

Urban Resurrection: An Alternative to Sprawl



Dustin Leidholm

Urban Resurrection: AN ALTERNATIVE TO SPRAWL

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

By

Dustin Leidholm

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


Primary Thesis Advisor


Thesis Committee Chair

TODAY'S DATE
Fargo, North Dakota

NON-EXCLUSIVE DISTRIBUTION LICENSE

By signing and submitting this license, I, Dustin Leidholm, grant to North Dakota State University (NDSU) the non-exclusive rights to reproduce, translate (as defined below), and/or distribute your submission (including the abstract) worldwide in print and electronic format and in any medium, including but not limited to audio or video.

I agree that NDSU may, without changing the content, translate the submission to any medium or format for the purpose of preservation.

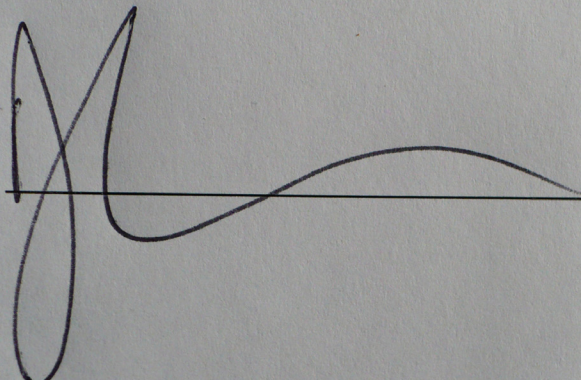
I also agree that NDSU may keep more than one copy of this submission for purposes of security, back-up and preservation

I represent that the submission is my original work, and that I have the right to grant the rights contained in this license. I also represent that my submission does not, to the best of my knowledge, infringe upon anyone's copyright.

If the submission contains material for which I do not hold copyright, I represent that I have obtained the unrestricted permission of the copyright owner to grant NDSU the rights required by this license, and that such third-party owned material is clearly identified and acknowledged within the text or content of the submission.

IF THE SUBMISSION IS BASED UPON WORK THAT HAS BEEN SPONSORED OR SUPPORTED BY AN AGENCY OR ORGANIZATION OTHER THAN NDSU, I REPRESENT THAT I HAVE FULFILLED ANY RIGHT OF REVIEW OR OTHER OBLIGATIONS REQUIRED BY SUCH CONTRACT OR AGREEMENT.

NDSU will clearly identify my name as the author or owner of the submission, and will not make any alteration, other than as allowed by this license, to my submission.

Name:  Date: 5-11-11

Title	ii
Distribution Rights	iii
Contents	iv
Thesis Abstract	1
Statement of Intent	
Thesis Problem Statement	2
Statement of Intent	3
Proposal	
Narrative	5
User/Client	6
Major Project Elements	7
Site Information	8
Project Emphasis	10
Plan for Proceeding	11
Plan for Documentation	11
Program Document	
Theoretical Premise Research	14
Case Studies	22
Historical Context	38
Site Analysis	42
Goals for the Thesis	52
Programmatic Requirements	53
Previous Studio Experience	54
References	55
Personal Information	56

Communities are becoming increasingly aware that current trends of expansive growth are not sustainable. Infill development, or the development of vacant or under-utilized sites within urban areas, can be an alternative to sprawl. In many areas around the country, new ideas are being formulated by looking at codes and policies that shape the way a city grows. This thesis intends to look into ways that infill projects may become feasible to developers and appealing to those using and living in the area, while strengthening existing neighborhoods.

This project will look into the outcome of rail consolidation in Fargo. Removal of the northern Prosper Subdivision track would create an opportunity for revitalization of surrounding neighborhoods, as well as creating new downtown lots available for development. This will be done in accordance with, in support of, and in addition to the existing Downtown Framework Plan.

The typology of the project is a pedestrian focused mixed-use urban infill project that includes residential, commercial, and integrated light industrial uses.

Statement of Intent:

Thesis Problem Statement:

How can infill development provide a sustainable alternative to current trends of expansive growth?

Project Typology: A pedestrian focused mixed-use urban infill project that includes residential, commercial, and integrated industrial uses. The project will abide by the a downtown framework plan that reflects the re-purposing of railroad rights of way into pedestrian greenspace.

Claim: The process of city building should first consider developing sites within city limits that are under-utilized, rather than blindly accepting the practice of expansion development.

Premises: The continued trend of expansive growth is not sustainable.

There are sites within all cities that are under-developed or completely passed over by urbanization. These sites are left in their present state for a variety of reasons.

Railroads shaped america, but left a wake of unfavorable land uses through the heart of many cities. The adaptation of these rights of way into public greenspace creates opportunities for developments that can improve existing neighborhoods and foster a sustainable city plan.

Theoretical Premise/Unifying Idea: Contraction, or drawing together, as opposed to expansion development creates a stronger urban environment and is necessary to preserve the vitality of the city.

Project Justification: Urban sprawl creates unwalkable mundane cities dependant on cars, scattered with strip malls, and lacking a defined center, while depleting our resources. Urban infill projects can refocus our attention on creating strong pedestrian friendly sustainable cities.

PROPOSAL:

The recent trend of city planners and developers since World War Two is to accept the practice of expansive development, creating urban sprawl. To meet the needs of growing communities in this manner cannot be sustained.

The continuation of sprawl creates mundane automobile focused pseudo-cities with miles of repetitive double garages lining the streets. These manufactured neighborhoods fail to create a sense of community in the sense that the expression behind these developments is one of privacy and isolation. Actual interaction between neighbors is limited to a wave from the car window as you both head out onto the main arterial road on your way to work.

As urban sprawl continues to spread, sites within a cities current infrastructure remain under developed, or completely passed over by urbanization. These sites have been left in their current state for a multitude of reasons. Once a cause is identified and addressed, the site can be sustainably developed to meet the needs of a growing community. Infill developments are crucial to the vitality and strength of the city.

Zoning regulations and the “Not in my back yard” mentality further perpetuate the cycle of expansive growth. Density is viewed as a negative aspect of urban life, but as a response the suburban homeowner often experiences isolation, not privacy in their pursuit of the American dream.

Rail consolidation in Fargo, ND will impact surrounding areas in a positive way. Sites that were once seen as unfavorable or limited in development potential due to proximity to railroad traffic become opportunities for the implementation of sustainable growth patterns around the central core of the city.

A proposed infill development project located on the site currently occupied by Country Hearth Bakery will be the catalyst of a new pattern of growth along a pedestrian corridor in Fargo.

USERS:

The project will be used by those living in the dwellings, working in the factory, or shopping in the commercial areas. Located along a major public thoroughfare, the site provides the opportunity for the project to be used by the general public as well as those residing or doing business.

CLIENT:

The client is a developer that is interested in building sustainable cities. The project will be proposed as an alternative to an expansive development on the outskirts of the city. The people of Fargo are also clients as they have to live, work and play here.

Residence- dwellings of various sizes

Commercial- local farmers market, storefront on street level

Industrial- integration of the existing bakery and related shipping

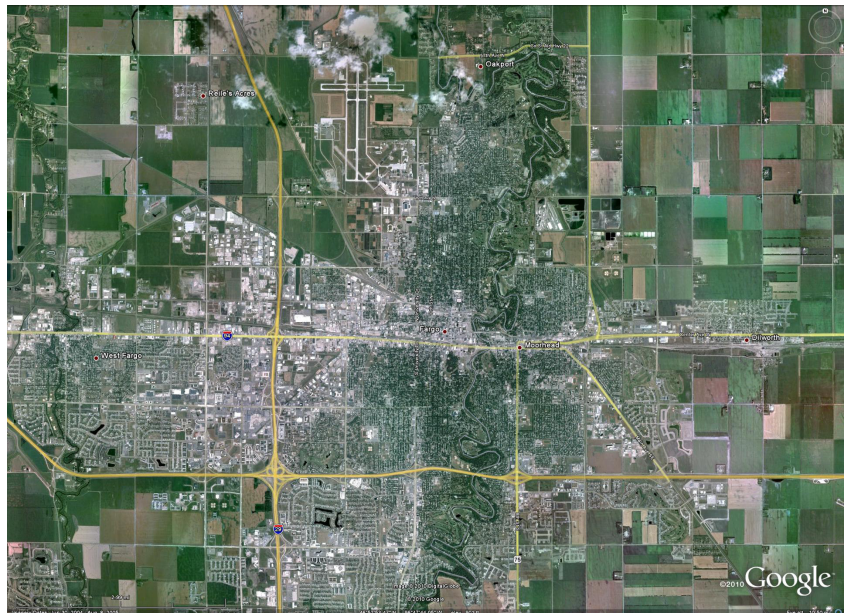
Parking- residences, employees, and patrons

Gardens- public, shared, and private

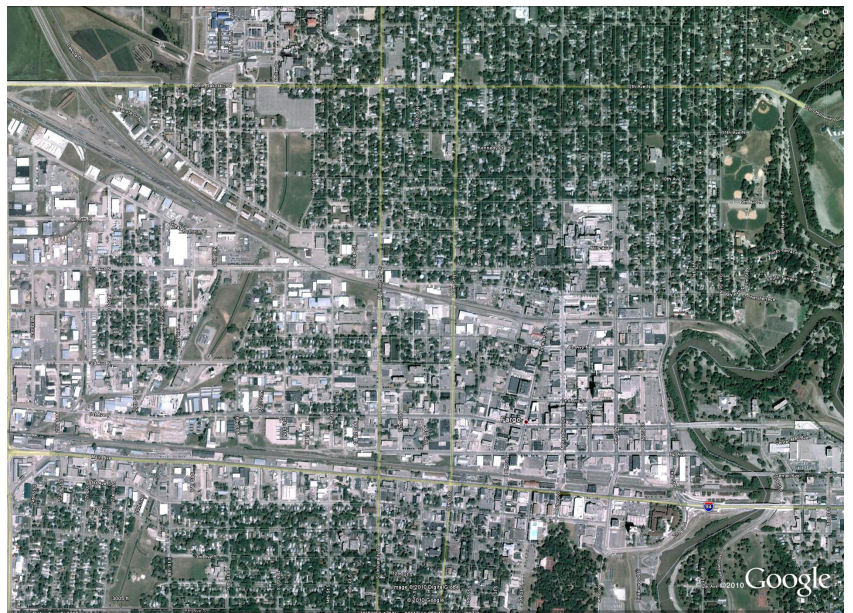
The Red River defines the boundary between Fargo and Moorhead, as well as between North Dakota and Minnesota. Cold winters and short summers are common in the area. Agriculture is the basis of the economy.



Interstates 29 and 94 connect Fargo to the nearest cities of Grand Forks ND to the North, Minneapolis, MN to the Southeast, Sioux Falls, SD to the South, and Bismarck, ND to the west. The community serves as the heart of a metro area with a population of 180,000. The topography of the area is flat.



Downtown Fargo is rich in history, and was originally shaped by the railroad. Downtown development and rehabilitation is a primary focus of city planning. As the northern rail line cuts through Fargo, separating downtown and western neighborhoods from neighborhoods to the north, it leaves a wake of under developed sites that are seen as less than desirable places for development.





The Prosper Sub-Division railway cuts through the north side of Downtown Fargo ND. The wake of industrially used land directly adjacent to this corridor is the focus of this thesis. The corridor stretches from the Moorhead through the entirety of Fargo to Interstate 29. The main focus is that of the lots just outside the main core of the city. If an over-reaching plan to build Fargo in a sustainable manner is to be established it is at this second ring of development just beyond the extents of downtown.

This project will look at infill development as an alternative to urban sprawl. The reasons that sites remain under-developed, or completely passed over by urbanization, will be explored.

This project will examine the integration of existing industrial land use with mixed use urban infill development, including housing. Zoning issues associated with this integration will need to be addressed.

This project will study the benefits and struggles that the adaptation of railroad rights of way into public greenspace may have on Fargo, ND.

This project will look at ways to make infill development attractive to both developers and potential residents and users.

This project will focus on infill development's role in solving common issues related to city planning such as the reduction of traffic congestion, the containment of sprawl, the revitalization of downtown areas, and the availability of affordable housing near places of employment.

This project will look at the changes in demographics and the effect on housing development frameworks.

Research will be conducted with the intent to clarify and better understand the theoretical premise/unifying idea. Areas of research will include project typologies, case studies, site analysis, historical context and programmatic requirements.

Quantitative and qualitative will be compiled concurrently. This data will be interpreted and analyzed throughout the research and design processes.

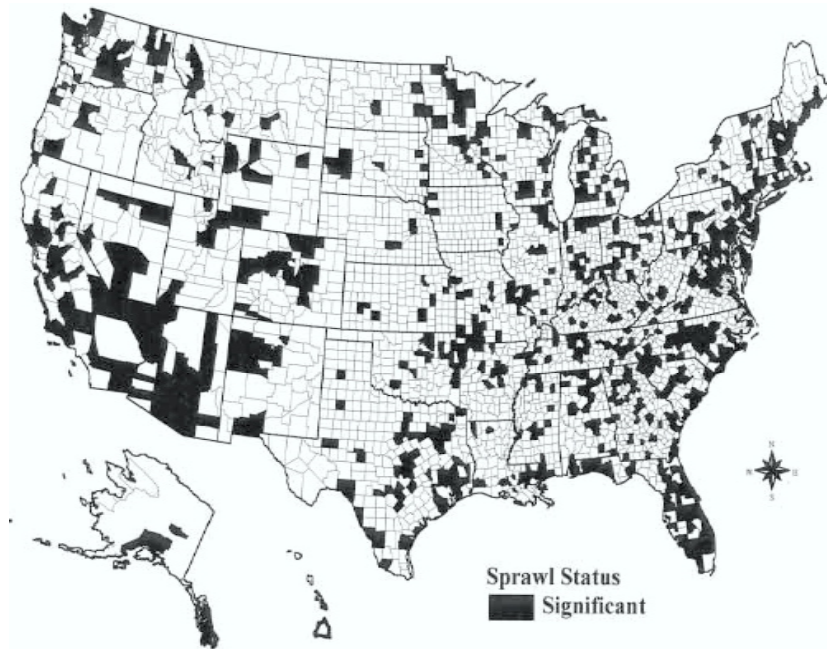
Drawings, photos, models, and other forms of design representation will be documented in both hard copy and digital formats. This information will be stored in multiple locations. All documentation will be clearly organized for easy access by both myself and future scholars. A catalog of references will be compiled and sited as used through the process.

PROGRAM DOCUMENT:

The Program Document Consists of research of historical context, the theoretical premise/unifying idea, case studies, site analysis and programmatic requirements associate with the typology. It also lays out the goals of the thesis throughout its progression.

SPRAWL

Over the last 60 years, expansive development has dominated the thoughts and actions of city planners and developers. Sprawling quasi-communities, accessible only by personal automobile, scattered with strip malls, convenience stores and parking lots, are becoming the image of the American city.



Sprawl, as described by Duany, Plater-Zyberk, and Speck, has five main components; Housing Subdivisions, Shopping Centers, Office Parks, Civic Institutions, and Roadways.

Housing Subdivisions consist of just residences. Names of these “neighborhoods” often pay tribute to the natural or historic resource that has been displaced by their creation. Although a subdivision may be in close proximity to another element of the suburban environment, it is often the case that access between the two is only feasible by a trip in the car.

Shopping Centers take the form of strip malls and clusters of big box retail stores. Over-sized parking lots, designed for the busiest time during the busiest season, makes apparent that these places are not likely approached by foot.

Office Parks are places strictly used for work. These places are busy from nine to five, then almost completely abandoned in the evenings and overnight. The schedule of use of these parks is a major factor in traffic congestion as everyone uses the only access road to and from their place of employment at the same time every day.

Civic Institutions include facilities such as town halls, churches and schools. Traditionally, these public service buildings created an urban core. Recent developments scatter these across the suburban realm.

Roadways dominate the suburban landscape. A major complaint among Americans is that of congestion on their roads. The trend has been to build more roads to accommodate increases in traffic. However, the outcome tends to be that more roads equals more driving, so in some cases more roads or added lanes can actually create what it was intended to resolve.

Pollution, crime, miserable public education, crumbling public transportation, and endemic political corruption are some of the factors regularly cited for urban flight. Single family homes on the fringe of a central city were viewed as ideal locations for raising the American family. The promise of better schools, less congestion and all the other aspects of the American dream lured home buyers, developers, and city planners to create urban sprawl. This practice has become second nature in contemporary planning practices. Although the needs of the citizens are changing, the product they are being sold is not.

Zoning restrictions in most areas require that certain uses be separated from each other. This creates large residential "neighborhoods", industrial parks and strip malls. The adage "NIMBY" (not in my back yard), reflects the attitude of home owners when confronted with integrated or mixed uses. The suburban environment has become almost inevitable, and only desired when not presented with a viable option. Without a proper alternative, this will continue to be the norm.

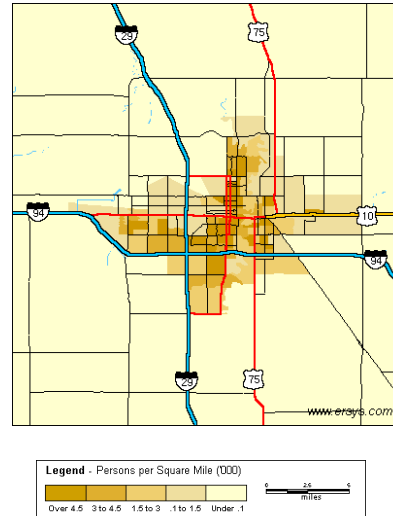
"The cities will be part of the country. I shall live 30 miles from my office in one direction, under a pine tree; my secretary will live 30 miles away from it too, in the other direction, under another pine tree. We shall both have our own car.

We shall use up tires, wear out road surfaces and gears, consume oil and gasoline. All of which will necessitate a great deal of work. Enough for all."

-Le Corbusier, THE RADIANT CITY (1957)

DENSITY

Density is often viewed as a negative aspect of urban living. This sentiment contributes to sprawling neighborhoods with over-sized lots. Developers sell this as a piece of the country. As less dense as these developments are, it is still common to feel like your neighbor is too close. This fear of density is becoming an excuse for isolation. Well-designed, high-density, urban developments can provide a sense of privacy on par with any suburban home, but can also offer an opportunity for interaction with your neighbors, creating a sense of community that is lacking in suburbia.



The typical American family is no longer typical, yet housing developers are still designing and building for post war families. The average household size in the U.S. has dropped from 3.54 in 1950 to 2.6 in 1995 (Boagdan, 1995). The traditional family has become a rarity, thus the three thousand square foot single family home should be following the same path. This is becoming evident in over built areas in metropolitan zones across the country. Houses built to serve the single family are sitting vacant, without every being occupied. Meanwhile areas well within city limits, with existing public services lie under developed or abandoned.

By living closer together, land that has been used for agriculture and other resources in the past, where most new development occurs, can be saved. Transportation costs are greatly reduced with increased density. People need to get to work, and by living closer to their place of employment, walking becomes an option as well as accessing public transit services. In recent residential developments, this is not an option.

As well as the economic benefits, increased density also contributes to a better urban life. Mostly because of choices and options in proximity to places of work and residence. Those living in the city generally generate less pollution than those residing in suburban and rural areas. Many of the things that suburban dwellings are required to drive to do are within walking distance, or at least a much shorter drive, reducing carbon emissions associated with access to basic needs.

UNDER DEVELOPED SITES AND THE RAILROAD

Urbanized land, or land that is used for residential, commercial, industrial, or institutional purposes, increased by 47 percent in the 1990s while population expanded by only 17 percent (Fulton et al. 2001). Infill development can help reverse this trend. A project of this type can not only bring land to a full development, but can in fact improve the environment.

As the Railroad was built, connecting American cities in the late 1800's, development occurred along the rights-of-way. This development was usually associated with industrial use and shipping, as only certain uses were feasible next to a railroad. Proximity to the railroad lessens property values and restricts development. The rights of way also prove to be major boundaries between neighborhoods, as only at certain points are you allowed to cross. In a bit of irony, what was once built as a connection, has become quite the opposite.

The railroads were once vital to the economy and way of life in Fargo. Since the advent of the interstate system, the Fargo tracks have become less depended upon for shipping and even less for travel. Yet these tracks cut through downtown, as they do in most cities in the country.

The consolidation of railways is a complex matter, and takes time to plan and implement. The public has shown support of this proposal, and city leaders are conducting studies into the feasibility of the project.

The removal of the train from the northern tracks opens sites along the corridor for development that were not feasible before. The land has not been left in the best condition. Industrial use often leads to land saturated with waste materials. Developments in this area have the challenge, as well as an opportunity, to improve the natural environment.

“...the approaches that work best are those that meet the city on its own gritty terms; which raise the density, rather than lower it; which concentrate, tightening up the fabric, and get the pedestrian back on the street” (WHYTE, CITY).

Infill Development

The process of developing vacant or under-utilized parcels within a city's existing infrastructure is referred to as infill development. Within city limits in all our country's metropolitan areas, a large number of properties have been passed over by the process of urbanization and many left without being developed to full potential for various reasons. Once the issues that led to this under-utilization have been addressed, these sites can be seen as opportunities to meet the needs of growing populations in a more efficient manor than that of expansive development.

Infill development can be considered as an alternative to sprawl, accompanied by certain benefits. Compact city building results in less stress on infrastructure elements, such as sewer, water and electric services, as well as reducing the amount of asphalt or concrete needed per housing unit. Developing where services such as these already exist greatly reduces the stress on city governments and taxpayers alike. Rasing density in an area boosts the economy by saving money for governments, developer, and consumers.

Developers may hesitate to undertake infill development projects because of real or perceived obstacles and risks inherent in such development. Developers must expect a reasonable return on their investment if they are to pursue infill development. They must feel confident that sufficient market demand exists for their intended product and they must also must believe that they can complete a project on a reasonable schedule. Studies indicate that many infill sites can be developed without public assistance, especially with the opportunities presented by emerging trends. Smaller-scale projects, lower profit margins and greater uncertainty that are typical of infill situations may prove to be more attractive to smaller developers than larger well-established developers.

As Aristotle said: "To the size of cities there is a limit as is the case with everything, with plants, animals, tools; because none of these can retain its natural power if it is too large or too small, for it then loses its nature or it is spoilt" (Politics).

Regeneration

The premise of sustainability is to minimize the effects we have on the environment. Regenerative design intends on going a step further. Even sustainable buildings have some negative impact on the environment, and steps are taken to reduce this effect. Regenerative design is based on the idea that developments can serve to make the environment better.

John Tillman Lyle proposes the following strategies for regenerative design in his book "Regenerative Design for Sustainable Development":

1. Letting nature do the work
2. Considering nature as both model and context
3. Aggregating, not isolating
4. Seeking optimum levels for multiple functions
5. Matching technology to need
6. Using information to replace power
7. Providing multiple pathways
8. Seeking common solutions to disparate problems
9. Managing storage
10. Shaping form to guide flow
11. Shaping form to manifest process
12. Prioritize for sustainability

We have unprecedented opportunities to create new visions of prosperity and sustainability for our older industrial cities, large and small. There are big forces pushing us toward these changes: demographic forces at home, global energy prices, and the urgency of addressing climate change. If we can reorient federal policies to allow local governments to harness these forces, older cities and towns are in a position to become more livable places that provide healthy neighborhoods and regional environmental benefits.

The sprawling housing developments claim to facilitate a sense of community, but often fail at the task. A healthy livable neighborhood is one that offers a variety of conveniences with close proximity. Interaction with neighbors fosters a level of comfort that can not be had in the detached single family lots that scatter our country's landscape. Successful neighborhood plans have six fundamental rules that distinguish themselves from sprawl:

1. The Center
2. The five-minute walk
3. The Street Network
4. Narrow Versatile Streets
5. Mixed Use
6. Special Site for special Buildings.

Successful city building is less about big moves and more about perseverance and case by case responses. In the present economic downturn, as tax revenues decline and cities face higher unemployment, little to no new construction, a decline in tourism, fewer conventions and gatherings, and less financial support from the state, new cities will be challenged to maintain their growth with new infrastructure and roads. Economic stimulus packages provide the opportunity to undertake large publicly planned projects again. This temptation should only be fulfilled by responsible developments that can benefit both the city and the environment. The lessons of the last 50 years should not be forgotten. Zoning separation, mass produced single family homes, dependence on automobiles and oil and big box retail stores are issues facing all city plans.

An excellent first step in a new plan for the development in Fargo would be an infill development along the repurposed tracks that set an example for future development along the newly created pedestrian corridor. "To quote the city planner, Daniel H. Burnham, 'make no big plans, only many small ones' (Rybczynski).

Monofunctional zoning can be identified as the most radical instrument in the destruction of European cities. Not only does it promote land and building speculation at the large scale, but it also strengthens the centralizing tendencies of political bureaucracies and justifies the monopolization of commerce. Thus, it destroys the refined and delicate physical fabric of most cities, and it has also become the most brutal means for destroying the social fabric and the complex cultural and economic relationships within the surviving urban community (Krier).

Case studies were chosen to further investigate different aspects of this thesis. Rail consolidation and subsequent repurposing of the rights of way into public green space will be explored through the study of the Highline, a successful similar project in New York City. Programmatic requirements related to mixed use infill projects will be the focus of the second case study, The Vento in Canada. Lastly, Alternative methods of city planning, as formulated by Leon Krier in the master planning of the city of Poundbury, will be explored.



The Highline



The Vento



Poundbury

The Highline

Case Studies:

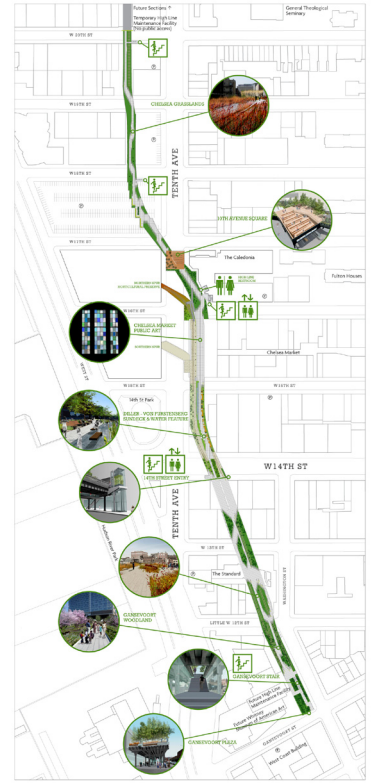


THE HIGH LINE
PUBLIC PARK: NEW YORK, NY
2009

Diller Scoddio + Renfro

The High Line, in collaboration with Field Operations, is a new 1.5-mile long public park built on an abandoned elevated railroad stretching from the Meat packing District to the Hudson Rail Yards in Manhattan. The park was inspired by the melancholic, unruly beauty of this postindustrial ruin, where nature has reclaimed a once vital piece of urban infrastructure. It translates the biodiversity that took root after it fell into ruin. Site-specific urban micro climates along the stretch of railway include sunny, shady, wet, dry, windy, and sheltered spaces. Through a strategy of agri-tecture—part agriculture, part architecture—the High Line surface is digitized into discrete units of paving and planting which are assembled along the 1.5 miles into a variety of gradients from 100% paving to 100% planting. The paving system consists of individual pre-cast concrete planks with open joints to encourage emergent growth like wild grass through cracks in the sidewalk. The long paving units have tapered ends that comb into planting beds creating a textured, “pathless” landscape where the public can meander in unscripted ways.





The park accommodates the wild, the cultivated, the intimate, and the social. Access points are durational experiences designed to prolong the transition from the frenetic pace of city streets to the slow otherworldly landscape above.





A design competition was held and the firm Diller Scodiiio + Renfro won, and were commission to design the park. Their concept was to echo the wild, self seeded landscape that grew up on the structure after the trains stopped running. Construction began in 2006 and the first section opened June 9, 2009. A second section is still under construction and projected to be opened in 2011.



Built in the 1930's as part of a major infrastructure project referred to as the West Side Improvements, the High Line raised freight traffic thirty feet into air above New York City. It was designed with the purpose of removing dangerous rail traffic from the streets of the industrial district. The last train ran on the tracks in 1980.

A community based organization, Friends of the High Line, formed in 1980 worked in partnership with the city of New York to preserve the structure as an elevated public space. Property values along the project saw an immediate increase in value, and residents benefited from the new amenities offered by a project of this type.

The Vento



THE VENTO
MIXED USE INFILL
PROJECT:
CALGARY, ALBERTA
2006

THE WINDMILL
DEVELOPMENT GROUP



The Vento is a three story building with ground floor retail beneath a residential community. The second floor supports a communal landscaped courtyard bounded by individual front-door entrances into 22 split-level apartments. This feature creates excellent day lighting within the suites, as well as a garden atmosphere and real connection to the outdoors on the ground floor.

The Vento features many products and processes that help qualify the project for LEED certification. At least 50% of the construction waste was diverted, 15% of the all construction materials are recycled, and 20% of the material come from regional sources. Windmill is a development group committed to urban revitalization, brownfield redevelopment and green buildings, measuring performance using economic, social and environmental sustainability. The Vento is an example of the company's desire to wed design excellence with building performance for the benefit of purchasers and tenants, the surrounding community, and the health and wellbeing of the planet.

Other Green Strategies include heat recovery ventilation to reduce energy consumption on unconditioned ventilation air and direct ducting of fresh air to each individual dwelling. Rooftop common areas feature green landscaping. Storm water is treated and used throughout the building. In floor radiant heating keeps the bamboo floors warm in the cold season in Calgary, where it can drop well below zero and remain for days. Condensing boilers and high efficiency chillers are used to deal with the extreme weather. High performance windows are featured also.

Because the current economic boom is placing unprecedented strain on the city's water supply, water conservation strategies proved key to minimizing the environmental impact of The Vento on municipal resources. The most significant conservation strategy involves grey water recycling. Along with 100% of the rainwater falling on the site, water from sinks, showers and bathtubs is collected, stored and re-used for toilet flushing and site irrigation. This is the first project in Alberta to be granted approval to do so.



The Vento's interiors feature an airy open design: daylight penetrates deep into the building, 95% of spaces have direct views outdoors, and operable windows are positioned to promote effective cross ventilation. The design team specifically chose materials that were regionally sourced and manufactured, low-emitting, rapidly renewable, recyclable, constructed with a high recycled content, durable, and contextually appropriate.

The first phase of a redevelopment of a former inner-city site, The Vento is located in an older single-family neighborhood. This prompted careful consideration of the projects's massing, articulation, material palette, and relationship to the public realm. Ground floor retail shops front onto an existing street that serves as the commercial heart of the neighbourhood. 20 two-storey townhouse suites are situated above the retail space and two additional affordable suites, owned and operated by the City of Calgary, are located at grade. The project is located within walking distance of neighbourhood amenities, green space, a new community centre, Calgary's downtown core, and to the city's bus and light rail transit networks.

Vento has been submitted to the Canada Green Building Council for LEED certification. Certification is pending. The total number of credits applied for ensure a high LEED Gold rating, with the possibility of LEED Platinum.



Poundbury



Poundbury

Leon Krier

City Planning Project

Krier was commissioned by the Prince of Wales in 1988 to design a master plan for Poundbury, a new village on the outskirts of Dorchester in Dorset. Twenty years later, Poundbury's second phase of development is almost complete, and further expansion is planned. Visited by town planning delegates from around the world, Poundbury is an influential model for house builders, urban designers and transport engineers around the world, yet the model for what some have called the perfect village raises questions of authenticity and historicism. While pursuing the ideals of social integration and sustainable living, the project remains one of the most contentious of the last thirty years.

"If ever I was to head this Royal Institute of British Architects I would probably enter this building in the thick of the night and with my own hands I would plaster up that memorial wall which is covered in names [the list of Royal Gold Medallists inscribed in the entrance hall of the RIBA building in London], for most of these names have, more than any other names, contributed to the destruction of European cities and culture." -- (KRIER, from an address to the RIBA on 4 May 1982).



Some lessons can be learned from Krier's ideas on city planning, with Poundbury being a prime example of these ideals. The following are Krier's statements regarding the issue:

ZONING AND POLITICS.

The politics of industrial infrastructure has been based on the spatial (territorial) separation of functions.

All industrial states independently of their ideology have promoted and imposed the functional ZONING of the cities and countryside with equal brutality and pseudoscientific arguments against all resistance from urban or rural populations.

Functional Zoning is not an innocent or neutral planning instrument; it has been the most effective means in destroying the infinitely complex social and physical fabric of pre-industrial urban communities, of urban democracy and culture.

Functional Zoning of city and countryside has been an authoritarian project corresponding nowhere to a democratic demand.

Zoning is the ABSTRACTION of city and countryside. We now know, that an anti-urban philosophy ipso facto condemns the countryside.

One cannot destroy the cities without also destroying the countryside.

Zoning is the ABSTRACTION of communities; it reduces the proudest communities to mere statistical entities, expressed in exchangeable numbers and densities.

Zoning, dictated by big industry and their financial and administrative empires, can be fought only by democratic pressure that demands the reconstruction of urban communities where RESIDENCE, WORK and LEISURE are all within walking distance.

Industrial rationality is by nature amoral, asocial, and anti-ecological; it is both the instrument and the expression of moral, ecological and social irrationality and collapse.

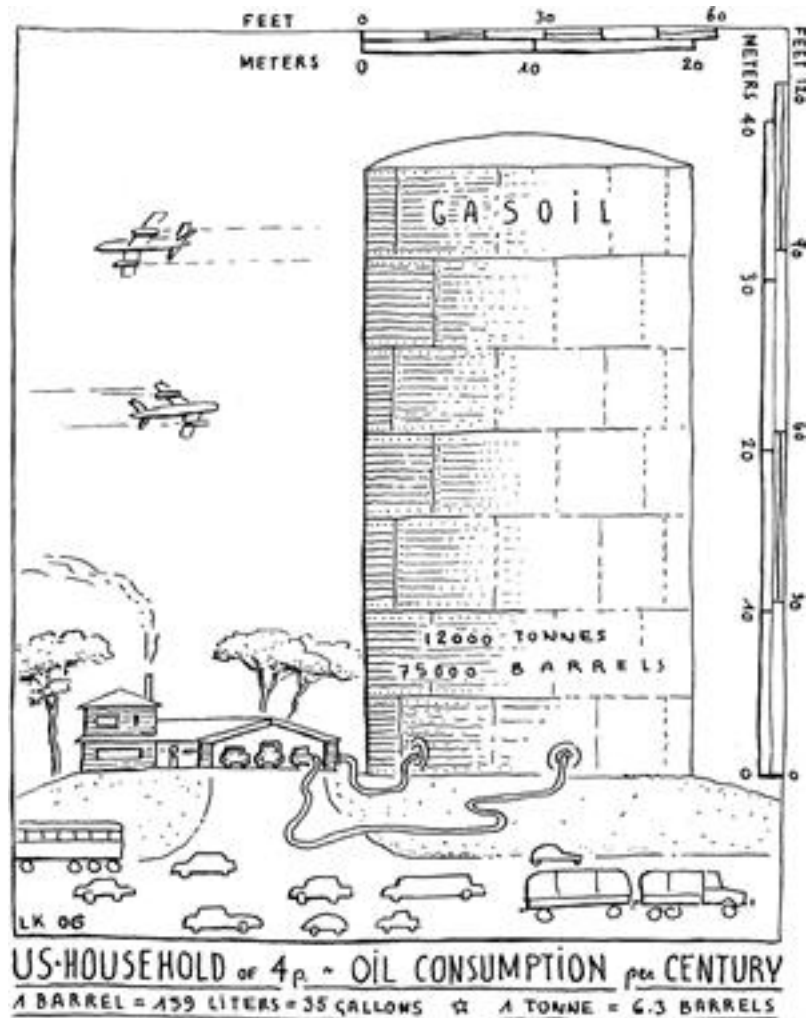
INDUSTRIAL PLANNING AND FUNCTIONAL ZONING.

Industrial development is effected through the fragmentation of integrated and multifunctional rural and urban complexes (cities, villages, districts, quarters, parishes) into monofunctional suburban zones (residential neighborhoods, university campuses, shopping centers, industrial parks, etc.).

Monofunctional zoning (productive, commercial, administrative, educational, residential, recreational) is the technical instrument of this fragmentation.

Monofunctional programming and the privileged allocation of financial resources to such programs are its political and economic motor.

Against the organic integration of urban functions, industrial zoning posits their mechanical segregation



ZONING, SOCIAL MOBILITY, ENERGY CONSUMPTION.

Functional Zoning based on infinite territorial sprawl has resulted in maximum energy consumption. The most remarkable consequence of functional zoning is that it guarantees the maximum consumption of units of time, energy and hardware in the accomplishment of all major and minor urban functions.

The first imperative of zoning is to transform any part of the territory (city and countryside) in such a way that every citizen can only perform

one function
in one place
at one time
to the exclusion of all other functions.

The second imperative of zoning is the effective and daily mobilization of industrial society in its entirety (all classes, all ages, all species, all races; adults, old people, children, rich and poor, employers and employed, unemployed and misers) in order to perform even the simplest functions of life.

The slavery of mobility to which every citizen has been condemned forces him to waste both time and energy in daily transports, while at the same time it has made him into a potential and involuntary agent of energy waste.

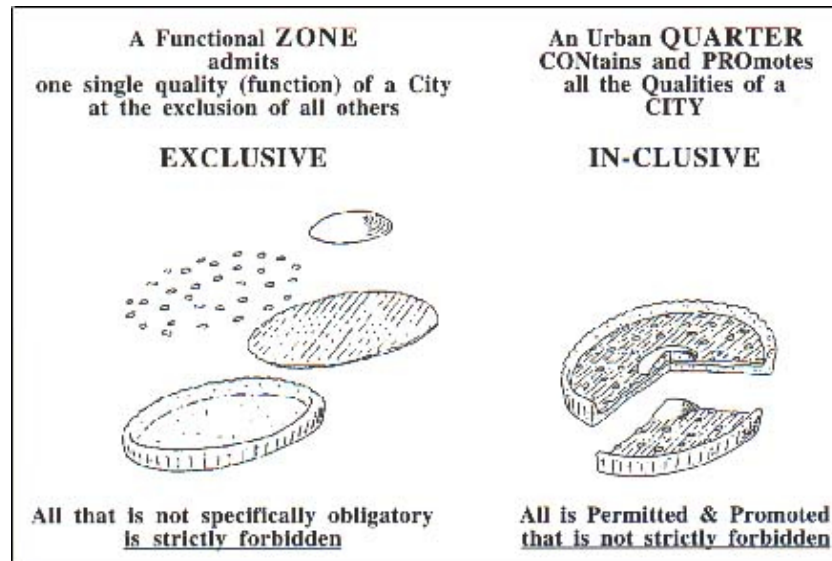
Circulation of people, hardware and information are the principal activities to be generated by the industrial metabolism of man and nature.

Roads, railways, canals, airstrips, cables, pipelines, etc., are the arterial system of an atomized society, its paradoxical common place.

Neither PRIVATE nor PUBLIC transport policies can effectively curtail the waste of material or social energy caused by functional zoning, by the industrial anti-city.

An intelligent energy consumption policy is possible only by integrating the main urban functions into urban quarters (DISTRICTS) of limited territorial size.

Whatever energy saving policy does not recognize this condition is doomed to lead to totalitarian measures of control and social coercion.



AGAINST THE GLOBAL DESTRUCTION OF CITY AND COUNTRYSIDE THAT WE ARE WITNESSING, WE PROPOSE A GLOBAL PHILOSOPHICAL, POLITICAL AND TECHNICAL PROJECT OF RECONSTRUCTION.

The city is not the necessary and unavoidable result of a society's activities. It can only be built and maintained when it represents the highest possible goal of individuals, of a society and of its institutions. A city is not a mere economic accident but a moral project.

CITY and COUNTRYSIDE are antithetical notions.

The reconstruction of the TERRITORY must be defined in a strict physical and legal separation of CITY and COUNTRYSIDE.

We have first of all to proceed to a drastic reduction of the built perimeters of the cities, and redefine with precision rural land in order to establish clearly what is city and what is countryside.

Any notion of legal zoning must be abolished.

All future intervention on the city must banish the construction of urban roads and motor ways, mono functional zones, residual green spaces.

There can be no industrial zones, pedestrian zones, shopping or housing zones -- there can only be urban quarters which integrate all the functions of urban life.

The notions of METROPOLITAN CENTER and PERIPHERY must be abolished.

Modes of transportation often define the way a city grows. The history and development of Fargo can be traced and associated with changes in the way people get from here to there.

THE STEAMBOAT

The earliest recorded navigation of the Red River appears to be around 1820 (A CENTURY TOGETHER). Steamboat transportation was how settlers got their goods to market before the arrival of the railroad. Early settlements along the Red river were port communities, and the future home of Fargo was no different.

The red river valley is home to some of the best farmland in the world. The old lake bottom, formed by a glacial ice sheet, consisted of organic matter, micro-organisms, and water washed fine-textured soils just waiting for the plow by the time of settlement (FARGO'S HERITAGE).

THE RAILROAD

Fargo's history is directly associated with agriculture and the railroads. The founding of the city of Fargo dates back to the 1860's. Settlers knew that the Puget Sound Company, which would later become the Northern Pacific Railroad, was looking to build a line across the Red River.

Records indicate that three men, Jacob Lowell, Jr., Henry S. Back, and Andrew McHench were on patrol of the Red, waiting for any sign of where the railroad might be headed. On June 29th, 1871 Lowell came across a man calling himself "Farmer Brown" accompanied by three Scandinavian "settlers" who said they were scoping out land to farm. Lowell wasn't buying the act, and returned to his friends to alarm them of the encounter. On July 1st of the same year, Lowell and Back staked claim to the land that "Farmer Brown" had been interested in. McHench joined two days later. The site would later become what is now Fargo. It turned out that "Farmer Brown" was actually Maj. Beardsley from the Puget Sound Company.

Other sites along the Red were partially developed with the hope that the train would cross at their location. Then when the railroad missed their town site, these small developments like Quincy and Winnepeg Junction folded and became abandoned (HARD TIMES).

Unsettled odd-number sections of land adjacent to proposed rights of way were granted to the railroads. About one quarter of North Dakota's land, 50 million acres, was given to the Northern Pacific Railroad. It was Northern Pacific's company policy to plat town sites at the junction of major streams crossed by the rails. Fargo, named for Hilliard G. Fargo, one of Northern Pacific's directors and founders, was such a town site and was platted in 1871.

Although the city was platted in 1871, no titles to land could be attained until two years later when Native American claims to the land were extinguished. The city barely survived the first years due partly to the financial struggles of the Northern Pacific Railroad. The city's population at this time was around 300 people.

Fargo in the Timber and Fargo on the Prairie, as the city's two "boroughs" were known, were both located on section 7. This extended from the Red River to University Drive and from the NP tracks to 4th Avenue South. Island Park, included in this region, was founded and remains today as a park through the intervention of Jacob Lowell Jr. and J. B. Power, Northern Pacific officials at the time.

1878 signaled the beginning of a gain in prosperity and an influx of immigration, in what is known as the Great Dakota Boom. Bonanza farming, promoted by the railroad, caused Fargo to become a distribution point for the area. Thousands of new farmers flooded the region to reap benefits such as government land grants and rebates on freight rates offered by the railroad company.

Farmers from around the region brought their bounty to Fargo to be sold and shipped to other parts of the country. They then turned around and spent their earnings on necessities and, if the harvest was good, maybe a small luxury. The economy was thriving, and the city continued to grow mainly due to the successful operation of the railroad. Development in the area was based around a central core bounded by the two railroads to the north and south, and the river and what is now University Drive on the east and west. The Headquarters Hotel was built on the North side of the tracks, anchoring a business district along Broadway and becoming the social center of the area.

In 1883, the railroad finally completed its connection from coast to coast. Although the railroad has been an integral part of the economy of Fargo, and many other towns along its path, it has had financial troubles throughout its history. Disagreements about rates between farmers and the railroad continued from the late 1900's into the early 20th century. In 1895, an indication that the "freight rate war" had been won was proclaimed by "The Record", but years later the war was still ongoing. The Fargo Rate Case of 1929 brought an entirely new structure of rate determination. This was a major breakthrough for business in the area.

Dozens of wholesale firms moved to the city, diversifying the economy. The city continued to grow. The wholesale business created a second ring of growth around the central core of Fargo. High density housing near downtown continued to be in high demand during these times. Growth during this time was often in the form of subdivisions, a pattern that is followed to this day. The city limits of Fargo grew rather modestly until 1940, as most development followed north and south along the Red River.

The 1920's also saw rapid growth of the highway systems. The emerging system was decentralized compared to the nature of the railroad. All small towns that were passed over by the railroad were being connected to one another and to larger hub cities, such as Fargo. Dependence on the personal automobile was also on the rise.

By 1957, passenger revenues accounted for only four cents of each dollar collected by the railroads as people preferred the automobile or airplane over the rail. Freight customers had to cover the difference from the loss of passengers. This caused the freight business to look at other options as well.

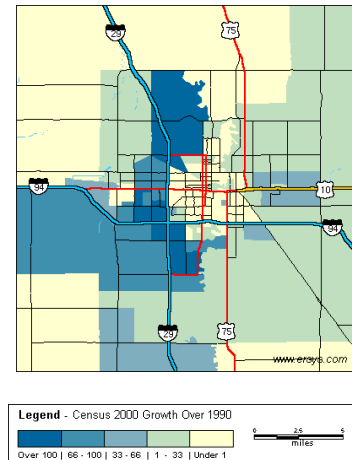
In 1970 Great Northern and Northern Pacific merged to become Burlington Northern Railroad. Freight trains were routed on the southern tracks and passenger services on the northern tracks. Passenger service was overtaken by the public corporation, Amtrak, in 1971. Through a contract with Burlington Northern, Amtrak still runs the Empire Builder and the North Coast Hiawatha on limited schedules.

THE INTERSTATE

The Interstate Highway Act of 1956 along with the end of the second world war signaled a change in the way cities were organized and constructed. The vast network of interstate highways and the subsequent dependence on the personal automobile stimulated a new mind set in city building.

Housing and commercial area were now possible farther from downtown. The effect snowballed as businesses and housing development simultaneously moved outside of city infrastructure. People wanted to live next to where they worked and wanted to work near where they live. The result was sprawling housing developments to support the commercial developments and vice versa.

New developments around the outskirts were seen as a positive alternative to the old world downtown. People were becoming ever more frustrated with the negative aspects of the mid-century urban setting, such as crime, filth, poverty and the like. The suburban single family home was an escape to where life was believed to be better, your very own piece of the country with direct access through the interstate to anywhere you wanted to be. Sprawling sub-developments leap frogging onto agricultural land was the result.



In 1972, the West Acres Shopping Center, currently the largest shopping mall in North Dakota, was constructed near the intersection of Interstates 29 and 94. This mall would become the catalyst for retail growth in the area. It would also spell decline to Fargo’s downtown. Development was on the rise along highway corridors that had once graced the outskirts, but were now cutting through the metro area, while downtown was decaying.

The Moorhead City Mall, across the river from Fargo was an example of the many urban renewal projects en vogue at the time. **Then as stated by downtown businessman Jerry Hedemark, “The thing got out of hand”.** Large portions of historic downtowns were bulldozed for renewal projects that promised an updated and improved urban core. The result was not as positive, and these projects are often viewed as huge failures.

As Fargo has grown and matured, however, the city has placed a growing emphasis on long-range urban planning. Furthermore, several developers desiring to bring in additional “big box” retail stores on the far south end of Fargo have been rebuffed by planning officials and nearby residents alike arguing that the developments do not conform to new long-range planning guidelines.

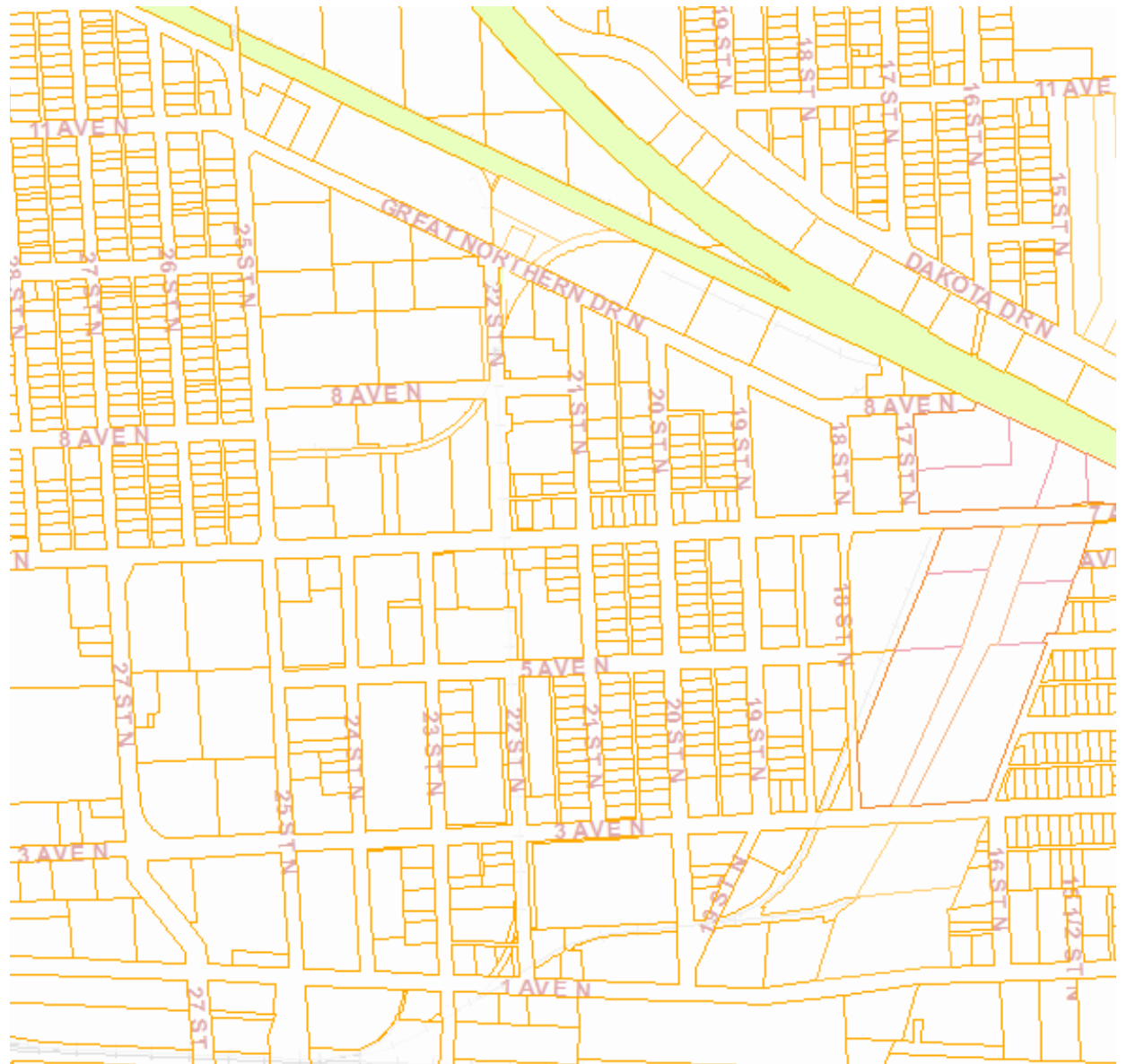
Site Analysis



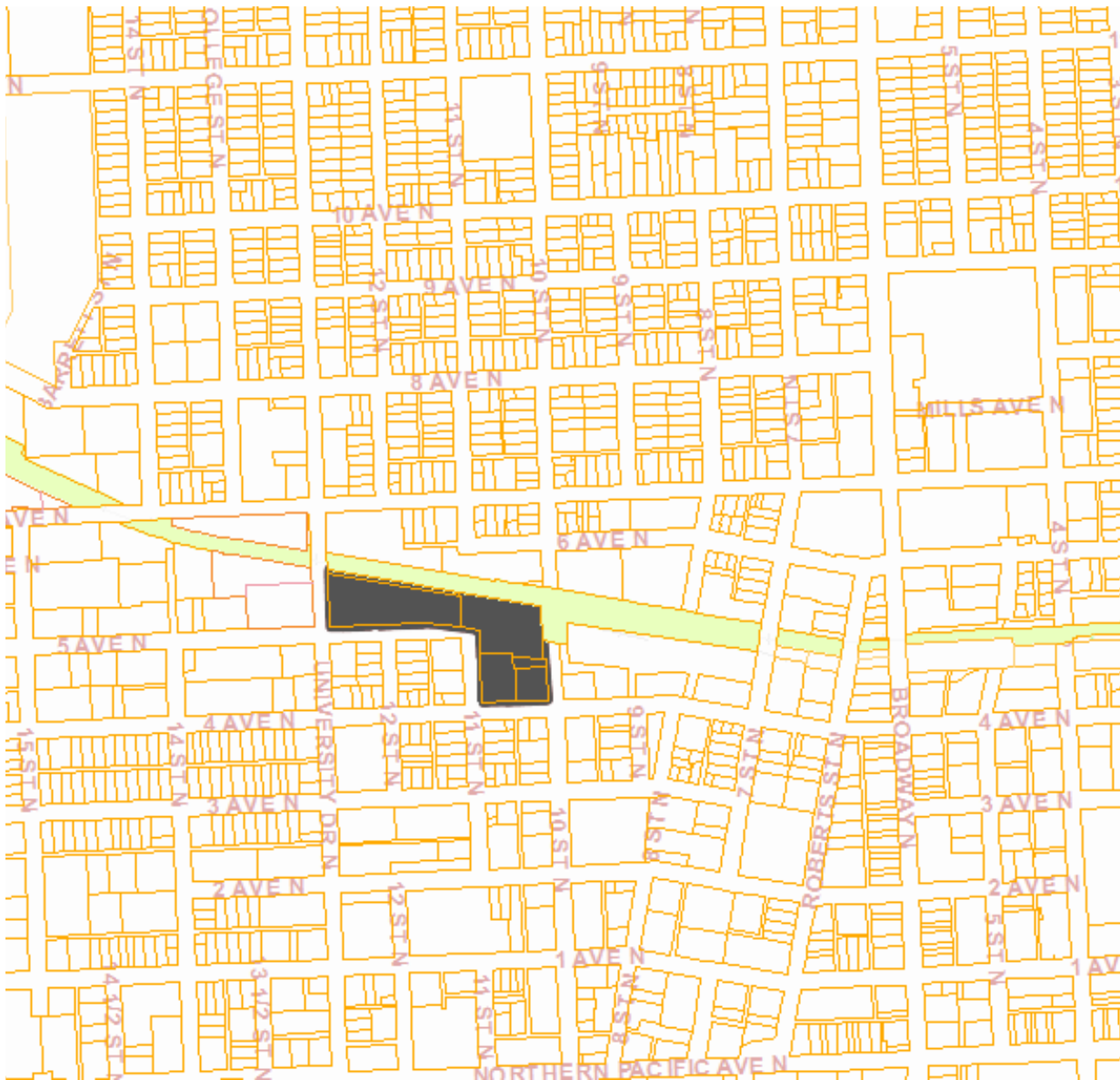


Fargo from Broadway to 25th Street, and from Main Avenue to 12th Avenue.

The railroad corridor is highlighted to show where the pedestrian greenspace will be introduced. Parcels directly adjacent to this corridor, or connected through an offshoot of the main tracks may be developed as public space as the city and developers find appropriate. Land owners along this corridor will likely see an immediate increase in the value of their property with the incorporation of pedestrian, as opposed to rail, traffic along their boundaries.



The site consists of a few different parcels. This projects will focus on developing mainly on the two largest parcels on the north side of the highlighted area below. Buildings occupying the other parcels included on the site will be included in the design, as well as the bakery and associated shipping business located on the areas of focus.



The proximity of the site to downtown further focuses attention to pedestrian traffic. The site lies within walking distance from other downtown amenities, while also exists along a perceived boundary in the railroad from historic residential neighborhoods.



Dustin Leisholm
Arch 770 Design Theme
Rank
ICB
CISJ
User/Tech
City of Fargo Engineering Department

Prosper Sub-Division Corridor

The prosper sub-division rail cuts through the northern end of historic downtown Fargo. The rail was constructed in the late 1800's and contributed greatly to the growth of the city for the next 60 years.

Over the last 50 years, America's love of the automobile has rendered the railroad virtually obsolete as a mode of transporting goods and people. The tracks that were once built to connect distant places have become a barrier between neighborhoods, and left a wake of poorly maintained unbecoming land uses at the center of the city.

The consolidation of the existing two rails through Fargo creates a pedestrian greenway connecting downtown to surrounding neighborhoods, including NDSU's main campus. Land directly adjacent to the corridor becomes prime real estate for development.

Four key areas along this corridor are highlighted.

Auto salvage yards and freight handling buildings were outcomes of rail traffic through the area. With the transition from rail to pedestrian traffic, these uses no longer fully utilize the sites they inhabit. These lots could be developed as mixed use development similar to this project, or given back to nature in the form of open public space.

Current location for a ceramic tile distributor. The business will remain at its present location, the lot will be separated from the new development by greenspace.

A building that was constructed as a freight handling operation could be remodeled into residences or as commercial property..

The existing public ice skating rink used for youth hockey leagues is an asset to the site and should be preserved until a full restoration can be undertaken.

Storage Buildings In Disrepair

Country Hearth Bakery has been a Downtown Fargo for many years. The main building is a fixture that will be preserved although the surrounding greyfield parcels would be another prime target for development due to the removal of rail traffic.

A storm water drainage ditch intersects the corridor a block to the west of 7th street. The green space associated with this ditch can be used as an asset to developers, as the land could be transformed into a large open park that is directly adjacent to the pedestrian corridor connecting downtown to NDSU's main campus.

Existing steel buildings would be removed for redevelopment. Although these buildings were constructed recently, they fail to follow a smart growth plan adopted by the city of Fargo. The businesses displaced by this decision would be offered a similar space in an industrial park.

The Fargo purchases plans to has separate landscaped adjacent

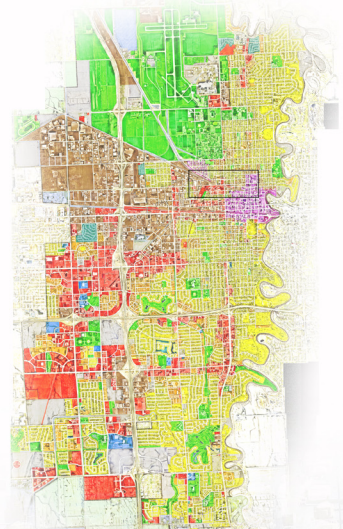
Problem Statement:
How can the needs of a growing community be met without expanding city limits?

PROJECT SITE



Urban Resurrection:

an alternative to sprawl



10 Principles of Smart Growth:

1. Mix land uses
2. Take advantage of compact building design
3. Create a range of housing opportunities and choices
4. Create walkable neighborhoods
5. Foster distinctive, attractive communities with a strong sense of place
6. Preserve open space, farmland, natural beauty, and critical environmental areas
7. Strengthen and direct development towards existing communities
8. Provide a variety of transportation choices
9. Make development decisions predictable, fair, and cost effective
10. Encourage community and stakeholder collaboration in development decisions

Fargo Park District recently...
 ed this property and has...
 use the existing structures...
 ice buildings and improve the...
 ce creating a pocket park...
 t to the proposed greenway.

An apartment complex that was designed to turn its back to the railroad could now open up and embrace southern exposure. The adjacent greyfield parking lot would be another area to focus a redevelopment project.

staple of...
 bakery's...
 reserved...
 parking lot...
 development

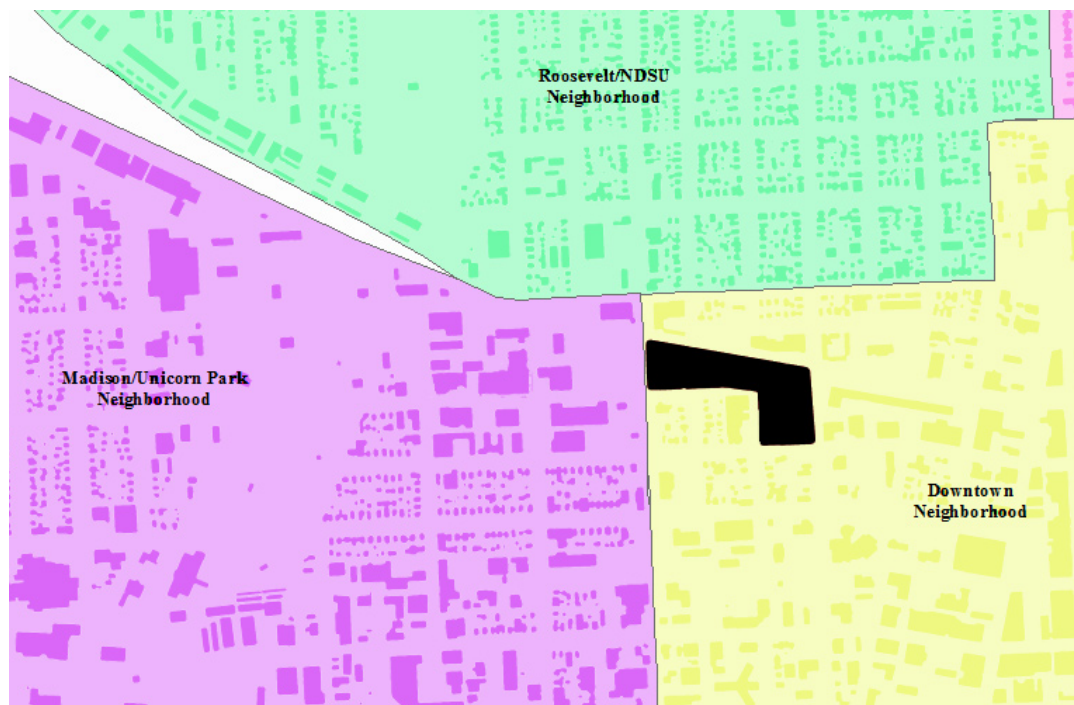
Antique Stores

A shipping dock that is currently used for the processing of recyclables would be an ideal location for a farmers market, showcasing Fargo's commitment to locally grown produce. Community Gardens are an encouraged amenity to any development along the pedestrian corridor.

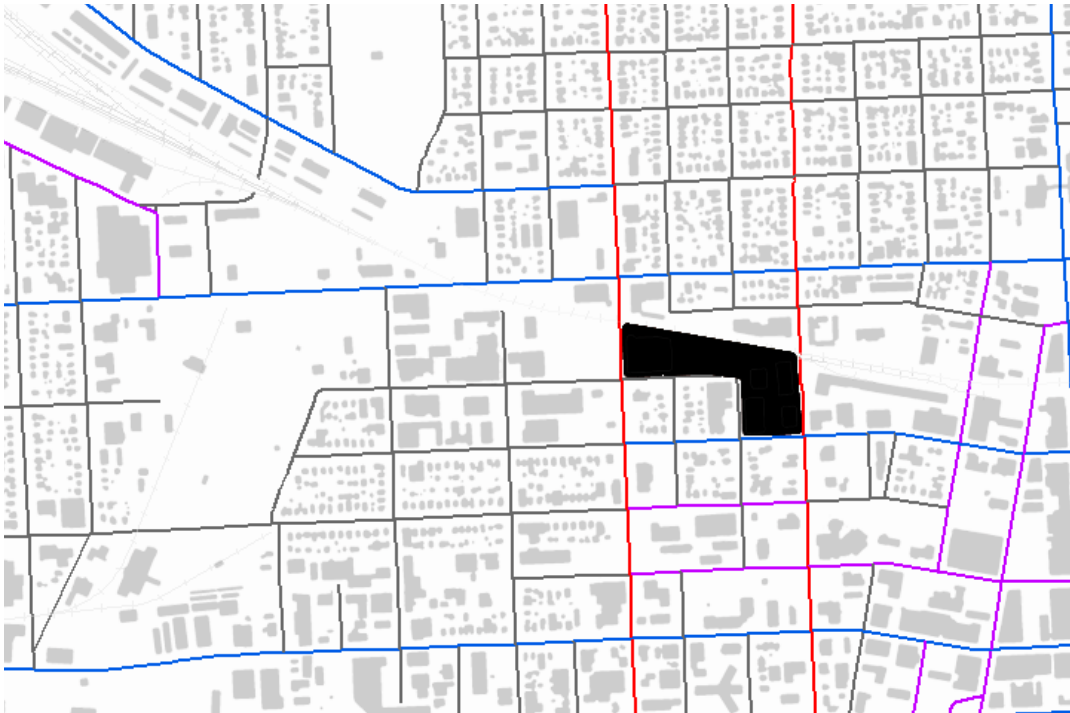
Downtown Fargo is the heart of this thriving midwestern city. However, most new development occurs at the outer fringe of the city, creating sprawl. The suburban lifestyle, viewed as the American Dream by many, has put a strain on the infrastructure of cities across the country. Meanwhile, sites within city limits remain under utilized. It has been our policy as a nation to use what we need, and discard. Land is treated the same. Focused development towards a strong center of the city is important to the vitality and livability of the community.

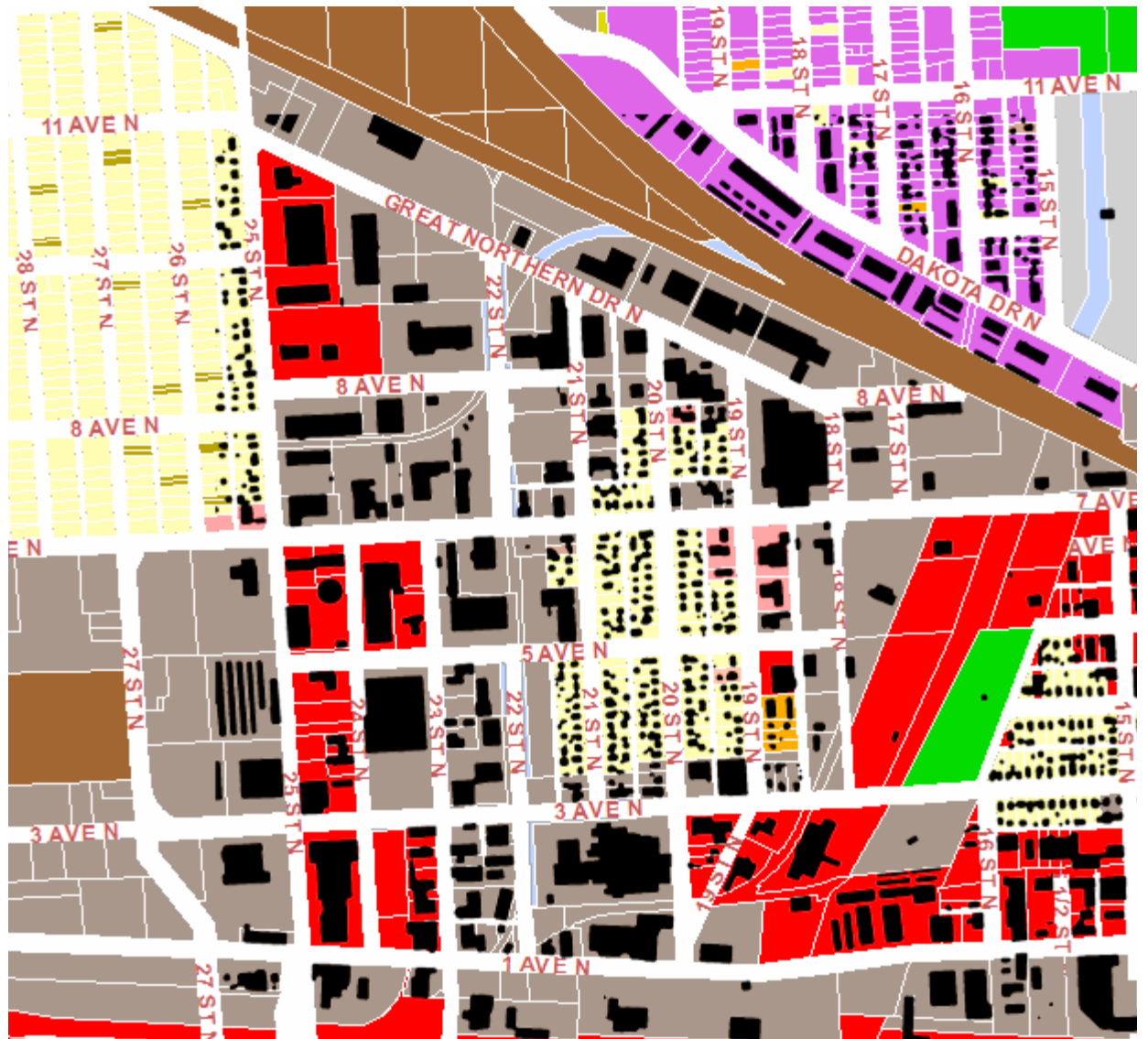
EXISTING CONDITIONS and PROPOSED PEDESTRIAN CORRIDOR THROUGH FARGO

The site is located at the intersection of three neighborhoods. The neighborhoods are divided by the railroads and by the high volume of traffic on 10th street and University Drive. Roosevelt neighborhood is home to NDSU. Houses with rentable basements, apartment buildings and frat houses are home to many students attending the university. The Madison neighborhood is diverse in its uses. There are pockets of small homes across the street from parking lots full of broken down vehicles. This is just down the street from a large park that exists because of a drainage ditch. Manufacturing and storage buildings line dead end streets. This part of the city feels to be in the grandest state of disrepair.



The site is bounded to the east by University Drive, which was once Highway 81, and to the west by 10th Street. Both are one-way streets with a considerable amount of traffic. Access to the site by vehicle would likely be from one of these streets. From the west, the southern edge of the site begins with 5th Avenue North, then follows 11th Street to the south, connecting with 4th Avenue North to the eastern edge. Vehicular access to the north edge of the site is only available by passing through the site, as no current roadways exist due to the railroad rights of way. Pedestrian traffic will be the focus of this portion of the design,





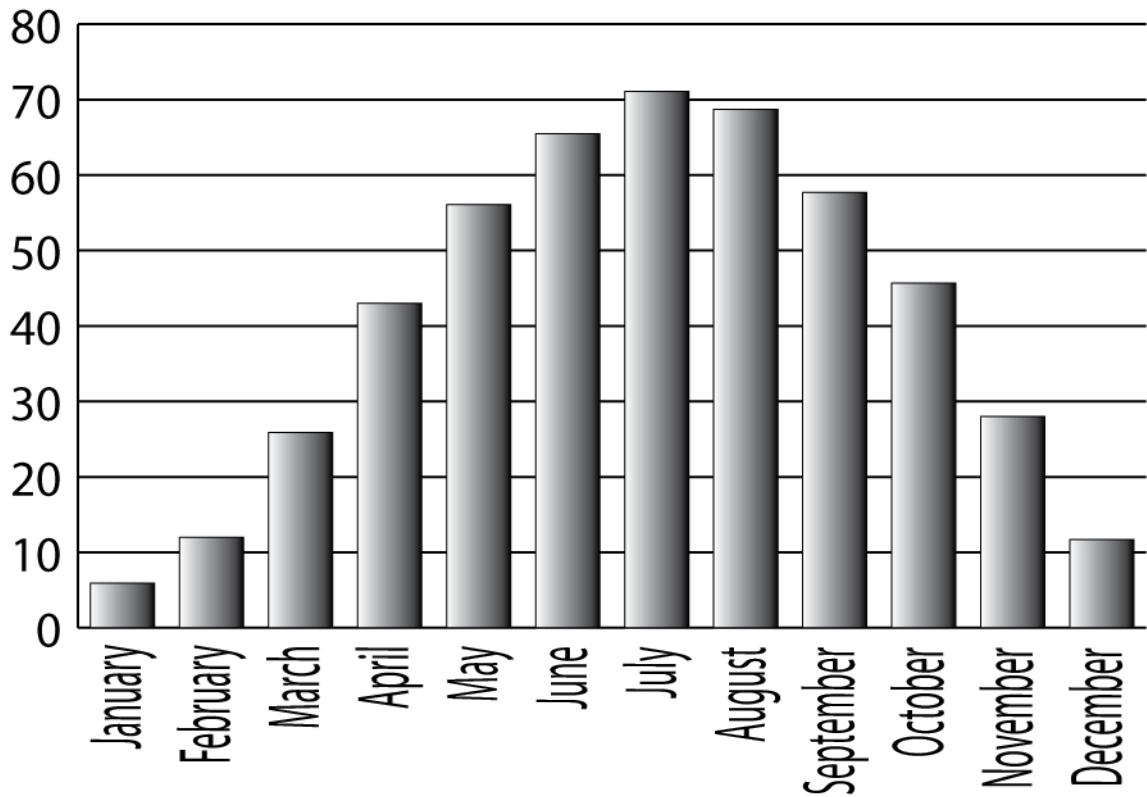
The goal of zoning is to separate lands uses that are not compatible. The map above show the zoning of Fargo. Downtown is zoned as mostly DMU or Downtown Mixed Use. In this zone, buildings are allowed to operate as bars and stores, or as residences. The Roosevelt Neighborhood to the north is zoned mainly as mid to high density residential, and also University Mixed Use, which makes possible the rental unit in the home. The zoning of Madison has a large area devoted to commercial use. This is around a drainage ditch which doubles as greenspace. Farther west is the outer ring of pre WWII development, with mainly industrial uses with a small housing development in the center. This pattern of zoning is not the norm in today's world.

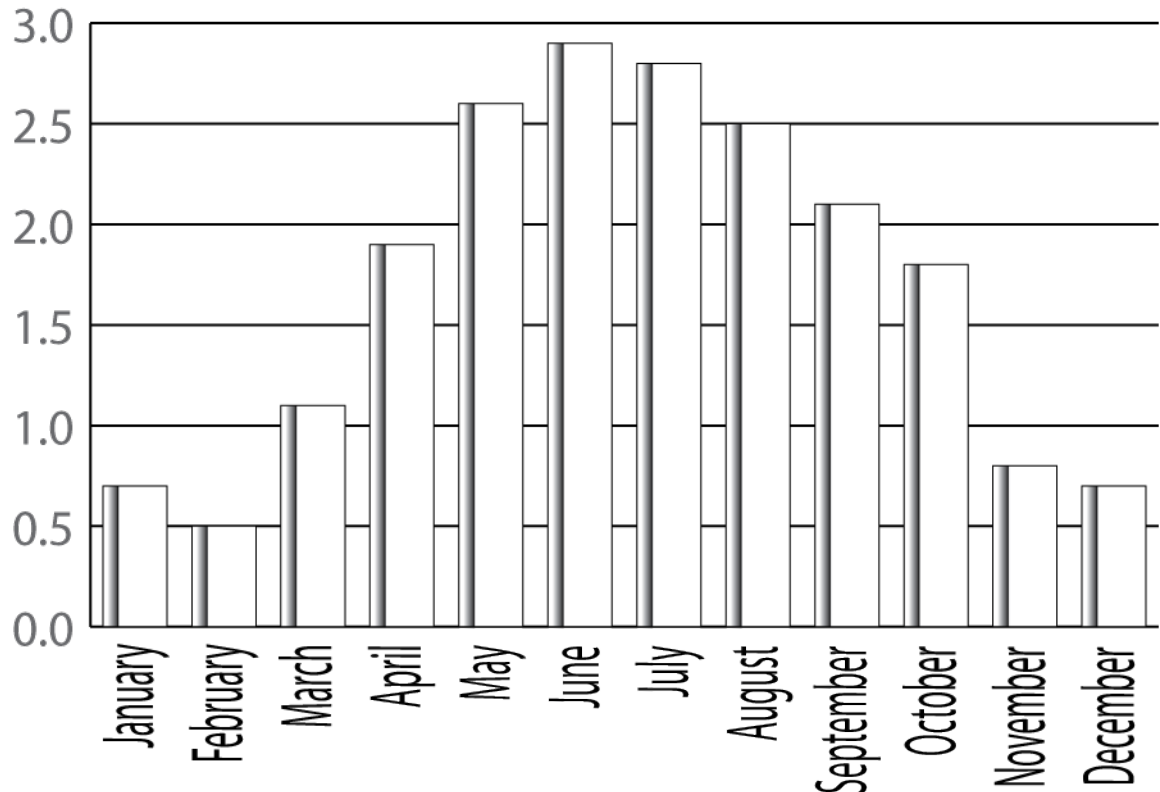
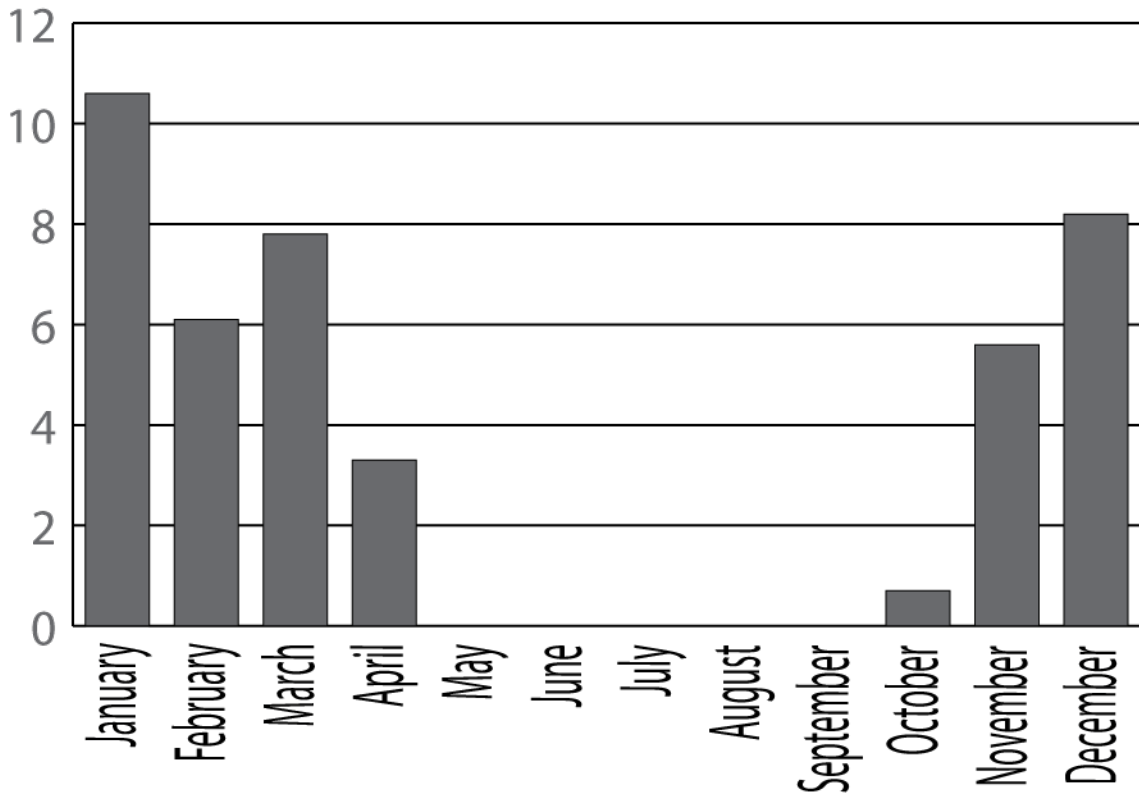


The site is currently zoned as Light Industrial. It lies within other areas of downtown mixed use, commercial, and various residential zoning districts. The site would likely be taken to the commission for a change in zoning to mixed use downtown. Another option may be to break the parcel up into individual lots with their one zoning requirements. This option may help with the process of integrating industrial uses into a mixed use development. The existing bakery and associated shipping departments inhabit a majority of the site. The continued light industrial operations may not fit into the category downtown mixed use, therefore separated lots may be the answer.

Statistical Analysis

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
Temperature F												
5.9	12	25.9	43	56.1	65.5	71.1	68.7	57.7	45.7	28	11.7	40.9
High Temperature F												
15.4	21	34.5	53.8	68.5	77.4	83.5	81.3	69.4	56.7	36.9	20.1	51.5
Low Temperature F												
-3.6	2.7	17.2	32.2	43.9	53.6	58.8	56.5	45.9	34.5	19.4	3	30.3
Precipitation Inches												
0.7	0.5	1.1	1.9	2.6	2.9	2.8	2.5	2.1	1.8	0.8	0.7	1.7
Snowfall Inches												
10.6	6.1	7.8	3.3	0	0	0	0	0	0.7	5.6	8.2	3.5





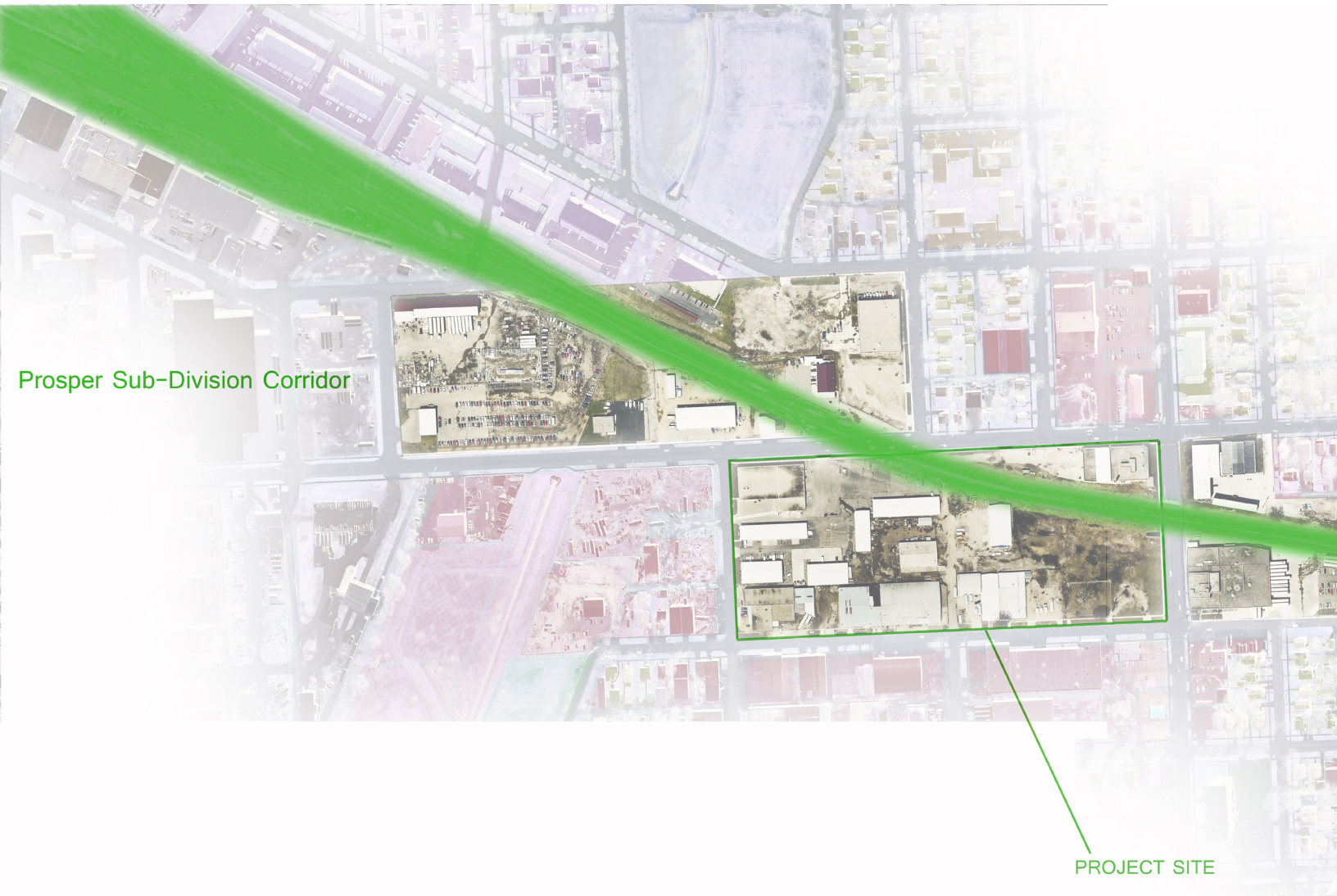
The goal of this thesis is to provide an alternative solution to sprawl in the form of an infill development. This project aims at setting a benchmark and a template for future developments along the pedestrian corridor created through rail consolidation, as well as a catalyst toward improving the neighborhoods associated.

The project will set precedent for sustainable standards for all developments in Fargo and surrounding communities.

Any development on the site will aim to improve the environment and the land upon which it is built.

Bakery	20,000 Sq Ft (existing)
Shipping	30,000 Sq Ft (existing and replaced)
Automotive Shop	8,500 Sq Ft (existing)
Single Family Town homes	10 @ 1500 Sq Ft
Studio Apartments	5 @ 650 Sq Ft
One Bedroom Apartments	5 @ 800 Sq Ft
Two Bedroom Apartments	5 @ 1100 Sq Ft
Farmers Market	20,000 Sq Ft
Retail/Restaurant	5 @ 5000 Sq Ft
Offices	10 @ 600 Sq Ft
Public Court	10,000 Sq Ft
Circulation	10,000 Sq Ft
Gardens	15 @ 600 Sq Ft
Parking	50 Parking Spaces

Prosper Subdivision Corridor:

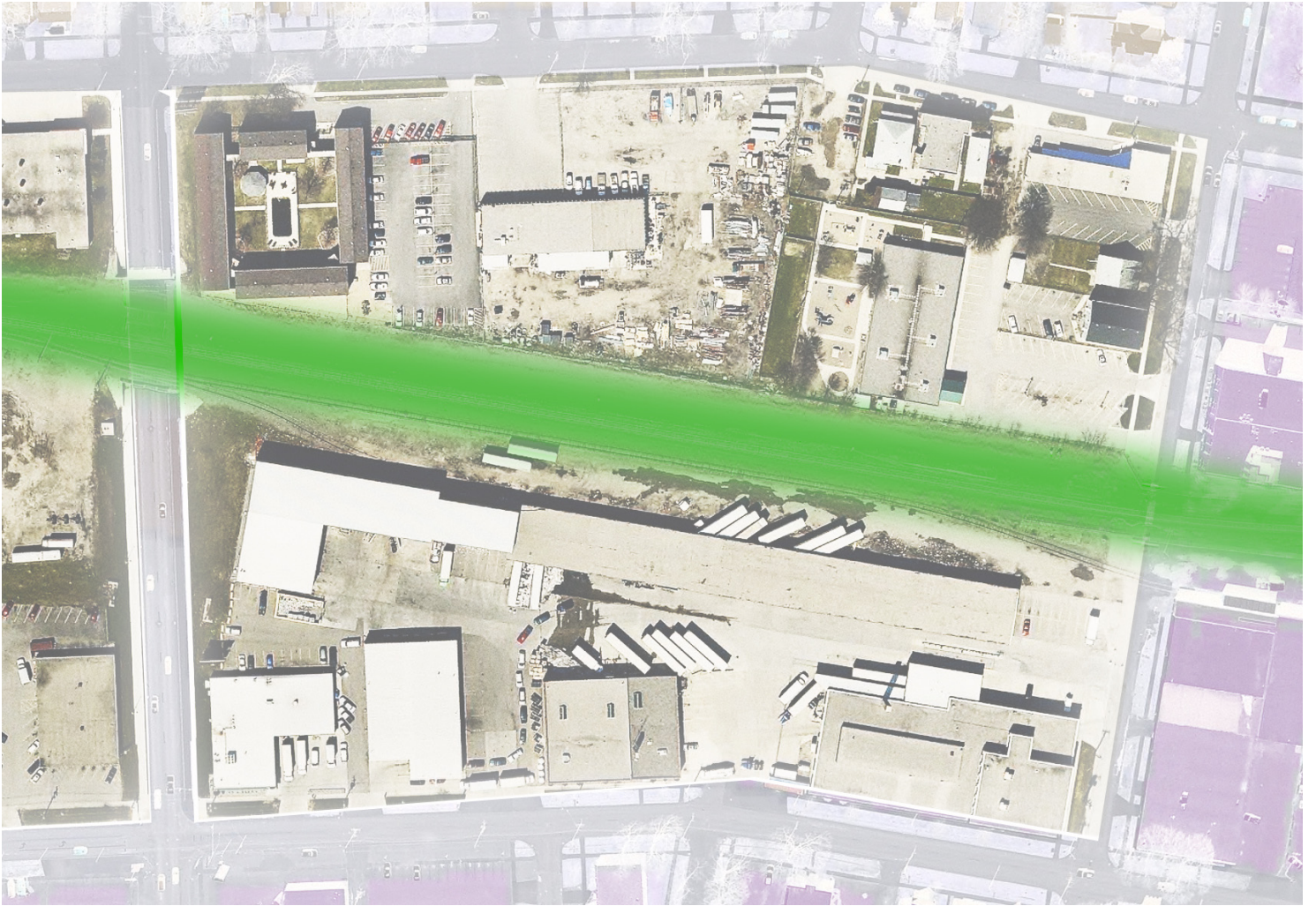


Prosper Sub-Division Corridor

PROJECT SITE



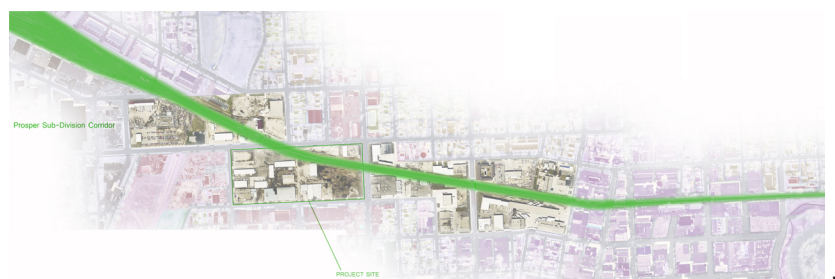
Recycling and Distributing Block



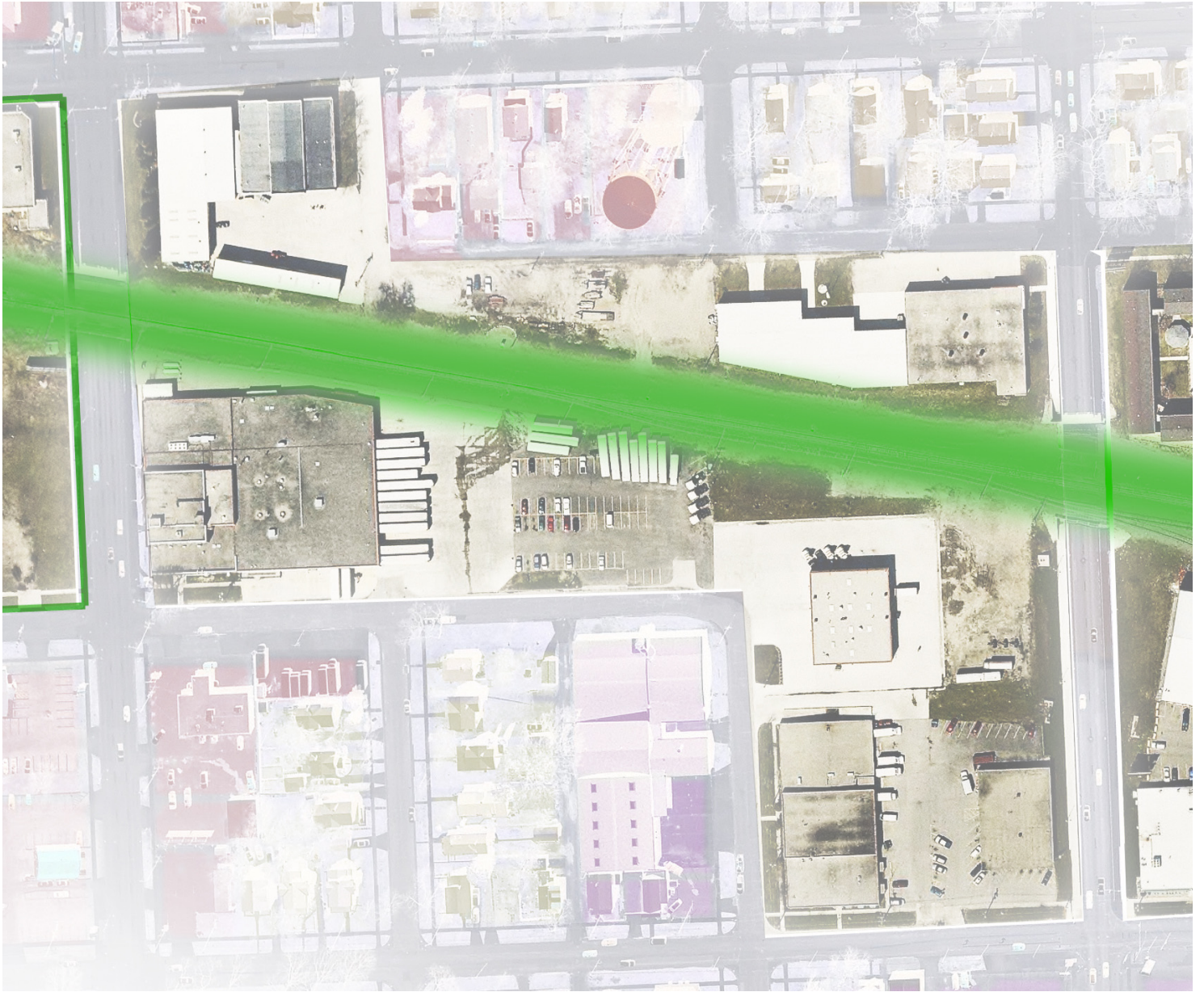
Bounded by 5th and 6th Avenues to the South and North, and 7th and 10th Streets to the East and West, respectively.

Currently located on site:

- Recycling Processing
- Beverage Wholesalers
- Casper's School of Dance
- Apartment Complex
- Drycleaning/Laundry
- Junk



Country Hearth Bakery



Bounded by 6th and 7th Avenues to the North and 4th and 5th Avenues to the South. 10th Street and University make up the West and East boundaries, respectively.

Currently Located On Site

Country Hearth Bakery

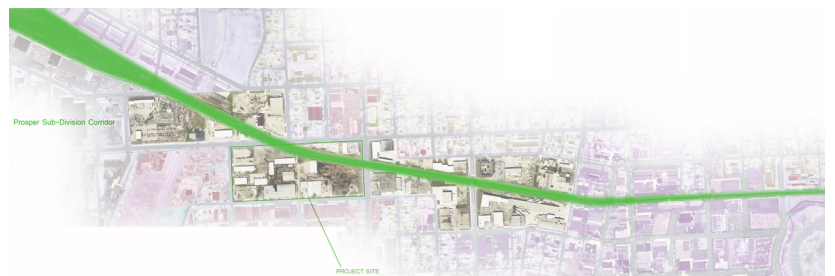
Parking

Auto Shop

Antique Stores

Park District Shop

Bumper Salvage



Commerce Center and Sports Arena Block



Bounded by 5th and 7th Avenues to the North and South, and University and 15th Street to the East and West respectively.

Currently on Site:

Hockey Arena

“Commerce Center”

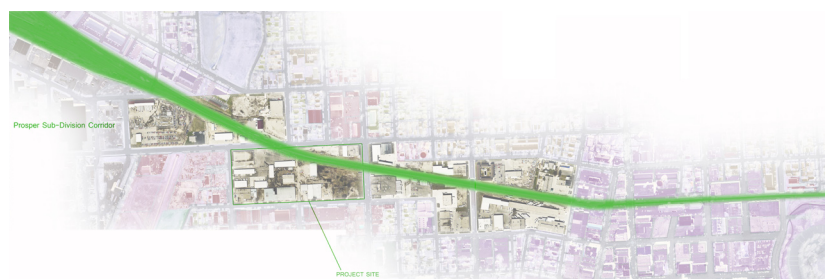
Tile Shop

Flooring Shop

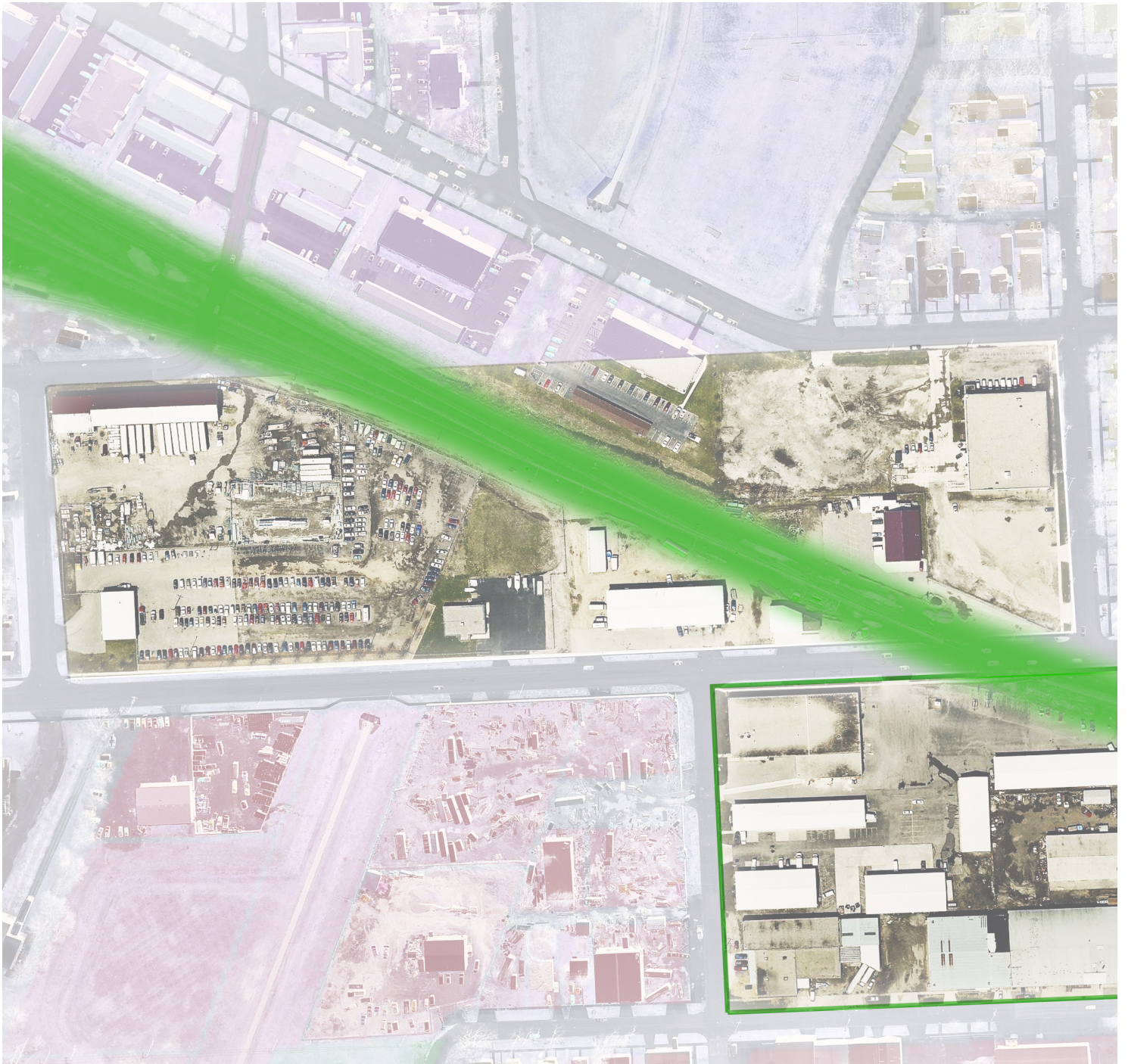
Warehouse/Storage Buildings

Freight Handling

Large Tree Protected by Fence



Auto Salvage Yard/Intersection of Green Spaces.



Bounded by 7th and 8th Avenues to the South and North, and 14th and 17th Streets to the East and West respectively.

Currently on Site:

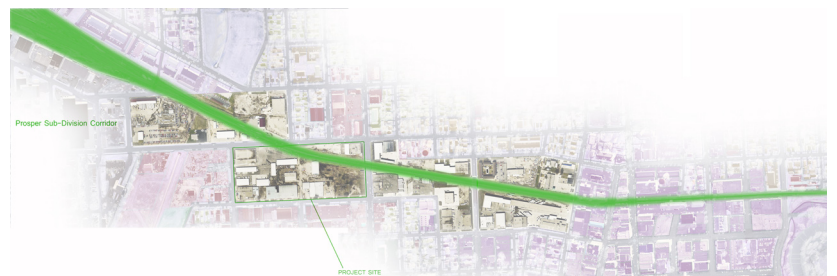
Auto Salvage Yard

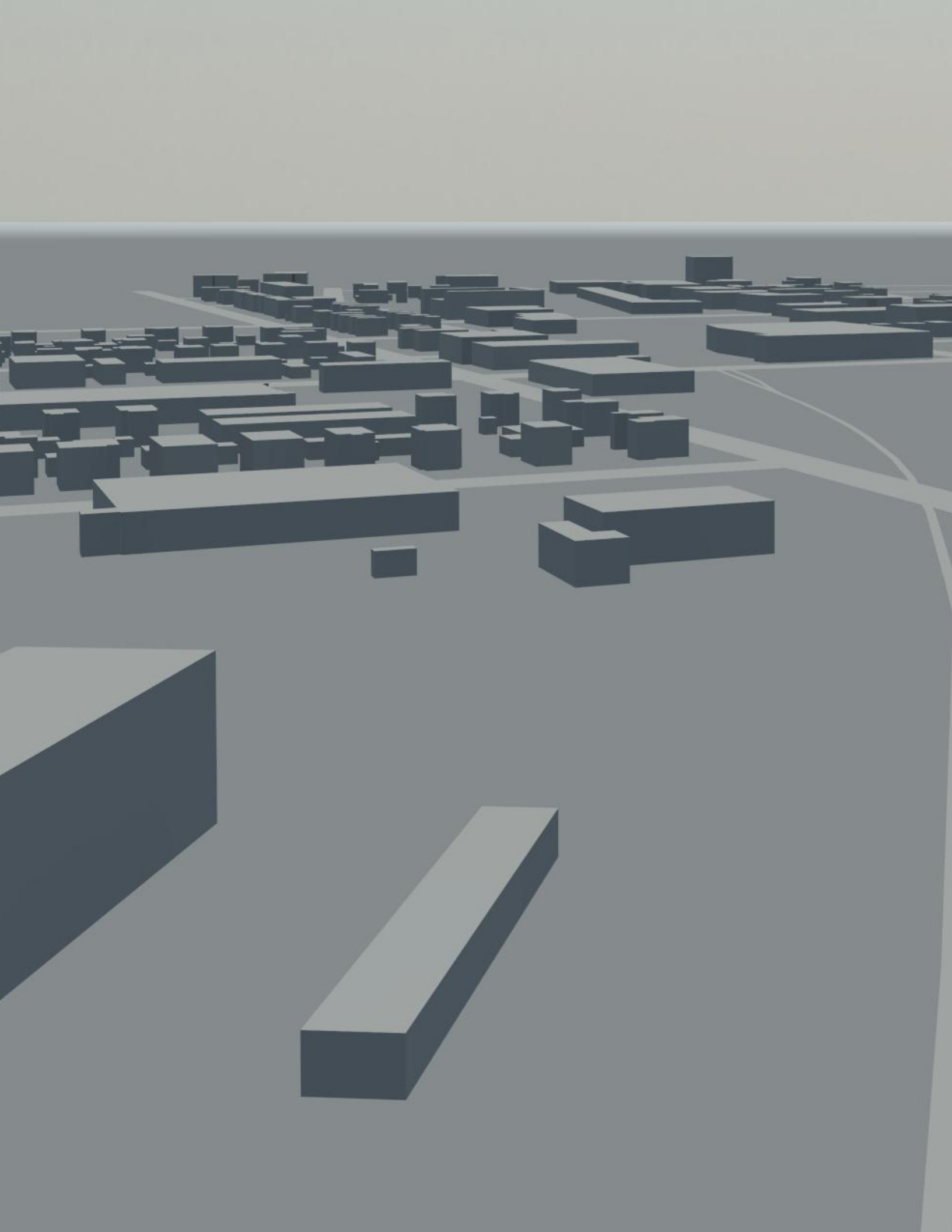
Newman Fence

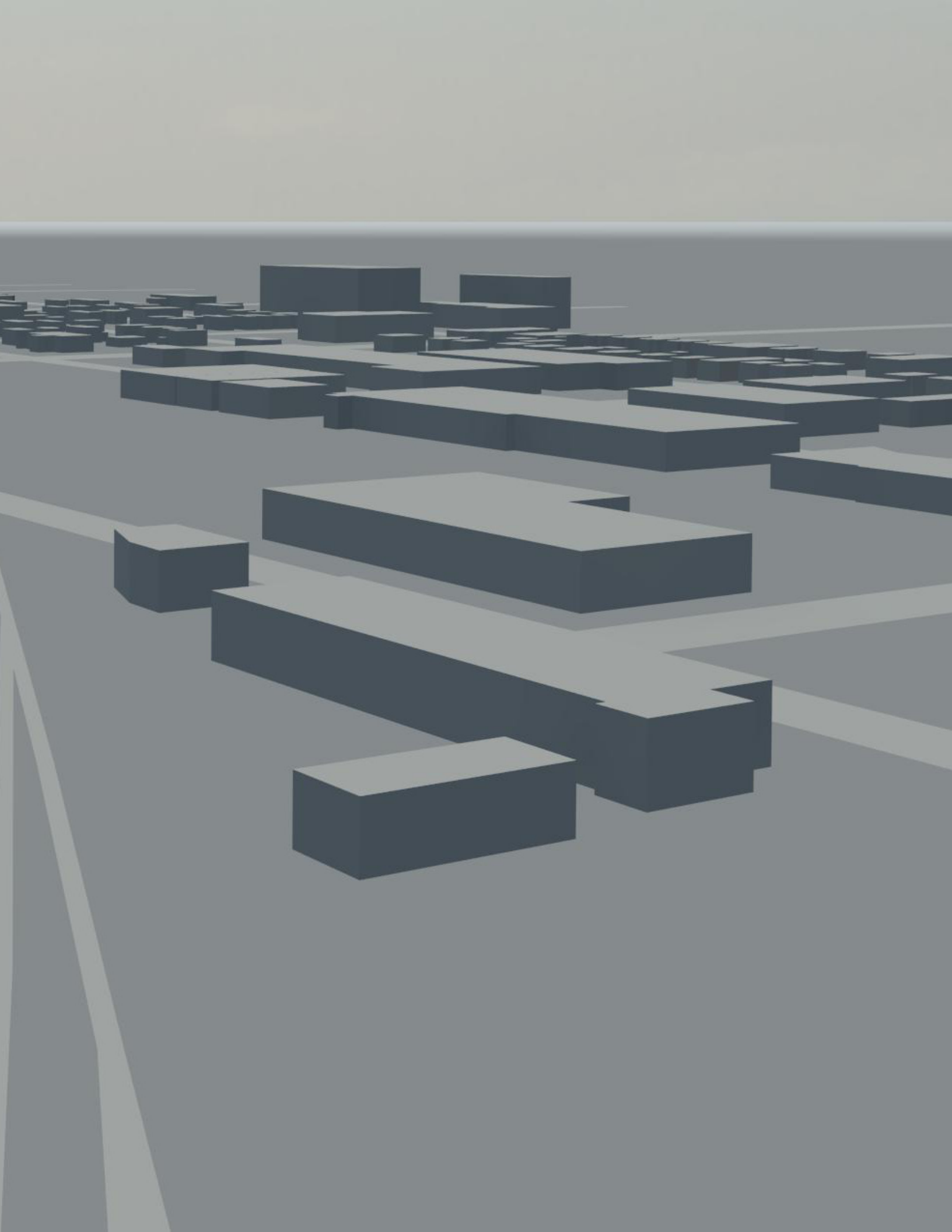
Garden Pavilion

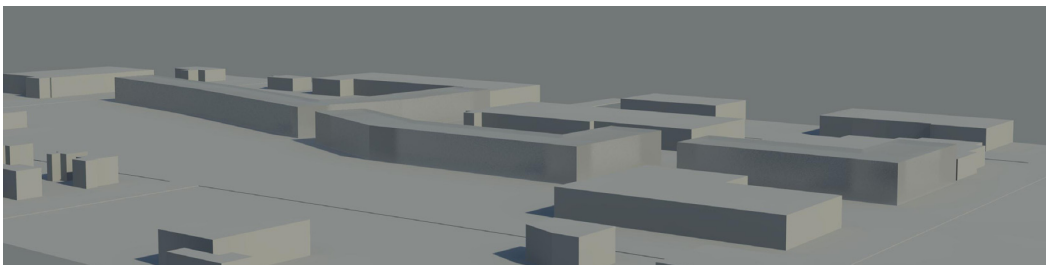
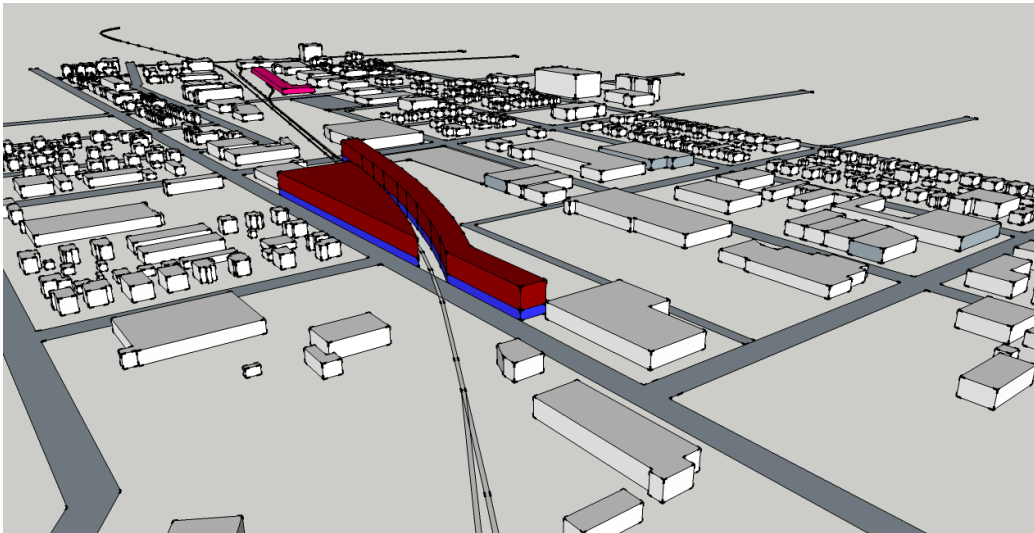
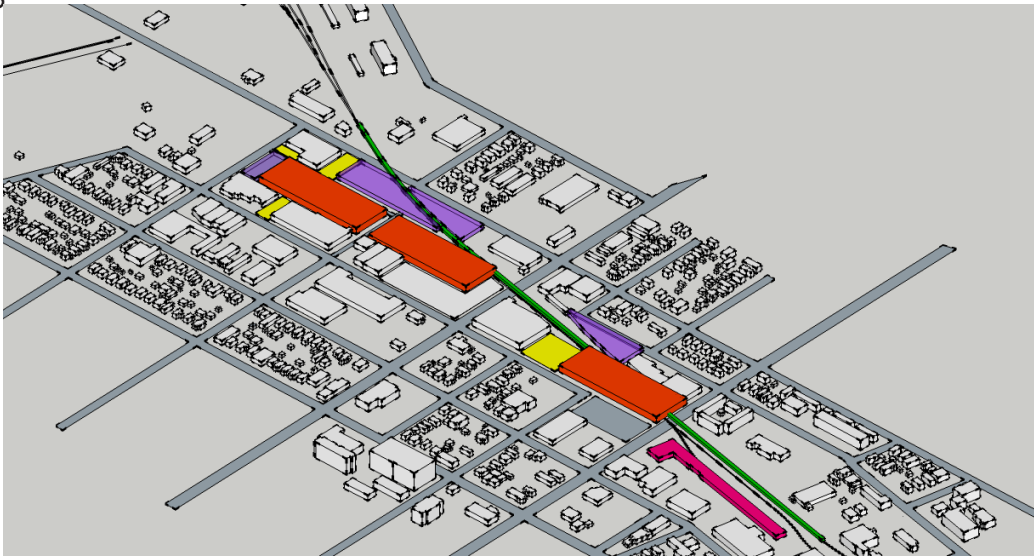
High Density Housing

Intersection of Prosper Corridor and
Drainage Ditch Park



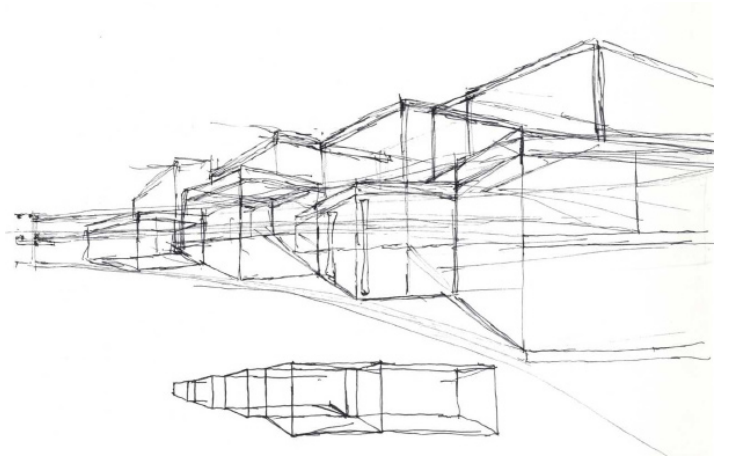
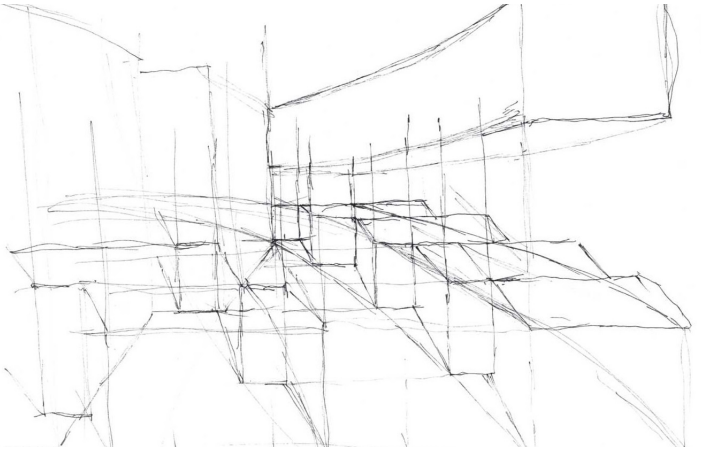




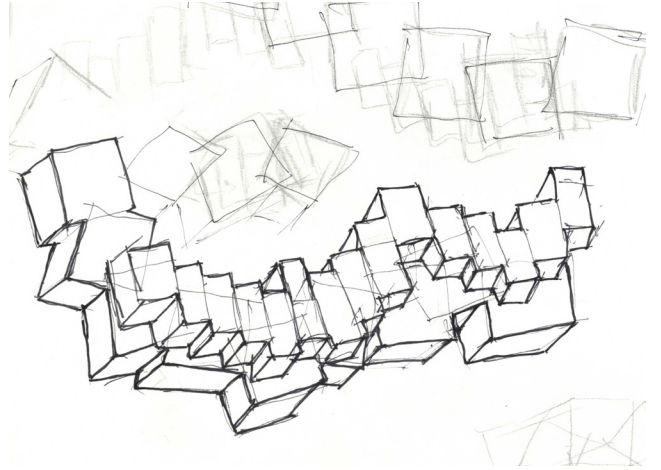
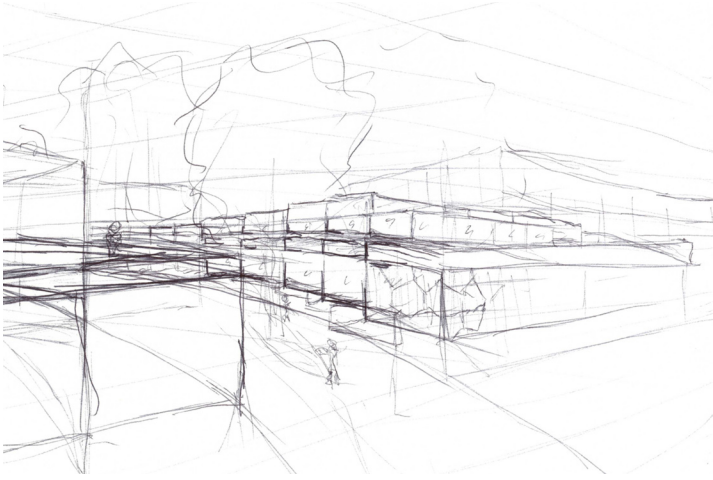


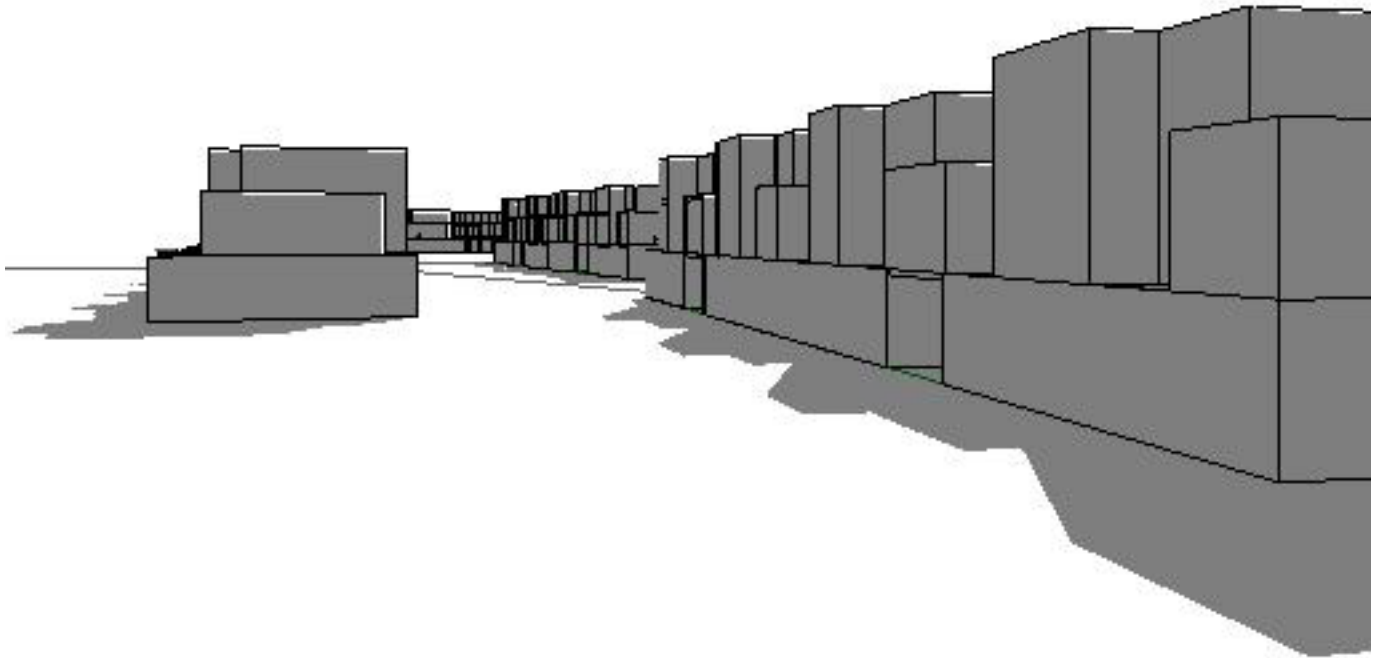
Site Plan Massing Studies



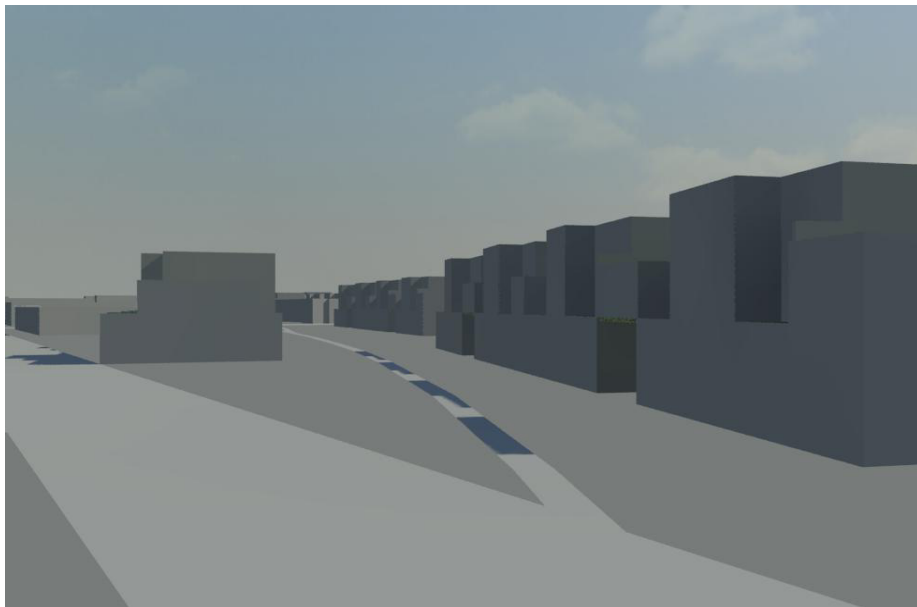
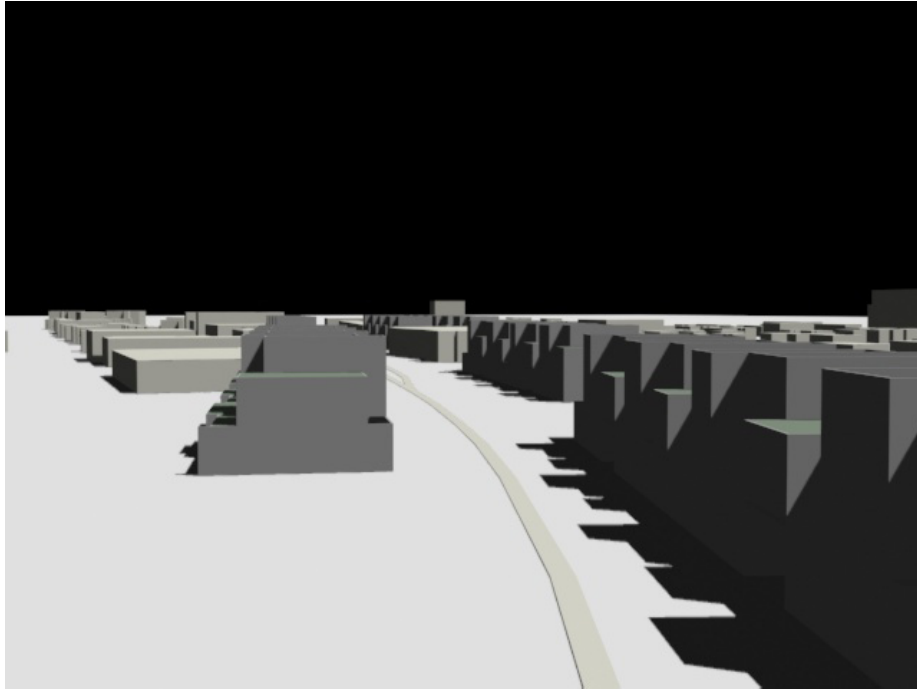


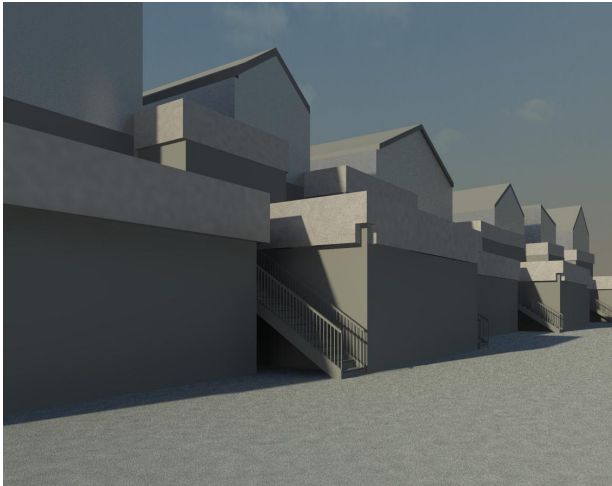
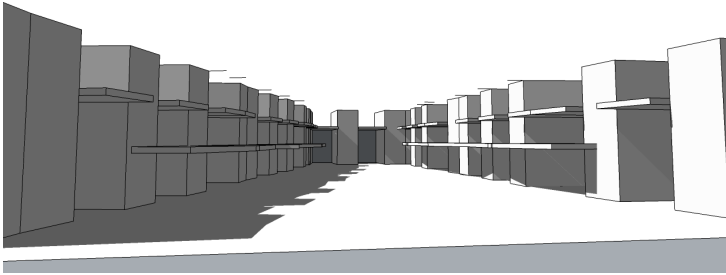
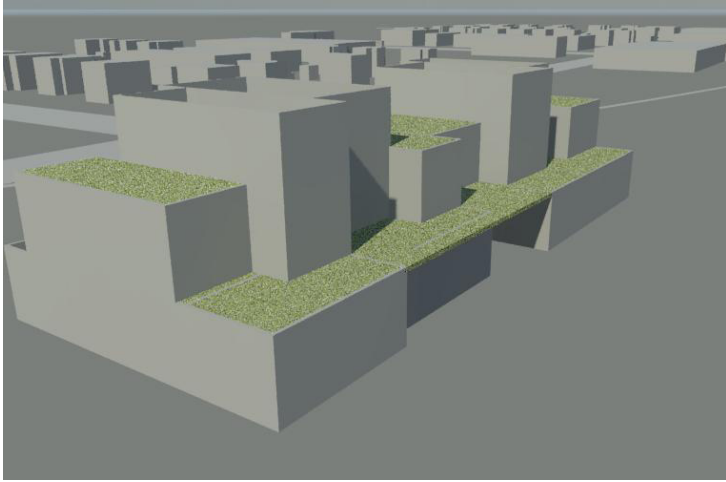
Process Sketches Massing





Site Plan Massing Model Renditions

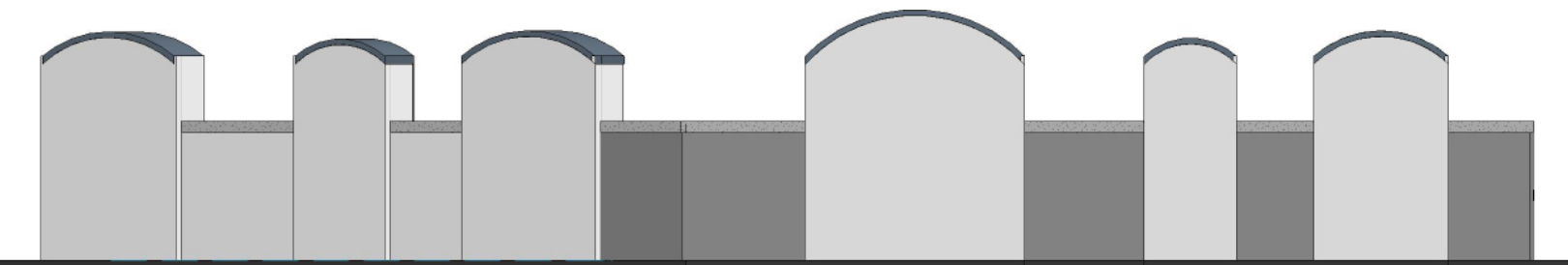
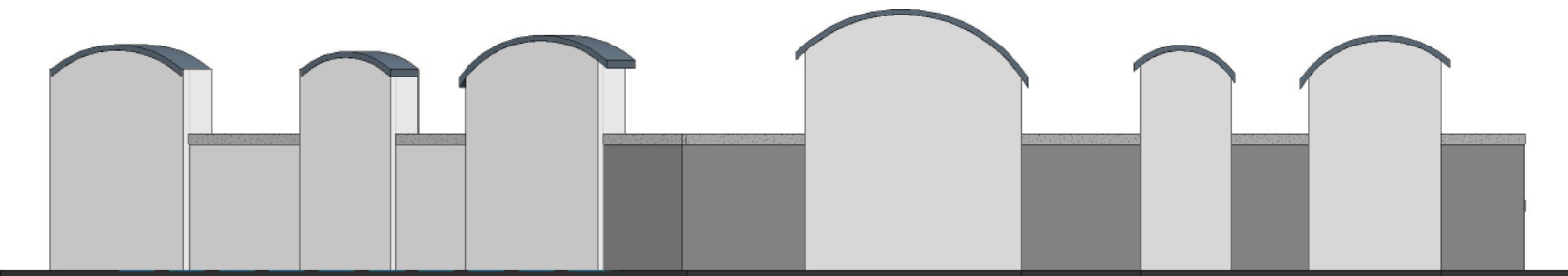
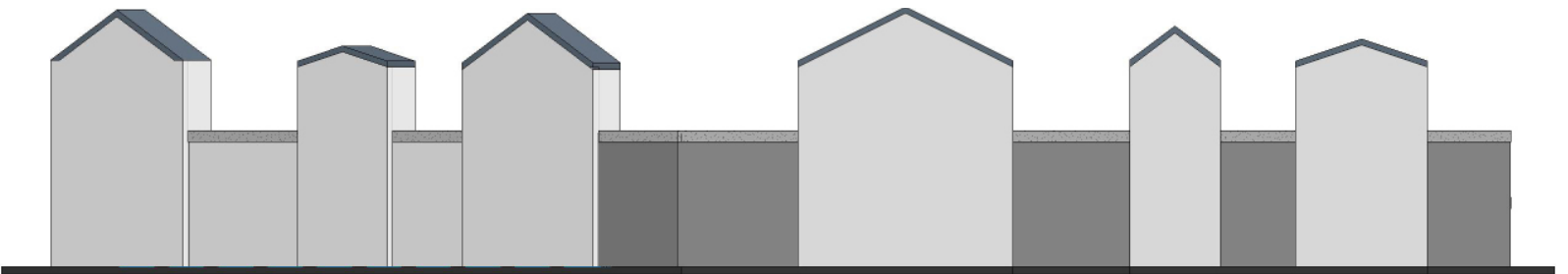


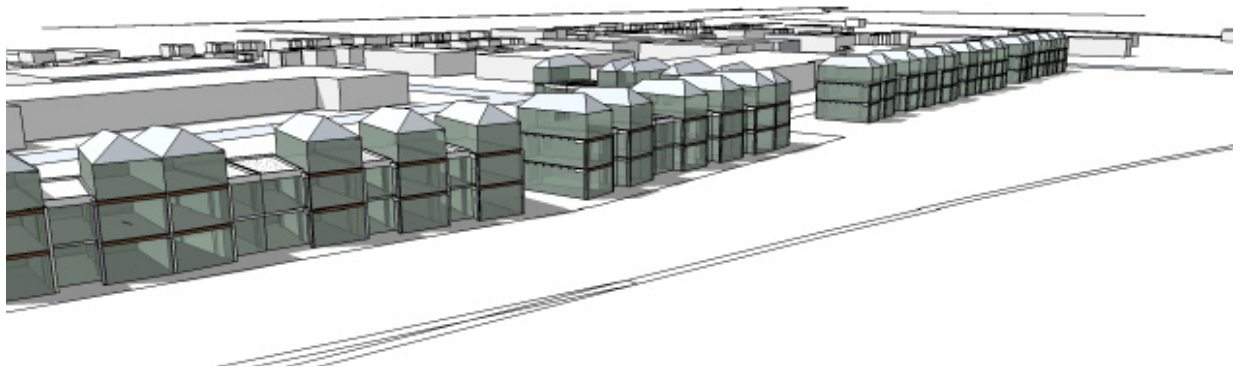
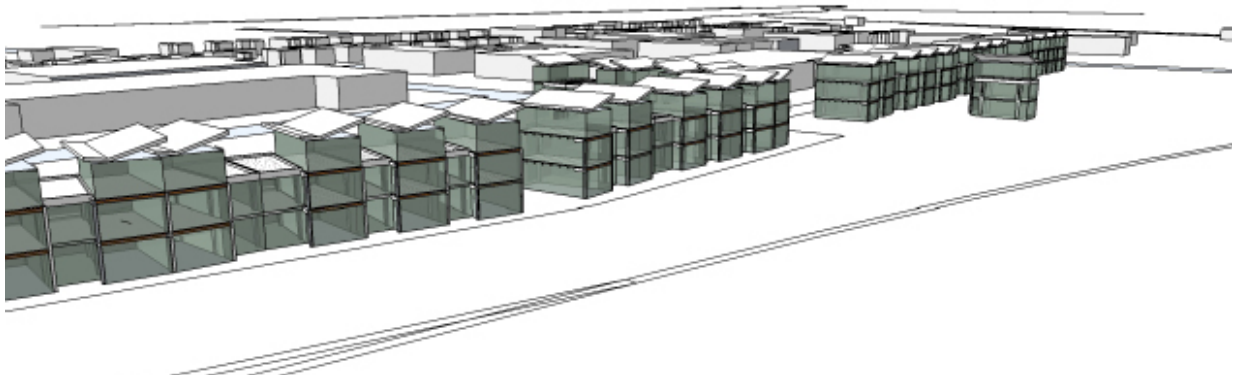
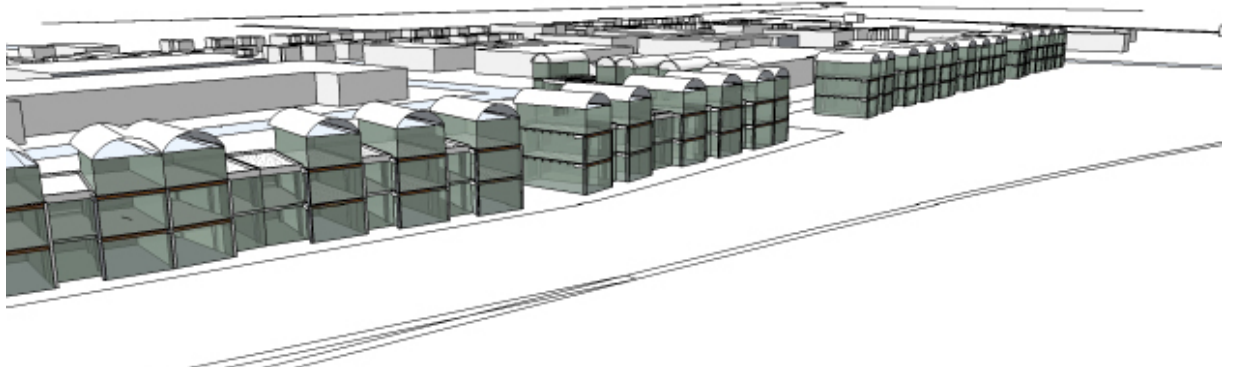


Mass Model Renditions

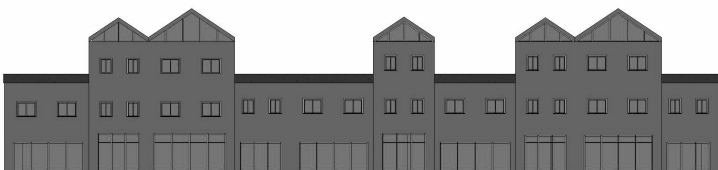


Roof Renditions



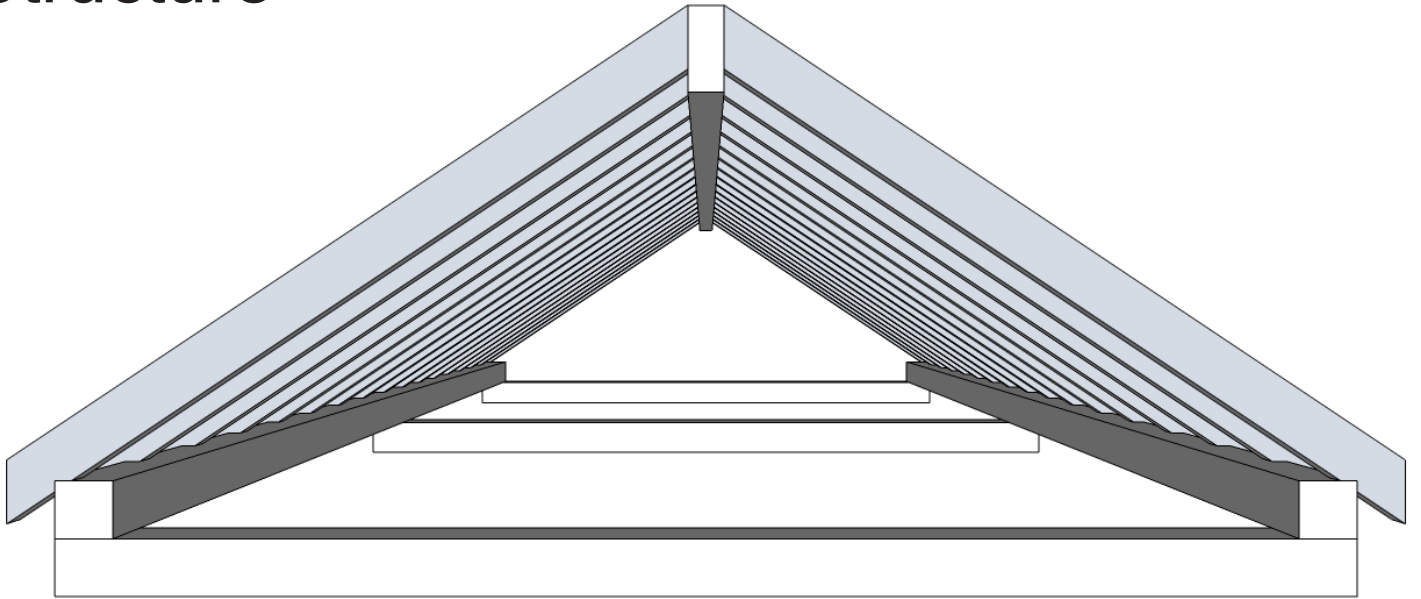


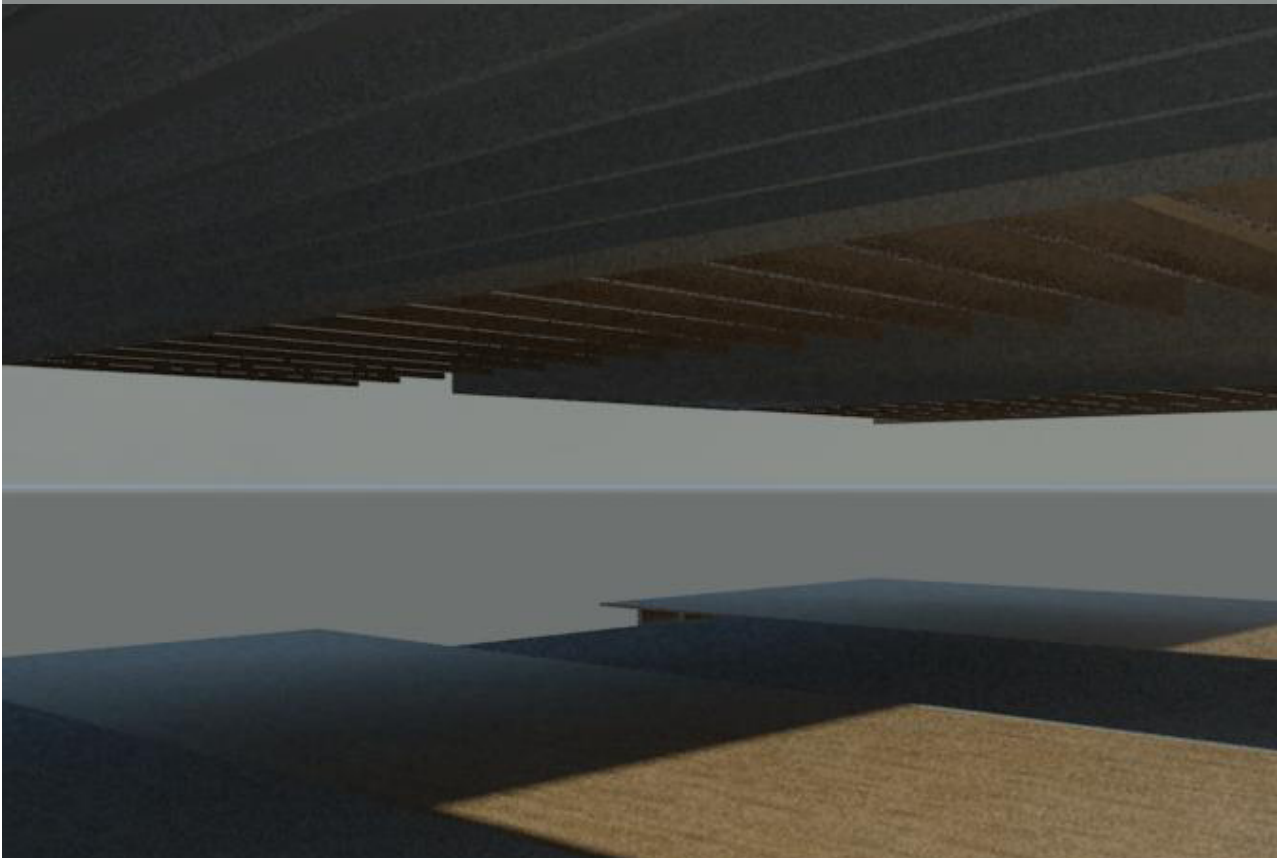
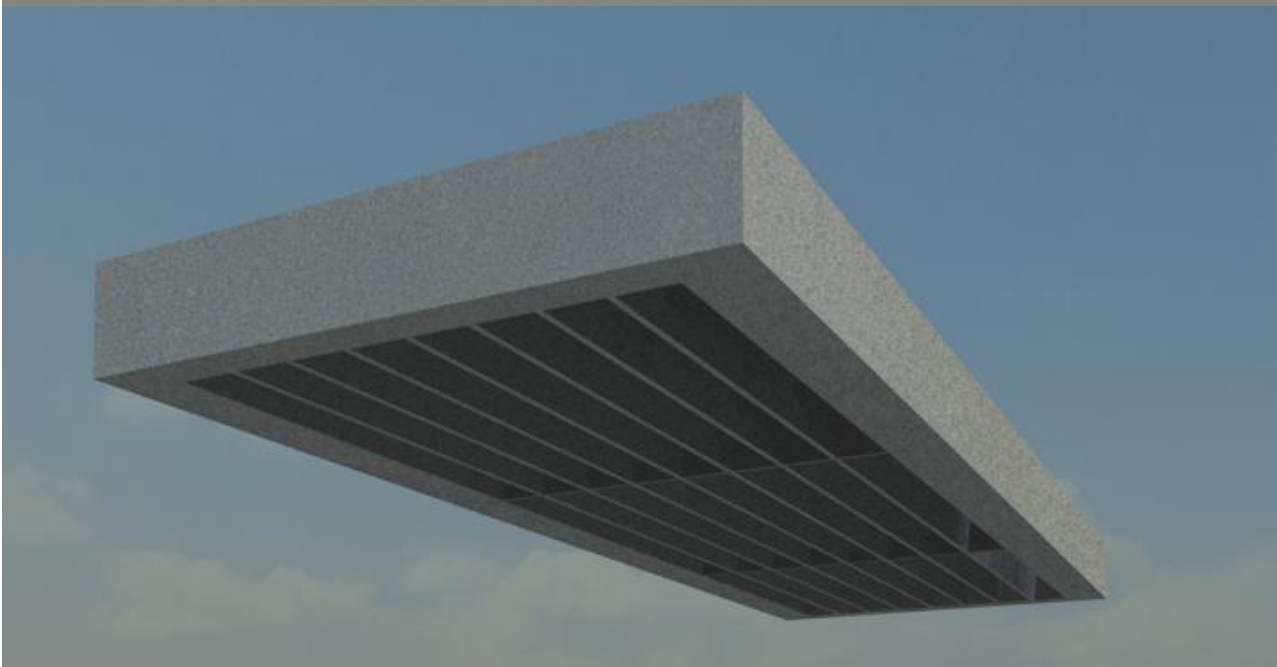
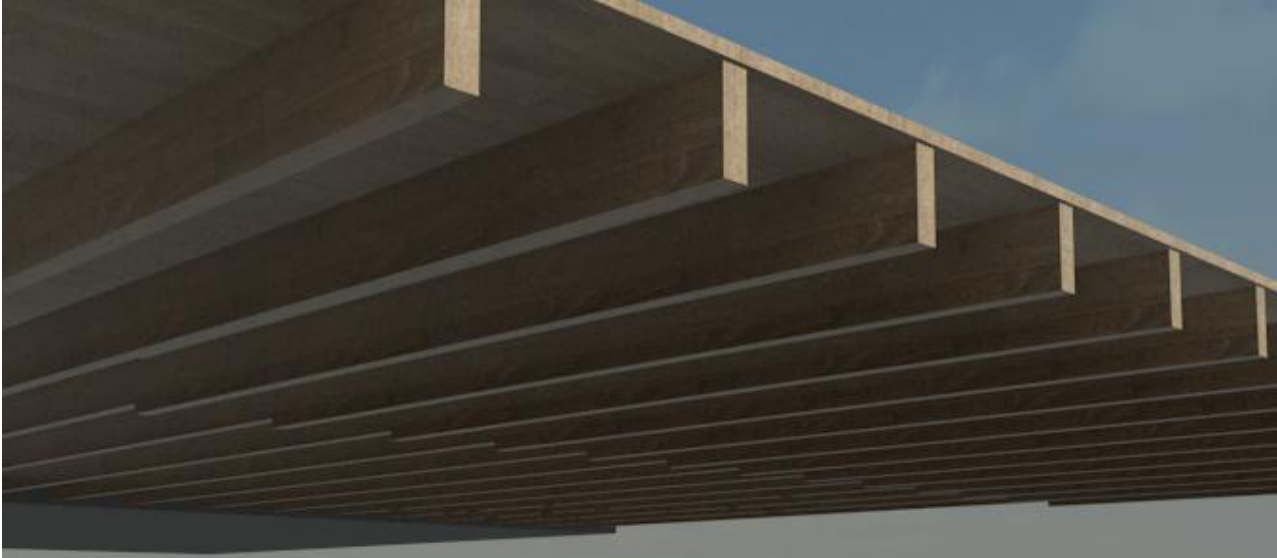
Roof Renditions





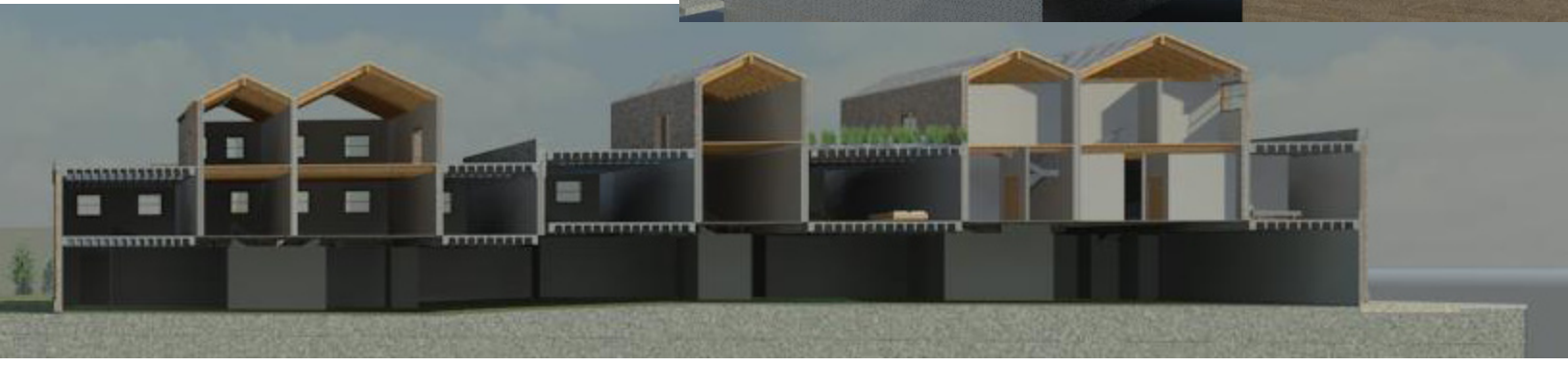
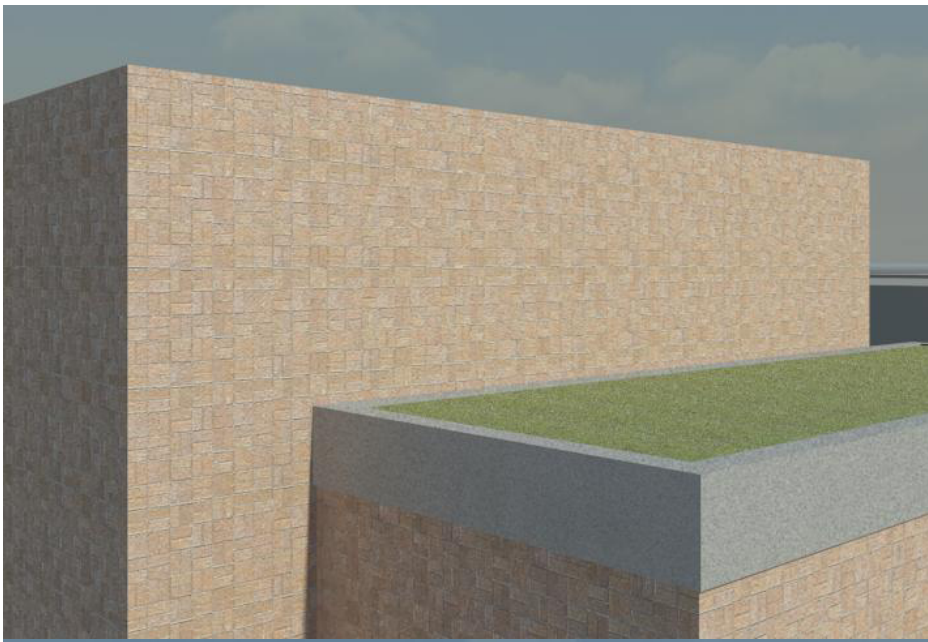
Structure



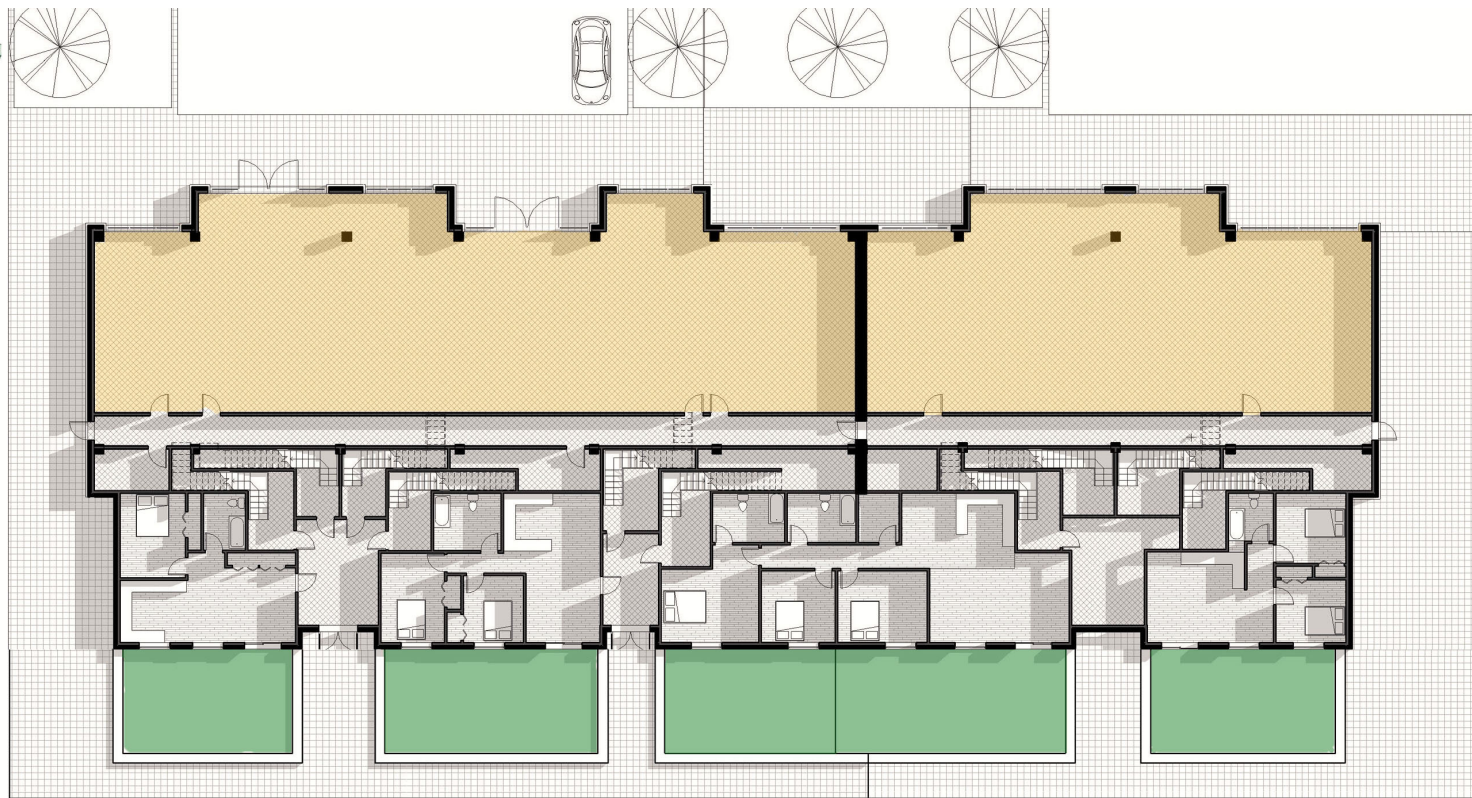


82 ^{page} Materials and Systems

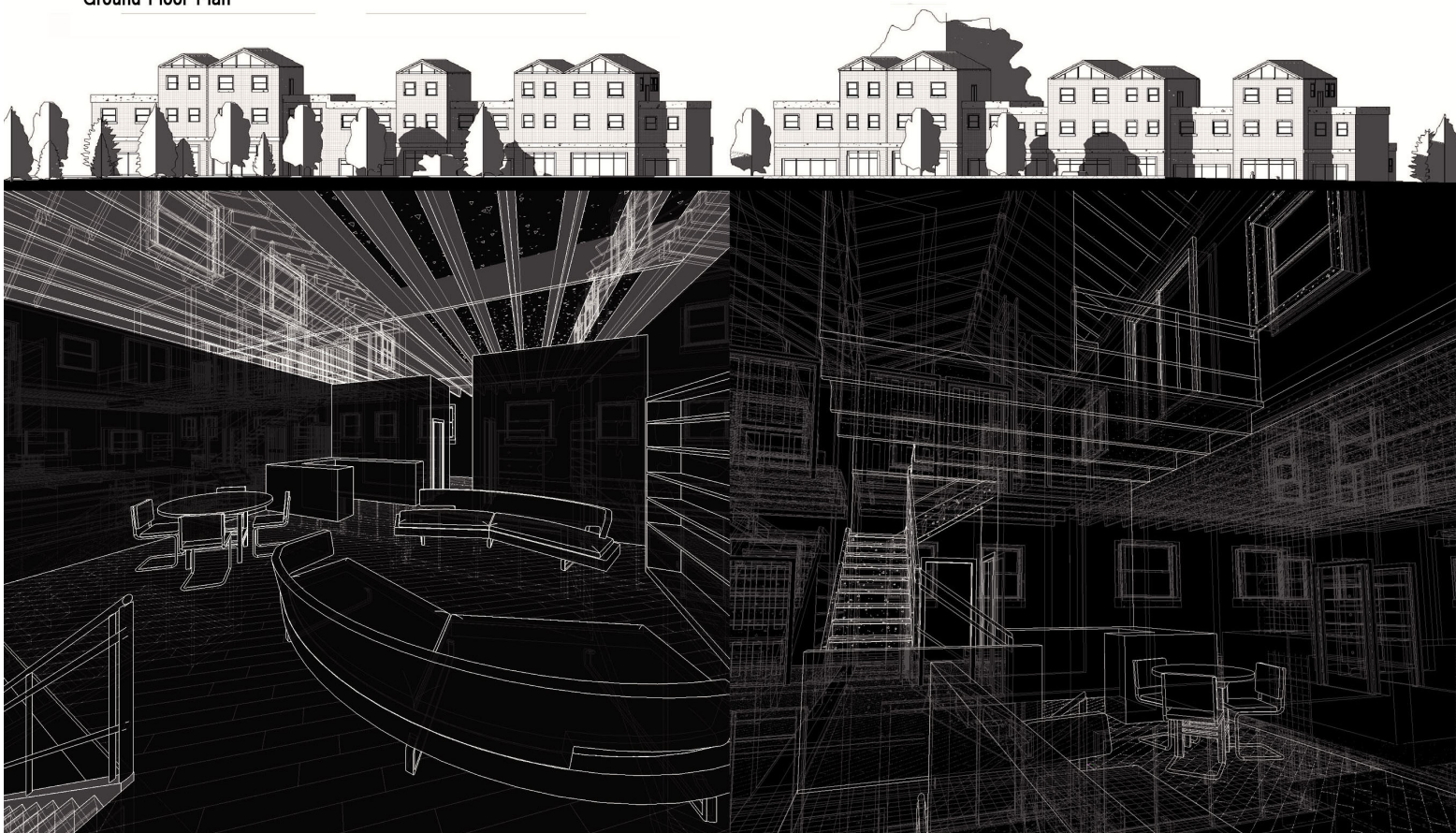




Typical Floor Plans

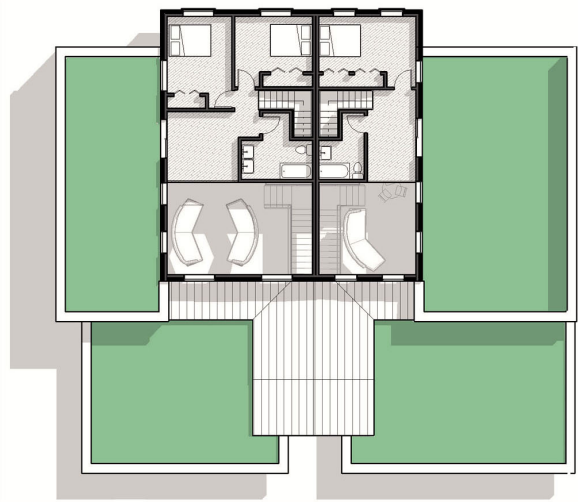


Ground Floor Plan





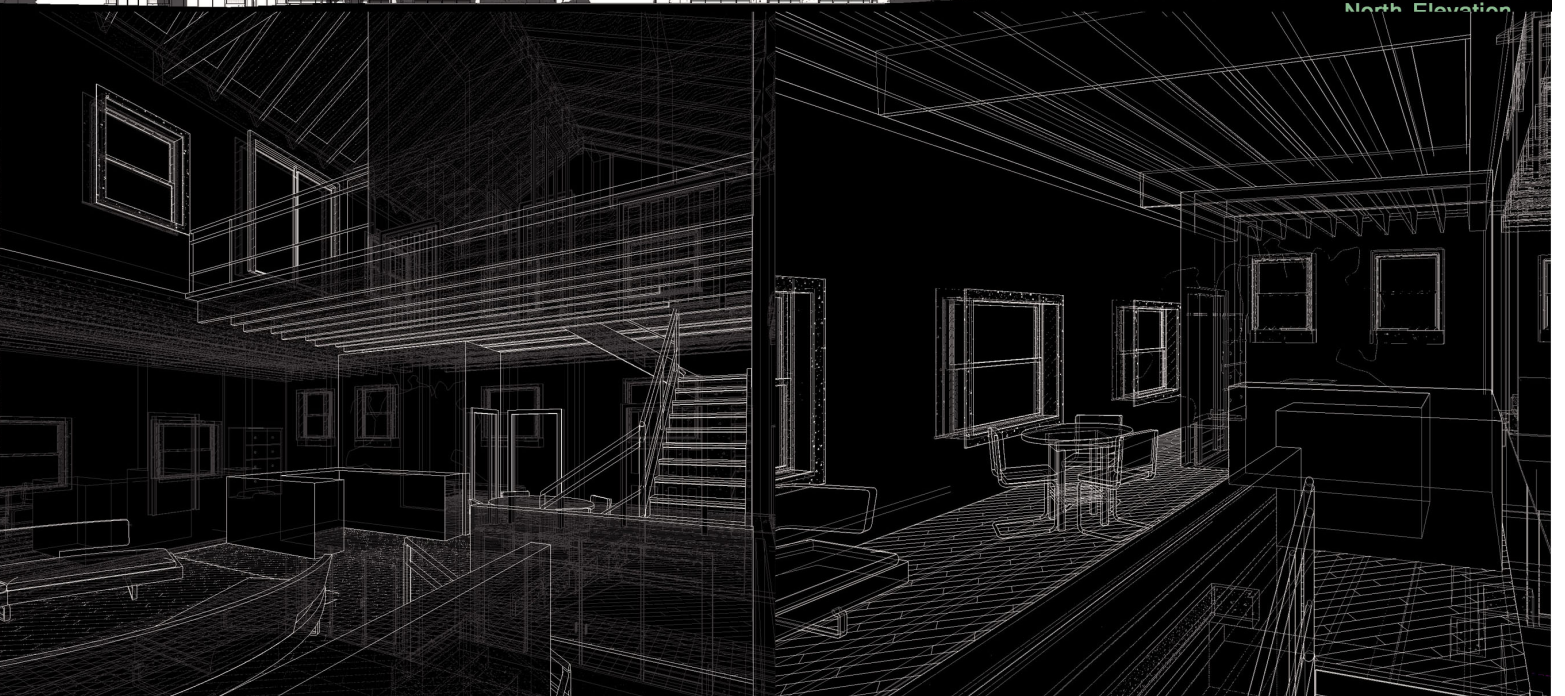
Typical Second Floor Plan



Typical Third Floor Plan



North Elevation



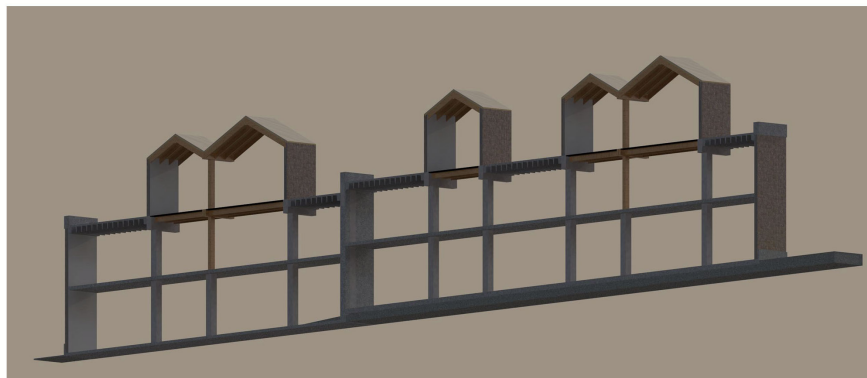
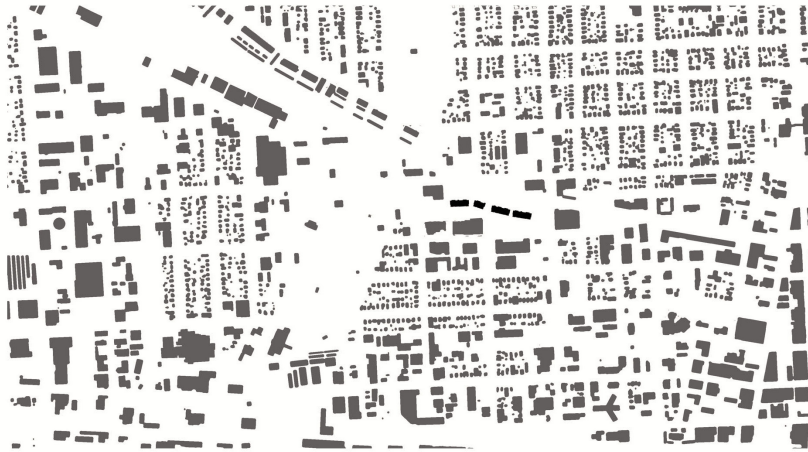






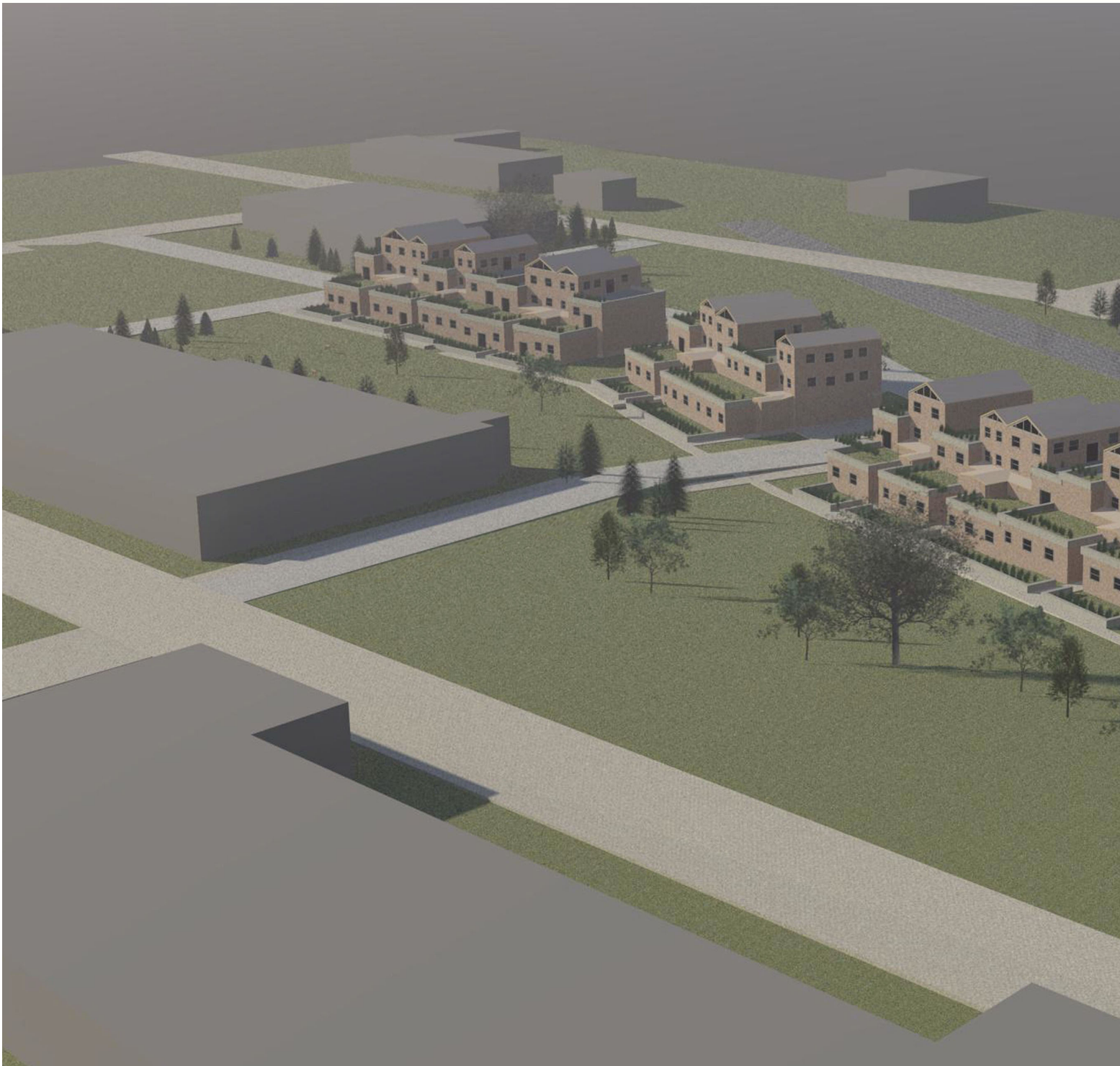








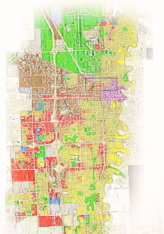






Final Boards

Urban Resurrection: an alternative to sprawl



- 10 Principles of Smart Growth:**
1. Use land wisely.
 2. Take advantage of compact building design.
 3. Create a range of housing opportunities and choices.
 4. Create walkable neighborhoods.
 5. Create diverse, attractive communities with a variety of uses.
 6. Preserve open space, farmland, natural beauty, and critical environmental areas.
 7. Strengthen and direct development towards existing communities.
 8. Provide a variety of transportation choices.
 9. Make development decisions predictable, fair, and cost-effective.
 10. Encourage community and stakeholder collaboration in development decisions.

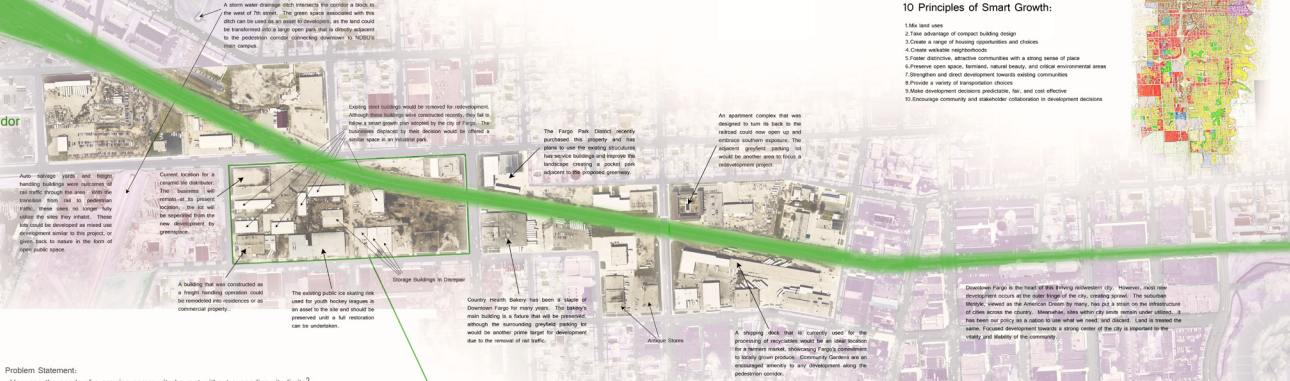
Prosper Sub-Division Corridor

The Prosper sub-division has cut through the eastern end of historic downtown Fargo. The site was constructed in the late 1920s and contributed greatly to the growth of the city for the next 50 years.

Over the last 50 years, America's love of the automobile has increased the reliance on single-use zones as a means of separating goods and services. The tracks that were once laid to connect distant areas have become a barrier between neighborhoods, and not a source of unity, reconnecting surrounding land uses at the center of the city.

The construction of the existing two-lane through Fargo creates a pedestrian gateway connecting downtown to surrounding neighborhoods, including 5000's from downtown. Land directly adjacent to the corridor becomes prime real estate for development.

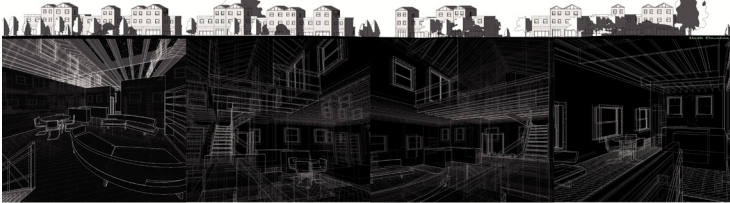
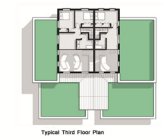
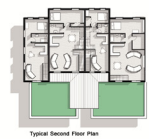
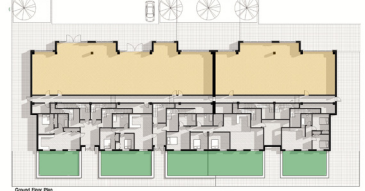
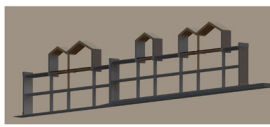
Four key areas along this corridor are highlighted.



Problem Statement:
How can the needs of a growing community be met without expanding city limits?

PROJECT SITE

EXISTING CONDITIONS and PROPOSED PEDESTRIAN CORRIDOR THROUGH FARGO



Fargo–Moorhead Downtown Framework Plan Update. Short Elliott
Hendrickson Inc., Camiros Ltd, Maxfield Research. January 2007

City Comforts. Sucher

Urban Design Futures. Moor & Rowland

The Life and Death of Great American Cities. Jacobs

CountryMouse.Blogspot. Image.

Postmodern Urbanism, Nan Ellin

Suburban Nation, Duany, Plater–Zyberk, and Speck

X Urbanism, Mario Gandelsonas

A Century Together, Fargo Moorhead Centennial Corporation

Fargo's Heritage, Norene Roberts

Fargo's Historical Context Study, Tim Holzkamm

Rain Gardens, Dunnet and Clayden

Regenerative Design for Sustainable Development, John Tillman Lyle

The City After the Automobile, Moshe Safdie

Design and Control of Land Development in Suburban Communities, A
Manual, The Institute of Rational Design

The American City. Alexander Garvin

Arch 172-Stephen Wischer
-Metaphor and Movement
-Sculptural Self Portrait

Arch 271 - Steven Wischer
-Tea House
-House for Twins
-Minneapolis Boathouse

Arch 272 - Mike Christianson
-Baz Honien Massing Study
-Collaborative Complex

Arch 371 - Cindy Urness
-Moorhead Library
-Institute for Future Studies

Arch 372 - David Crutchfield
-Hotel Galactic
-Austin Performance Arts Center

Arch 471 - Paul Gleye, Darryl Booker, Frank Kratky
-Vertical 40

Arch 472 - Ron Ramsey
-North Coast College

Arch 771 - Steve Martens
-Dixon Block: Historical Preservation & Adaptive Reuse



1102 County Road 22
Washburn, ND 58577
Dustin.Leidholm@ndsu.edu

Personal Identification:

NDSU quote in the works. Go Bison!

