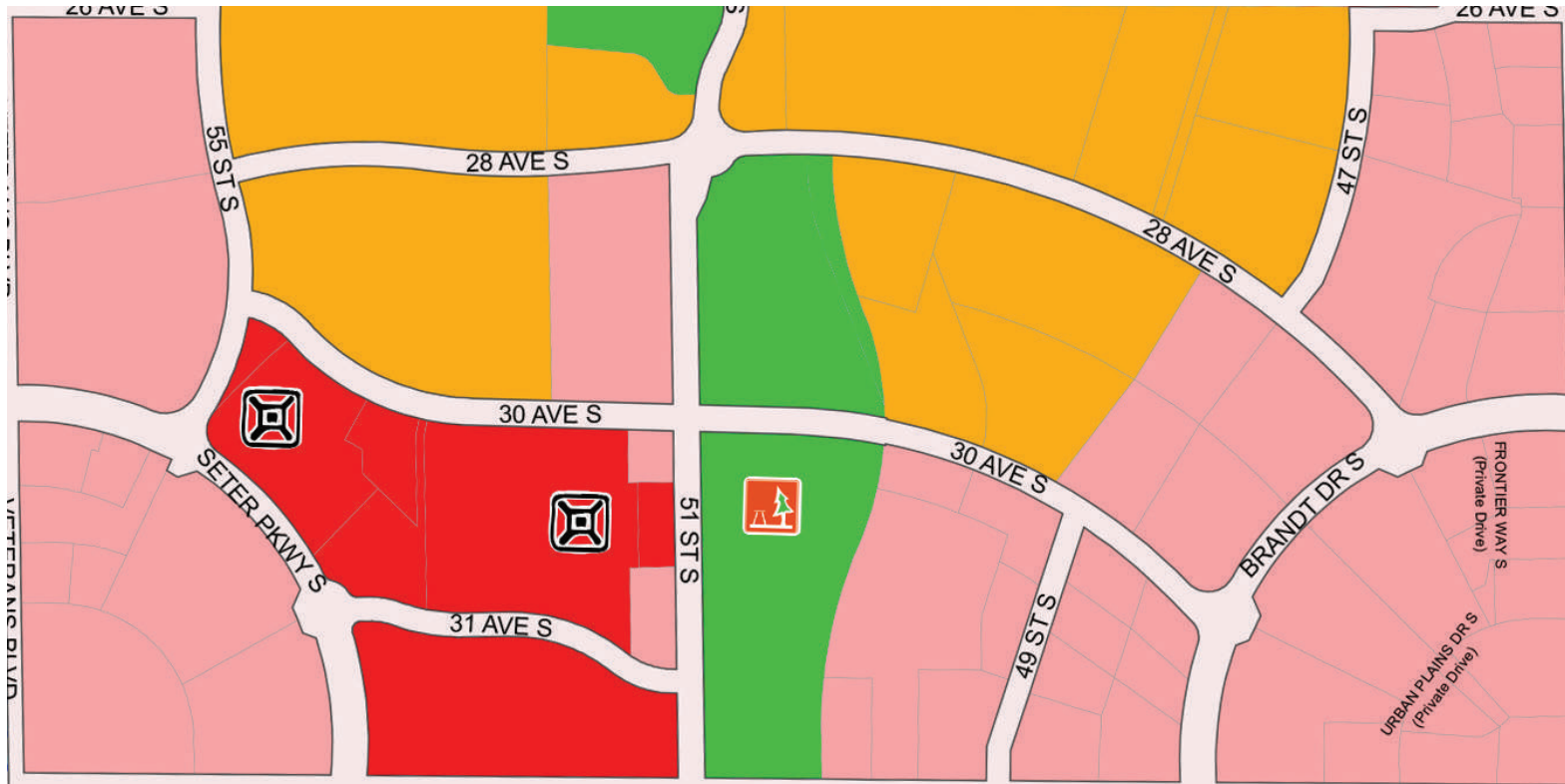
INVENTORY & ANALYSIS Meso-scale

CONTEXT DATA | Topography



INVENTORY & ANALYSIS Micro-scale

PHYSICAL DATA | Zoning



MR-3 - Multiple Dwelling
Allows for 24 dwelling units / acre
1-5 story buildings
Detached houses, attached houses, duplexes, and multi-dwelling structures

P/I - Public Institutional
GC - General Commercial
Allows for a full range of retail, service, office, and commercial uses.

LC - Limited Commercial
Accommodates low-intensity office and retail sales and service uses.

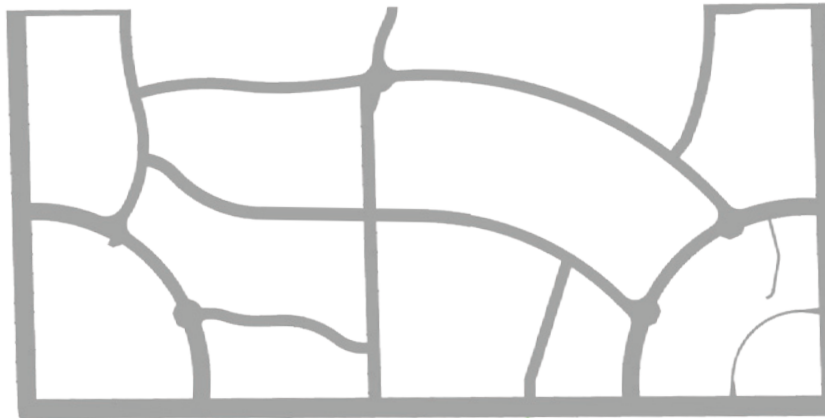
INVENTORY & ANALYSIS Micro-scale

CONTEXT DATA | Current Land Uses



INVENTORY & ANALYSIS Micro-scale

CONTEXT DATA | Current Land Uses



Existing Right of Way



Undeveloped / open space



Surface Water



INVENTORY & ANALYSIS Micro-scale

CONTEXT DATA | Current Land Uses



Impervious Surfaces



INVENTORY & ANALYSIS Micro-scale

CONTEXT DATA | Current Land Uses

Concept Zoning

- Retail
- Office - Retail
- Office
- Residential
- Civic
- Park

Building Uses

Residential:

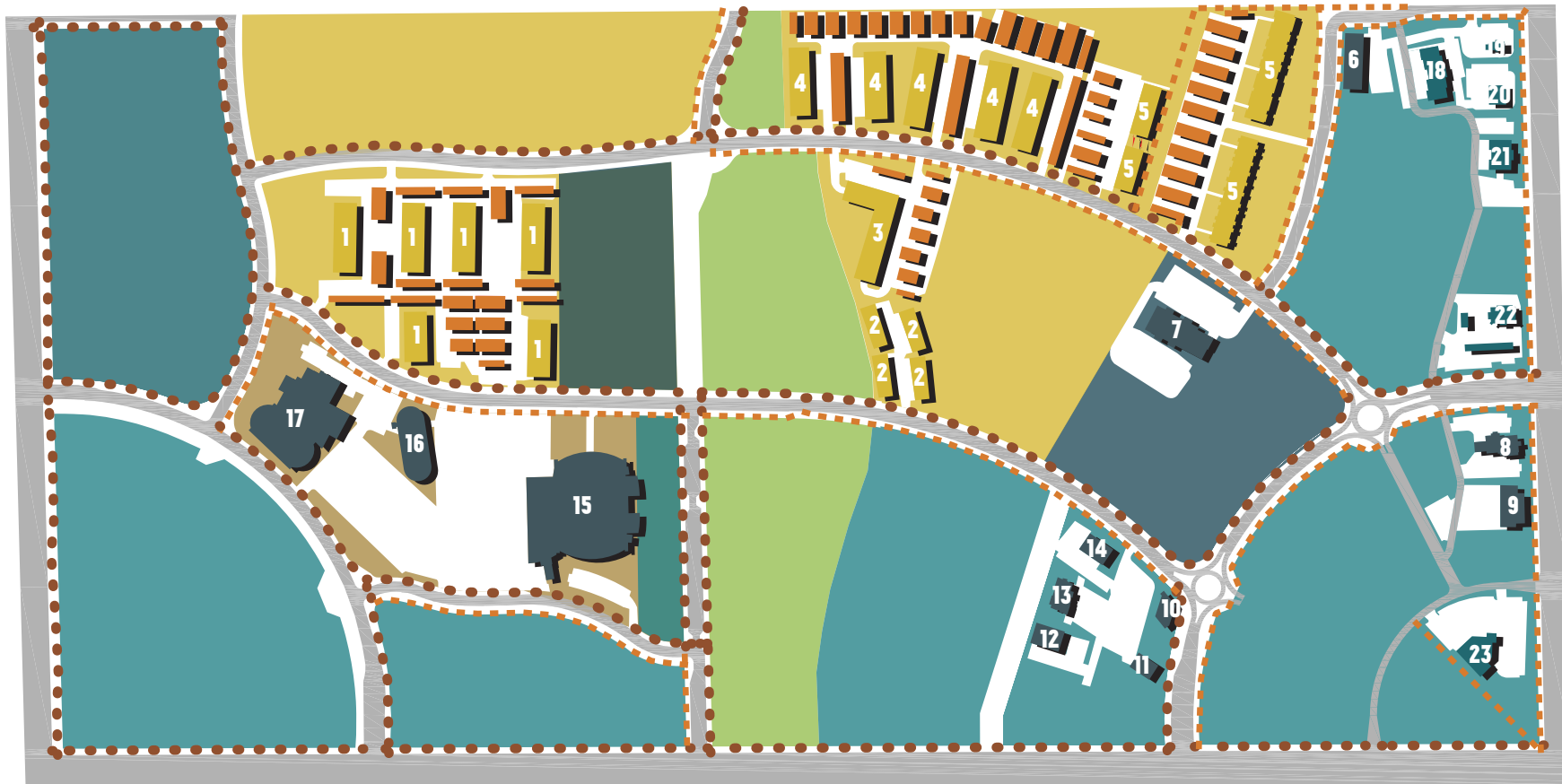
- 1: Urban Plains Apartment Complex
- 2: Under Construction
- 3: The Retreat
- 4: Urban View Apartments
- 5: The Fountains
- Parking Garages

Office/Civic:

- 6: Unknown Office
- 7: ND Center for Distance Education
- 8: Starion Financial
- 9: Pediatric Therapy Partners
- 10: Baby Bloomers
- 11: Horace Man Insurance
- 12: Multiple businesses
- 13: Multiple businesses
- 14: Multiple businesses
- 15: Scheels Arena
- 16: Sanford Training Center
- 17: Family Wellness


Retail:

- 18: Strip Mall
- 19: Taco John's
- 20: People's Organic
- 21: Five Guys
- 22: Holiday Gas Station
- 23: Mexican Village

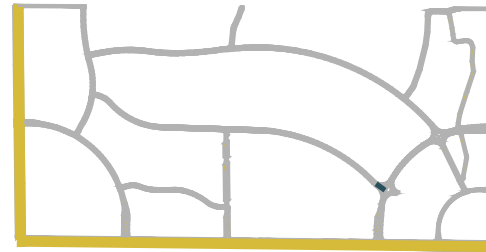





INVENTORY & ANALYSIS Micro-scale

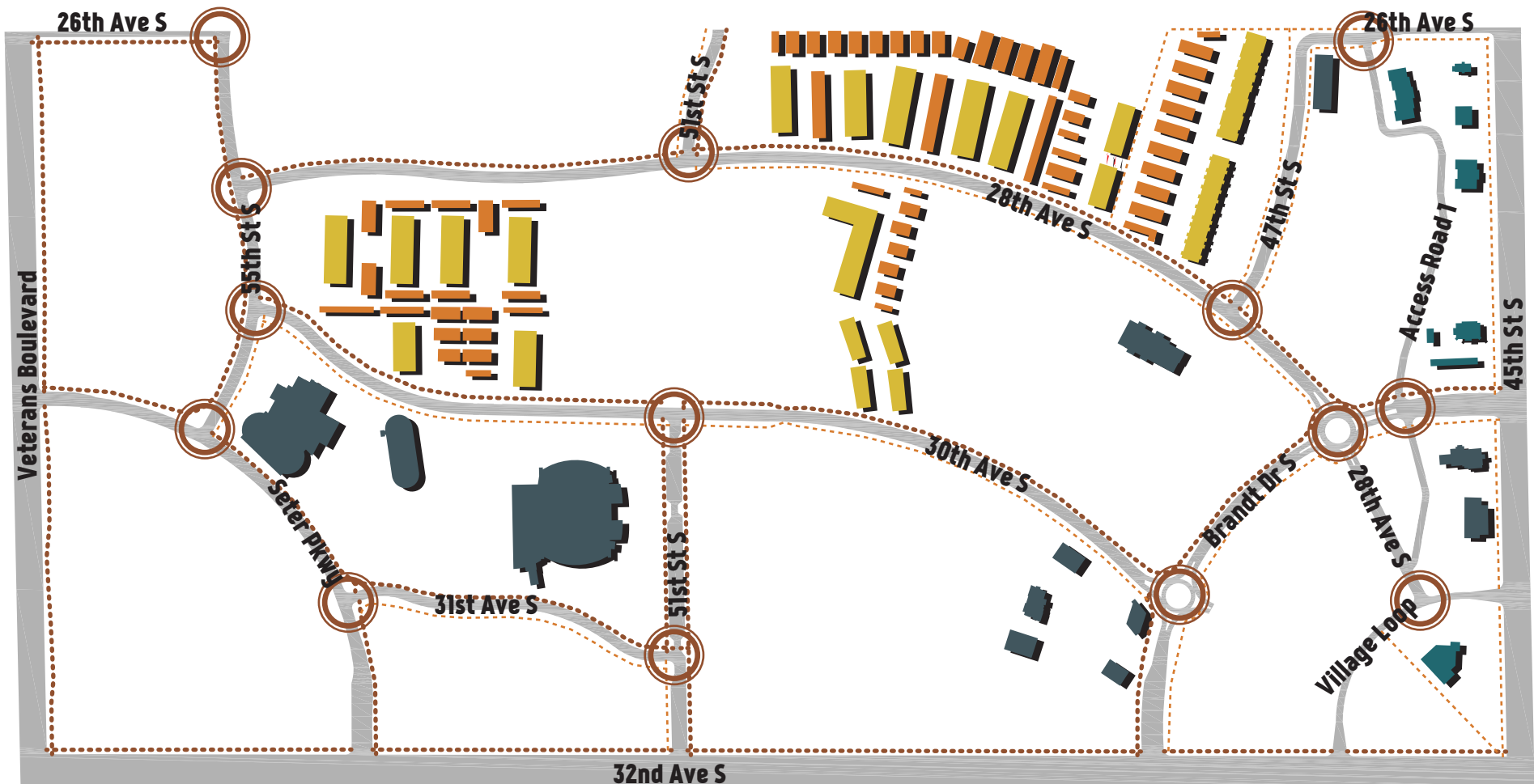
CONTEXT DATA | Streets

 **14 Total Intersections**
(1 intersection/ 23 acres)
Average Crosswalk distance
40'

Speed Limits

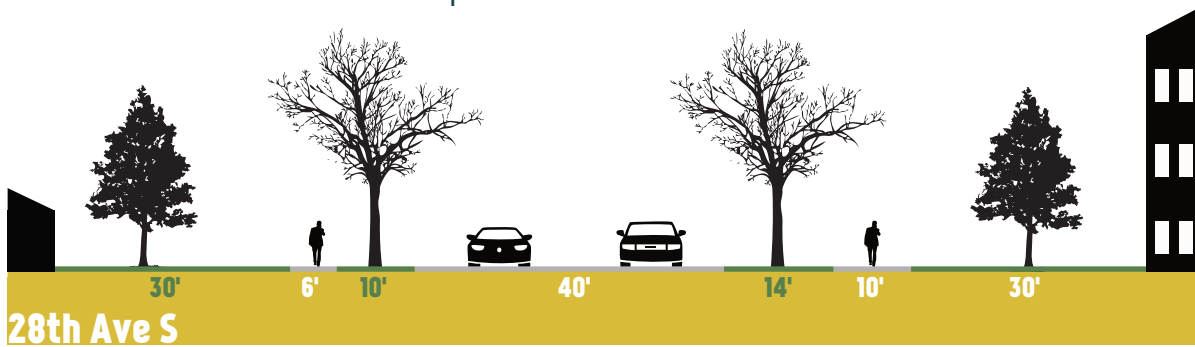


 40 MPH
 35 MPH
 25 MPH

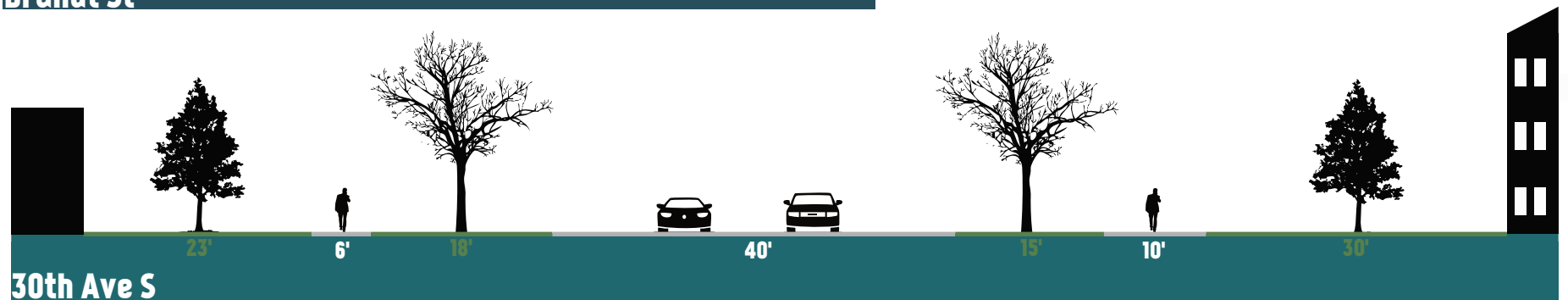
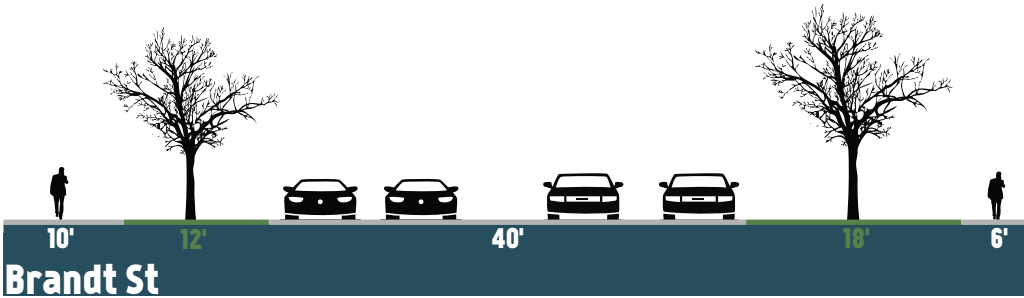
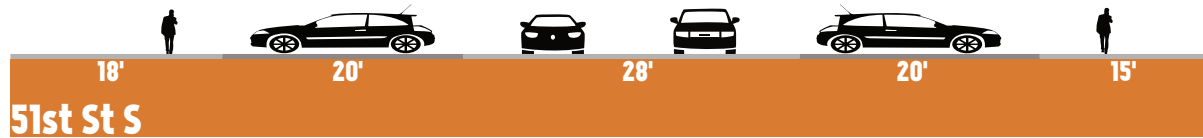
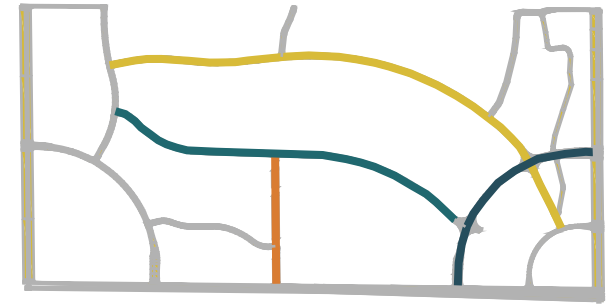


INVENTORY & ANALYSIS Micro-scale

CONTEXT DATA | Streets



Ratio | 1:6.5
(height of building:facade to facade distance)



Ratio | 1:10

DISCUSSION

The goal of the research was to determine what programming elements would need to be implemented in order to retrofit the Urban Plains neighborhood into a walkable mixed-use urban center. Through analyzing literature, case studies, and the current site layout many programming ideas have been generated. The research provides guidelines for land usage, street layouts, street widths, block sizes, open space types, and building layouts. Information gained from the case study analyses has shown that successful urban centers typically have the densities near 21 people/acre, and have the densest areas towards the center of the neighborhood. A large open space is also near the densest area and provides the focal community gathering space for the neighborhood.

The research will be applied to Urban Plains at the urban planning scale for the entire 320 acres. The project emphasis of this thesis will be on open space programming throughout the neighborhood, with a specific focus on a central neighborhood park.



4

THE PLAN

Vision

Neighborhood Design

Park Design



VISION

THESIS VISION

To create a walkable mixed-use neighborhood that allows people to live, work, and play. The development will integrate retail, commercial, residential, civic, and open spaces together to create a walkable community with a unique sense of identity within the region.

THESIS QUESTION

What programming elements must be achieved in order to create a successful walkable mixed-use urban center in south Fargo?

NEIGHBORHOOD DESIGN

GOALS | Follow the five c's of neighborhood planning (placemakers)

1 COMPLETE

Mix of uses to provide our daily need to live, work, play, worship, dine, shop, and talk to each other.

2 COMPACT

5-minute walk from center to edge.

3 CONNECTED

Walkable, drivable, and bike-able with or without transit access.

4 COMPLEX

Variety of street, building, and open space types.

5 CONVIVIAL

Provide gathering places where people can connect.

NEIGHBORHOOD DESIGN

MASTER PLAN

The final neighborhood design focuses on connecting Urban Plains to open spaces to the north and south. 51st St S acts as a main street and will be home to the neighborhood's tallest buildings. The arterial roads of Veteran's Blvd, 45th St, and 32nd Avenue will undergo traffic calming enhancements in order to create walkable connections to surrounding neighborhoods.



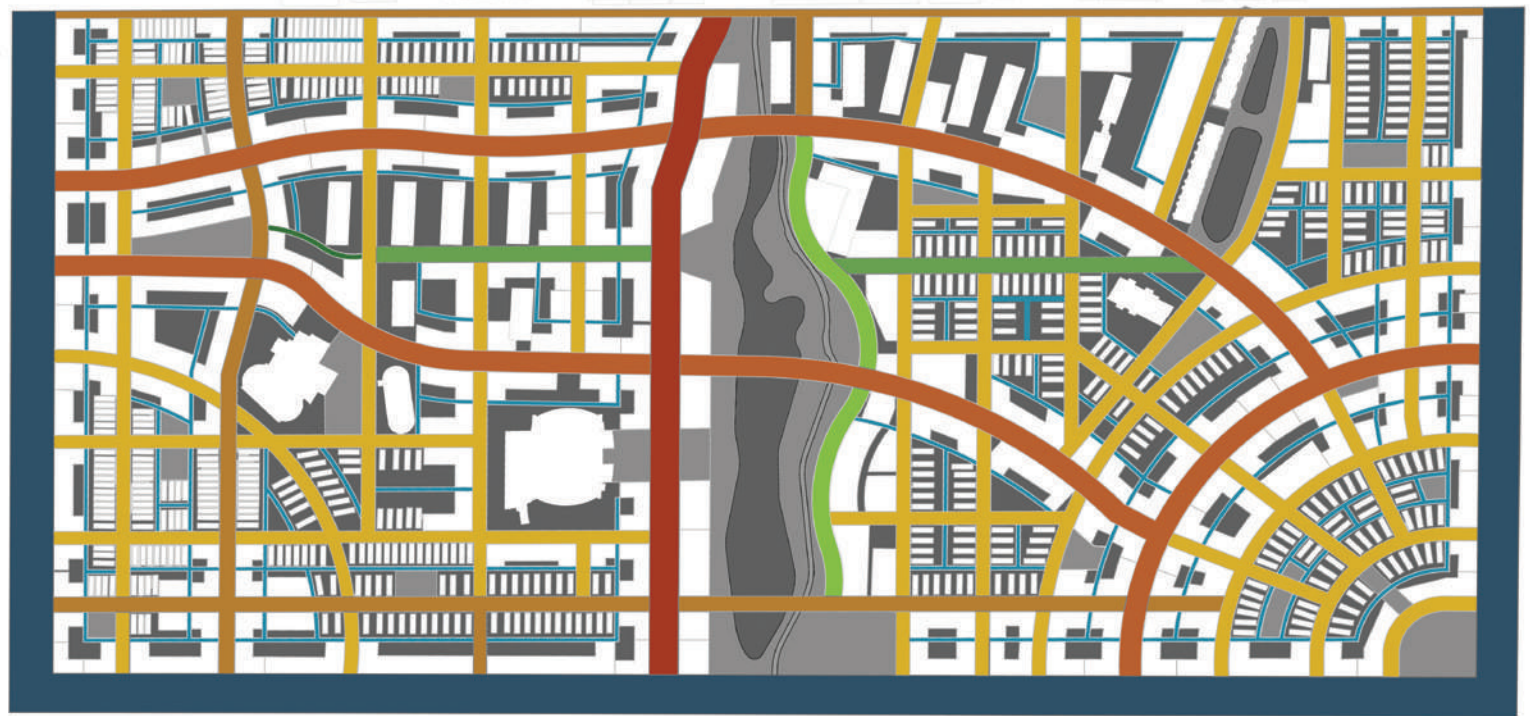
NEIGHBORHOOD DESIGN

STREETS

“When streets become pleasant places, more people are likely to leave their cars at home”

- Smart Growth Manual

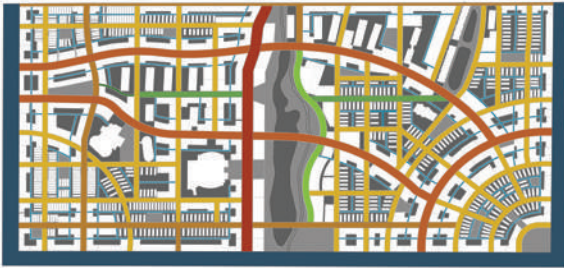
A hierarchy of street types were created in order to provide appropriate streetscapes for the building types along the street corridor. The main retail activated streets connect the whole neighborhood together, with the Community Connector linking the north and south, and the neighborhood boulevards connecting the east and west.



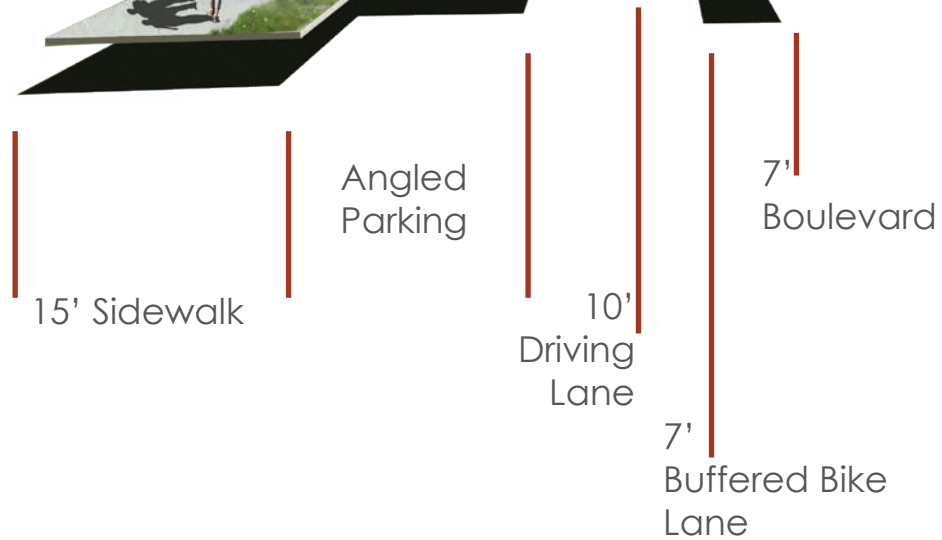
- Community Connector
- Neighborhood Boulevard
- Neighborhood Connector
- Residential Street
- Park Street
- Green Street
- Green Alley
- Alley
- Traffic Calmed Arterial

NEIGHBORHOOD DESIGN

STREETS



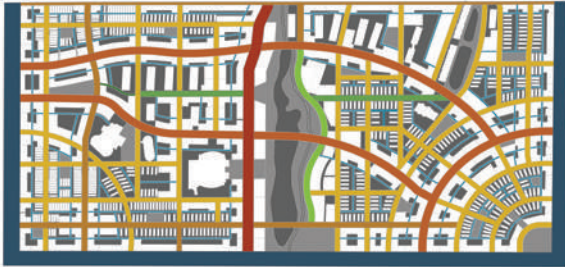
Community Connector



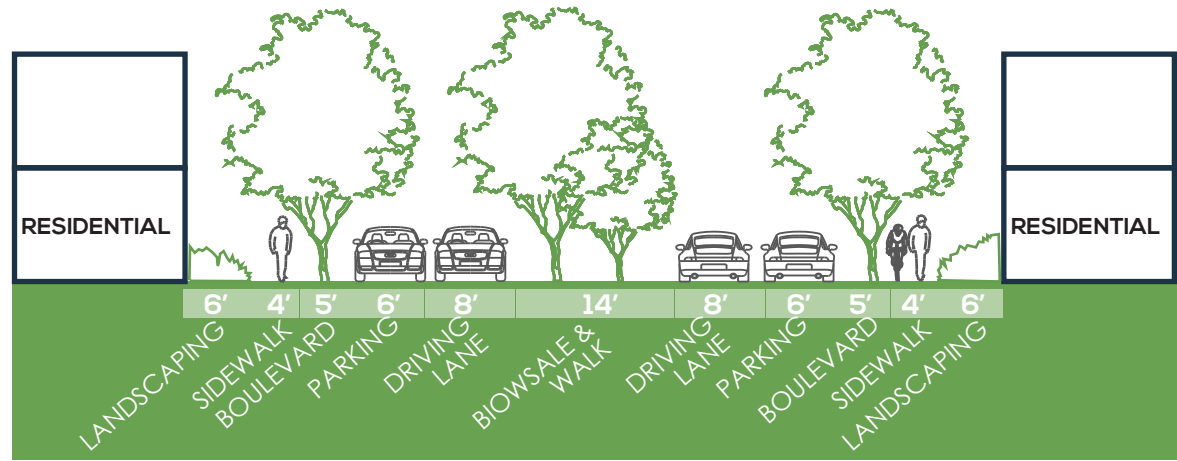
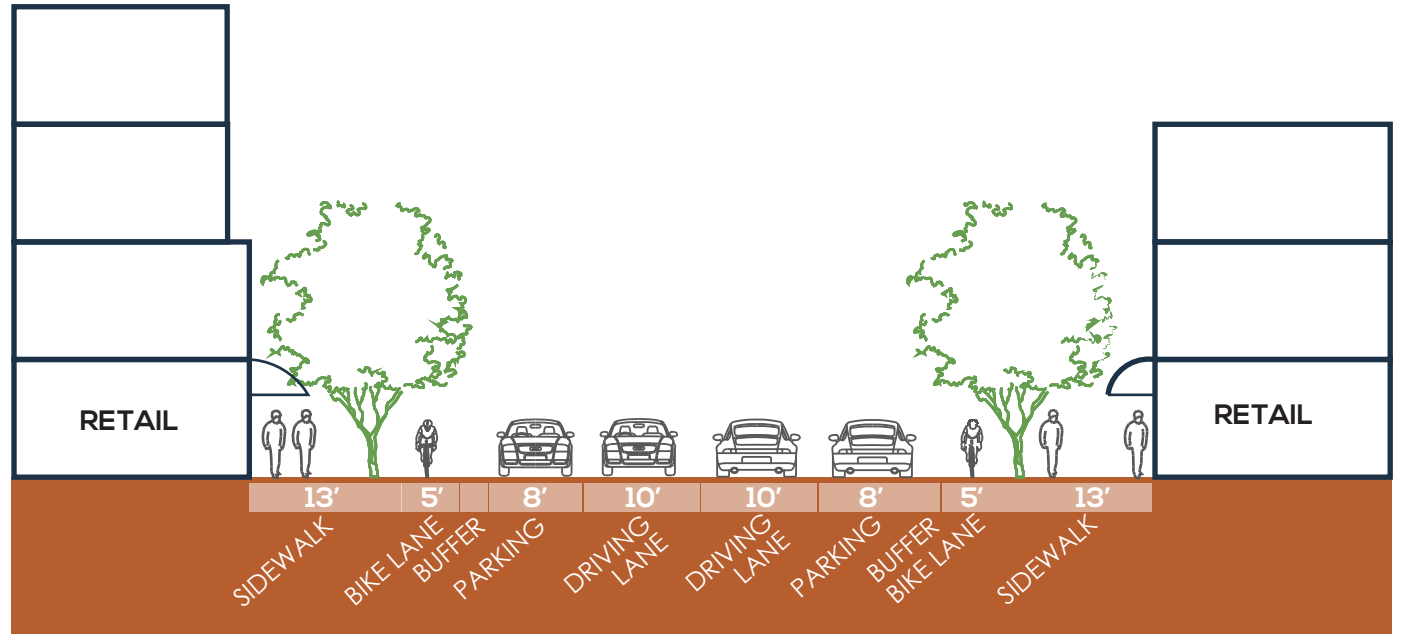
Community Connector // **51st Street S**

NEIGHBORHOOD DESIGN

STREETS



- Neighborhood Boulevard
- Green Street



NEIGHBORHOOD DESIGN

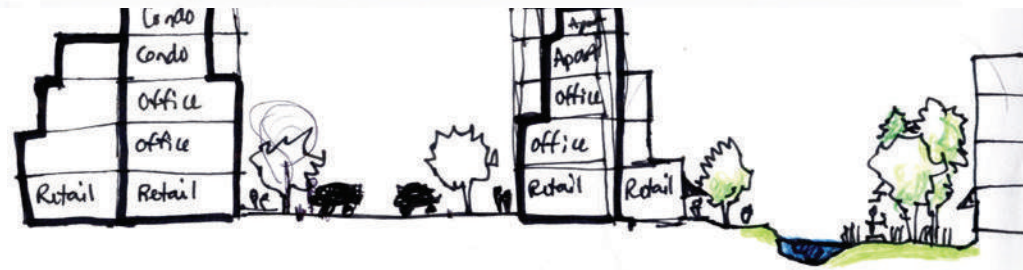
BUILDINGS

“Perhaps the most anti-pedestrian feature of contemporary retail practice is the front parking lot. For retail to attract pedestrians, the shops must open directly onto the sidewalk, with parking lots located to the rear or elsewhere.”

- Smart Growth Manual

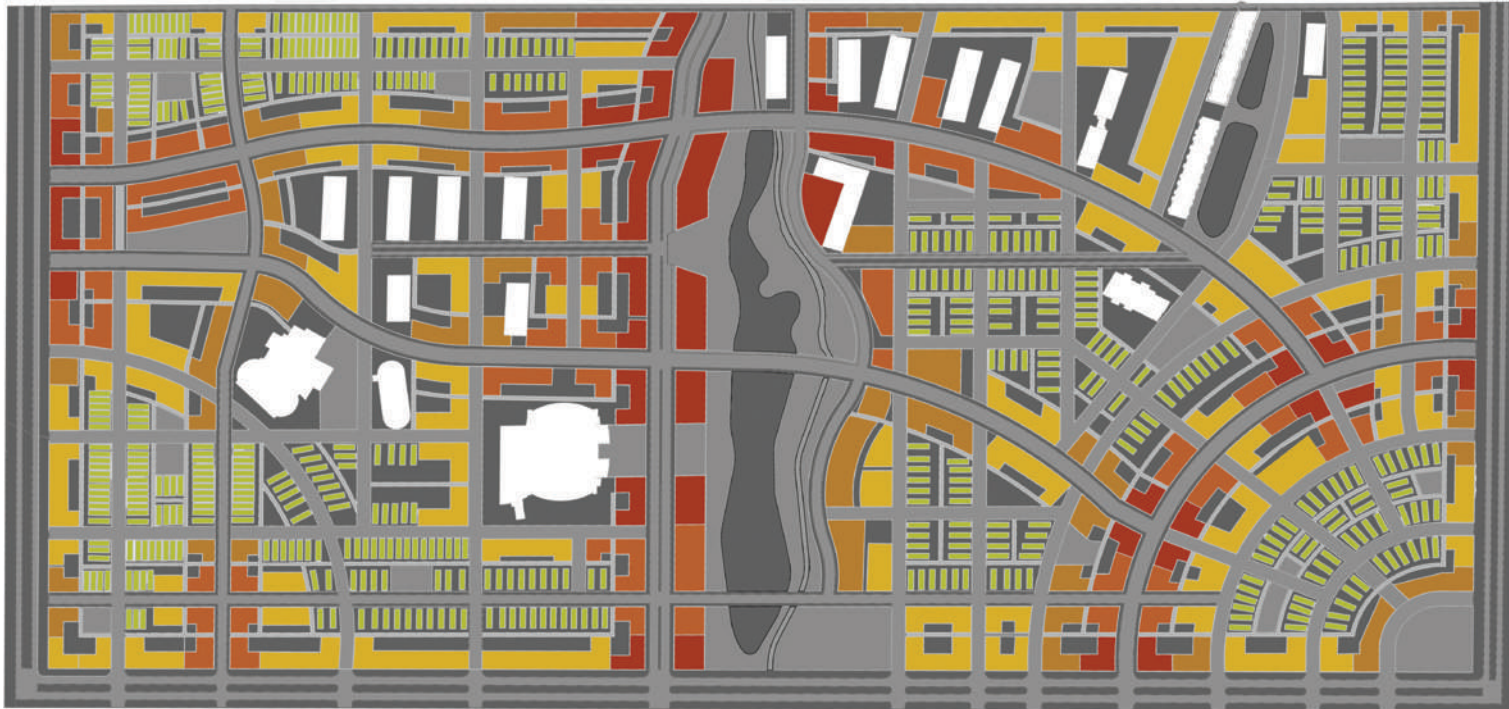


The core of the neighborhood was located in the center, to allow everyone easy access to the various attractions. Key entrances to the neighborhood were specifically located to allow for a comfortable entrance to the site. These entrances have taller buildings on the corners to signal an entry point.






NEIGHBORHOOD DESIGN

BUILDINGS



-  Mixed Use Commercial
4 - 6 stories
-  Mixed Use Residential
3 - 5 stories
-  Live Work Units
3 - 4 stories

-  Apartments / Row homes
2 - 4 stories
-  Yard House
Avg. lot size = 35' x 90'
-  Existing Building

NEIGHBORHOOD DESIGN

BUILDINGS

The architecture of the neighborhood will follow the existing modern style that was originally laid out in the 2006 Urban Plains plan. A mix of housing options is included to allow residents with a wide variety of options.



■ Apartments / Row homes
2 - 4 stories



■ Live Work Units
3 - 4 stories



■ Apartments / Row homes
2 - 4 stories



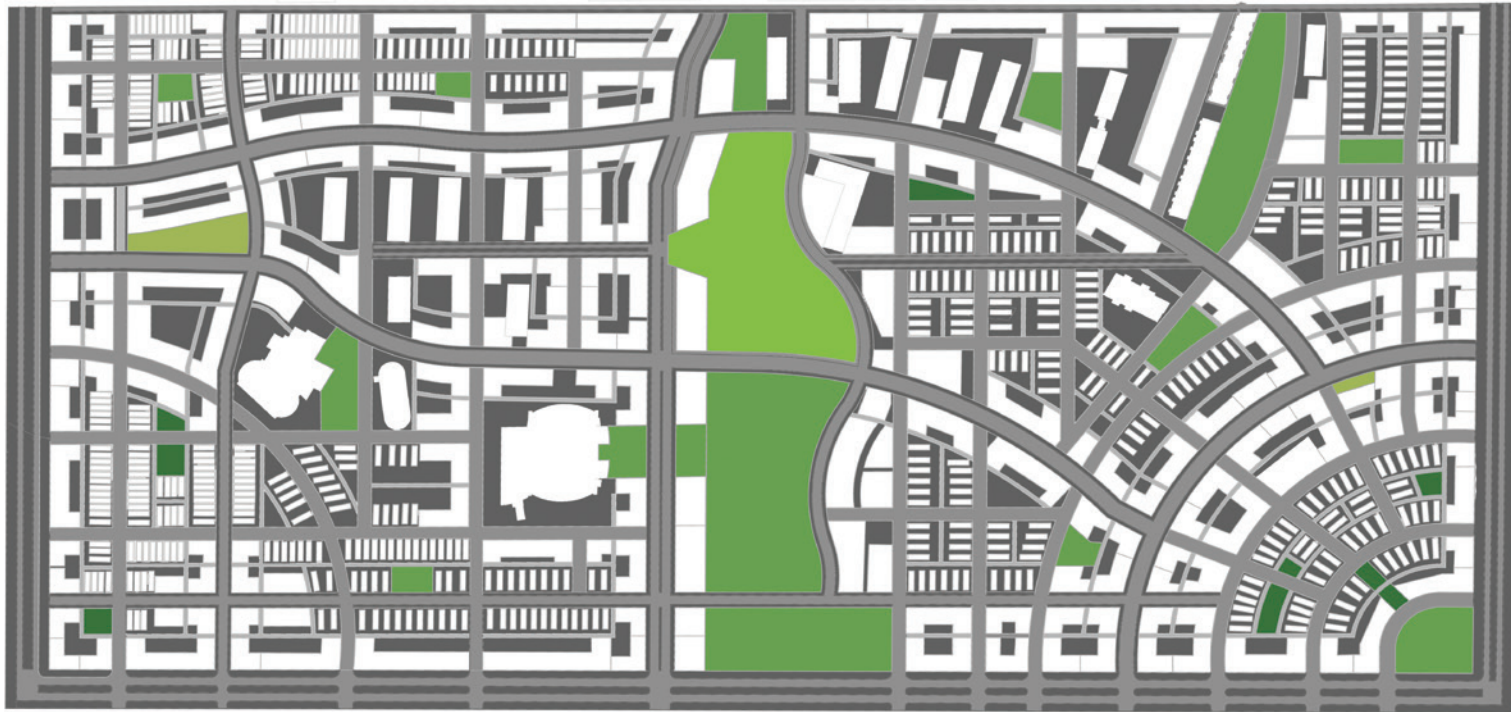
■ Yard House
Avg. lot size = 35' x 90' Urban Plains | 76

NEIGHBORHOOD DESIGN


OPEN SPACE

“Smart growth communities make the most of their context by preserving and celebrating their natural amenities.”

- Smart Growth Manual



 **Central Neighborhood Park**
5 -10 Acres
Large areas for social gatherings
Service Area Radius = 1/2 mile (10 min walk)

 **Neighborhood Park**
1/4 - 10 acres
Active and Passive Recreation
Service area = 1/4 mile (5 min walk)

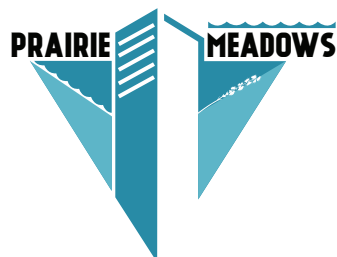
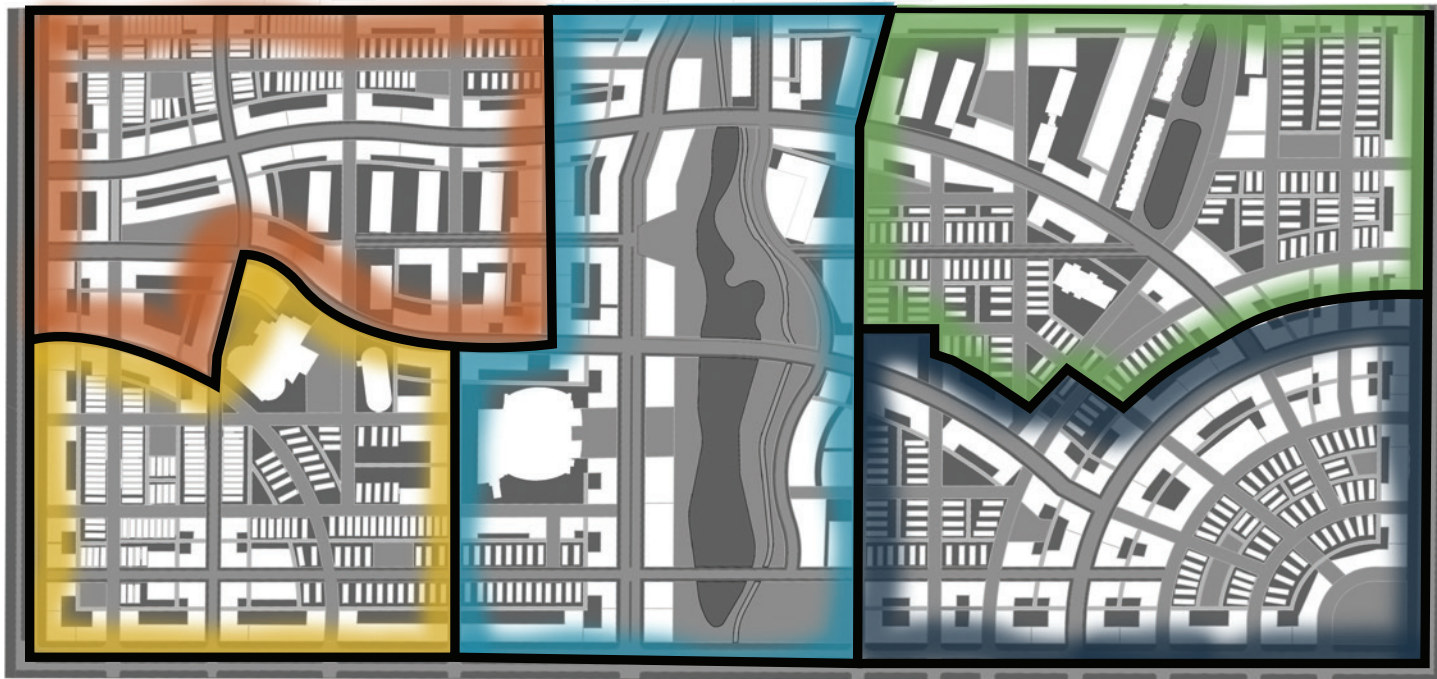
 **Pocket Park**
1/4 - 2 acres
Simple and flexible open space
Service area = 600 feet

 **Plaza**
Adjacent to mixed-use building
Over 50% hardscape

NEIGHBORHOOD DESIGN

DISTRICTS

The 320 acre site is divided into five districts, each with its own unique character. Each district represents a piece of the Red River Valley's historical attributes. The character of these districts will be represented through the use of building materials, open spaces, and streetscapes.



PARK DESIGN

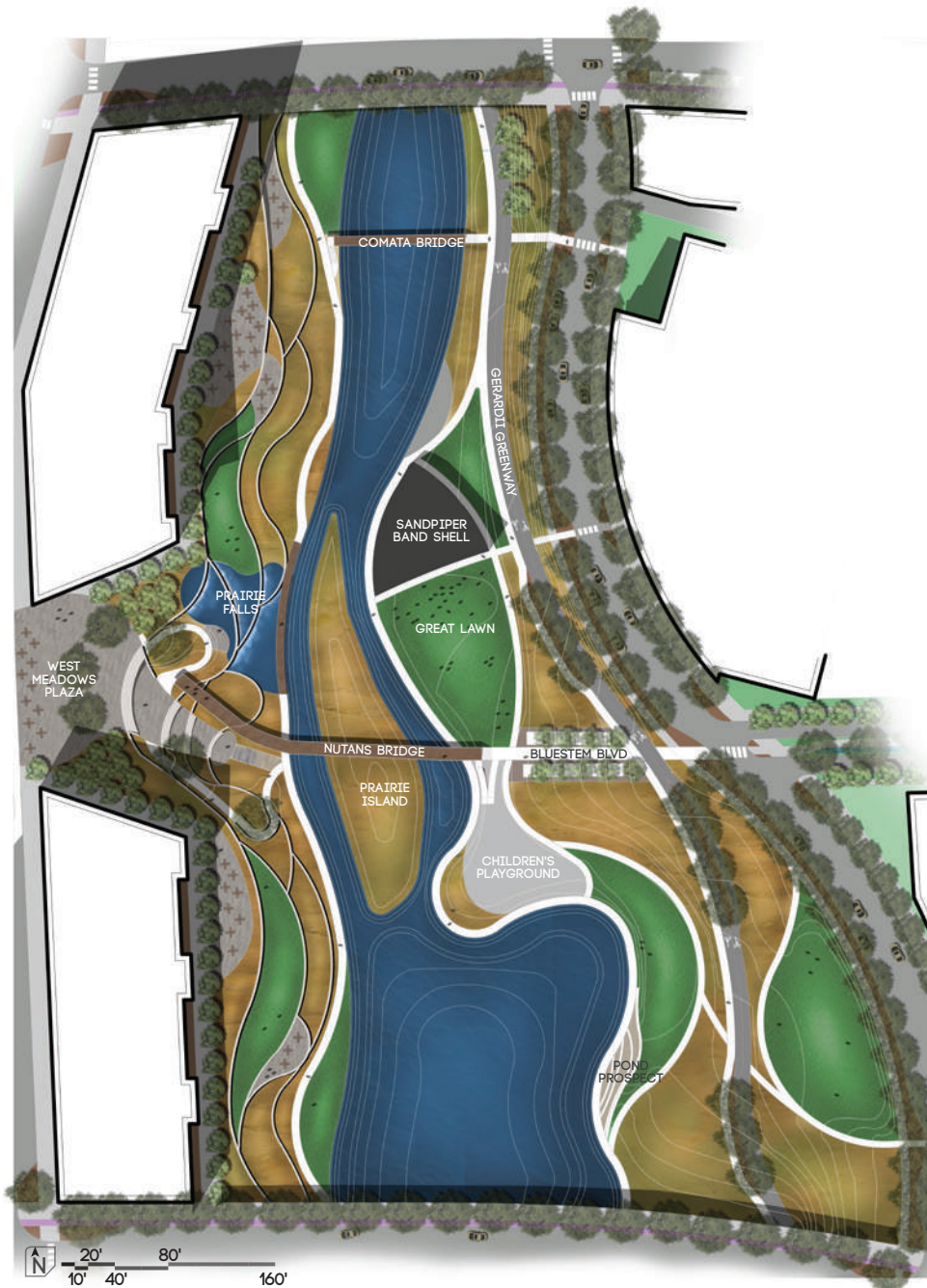
OPEN SPACE | Prairie Meadows Park Master Plan



DESIGNED FROM FARGO
DESIGNED FOR FARGO

“Smart growth communities make the most of their context by preserving and celebrating their natural amenities.”

- Smart Growth Manual



WATER DESTINATION

The existing storm water retention pond was larger than what was needed so the retrofitted pond is designed in a way to meet the new water capacity needs. The site was designed to allow users to view the water at different levels. There is an elevation change of twelve feet from street level to the water edge. The water is meant to provide recreation for all seasons including kayaking, paddle boarding, and ice skating.

PRAIRIE VISTAS

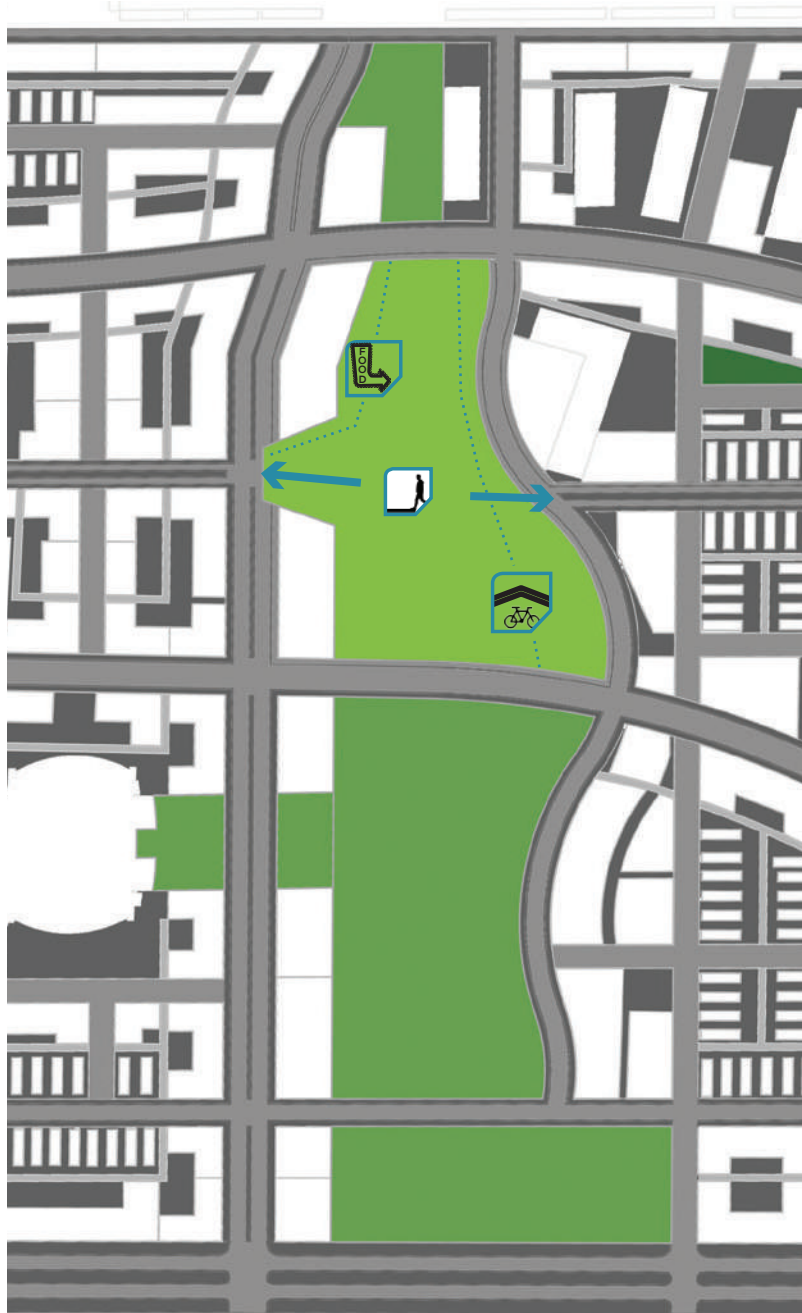
Prairie Meadows Park was designed with Fargo's natural landscape in mind. The park is a native oasis placed in an urban environment that creates a unique juxtaposition. The plantings in the park are inspired by the large open prairies of the Red River Valley. The native prairie grasses rule the park, with trees along the outer edges of the site to allow for some shady places for seating and other activities, while not taking away from the views of the open prairie.

WIDE VARIETY OF ACTIVITIES

Prairie Meadows Park is designed to provide outdoor activities for different types of users and interests. There are many trails that go through the site, along with water recreation, large lawn areas for sunbathing or pickup games, a flex space that vendor tents can use during community events, a children's playground, and plazas for festivals to take place, such as a food truck fair in West Meadows Plaza.

PARK DESIGN

OPEN SPACE | Praire Meadows Park Function



OUTDOOR DINING AND ACTIVE SIDEWALKS

Praire Meadows Park was designed with Fargo's natural landscape in mind. The park is a native oasis placed in an urban environment that creates a unique juxtaposition. The plantings in the park were inspired by the large open prairies of the Red River Valley. The native prairie grasses rule the park, with tree canopies along the outer edges of the site to allow for some shady places for seating and other activities.



GREENWAY TRAIL CONNECTION

A greenway trail connects existing trails from south of 32nd Avenue north up to the Sanford Medical Center and potentially further north by going underneath I-94. The greenway is named the Gerardii Greenway after the latin name for Big Bluestem native grass, since the main experience along the greenway is traveling through the open prairie. The trail features bike lanes, a pedestrian lane, and tree canopy coverage in certain areas.



PEDESTRIAN CONNECTIONS

Pedestrians can easily go through the park by way of two pedestrian bridges that connect Park Street and 51st Street.

PARK DESIGN

FORM INSPIRATION

The forms throughout the park design were inspired by the three major rivers that run through the Fargo-Moorhead region. These meandering rivers contain many curves and are very characteristic of the Red River Valley.



Wild Rice River



Sheyenne River



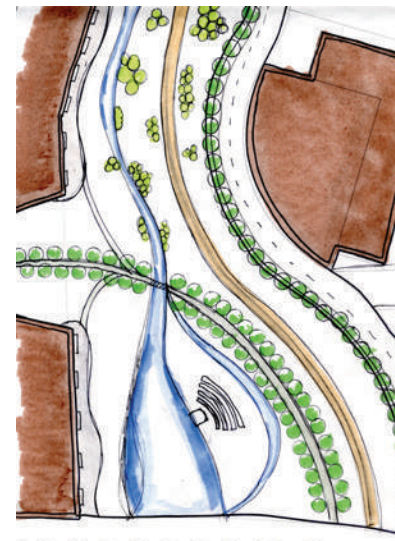
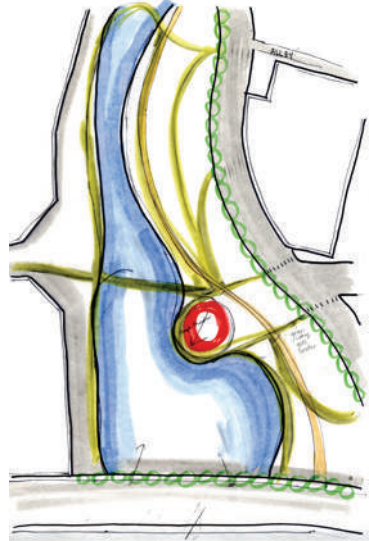
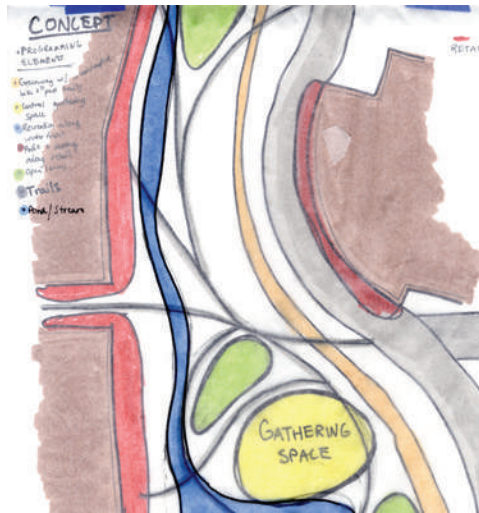
Red River



PARK DESIGN

DESIGN DEVELOPMENT

Many sketches were drawn in order to design the appropriate forms that would truly capture the meandering essence of the rivers. Sketching also helped with locating the best places for connections and where to place programming features.



PARK DESIGN

GERARDII GREENWAY SECTION



The greenway allows its users views out over the prairie, while still offering areas of canopy cover. It was designed to allow for users to quickly and easily travel on it, while still being integrated into other programming elements, such as Bluestem Boulevard and other recreational trails. The name of the greenway was derived from the latin name for bluestem, which is "Gerardii."



A

7' Walking Trail

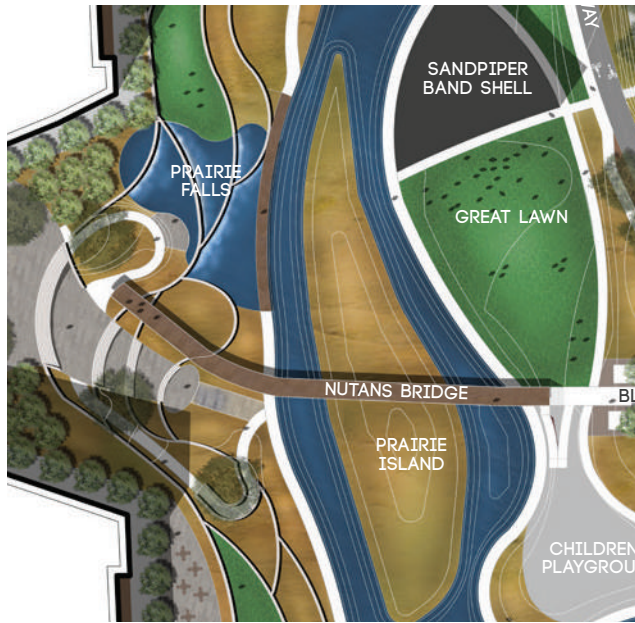
6' Planted
Bed

6' south bound
bike lane

6' north bound
bike lane

PARK DESIGN

FIRE FESTIVAL

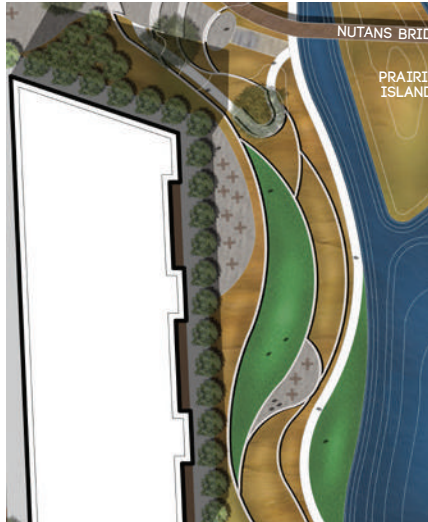


Fire festivals take place on Prairie Island and provide a unique event for the community along with providing ecological benefits for the plants and soil.

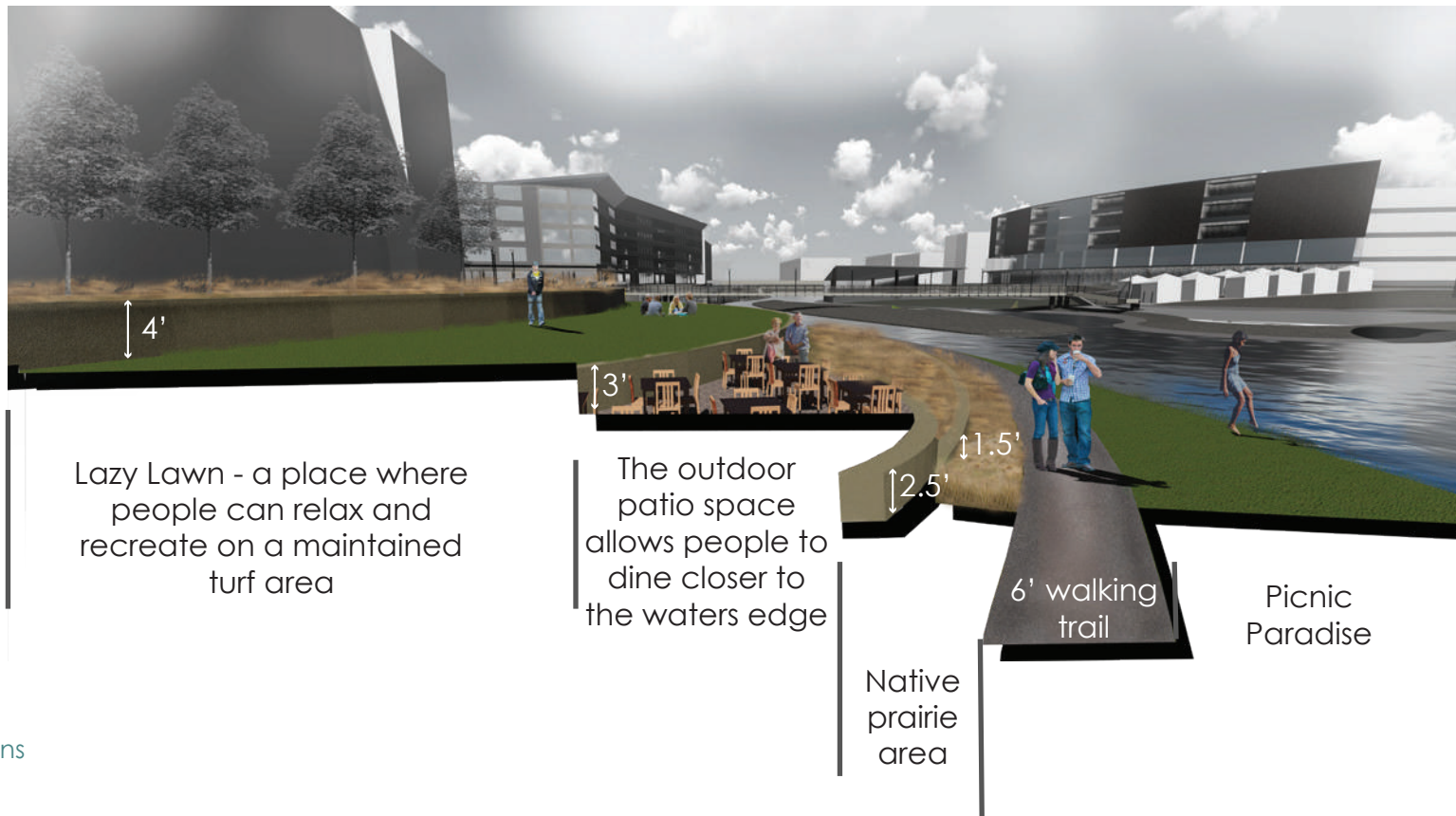


PARK DESIGN

RIVER TERRACES



The river terraces take the forms of the rivers running throughout the region. The terraces allow for people to view the water and the rest of the park at different levels and provide a variety of uses on each terrace.



Lazy Lawn - a place where people can relax and recreate on a maintained turf area

The outdoor patio space allows people to dine closer to the waters edge

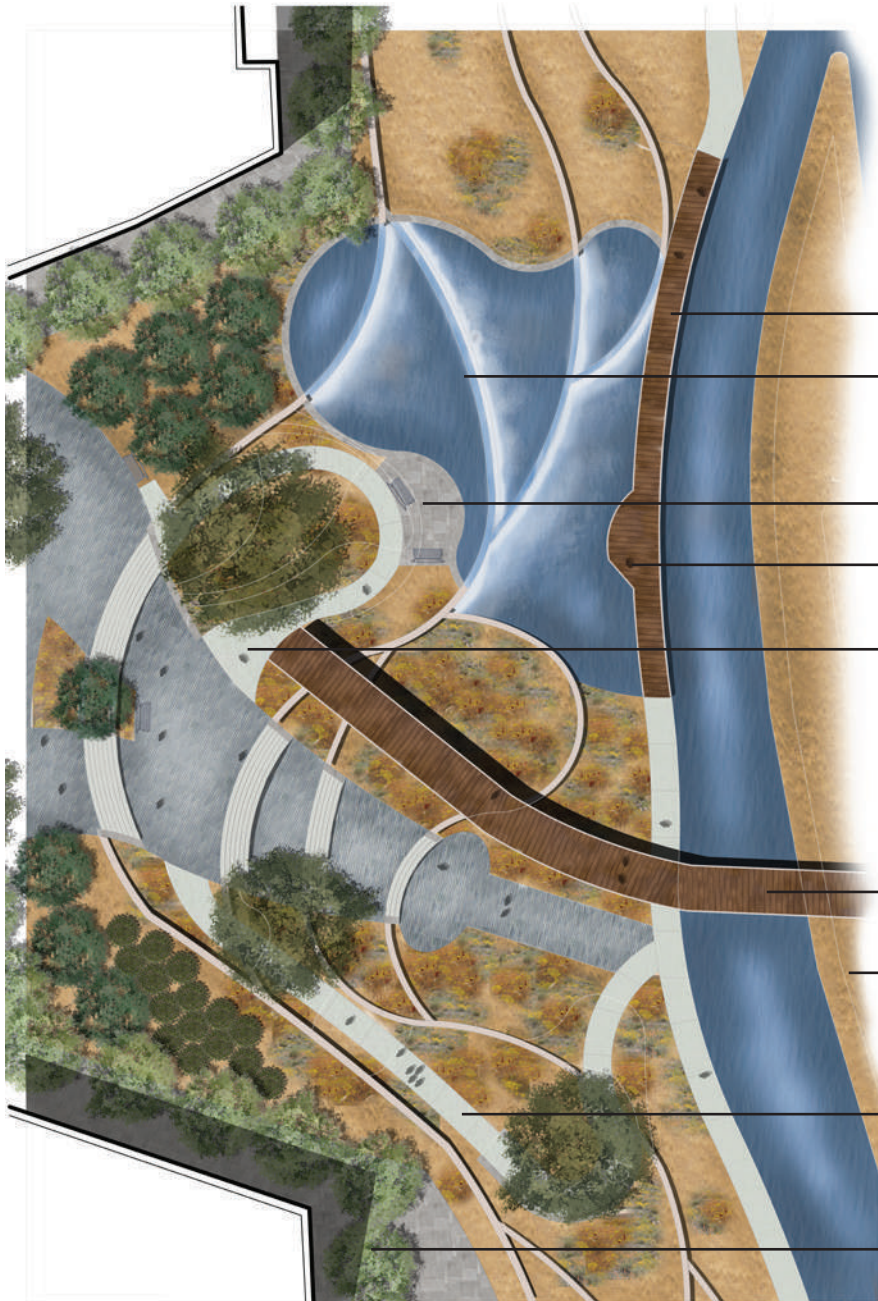
6' walking trail

Picnic Paradise

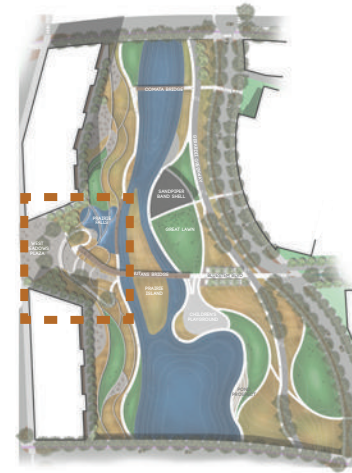
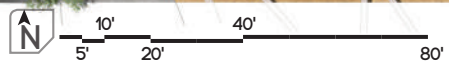
Native prairie area

PARK DESIGN

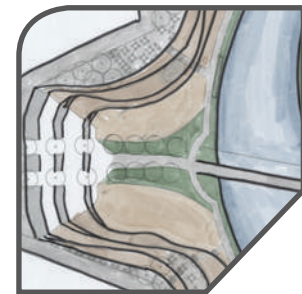
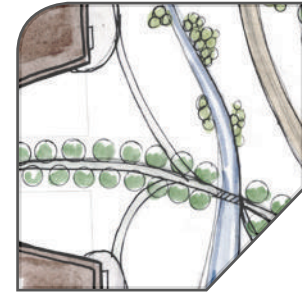
WEST MEADOWS PLAZA | Master Plan



- BOARDWALK
- PRAIRIE FALLS WATER FEATURE
- PRAIRIE FALLS OVERLOOK
- BOARDWALK VIEWING DECK
- ADA COMPLIANT RAMP
- NUTANS BRIDGE
- PRAIRIE ISLAND
- ADA COMPLIANT RAMP
- OUTDOOR DINING AND RETAIL



Design Development



PARK DESIGN

WEST MEADOWS PLAZA | Planting Concept



The planting concept focuses on bringing the tall-grass prairie back into an urban area of Fargo. Native grasses cover most of the park, with flowering plants woven into the grasses near the stairs and plaza.

T1 TERRACE 1



Big Bluestem
Rattlesnake Master
Sneezeweed
Cardinal Flower



T2 TERRACE 2



Western wheatgrass
Purple Coneflower
Swamp Milkweed
Culvers Root



T3 TERRACE 3



Sideoats
Grama
New England Aster
Paprika Yarrow
Autumn Bride Coral
Bells



T4 TERRACE 4



Little Bluestem
Golden Alexander
Birds- Foot Violet
The Pearl Yarrow



PARK DESIGN

WEST MEADOWS PLAZA | Prairie Falls

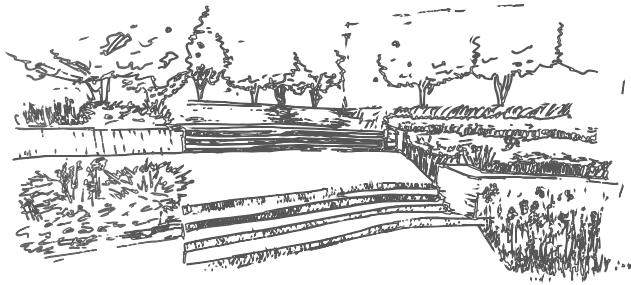


The waterfall flows over the terraces, allowing the water to fall from different heights throughout the water feature. It is important that water falls, in order to aerate the water to keep it as clean as possible. Prairie Falls also adds aesthetic value to the site along with the relaxing sound of falling water.



PARK DESIGN

WEST MEADOWS PLAZA



West Meadows plaza offers a grand entrance into the park and is also large enough to hold small events and elegantly ties into the pedestrian bridge. The pedestrian bridge is eight feet above the river walk, allowing for comfortable travel underneath.



PARK DESIGN

WEST MEADOWS PLAZA | Design Details



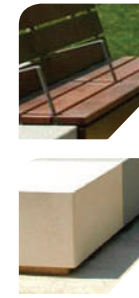
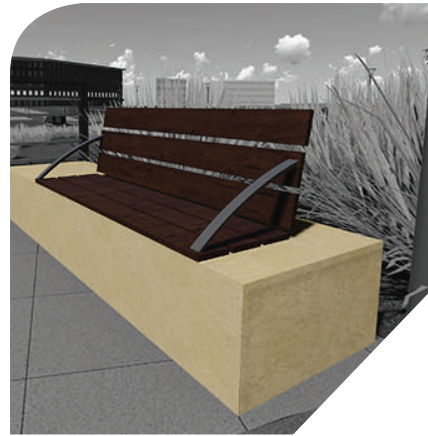
STAINED CONCRETE RETAINING WALLS

The walls have a simplistic character much like the simplistic quality of the Red River Valley landscape.



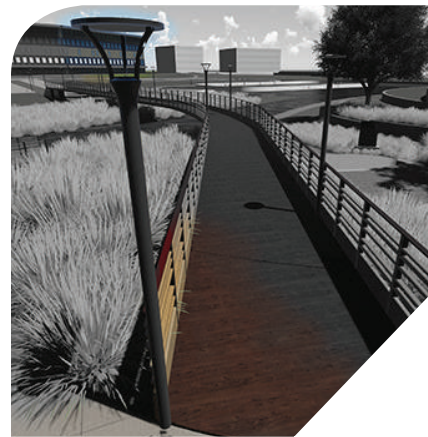
MODERN PAVING MATERIAL

The modern paving pattern will have a dark gray/slate color to create an interesting combination when placed next to the earth tones of the native grasses.



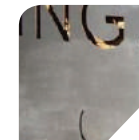
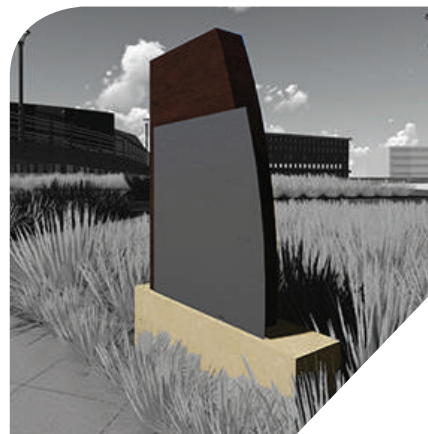
BENCH DESIGN

The bench design centered around the horizontal elegance of the prairie. A solid piece of stone is used for the base of the bench to represent a horizontal plane rising from the ground. A backrest bench made of wood is placed atop the stone to match the materials of the boardwalks and to allow a comfortable seating option for people to enjoy.



LIGHT DESIGN

The light design follows the modern aesthetic that is carried over from the Prairie Meadows District into the park. The light pole will be made out of steel and will contain LED lights. Light poles will only be used in high traffic areas such as plazas, as to not have too many vertical elements that take away from the horizontal prairie character of the park. Instead lighting will be incorporated into lower level lighting such as in bollards or along handrails.



SIGNAGE DESIGN

Signage will use the same materials found in the lighting and benches; steel, stone, and wood. Maps and text will be etched into the steel panel on the front side of the signage piece.

IN CONCLUSION

By creating a neighborhood that has appropriately planned building, street, and open space systems, south Fargo can have an urban center that is able to better serve the community. By following the 5 C's of neighborhood planning (complete, compact, connected, complex, and convivial) Urban Plains can become a great regionally known neighborhood.





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