Designing a 21st century community: an exploration of the Ford plan in Saint Paul, Minnesota

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Designing a 21st Century Community:

An Exploration of the Ford Plan in Saint Paul, Minnesota

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April 26, 2019

Senior Thesis
Submitted in partial fulfillment of the requirements for the Bachelor of Arts in Urban Studies at Vassar College

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Acknowledgements

To the Vassar Urban Studies Department, for my education

To Tim, for your unconditional and unwavering enthusiasm, optimism, and support

To Margaret, for the harshest editing and best friendship I’ve ever known

To Evelyn, for everything
Introduction

While interning with the City of Austin last summer, there were always stretches of several days in which I was not given very many assignments. In order to pass the time but still be in the realm of productivity, I read every available online news publication, including CityLab, an online publication about urban areas and their functions. The morning of June 26, 2018, I was surprised to see my hometown of Saint Paul featured in the cover article, entitled “How an Ambitious Minnesota Eco-Project Became a Density Battleground.” This article became the springboard for my thesis.

It discusses the Ford Plan, an ongoing development project with the goal of transforming the 122 acres along the Mississippi River that housed the Saint Paul Ford Manufacturing Plant until its closure in 2011. The Ford Plan caught the attention of CityLab partly because it is so ambitious, and partly because it is so hotly contested by a group of citizens in Saint Paul. The Ford Plan is a design for a high-density, sustainable, mixed-income, mixed-use residential community along the Mississippi. Very little of the Old Ford Plant remains on the site, so it presents an opportunity to build a new community in a major city from the ground-up, incorporating new green technology and sustainable infrastructure, with the goal of using net-zero energy. This plan would be ambitious anywhere, but it seems especially unlikely in Minnesota, which does not have a reputation for innovative residential design, and where the temperature can be below-zero for weeks on end, making heating systems difficult to maintain. On top of this, this utopian-sounding plan is unpopular with many of the current residents, who worry about lowering existing property values and increasing traffic flow in their neighborhood.

I was excited for the opportunity to apply urban theory to an active, ongoing project, especially in my hometown. Over the course of my four years as an Urban Studies student at

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Vassar, I’ve often felt a disconnect between what I learn in the classroom and my life in Saint Paul. The Twin Cities are endlessly fascinating to me as unique urban spaces, both with access to the other, as well as the Mississippi River, but somehow were never mentioned in any of my classes. I, somewhat self-indulgently, wanted to use this thesis to bridge the gap between my education living in New York and my observations living in Minnesota. As a citizen of Saint Paul, I had inherent biases and preconceived opinions about the Ford Plan and its major players before I began this thesis. However, I attempted to keep my mind as open as possible, and use my familiarity with Saint Paul and Minnesotans to guide my research process.

**Spatial and Demographic Context**

Saint Paul, Minnesota sits to the east of the Mississippi River, just across from Minneapolis. With a population of around 306,000 in 2017, it is a relatively small city, despite being the state capital. The population is increasing, with an 8.5% increase between the years

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3 Minnesota Compass, [https://www.mncompass.org/profiles/city/st-paul](https://www.mncompass.org/profiles/city/st-paul)
2010 and 2017. 20.4% of residents have an annual income that places them below the poverty line. 52% of the population were recorded on the census as white, with 15% of the population recorded as black, 17% as Asian or Pacific Islander, 4% as mixed race, and 9.7% Latino or Hispanic. The Twin Cities have significant immigrant populations of Hmong people as well as people from West African countries, specifically Somalia.

Saint Paul is known for being a small, family-oriented city, with large parts of the city dominated by single and multi-family homes, and very few tall, highrise-style buildings. It is largely divided into distinct neighborhoods, each with their own set of businesses, restaurants, and neighborhood character. These are displayed on the map below. My thesis focuses on the Ford Site, located in the southeast corner of Highland.

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4 Ibid.
5 Ibid.
Defining a 21st Century Community

One of the first things that struck me about the Ford Plan, other than its location, was the repeated use of the phrase “a 21st century community.” How, almost 20 years into the 21st century, are we just now building the communities that belong to the century? Isn’t every community that currently exists “a 21st century community?” What is it about this specific proposal that sets it apart from the others? By unpacking and unraveling the Ford Plan as a solution, I wanted to better understand the problem that they are trying to solve. Using the Ford Plan as a case study, I began to question: What are the major issues our society is facing in the 21st century? How can the built environment combat these issues?

Qualities of a “21st Century Community”

Philip Lawton, lecturer in Geography at Maynooth University, Ireland, discusses the role of urban public space in his 2007 article “Commodity or Community? The Role of Urban Public Space in the Early 21st Century.” He describes building a public space as “building the space for everyday life,” physically constructing the space for daily social interactions. In this way, urban public space forms the foundation for community to develop. Lawton acknowledges that different communities occur on many different scales, across many different identities. In this way, public space should be designed to enable interactions on a variety of scales and should be inclusive of all ages, races, genders, and abilities in order to create vibrant, healthy communities. Lawton also makes the point that communities are becoming increasingly privatized, and, in many cases, commercialized, as people with money and power more and more frequently make decisions designed to create and maintain social orders. This privatization, combined with

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8 Ibid.
9 Ibid., 37.
spaces managed by policing and signage, make public spaces into a battleground, with different groups contesting the others’ right to occupy space.

Author Charles Montgomery, in his book *Happy City*, addresses the fact that cities not only present physical design problems, but psychological ones. Planners, attempting to maximize efficiency of space without considering the happiness of the people who will live and work there, can design perfect, sterile communities that look more dystopian than utopian.\(^{10}\)

Montgomery gives the infamous example of Le Corbusier’s proposal for a new Paris, complete with his signature cruciform skyscrapers.\(^{11}\) Montgomery sets out a list of principles he believes a city should follow in order to facilitate the happiness and wellbeing of its citizens, including:

- The city should strive to maximize joy and minimize hardship.
- It should lead us toward health rather than sickness,
- It should offer us real freedom to live, move, and build our lives as we wish.
- It should build resilience against economic or environmental shocks.
- It should be fair in the way it apportions space, services, mobility, joy, hardships, and cost....\(^{12}\)

He advocates for evaluating cities on the grounds of how happy their citizens are and transforming happiness through design techniques, “changing the shape” of the city to increase the residents’ quality of life.

In order to accomplish these goals, Jeff Speck, city planner and author of the book *Walkable City: How Downtown Can Save America One Step at a Time* advocates for increasing pedestrian infrastructure, prioritizing walkability in urban spaces, shifting the emphasis away from cars and back to people. His “General Theory of Walkability” distills his observations into four distinct conditions: walking should, in his mind, be “useful,” “safe,” “comfortable,” and

\(^{11}\) Ibid.
\(^{12}\) Ibid., 43.
“interesting.” Walking should facilitate the accomplishment of tasks, make people feel secure in their environment, facilitate positive interactions between people, and be pleasing to the eye in its offer of variety. This can contribute to increasing happiness and psychological well-being in the users of the space in addition to significantly benefiting the environment, reducing the number of cars on the road and the emissions they create.

Prashant Goswami, a geoscientist and climatologist based in New Delhi, India, puts the recent rapid urbanization in India in the context of climate change. Over the course of his opinion piece, Goswami defines several different aspects he sees as essential in the formation of a “smart city.” He stresses the need to form a quantifiable definition of a smart city in order to use it as a planning model. For Goswami, a true “smart city” cannot only rely on technology, but must also be sustainable in order to function in the long term. As well as the need for basic health and safety, Goswami makes the argument that smart cities also need to maximize efficiency in transportation, with people spending the least time possible on the road. A smart city should be sustainable, compatible with the climate in which it is built, and ultimately, carbon neutral. Goswami, again in the context of increasingly rapid urbanization taking place, makes the point that cities should be the epicenter of an “urban-rural interface,” meeting the needs of the surrounding suburbs and bridging the gap between them and the city itself. In order to accomplish these goals, Goswami recommends new, master planned communities using comprehensive design.

This concept of the smart city is substantiated by Singapore-based architects Mun Summ Wong, Richard Hassell, and Alina Yeo in their 2016 article “Garden City, Megacity: Rethinking

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14 Ibid.
16 Ibid., 246.
Cities For the Age of Global Warming.” They address the fact that in order to be resilient, cities must adapt to climate change. Urbanization is contributing to climate change, concentrating more people in smaller areas and prompting more construction and development. In order to solve both the issue of city populations rising and the climate problems this causes, the authors present Singapore as a model of a “garden city megacity.” They designed different prototypes of new models for urban areas with the goals of creating places with “greenery, community, civic generosity, ecosystems, and self-sufficiency.”

Wong, Hassell, and Yeo called for a drastic re-envisioning of land use in cities, an increase in density by building vertically, and an incorporation of green spaces throughout the layers of buildings. This vision calls for buildings to be multi-use, each layer contributing a different function. In order to combat issues with shading and plant growth, the authors also proposed building a city with an “inverted skyline,” allowing the sun to filter through with minimal shading from the buildings, as well as “sky gardens,” greenery planted at the tops of the buildings receiving the most sun. They also place an emphasis on “breathability” using both greenery and passive house technology to design natural ventilation systems, allowing the architecture to “breathe” as naturally as possible without relying on mechanical systems. The ultimate goal of the authors’ designs is to create a “self-sufficient city” that provides all of its own energy, food, and water within the confines of the city limits.

Taking all of these concepts into account, a more complete image of a “21st century community” begins to emerge. In the 21st century, people of all identities and demographics

18 Ibid., 46.
19 Ibid.
20 Ibid.
21 Ibid., 47.
22 Ibid., 48.
23 Ibid.
24 Ibid.
should be taken into account in the design process, and accessibility for all should be a priority for any planner. In addition to being people-focused, a plan for a new community in the 21st century should address technological advances in a society, maximizing efficiency of energy usage, transportation, and infrastructure. Communities should be designed to be resilient, both protected against the adverse effects of climate change as well as preventing further emissions with sustainable design tactics, with the goal of total self-sufficiency in energy and resources. Put simply, a “21st century community” is the vision of an ideal future, in which everyone has access to all public spaces in cities, and cities are able to withstand any disaster, perfect fortresses reinforced with sustainable, net-zero emission technology. It seems utopian and unattainable, but plans for these communities, like the Ford Plan, are already being put into motion.

In the Context of the Ford Plan

The phrase “a 21st century community” was used by city officials, planners, and stakeholders to describe the Ford Plan very early in the planning process. In an interview about the Ford Plan in the summer of 2018, Tom Fisher, the director of Minnesota Design Center, was quoted saying, “this is an opportunity to envision what a 21st-century community is.” The phrasing that Fisher used pushed the concept even a step further: in the design of the Ford Plan, planners were not simply checking the boxes of how others have previously defined different 21st century communities, but doing something totally new. They were, in essence, leading the way into the future of planned communities in cities.

The concept of building a community for a new era of life was central to every aspect of the Ford Plan, from the industrial, working class roots of the site to the planned innovations in sustainability and green technology. With so much open space to work with in a major urban

25 Walljasper, “How an Ambitious Minnesota Eco-Project Became a Density Battleground.”
area, the Ford Plan presents a unique opportunity to lead the way in reshaping the urban fabric of Saint Paul.

Over the course of this thesis, I consider the major themes of transforming an industrial space to a mixed-use residential space, private versus public space, privately owned public space, and their potential impacts on access and connectivity, the concept of sustainability and the different ways to achieve it, and the role of community engagement in the planning process. The concept of the “21st century community,” how to define it, and how it shapes the Ford Plan, remains central throughout. I looked at local news publications, scholarly articles, websites and social media pages, and official city documents and reports to pick apart the many different nuances of the Ford Plan and the context in which it arose. In the scope of this thesis, I know that I was unable to devote time to fully explore all nuances of the Ford Plan, but I chose certain aspects that most exemplified the “21st century community” identity that it has been given. Because I chose to study an ongoing project, I imposed a January 1, 2019 cut-off date, and did not include any research published in 2019, although there have been several community meetings and updates to the plan.

In the first chapter, I provide historical context for the Ford Site, examining the spatial history of the site, the development of the Ford Plant, and its impacts on the community. Although the development of the Ford Site will not maintain the buildings or infrastructure used in auto manufacturing, the site’s legacy as an industrial space and as a space for employment shape the development principles used in the drafting of the Ford Site Zoning and Master Plan.

In the second chapter, I go through the Master Plan, unpacking the timeline that lead to its approval in 2017, and breaking the plan down, evaluating its individual chapters. I introduce the major forces at work behind the drafting of the Master Plan (Ford, the City of Saint Paul, and the State of Minnesota, and the private developer, Ryan Companies) and examine the
intersections of their power and influence over the development process. I examine the impact that these different entities have on the development of an accessible, diverse community, putting the development plans in the context of privately-owned, public space.

To better understand the impact of green technology and the creation of a “sustainable” identity for the Ford Site, in the third chapter, I zero in on the aspects of the Master Plan involving sustainability, examining the role of economic, social, but mainly environmental sustainability in shaping both the physical development plans as well as the project’s branding a “21st century community.” I put these concepts into context with the necessary process of brownfield remediation that was necessary in order to shift the land from an auto manufacturing plant into a safe, healthy, residential community.

In the final chapter, I return to the idea of power and agency in shaping the development process, examining community resistance to the Ford Plan and the processes of due diligence and public comment. I conclude the chapter by using a reading of Henri Lefebvre’s concept of “right to the city” to shape my argument.

In my conclusions, I examine the timeline of the Ford Site from its beginnings as an industrial space to now, and I return to the concept of a “21st century community,” putting it into context with each aspect of the Ford Site I explored, and evaluating it as a viable way to describe the Ford Plan.
Saint Paul Historical Context: The Old Ford Plant

When the Old Ford Plant closed in 2011, Ford began the process of removing almost all existing buildings and infrastructure and restoring the soil, leaving almost nothing of the plant behind. The Old Ford Plant has very little physical connection to what is now called the Ford Site, the empty land waiting for redevelopment, but the history of the site as a place of employment and as a place of efficient manufacturing can be connected to many of the concepts and priorities that dominate the current master plan. Because Ford Motor Companies still owns the land, it is important to be conscious of the legacy of the Old Ford Plant when considering and evaluating the Ford Plan. In this chapter, I provide a brief timeline of the rise and fall of the Ford Plant, as well as further examining Henry Ford’s desire for hydroelectric power that lead him to the Twin Cities in the First Place. This chapter draws heavily on the work of Minnesota historian Brian McMahon, who has published several articles, a book, and a short ebook on the topic of the Saint Paul Ford Assembly Plant and Ford’s activities in Minnesota.

The Old Ford Plant (1923-2011): A Brief Timeline

Ford began expansion out from the Dearborn, Michigan manufacturing plant around the turn of the century. In 1908, the Model T was creating, revolutionizing the auto manufacturing industry and necessitating the construction of assembly plants that could fit the assembly line required to build the car. One of the main events pushing Ford to expand elsewhere was a strike at a factory in Buffalo, NY around the same time he turned to the Twin Cities. Ford established a pattern of getting around issues with workers and with city ordinances by establishing power: having one of his factories in a city was desirable because of the economic

27 Ibid., 6
28 Ibid., 7.
boost and jobs it would provide. If things were made difficult for him, he would simply take his business elsewhere. In this vein, Ford originally wanted to locate his new plant in Minneapolis, which had a reputation for being more densely populated and more suited to industry than Saint Paul, as well as having the same access to the Mississippi River and the Canadian Pacific rail lines. However, Minneapolis could not get the necessary policies to allow construction to begin approved, so Saint Paul eagerly took the bid, rezoning the site of 135 acres from residential to industrial.

Ford first visited the Saint Paul Plant in 1923. Well located, overlooking the river, and with plenty of room for eventual expansion, the new plant was ideal. Ford employed the architect Albert Kahn to design a state of the art, modern, beautiful factory. McMahon describes the factory as seemingly a “monument to Ford,” a piece of art on the river.

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29 Ibid., 13
32 Highland Park Ford Assembly Plant designed by Albert Kahn, image via Google Images accessed April 2019.
Production at the Highland Park Plant ensued, bringing more people into the city in search of work, drawn by Ford’s famed five dollar daily pay policy. The plant also was the catalyst for infrastructure projects in the city, such as the streetcar line that was built straight into the site, and the construction of Saint Paul Avenue.\textsuperscript{33} Manufacturing was shut down during the depression, and briefly halted for the war effort 1932-1937, but then increased manufacturing for the war effort brought Saint Paul more economic prosperity.\textsuperscript{34} In the 1970s, industry changed, with the need to comply with new EPA regulations about oil use. The 1980s saw another shift: in order to compete with Japanese cars, the plant expanded and modernized.\textsuperscript{35} In 1999, the company constructed the United Auto Workers training center, providing classes for workers, but this project was short lived.\textsuperscript{36} 2000 was the beginning of the end, less job security. McMahon’s opinion on the closure of the plant was, “The closure of the Twin Cities Assembly Plant was a predictable and inevitable outcome of the manufacturing system that Henry Ford helped to create,” referencing the Ford concepts of efficiency and consolidation that were the force behind the creation of the plant in the first place.\textsuperscript{37}

\textit{Ford’s Desire for Self-Sufficiency: The Use of Hydroelectric Power}

With the Saint Paul Assembly Plant, Ford wanted a closed energy system, completely independent from the city grid, employing self-sufficiency of energy to increase efficiency of production.\textsuperscript{38} Saint Paul provided a lot of options for power sources, with the potential for the use of steam, powered by coal, and gas able to be transported from other areas in the midwest.\textsuperscript{39} Ford privatized his source of energy by constructing hydroelectric plant. Boilers were fed with

\begin{itemize}
\item \textsuperscript{33} Ibid.
\item \textsuperscript{34} Ibid., 13, 20.
\item \textsuperscript{35} Ibid., 25, 26
\item \textsuperscript{36} Ibid., 29
\item \textsuperscript{37} Ibid., 31.
\item \textsuperscript{38} Ibid., 12.
\item \textsuperscript{39} Ibid.
\end{itemize}
water from the Mississippi, and natural gas from Oklahoma and propane from Chicago provided backup power sources.\textsuperscript{40}

Desire to be independent from the city stemmed from distrust in centralization, but also self-indulgence and a fascination with power sources.\textsuperscript{41} It was more efficient to construct a plant at the site of power instead of transporting power, although he still did this with the multiple backup systems to ensure ongoing manufacturing.\textsuperscript{42} Around the time the plant was constructed, Minneapolis and Saint Paul battled over energy sources, specifically over membership in the Municipal Electric company and use of the hydroelectric power source available with the construction of the new High Dam in the river. Ford was working behind the scenes. In 1922 Ford moved in, promising power, infrastructure, factories, and employment. The company submitted its own competing application for the use of the dam, and Saint Paul withdrew their own application to support Ford’s.\textsuperscript{43} With the addition of hydroelectric power, employment at the plant jumped from 3000 to 14,000.

The timeline of Ford’s activity in Minnesota, specifically in the battle for hydroelectric power, provides a legacy of Ford working behind the scenes to get city policy that they needed approved, a desire for a closed source of power, and promises of employment. The influence of this legacy will be further unpacked in the next chapter, in which I introduce and evaluate the 2017 Ford Site Zoning and Master Plan.

\textsuperscript{40} Ibid.
\textsuperscript{42} Ibid., 62.
\textsuperscript{43} Ibid., 89
The Master Plan

After closing the Saint Paul-based plant in 2011, Ford conducted its first steps of the redevelopment process, clearing the Ford Site of all pre-existing buildings used in auto-manufacturing and beginning to decontaminate the land, bringing the quality up to residential standards.\(^{44}\) In December 2017, Ford put their 144 acres of land in west Saint Paul on the market to be purchased and developed by a master planner.\(^{45}\) The city approved the rezoning process necessary to develop the land in September, 2017. Formerly zoned for industry, the Ford Site was approved for medium-high density and mixed-use residential zoning, with 20% of housing units designated as low income housing.\(^{46}\)

The Ford Site Zoning and Master Plan was approved with a 5-2 vote by City Council. The ward’s representative, Council Member Chris Tolbert, was quoted in the *Star Tribune* voicing his support for the plan: “With this plan I know we can honor the things that have made St. Paul and Highland Park special for decades, while moving forward to strengthen our neighborhood and city for future generations.”\(^{47}\) Tolbert’s thoughts are emblematic of the struggle faced by all cities when embarking upon a new development: how to maintain the identity of the neighborhood while simultaneously transforming it into a radical, a new space of the future. The struggle between these two opposing visions for future developments shapes much of the conflict surrounding such projects and community dissent, as discussed in the next chapter in greater detail.


\(^{45}\) Ford Site Zoning and Master Plan, 12.

\(^{46}\) Melo, “St. Paul’s former Ford plant site hits the market.”

Unpacking the Ford Site Zoning and Master Plan

The Ford Site Zoning and Public Realm Master Plan was adopted by Saint Paul City Council on September 27, 2017. This master plan outlines the general context, zoning, and design principles agreed upon by the city for the development of the Ford Site. This was drafted and adopted before a planning firm was hired to fully realize and develop the project, and is subject to some change as plans for the Ford Site progress. However, the guiding principles of the project will remain the same as originally outlined.

The master plan is divided into nine chapters: Preface, Vision and Guiding Principles, Existing Conditions, Zoning- Districts and General Standards, Zoning- Building Types, Infrastructure, Parks and Open Space, Public Art, and Sustainability. In this section, I will provide a summary and analysis of each chapter in the master plan document provided by the city. I condensed the two chapters on zoning into one section for the purpose of efficiency.

Chapter 1: Preface

The Master Plan opens with a discussion of the unique opportunity presented by this project, emphasizing the rarity of such a large quantity of developable land along a major river in a major city.\(^4^8\) It focuses on the future transformation of the Ford Site, which will become “a connected, livable, and sustainable site that will serve as a world-wide model for a 21st Century Community.”\(^4^9\) This is one of the first official uses of the phrase “21st century community” in reference to the Ford Site. This particular usage is largely aspirational and abstract, with no formal definition given. As the Preface continues, it describes more basic tenets of the project, stressing the importance of “clean technologies and high quality design for energy, buildings, and infrastructure,” and “walking, biking, and transit” opportunities.\(^5^0\) Another important

\(^{4^8}\) Master Plan, 8.
\(^{4^9}\) Ibid.
\(^{5^0}\) Ibid.
aspect of the design expressed from the very beginning is accessibility and economic benefit. The Preface paints a picture of an efficient, thriving community, attractive and pleasant to live in with a low environmental impact, providing jobs to many people.\textsuperscript{51} This is ambitious, to say the least. The purpose of the Ford Plan is not only to design a large-scale, master planned community in a major city but to revolutionize residential communities all over the world. The Twin Cities, although they occasionally make it onto lists of the “most liveable” and “most bikeable” cities in the United States, are not often held up as examples of design innovation or sustainability in the planning world. The Ford Plan represents a desire for a new order, in which this new Saint Paul community takes center stage, paving the way for greater efficiency and resilience in mixed-use design.

The Preface also briefly outlines the timeline of events in the development of the Ford Site. Early in the process, the city worked with various consultants and researchers looking at the site, determining its viability as an eventual residential community.\textsuperscript{52} Since 2012, Ford worked to clean up the land, ridding it of the industrial waste accumulated over 90 years of auto manufacturing.\textsuperscript{53} When the Master Plan was approved in 2017, it was anticipated that Ford would put the land on the market and sell it to a “Master Developer” by 2018.\textsuperscript{54} Although the city was heavily involved in the development of the Ford Plan since its nascency, the Ford Site is still private property that will be privately developed. The city can guide this development through laws and zoning codes, but the residential development on the Ford Site will not be public. Construction is not expected to begin until 2020, and is anticipated to take between 12 and 20 years.\textsuperscript{55}

\textsuperscript{51} Ibid.
\textsuperscript{52} Ibid.
\textsuperscript{53} Ibid., 9.
\textsuperscript{54} Ibid.
\textsuperscript{55} Ibid.
Chapter 2: Vision and Guiding Principles

This section begins with the Vision Statement developed by the Ford Site Planning Task Force in 2007. It reads as follows:

The redeveloped Ford site will balance economic, social, and environmental sustainability in a way that conserves and improves the unique Highland Park neighborhood and Mississippi River valley in which it sits while advancing the City’s economic wealth and community goals, resulting in a forward-thinking 21st Century development.\textsuperscript{56}

Even in 2007, before the old Ford Plant closed its doors, the future-planned community was envisioned as a harmonious balance of old and new, socially and environmentally sustainable, and economically prosperous, the hallmarks of a “21st Century Community.” This vision stayed constant over the next ten years, despite drastic changes in political climate and technology. Guiding the development of the Ford Site were the basic principles of being mixed-use (residential and commercial), having a range of different housing options (especially in affordability), and providing the potential for many different businesses and jobs, growing the tax base for the region.\textsuperscript{57} Using technology, the development should utilise sustainable design principles, protecting natural resources and generating its own energy.\textsuperscript{58} Many different transit options should be included in the plan, which should be laid out to allow for safe, pleasant travel through the site, connecting both to the river and the surrounding city.\textsuperscript{59} Lastly, the chapter emphasizes the importance of green spaces and public art, making the development a vibrant place to be. These green spaces would ideally connect the space with the legacy of the industrial Old Ford Plant and continue its connection to the Mississippi.\textsuperscript{60}

\textsuperscript{56} Ibid., 18.
\textsuperscript{57} Ibid.
\textsuperscript{58} Ibid., 20.
\textsuperscript{59} Ibid.
\textsuperscript{60} Ibid.
In this chapter, the planners outline a vision of a bustling, diverse, healthy community with a strong sense of identity, grounded in the history of the space and its location along the river. These ideas are not incredibly radical by themselves, but the addition of environmental technology and sustainable building practices (with the development generating all of its own energy), especially in frigid Minnesota, makes this something special.

Chapter 3: Existing Conditions

This section provides some context into the physical landscape and current zoning codes at the Ford Site. Highland Park, the neighborhood surrounding the site, was first majorly developed for residential use in 1939, a little over a decade after the Ford Plant opened. Businesses grew around the neighborhood’s first apartments, and the area went through a housing boom over the next few decades. The majority of housing in Highland is single-family, built between the 1920s and the 1950s. The Plan acknowledges the fact that Highland is a predominantly white, predominantly wealthier neighborhood in comparison to the rest of the city.

The zoning code for the Ford Site was formerly “Light Industrial,” with the surrounding area zoned for single- and multi-family residential, business, and mixed-use. The Ford Site is just a few miles away from the Minneapolis-Saint Paul International Airport, which places some height restrictions on any future construction. The plant is also located just alongside the Mississippi, placing it within the Mississippi River Corridor Critical Area (MRCCA) and giving it special zoning constraints designed to preserve the existing features and functions of this stretch of the river. These constraints include restrictions on the placement of buildings, building

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61 Ibid., 22.
62 Ibid.
63 Ibid.
64 Ibid., 24
height, removal of existing plants, and alterations of the land. The development process will have to factor these constraints in as it progresses.

**Chapters 4 and 5: Zoning**

The Ford Site Zoning and Master Plan has two chapters devoted to zoning: “Districts and General Standards,” as well as “Building Types.” The chapter devoted to districts introduces and outlines the six different zoning districts that will be present in the development. It then moves into general guidelines for location, land use, floor area ratio (FAR), lighting, roofing, solar, green spaces, and parking. Zoning District F1 (River Residential) will contain a variety of sizes of residences “compatible with the look of Mississippi River Boulevard,” an existing street which winds along the bank of the river and typically has larger, more expensive homes. Zoning District F2 (Residential Mixed Low) is designated for primarily residential development, with a few multi-family homes and townhouses interspersed with businesses. Zoning District F3 (Residential Mixed Mid) is similar to F2, but with slightly greater density and a wider variety of business types represented. Buildings are allowed to be slightly taller than in the F2 zoning district, with buildings in F2 at a maximum of 55 ft high, and buildings in F3 at a maximum of either 65 ft high or 75 ft high with a stepback. The following Zoning District F4 continues the pattern, simply allowing for more density of multi-family residential units and businesses. Zoning District F5 (Business Mixed) steps away from residential units, designated to be an area primarily for retail and service businesses with a few multi-family homes. The final Zoning District F6 (Gateway) is intended to form an opening at the north and south edges of the site, attracting people into the development and connecting the Ford Site to the rest of the city.

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65 Ibid., 25.
66 Ibid., 27.
67 Ibid., 31.
68 Ibid.
69 Ibid.
70 Ibid.
71 Ibid.
Building heights increase moving east across the site, away from the bank of the Mississippi. This gradation allows for views and access of the river in addition to maximizing light on rooftop solar installations.\footnote{Ibid., 33.} The general standards that the Zoning and Master Plan provide are to ensure that future development of the site will maximize sustainability and efficiency in all areas of life.\footnote{Ibid., 46.} Standards are provided for the inclusion and maintenance of street trees and landscaping, solar panels (rooftop and adjacent), green roofs and patios, and a wide variety of parking for bikes and cars.\footnote{Ibid., 47-62.}

The second zoning chapter outlines the requirements for building types in the development of the Ford Site. A wide variety of building types is necessary to meet the goals of maximizing efficiency in the development and including residential units accessible to people of a variety of incomes:

- multi-family homes (2-6 units per building),
- carriage houses (1-2 units per building),
- live/work homes (2-8 residential units above businesses and offices on the first floor),
- town/rowhouses (3-16 units per building attached horizontally),
- multi-family low-income homes (6-40 units per building, with mixed sizes),
- multi-family, medium-income homes (40 or more units per building),
- mixed residential and commercial homes,
- commercial and employment spaces (serving commercial purposes),
- civic and institutional spaces (government and community spaces), and, lastly, parking structures (providing off street parking).\footnote{Ibid., 62-79.}

These building types, incorporated into the variety of zoning districts and their respective density and height requirements, have the potential to form the dense, bustling urban fabric the city envisions with this master plan.

\textbf{Chapter 6: Infrastructure}
The chapter about the infrastructure necessary for the development of the site is broken into two major sections: constructing a transportation network and constructing a water feature for the purpose of stormwater management. Both of these aspects of the plan are central to its overall livability, as well as connecting the Ford Site to both the Mississippi River and the surrounding city. Each road in the street network is outlined and mapped, complete with a cross section. Examining each road, a few central themes emerge.

Pedestrians and cyclists are prioritized in the transportation network. All of the roads, including the pre-existing major roads leading to Highland Village, will have dedicated bike lanes in addition to being accessible on foot. Each road is lined with greenery. Some roads to be constructed in the Ford Site are only accessible by bike or by foot and connect with the greenway along the river. In the design of the transportation network, the planners prioritized connection within the Ford Site as well as connection to the surrounding roads, communities, and public transit networks. These plans have the potential to give the city access to a part of the river and surrounding green spaces that were previously blocked off and dominated by the auto industry.

The other main infrastructural feature central to the design for the Ford Site is the stormwater management system. In the creation of this system, the city hopes to

“Recreate the historic Hidden Falls Headwaters feature, naturalize the existing downstream creek, reconnect the future neighborhood to the river by means of an open-water flow path, and create a model for sustainable and resilient infrastructure development.”

Hidden Falls creek, an offshoot of the Mississippi, is located at Hidden Falls Regional Park, at the southern tip of the Ford Site. It was altered through the development of the Ford Plant and Highland Park, and is primarily fed through stormwater runoff from these developments. In

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76 Ibid., 79-102.
77 Ibid., 104.
78 Ibid., 105.
order to combat the potential for increased stormwater runoff through the development of the Ford Site, the Master Plan calls for the restoration of Hidden Falls Creek, connecting it to planned green spaces in the development.\textsuperscript{79} This water feature would be constructed to mimic natural features, seamlessly blending in with the natural restoration of the creek.\textsuperscript{80}

Stormwater management, especially close to the river, is essential in Minnesota. The long winters with constant temperatures below freezing lead to a large accumulation of snow and ice which all melt in May, causing the Mississippi to flood. Minnesota summers are frequented by thunderstorms with heavy rainfall, increasing runoff. However, the Master Plan does not stipulate the function or appearance of the stormwater management water feature in the winter, which can be used for up to eight months out of the year. Planning for function in freezing temperature is essential in planning outdoor spaces in Minnesota.

**Chapter 7: Parks and Open Space**

The “Parks and Open Space” chapter outlines the different types of green spaces to be included throughout the Ford Site. These include gateway parks, a civic square, neighborhood parks, pocket parks, the Hidden Falls Headwaters Feature, and walking and biking paths.\textsuperscript{81} The water feature is central to the design, providing both function and greenery and acting as a “spine” to the rest of the green spaces through the site.\textsuperscript{82} A “gateway park” is planned for the northwest corner of the site, designed to provide a space for recreation in nature, connecting the city to the site, and drawing people in.\textsuperscript{83} A civic plaza, located more centrally, will only be accessible to pedestrians and is designed as a flexible outdoor community space.\textsuperscript{84} A more

\textsuperscript{79} Ibid., 106.  
\textsuperscript{80} Ibid., 107.  
\textsuperscript{81} Ibid., 110.  
\textsuperscript{82} Ibid., 111.  
\textsuperscript{83} Ibid., 112.  
\textsuperscript{84} Ibid., 113.
traditional neighborhood park, with recreational facilities and picnic areas, will also be included.

The plan also calls for smaller “pocket parks” to be dispersed throughout the site, providing additional access to green spaces. The water feature, as has previously been discussed, will be designed to reduce runoff and erosion and to provide an additional green space, complete with bike and pedestrian areas, picnic tables, and access to trails.

This chapter begins with the emphasis that public green space is essential to a vibrant, healthy community, and is careful to include a wide variety of spaces. There is hardly any mention of what these spaces will be like in different seasons, which is essential to designing for life in Minnesota. The “neighborhood park” section briefly mentions an ice skating facility, but it is unclear if there are plans for the rest of the green spaces when the weather changes. This calls into question the potential resiliency of these parks and open spaces.

The Master Plan also does not detail ADA accessibility for the spaces, which seem primarily designed for able-bodied people. All graphics and renderings provided only feature people who are able to walk, which also calls into question if these public green spaces will truly be accessible to all members of the community.

Chapter 8: Public Art

This chapter outlines a plan for incorporating public art features into as many aspects of the design as possible. Initiated with temporary, “tactical urbanism” techniques, the Master Plan outlines ideas to visually reinforce the Ford Site’s identity as a modern, sustainable community. “Futuristic” art installations incorporated into the green infrastructure are planned

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85 Ibid., 114.
86 Ibid., 115.
87 Ibid., 116.
to give people visual access to the heritage of the space, beginning with its origins as indigenous land and then illustrating the history of the Ford Plant.\textsuperscript{88}

This plan for public art is much less fleshed-out than other aspects of the Master Plan. Although it hopes to show the indigenous history of the space, it does not say that indigenous artists’ works will be prioritized nor does it incorporate the indigenous history of the land into any other aspect of the plan, again calling into question the accessibility of the development. The city has the ability to support indigenous artists and people of color in all aspects of the plan; however, and race and heritage are not mentioned until this section, which reads as somewhat of an oversight. Although the plan is still in its early developmental stages, and these sections only provide outlines of the potential for development, the city must do better in these areas in order to ensure their vision of a diverse, accessible, thriving community.

Chapter 9: Sustainability

Sustainability and green technology are at the very heart of the Ford Plan and are essential to the vision of the Ford Site as a modern, “21st century community.” The Master Plan outlines a vision for sustainability in three key areas: economic, social, and environmental sustainability. In order to accomplish this vision, the Master Plan emphasizes the economic importance of the site, which will provide more jobs and economic exchange for the area.\textsuperscript{89} With the mixed-use and mixed-income aspects of the design, it is hoped that the community will be more diverse, vibrant, and, thus, socially sustainable.

The Master Plan calls for the incorporation of green technology in the designs for buildings, energy, and infrastructure in order to accomplish environmental sustainability. The city conducted several studies regarding sustainability and resiliency of the Ford Site in all aspects, which will be discussed in much greater detail in the following chapter.

\textsuperscript{88} Ibid., 122.
\textsuperscript{89} Ibid.
**Ryan Companies**

In June 2018, Ford announced their selection for a developer for the Ford Site: the Minnesota-based Ryan Companies (frequently abbreviated to Ryan Cos.). Ryan Cos. was established in Minnesota in the 1930s. With roots as a lumber company, Ryan Cos. began to work in real estate management and development in the 1970s, moving into the Twin Cities, and has since expanded the reach of their work to complete projects in 38 states. A private company specializing in commercial real estate, Ryan has a wide variety of different types of developments under their belt, including healthcare, office space, retail stores, industrial buildings, multi-family dwellings, and mixed-use master plans in the same vein as the Ford Site. Their two prominent mixed-use developments are the Kirkland Urban campus in Kirkland, Washington, and 222 Hennepin, located across the river from the Ford Site in Minneapolis.

On a surface level, Ryan’s Kirkland Urban project is very similar to the guidelines developed by the City of Saint Paul for the Ford Site. It is a mixed-use residential community, combining business and retail with apartment units, although it is much smaller than the Ford Site, at only 12 acres. The main concept was to redo a former commercial space on the waterfront in Washington and create a vibrant residential community. With the first phase of construction completed in March 2019, Ryan’s vision of Kirkland Urban is, “both a home and a destination, the development incorporates the best of the waterfront community of Kirkland, WA, combining an authentic, neighborhood feel with an urban energy...balancing the need for

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91 Ryan Companies, [https://www.ryancompanies.com/about](https://www.ryancompanies.com/about).
92 Ibid.
93 Ryan Companies, [https://www.ryancompanies.com/about](https://www.ryancompanies.com/about).
growth and economic opportunity without losing touch with the comfortable, small town roots of its past.” Ryan employed sustainable building technology, with several apartment buildings LEED certified.

The main difference between the two projects, apart from the size, is affordability. Kirkland Urban, as made very clear from the development’s website, was designed to attract wealthy young professionals. Kirkland Urban is located a stone’s throw away from Microsoft and Google, and is aimed at attracting young tech workers. The website advertises the development as full of retail and outdoor recreation activities, with “eclectic boutiques, eateries, art galleries and performance centers.” The language on the website, as well as the aspects of the development it features, paint a picture of a gentrifying, exclusive, elite development in a desirable location for young professionals in the tech industry. This is a far cry from the goals outlined by Saint Paul for the Ford Site, emphasizing socio-economic diversity and affordable housing.

222 Hennepin, located in the heart of Uptown Minneapolis, is very similar to Kirkland Urban. Completed in 2013, it is one of Ryan’s first fully realized master planned communities. According to Ryan Cos., this was their first project in which they were able to take “the project from idea, to completion, to sale, the development drew upon Ryan’s unique ability to manage a large, complex project almost entirely internally, drawing upon skills and expertise across the company.” Like Kirkland Urban, this development is on a much smaller scale than the Ford Site, in this case just one apartment building, and caters to an exclusively wealthy crowd. Ryan Cos. describes 222 Hennepin as “286 luxury apartments and a Whole Foods Market.”

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95 Ibid.
96 Ryan Companies, Kirkland Urban
97 Ibid.
98 Ryan Companies, 222 Hennepin, https://www.ryancompanies.com/project/222-hennepin
99 Ibid.
Apartments range from about 1.5-3.5 thousand dollars per month, far outside the range of affordable housing in the Twin Cities. The vision for the project was to serve the community by filling in a physical gap with housing and adding a grocery store to serve the surrounding Uptown neighborhoods, but only wealthier people can afford access.

Ryan Companies presented their ideas for the Ford Site in October 2018 at a community planning meeting open to the public. They began by acknowledging the importance of the Ford Site to the community, prompting their several months of community engagement and meetings with the public. Another aspect of their due diligence period they emphasized was ensuring that the remediation process undertaken by Ford had successfully decontaminated the land and brought it up to residential standards. Ryan Cos.’ vision for the Ford Site aligns with the core concepts in the Master Plan adopted by the City in the previous year. The central aspects of their design, as influenced by public comment, are as follows:

Over 50 acres of public and open space that includes:
- World class central water feature
- Multiple green spaces, with 1,000 trees and a range of traditional and creative green spaces including green rooftops and pocket parks
- New grid road system
- Public gathering spaces/plazas
- Pedestrian & bicycle trails
- The Highland Little League ballfields

And private development including:
- Retail
- Healthcare
- Office
- Wide range of for sale and rental housing options including:
  - Single family homes
  - Senior living
  - Condos
  - Rowhomes
  - Affordable housing

101 Ibid.
• Market-rate rental housing\textsuperscript{102}

Ryan estimates the project to bring in around one billion dollars of revenue to the area, with around 14,000 temporary construction jobs generated in the building process, and 1,300 permanent jobs.\textsuperscript{103} With city approval, work on infrastructure is anticipated to begin in the fall of 2019.\textsuperscript{104}

Ryan included a few different concept drawings of their vision for the Ford Site.
All of the concept drawings display the different types of outdoor public spaces, as well as the variety of different types of buildings and residential options. They also showcase certain elements of the existing community in the background, emphasizing different points of

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106 Ibid.
connection with Highland Park. If fully realised, Ryan’s vision of the Ford Site has the potential to check all of the boxes, fulfilling the ideals of a vibrant, diverse urban community with a lot of public outdoor spaces. However, none of the concept drawings conceptualize what these outdoor spaces will be like in winter. Again, if the crux of the community is dependent on accessing and engaging with public outdoor spaces, this is worrisome for a neighborhood in Minnesota.

Implications for Development

In examining the Ford Site Zoning and Master Plan, it falls in line with the developers’ original vision of a “21st century community.” The guiding principles behind the design aim to create a dense, mixed-use space utilizing sustainable technology and infrastructure to maximize efficiency. The Master Plan emphasizes the importance of connection with the surrounding neighborhoods, proposing connection through existing public transit hubs, outdoor space, and potentially through energy systems. However, due to the early stages of development, it is unclear whether this vision will be fully realized, and whether or not this almost utopian community will come about.

Although they have some experience with master planning mixed-use communities, even as urban infill projects in the Twin Cities, I am unsure that Ryan Cos. was the best choice of developer for this project. Their track record of creating apartment complexes for the elite with money to burn does not recommend them for developing what is supposed to be a large, socio-economically diverse community. So far, although Ryan has held several public, community meetings to hear citizen comment, their efforts to ensure accessibility of all spaces to all residents are unclear.

Ensuring that development proceeds in line with these goals is difficult to guarantee. The city and state government policies can guide development through mandating soil quality
testing and approving or denying rewriting zoning codes, or requests for funding, but the land ultimately belongs to Ford Motor Company, who had control over what developer would take the reigns of the project. Ford chose Ryan, another private company. For a project that leans so heavily on public infrastructure and public green space, the fact that it is privately owned could pose a problem down the line. In order to develop the Ford Site, Ryan is required to put in a certain amount of affordable housing, but this does not mean that the businesses will be accessible or affordable to people of different incomes, or they will necessarily feel comfortable in all spaces. Simply mixing housing that qualifies as affordable with pricier apartments does not mean that a community is diverse or healthy. Ideas of ownership in communities and exploring who should have a voice during the development process will be explored in the last chapter.
Sustainability

Creating a sustainable, lasting community is a key part of designing a “21st century community.” The Ford Site Zoning and Master Plan emphasizes three types: economic, social, and environmental sustainability, that are all developed together to create a complete, holistic residential community. The developers plan to attain economic sustainability through the mixed-use aspect of the Ford Site, bringing in new jobs through the offices and businesses that will be included in the site. Social sustainability is to be attained through the socio-economic diversity of residents in the site, developed through the inclusion of a variety of different types of housing and affordable housing units. In addition to plans for economic and social sustainability, environmental sustainability is at the forefront of the plan, and has been since the beginning. On the one hand, implementing green technology and sustainable designs is essential in order to restore the land on the site polluted by industrial activities. Moreover, with the large amount of land available to be built from the ground up, the site presents an opportunity to build sustainably from the start, without having to retrofit with new technology and infrastructure later. On the other hand, the Ford Site’s identity as a sustainable development is a large part of branding and advertising surrounding it, and is specifically central to the concept of a “21st century community. In this chapter, I examine two major studies conducted in researching the potential for environmental sustainability in the development of the Ford Site, and put them into the broader context of brownfield remediation.

Roadmap to Sustainability (2007): Initial Evaluations

This study was conducted before the Ford Plant even closed. It was published in 2007, and updated in 2011, after the close of the plant. It provides a summary of several months of consultation between the Ford Site Sustainable Development Team, the City of Saint Paul, and
the Minnesota Pollution Control Agency. From the beginning of environmental research on the site, Ford, a private company, worked in conjunction with both the City and State governments during the due diligence period. As stated by the report, the goal of the research was “to recommend performance thresholds for site redevelopment, inspiring policy makers and developers to make this site a national model for sustainable brownfield redevelopment.”

Another aspect of note in the “Roadmap to Sustainability” report is the heavy association with Ford and its established identity as a company. The introduction of the report states: “Ford’s comprehensive vision and efficient use of the property using manmade and natural amenities was a precursor to today’s vision for well planned and sustainable redevelopment of the Ford site, if the plant closes as announced.” Although the Ford Site’s legacy as an auto-manufacturing plant is not a driving force behind the design and development proposals, its presence is still felt.

This early report also establishes the principles of sustainability that will guide future studies and design proposals. It separates the concept of sustainability into different aspects, noting the significance of each to the Ford Site. The introductory pages state: “Social and economic sustainability depends on redeveloping a strong base of employment on site, as well as housing, businesses, and community amenities that serve a diverse population....” They also note the unique opportunities presented by the Ford Site as a space for residential development, allowing for the development of new, green infrastructure from the ground up, instead of retrofitting older systems. In order to accomplish the goals for sustainability in the eventual development of the Ford Site, the report proposes a plan broken down into eleven different

109 Ibid.
110 Ibid., 4.
111 Ibid., 7.
112 Ibid., 8.
components. These cover all aspects of the development, including building energy, transportation networks, building materials, water/wastewater, solid waste, stormwater, soil, vegetation and habitat, public space, night sky radiation, and urban heat island. The techniques proposed to make all of these aspects of the development more sustainable rely heavily on the use of sustainable technologies, such as implementing a fully integrated district energy system for the heating and cooling of the buildings.\textsuperscript{113} Other techniques listed are more strategic, such as reusing existing buildings, infrastructure, and building materials already present.\textsuperscript{114} The report recommends some aspects of the development to utilize both technology and reuse, such as in the water and wastewater system, with the installation of gray water recycling systems, black water composting systems, and low flow water appliances in the buildings.\textsuperscript{115}

From the beginning of the Ford Plan, sustainability was a priority. The Ford Site was always envisioned as a model of transforming an industrial space to a residential space, utilizing all sustainable technologies and techniques available to create a green, thriving community.


The Saint Paul Ford Site Energy Study Report, published in 2015, was undertaken by the City in collaboration with the company Krifcon Energy in order to further investigate potential sustainable energy sources for the Ford Site. It expands upon ideas about sustainable energy first proposed in the “Roadmap to Sustainability” report. The study begins by restating the overarching goals for the Ford Site: “to be an economic, social, and environmentally sustainable place that provides good jobs, services, community amenities and living spaces and serves as a lighthouse project for future developments.”\textsuperscript{116} It aims to address the following five objectives:

- Resilience: Security of energy supply

\textsuperscript{113} Ibid., 15.
\textsuperscript{114} Ibid., 22.
\textsuperscript{115} Ibid., 24.
Innovation: Rethinking energy supply and energy systems not being limited by current practices

“Net Zero” Limiting the energy consumption and CO₂ emissions to a minimum while maximizing the share of renewable energy

Energy efficiency: Making the best use of the energy with low conversion and distribution losses and efficient building stock

Cost-effectiveness: Ensuring affordable energy for the site

In the efforts to meet these objectives, several different kinds of energy production were evaluated. It focuses on the potential uses of thermal energy and the establishment of a local energy network, or “district energy system,” for heating and cooling. Certain restrictions were factored in, such as the necessity for a relatively small energy system, not a lot of access for transporting biofuels onto the site, and the Mississippi River as the only local, natural energy resource available. The Ford Site is unique in its remaining industrial infrastructure, an underground network of steam and sand tunnels throughout the site, as well as access to gas and electric utilities formerly utilized by the plant. However, after evaluation, it is unlikely that these tunnels will be used in the creation of a local energy system.

The study concludes that a district energy system is the most viable option for a long-term, carbon-neutral energy source for heating and cooling purposes. This system would be composed of solar panels and water pumps, using water from the Mississippi, with a thermal storage system and gas boilers for back-up. This type of district energy system is largely inspired by existing heating and cooling systems in buildings in Copenhagen and Stockholm. Both of these cities face many of the same energy challenges as Saint Paul does, with both extreme cold temperatures and ready access to bodies of water. The report makes the point that Saint Paul already has a functioning district energy system, serving a few hundred buildings in

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117 Ibid.
118 Ibid., 4.
119 Ibid., 5.
120 Ibid., 6.
121 Ibid., 5.
122 Ibid.
the downtown area. There is a potential for the new Ford Site district energy system to connect with the downtown system in the future, as Saint Paul moves towards becoming a carbon-neutral city.\textsuperscript{123} The development of the district energy system is an essential part of the Ford Site being a net-zero energy development, a crucial piece of its branding as a “21st century community.” Looking to make both the present and the future more energy-efficient, the district energy system has the potential to meet sustainability goals for the Ford Site, as well as transform building practices in Saint Paul.

\textit{Incorporation Into the Master Plan (2017)}

Both the Roadmap to Sustainability and the Energy Study Report were incorporated into the “Sustainability” section of the 2017 Ford Site Zoning and Master Plan, which repeated the major findings of both reports. It lists the eleven different components set out in the Roadmap with very little variation. The next subsection of the chapter reaffirms the plan set out in the energy study report, recommending the construction and implementation of a district energy system. The final subsection is a departure from the principles of environmental sustainability that dominate this section of the Master Plan, returning to the concepts of economic/social sustainability.\textsuperscript{124} It lists affordable housing as a priority, with the percentages of total housing units designated for people in different income brackets in the low income spectrum. It further dictates that the affordable housing units should be evenly dispersed throughout the Ford Site, and not concentrated in one area.\textsuperscript{125}

\textit{In the Context of Brownfield Restoration}

Polluted from the almost century as an active auto-manufacturing plant, cleaning up the land and restoring the soil was an essential part of the initial work to transform the Old Ford

\textsuperscript{123} Ibid., 9.
\textsuperscript{124} Master Plan, 130.
\textsuperscript{125} Ibid., 132.
Plant into a space with the potential to become a residential community. Remediation of the site was conducted by Ford through Arcadis, an environmental consulting firm the company hired, and overseen by the Minnesota Pollution Control Agency (MPCA).\textsuperscript{126} The City of Saint Paul hired their own consultant to run tests on the land over the course of the remediation process.\textsuperscript{127} No reports suggesting that there have been any problems with this process thus far have been released. The fact that the Ford Site is located on a brownfield is part of the appeal for the project, as well as the developers’ hope that it will become a model for new, sustainable development.

“Brownfield” is a legal designation, currently defined by the EPA as “a property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.”\textsuperscript{128} The process of remediation, restoring brownfields to the point in which they can be safely used for new purposes, has both environmental and economic benefits, reclaiming part of the natural environment with the potential to use the space to increase the tax base, as is planned for the Ford Site. Since the 1990s, the EPA began a series of Brownfields Programs, in which they allocated grant money to states to incentivize cleaning up the brownfields. With over 450,000 brownfields currently listed in the United States, the potential for redevelopment should not be underestimated.\textsuperscript{129}

Leading up to the first federal laws regarding brownfields, three initial acts were used for the purpose of restoring industrial land: the Resource Conservation and Recovery Act of 1976, the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) of


\textsuperscript{127} Ibid.


\textsuperscript{129} Ibid.
1980, and the Small Business and Liability Relief and Brownfield Revitalization Act of 2002. These policies provided a framework and funding for restoration to occur, usually motivated by the potential for economic development with the use of the land.

The legacy of a space as an industrial or toxic site can linger, affecting the community’s reaction to redevelopment proposals. Prioritizing transparency is essential in initial phases of remediation so as to not create distrust within a community. Meltem Erdem and Joan Iverson Nassauer, scholars of architecture, ecology, and engineering, stress the unique ethical issues and design opportunities available to planners developing a former brownfield. They stress the importance of solving multiple problems through the design, by “introducing landscape elements that cue humans and wildlife behaviors to limit exposure to contaminants, design can achieve more multi-functional landscapes and more resilient remediation over the long term.” However, it is also important to not use design to obscure the remediation process or the “toxic legacy” of the site, which can be perceived as deceitful by members of the community.

The other aspect of brownfield restoration that is important to center in discussions around redevelopment are the people who are predominantly affected by the brownfield, who are statistically poor people and people of color. It is important to question which demographics the redevelopment will serve, as well as any potential consequences of the redevelopment process. In the case of a mixed-use development such as the Ford Site, it is

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131 Ibid., 278.
133 “Design of Brownfield Landscapes,” 283.
134 Ibid.
136 Ibid., 199.
necessary to consider what types of housing options and jobs are being created, and who they are intended for.\textsuperscript{137}

Thus far, Ford, in tandem with the City, has effectively been transparent about the remediation process, publishing studies and reports and making them available through the City of Saint Paul Government website. Although there is more work to be done as the site develops to ensure that poor people and people of color will be centered in the development process, there are constant opportunities for public engagement with this project. Although the concept of restoring a brownfield is not new, restoring a brownfield and developing a mixed-use, net-zero community of this size is uncommon, and is responsible for the large amount of national buzz already surrounding the Ford Site at this stage of the development process.

\textit{21st Century Technology}

The three main principles of sustainability remained consistent across over a decade. From the very beginning, the Ford Site was envisioned as a lasting, vibrant, environmentally friendly neighborhood in Saint Paul. From the beginning, this was an essential part of branding for the development of the Ford Site, as well as an essential part of the rhetoric of the “21st century community.” In every conceptualization of a 21st century community, the use of green technology, integrated into walkable communities with a lot of open, public space, is central to the design. The proposed environmental technologies fit this description. The Ford Site’s district energy system, powered by both the Mississippi and solar panels installed on the roofs of the buildings, will enable it to be one of the first mixed-use, net-zero communities in the country. Brownfield remediation, the other essential part of the identity of a 21st century community, adds another factor. Although the development process for the Ford plan is relatively transparent in its remediation efforts, and both Ford and Ryan Cos. are going through

\textsuperscript{137} Ibid., 200.
periods of due diligence with many community meetings to discuss the plans, it is important to acknowledge the fact that brownfield restoration is only a small piece of the puzzle in regards to building more sustainable communities. With plans to potentially connect the disperate district energy systems in Saint Paul as the city moves towards carbon neutrality, most areas in Saint Paul will need to be retrofitted with new energy systems and infrastructure. The Ford Plan is an excellent opportunity to build a “21st century community” from empty space, but most communities existing in this century are already in existence, and are unable to make use of the technologies used to make the Ford Site carbon neutral. As a design, it works well for what it is, but as a vision of a new type of sustainable community with techniques that can be applied world-wide, it does not hold up.
Community Reactions

From the time the first major plans for the Old Ford Plant site were approved by Saint Paul City Council, citizens were already protesting. In September 2017, City Council voted with a 5-2 majority to approve a proposal for a massive rezoning and master plan that would enable the vision of a new, mixed-use community to be realized on the former industrial site.138 Members of the community group Neighbors for a Livable Saint Paul were in the audience to protest the plan, many of them holding red signs with the message “Stop the Ford Plan.” They lobbied for a referendum, which was ultimately denied, to put the Ford Plan on the 2018 ballot to allow the opportunity of repeal.139 Their main problems with the plan are that it allows for too much density, which is not in keeping with Saint Paul’s mainly single family home neighborhood structure, that it would cause too much traffic, and that it would take away from otherwise public green spaces in the city.

Who Lives in Highland?: A Demographic Breakdown


139 Ibid.

A lot of the community dissent to the Ford Plan comes from the Saint Paul neighborhood Highland. Located in the southeast corner of the city, Highland is flanked by the Mississippi River on three sides. It is a mainly residential neighborhood with single family homes, many of them 2-3 bedroom houses built in the 1940s. At the center of Highland there is a small shopping street known as Highland Village, with several restaurants, a bookstore, a home goods store, and a movie theater. It is also home to Allina Health Clinic, an eye doctor, and a dentist. Over the past few years, a few mixed-use apartment buildings were constructed in Highland Village. The apartments are on the more expensive side for the area, and have a yoga studio and more expensive cafe underneath them, respectively.

Minnesota Compass, a project that compiles data in a variety of different areas including race, housing, education, and health, created a complete profile of Highland, mainly using data from the Minnesota census. Highland is a predominantly white neighborhood, with 77% of the population marked as white on the census. The black population is recorded at 13%, Asian and Pacific Islander at 4%, mixed race at 3%, and Hispanic or Latino at 4%. 63% of the population is between the ages of 18 and 64. The neighborhood is divided by median income, with 35% listed in the highest bracket ($100,000 or more/year) and 24% listed in the lowest bracket (less than $35,000/year) in 2017. Highland has a total population of 24,744 people with 11,357 total housing units. 54.8% of households are family households with children. 48.8% of Highland’s population moved into their homes in 2010 or later. 42.5% of households own at least one vehicle.

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141 Minnesota Compass, [https://www.mncompass.org/profiles/neighborhoods/st-paul/highland](https://www.mncompass.org/profiles/neighborhoods/st-paul/highland)
142 Ibid.
143 Ibid.
144 Ibid.
This data paints a picture of Highland as a majority white neighborhood with a large number of wealthier residents and an almost equally large number of poorer residents. This stratification plays out in their reactions to the proposal for the neighboring Ford Site.

Neighbors for a Livable Saint Paul

Although it is not stated specifically on their website, a large number of people involved with the group Neighbors for a Livable Saint Paul (NLSP) are residents of the neighborhood Highland Park, a few streets to the east of the Old Ford Plant, as exemplified by the number of “Stop the Ford Plan” signs in front yards in the neighborhood. As residents of Highland, they feel that their quality of life is threatened by the Ford Plan and have lobbied from the beginning to stop it all together, or at least to alter it. In the “Our Goals” section of their website, NLSP states that, “Our goal is to assure that the Ford Development complements and adds to the livability and safety of Highland Park and St. Paul.” They give a list of the kind of planning they support as a group, including “rational, incremental growth that happens naturally, not large, transformational projects,” “traffic that allows drivers, pedestrians of all ages, bicyclists and others to traverse the neighborhood safely,” and more green space. The next two statements that they make are pointed, to say the least:

We SUPPORT development which is truly market driven, which will house, office and serve reasonable clientele without lowering property values. If a city which is already so cash-strapped that it must raise property tax rates into double digit ranges and still cannot care for its streets and schools, available funds should be used for those purposes, not for the glory of developers and city planners. The words that they choose in these statements express a lot. Their choice of “reasonable clientele” implies either that they do not like the fact that the Ford Plan has more affordable housing options, or that the number of residents the plan proposes is unreasonable. The last

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146 Ibid.
147 Ibid.
statement passive-aggressively questions the entirety of the Ford Plan, proposing that money be used to maintain current developments and infrastructure, as opposed to building large, transformative developments. It is clear that NLSP stands in almost complete opposition to every aspect of the project.

Further examination of their website confirms this. They provide a list of problems they have with the plan:

We believe the city's current plan of 122-135 acres of densely-packed residential and commercial buildings, locked by a river on two sides and located far from freeway access, will lead to significant negative effects for all of Highland and the surrounding neighborhoods, including:

- Excessive population density increase
- Dramatic increase in traffic
- Limited community greenspace
- Decrease in property values

Once again, NLSP shows that their main concern is the specific maintenance of the status quo in Highland Park. On other pages of their website, they show statistics about projected traffic and density, claiming that the proposed density of the Ford Plan would make the community more dense than some areas of New York City. Across the website, the passive aggressive tone remains consistent, presenting very pointed statements regarding their concerns with the proposal and leading the reader in a very specific direction: in opposition to the Ford Plan. Ultimately, through statements, statistics, and images, NLSP attempts to paint a picture of the Ford Plan as overly dense, costly, and harmful to Highland and its residents. To back up concerns about density and traffic, they make it known that the type of community the Ford Plan proposes: mixed-use, mixed-income, and efficient in space and energy usage, is simply not how Saint Paul does things. This is summarized with this graphic that they placed next to their mission statement:

\[\text{Ibid.}\]
From the beginning, NLSP made sure to establish that they are in favor of increased
development, public green spaces, and affordable housing, but not at the proposed scale.
Concerned with the potential for property values to decrease, increased density “that will further
burden infrastructure and public services,” and increasing “vehicle traffic and congestion both
locally and well beyond the Ford site,” they are clearly opposed to any large development project
in the area.\textsuperscript{150}

The opposition to the project makes sense: NLSP has a fundamentally different view of
what a 21st century community should look like. They seek to maintain their existing
neighborhood without any rapid change or expansion, as well as maintain the character of Saint
Paul as a more suburban city. City planners, along with Ryan Companies, are looking to take the
first steps to radically change the fabric of Saint Paul, with the Ford Plan leading the way,
increasing density and efficiency, and creating a new way to live within the city.

\textit{NIMBY vs YIMBY: Sustain Ward 3}

Combating the efforts of Neighbors for a Livable Saint Paul, another community group
called Sustain Ward 3 began mobilizing in support of the Ford Plan. Saint Paul’s third ward

\textsuperscript{149} Ibid., Accessed April 2019.
\textsuperscript{150} Ibid.
encompasses the southwestern corner of the city, including the Ford Site, Highland, and Mac-Groveland (the next neighborhood over). Their mission statement is as follows: “Sustain Ward 3 is a group of neighbors in St. Paul who advocate for community, fiscal and environmental sustainability in the Highland Park and Mac-Groveland neighborhoods in Saint Paul, MN.” They advocate for projects like the Ford Plan that will create jobs and attract more people to the city. Sustain Ward 3 also advocates for environmental sustainability, connecting the Saint Paul to the natural environment, leading the way for other communities in the area. In this way, their view of the future of Saint Paul is much more in line with the planners behind the master plan for the Ford Site, hoping to increase jobs and density in the city in environmentally sustainable ways.

This fight over the vision for the future of the city may not ever be resolved. Different bloggers theorized the potential cause for this dramatic divide between those advocating for less density and those advocating for more density in Saint Paul. Debra Keefer Ramage, a columnist for Southside Pride, questions whether this divide is generational, with older people in the community advocating for maintaining current levels of density and younger advocating for increasing density. Nathaniel M. Hood, founding member of streets.mn, a nonprofit organization dedicated to facilitating inclusive dialogue about urban spaces in Minnesota, as well as a member of Sustain Ward 3, developed this theory in a 2017 Strong Towns article. He argues that in fights about density, millennials are those who typically support increasing it. He also argues that this divide is consistent with the equity divide, with wealthier homeowners

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152 Ibid.
153 Ibid.
desiring to maintain the status quo in their city and the less wealthy advocating for increased
density with more affordable housing. In order to illustrate this point, Hood provides a series of
photographs taken around Saint Paul, showing that the red “Stop the Ford Plan” signs are
frequently in front of large, expensive homes in Highland, and the green “Say Yes to the Ford
Site” signs are frequently in front of smaller homes and apartment buildings.156

Hood emphasizes the difference in vision as contributed to by the age and equity gap: younger people with less money need more affordable housing, and they are willing to put up
with living in a denser area with more traffic in order to accomplish this. Older, wealthier
people in homes that they’ve owned for decades do not have the same need, instead prioritizing
the maintenance of the character of the neighborhood in which they invested themselves.157

Deciding who to listen to is an essential part of the planning process.

Finding Similarities in Austin, TX

In the Strong Towns article, Hood also makes the point that this struggle of visions for the future is not unique to Saint Paul. I observed this same struggle when I interned with the
City of Austin Neighborhood Housing and Community Development Office in the summer of
2018. Over the course of the summer, the city officials debated whether or not to adopt
CodeNext, a complete overhaul of Austin’s zoning codes that would move the city away from
single-family homes and promote an increase in density.

Austin, like Saint Paul, is a more suburban city with a small, higher density downtown,
and much of the city zoned for single family residences. Austin is also highly segregated, with
black people historically living in neighborhoods in East Austin. The city is rapidly expanding
with many young professionals flooding in, especially from the tech industry. With so many
single family homes, the demand for housing is high, and prices are skyrocketing. As a result,
poor people and people of color, many of whom have lived in the same neighborhoods for decades, can no longer afford to live there. They are pushed out into the suburbs as their historic neighborhoods are gentrified. At the beginning of my internship, my supervisor stressed this point as one of the biggest challenges the city was facing. Austin is one of the only cities in the country that has an increasing population but a decreasing black population.

In order to combat this problem as well as align Austin with the goals outlined in Imagine Austin, the city’s 30-year plan, the city invested several years into creating a proposal for the radical rezoning plan called CodeNext. The vision for the city that Imagine Austin details is utopian in the same way that the vision for the Ford Site is: a “vibrant, liveable, sustainable” city focused on increased density.\textsuperscript{158} However, CodeNext was also met with extreme community pushback. Many of the citizens who came to speak during citizen comment were concerned with gentrification and being priced out. However, they were ultimately more concerned with preserving their neighborhoods as they were at the time they were growing up. They worried, much like Saint Paul residents worry, that increasing density would transform the city into something else, causing it to lose its essential character. They were also concerned with who would ultimately benefit from the increased density: the predominantly white, wealthier people who were moving to Austin for the tech industry, or the predominantly black, poorer people who were trying to hang onto their historic communities.

Ultimately, after protests all summer, City Council voted no on CodeNext, sending the city back to the drawing board. Next steps for Austin remain unclear. If they do not increase density, real estate and tax prices will continue to skyrocket, further gentrifying the city and forcing long term residents to relocate elsewhere. If they do increase density, there is a risk that

\textsuperscript{158} Austintexas.gov, \url{http://www.austintexas.gov/department/about-imagine-austin}
this could still happen. However, Austin proved that they strive for and value community input, so the citizens will be involved in the planning process every step of the way.

*Community Opposition in Context with Lefebvre’s “Right to the City”*


In considering the process of community engagement surrounding the development of the Ford Site, it is important to first acknowledge the entities in positions of power surrounding the project. The major players include Ford Motor Companies (current owner of the Ford Site), Ryan Companies (the private developer hired by Ford), the City of Saint Paul, and more broadly, the State of Minnesota. In due diligence periods, both the City and Ryan Companies have both consistently held community engagement meetings, publicly advertised and usually held at a local middle school in the evenings. Especially with such a contentious project, the question of which citizens have should influence over the project is inevitable.

Mark Purcell, scholar of democratic urban planning and development, unpacks the philosopher Henri Lefebvre’s concept of the “right to the city” in an examination of power and influence in city planning. He acknowledges that the people’s “right to the city” is an increasingly popular concept in the face of neoliberalism, which strips individuals of their voices in local governance. Lefebvre’s concept of space breaks it down into three different aspects: perceived space, conceived space, and lived space, which is created at the intersection of perceived and conceived space. Purcell clarifies that for Lefebvre, the production of urban space, such as with a development project like the Ford Plan, “necessarily involves reproducing the social relations that are bound up in it.” Inhabitants of urban space are given both the

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160 Ibid., 102.
161 Ibid.
“right to participation,” exemplified by the protests and counter-protests of Neighbors for a Liveable Saint Paul and Sustain Ward 3, respectively, as well as the “right to appropriation,” which gives inhabitants “the right of inhabitants to physically access, occupy, and use urban space.” ¹⁶² Purcell makes the comment that this “right to appropriation,” or “right to physically access,” is historically the “primary focus of those who advocate the right of the people to be physically present in the space of the city.” ¹⁶³ In this way, over the course of the development process, Ryan Cos. should carefully consider whose voices are amplified in meetings for citizen comment. In order to produce an effective equitable space, Ryan should prioritize listening to the voices of people who do not have or have less physical access to the spaces created at the Ford Site. Although these concepts are complicated by both scale (as the contestation is over a residential community as opposed to a city) and by the fact that the Ford Site is a private development, and not a public one, the developers should consider the voices of people who are historically underserved by urban areas: poor people and people of color.

¹⁶² Ibid., 103.
¹⁶³ Ibid.
Conclusion: Envisioning The Past, Present, and Future of the Ford Site

One of the problems with choosing an ongoing development project for a year-long thesis project is that there is very little resolution available. At the time I am writing, the development process is continuing, with community engagement meetings almost every month. Ryan is continuing their due diligence period, but also applying for public funding, with the hope of starting construction on infrastructure this summer. Although I was able to evaluate the articles, reports, and plans that have been published thus far, evaluating the Ford Site as successful or not as a development is impossible as it does not exist yet. That being said, I was still able to form certain conclusions over the course of my work on this thesis.

In considering the Ford Site and its potential for redevelopment, it is essential to keep its legacy as an industrial space, as well as a space owned, and currently owned by Ford Motor Companies in mind. In the community, the Ford Site has a history of being a place of employment and economic prosperity, as well as a place of innovative, autonomous industry. Both of these concepts carry through to the Ford Plan. From the standpoint of brownfield remediation, it is also essential for transparency and ethical to not obscure the fact that the land that the site is situated on was formerly polluted. Ford’s power and influence as a company is not to be underestimated, as seen in the company’s history of pushing development projects through the City’s legal process. Despite working in tandem with city planners and hiring Ryan Companies to develop the Ford Site, Ford as a company is a major player in the development process.

Thus far, from a planner’s standpoint, there is very little to object to about the nuts and bolts of the Ford Site Zoning and Master Plan. On a surface level, it is consistent with the overarching goals of economic, social, and environmental sustainability. As I noted in previous chapters, the Master Plan still has some work to do in planning public spaces for all seasons, as
well as actively ensuring that they live up to their plans of socioeconomic diversity and accessibility to people of all ages, races, and abilities, but these are impossible to fully evaluate at this stage of the development process. Throughout the development process, it will be essential to note who has the power to make decisions and whom they are truly building the community for.

Throughout my research into different aspects of the Ford Plan, the (always undefined) concept of a “21st century community” returned over and over again. It is most frequently used as a catch-all term to simultaneously give the reader a futuristic image of the Ford Site, as well as to efficiently describe the Master Plan’s three guiding principles of sustainability. In my opinion, this term does not accurately fit either the aspirations of the planners behind the Master Plan, or how the development is actually playing out. Firstly, situating the Ford Plan in the 21st century ignores the legacy and history of the space, which is both unethical and ignores Ford Motor Companies past and continuing power in the scope of the Ford Plan. Secondly, situating the Ford Plan in the 21st century is counter to the driving principles of sustainability that the phrase is used to describe. If they truly wish to develop a lasting Saint Paul neighborhood, surely it should be referred to as a “22nd century community,” especially since the development will not likely be completed until almost halfway through the 21st century. With any development project, but especially one of this magnitude, looking into the future is essential.
References

Austin Texas Government, “About Imagine Austin.”
http://www.austintexas.gov/department/about-imagine-austin


EPA, “Brownfields Overview.”


Ryan Companies. https://www.ryancompanies.com/

Ryan Companies, “About.” https://www.ryancompanies.com/about


Saint Paul Government, Ford Site “Site Cleanup,”

Saint Paul Government “2040 Comprehensive Plan: Saint Paul for All.”


