



Politecnico di Torino

Corso di Laurea Magistrale in Architettura Costruzione Città
September 2023

Detroit Creative City
Urban Manufacturing

Supervisor
Prof. Roberta Ingaramo

Candidate
Giulia Tulli
288414

TABLE OF CONTENTS

0

5 INTRODUCTION

1

9 DETROIT OVER TIME

Origins
Historical Phases
Economic boom
Decline - Detroit Shrinking City
Detroit Today
Detroit Future City

2

33 MAKER MOVEMENT

Maker Culture
Maker Movement Manifesto
Maker City
Makerspace
Hackerspace
FabLab
Spaces for Manufacture
Urban Manufacturing
Detroit Maker City
Shinola
Ponyride
Empowerment Plan
OmniCorpDetroit
Dreamtroit

3

77 CREATIVE CLASS

The Rise of the Creative Class or a New Urban Crisis?
The Death and Life of Great American Cities
The Rise of the Creative Class
The New Urban Crisis
Detroit Creative City
Detroit's Design Legacy
Detroit's Design Economy
Detroit's pros and cons
Detroit City of Design Action Plan

4

121 CORKTOWN ATLAS

Neighborhood History
Existing Conditions
Socio-Economic Portrait
Market Assessment
Vacancy and Property Ownership
Landscape
Infrastructure System
Future Perspectives
Ford Investment - Michigan Central Station
Greater Corktown
Fighting Gentrification

5

159 DESIGN PROJECT

Adaptive Reuse
Project Area
1927 Rosa Parks Boulevard - Cunningham Warehouse
Architectural Design

6

217 CONCLUSION

220 BIBLIOGRAPHY

Articles
Books
Thesis
Websites

0_

Financial District, Detroit.
Personal photo.

INTRODUCTION

“Detroit Creative City - Urban Manufacturing” is a project that, starting from the study of the complex history of the city of Detroit, aims to find a possible solution to one of its many crucial challenges. The goal of this thesis is to give new life to one of the many industrial architectures abandoned in the second half of the 1900s, a rebirth in line with the ideals of the Maker Movement and Creative Cities, which are among the most active revitalization strands in the city.

After 1950, Detroit went from being the fourth most populous city in the US, the pulsating heart of automobile production, the “Motor City”, to being abandoned by more than half of its population, shrinking and sinking until declaring bankruptcy in 2013. Along with other Rust Belt cities, it is one of the most prominent examples of urban shrinkage, as a result of the decentralization of industry and the displacement of populations from the inner city to predominantly white suburbs.
But Detroit is also one of the greatest expressions of “do it yourself”, driven by a strong desire for rebirth, by proud citizens full of initiative. It is this desire and dynamism that drives the idea of believing in those who want to do something new, to carry on the American Dream, to give proper value to the “Made in US”, specifically to the “Made in Detroit”, and how this can become part of its present and future identity.

The Maker Movement is a DIY movement based on collaboration and problem solving that is present in many US cities and capable of influencing economy, business, education, culture, and re-urbanization. The birth of the movement was a revolution that created a new model within the American production system through shared, flexible and mixed workspaces where “know how” is what matters most. For all of those cities that have suffered the loss of heavy industry, Urban Manufacturing has become even more important. Here the purpose of Maker Cities is to create jobs and economic opportunity by bringing manufacturing from traditional industries into urban environments.
Detroit is already home to some significant Makerspaces, leading

with Ponyride, together with Empowerment Plan, OmniCorpDetroit, and Dreamtroit. Shinola, on the other hand, is an emblematic example of the success of the “Made in Detroit” around the world.

Detroit is part of UNESCO’s Creative Cities Network, and is the only City of Design in the US. Its willingness to lead a sustainable, inclusive and equitable renaissance demonstrates its legacy and commitment to using design as a tool for economic development. Creative Cities are emerging as centers of experimentation, leading to new and successful growth models. Innovative urban solutions are an essential source of new ideas and inspiration for addressing global economic, social or environmental challenges.

The project aims to rethink the architecture of manufacturing embedded in the urban context, trying to understand how and in what forms manufacture returns to the city and, consequently, what spaces it occupies. The Adaptive Reuse of disused industrial sites is an answer to the need for new places of production, both because their spatial flexibility allows for multiple uses and configurations and also due to the fact that the redevelopment of historic buildings is capable of activating urban regeneration processes that benefit entire communities.
The American post-industrial city, hoping for a “back to the city” movement of the Creative Class, has attempted to address the problem of vacancy through the Adaptive Reuse of abandoned buildings and the redevelopment of entire contaminated areas. But, while cities have been engines of innovation, the Gentrification and segregation associated with this resurgence has created an environment of inequality and division.

The decision to locate the project in the Historic Corktown District is based on the fact that it is a neighborhood rich in history, strategically located near Downtown, in need of accessible opportunities and a place where many processes that attract young and creative people are going on, others are planned and some have already been implemented.

The goal is to create a new typology of Urban Manufacturing space, a mixed-use building out of one of Corktown's many abandoned warehouses, that blends into the existing fabric and can be replicated in the many buildings with similar characteristics to the one being studied, in Detroit and beyond.

Keywords: Maker Movement, Makerspace, Urban Manufacturing, Creative Class, Creative City, City of Design, Gentrification, Adaptive Reuse

1

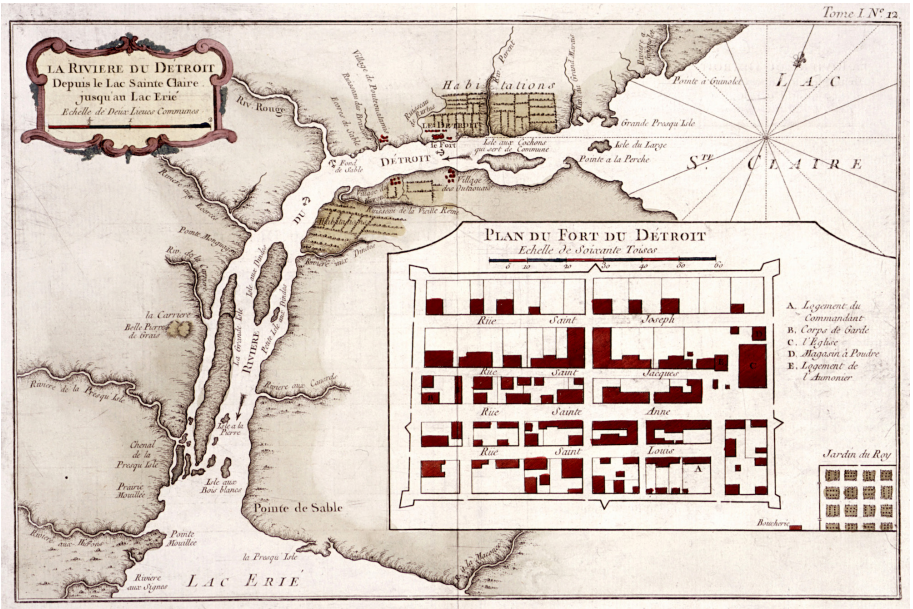


Renaissance Center, Detroit.
Personal photo.

DETROIT OVER TIME

Origins

Located in Upper Midwest in the United States, Detroit was founded in 1701 by French explorer and settler Antoine de la Mothe Cadillac as a fur trading station in the Great Lakes region. It took its name from the straits, or *d'etroit*, that separated the small colony from the surrounding St. Clair River, making its riverside the ideal location for importing and exporting goods. Detroit was a strategic military outpost, it was easily defended thanks to the narrow and unobstructed river. From the beginning, the problem with Detroit was figuring out what the place was good for, and then who to blame when things didn't work out as planned. In 1763, France lost the Seven Years War to the English and Detroit became British. After the Revolutionary War, in 1796 Detroit became an American possession, with the brief exception of the War of 1812, during which the city became British again. Since its founding, the key to Detroit's industrial growth has been the role that transportation has played in political, social and economic affairs. Initially travel was limited to waterways and horses, with the opening of the Erie Canal in 1825, Detroit's population began to grow as travel became easier. As railroads were built across America, the efficiency in moving people and goods increased even more, and Detroit was in a prime position to take advantage of both water and rail travel. When the Civil War broke out, Detroit was an ideal place to produce war materials, this was the first real impetus that marked the beginning of Detroit's industrial formation. After the Civil War, European immigration to the United States contributed to the growth of many cities, Detroit was one of them (Booza, Metzger, 2004). In 1837, Michigan became the 26th State to join the United States, with Detroit as its capital until 1847, when it was replaced by Lansing. A modest town of lumber barons and farmers, brewers and locomotive engineers, was on its way to becoming the capital of Fordism and modernity, the home of the Model T, the Arsenal of Democracy, the Motown. Just the right people with the right skills happened to show up there, with abundant natural resources and plenty of available capital. That's how it started, and soon everyone was on their way to Detroit, from places Detroiters had never come from before (Herron, 2004).

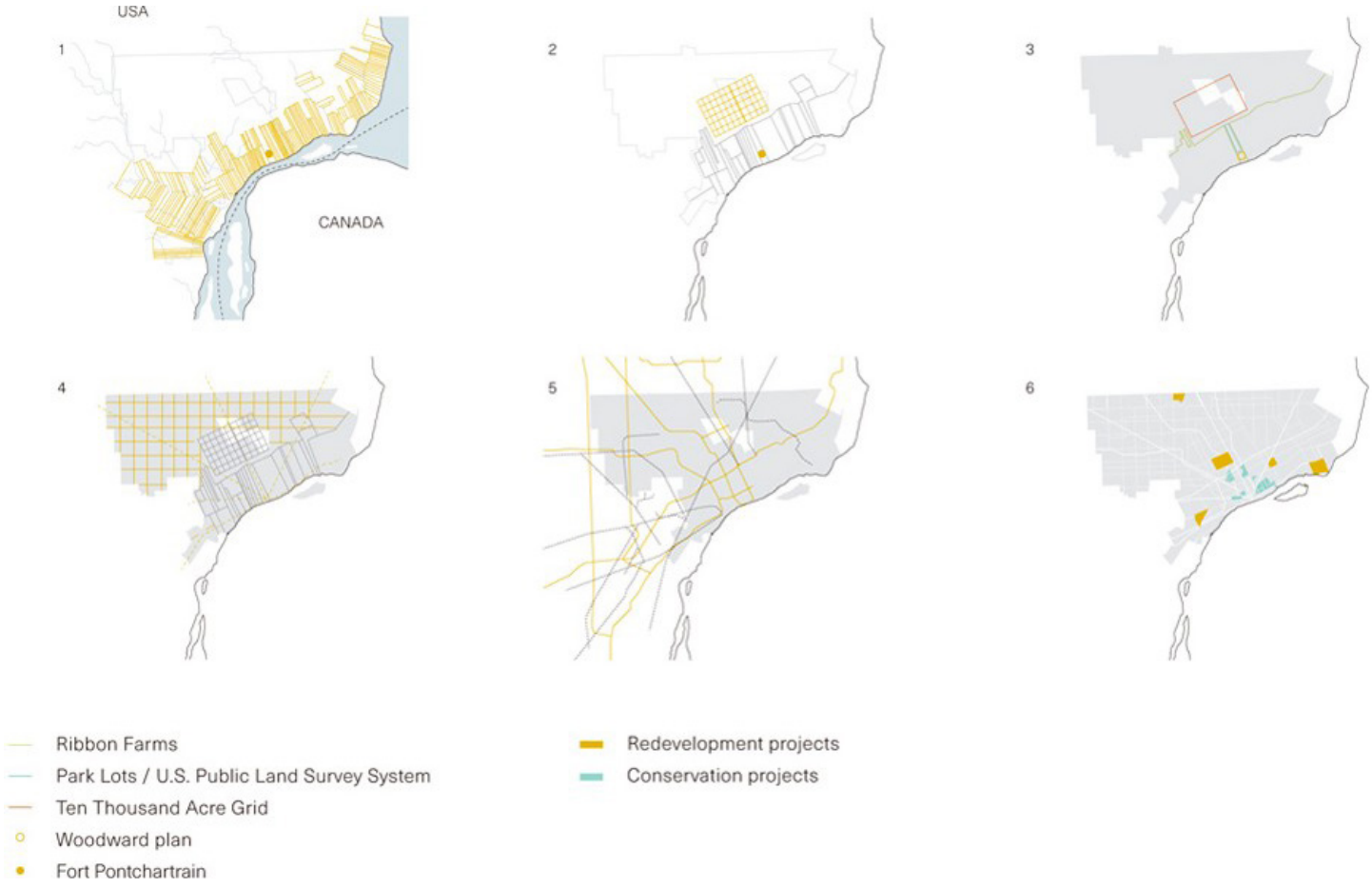


Fort Detroit, 1750.
Source: Cityscape: A Journey Through the Shrinking City of Detroit | SkyriseCities

Historical Phases

Detroit's planning history can be summarized in 6 major phases:

1. **Fortification and agricultural fabric:** in 1730 Detroit developed its agriculture along the river, the "ribbon farm" lots were long and narrow so everyone could have access to the water. Many of the "ribbon farm" owners gave their names to actual streets, the topology of "Fort Pontchartrain du Detroit, 1764" drew the main streets of today's Detroit;
2. **Woodward Plan and 10.000-acre grid:** after the Great Fire of 1805, Territorial Judge Augustus B. Woodward was commissioned to develop a new urban fabric. The plan, based on circles, boulevards and connecting streets, was abandoned in 1818 and only a fragment was used, which is now Downtown Detroit;
3. **Detroit in 1825**;
4. **Jefferson Grid:** developed by the Public Land Survey System, is a grid system used to implement the property and determine the direction of the main streets and future urban fabric;
5. **Highway and Railroad System:** precursors of the grid that led to Detroit's current morphology;
6. **Urban renewal projects:** in 1963, led by the Detroit City Plan Commission.



Detroit's historical expansion stages. Source: Report-ness Detroit – urban-Next

Economic boom

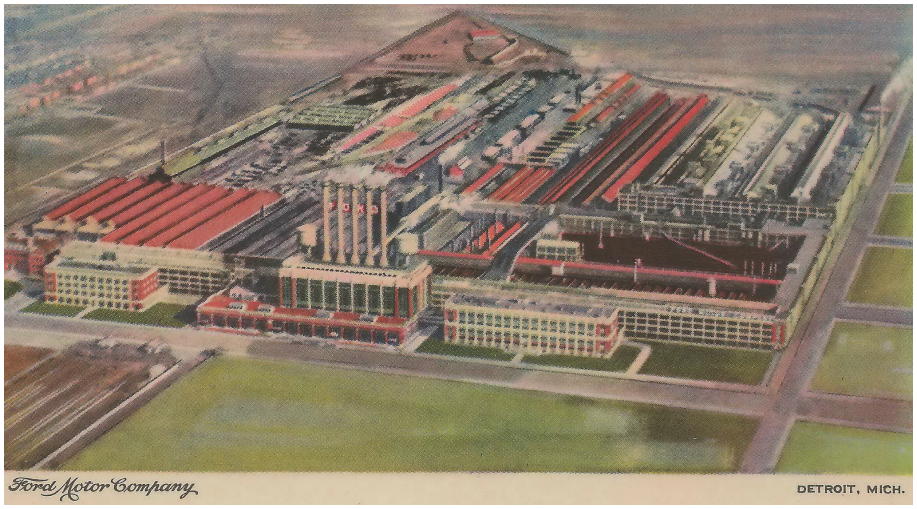
Detroit became the center of the American automobile production in the early 20th century, the "Big Three" Chrysler (1924), Ford (1903) and General Motors (1908), along with 125 other automotive companies, created the "Motor City". Detroit's auto industry would not have been so prosperous if the United States had not entered World War I. As in the Civil War, Detroit was called upon to supply weapons, tanks, ships and chemicals. With the advent of the truck and tractor, railroads were no longer the most efficient form of transportation. Detroit experienced a housing and transportation shortage during these years as people flocked to the city in search of jobs in the defense industry (Booza, Metzger, 2004). Nevertheless Detroit enjoyed unprecedented economic growth, during the 1920s one skyscraper was being built after another, department stores

and movie theaters lined the streets around Woodward Avenue. It was in Detroit that Taylorism was introduced, radically modernizing production methods, and here Henry Ford introduced assembly-line working in 1913. The Detroit Institute of Arts is known for its “Detroit Industry” series of murals, commissioned by Henry Ford and painted by Mexican artist Diego Rivera, depicting the Ford assembly line. It was in Detroit that the first concrete street was surfaced and the first city motorway was built. The excitement of the Roaring Twenties, however, drowned in the crisis of 1929, when the Great Depression first hit production and workers. The auto giants began moving their plants to the suburbs to avoid strikes and test new production technologies, until the outbreak of the Great War made Detroit the primary producer of what President Roosevelt called the “Arsenal of Democracy”. At the invitation of the U.S. government, auto companies began producing tanks, planes and munitions for the Allies. However, Detroit’s workforce was not enough to keep up with the pace of the war, thousands of workers, including many African Americans, arrived in the city during those years. The population grew from 285,700 to 1.85 million between 1900 and 1950, making Detroit the fourth most populous city in America after New York, Chicago and Philadelphia. Detroit, as the powerhouse of the U.S., was not just a city, it served as a unique model for a new type of metropolis and modern society.





Detroit Institute of Arts and Diego Rivera murals.
Personal photos.



Ford Motor Company, 1924.
Source: Cityscape: A Journey Through the Shrinking City of Detroit | SkyriseCities



Downtown Detroit, 1930.
Source: Cityscape: A Journey Through the Shrinking City of Detroit | SkyriseCities

Decline - Detroit Shrinking City

After 1950, the boomtown was one of the first to experience a displacement of its population to the outskirts of the city. Detroit's suburbanization took place in a context marked not only by the rise of the automobile, but also by racial tensions. Between 1940 and 1960, the black population grew to one-third of the city's population and the white middle classes, filled with resentment against the black lower classes, fled to the suburbs. In 1998, 78% of those living in the suburbs were white while 79% of those living in the inner city were black, only 26% of Detroit's population lived in the inner city. At that time, the median income in the metropolitan area was nearly double that of the inner city. Increasingly harsh living conditions, combined with growing self-sufficiency, led to a social uprising in 1967 in which several Downtown blocks were destroyed in five days of violence. The year 1967 is considered the dividing line between Detroit's prosperity and its collapse. After 1950, the giant factories were decentralized, partly for strategic military reasons, partly because of white flight. As a result of the 1973 oil crisis and increasing competition from foreign manufacturers, Chrysler, Ford and General Motors suffered immense losses. They responded by closing their old plants in favor of new ones, many of them in

countries where wages were much lower, from 1970 to 1980 alone Detroit lost 208.000 jobs. While districts in the metropolitan area prospered, the inner city gradually began to decline. Between 1978 and 1998, 108.000 buildings were demolished, while only 9.000 new building permits were issued. Thousands of homes, along with numerous department stores, offices and movie theaters, have been abandoned, making Detroit look like a ghost town. The suburbanization of Detroit was not a gradual reduction in density, it was dramatic. Detroit was also destroyed by its own vision of the Motor City. As early as the 1930s, the New Deal years, the city had fought unemployment with highways and housing programs. After the War, two federal policies helped drive suburbanization. First of all, the government helped stimulate the construction and purchase of new housing through subsidized loans for returning soldiers, which were limited to areas deemed racially homogeneous, excluding many Detroit neighborhoods. The second stimulus was the construction of an interstate highway system to relieve traffic congestion in the city and help create a national transportation system for goods and people (Booza, Metzger, 2004). Many new roads were built cutting through the fabric of the neighborhoods and General Motors proudly had the city's streetcar lines eliminated, the result is that today there is almost no public transportation in the city. The creation of highway systems, the ease of the automobile and the lack of public transportation, further incentivized people to live farther from the center in the surrounding suburbs. The vast size and open landscape of metropolitan Detroit, designed for automobiles and not people, make the environment hostile to pedestrian traffic and person-to-person chance encounters outside one's immediate circle (Cope, 2004).

There have been attempts at re-urbanization, such as the Renaissance Center in the 1970s (commissioned by Henry Ford II, its name was intended to signify a new approach), which failed, and Greek Town in the 1990s, which succeeded. Given its social problems, Detroit was considered to be a hopeless case. In such a situation, vandalism can become a common occurrence, such as the "Devil's







Renaissance Center and Greek Town. Personal photos.

Night" ritual on Halloween, when countless empty houses and cars are set on fire in Detroit. But inner city residents knew how to take care of themselves when they no longer trusted the city government, after years of mismanagement. Real estate was losing more and more value, the middle class was abandoning the city out of fear, preferring the quieter suburbs where they could give their children a better education while keeping them out of harm's way. Detroit sank, buffeted by crises in the auto industry (in 1973/74, 1979 and the last in 2008), urban decay, crime and racial tensions. By 2010, Detroit had lost 61.4% of its population since its peak in 1950. In 2012, Detroit had 40 square miles of vacant land out of a total of 139 square miles. In 2013, it became the largest American city to declare bankruptcy, with an 18 billion hole. The city was starved of resources: police, municipal workers, and health care workers were not enough. Detroit had one of the highest violent crime rates pro capita in America, and more than a third of the population lived below the poverty line. When bankruptcy ended in late 2014, the city looked much the same as it did a year and a half earlier. Detroit has become a symbol of both the American Dream and the American Nightmare (Cope, 2004). Everything that went wrong in Detroit (violence, corruption, racial conflict, neglect) had gone wrong in every other American city. The only difference was that there had been enough prosperity to make recovery, reform and relief seem credible. Most big cities have the same problems as Detroit, and in some cases they're worse, but you don't get that impression. No people in the world have ever undergone such a massive hollowing out of their society, that's what makes Detroit so representative, it's gone so far that it's almost ceased to exist (Herron, 2004).



1950

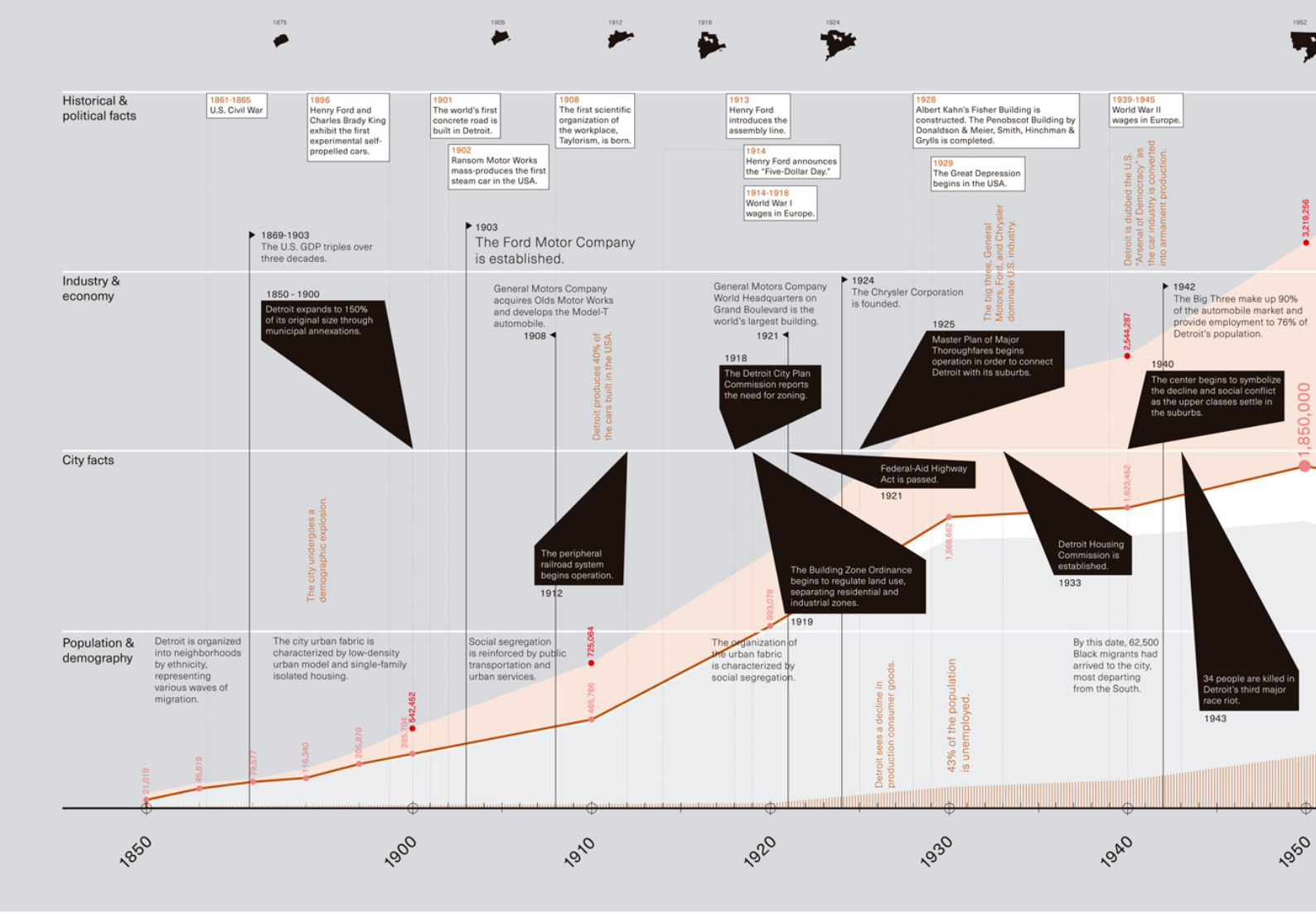


1994

Detroit shrinking city.
Source: [ENC60] Detroit Shrinking City – Prolab (dpa-etsam.com)

Detroit is one of the most prominent examples of a shrinking city in the last 60 years, a global phenomenon most prevalent in developed countries, shrinking cities are urban areas experiencing population loss, economic recession, employment decline, and social problems as symptoms of structural a crisis. This story of economic decline caused by rapid industrial decentralization has been repeated in other U.S. cities, including Pittsburgh, St. Louis and Cleve-

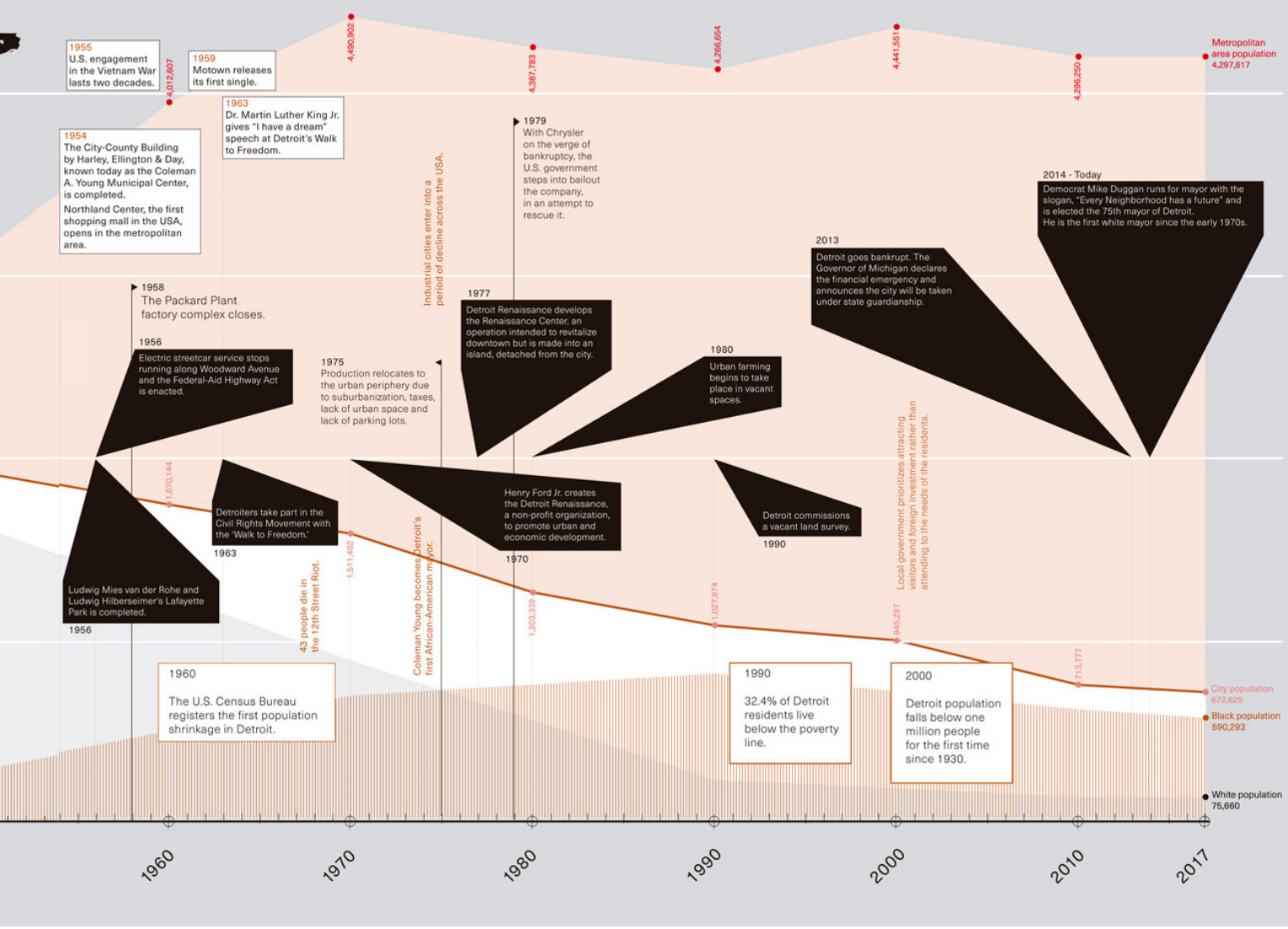
land. None, however, has experienced the depth and breadth of residential and commercial abandonment seen in Detroit. As population, economic opportunities and social services decline, the number of vacant properties tends to increase. A combination of factors, such as maintenance costs, tax burdens, persistent unemployment and low market demand, can make continued occupancy impossible. These vacant properties deteriorate or are demolished, leaving the urban landscape blighted by dilapidated structures or vacant lots. To survive under the conditions of competition between expanding and shrinking cities, a shrinking city must adopt the same nomadic behavior that labor and capital have adopted, learning to move, even physically, from place to place, just as populations and industries do today, following the speculative culture of endless opportunities. The urban condition of the first half of the new century can be defined by cities in motion, with the contradictions between the mobile elements of cities (industries, economies, labor, culture, and everything non-physical) and their immobile elements (buildings, roads, land, infrastructure, and everything physical) (Park, 2004). Looking at this place and the immense waste of wealth and glory, it is tempting to think that someone else must be responsible. But Detroit cannot be overcome in this simple way, the city may be a monument to the history of oblivion, but it is also impossible to forget or escape. The history of Detroit is the history of America's confrontation with itself, it is the most modern place and the most ruined, it is a place covered with writing, with plans and apologies, it is a place one would like to erase, but Detroit defies oblivion (Herron, 2004).



Detroit Today

Detroit history timeline.
Source: Report-ness Detroit – urban-Next

Today, small businesses that generate tax revenue and meet the basic needs of residents seem to be the way out for a city that needs residents before it needs jobs. Dan Gilbert, Detroit's richest man, who is financing Detroit's revival and is considered by many to be Motown's savior, is also banking on this. The billionaire has spent billions of dollars to buy more than seventy buildings in the city, some of which he has turned into offices for small businesses. Within those buildings, he has relocated his employees and persuaded other large companies, starting with Twitter and Microsoft, to move Downtown. In this once-desolate land, Gilbert saw not only a chance to save his city and buy low-cost buildings, but more importantly, he saw an opportunity to rebuild an authentic, stimulating and affordable metropolis that would attract students, recent graduates and young, educated, technologically savvy employees to compete with other major American cities.

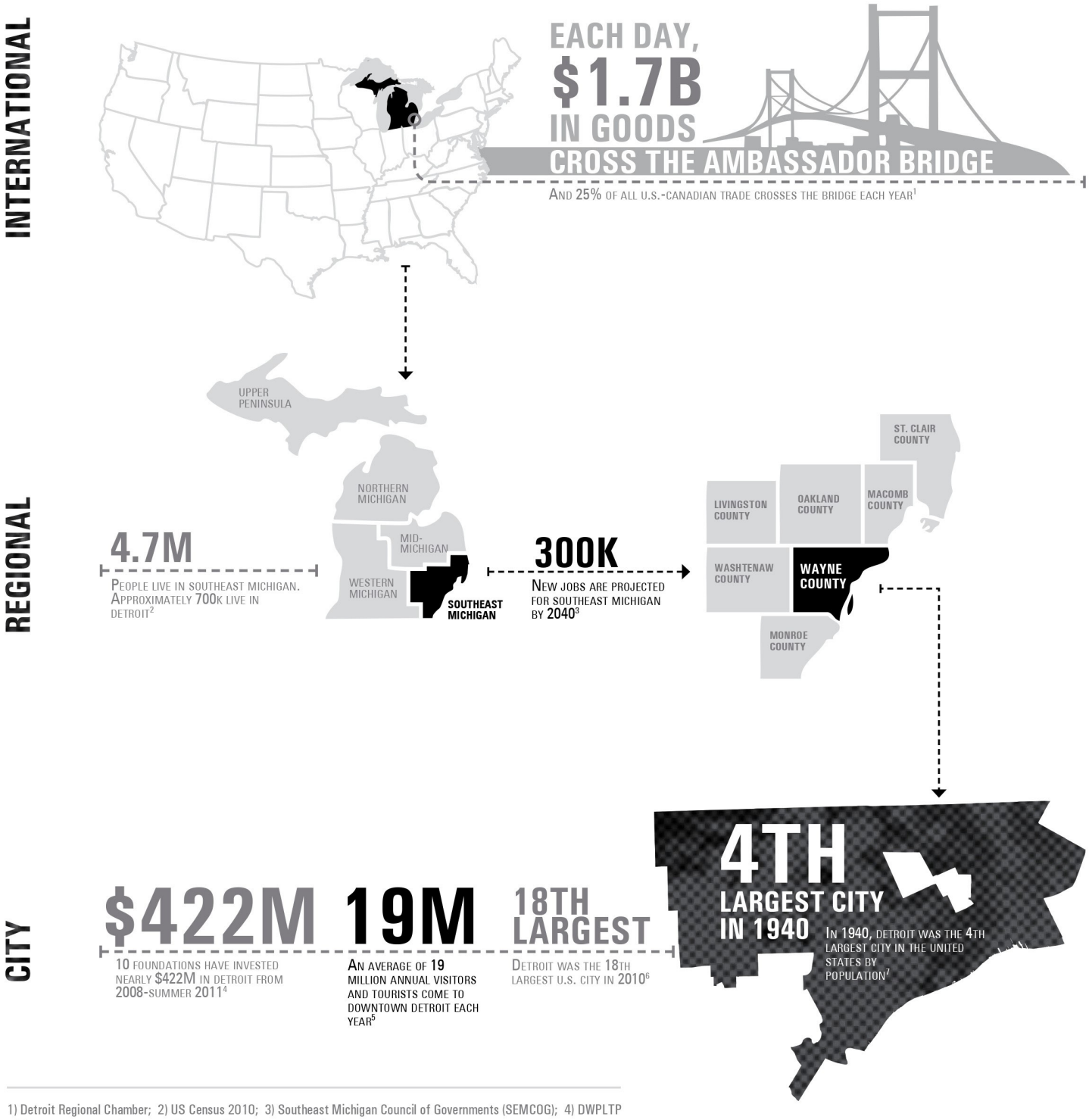


Detroit nowadays is:

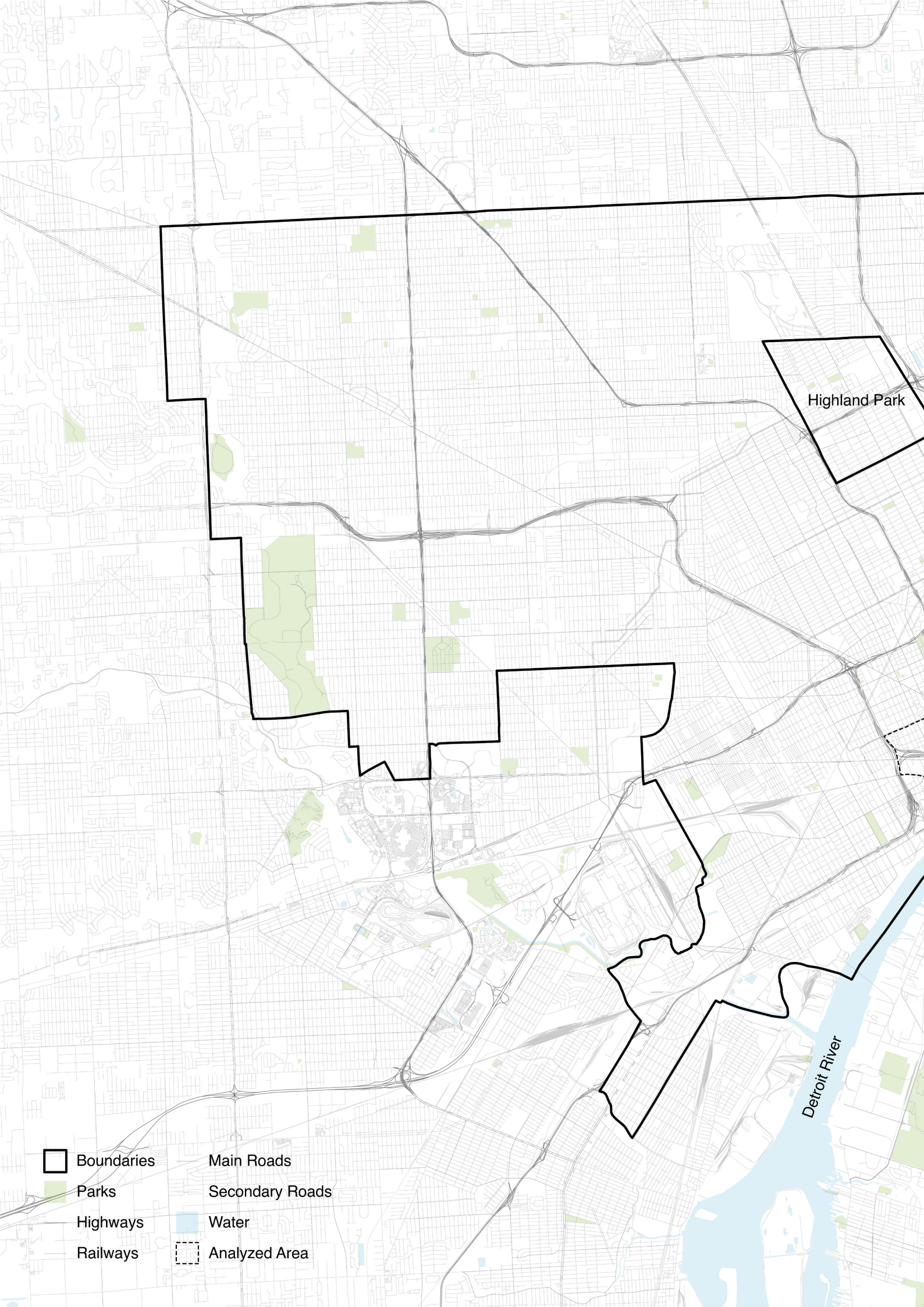
- One of America's 20 largest cities, in 2021 it ranked as the 27th most populous city in the country;
- Home to approximately 632.000 residents who are working hard to change the course of the city's future;
- A city with global economic resources, including international border crossings (the busiest in North America for international trade) and large-scale industrial infrastructure;
- Known globally for its drive for innovation at large and small scales;
- Host to 19 million tourists and visitors annually, a city with beautiful historic neighborhoods and commercial districts, and the second largest theater district in the country;
- Home to a civic network of engaged and proactive community organizations, Detroit's assets include the resilience, creativity and ingenuity of its people and organizations, the city's human and social capital;
- An environment rich in underutilized or abandoned land that can be used for growth and innovation without displacement;

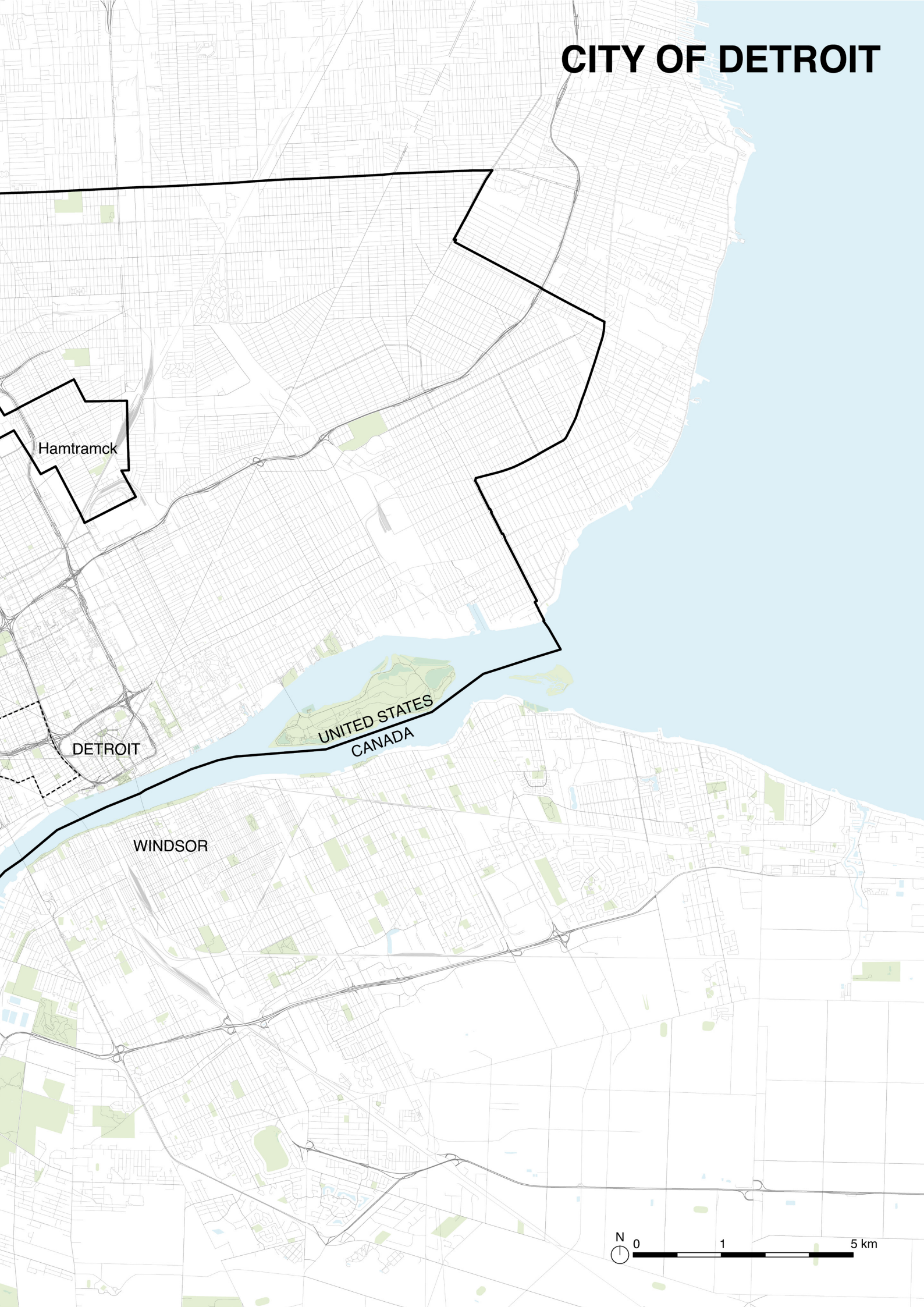
- Ready to reposition itself as Michigan's premier urban center, guided by a coordinated regional urban agenda that will enable more mutually beneficial relationships with the Region, State and Nation;
- As Michigan's largest urban center, it is home to the State's largest concentration of workers, health care, education, cultural and entertainment institutions;
- Composed of an impressive talent base that includes business leaders who have transformed the culture of industrial production and music; pioneers in new forms of transportation, infrastructure, and community food production; civic leaders who have organized and empowered community residents to actively participate in the destiny of their future; and faith leaders who have sustained Detroit communities by addressing their spiritual and human needs.

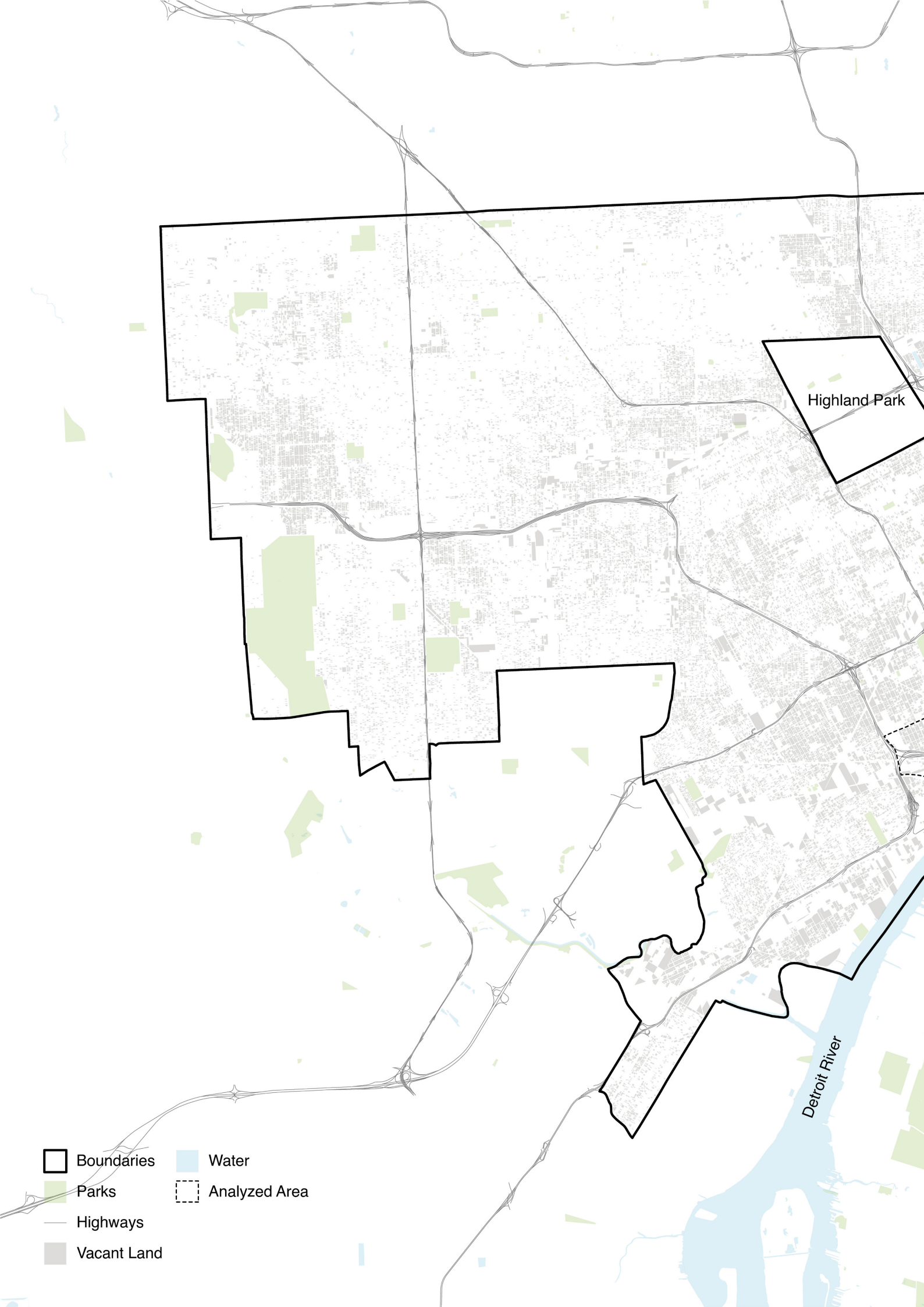
Detroit is a rural, post-industrial city, traumatized by segregation and animated by a strong desire for rebirth. Detroit is not only a symbol of the most devastating effects of the American crisis, it is also a unique mixture of energies: there is the anger of abandonment, the pride of survivors, the tension between the awareness of being in one of America's most dangerous cities and the discovery of an extraordinary sense of civic duty and cooperation. There is the most successful expression of the American "do-it-yourself" spirit, the self-organization of citizens born in response to decades of mismanagement, the fascinating industrial ruins that bear the legacy of a glorious past and can become an example for building a different, more just and sustainable future. Detroit had a great opportunity: a new beginning. The balance between government and citizens has been turned upside down, and the city has found itself overcoming the drama of segregation and not falling back into the mechanisms that fuel it, starting with gentrification. The situation is very complex, but there is enormous potential.



Detroit's impact.
Source: DFC_Full_2nd.pdf (detroitfuturecity.com)

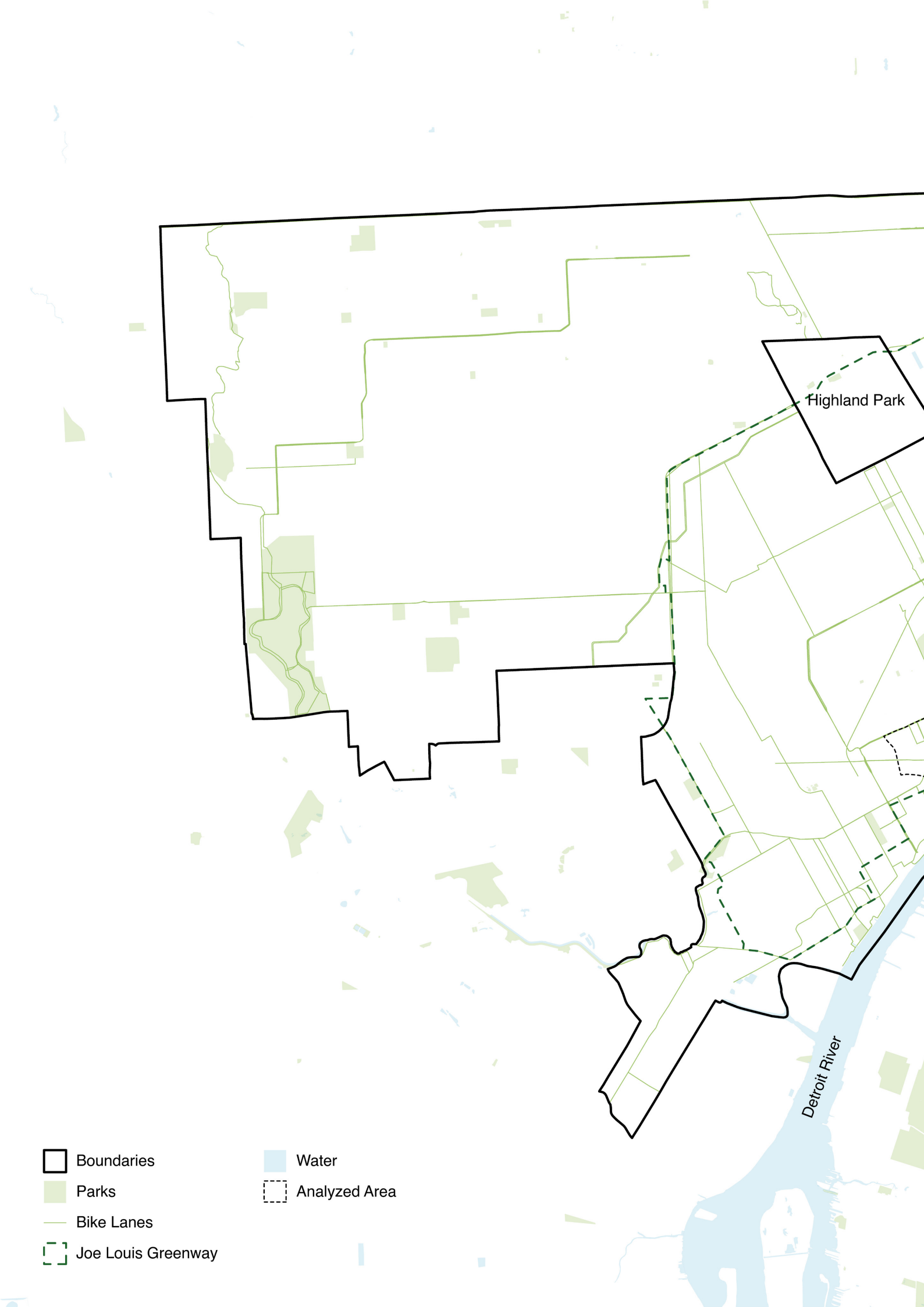

Highland Park
Detroit River
Boundaries
Parks
Highways
Railways
Main Roads
Secondary Roads
Water
Analyzed Area


CITY OF DETROIT
Hamtramck
DETROIT
UNITED STATES
CANADA
WINDSOR
N
0
1
5 km

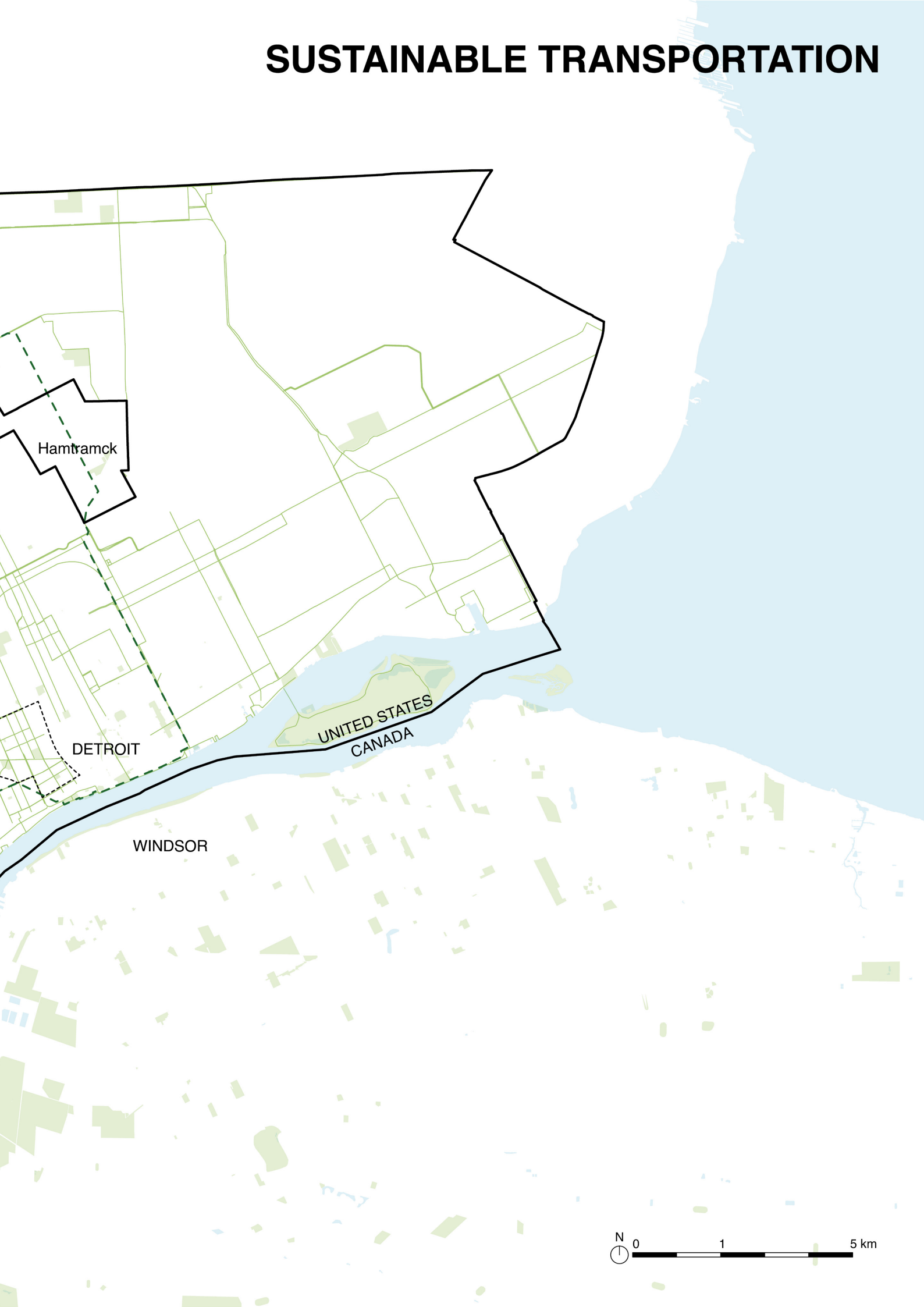

Highland Park
Detroit River
Boundaries
Parks
Highways
Vacant Land
Water
Analyzed Area

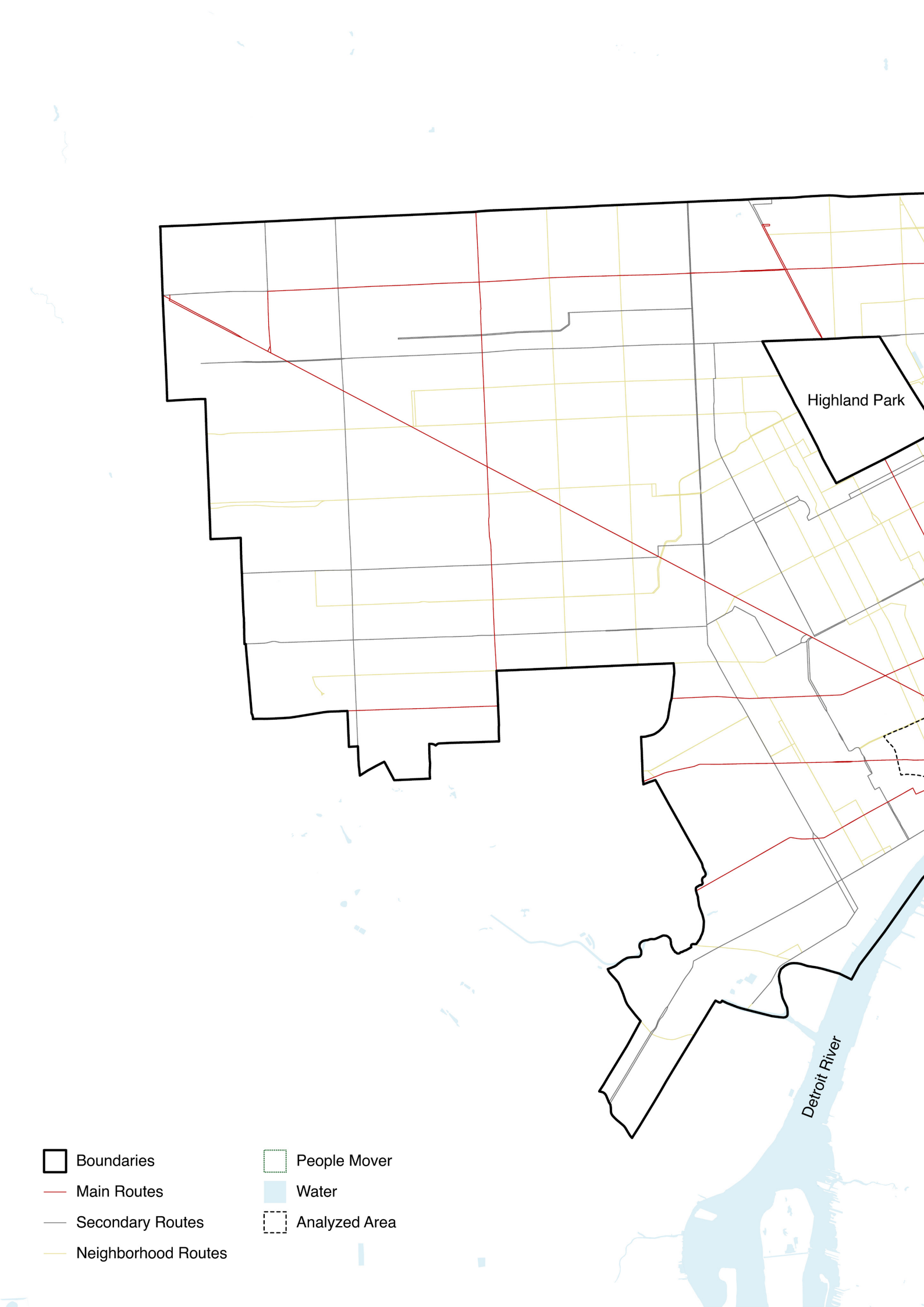
VACANT LAND



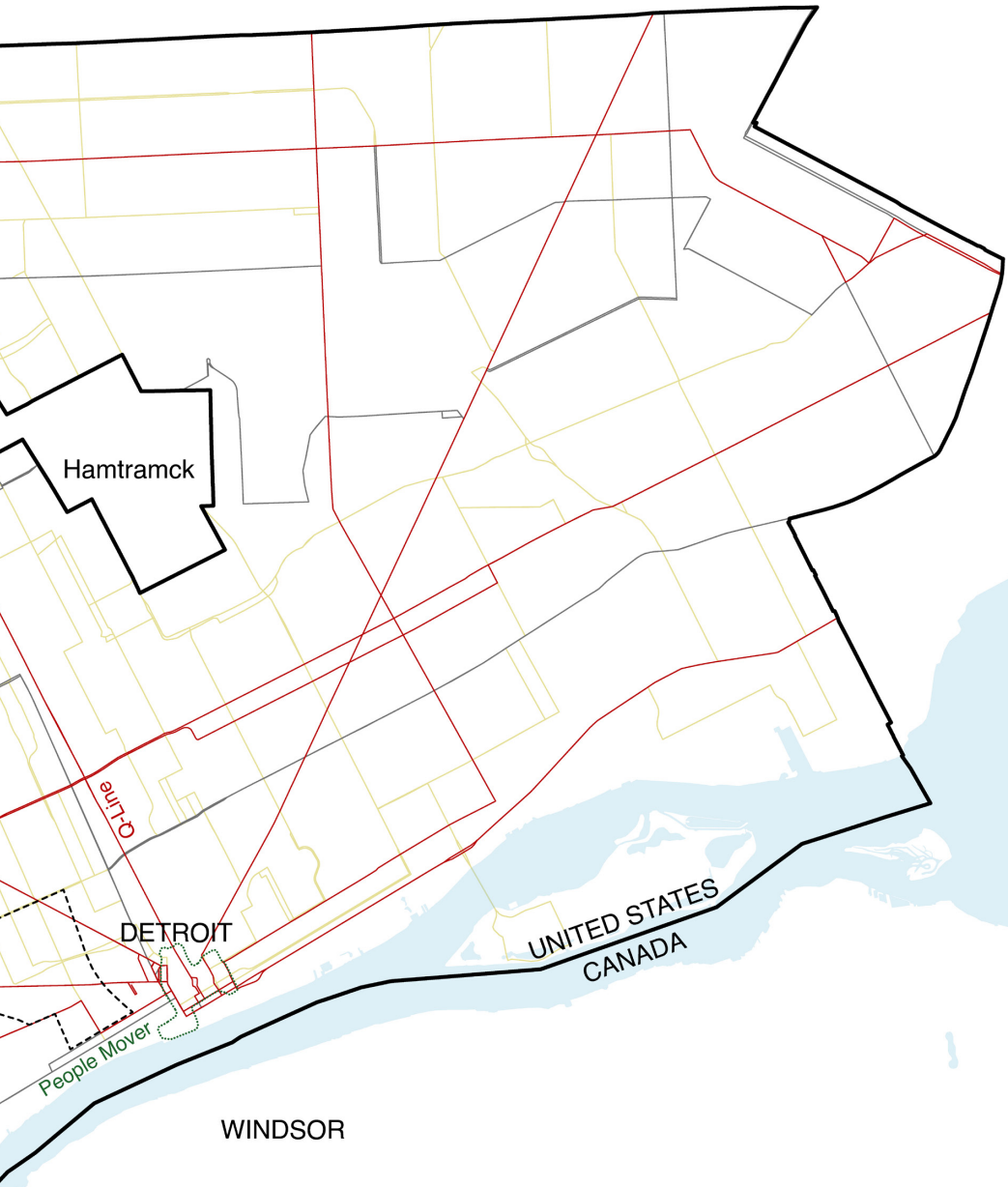

Highland Park
Detroit River
Boundaries
Parks
Bike Lanes
Joe Louis Greenway
Water
Analyzed Area

SUSTAINABLE TRANSPORTATION




Highland Park
Detroit River
Boundaries
Main Routes
Secondary Routes
Neighborhood Routes
People Mover
Water
Analyzed Area

PUBLIC TRANSPORTATION



N 0 1 5 km

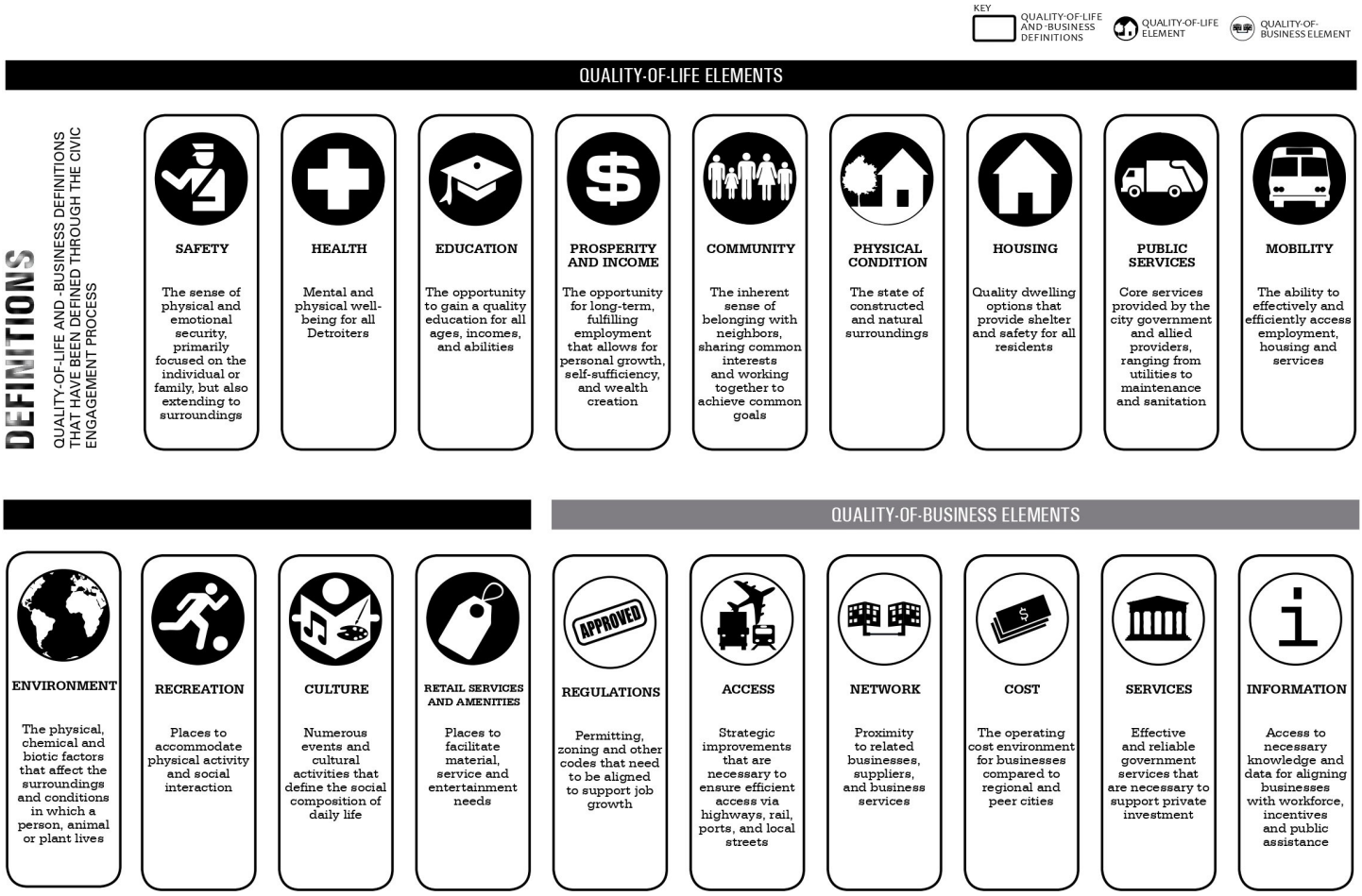
Detroit Future City

Detroit Future City's *2012 Detroit Strategic Framework Plan* is not the first attempt to propose a plan and a solution for the city's revitalization. For the previous 15 years, Detroit has been preparing a comprehensive citywide plan for its future: The 1998 Community Reinvestment Strategy Plan (which was never formally adopted) and the state-mandated Master Plan of Policies governing land use, created in 2004 and adopted by the City Council in 2009. The Detroit Strategic Framework marks the first time that Detroit has considered its future not just in terms of land use or economic growth, but in the context of city systems, neighborhood vision, the critical issue of vacant land and buildings and the need for greater civic capacity to address the systemic change necessary for Detroit's success. While the Strategic Framework addresses issues and recommendations in a format similar to other planning documents, it is not intended to be a traditional "vision plan". That type of plan is usually highly aspirational and presents a static projection with few details on how to achieve the vision, instead the goal of the Strategic Framework is to recognize and adapt to an unpredictable future. This plan is also the first to accept Detroit's future as a city that will not regain its peak population of nearly 2 million people.

The *Detroit Strategic Framework Plan* can be summarized in 12 imperative actions:

1. "We must re-energize Detroit's economy to increase job opportunities for Detroiters within the city and strengthen the tax base;
2. We must support our current residents and attract new residents;
3. We must use innovative approaches to transform our vacant land in ways that increase the value and productivity and promote long-term sustainability;
4. We must use our open space to improve the health of all Detroit's residents;
5. We must promote a range of sustainable residential densities;
6. We must focus on sizing the networks for a smaller population, making them more efficient, more affordable, and better performing;

7. We must realign city systems in ways that promote areas of economic potential, encourage thriving communities, and improve environmental and human health conditions;
8. We must be strategic and coordinated in our use of land;
9. We must promote stewardship for all areas of the city by implementing short and long-term strategies;
10. We must provide residents with meaningful ways to make change in their communities and the city at large;
11. We must pursue a collaborative regional agenda that recognizes Detroit's strengths and our region's shared destiny;
12. We must dedicate ourselves to implementing this framework for our future."



Things to do.
Source: DFC_Full_2nd.pdf (detroitfuturecity.com)

The goals of Detroit Future City by 2030 are:

- Detroit will stabilize its population;
- The city will nearly double the number of jobs available for each person living in the city;
- The Detroit metropolitan region will have an integrated regional public transportation system;
- Detroit will be a city for all.

This must be achieved through a Strategic Framework consisting of 5 elements: economic growth (the equitable city); land use (the image of the city); city systems and environment (the sustainable city); neighborhoods (the city of distinct and regionally competitive neighborhoods); land and buildings assets (a strategic approach to public land). The planning elements form an integrated approach to transforming the city and its neighborhoods through land use and sustainability, community engagement, equity, shared values and economic development. The plan is used by: advocacy groups, businesses, community development, the faith community, institutions, the philanthropic sector, the public sector, and residents. The Framework is part of a vision that can remain flexible and be refined and enriched over time, it is not a master plan, but a shared framework to guide decision making. It focuses on the assets of all areas to illustrate that all communities can be unique and part of the larger picture of Detroit, where a variety of neighborhood types are encouraged. As a comprehensive and action-oriented blueprint for short- and long-term decision making, the Strategic Framework Plan is aspirational, actionable and accountable.

2



The Spirit of Detroit, Detroit.
Personal photo.

MAKER MOVEMENT

Maker Culture

The Maker Movement is a DIY (do-it-yourself) based social movement in which there is a strong focus on using and learning practical skills. Maker culture emphasizes learning by doing, learning should be informal, active, networked, peer-led and shared, motivated by fun, curiosity, innovation and self-actualization.

Makers have always existed in cities and can be categorized as artisans, artists, hobbyists, amateur scientists, engineers, and carpenters; people who like to tinker on projects that bring together science, technology, and creativity and create value through their output. Value that can be self-expression, social, economic and even educational. Typical interests enjoyed by the maker culture include engineering-oriented activities such as electronics, robotics, 3D printing and the use of computer numerical control tools, as well as more traditional activities such as metalworking, woodworking and, most importantly, its predecessor, traditional arts and crafts. Makers find content in STEAM (Science, Technology, Engineering, Arts and Mathematics)[1] to improve their projects and move from one discipline to another in order to achieve results.

The movement brings together all city makers and has influence in business, education and culture, focusing on local design and sales. Increasing numbers of people are interested in producing what they consume. Products can also be sold on the international market, thanks to new communication technologies that open up the global market, giving innovative and initially circumscribed ideas a chance to grow. One attraction for Makers is autonomy, the ability to work independently on their own terms and to build an income that is not dependent on a traditional employer.

As the movement consists of a growing number of people who are involved in their daily lives in the creative production of objects whose construction process is then shared, promoting equity in the maker movement is crucial. Maker culture encourages new applications of technologies and the exploration of intersections between traditionally separate domains and ways of working. Maker culture

1. The acronym became popular after a conference of the U.S. National Science Foundation regarding the need for this group of disciplines for innovation and the new American economy. It refers to both the education system and to the workforce.

is also seen as having the potential to contribute to a more participatory approach and create new pathways into more lively and relevant topics for students.

The global Maker community can be seen as an open innovation ecosystem based on open source principles. It creates new ways for people to work together across geographic or organizational boundaries. Crowdfunding is an example of community-supported innovation. It creates an accessible path to small business formation. Anyone who has a project to work on but lacks the capital to start production can put their product forward in the virtual marketplace. Anyone interested in buying it or more simply in financing its realization can contribute through a donation. Increasingly, larger companies are figuring out how to collaborate and co-create with the maker community to extend their research and development efforts.

Chris Anderson[2] author of "*Makers: The New Industrial Revolution*", talks about a great moment of innovation, with this movement we are in the midst of a new industrial revolution. By applying shared virtual knowledge to manufacturing, the new industrial revolution becomes tangible. Thanks to the development of advanced technologies in digital manufacturing we are now at the point where digital design can contribute to the production of products more easily and cost-effectively reduced than in the past.

Many products made by maker communities focus on health, food, sustainable development, environmentalism and local culture, from this perspective this can also be seen as a negative response to disposable goods, globalized mass production, the power of chain stores, multinational corporations and consumerism. In a not too distant future small personal factories and an unstoppable movement of digital artisans will replace mass production (Anderson, 2017). Today we see that consumer tastes have changed, moving away from products made for a mass market to those that can be produced economically and changed frequently in response to consumer feedback and improvements in technological inputs.

2. Journalist and writer, named by Time among the most influential people in the world, was editor of the magazine Wired USA, co-founder of 3D Robotics and DIY Drones Community.

In Maker communities the time between design and prototyping is reduced, product design can take place faster and with greater flexibility. In addition, the ability to design and build prototypes is not limited to industrial designers or engineers, hence the skills and amount of money needed are lower. However, often a product must be redesigned to take advantage of higher-volume production methods, which are obviously more expensive. Recognizing this, large companies are stepping in to create new forms of factories by supporting short production runs in which quantities can be adjusted over time as the demand for the product grows. In the past, much of the value of manufacturing came from the assembly process. Today it depends on advanced materials and new manufacturing processes. Increasingly, manufacturers are delegating the task of assembly to a network of professionals. This type of service is called Manufacturing-as-a-Service, the network of logistics, suppliers and equipment is made available, thus eliminating the need to have one's own factory with specialized production lines.

The Maker Movement aims to create jobs and industries that will define America's productive future. Obama administration has always supported the Movement, going as far as to establishing the National Week of Making in June. Obama also committed to opening several national research and development facilities to the public and the U.S. federal government renamed one of their national centers "America Makes". As former President Barack Obama said during the first Maker Faire[3] at the White House:

"*Our parents and our grandparents created the world's largest economy and strongest middle class not by buying stuff but by building stuff - by making stuff, by tinkering and inventing and building; by making and selling things first in a growing national market and then in an international market - stuff 'Made in America.'... Your projects are examples of a revolution that's taking place in American manufacturing - a revolution that can help us create new jobs and industries for decades to come.*"

3. White House, June 18 2014.

Maker Movement Manifesto

At the beginning of his book Hatch writes:

"*Welcome to the next big thing, the Maker Movement and its revolution. We are still riding out the waves of the last big things, the computer revolution and the explosion of the Internet. But because the maker revolution is physical, it is destined to be bigger. We can't live in a computer or on the Internet, but we do live in houses, drive cars, wear clothes, use medical devices, play with toys, eat, grow, and live in the real world.*"

Mark Hatch, CEO and cofounder of TechShop[4], in his celebrated book "*The Maker Movement Manifesto: Rules for innovation in the new world of crafters, hackers, and tinkerers*" believes that everyone should create objects and that people get as much gratification from this process as they do from playing, sharing, selling, traditional learning, and helping others. Makerspaces give people access to the tools and professional help they need to build things at reasonable prices.

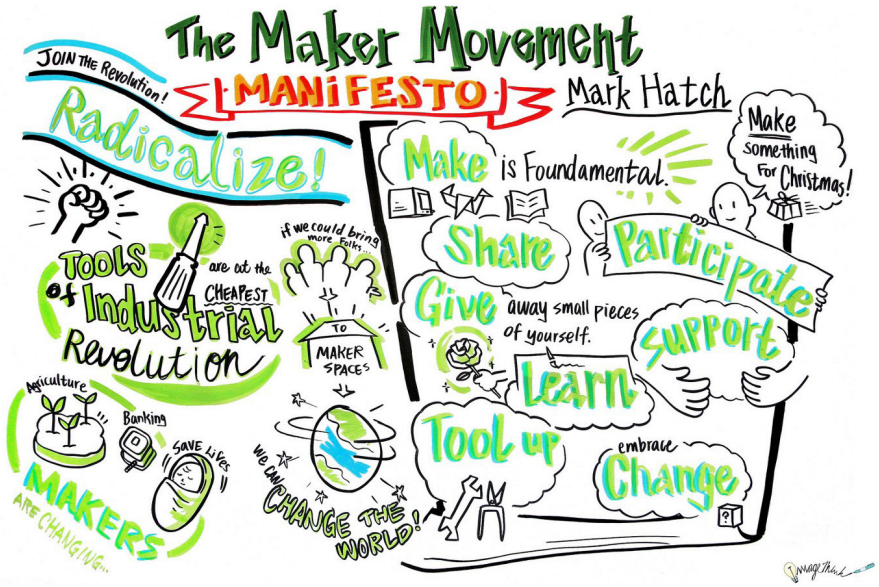
The main points of his ideas are expressed in his Maker Movement Manifesto:

- "**MAKE:** Making is fundamental to what it means to be human. We must make, create, and express ourselves to feel whole. There is something unique about making physical things. These things are like little pieces of us and seem to embody portions of our souls."
- "**SHARE:** Sharing what you have made and what you know about making with others is the method by which a maker's feeling of wholeness is achieved. You cannot make and not share."
- "**GIVE:** There are few things more selfless and satisfying than giving away something you have made. The act of making puts a small piece of you in the object. Giving that to someone else is like giving someone a small piece of yourself. Such things are often the most cherished items we possess."
- "**LEARN:** You must learn to make. You must always seek to learn more about your making. You may become a journeyman or

4. TechShop was a chain of membership-based do-it-yourself manufacturing workshops and studios, the world's largest platform for public access to tools and computerized manufacturing. They had 10 U.S. and 4 international locations but in 2017 the company closed all national locations due to bankruptcy. TechShop offered basic safety and use training on all its tools and equipment, as well as advanced and special interest courses and workshops. TechShop provided access to innovative tools at low cost through partners such as Autodesk, Ford, GE, and Lowe's, as well as government agencies such as DARPA and the Veterans Administration.

master craftsman, but you will still learn, want to learn, and push yourself to learn new techniques, materials, and processes. Building a lifelong learning path ensures a rich and rewarding making life and, importantly, enables one to share."

- "**TOOL UP:** You must have access to the right tools for the project at hand. Invest in and develop local access to the tools you need to do the making you want to do. The tools of making have never been cheaper, easier to use, or more powerful."
- "**PLAY:** Be playful with what you are making, and you will be surprised, excited, and proud of what you discover."
- "**PARTICIPATE:** Join the Maker Movement and reach out to those around you who are discovering the joy of making. Hold seminars, parties, events, maker days, fairs, expos, classes, and dinners with and for the other makers in your community."
- "**SUPPORT:** This is a movement, and it requires emotional, intellectual, financial, political, and institutional support. The best hope for improving the world is us, and we are responsible for making a better future."
- "**CHANGE:** Embrace the change that will naturally occur as you go through your maker journey. Since making is fundamental to what it means to be human, you will become a more complete version of you as you make."



The Maker Movement Manifesto. Source: Chapter 2: The Maker Movement and Cities | by Maker City Project | Maker City Book

Maker City

The Maker Movement is slowly reshaping U.S. cities, creating a new wave of economic opportunity, engaging people with different life paths and ages, and giving a boost to re-urbanization. At a time of great change that raises questions about the nature of work, a Maker City is how a community prepares for the future. A Maker City provides access to tools in a much more democratic way, so that all its residents are able to learn new skills, express themselves, and become more entrepreneurial and future-oriented. Maker Cities embrace the principles of Open Innovation, the idea that the best solutions are not found in an individual or institution within city government, but must be created through collaboration and engagement that looks outward for answers and examples.

The goal of the Maker Movement is to create Maker Cities throughout all the United States, which are open ecosystems of resources that boost economic and cultural growth through collaboration and innovation. The goal is to create cities that are smart, inspiring, highly replicable, sustainable and highly profitable. Maker Cities have the opportunity to engage people in the development of creative solutions to address pressing urban problems, including affordable housing, jobs, education and safety by encouraging users from all sectors (public, private, university and nonprofit) to work together toward the common goal.

A City can be a Maker City if there is optimism, energy and economic opportunity within it. But the main ingredients are a powerful desire to participate and change things, a strong spirit of initiative and a deep love of one's city, all of which Detroit has in abundance, as we will see in future chapters. Maker City is a mechanism for spreading a participatory, problem-solving culture at a time when it is most needed.

After attending the 2015 White House Maker Faire, Peter Hirshberg[5] and Dale Dougherty[6] decided to create a Playbook to answer questions they were receiving from city officials about how to use the Maker movement in their cities.

5. Peter Hirshberg has led emerging media and technology companies at the center of change for more than 25 years. As president of Re:Imagine Group he shapes strategies at the confluence of people, places, brands and cities. He has led the development of Urban Prototyping, (a global movement that engages citizens in co-planning their cities), is an advisor to the Department of Labor's ™Makership Workforce Development Initiative, contributed to the United Nations Global Pulse for International Development, is the former president of Technorati (a social media search engine and advertising network), directed marketing at Apple Computer, is a Senior Fellow at the USC Annenberg Center on Communication Leadership and a Henry Crown Fellow at the Aspen Institute.

6. Dale Dougherty is the founder and CEO of Maker Media, Inc. which launched Make:magazine in 2005, and Maker Faire in 2006. Make: plays an important role as a collaborator and resource for makers as they transition from hobbyists to professionals. Make: started at O'Reilly Media, where Dale was co-founder and the first editor of their books.

The answer lies in 10 first steps that every City that wants to become a Maker City should follow:

1. **Maker Best Practices:** Lead or participate in local efforts to identify, document, and share "promising practices" in manufacturing and technological innovation so that others in your community and beyond can learn from local experimentation.
2. **Maker Liaison:** Designate a Maker liaison in the mayor's office or economic development department.
3. **Maker Roundtable:** Host a roundtable in your community that convenes partners and helps catalyze public and private commitments that will strengthen the local Maker movement.
4. **Maker Faire:** Help celebrate the ingenuity and creativity of local Makers by holding or participating in a Maker Faire[7] event which convenes stakeholders to promote innovative technology ideas.
5. **Makerspaces:** Host or help create or grow Makerspaces in local incubators, accelerators, educational institutions, under-utilized buildings, and/or design-production districts which can broaden access to tools needed for design, prototyping, manufacturing, and the growth of small business enterprises that are building new manufacturing and innovation technologies.
6. **Maker Manual:** Issue a "Maker Manual" to explain the importance of the Maker movement in your community and to identify resources and incentives at local, regional, state, and national levels that can support Makers and small businesses seeking to grow their technology and manufacturing innovations.
7. **Make a Strategy for Education, Training, and Workforce Development:** Commit to working with your school district, libraries, museums, after-school providers, community colleges, universities, workforce investment boards, and job training organizations to give more students access to age-appropriate Makerspaces and mentorships, and focus more education and training programs on the emerging fields of advanced manufacturing and technology innovation.
8. **Maker Business Development:** Upgrade your economic and business development programs, incentives, and services to provide support to manufacturing entrepreneurs and small bu-

7. Maker Faire |

sinesses.

9. **Maker Support in Struggling Neighborhoods:** Support initiatives to engage and support students, entrepreneurs, and small businesses in underserved neighborhoods.
10. **Make It Even Better:** Your community may have even more innovative strategies for promoting the Maker movement. Make that part of your Challenge pledge and share the strategy with others!

In the past, large companies that have based their fortunes on skilled workers and cutting-edge technology moved to the suburbs, giving rise to immense closed satellite towns, home to corporate campuses equipped with highly specialized production facilities and worker residences. The idea behind it was that for companies to be competitive and innovative they would have to concentrate in closed campuses where employees could work together while limiting the flow of information with the outside world to a minimum.

Manufacturing has declined significantly in the United States and the rest of the Western countries due to outsourcing of production to lower-cost countries and as a result of increasingly radical automation pushing small factories out of the market. What may change is not large-scale manufacturing but the role of small businesses within the city. The rate of innovation in product life cycles has affected how local economies can adapt to market dynamics and needs. All this represents a significant challenge for cities whose economies and cultures are historically built on traditional industries. Cities are now tasked with reinventing these industries to remain competitive in attracting talent and developing large companies. Density represents the new incubator of innovation.

Americans are showing a preference for buying locally produced goods. Craft and advanced manufacturing require a large amount of space within cities. When cities dedicate an entire neighborhood to innovation it is called an Innovation District, and this is where Makerspaces are increasingly being located.

Each city has its own characteristics and strengths, Maker Cities must identify and exploit the areas in which they can be competitive. Maker Cities must create jobs and opportunities to attract and retain talent. As cities like San Francisco and New York become more expensive, a wide range of U.S. urban centers are emerging as attractive and affordable options, both for people to live in and for companies to set up store. A Maker City must be able to attract educated people while at the same time making the most of the talent pool already present.

The Maker City is a strategy for embracing change not only by adapting to the future, but also by helping to co-create it through collaboration. Change happens in great ways, from gaining consensus and moving forward together, often with a central authority as the manager of that change, all resources and efforts are combined. Typically that change is initiated in a top-down way, however, the Maker movement is characterized by bottom-up cooperative efforts, learning from what has already been done.

A Maker City is open to civic participation and engagement and its ultimate expression is residents with the skills, ideas and will to make the city. Traditional urban planning processes make it difficult to implement big ideas for civic improvement, it takes four times as long today as it did in 1970. The traditional city-building model has historically involved experts with a final long-term plan to be implemented over time, the problem is that culture changes faster than infrastructure, and obsolescence must be planned for. Makers continue a long tradition of civic engagement to take what works and build on it to correct parts of our cities that are not working as we would like. Makers can create solutions to problems very quickly as a series of experiments, which may be successes or failures, and city officials and nonprofits organization work with the community to find more permanent and far-reaching solutions. The key to civic innovation is to involve more people in the task of solving urban problems, and one of the greatest resources is students, who can be deeply engaged in projects when invited to learn about and solve

real problems in the city. It is a 21st century approach to civic education, where the city becomes a living laboratory.

A Maker City is connected globally and locally. While the Maker movement is global primarily through the Internet, to make change is easier to do it locally, all depends on organizing local resources. Each community is different depending on the people, resources or goals set in the innovation program. They occur at different scales, connecting smaller local neighborhoods and districts, cities up to the large global communities.

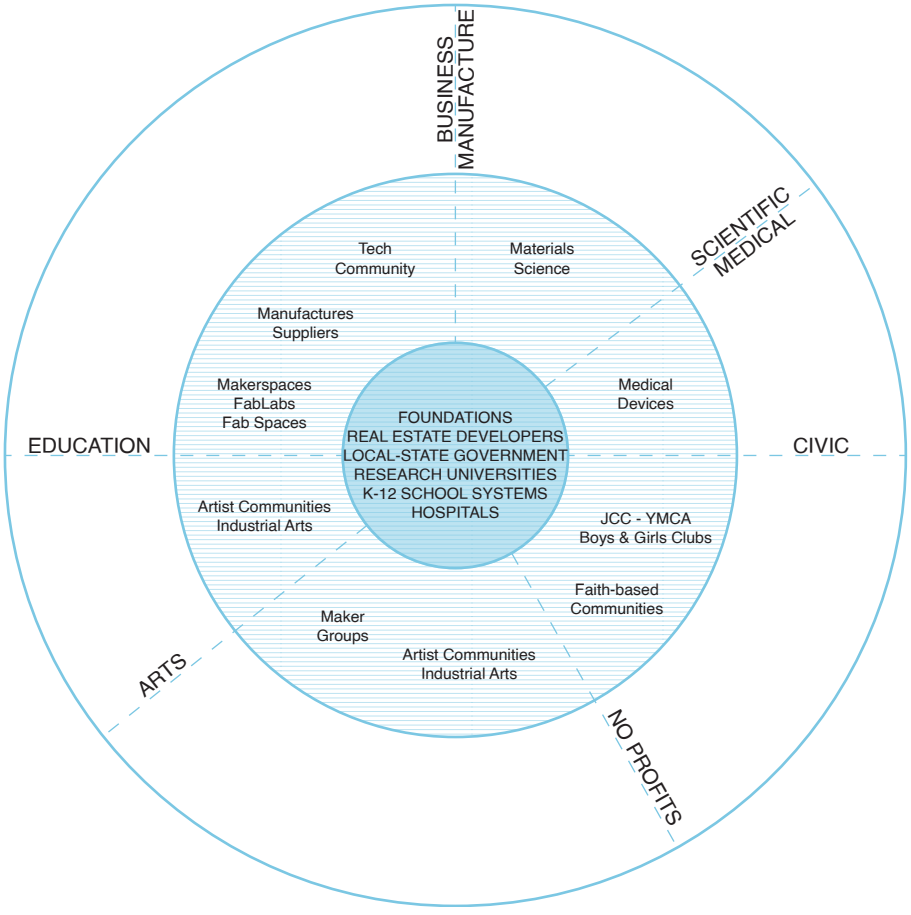
The community system that is created around a Makerspace can influence the way the space functions. At the same time it must not be limited to the single neighborhood in which it is located, but must attract users from other parts of the city or outside of it. It needs an overall vision that considers architectural, urban, social, demographic, and strategic aspects. There are usually, two circuits of communities, the internal one (composed of those who participate in the program themselves) and the external one (represented by those who support the program with collaborations or external resources). The more a community is diverse and wide, the more opportunities the makers have to expand their knowledge through collaborations, interdisciplinarity and partnerships.

An ecosystem is a loose coalition of people and organizations that share an interest and a set of values. Maker ecosystems begin in a self-organizing way when like-minded individuals connect people, ideas, and projects together. Rarely there is only one person or organization in charge, leaders who can influence and accelerate the growth of the ecosystem emerge, but a job title or specific function is less important than passion, enthusiasm, and energy. A community, unlike company's employees, is more egalitarian and meritocratic, because it is free of constraints and contracts, where anyone with the right solution, can lead to success. In the Maker City, formal credentials such as a college degree are giving a way to fast-track programs that demonstrate mastery of a specific skill

or equipment set.

In 2013, Deloitte's Center for the Edge (a consulting firm notable for its ability to recognize trends that shape the future) partnered with Maker Media to publish the first study on the impact of the Maker movement on the U.S. economy, studying how emerging forms of change spread through institutions and society.

An activity at the edge of an ecosystem is precursor to a change at its core; a strong Maker ecosystem can influence change at different levels within cities that from the outside seem unchangeable. Often the Maker ecosystem in a city starts at the margins, reaching out to the learning community, and then growing into business and industry, finally involving the core where local and regional government agencies are located.



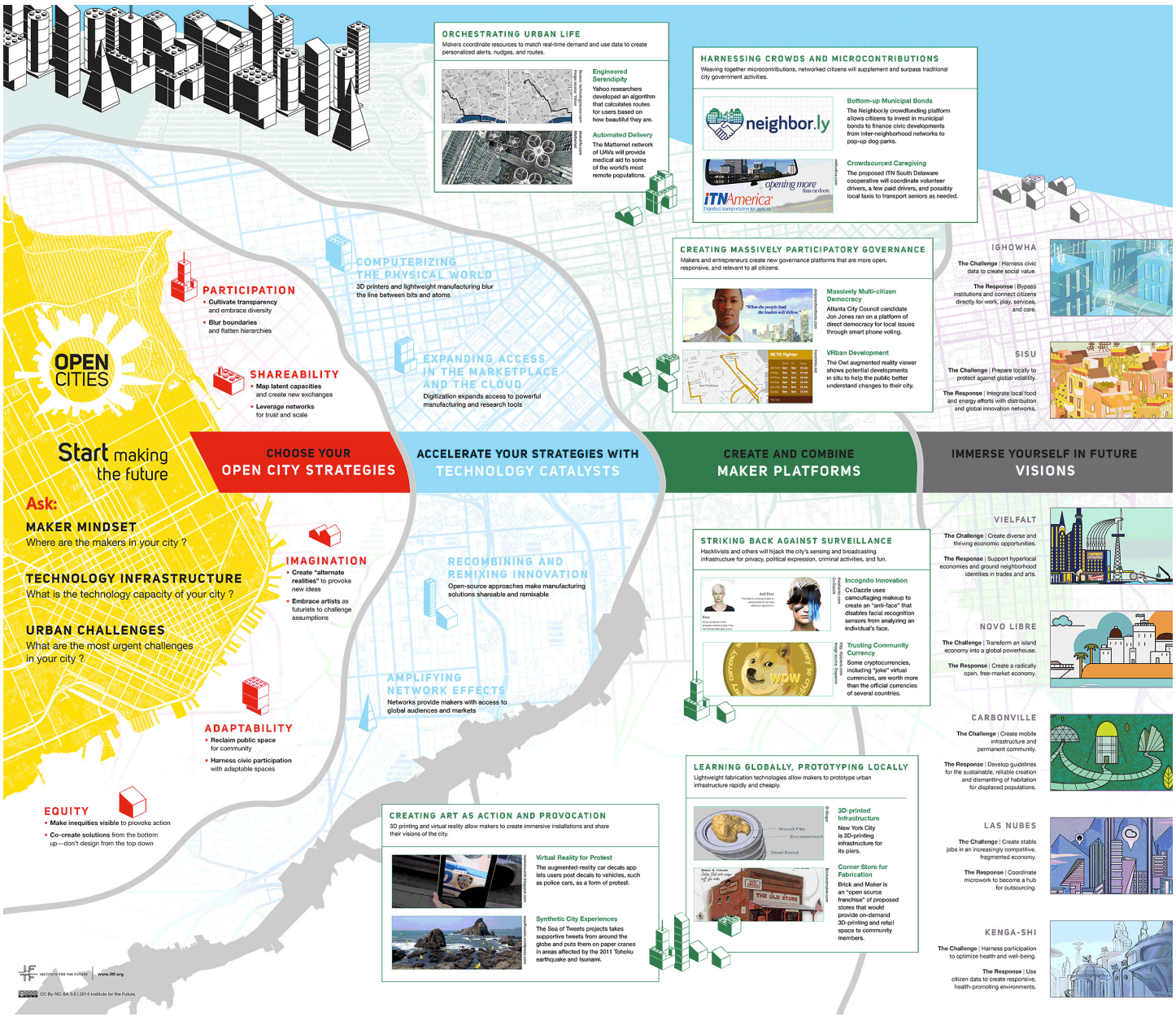
Maker City Ecosystem, Deloitte Center for Edge Innovation, 2016.
Source: Chapter 3: The Maker City as Open Ecosystem | by Maker City Project | Maker City Book
Personal rework.

Mapping the resources in the area is a key element in defining the Maker City ecosystem because it allows the actors involved to get to know each other, and enables small initiatives to emerge. Companies play a central role as facilitators since they establish relationships not only with Makers but also with local governments and universities.

The Institute for the Future[8] tries to imagine what the city of the future might look like through the Maker City movement. Makers are creating a new kind of city: the Open City, open to participation, shareability, imagination, adaptability and equity. Cities are our laboratories for the future, where people and ideas from around the world come together in a vast and unpredictable melting pot of innovation. But they are also places that face challenges, and our systems are unprepared for change.

Open Cities: How Technology and the Maker Mindset is Reinventing Urban Life includes a map of tools and processes for selecting open city strategies. It highlights the technology catalysts that makers are using to accelerate their strategies and shows how makers are creating new tools and platforms to meet existing and emerging needs.

8. The Institute for the Future (IFTF), led by Rod Falcon and based in Palo Alto (CA), is a non-profit organization that has been researching and providing information on the Maker Movement and Maker Cities since 2008, IFTF - The Future Is Wide Open.



Open Cities map.
Source: IFTF_TH_OpenCitiesMap_rdr.pdf
Personal rework.

Makerspaces

The emergence of new startups is possible thanks to cloud-based tools and new types of resources such as production-oriented incubators hackerspaces and makerspaces: making requires a place to make.

The rise of maker culture is associated with the development of Hackerspace, FabLab and other Makerspaces, of which there are now many around the world. Some notable ones can be found at technically oriented universities, such as MIT and Carnegie Mellon University (especially the MIT Hobby Shop and the CMU Robotics Club). As maker culture becomes more popular, Hackerspaces and FabLabs are increasing in universities and libraries, in Europe labs are more common than in the United States.

The most formalized and sometimes largest spaces are the Makerspaces, which typically include workspaces and provide access to advanced equipment such as 3D printers and CNC (Computer Numerical Control) machine tools at low cost. Some of the Makerspaces in the community are free and open to everyone, some serve as a meeting place for people with similar interests, some are part of schools and universities, and some others are run by museums and libraries. It is important that these places exist, but it is even more important that they are interconnected. Some Makerspaces offer workshops and classes to help others develop as makers.

Maker spaces can range from 5 thousand square meters to 150-200 thousand square meters. Large spaces are preferred because they support a wide variety of tools and functions and can be divided into smaller spaces useful for classrooms and workshops. Some of the larger Makerspaces are created to house not only Making equipment but also a co-working space and a space to host meetings and reunions, many of them also serve as innovation hubs in their communities.

Events such as Maker Faires[9], hackathons, meetups, and marketplaces invite more people to participate and get involved.

9. Detroit Urban Craft Fair 2022, fair to promote local handicrafts and community initiatives.
Personal photo.



Large opportunity gaps persist for young people growing up in poverty, the maker movement has emphasized its potential in opening access to learning to all but an explicit equity agenda has been fairly absent in the maker movement. It remains an adult, white, middle-class activity driven by those with the free time, technical knowledge, experience, and resources to make. The average salary for those involved in the maker movement in the U.S. is $103,000, with 70% of those who go to Maker Faires having a bachelor's degree, only 11% of contributors to Make Magazine are women. The knowledge and practices of communities of color or low income communities have not yet become central to the movement. The American education system today tends to focus only on students who will continue their education in college, and disregards others who cannot afford further studies or prefer to work right away. There is a need to design makerspaces that promote an open, flexible and welcoming atmosphere, the incorporation of participants' cultural knowledge and practices (Peppler, Halvorsen, Kafai, 2016).

The term "Makerspace" did not exist until 2005 when Make magazine was born thanks to Dale Dougherty. There is a common conception that "Hacking" refers to a subset of activities involving programming, working on electronic components and hardware. The Hackerspace derives from a cultural and technological tradition older, that of the hacker movement in Europe, places where programmers, understood in the traditional sense of the term "hacker," used to meet (Cavalcanti, 2013). Once the early experimentation in the American field, these environments saw the addition of design and production and the term Makerspace was born.

Hackerspace

Hackerspaces are open community labs that combine elements of machine shops, workshops, and/or studios where hackers can come together to share resources and knowledge to build and create things. As a site of individual empowerment, they enable people to remake the social norms and material infrastructure that support their work and livelihood. Many hackerspaces participate in the use and development of free software, open hardware and alternative media.

The tools and resources available at hackerspaces vary from place to place. They typically provide space for members to work on their individual projects or collaborate on group projects. The building provides the physical infrastructure, electricity, computer servers and Internet networks. Well-equipped hackerspaces can provide machine, sewing, crafts and art making tools, audio equipment, video projectors, game consoles, electronic instrumentation and components, raw materials etc. Large format printers, 3D printers, laser cutters, industrial sewing machines or waterjet cutters may be available. Some hackerspaces provide equipment for food storage and preparation.

There is much variety in the way hackerspaces are organized. Some are governed by member-elected committees, elected officials have decision-making power regarding the purchase of new equipment, recruitment of new members, formulation of policies, compliance with safety requirements, and other administrative matters. Others are led by a single person, a common structure for hackerspaces that are founded by a single person on his own property. There are also more anarchic governance models, in which people receive authority over a task by performing it. This model is often combined with other structures such as elected councils or consensus-based meetings.

Membership dues are usually the main income of a hackerspace, but some also accept outside sponsors. Some accept volunteer labor in exchange for membership dues. University hackerspaces

often do not charge a fee but are generally limited to students, staff, or alumni, although visiting guests from other hackerspaces are welcome. There is a tradition of welcoming visitors from other similar organizations, both in the city and internationally. Exchange of ideas skills and knowledge is encouraged, especially at regular meetings.

FabLab

Unlike the first two, the term FabLab is linked to a registered trademark, by Neil Gershenfeld in MIT's Media Lab founded in 2005. A Fab Lab (fabrication lab) is a lab equipped with a set of tools with the goal of making almost anything. The fab lab movement is closely aligned with the DIY movement, open source hardware, maker culture, and shares the philosophy and technology with them.

Equipment within a fab lab may include: 3D printer of plastic or plaster parts, CNC machines, two-dimensional milling, design, assembly and testing of microprocessors and digital electronics, milling cutters, laser cutting, plasma cutting, waterjet cutting, etc. Fab Labs have specific space requirements, from 1.000 to 2.000 square feet.

Fab Labs have a similar conformation to Makerspaces but they are an institutional space that must comply with a set of characteristics related to connection with the network composed of other Fab Labs, be partially open to the public and offer a set of tools with certain characteristics. Fab Labs can be opened with public funds and can present courses and workshops that take into consideration a wide audience. There is a community of Fab Labs in the United States called USFLN (United States Fab Lab Network)[10]. The structure is very similar to Makerspaces except for a more formal approach with the community and in the organization of the space and program. Production is unconventional, stepping outside the mass-produced system.

10. United States Fab Lab Network | FabLabs

Spaces for Manufacture

According to NLC[11], National League of Cities, the city has become one of the most encouraging spots for innovation in the United States. Many cities are including the Maker Movement in their local plans to link it to local manufacturing growth, involving redevelopment of abandoned industrial areas by proposing regeneration of entire neighborhoods and strategic districts and their transformation into Innovation Districts, providing low-interest loans or rent guarantees for startups, and trying to reduce bureaucracy.

The culture of making goes together with the concept of sustainable and sensitive design to issues on the contemporary city. Urgent urban problems such as unemployment and security, incentivize the reuse of abandoned industrial buildings at low cost, crowdfunding, self-build process, the use of affordable and local materials, etc.

The maker culture involves a flexible lifestyle with variable working hours. The work-life balance concept is changing and generating urban and social implications in the concept of where to live in relation to one's work. It is needed to think about all the components brought into play in this system designing a Makerspace, starting from the public spaces, to the changing district due to the return of urban manufacturing, to the home-to-work transportation system.

Makers need affordable housing with an adjacent studio space but it is difficult to find different spaces with different prices close to each other. The makers, those who made the neighborhood attractive and enabled economic and job growth, will be cut off when that neighborhood begins to be populated by those who can afford to pay more for work space and housing. To remedy the problem, zoning can be used to prescribe not only the uses allowed in a given area, but also their percentage. Ownership or management of manufacturing sites could also be entrusted to nonprofit organizations whose mission is to strengthen the manufacturing sector, ensure the availability of manufacturing space and provide services that support businesses.

11. National League of Cities - Cities Strong Together (nlc.org)

Manufacturers need a space that is stable, qualitable but affordable, of the right size, and in a strategic location. The importance of choosing the building to invest in is crucial because it must be located in a location that allows it to be in proximity to possible buyers, to the network of suppliers and partners and to the infrastructure (railroad and highway).

Industrial buildings in American cities, a legacy of the 20th century, are characterized by enormous size but manufacturers specialized in emerging industries often need smaller spaces with specific attributes. Subdividing and modernizing large, old buildings involves significant costs and risks so manufacturers often rent rather than own their spaces. Few of them are inclined to invest in improvements to the building's exterior and systems because their priority is to buy equipment, materials and technology.

Many cities have converted industrial areas in favor of residential and commercial development, lenders tend to consider industrial and commercial projects riskier than residential projects because the markets are smaller and more complex. Even when the remaining industrial zone is often porous, the redevelopment of some lots could be catalytic to encourage speculation.

A multi-tenant Urban Manufacturing project is not the same as an incubator, incubators have financing that allows them to absorb operating losses. Developers hardly rent space to small startups because they don't want to take such a risk, sometimes similar or compatible companies share equipment and designs to optimize production, cut costs and minimize waste. For the project to be successful, the developer must understand both the quantitative and qualitative requirements of potential tenants and how much they are willing to pay.

Nonprofit developers have the mission to build and manage a stable and affordable space to meet the needs of local producers. They generally manage their buildings for long term instead of selling them

once they are finished, so they are able to reinvest their earnings into future projects. Some are the result of public-private partnerships or derived from public benefit corporations, they may be created by local governments for the purpose of developing, marketing or managing large parcels of public property.

The Urban Manufacturing Alliance (UMA)[12] allows people to learn about best practices and understand how they can be applied to use the real estate assets available to them strategically. Adaptive reuse projects of disused industrial sites can be subsidized to house manufacturing in the city, these are ideal locations because they already have the necessary spatial and flexibility characteristics and because the redevelopment of such buildings sets in motion urban regeneration practices capable of transforming entire portions of the city.

According to Saskia Sassen in her article "*Cities Today: A new frontier for Major developments*", Urban Knowledge Capital is given by the sum of formalized urban economies and informal urban economies whose main example is Urban Manufacturing. It is characterized by urban localization as it is connected to the network of local suppliers, by customization and by the need to be close to one's customers and artisans, and an inversion of the relationship between services and manufacturing (historically, services are located close to manufactures to meet manufacturing needs, today the relationship has reversed and manufacturing spaces have returned to the city by positioning themselves close to the services and infrastructure it offers). It would be desirable to recover urban centrality through Urban Knowledge Capital, given by the sum of the expertise of city-based planners and companies that generate a strong impact on the urban economy, in the organizational structure of the city, and in the spatial and urban effects associated with it.

12. The Urban Manufacturing Alliance was founded in 2011 to create a community to advance local manufacturing development through a global network, linking best practices across the country for new manufacturing communities. The Alliance brings together best practices in workforce development, equity, real estate and local branding. The organization is trying to influence the federal new markets tax credit program, which was created to be an additional source of capital for cities looking to build new industrial or maker spaces that fit for the 21st century.
Urban Manufacturing Alliance (urbanmfg.org)

Urban Manufacturing

The Urban Manufacturing Alliance designed the "*State of Urban Manufacturing*" study as a way to inform policymakers, economic development practitioners and workforce training providers, information they can use to make strategic decisions in support of urban manufacturers for the economic development. Innovative businesses often combine design, art and manufacturing, so they often do not fit neatly into the data collection categories that the government has used to classify manufacturers for generations. The impact, potential and needs of these businesses are poorly understood. For its national research UMA gathered information from hundreds of manufacturers and organizations that support these businesses in six pilot cities, including more than 100 in Detroit, about the nature of their businesses and the challenges they face. The goal is to understand what the small batch manufacturing sector looks like, who its entrepreneurs are and what cities can do to help these businesses thrive and grow into larger job creators.

Detroit stands out among the cities studied by the UMA because the region's manufacturing workforce has stabilized after several years of decline. From 2010 to 2015, the sector regained nearly all of the jobs lost during the Great Recession, and in 2015, employment was just below 2007 levels. In 2014, manufacturing was the second largest employer in the region, with 236,072 jobs, and had the highest total wages for the sector by a significant margin ($16.99 billion, or 17.3% of the total MSA).

UMA made a survey among the organizations in Detroit that support manufacturers on:

- The general types of services provided to manufacturers in the areas of business operations, access to capital, product development, real estate, workforce development and community building;
- Specific programs within each service category;
- Specific manufacturing subsectors that each organization might focus on;
- Whether organizations serve the entire city, specific neighborho-

ods, or specific types of manufacturers;

- Gaps in existing manufacturing services to address unmet needs.

The evaluated indicators included: establishment and employment change, wage rates and change, workforce demographics and education and contribution of the manufacturing sector to the gross domestic product. Among the service providers surveyed, 75% stated that they focus on Product Development and 55% on Business Operations and Community Building/Ombudsman Services.



Manufacturing Subsector Served. Source: Ecosystem Map - Detroit v6 small (designcore.org)

Another survey was conducted to gather data directly from manufacturers on basic business demographics, challenges to scaling up, and what kind of support and information they need. Policymakers and service providers were also interviewed about their support in services like connections to financing, navigating regulations, market development, business acceleration and finding affordable real estate.



Manufacturing Subsector among survey respondents.
Source: City-Snapshot-Detroit-Final.pdf (urbanmfg.org)

Key findings include:

- Small manufacturers are struggling to get out of first gear by complementing the passion for their products with the right business know-how and technical support. As in many other cities, however, the bulk of business support is geared toward startups or larger companies;
- Despite vast tracts of vacant industrial land, there is a shortage of suitable space for small businesses that lack the ability to acquire, subdivide and rebuild disused space;
- This is indicative of a broader challenge of these firms lacking the capital to move from the world of direct-to-consumer production to the world of supplying wholesale markets;
- Growing small businesses struggle to find and retain qualified talent;

- Southeast Michigan's rich network of industrial suppliers and workshops could be a huge resource for designers looking to integrate their greatest strengths with established manufacturing operations, but the information is not organized in a way that helps small business owners new to manufacturing to find the right, high-quality suppliers for their needs.

Detroit Maker City

For many Rust Belt cities that have suffered from the loss of heavy industry, manufacturing remains a source of pride that is still reflected in the character of the city and the people who live there. Making can reopen the discussion of what is made in a city and how that becomes part of its present and future identity. It goes beyond the products and services offered locally and it speaks to the shared values of people in the community. The intent is to ask where this product was created, who created it and what is the story behind it, prioritizing quality and the Made in the USA.

Perhaps more than any other American city that rose to prominence in the 20th century, Detroit was for three-quarters of the century the world's center of automobile production, which for at least 50 years initiated changes in global settlement patterns. From the founding of Henry Ford's company in 1903, Detroit became not only the automotive capital of the world, but also a veritable research and development laboratory for mass production, engineering and the training and education of factory workers. In addition to the headquarters of the major automakers, thousands of industrial suppliers still dot the southeastern Michigan region, a testament to the dense hinterland of this manufacturing capital, even if much of the automotive and other large-scale production has moved to other parts of America and abroad.

In recent years, Detroit has seen the emergence of a thriving small business sector and a strong entrepreneurial spirit that attracts people from far and wide. However, this group of emerging entre-

preneurs and the various organizations and institutions that have sprung up to support them are not well understood. And while they are often thought of as manufacturers, even on a smaller scale, many identify themselves as artists, craftspeople, or designers, and this is important to understand because it could affect where these entrepreneurs turn for support if they want to grow their businesses.

Despite Detroit's strong industrial assets, infrastructure and recent stabilization of manufacturing employment, smaller new manufacturers face a number of downsizing challenges. There are millions of square feet of vacant industrial real estate in the region, but almost none of it is suitable for small companies that lack the capital to rehab and subdivide these spaces. This is despite the enthusiastic and motivated stakeholders, both public and private, who have come to Detroit to figure out what resources and services small-scale and design-oriented manufacturers need to access in order to grow and thrive. The question is how Detroit can align its industrial assets and infrastructure with the needs of today's and tomorrow's manufacturers.

Cities need a way to fill jobs that, if left vacant, could cause a company to leave a city. Job matching programs are designed to take the skills that unemployed people have and match them with available jobs. In order to match people and jobs, it is necessary to have a well-developed pool of professionals with the necessary skills, but most cities no longer have this, hence we are faced by a skill gap that is a barrier to economic development in cities. Since quite a lot of workers are over-skilled, the problem is finding workers with the right skills and inclination to fill the jobs in between, many of which take advantage of maker skills. New forms of apprenticeships and internships can fill an important gap by providing skills in a way that is contextual to job needs.

Many institutions, both public and private, are reinvesting in apprenticeship programs as a way to help reducing the skill gap. In Detroit, JPMorgan Chase has made a $100 million commitment to the ci-

ty's economic recovery by investing in the Detroit Registered Apprenticeship Program and other workforce training initiatives. Some formalized programs, typically funded by the Department of Labor (DOL), target disadvantaged workers by allowing them to earn wages while in training, enabling economically disadvantaged adults and youth to participate. The outcomes of learn + earn apprenticeships are to expand economic opportunities.

Mark Hatch, former CEO of TechShop and Bill Coughlin, CEO of Ford Global Technologies, worked together to build a world-class makerspace for Detroit. The idea was to expose Ford employees to the skills and tools of makers so they could better compete in the innovation economy. The concept they came up with was to give Ford employees a free TechShop membership for three months, plus money for classes. Within a year, the number of inventions at Ford doubled and morale soared. People at Ford felt empowered to bring their ideas for improving the cars they were making through rapid prototyping.

Shinola

Traditionally, workforce development has been about on-the-job training, but it is difficult to make progress by training people with static skills, thus a more fluid, dynamic and adaptive model is needed. This is the approach taken by Shinola, a Detroit-based luxury goods manufacturer. Shinola needs critical-thinking workers who can improve their skills, so it has reintroduced "masters," artisans and experts in their craft who had retired to reintroduce young people to the idea of American manufacturing. This is a new form of apprenticeship, built around the development of talent, not skills or a profession.

Shinola manufactures and sells watches, bicycles, leather goods, home goods, and jewelry. Founded in 2011 by Tom Kartsotis and operated by Texas-based investment group Bedrock Group LP, the company is named after an old shoe polish company. The original

Shinola shoe polish brand was founded in Rochester in 1877 and ceased operations in 1960. Kartsotis, previously the founder of Fossil Group, wanted to create a high-end American watch brand to compete with Swiss watchmakers at a lower price. The company gave the city of Detroit a sense of possibility, its arrival was an invitation to others to do the same.

Market research[13] showed that if consumers had a choice between paying $5 for a pen made in China, $10 for a pen made in the United States, and $15 for a pen made in Detroit, they would pay for the latter. Every Shinola watch is assembled in the United States, even though many of its components are made elsewhere. The company actively used Detroit's reputation as a global manufacturing center to market the brand. The company worked with Ronda, which brought in experienced watchmaking veterans to train Shinola's watch assemblers, who had no previous watchmaking experience. Currently, the factory has the capacity to assemble 500.000 watches per year.

The headquarters and watch factory are housed in the College for Creative Studies (CCS) on the fourth and fifth floors of Detroit's Alfred Argonaut Taubman Building, a 30.000 square feet former automotive research laboratory. The building, designed by architect Albert Kahn and built between 1928 and 1936 was once home to General Motors' Design and Innovation Department, it was chosen as the site for the production facility in conjunction with the Detroit Economic Growth Corp. It was abandoned until 2009, when it was reclaimed to house CCS and manufacturing and startup space on the upper floors. Most of the employees are from Detroit, and many come from the automotive industry. Since the company was founded in 2011, it has grown to more than 400 employees by 2021.

Shinola collaborated with Crate and Barrel on a furniture line and with Ford Motor Company on a concept for the Lincoln Aviator. It partnered with a Detroit real estate company to open an eight-story, 129-room boutique hotel as part of a 2019 project. Located on De-

13. In Bankrupt Detroit, Shinola Puts Its Faith In American Manufacturing (forbes.com)



Shinola Store and Hotel on Woodward Avenue, Detroit.
Personal photo.



Shinola Store in Midtown, Detroit.
Source: How luxury watch manufacturer Shinola is helping to revive Detroit's fortunes | The Independent | The Independent

troit's Woodward Avenue, the hotel occupies five buildings, including historic structures such as the Singer Building and the former TB Rayl & Co. store, and also includes a restaurant and retail store. This is an innovative model in the city, which integrates sales and production, using the latter as a point of attraction for potential buyers.

Shinola products are sold in stores in Detroit, New York, London, Toronto, Highland Park, Plano, Minneapolis, Chicago, Boston, Los Angeles, San Francisco, Washington, D.C., Cleveland, Columbus, Denver, Waikiki and Ann Arbor.

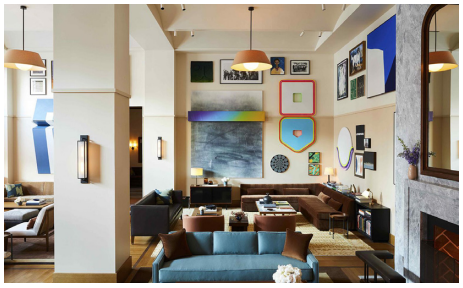
Kartsotis' marketing technique brought the company much attention and criticism. Detroit journalist Jon Moy suggested that Shinola's choice of Detroit as the location for the factory was a calculated act of "opportunistic marketing" designed to create feelings of nostalgia. Moy accused Shinola of masking its promotion of gentrification in the city with claims of civic pride. However, Kartsotis said they are not in business to make a profit, but to stimulate the local economy by paying workers well above the minimum wage. Moy also addressed the alleged exploitation of black culture, claiming that their marketing reinforces their "white savior" image.

In 2017, Rebekah Modrak created the web-based artwork RETHINK SHINOLA[14] in which she exposes the contradictions and racist underpinnings of Shinola's branding and the company's obliviousness to these harmful practices in contemporary Detroit. The evidence Modrak has gathered is overwhelming, presenting examples of Shinola's overly racist advertising dating back to the 1930s. Modrak says that Shinola uses the design aesthetic of "calculated authenticity" and elements of craftsmanship or customization to suggest that the product is motivated by these values rather than crass financial gain.

14. RETHINK SHINOLA



Interior of the Shinola Hotel on Woodward Avenue, Detroit.
Source: A Review of Shinola Hotel in Detroit - Fathom (fathomaway.com)





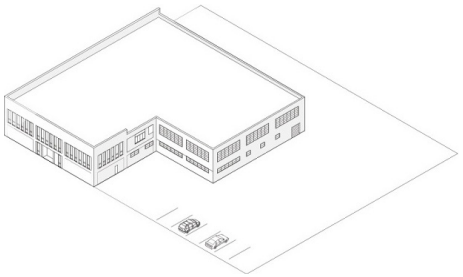
Interior of the Shinola Hotel on Woodward Avenue, Detroit.
Source: Shinola bursts onto the hospitality scene with its new Detroit Hotel (thespaces.com)

Ponyride

Ponyride is a Detroit nonprofit dedicated to facilitating the growth of artists, entrepreneurs, makers, and organizations. The community activates the space, equips it, offers it at low cost and encourages organizations with social missions to use it until they get too big and can get their own space. It fosters education, creative energy and collaboration with the goal of increasing opportunities for everyone to succeed, making the city a better place to live, work and thrive. The name Ponyride comes from the idea of taking people back to when they were kids, less troubled and more creative, to take risks, start a business, learn and grow from their failures.

The organization was founded in a 30.000 square feet building purchased for $100.000 from a foreclosed bank in 2011 in the heart of Corktown, Detroit's oldest neighborhood and contemporary creative hub. The original building was designed by Smith, Hinchman and Grylls in 1935, with a 1950 addition, was used as a printing plant for Lettergraphics and dismissed in 2008. The warehouse was a hidden architectural gem but the scale was intimidating for prospective buyers. The renovation was mainly the work of the organization's first members and community volunteers, led by its founders Phil Cooley and his wife Kate Bordine. Ponyride worked with a local architect to create building plans that would address all of its long-term goals and short-term needs. The functional and sturdy concrete structure was exposed, the industrial windows were replaced to take advantage of natural light and the concrete floors were covered with linoleum and carpet. Over time, the building has been reconfigured as needed by the multi-tenants. Economic constraints, uncertainty about future developments and an ever-expanding community of tenants have often led companies to share space units and amenities without creating new physical boundaries unless absolutely necessary, which would have also compromised logistics and distribution within the building. Space constraints and the stabilization of the Corktown neighborhood after years of increasing attraction of people, capital, and businesses had led Ponyride to consider moving to a larger space in a more distressed area. In 2018, after Ford announced the acquisition of Michigan Central

Ponyride



Ponyride's first location in Corktown.
Source: PONYRIDE - DIY Detroit (cargocollective.com)



Ponyride's first location in Corktown.
Source: An 'Entrepreneurial Seedling' Sprouts In Detroit : NPR

Station, which will be redeveloped as a mobility-focused campus, Phillip Cooley finally decided to sell the building. In 2019, despite local and national consensus, Ponyride sold its Corktown building for $3.3 million due to a nearly $100.000 debt, no money for needed renovations and economically unsustainable future, where Cooley would had to charge much higher rents. They moved to the nearby Core City neighborhood and the building was purchased by local developer Marc Nassif, who plans to renovate the building and charge market rents for the space. Ponyride's parcel is zoned Intensive Industrial District, manufacturing is the ultimate desirable use, unlike intensive production, various types of businesses and commercial activities are encouraged while residential development is not allowed. With the completion of the new Ford campus and other redevelopment projects being developed by the city as part of the new strategic plan for Greater Corktown, rents are expected to increase further. More than 60 Ponyride members moved to Core City in a location for rent of 11.000 square feet, but this solution was temporary because the organization in 2020 partnered to open the first co-working space within a Boys & Girls Club[15] location. This recently expanded partnership opens up more resources, providing an office and production space of 20.000 square feet in three BGCSM clubs throughout Southeast Michigan, especially in distressed neighborhoods. BGCSM operates a $2 million federal small business loan fund with interest rates at or below 2%, this allows Ponyride to expand its ecosystem of diverse social entrepreneurs by providing adequate resources for economic mobility.

The space offered is versatile and can work for large groups, an entire manufacturing operation or a single person. There are areas for light production, co-working or a 9-5 day office space which members can use by paying a monthly fee. Ponyride also offers services such as a content and production studio, a fitness center and gym, a self-care and yoga room, an innovative computer and printing lab, and more. There are companies in health and beauty, culinary, technology and professional services. Many of the spaces are shared and collaboration is encouraged, but they can also be

15. BGCSM – Boys & Girls Clubs of Southeastern Michigan provides high quality youth development programs for children ages 6-18 in our community.

BOYS & GIRLS CLUBS
OF SOUTHEASTERN MICHIGAN

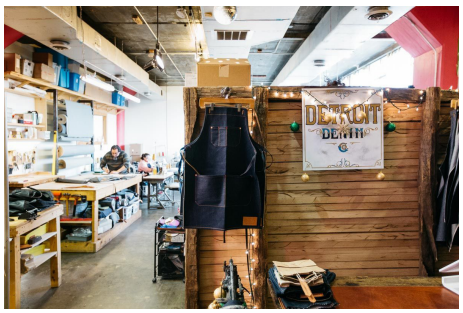


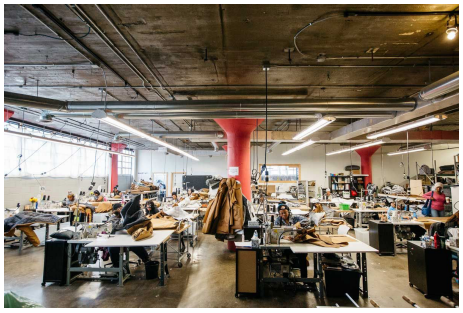
Ponyride's Core City location.
Source: ponyride detroit - Cerca con Google



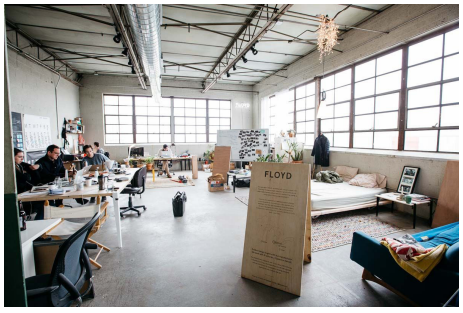
Ponyride's location with Boys & Girls Clubs of Southeastern Michigan.
Source: Boys & Girls Clubs of Southeastern Michigan: Dick & Sandy Dauch Campus - 16500 Tireman Ave, Detroit, MI 48228 - BestProsInTown

rented for private and public events. Residents can rent the space on a month-to-month basis and have access to all three locations. Ponyride's commitment to inclusion and diversity guides the resident selection process to ensure equal access for entrepreneurs and innovators. In addition to membership benefits, residents have access to below-market rental and production space, entrepreneurship events and classes, retail opportunities through sponsored markets, pop-ups and larger events. As a non-profit organization, Ponyride is governed by a volunteer board of community leaders who contribute their passion, skills, time and support. The organization is led by an executive director and a visionary developer. The team also includes an architect, a marketing coordinator, a facility manager and a program developer.

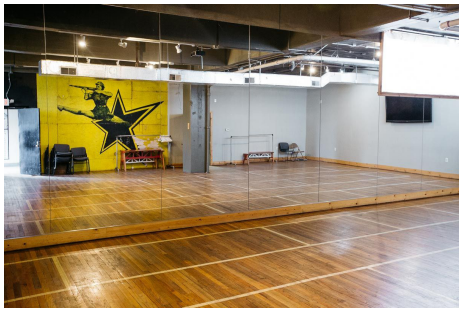




The driving force behind Ponyride as a place for creativity, collaboration and sustainable urban development are the people who work in the space. It is a process focused on understanding the needs of the broader community of partners, customers, public, etc. A number of parameters structure the experience of working in Ponyride and reinforce each other, the system they create suggests a model that could be implemented in other similar neighborhoods or cities. The six parameters of the Ponyride model are:







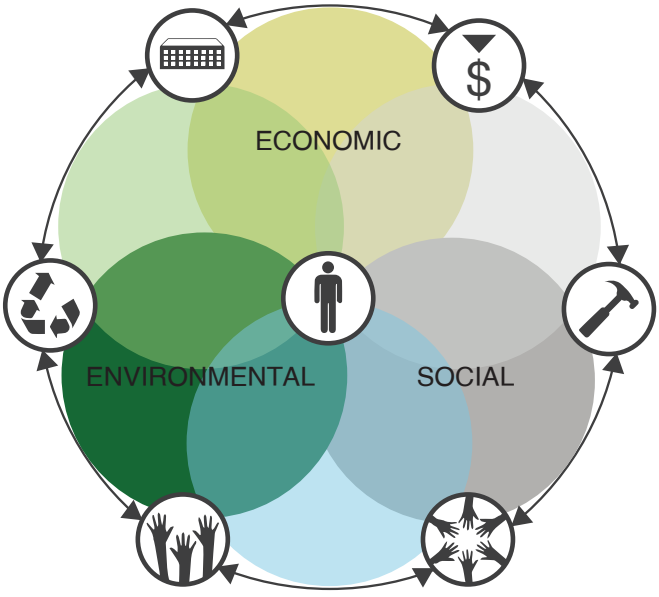
1. **Lower than market rate rent for space:** tenant rents, at 50 to 65 cents per square feet including utilities, are about a quarter of the market rate;
2. **Build-out of space by tenants and volunteers:** tenants, with the help of outside volunteers, support and donations, participate in the design and construction of their own spaces. Many of the people and organizations working at Ponyride have been directly involved in the visioning and planning of the building, because of their input the space feel authentic and meets all of their needs. Approximately $200.000 worth of volunteer hours and materials have been invested in the building since its purchase in 2011;
3. **Diversity of actors:** a very diverse group of individuals and organizations work side by side, this diversity includes differences

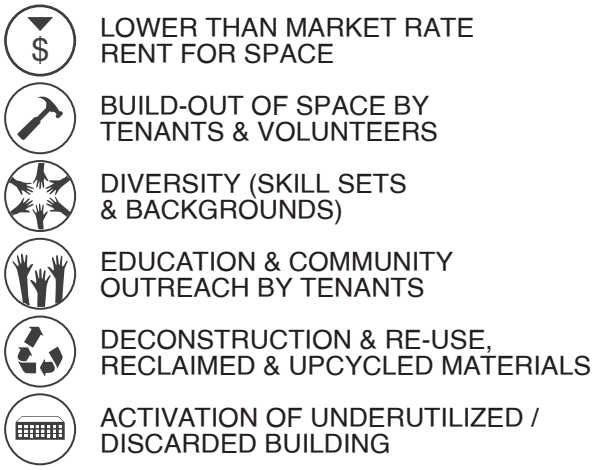
in discipline, skills, education, background, and race among tenants;

4. **Education and community outreach by tenants:** Ponyride tenants are expected to share their work and skills with the community by providing at least 6 hours of free classes per month. Many tenants conduct more informal community outreach and education activities or as part of their business or organizational model;
5. **Deconstruction and reuse of reclaimed and salvaged materials:** as much as possible, Ponyride's former workspaces were constructed from materials salvaged from deconstructed structures in the city, including parts of the building itself;
6. **Activation of an underutilized and discarded building:** the purchase of the former headquarters of Ponyride is a lesson in how to take advantage of the foreclosure crisis to bring buildings to a new life.



Makerspaces at Ponyride's first location.
Source: On the Grid : Ponyride





The six parameters of the Ponyride model.
Source: Our Focus – Ponyride
Personal rework.

Ponyride has incubated 45 small businesses that produce more than $20M in annual revenue and create real full-time jobs, 72% of the employees in these companies are women and 55% are people of color. Ponyride's success depends on its diverse tenants and unique programing; some of the studies that have been developed within the organization are: Smith Shop Metals Studio, Anthology Coffee, Context Furniture, LaPrairie Wood Works, Detroit4Detroit, Dickinson by Design, Empowerment Plan, Detroit Denim, En Garde, Order and Other, Heritage Works, Hunt and Noyer Wood Works, RunJit and Stuckenborg Letterpress. They also hosted internationally renowned artists like Steven Coy, Noah Kaminsky, and Zak Meers to share their talents and expertise.

Empowerment Plan

Empowerment Plan is one of the nonprofit organizations that started within Ponyride and then developed to become autonomous in 2018. Under the motto "Breaking the cycle of homelessness through employment", they provide employment and training to homeless people in the production of waterproof, durable and innovative coats that can be transformed into a sleeping bag for people living on the streets. These coats can be worn as a shoulder strap when not in use, are designed to last multiple seasons and are made from recycled fabric in "one size fits all" and different colors depending on available material. EMPWR Plan creates jobs by enabling people in need to earn a stable income, to find safe housing and to regain their independence. More than 550.000 people experience homelessness in the United States, and about 10.000 live in Michigan, where winters are particularly cold. The biggest impact remains the global distribution of the sleeping bag coat, which from Michigan has expanded first to all the other states in the U.S. and then to other parts of the world (11 provinces and territories in 21 countries). There is a desire to expand the Empowerment Plan to other cities and towns to facilitate distribution by reducing costs, increasing production and creating new jobs.

Veronika Scott, founder and CEO of EMPWR Plan, designed the coat in 2010 as part of an university project at the College for Creative Studies, which required them to design something that met a tangible community need. The design process was not only for people in need, but it was done in collaboration with them, thinking about Veronika's difficult past of poverty and her parents' drug addiction and unemployment. Veronika soon realized that what most homeless people wanted was not a coat, but a job. Thanks to donations of money, equipment and fabric it all began in 2012 and she committed to hiring full-time parents from Detroit shelters to make the coats, helping families break the cycle of poverty and become financially secure. Staff work with local partners to identify potential candidates for employment through information sessions at various shelters, attending job fairs, collecting referrals, and conducting post-application interviews. Empowerment Plan has become an internationally recognized workforce development organization, because when people finish the program they are ready to find a new job or start their own business. In addition to employment, a wide range of services are provided, including housing, child care, transportation, education, and more. The program lasts 2 years, during which are provided training to close the skills gap and support services, all the employees have been able to move out of homeless shelters within 3 months of starting work, to have stable housing one year after the end of the program and to secure jobs beyond Empowerment Plan. 60% of the 40 hour paid work week is devoted to coat production, and the remaining 40% is devoted to planning and support services. Programs include: ED, HSE, or Post-Secondary Education, Financial Health & Wellness, Professionalism and Leadership Training, Driver's Education, Domestic Violence Support, Meditation and Mindfulness, Empowered Pantry, Trauma-Informed Yoga, Trauma-Informed Care, Digital Essentials Training. Supportive Services include: Mental Health Services & Clinical Therapy, Case Management, Career Advancement Support.

Lauren Knill, Senior Development and Community Relations Manager, took me on a tour of their new headquarters in the Islandview









Entrance and production area.
Personal photos.

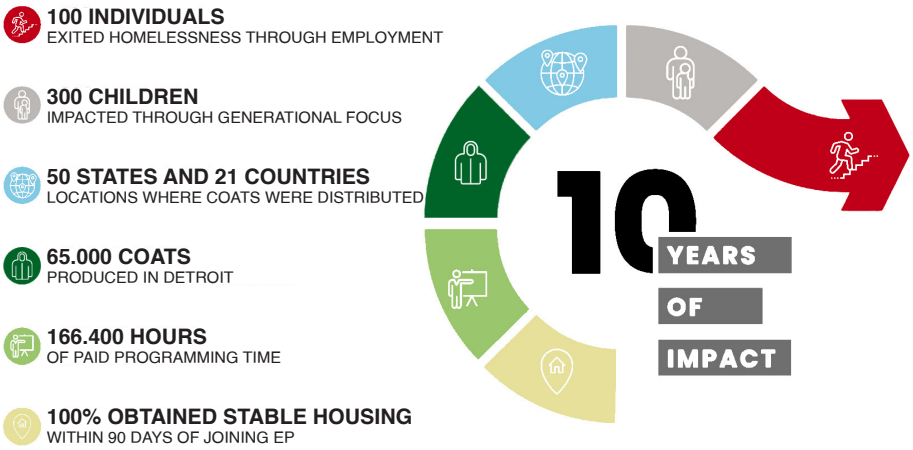
neighborhood in November 2022. The building consists of a large coat-making area, a communal kitchen, a relaxation area with couches, executive offices, and multi-purpose rooms where they host activities ranging from driving lessons to yoga classes, from counseling to college study assistance, etc.

In 2022 Empowerment Plan turned 10 years old, now it no longer is a startup but a mature organization with a powerful and vital mission. In the annual report from April 2021 to March 2022, the following goals were achieved: 56 individuals served, 7 program graduates, 9.539 coats produced in Detroit and 9.429 coats distributed worldwide. Contributions were $3.176.869 and expenses $3.096.971 thanks to individuals, organizations and partners who contributed through sponsorship, grants, and donated services. The demand for life-saving coats has increased more than ever in recent years, but producing them has been difficult. Like other organizations, EMPWR Plan has faced supply chain challenges, rising shipping costs, and problems in hiring and retaining employees. Because of the pandemic, many Detroit shelters had reduced their occupancy, so more people needed the coats and it was necessary to reach out to other partners to find program participants.





Communal kitchen and relaxation area.
Personal photos.



10 years impact (2012 - 2022) of Empowerment Plan.
Source: Empowerment Plan: 10 Years of Impact - Campaign (classy.org)
Personal rework.

OmniCorpDetroit

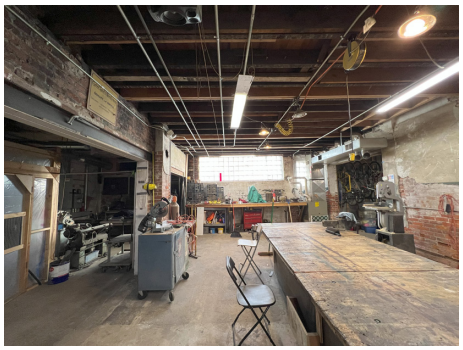
Omni Corp Detroit (OCD) is an hacker space that opened in 2010 in the historic Eastern Market District. It began as a place for tinkerers to collaborate with people interested in experimenting with electronics, technology, robotics, and digital art. Over time, the collective has been joined by other types of artists, woodworkers, metalworkers, jewelers, industrial designers, photographers, musicians, etc. It has always been a place open to all, attracting more and more women, people of different ages, walks of life, backgrounds and ethnicities.

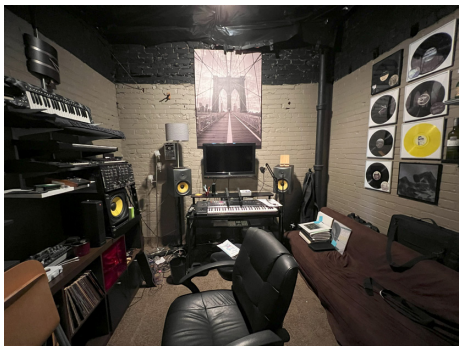
During the renovation, the team of architects respected the original character of the warehouse space by going to act as little as possible on the existing structure. This provides the space with a unique rustic character that fits perfectly with the functions it houses. The space is never definitive, but is constantly evolving and changing according to the different activities it will house. The space is housed in a large two story building where the 3.000 square foot ground floor houses larger equipment such as welding and carpentry facilities. The 5.000 square foot second floor, on the other hand, is occupied by smaller stations such as those for photographers, jewelers, various types of designers, musicians, etc. There is also a kitchen on this floor that is accessible to everyone, with a relaxation area, couches, and a large main room with computers and flexible workspace that can accommodate a variety of workshops.

The location of Eastern Market suits the team because it is quiet during the week and crowded on weekends, perfect for the noisy work and some public outreach that is the thing besides sporting events that draws people to Detroit. This all plays into OCD's desire to be a kind of community service, offering learning sessions for youth and anyone who wants to approach this world, and scheduling open houses to introduce the space to potential new members. Unfortunately, these initiatives have been greatly reduced in recent years due to the Covid-19 pandemic, but there is always a desire to start them again.

Each collective member each pays a monthly membership fee for

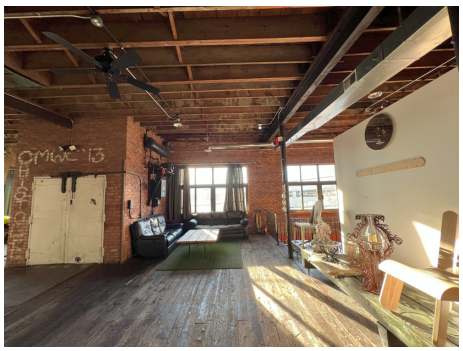






Makerspaces.
Personal photos.

rent and improvements. The founding talents included a graphic designer, an educator, a photographer and set designer, a mechanical engineer, a computer expert, a musician, and a lover of robots, circuitry, and electronics. From the beginning it was a diverse group of talents, they tried to work together as much as possible and create crossovers. This created a cohesive group that still exists today, although some members have obviously changed over time. Thanks to Aragorn Steiger, a member of the OCD group, I had the opportunity to visit the space in December 2022 and learn about its history and how it works.

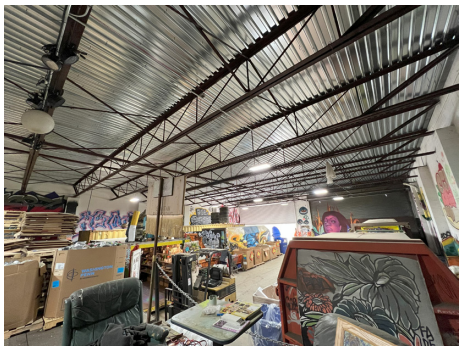


Relaxation area.
Personal photo.

Dreamtroit

1 + 1+ Architects developed the masterplan for Dreamtroit, a project on a 3.8 acre site in Detroit that includes housing, utilities and programming. These include a public art park, a neighborhood recycling center and Green Living Science, which provides environmental education. Because of its large audience, Dreamtroit prioritizes a porous site that embraces it from all sides using existing site conditions as design opportunities: the historic Lincoln Motor Building is transformed into an outdoor theater, and an art wall and sculpture park are expanded along the railroad tracks. A phased approach allows the owners to raise funds and make changes as their needs evolve, the project has been in operation since 2021 and is now on its way to completion.

The Recycle Here! and Lincoln Street Art Park complex at the corner of Lincoln and Holden Streets has a colorful history of ownership and use. Designed in 1910 by Rogers and McFarlane for the Warren Motor Car Company, the long brick and concrete building was purchased seven years later by auto entrepreneur Henry Leland to manufacture luxury cars for the Lincoln Motor Car Company, and then by Henry Ford for the same purpose. In 1946, Grosse Pointe Quality Foods and then Metro Groceries, owned by the Naimi family from 1981, operated out of the building. A larger warehouse was built around the original factory in 2007 and Matt Naimi has since then





Recycling center and parking area.
Personal photos.

transformed it into an artists' studios, a recycling center (the first and only in Detroit), and a nonprofit environmental education organization (Green Living Science). The complex has been added to the National Register of Historic Places. Located between the Motown Museum and the College for Creative Studies, Dreamtroit is within walking distance of the Fisher Building and the bars, restaurants and more of the New Center area. This makes Dreamtroit an ideal location for creatives, it is also close to Wayne State University, homes and businesses in the popular Woodbridge neighborhood, and just 4 miles north of Downtown.

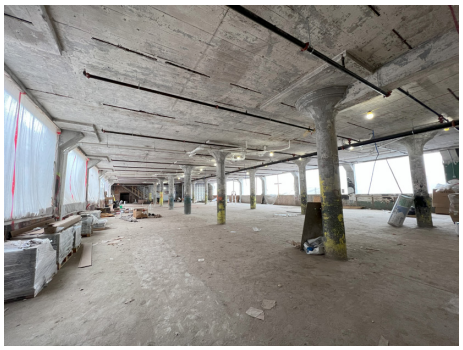
The building's owners, first-time developers Matt Naimi (who accompanied me on a tour of the space in December 2022, when the project was nearing completion) and Oren Goldenberg (a filmmaker) had grand plans to convert the buildings, which were in various states of occupancy, into a mixed-use program with affordable housing and 38.000 square feet of commercial space, all while maintaining the quirkiness that makes it a destination for artists, late-night partygoers, recyclers and students. In 2017, Life is a Dreamtroit LLC was formed to take ownership of the complex, it is a partnership between Naimi and Goldenberg. Their goals were driven by the ongoing gentrification of Detroit, which had left fewer affordable and safe places to live and forced artists to leave. They have been forced out of buildings in Eastern Market and Core City, and many others are in need of massive renovation.

The project received a nearly $20 million Michigan Strategic Fund Loan for redevelopment, but it was still very complicated to include truly affordable housing without access to hyper-competitive Low Income Housing Tax Credits. Obtaining financing for such a complicated and low-margin project was so difficult that Goldenberg and Naimi say they essentially gave up revenue to do the work. In addition to funding from the Michigan Community Revitalization Program, the project had loans, equity, rebates and credits from more than seven sources, of which one of the main ones is Detroit Housing for the Future Fund[16] with $2.26 million. Given the amount

16. Detroit Housing for the Future Fund is an investment fund designed to leverage $75 million of capital for affordable housing in Detroit. DHFF is managed by LISC Detroit (Local Initiatives Support Corporation) and it is part of the larger Affordable Housing Leverage Fund, which is a partnership with the City of Detroit's Housing & Revitalization Department.







Outdoor and indoor common spaces. Personal photos.

of work required to bring this idea to fruition, the inexperience of the developers, and the non-traditional nature of the project for Detroit, it is remarkable that such a diverse group of funders have put their faith in Dreamtroit.

The key feature of the redevelopment is the creation of 81 live/work spaces that are not reserved for, but designed with, artists in mind. They are available in a mix of sizes and living arrangements: one-bedroom, two-bedroom, and 15 co-living apartments with a shared kitchen and bathroom. 20% of the units are reserved for those earning 50% of the area median income ($27.500 or less for an individual), half for less than 80% AMI ($44.000), and all for less than 120% AMI. The apartments features are 13 feet ceilings, huge industrial windows, flexible spaces, innovative design to maximize space, and many of them are made unique by the presence of graffiti on the walls, some of which existed prior to the renovation and others were created specifically by artists active in the community. Affordable housing for artists may be the reason behind the design, but there are many other changes taking place. The 160.000 square feet site includes a market, a cafeteria, offices, outdoor spaces, parking areas, an indoor and an outdoor event space and the former Lincoln Motor Car Company building and Recycle Here!, which have been updated, relocated and modified. The Lincoln Street Art Park will continue to host art, music and social events, thanks to Make Art Work, the non-profit organization that manages the park and is responsible for the interactivity and beautification of the entire site maintaining local identity.

"*We're going after people who are usually displaced in the gentrification models of traditional development. It's going to be an active place, we are working with the city on a 24-hour economic initiative. For the past 12 years, we have been bringing people together through public programming, public space, environmentalism and art. We are ensuring that the working class, artists and innovators will continue to have a home and a platform to build the next generation of Detroit's cultural and technological revolution, while offe-*







Apartments.
Personal photos.

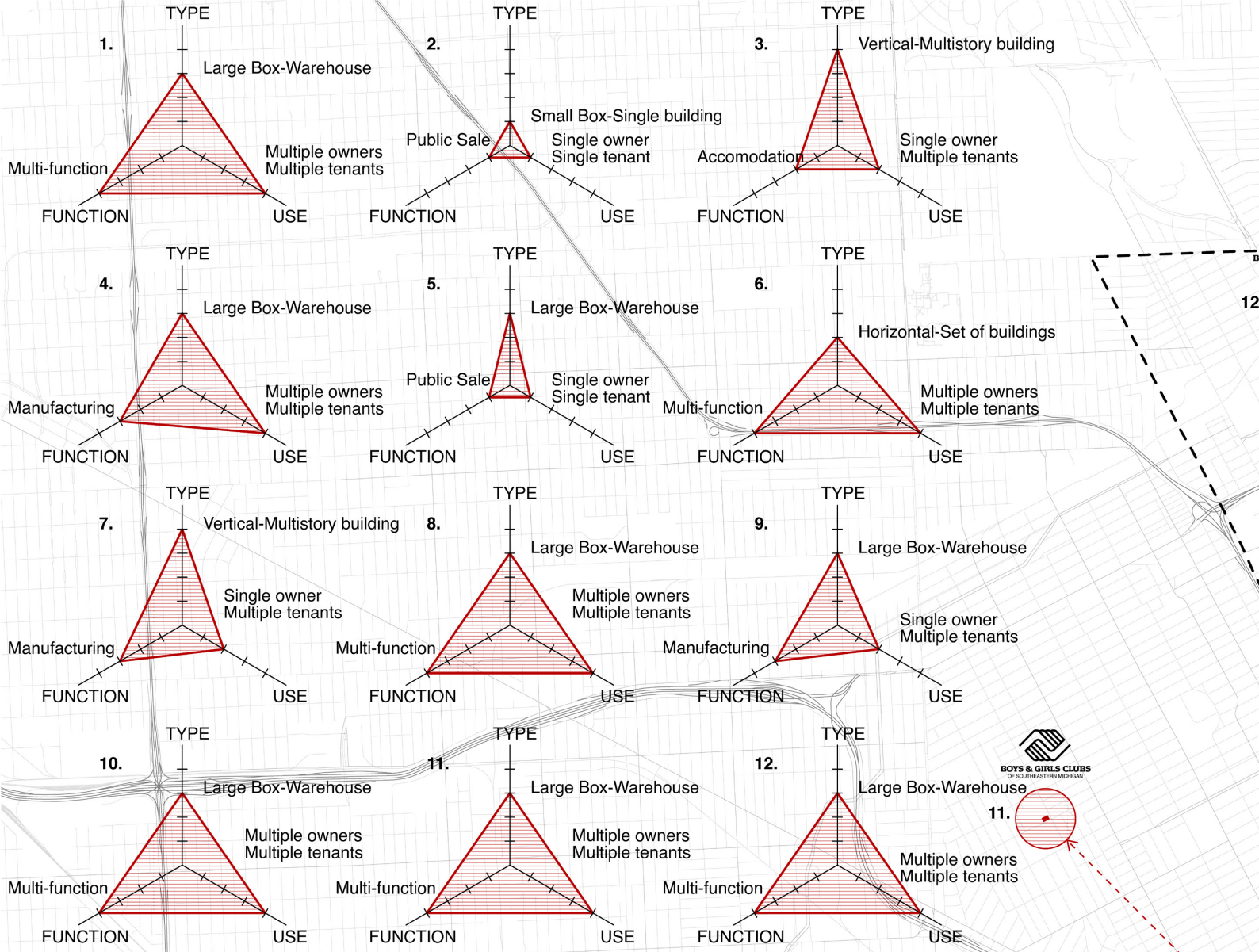
ring affordable housing to those who make Detroit such a unique and creative place." Naimi says.

The project fulfills many components of the community development financial institution's mission. The owners are heavily invested in the people who work in the buildings and there are many public programs to support the neighborhood and keep residents in the community.





Lincoln Street Art Park and Dreamtroit Future Envisioning.
Source: Dreamtroit Artist Housing - 1+1+ Architects (oneplusone.plus)



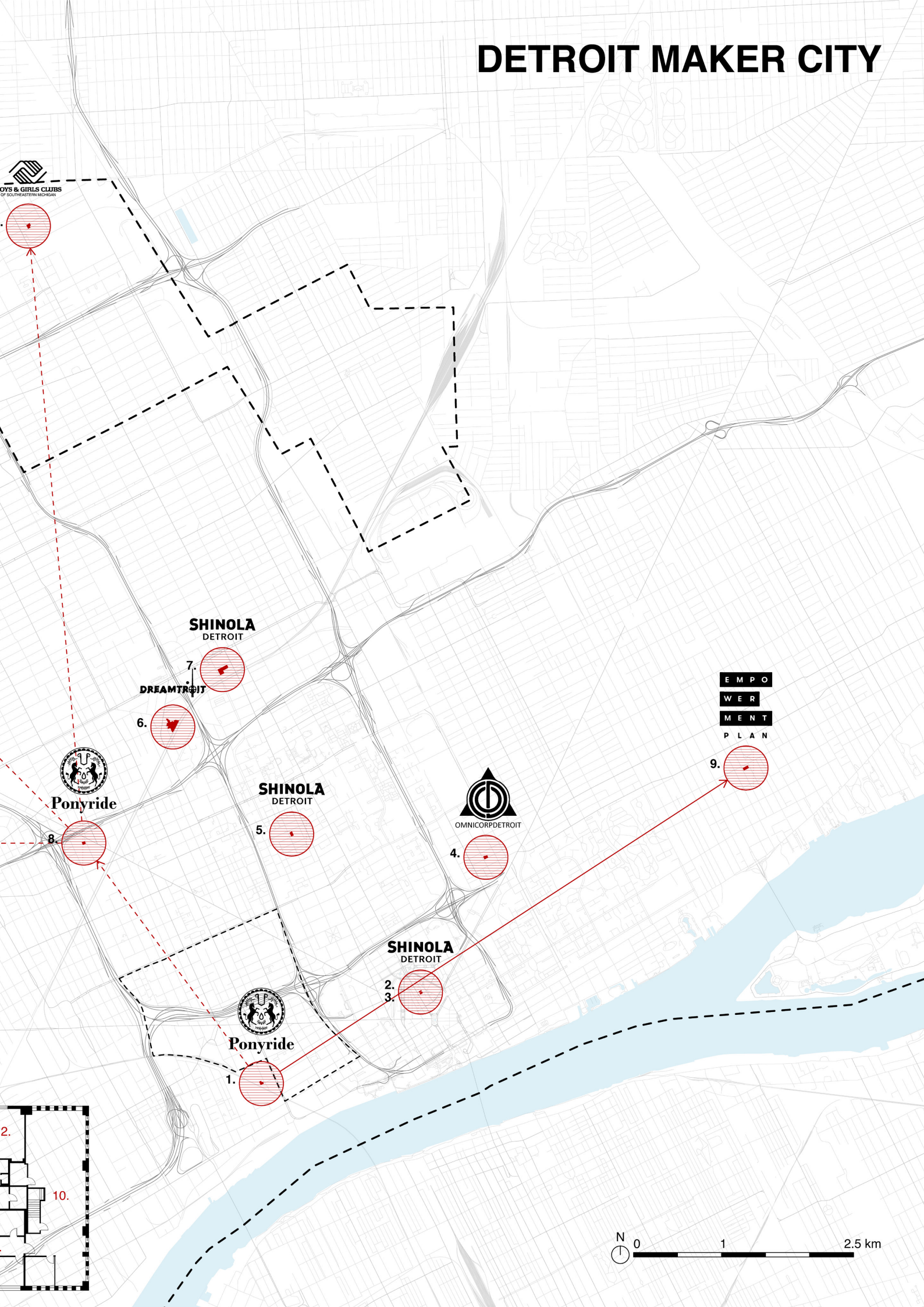
FIRST LOCATION AND ORGANIZATION OF PONYRIDE

1. Smith Shop - Metals Studio
2. Anthology Coffee - Coffee Roaster
3. Dance Studio
4. Wood Shop
5. Stuckenborg Letterpress - Type set letterpress
6. Detroit Denim
7. Empowerment Plan
8. Textile Space - Screen printing and hot press
9. Order & Other - Film production and documentation
10. Co-working Space
11. Artist Residency
12. Executive Office

GROUND FLOOR PLAN

FIRST FLOOR PLAN

DETROIT MAKER CITY



3



Campus Martius Park, Detroit.
Personal photo.

CREATIVE CLASS

The Rise of the Creative Class or a New Urban Crisis?

From the founding of the Maker Movement to the present day, there has been a debate about the actual success of the idea over the years, the proliferation of maker shops, the expected results and the achieved ones, the process of urban revitalization, etc.

Richard Florida[17] is undoubtedly one of the leading critics, author of two important books published 15 years apart, "*The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community and Everyday Life*" (2002 and revisited in 2018) and "*The New Urban Crisis: How Our Cities Are Increasing Inequality, Deepening Segregation, and Failing the Middle Class and What We Can Do About It*" (2017). In the first book, he predicts a return of the creative class to urban centers that will lead to an urban renaissance, but in the second book he reformulates his thinking by acknowledging how this phenomenon has occurred with negative gentrification effects and that a new urban crisis is taking place.

For Richard Florida, the creative class is made up of architects, engineers, scientists, designers, artists and musicians, all of whom express a function in society related to the creation of new ideas and technologies and who constitute the engine of the global economy. Around this "Super Creative Core", the creative class also includes a broader group of "Creative Professionals" in business and finance, law, health care and related knowledge-intensive fields. Florida divides the rest of society into working class and service class, he identifies as one of the main challenges of creative society to make them participate in the growing economic success (Florida 2002).

He analyzes two historical phases of American society and economy, the first in the early 2000s is defined by the rise of the urban economy and middle class, the second is currently characterized by recession. He argues that an opposite gentrification to the one that occurred during the American Dream period (in which the middle and upper middle class migrated to the suburbs at the expense of deindustrialized and poor cities) has affected the poorest, who have been forced to move out of urban centers because of upscaled,

17. Richard L. Florida is an American urban theorist with a focus on social and economic theory, with degrees first in political science and then in urban planning. University Professor at the University of Toronto's School of Cities and the Rotman School of Management and Distinguished Fellow at NYU's Schack School of Real Estate, he has also taught at Carnegie Mellon University in Pittsburgh. A researcher, author, and journalist, he is the author of several international bestsellers. He is co-founder of CityLab, the leading publication on cities and urbanism, and founder of the Creative Class Group, which works closely with businesses and governments around the world.

redeveloped neighborhoods for young creative workers, who have concentrated in large cities like New York or San Francisco, leaving behind cities like Detroit or Pittsburgh.

The Death and Life of Great American Cities

"*The Death and Life of Great American Cities*", published by Jane Jacobs[18] in 1961, offered vibrant new ways of thinking about what neighborhoods should look like and what are the problems and needs of the contemporary metropolis. Her theories on the centrality of place, clustering and cities influenced the work of Richard Florida in the idea of broadening the focus of the economic development field from one that was almost exclusively fixated on firms and industries to one that also paid due attention to people and places. Jacobs was the first to point out that while firms can increase efficiency and innovation, the creation of new things and new kinds of work happens in places, which Florida came to see as places of creativity and innovation, as the primary social and economic organizing unit of the post-industrial, post-Fordist age. This led him to focus on occupations rather than industries as a better way to understand economic change and the role of place in it, occupations also provided an alternative and more accurate measure of human capital or talent than the conventional one based on education (Florida 2014).

Jane Jacobs in her masterpiece wrote:

"*Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody.*"

In the 1960s, this raised the question of how to get everyone involved in something as complex as a city. The Maker Movement has opened up the possibility of involving more people in the process of co-creation, both in solving the problems of living in a city and in co-creating the institutions that define a city. A design that considers not only the redevelopment of buildings, but also the associated

18. Jane Jacobs was an American anthropologist and activist whose theories on urban development in American cities have profoundly influenced the patterns of North American cities. The book strongly criticized the development pattern of modern cities, emphasizing the role of the street, the district, the block, and the density and heterogeneity of buildings.

urban spaces, mixed land use and diversified street design. To revitalize neighborhoods and rebuild housing projects into the fabric of the city, Jacobs proposes doing most of the things urban experts say not to do: attracting mixed activities that generate active cross-use of land and safety for strangers and citizens, shortening block lengths, mixing buildings of different sizes, types and conditions, and encouraging dense concentrations of people (Jacobs 1961).

"*By its nature, the metropolis provides what otherwise could be given only by traveling; namely, the strange.*"

Cities continue to build redeveloped civic centers, low-density suburban housing areas and income-segregated projects to create homogeneous cores that generate new buildings with high rents that make marginal activities economically impossible and traffic for limited periods of time, after which they decay into dead or dangerous neighborhoods. The forces of decline in urban cycles are: diversity of success as a self-destructive factor (it occurs by driving out less affluent residents and businesses to replace them with more affluent or profitable ones, which are then lost elsewhere); influence of single massive elements in cities (such as parks, railroads and universities that create a vacuum around them difficult to connect); population instability as an obstacle to diversity (those who live in a disadvantaged situation simply look for ways to move, rather than wanting to improve that place); and the impact of public and private money (unable to buy success for cities that lack the ingredients for it, with sudden and non-gradual changes wasting neighborhoods with potential).

"*The Death and Life of Great American Cities*" is an attack on the methods of urban planning in use at the time, the polemic against urban planners and architects is never technical but is intended to deal with "how cities function in real life, because that is the only way to understand which principles of urban planning and which methods of intervention can promote the social and economic vitality of the city, and which tend to deaden it." (Jacobs 1961). According

to Jacobs, the city is like a living organism in which each component has a specific order and function and is therefore essential to the proper functioning of the whole. The city can evolve and change in ways completely different from what was previously planned on paper, the tendency to plan the development of the city by parts and categories should be abolished.

For the city to be vibrant, there must be continuous interaction between functions and economic, cultural, social and political diversity; a key point of Jacobs' theories is the mixed use of urban space, which allows for a versatile and multifunctional settlement. Jacobs distinguishes between primary mixed uses (residential, work and service uses that generate large numbers of people passing through the neighborhood) and secondary mixed uses (including shops, bars, restaurants and other small-scale services). The right mix of work, service and residential activities lead to a livable, stimulating and safe public realm; the resulting movements between these different uses generates flows at different times, leading to a distribution that covers the entire day. The neighborhood must be compact (small in size so as not to become dispersed, fluid and safe); it must accommodate people of different incomes (by diversifying building types and ensuring subsidized housing) and have a high population density (workers, commuters, visitors or residents, the latter in such numbers as to avoid disintegration, monotony and dispersion). Other tactics to improve the city's performance include: reducing the number of cars, improving visual order without sacrificing diversity, and redesigning government and planning districts.

The Rise of the Creative Class

In most advanced countries, greater creative class concentration seemed to reduce inequality, but in the United States occurred the opposite. As the economy has become more specialized and the occupational division of labor has deepened, the creative class has increasingly outsourced functions previously performed within the service class. Lower skilled and lower paid workers, members of the labor and service classes, are better off economically in wealthier and knowledge based regions with higher concentrations of the creative class, even if the wage gap is wider.

Today companies move to places where creative people live and offer them jobs, creativity and not capital is the primary driver of today's economy, while in the past it was the opposite. The creative class is a key driving force for economic development of post-industrial cities in the United States. Everyone is creative, but this creativity is only recognized to the extent that it contributes to economic growth.

Creativity is increasingly valued in today's global society and employers see it as a channel for self-expression and job satisfaction for their employees. Approximately 38.3 million Americans and 30% of the U.S. workforce identify with the creative class, this number has grown by more than 10 percent over the past 20 years (Florida, Pedigo, 2017).

"*If industrial age schools readied our children for the workforce, Creative Age schools must prepare them to manage their careers and build businesses of their own. The goal can no longer just be to get a job but rather to create a job-and to create more jobs for others.*"[19]

Key to understanding the new economic geography of creativity and its positive impact on economic outcomes are the 3Ts of economic development: technology (technological infrastructure needed to nurture an entrepreneurial culture), talent (a highly talented/educated/skilled population), and tolerance (a diverse community, high "Gay Index", "Bohemian Index" which measure the concentration of

19. The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community and Everyday Life, page 389.

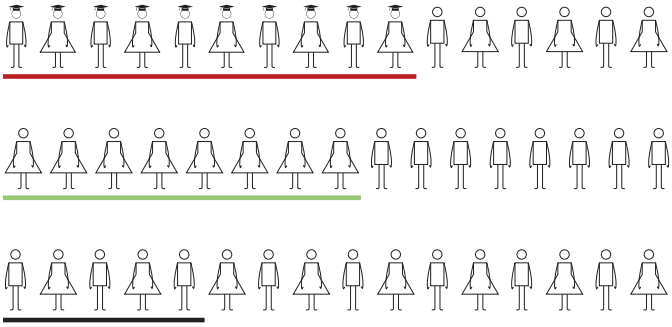
artists, musicians, writers, designers and entertainers and "Melting Pot Index" which measures immigrant concentration). Cities need to cultivate all 3Ts, promote density, infrastructure and public development, encourage diversity and create authentic places.

"*Quality of Place can be summed up as an interrelated set of experiences.*
What's there: the combination of the built environment and the natural environment; a proper setting for pursuit of creative lives.
Who's there: the diverse kinds of people, interacting and providing cues that anyone can make a life in that community.
What's going on: the vibrancy of street life, café culture, arts, music, and people engaging in outdoor activities-altogether a lot of active, exciting, creative endeavors."[20]

Creative people need to feel that they have a chance to make a difference, to be respected, to work in a place where they feel valued and to have their own independence. They need opportunities to improve their knowledge and skills, a flow of money to pay their bills and a stable work environment. They want to move where they can find meritocracy, diversity, and individuality.

The economic benefits of the creative class include achievements in new ideas, high-tech industries, and regional growth. Although the creative class has existed for centuries, the United States was the first major country to have a creative class involved in information technology. Recognizing that a strong creative class is essential in today's global economy, Europe is now almost on par with the U.S. for this group. The proportion of gross national product spent on research and development is steadily increasing worldwide.

20. The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community and Everyday Life, page 281.



150m CREATIVE CLASS MEMBERS

60% HAVE COLLEGE DEGREES

52% ARE WOMEN

35% ARE MINORITIES



54% LUXEMBOURG



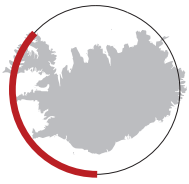
48% BERMUDA



47% SINGAPORE



47% SWITZERLAND



45% ICELAND



45% AUSTRALIA



45% SWEDEN



44% THE NETHERLANDS

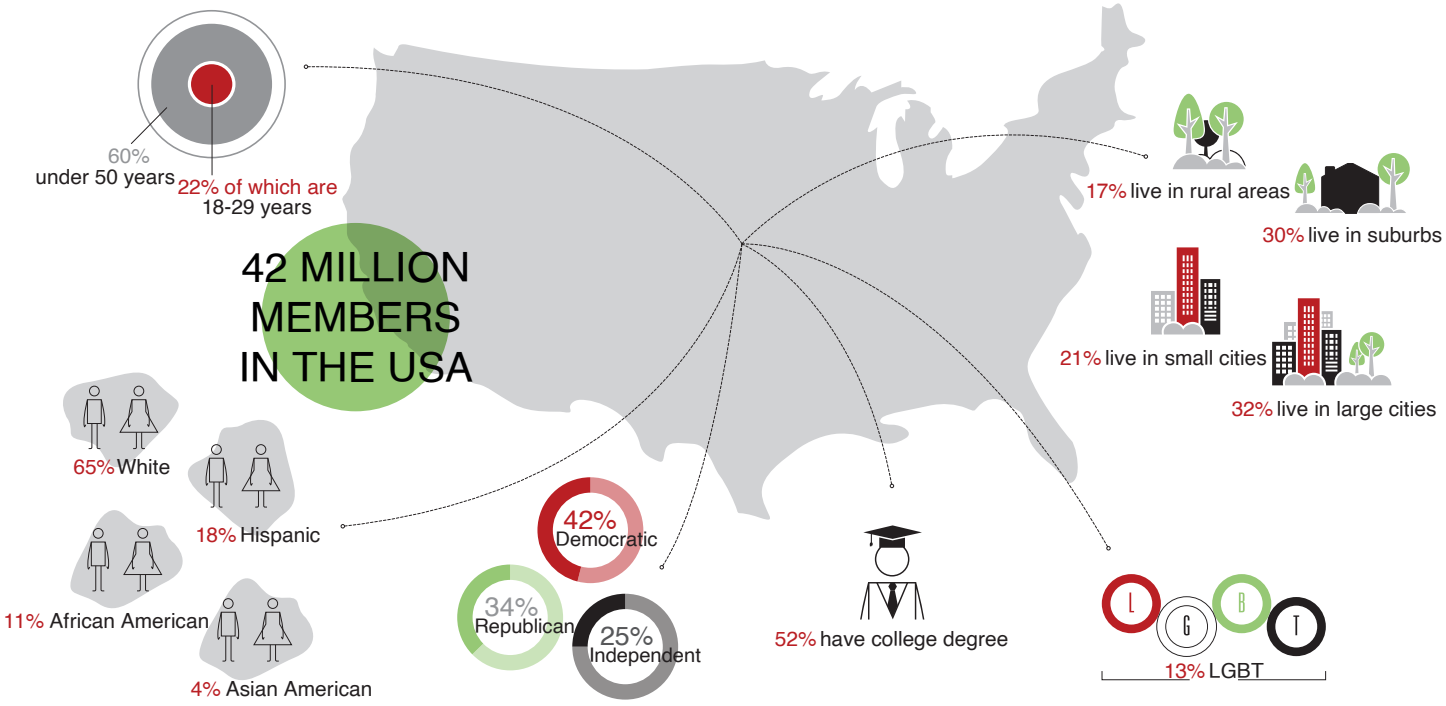


44% CANADA



33% UNITED STATES

Share of Creative Class workers worldwide.
Source: FINAL-LE-MIAMI-REPORT.pdf (creativeclass.com)
Personal rework.





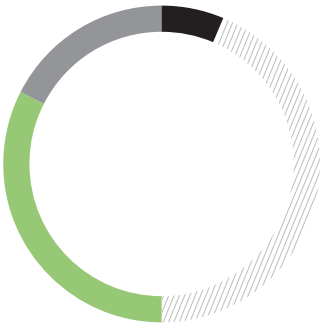
50%

OF NATIONAL WAGES AND INCOME



$135k

MEDIAN HOUSEHOLD INCOME



12% EARNING OVER $75k PA

32% EARNING OVER $100k PA

9% EARNING OVER $150k PA



4%

UNEMPLOYMENT DURING ECONOMIC DOWNTURN



48%

HAVE SUBSTANTIAL INVESTMENTS



70%

DISCRETIONARY SPENDING

Creative Class diffusion and economy in the United States.
Source: FINAL-LE-MIAMI-REPORT.pdf (creativeclass.com)
Personal rework.

The New Urban Crisis

Richard Florida tackles the dark side of the creative economy he celebrated in "*The Rise of the Creative Class*" and the gentrification, inequality and segregation it has brought to our cities. In recent years, the young, educated and affluent have returned to cities, reversing decades of suburban flight and urban decline. But in almost every metropolitan area, middle-class neighborhoods are disappearing, small areas of privilege are surrounded by vast areas of poverty and disadvantage.

The new urban crisis proposes a revision of the original "urban crisis": the decline of North American cities in the 1970s. While the old crisis was the result of economic recession and migration from central cities, the new crisis arises when urbanization seems to be a victim of its own success. The previous crisis was defined by the economic abandonment of cities and their loss of economic function. Deindustrialization and white flight characterized the emptying of city centers. Inequality, rising housing prices, economic and racial segregation, spatial inequality and entrenched poverty are becoming as common in the suburbs as they are in the cities. The new urban crisis is also a crisis of the suburbs, of urbanization itself, and of contemporary capitalism.

The old class division between poor cities and wealthy suburbs has been replaced by a new pattern: a "Patchwork Metropolis" in which small areas of privilege and large areas of poverty cross cities and suburbs alike. The concept of the "Patchwork Metropolis" is Florida's classification of metropolitan spatial form into four different categories based on the concentration of the creative class relative to the rest of the population:

- Creatives recolonize the center of the city;
- Creatives live in the suburbs;
- Bifurcated metropolis, where creatives are disproportionately located on one side of a metropolitan area;
- Scattered archipelagos of creatives.

"The distribution of new wealth, instead of creating inclusive prospe-

rity, has been limited to a small number of cities that have reaped all the benefits of the enormous economic development generated by the trinomial of technology, talent and tolerance. It is a geographical inequality that affects the entire world: with 50 superstar cities, where only 7% of the population live and work generating 40% of the world's economy and 40 megaregions (18% of the population), realizing 85% of innovation. But it is also segregation: in the metropolises, gentrification has become "plutocratization", house prices in some neighborhoods have risen so much that the less affluent have had to abandon them, speculators turn buildings into investments, and houses stand empty. All of this has decimated the middle class, because while the wages of some have skyrocketed, those of who is involved in basic services (education, personal care, transportation, security) have stayed the same or gone down.

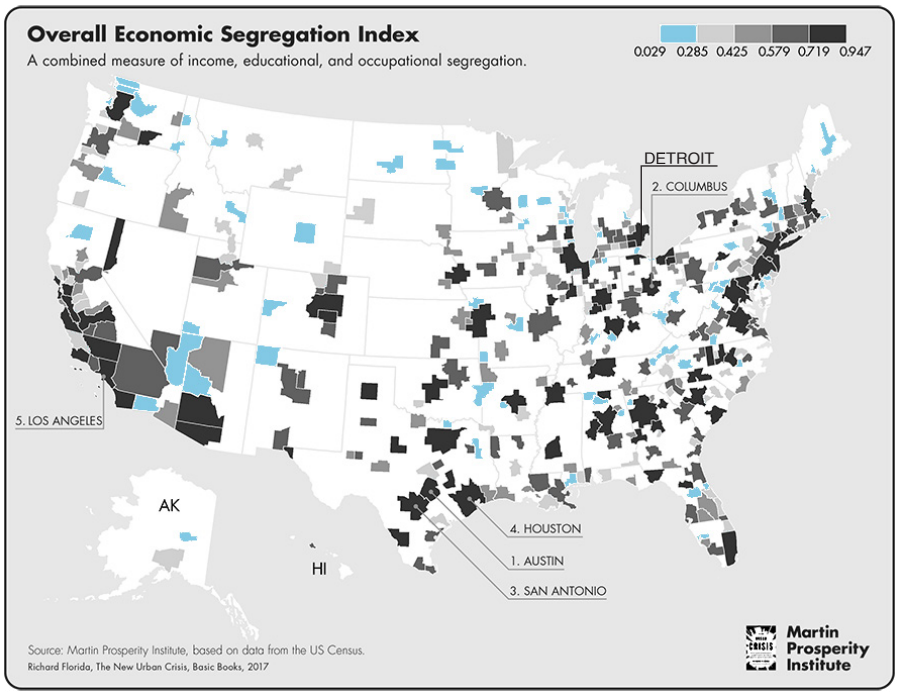
Not to address this problem would be not only economic but also political suicide: it would be to surrender to possible totalitarianism. And it does not help that so much of the left refuses to make the connection between the creative and service classes, pointing to the former as the cause of all the ills of the latter, and, in fact, further fomenting divisions. The solution will not come from the State, but from a community of local actors: business, government and citizens.

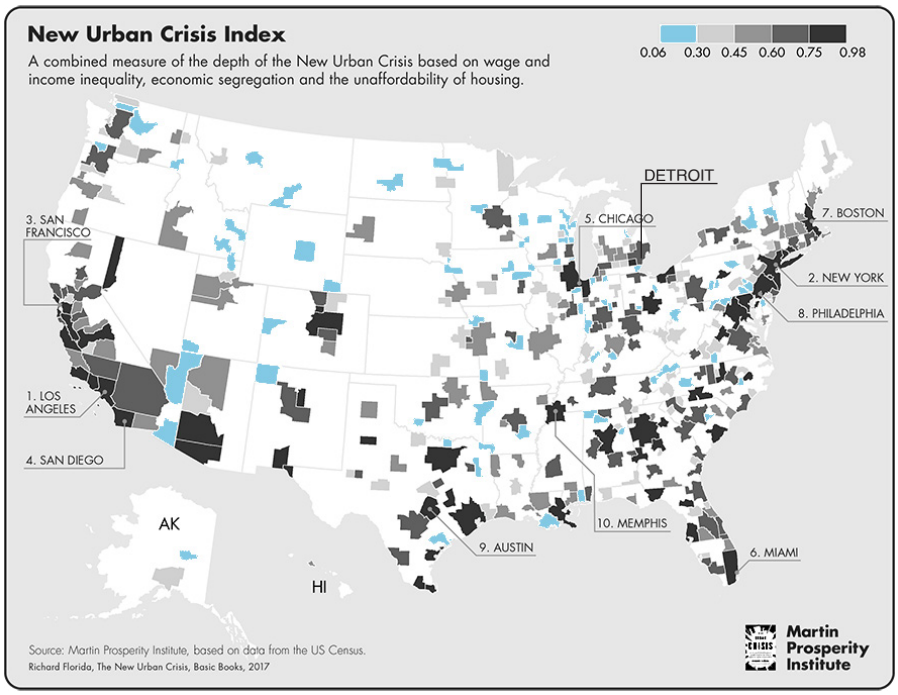
City governments should first address the housing problem that underlies segregation, property taxes so that the surplus value generated by escalating housing prices goes to local communities, railways to bring the suburbs closer, construction of new houses at popular prices, tax system for lower incomes, incentives for those who rent. And then it is necessary to act on wages, guaranteeing a decent salary for those who work in the service sector, in the quality of schools and public transport, etc.

As technology companies are losing acceptance, supporting change suits them too. They have the money, they are largely responsible, they must act to save the fabric that helped them grow.

If we are going to have a more egalitarian politics, it will come from the metropolises, from where the divisions are most visible, because that is where the density is. History shows that pressure from

below works: it will be the urban progressive people who will bring about the change that will solve the problem."[21]

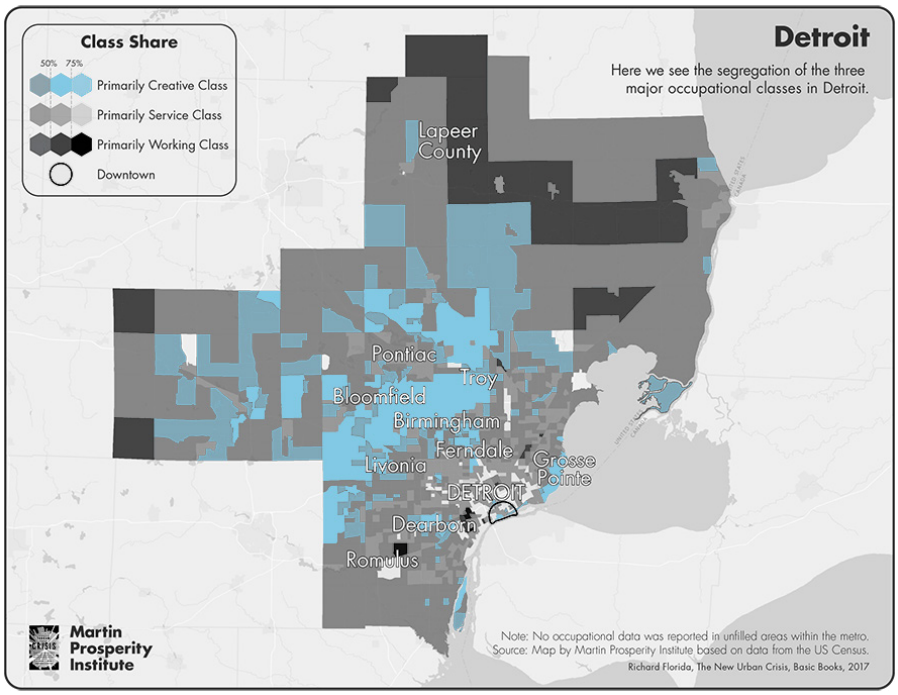




21. Interview with Richard Florida from the newspaper la Repubblica in de la republica.pdf (creativeclass.com)

Economic Segregation Index and New Urban Crisis Index.[22]
Source: The New Urban Crisis - Creative Class Group
Personal rework.

22. The New Urban Crisis Index is a composite of four equally weighted sub-indices:
1. Income inequality,
2. Wage Inequality,
3. Income Segregation,
4. Housing affordability.
According to this index, Bridgeport, Los Angeles, New York and Gainesville have the most acute urban crises while Jefferson City, Fond du Lac and Wassau have the least.



Segregation in Detroit.
Source: The New Urban Crisis - Creative Class Group
Personal rework.

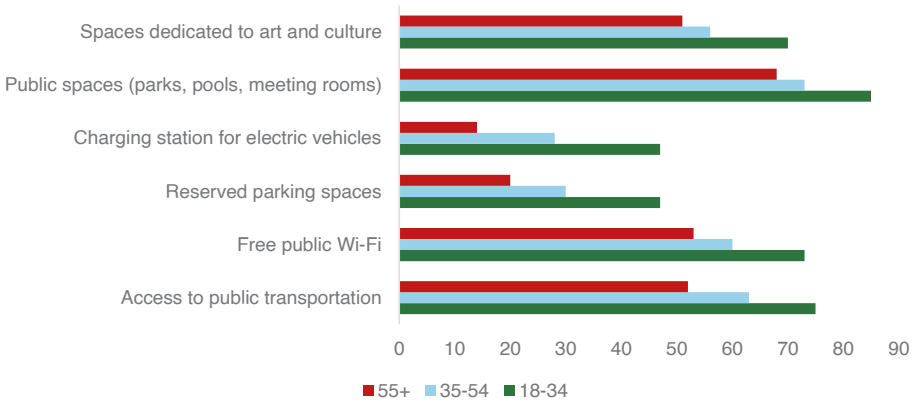
"The New Urban Crisis has made urban amenities easier to obtain in some areas and harder to obtain in others. In large, dense, superstar cities, for example, the majority of residents enjoy broader access to transportation and cultural amenities like museums, theaters and restaurants. But these areas also suffer from a crisis of their own success, as more people flock to cities like New York, San Francisco, L.A. and Washington, D.C., their low- to moderate-income residents are quickly getting priced out of urban neighborhoods. The farther these residents live from a city's center or downtown area, the less access they will have. Smaller, more sprawling metros have nearly the opposite problem, their amenities are fewer and less diverse, but they are relatively easy to obtain, since the cost of living in downtown areas is significantly cheaper. Moving forward, cities must strike a balance between offering a sufficient and diversified share of public amenities and making sure that all residents have access to these resources."[23]

The suburban dimension of the of the new urban crisis not only affects those who live there but has broader costs that the U.S. economy as a whole. In addition to being energy inefficient and waste-

23. Interview with Richard Florida from the magazine Ipsos in WTF-Housing-2017-Ipsos.pdf (creativeclass.com)

ful, suburban sprawl also limits Americans' mobility and undermines productivity. A more expensive apartment in the urban core or along transit lines can end up being considerably more affordable than a cheaper house in a car-dependent suburb. Instead of pushing people toward the American Dream, today's suburbs actually impede upward economic mobility. Low-income people's chances of moving up the economic ladder are also significantly affected by the amount of time they spend commuting. In addition to being a drag on economic mobility, efficiency and productivity, sprawling suburbs are no longer the job creation engines they once were. Suburban jobs are also lower paying, less skilled and more vulnerable to economic downturns than the knowledge-based and professional jobs in urban centers.

In this new era of urbanized knowledge capitalism, place and class combine to reinforce and reproduce socioeconomic advantage. Those at the top find themselves in communities that offer them privileged access to the best schools, the best services, and the best economic opportunities, while the rest get the remaining neighborhoods that have inferior versions of all these things and thus offer fewer opportunities for upward mobility.



Survey on the importance of different factors in relation to the choice of where to live for people of different age groups.
Source: WTF-Housing-2017-Ipsos.pdf (creativeclass.com)
Personal rework.

If this crisis is urban, so is its solution, cities remain the most powerful economic engines the world has ever known. The only way forward is to develop a new model of urbanism that fosters innovation and wealth creation, creates good jobs, raises living standards and provides a better way of life for all. We must break down the barriers that separate the rich from the poor and rebuild the middle class by investing in infrastructure, building more housing, reforming urban planning and tax laws and developing a new national urban policy. Costly and inefficient uncontrolled sprawl must be curtailed, and a global effort must be made to build stronger and more prosperous cities in rapidly urbanizing areas of the emerging world (Florida, 2017).

Detroit Creative City

Florida's book helped set the agenda for many cities trying to regain vitality after years of decline, including Detroit. The Creative Class thesis and its "Creativity Index" soon became the driving force behind various redevelopment projects. City officials, corporate CEOs, foundation staff and other policy experts embraced the concept to promote arts and cultural districts.

In 2010 the CEO of the group Business Leaders for Michigan (BLM) created the Detroit Creative Corridor Center (DC3) as a result of BLM's Road to Renaissance strategy. Since then, it has served as the city's advocacy organization, providing the leadership, resources, data and analysis needed to support the economic output and social impact of the city's entire creative economy as a center of design, innovation and creativity. The DC3 was a small operation, housed in the College of Creative Studies (CCS) in the New Center, to attract more design firms to the Woodward Avenue district, then the vision evolved thanks to a study of what design means in a city like Detroit. The DC3 has a new name, Design Core Detroit, and a new mission that goes beyond attracting well educated and well paid millennials to the Downtown and Midtown districts. In 2018, Design Core unveiled the "*Detroit City of Design Action Plan*", the process took 18 months and included input from more than 1.000 Detroiters and stakeholders. The vision, strategies, and recommendations are the end result of the organization's annual process to activate Detroit's UNESCO City of Design designation and drive inclusive and equitable growth through 2025.

Since its inception, the organization has contributed to efforts that have resulted in more than 3.000 new jobs in Detroit; helped more than 250 companies to start, grow or relocate to the city; and become the central hub for Detroit's design community through its events that attract more than 30.000 people each year. Olga Stella, executive director of Design Core Detroit, said that design is more than a few creative individuals and companies, it's an entire ecosystem that accounts for as much as 20% of the total economy of Detroit and includes a variety of people with all kinds of skills.

This ecosystem includes not only artists and product designers but also all the suppliers and downstream workers who turn designs into reality. A key finding of the study is that 70% of all design firms in Detroit have fewer than 10 employees, and as many as half have only one or two employees. It turns out that design is a small business phenomenon, and it's needed to figure out how to nurture these enterprises and workers. Sustainable and equitable development in Detroit means inclusive growth, design is not just for the elite anymore.

The action plan grew out of Detroit's 2015 designation as a UNESCO City of Design, a recognition by the United Nations Educational, Scientific and Cultural Organization to cities that demonstrate a legacy of and commitment to using design as a tool for economic development. Detroit is the first, and so far only, U.S. city to receive the designation, joining 21 Design Cities (now 34) and 246 Creative Cities worldwide. As the administrator of Detroit's UNESCO City of Design designation, Design Core serves as the organizer and lead organization for the Detroit City of Design initiative.

The UNESCO Creative Cities Network (UCCN) was established in 2004 to promote cooperation among cities that have identified creativity as a strategic factor for sustainable urban development. The Network covers seven creative fields: Crafts and Folk Arts, Design, Film, Gastronomy, Literature, Media Arts and Music. The cities that make up the network work together to place creativity and cultural industries at the heart of their development plans at the local level, and to cooperate actively at the international level. By joining the network, cities commit to sharing their best practices and developing public-private partnerships in order to:

- Strengthen the creation, production, distribution and dissemination of cultural activities, goods and services;
- Develop hubs of creativity and innovation and expand opportunities for creators and practitioners;
- Improve access to and participation in cultural life so that it is accessible to all;

UNESCO Cities of Design.
Source: OG-Detroit_ActionPlan_Exo_180410_final_web.pdf (design-core.org)
Personal rework.



- Integrate culture and creativity into sustainable development plans in the implementation of the 2030 Agenda.

The 2030 Agenda for Sustainable Development[24] includes among its 17 goals a specific target to "make cities and human settlements inclusive, safe, resilient and sustainable" and identifies culture and creativity as one of the key levers for action. Creative Cities are emerging as centers of experimentation, leading to innovative and successful models of sustainable development. Innovative urban solutions are an essential source of new ideas and inspiration for addressing the global challenges of our time, whether economic, social or environmental.

24. The 2030 Agenda for Sustainable Development is an action agenda for people, planet and prosperity. Signed in 2015 by the governments of the 193 member countries of the United Nations and endorsed by the UN General Assembly, the Agenda consists of 17 Sustainable Development Goals (SDGs) framed within a broader action agenda of 169 related targets to be achieved by 2030 in the environmental, economic, social and institutional spheres. It outlines a vision for a more sustainable, equitable, inclusive, peaceful and environmentally responsible



Detroit, a metropolis of more than 6 million people, is considered the hub of industrial design and the beating heart of the creative economy in the state of Michigan. Given its industrial past, Detroit has established itself as a cradle of American modernist design and a global center for prolific designers. The design industry has been a driving force in the city's urban renewal and is now a significant employment lever and economic engine, employing more than 45.000 people and generating $2.5 billion in wages.

Detroit was selected as a Design City because of:

- **Talent:** there are more than 5.000 design firms in the region,

future and provides guidance for the design and implementation of strategic policies at local, national and international levels, including private enterprises, public sector, civil society, information and cultural actors. The 17 goals address the three dimensions of sustainable development (economic, social and environmental) and aim to end poverty and inequality, combat climate change and build peaceful societies that respect human rights.
Agenda 2030 per lo sviluppo sostenibile - Agenzia per la coesione territoriale (agenziacoesione.gov.it)

employing approximately 80.000 people in a variety of fields, including landscape architecture, interior design, computers, etc;

- **Community:** for years Detroiters have worked to adapt to many unexpected environmental, health, social, or economic circumstances. Through it all, Detroiters have shown resilience, innovation and perseverance, increasing community connections and unifying residents;
- **Cultural Institutions:** there are many galleries, theaters and performance venues, museums, libraries and famous architecture;
- **Educational Institutions:** there is a wide range of high quality programs in many disciplines at the College for Creative Studies, University of Michigan Penny W. Stamps School of Art and Design, Cranbrook Academy of Art, Lawrence Technological University, Wayne State University and University of Detroit Mercy;
- **Research and development:** companies such as General Motors, Ford, FCA, GE and Masco base their design research in Detroit.

Detroit hosts the International Auto Show Industry Days, which attracts 5.000 automotive and design professionals from more than 60 countries. The Society of Automotive Engineers Conference is an equally popular event that explores the connections between engineering and industrial design. Detroit is also home to the Detroit Month of Design, the largest freelance design festival in North America, with workshops and exhibitions that attract more than 500 designers from around the world each year.

Detroit Month of Design is a citywide collaboration of creativity that brings together designers and the greater community to celebrate Detroit's role as the national and global capital of design. Each September, Detroit's partners, from emerging studios to established companies and educational institutions, come together to showcase their latest work and ideas. These interdisciplinary events take place in every corner of the city, highlighting the talent and innovation that make Detroit a UNESCO City of Design. The theme for 2022 was







Month of Design 2022 Events.
Personal photos.



Detroit's Design Landscape.
Source: OG-Detroit_ActionPlan_Exo_180410_final_web.pdf (design-core.org)
Personal rework.

25. Month of Design - Design Core Detroit

"United By Design", and there were several ways to get involved: host an event, installation, experience, sponsor, or become a guest. The festival offered a combination of virtual, outdoor and indoor experiences. Detroit Month of Design[25] events are independently run, funded, and produced by the event organizer. Throughout the year, events, programs and presentations are organized and hosted to educate, support or promote the Detroit Design Network.

As a Creative Design City, Detroit also plans to:

- Cultivate the central role of industrial design for the city by strengthening public policy, particularly through the establishment of the Detroit Council of Arts, Cultural Affairs and Creative Industries and the Michigan Design Council;

- Create new businesses and opportunities for designers and encourage the next generation to pursue careers in the creative industries;
- Promote synergy among public-private design stakeholders for more participatory and human-centered approaches to design;
- Engage other creative design cities in the Detroit Design Festival and Industry Days to share best practices and lessons learned;
- Launch competitions and challenges to increase the competitiveness of local businesses, grow the market for local design professionals and preserve unique local identity and culture.
- Design is a process, a product, a way of thinking, a powerful tool for growth, innovation and success, and a proven business strategy for increasing brand awareness, improving customer experience and driving profits.

Design can:

- **Create Efficiency:** reduce expenses and generate revenue;
- **Build Culture:** attract top talent and motivate people;
- **Develop Resiliency:** adapt to crises and build business and community durability;
- **Enhance Innovation:** improve processes and create new and better products.

Detroit's Design Legacy

Detroit has a rich legacy of design and innovation that has changed the way the world works, moves and lives. An industrial powerhouse that fueled the rise of the automobile, the city has also been a hub for creatives, home to designers, artists and craftspeople from the Arts and Crafts movement to American Modernism and beyond. At the turn of the 20th century, Detroit earned the nickname Motor City because of its established automotive industry, access to resources and capital, and relationships among its industrial leaders and innovators. An industrial center since the mid-19th century, Detroit produced a variety of goods, from cast-iron stoves to bicycles, pharmaceuticals, cigars and more. Manufacturing, in particular, served as a catalyst for the city's transformation. The advent of the moving

assembly line revolutionized the manufacturing process, resulting in a faster, cheaper and overall better way to produce goods. To meet the demand for workers, companies recruited the best minds from around the world, luring engineers, scientists, craftsmen and artists to Detroit with the promise of good wages, benefits, and developing cultural amenities such as museums, libraries, theaters and public spaces. Artists, craftsmen, and skilled laborers helped founding a number of organizations, including the Detroit Society of Arts and Crafts, which evolved into today's College for Creative Studies. By 1940, Detroit was known as the epicenter of the Mid-Century Modern movement, which embodied functionality and modern simplicity; the trend manifested itself around the globe, but Detroit's contributions offered a unique twist. Detroit's prosperity in the first half of the 20th century led to a wealth of architecture, including Albert Kahn's Russell Industrial Center and Packard Plant (which became the template for urban manufacturing facilities around the world), and public institutions such as the Detroit Public Library and the Detroit Institute of Arts.

Today, Detroit's design legacy is still alive and design continues to guide the automotive industry, supported by the city's strong community. Design is also used by residents in neighborhoods throughout the city as a tool to foster resilient communities. The mid-century gave way to a new era in architecture that focused on clean lines, advanced materials, and a futuristic aesthetic. Lafayette Park, designed by Ludwig Mies van der Rohe, is an architectural icon in Detroit and a rare example of a successful urban renewal project. Detroit is also home to a number of buildings designed by Minoru Yamasaki, one of the city's most successful architects, best known for his design of the original World Trade Center.

Detroit's Design Economy

The design economy is a major driver of job growth in Detroit, in the years following the Great Recession, the city and the region experienced a strong growth in jobs in core design industries and occupations. They grew at six times the rate of the city and region's overall economy, between 2012 and 2016 jobs in the core design industries grew by 15% in Detroit and 23% in the metro area. By comparison, Detroit's industries as a whole experienced 4% job growth. The design economy provides good jobs for Detroiters, and wages in the core industries and occupations of the design ecosystem are higher than in the overall economy. They offer real middle-class income opportunities, but the educational requirements put many of the jobs out of reach for many Detroiters. Detroit's commercial and industrial design industry is world-class, the Detroit metro area is the epicenter of commercial and industrial design in the U.S. and globally. In 2016, industrial design services experienced 21% job growth, and commercial and industrial designer occupations grew by 46%. These jobs are critical to core design and design ecosy-



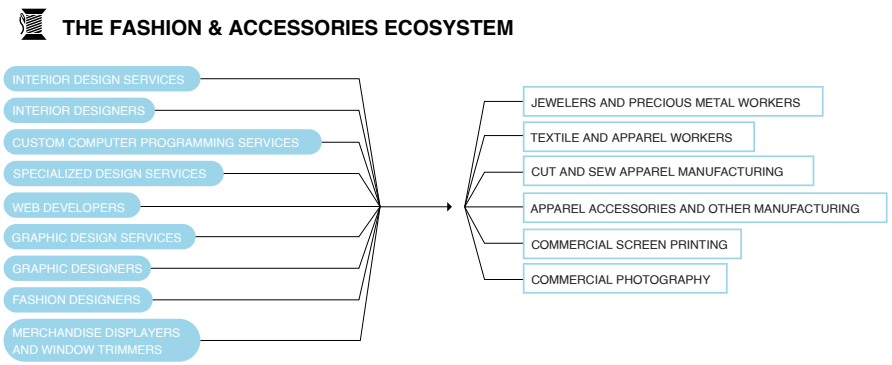
Detroit's Core Design Economy[26].
Source: OG-Detroit_ActionPlan_Exo_180410_final_web.pdf (design-core.org)
Personal rework.

26. MSA is the economic output related to the combined 139 industries and 105 occupations of Detroit's core design economy and design ecosystem within the geographic boundaries of the Detroit-Warren-Dearborn Metropolitan Statistical Area.

stem industries, providing talent and services to many manufacturing industries, including furniture, automotive and footwear.

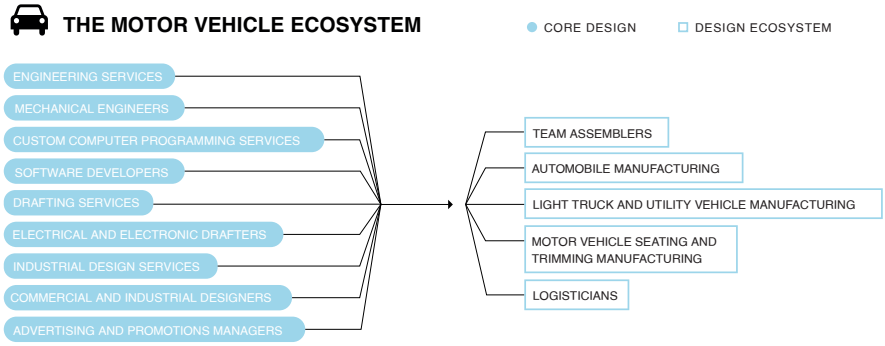
Looking at job growth, industry concentration, wages and salaries, and education and training, there are occupations that appear the most promising for building an inclusive workforce across the city and region's design industries. For example, jobs that are highly inclusive with low barriers to entry and little to no education required, including mechanical drafter, team assembler or web developer. Steady job growth in these fields suggests opportunities for upward mobility. Occupations like computer network support specialist, merchandise displayer and window trimmer or carpenter are not growing as fast in the Detroit area, but they have low barriers to entry and require little training. Coupled with high wages, these jobs provide a necessary support for the design ecosystem. Occupations prone to a significant growth in Detroit and Michigan, with large concentrations of jobs and ample opportunities for employment, present barriers including college education and training requirements. The most important are commercial and industrial designers, logisticians and landscape architects.

The core design economy is the starting point for much of Detroit's economic output. Below there are a number of examples of how Detroit's core design economy seeds various economic sectors and ecosystems to produce the goods and services that bring joy and utility to the everyday lives of Detroiters. In particular, each example highlights a critical element of Detroit's cultural and economic history, identity, and impact.

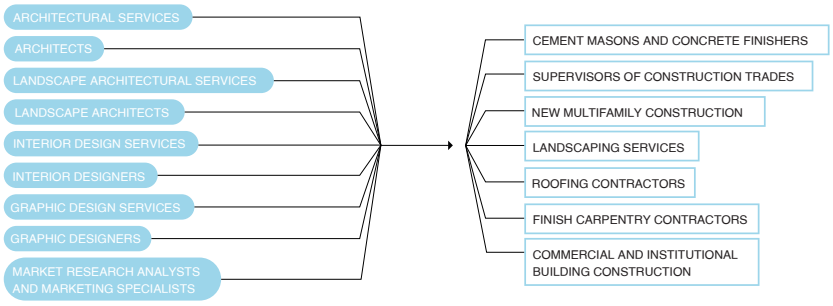


Selected Design Ecosystems.
Source: OG-Detroit_ActionPlan_Exo_180410_final_web.pdf (design-core.org)
Personal rework.

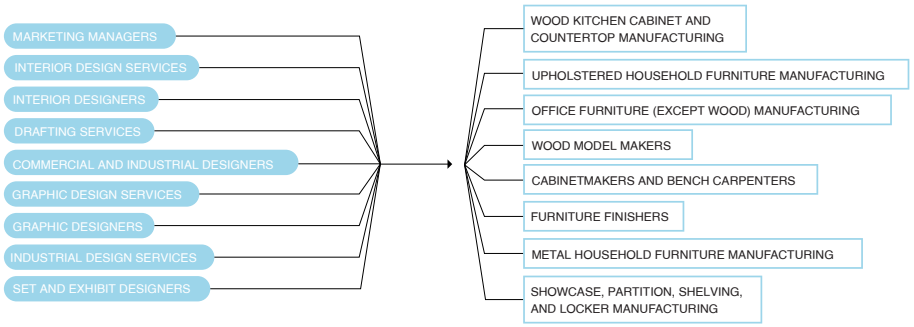
THE MOTOR VEHICLE ECOSYSTEM



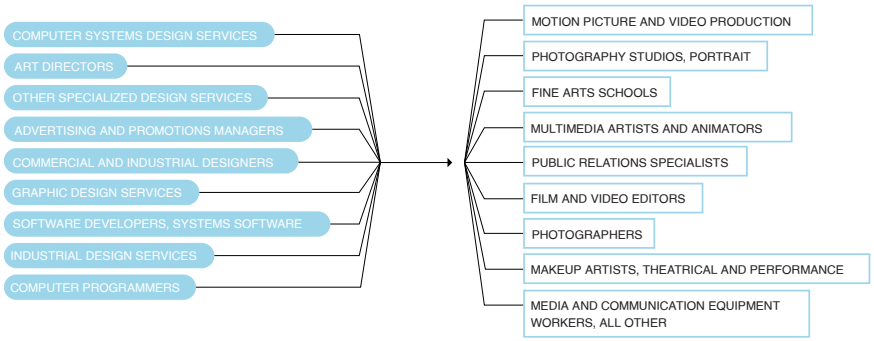
THE BUILT ENVIRONMENT ECOSYSTEM



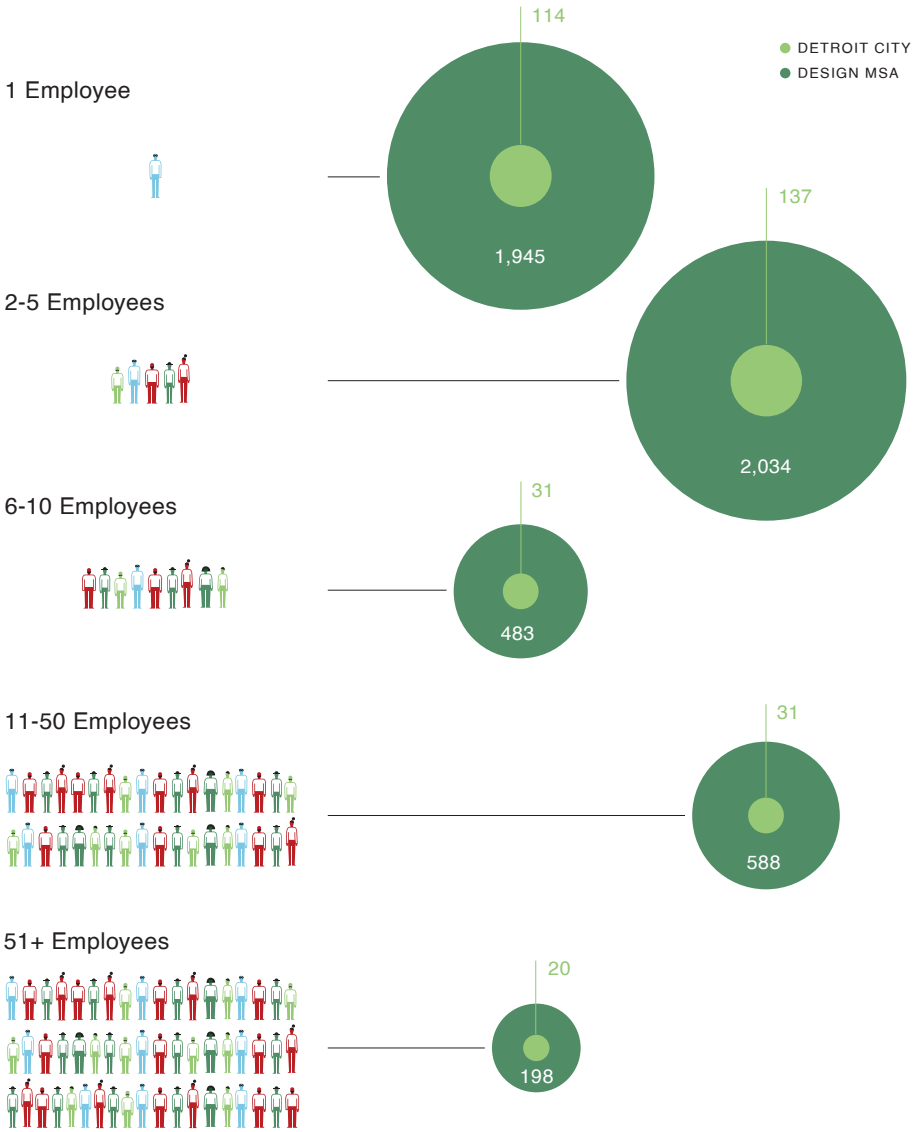
THE FURNITURE ECOSYSTEM



THE PHOTO, FILM, & VIDEO ECOSYSTEM



The design economy is driven by small and micro-businesses. The vast majority of design firms in Detroit and the region employ one or two people, with engineering, architecture, and computer programming and design services leading the way. Many firms in the design community provide products and services that would be considered core industries, but are not the primary function of their firm's business. Freelancers, independent contractors, and small start-up firms are a large and critical engine for Detroit's design output.



Number of firms by employee count.
Source: OG-Detroit_ActionPlan_Exo_180410_final_web.pdf (design-core.org)
Personal rework.

Detroit's pros and cons

Some of the challenges Detroit faces are common around the world, others are more specific to the city.

Some of the most common include:

- **Growing wealth gap** (due to income disparities, which are exacerbated when race and ethnicity are taken into account);
- **Vulnerable workforce** (increasing automation that will replace manual tasks, need to re-skill workforce to remain competitive);
- **Limited access to capital** (creative industries are harder to finance and fund than other sectors due to their high risk and lack of tangible assets);
- **Policy and regulatory constraints** (inappropriate tools and processes for attracting and growing creative businesses, but difficult to change).

The challenges that most characterize Detroit, on the other hand, are:

- **Unemployment** (although the unemployment rate has declined in the last decade, Detroit needs to nearly double its job base to compete with its counterparts in the United States)[27];
- **Aging infrastructure** (housing, roads, factories, bridges, all in need of renovation);
- **Public transportation** (the public mobility system is very poor, this prevents people who cannot afford a car from moving freely and, consequently, from working, shopping, participating in community activities, etc.);
- **Vacant land** (Detroit has more vacant land per capita than any other U.S. city, more than 24 square miles, more than 120,000 parcels that were once residential or commercial, most of it scattered throughout the city's neighborhoods);
- **Low educational attainment** (lower in Detroit than in the rest of the region, but increasing)[28];
- **Health disparities** (high rates of disease and mortality, due in part to the inability of many to afford health insurance).

Detroit is uniquely positioned to solve community problems by leveraging its design resources and those of the broader region. The city's rich industrial heritage and diversity of talent prepare Detroit to

27. According to Detroit Future City, 33% of jobs in Detroit are held by African Americans, but unemployment rates for African Americans and Hispanics remain very low. This is partly the result of a spatial imbalance: Census data shows that more than 112.000 people living in Detroit work outside the city limits, while only 30% of Detroiters work within the city. The lack of jobs is visible in Detroit's poverty rates, more than 40% of Detroiters live below the federal poverty level.

28. According to Detroit Future City, less than 25% of the population over the age of 25 has a bachelor's degree or higher, and 22% of Detroiters over the age of 25 have not completed high school.

use the Design City designation as a catalyst for economic renewal. Some of Detroit's greatest advantages are:

- **Talent** (there are world-class design institutions, major colleges and universities, and more than 50 galleries and cultural institutions);
- **Ease of access** (grants to redevelop vacant land, subsidized rents[29], etc.);
- **Innovation in the value chain** (design is at the center of economic supply and value chains, Detroit has a competitive advantage over other regions. The innovation economy focuses on the first part of the value chain: research, discovery and ideation, but Detroit's strengths lie in the later stages of the innovation process: prototyping and commercialization);
- **Infrastructure** (Detroit is nestled between three major interstates, I-94, I-95 and I-75, and is home to major seaports, four Class I railroads and the busiest commercial border crossing with Canada, making it possible to source and distribute a wide range of materials);
- **Diversity** (the best way for the U.S. to reach its full potential is to build a 21st century economy that includes more women and minorities, Detroit has an advantage with its 80% African-American and growing Hispanic population)[30].

29. Detroit Future City reports that despite rising rents in Downtown and Midtown Detroit, the median gross rent for a two-bedroom unit is about $750. While still out of reach for many low-income Detroiters, it is lower than the rest of the region.

30. Thanks to the creation of the Fund for Black Entrepreneurs at the Detroit Development Fund, 74% of Detroit's independent businesses are owned by African Americans.

Detroit City of Design Action Plan

The Detroit City of Design Action Plan is a tool for navigating the strategy and goals of Detroit's UNESCO City of Design designation. It is intended to serve as a guide for everyone in Detroit's design ecosystem, from designers to funders to policymakers, to think more strategically about how inclusive design can foster a more inclusive Detroit. For a design process to be inclusive it must employ human-centered practices, design teams should include people whose life experiences reflect those who are marginalized by age, gender, race, physical and mental ability, or socioeconomic status. It is a set of approaches to creating solutions for people of all backgrounds and abilities, it can address accessibility, culture, education, geographic location, language. Inclusive design embraces the spectrum of human diversity and the individual experiences of each person, by designing for people who may seem to be the exception in society it is possible to create places, products, services and systems that work for all. Values that lead to inclusive outcomes are: diverse experiences, accessible opportunities and collaborative relationships. Inclusive design empowers everyone by creating equitable and sustainable opportunities for engagement; draws on both expert knowledge and common practices; celebrates and promotes diversity by breaking new ground for business and creating an environment through which government can serve its communities.

The report by Design Core Detroit, titled "*Detroit City of Design Action Plan*", outlines three broad strategies:

- **Focus on talent:** drive the talent agenda, improve schools and education and ensure that the talent pipeline is representative of the community, able to compete in the 21st century and to attract new people in Detroit;
- **Invest in design firms:** strengthen and attract companies, increase market demand for design services, focus on inclusive design, find ways to improve access to and management of capital for small businesses so they can grow (as many are one or two person operations that have difficulty meeting financial requirements);

- **Focus on policy:** create an environment that requires inclusive design to influence how the city looks and functions, raising awareness of the value of inclusive design and its tangible impact on Detroit.

These strategic areas were identified through interviews, workshops and public meetings, conversations with stakeholders, designers and residents, and supported by case studies, industry reports and economic development documents. The long-term goal is to promote growth through inclusive design, but the intent is to have increased safety and walkability within and between neighborhoods, greater access to goods and services, and more connectivity to economic opportunities.

Three strategic approaches:
1. Talent
2. Investment
3. Policy

Source: OG-Detroit_ActionPlan_Exo_180410_final_web.pdf (design-core.org)
Personal rework.

FOCUS ON TALENT

A MORE DIVERSE COMPOSITION OF DESIGNERS GRADUATING FROM LOCAL COLLEGES AND UNIVERSITIES TO MAKE UP A MORE DIVERSE DESIGN WORKFORCE

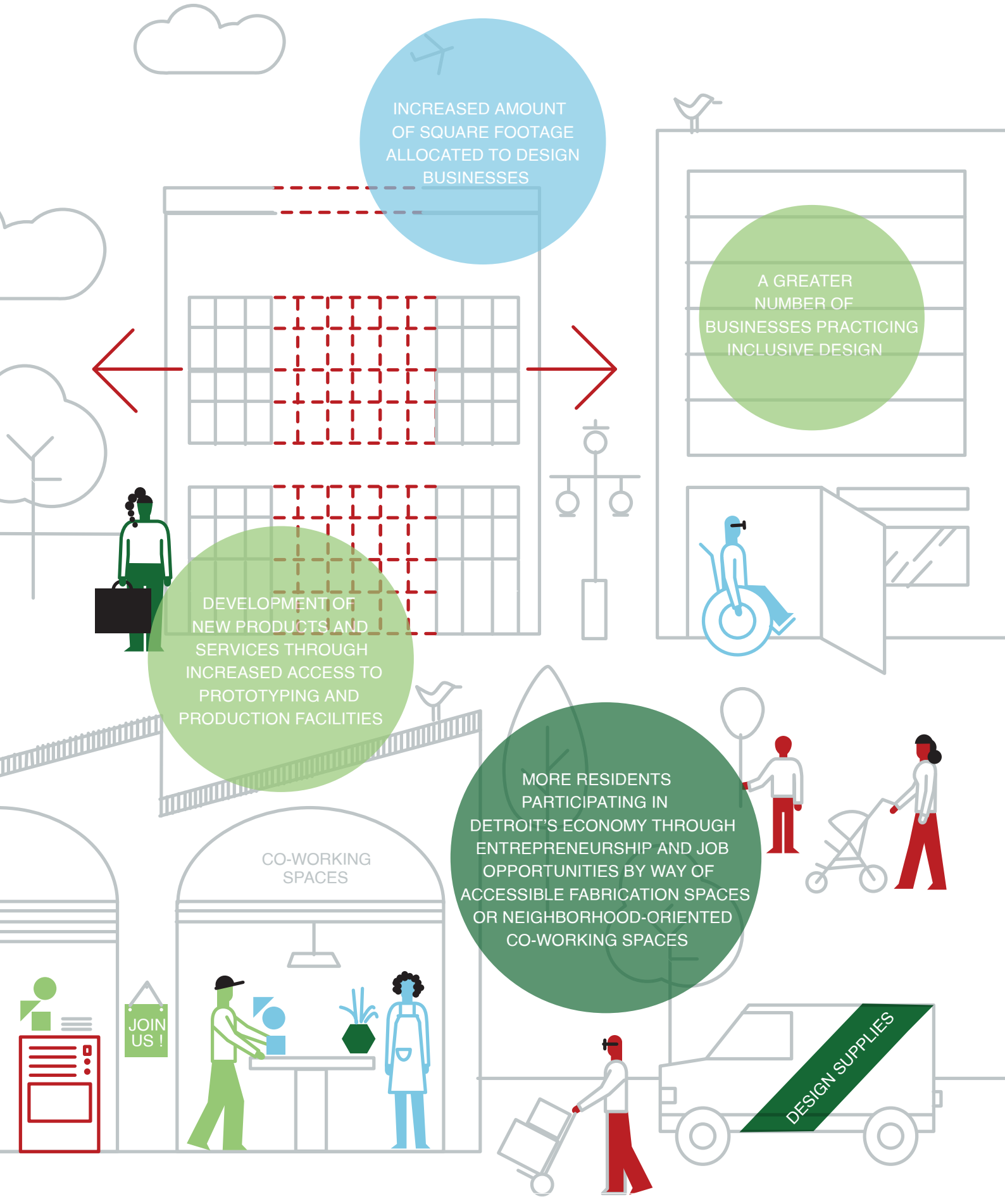
MORE JOB OPPORTUNITIES IN DESIGN-DRIVEN OCCUPATIONS FOR WOMEN AND PEOPLE OF COLOR



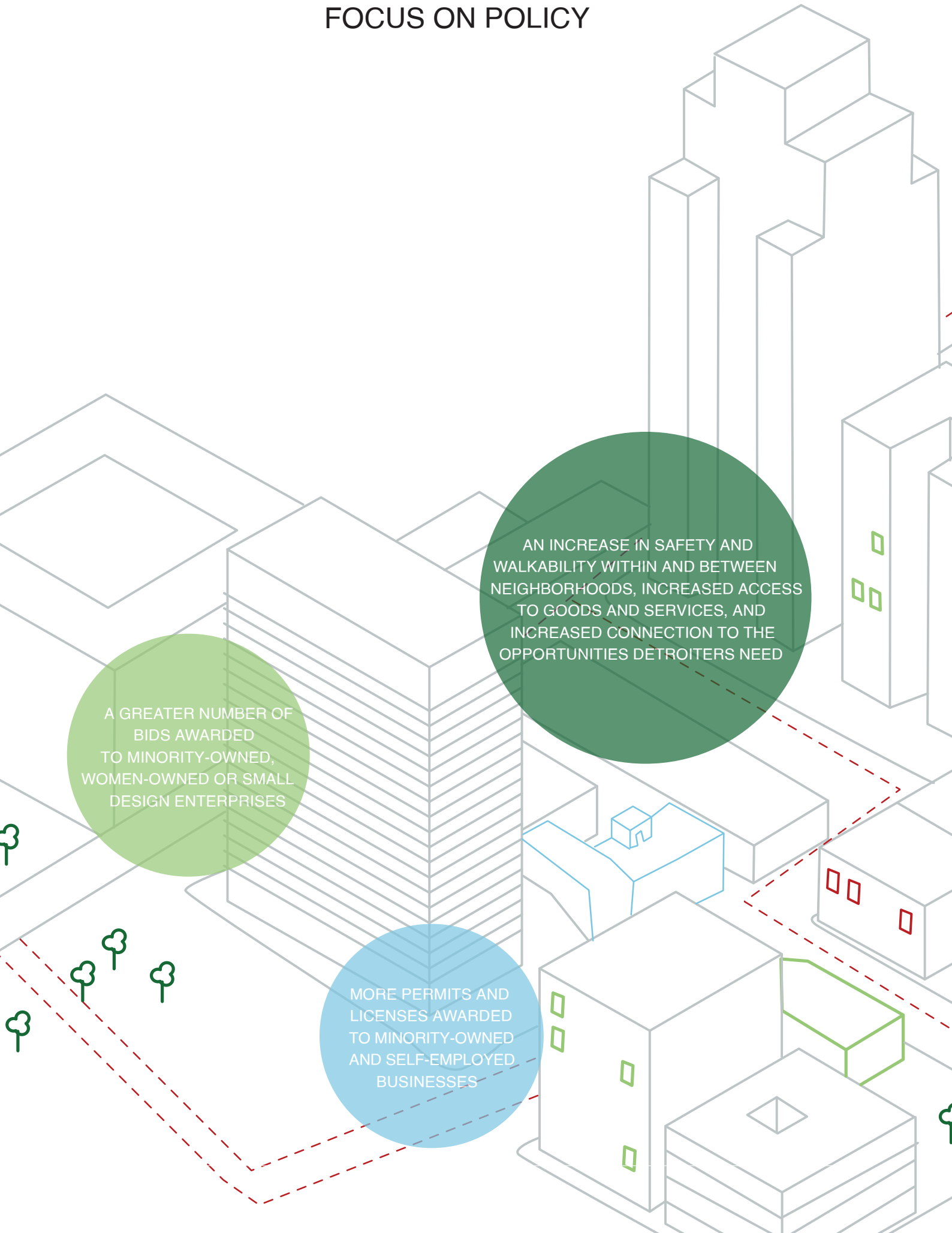

AN INCREASED NUMBER OF DESIGN JOBS AND OPPORTUNITIES ACROSS THE CITY'S INDUSTRIES
WE ARE HIRING!
DESIGN & CO
DESIGN NEEDS:
FOR RENT
NEWS
INCREASED LOCAL, NATIONAL, AND INTERNATIONAL RECOGNITION OF DETROIT'S TALENT BY WAY OF AWARDS, COMMISSIONS, AND MEDIA PRESENCE

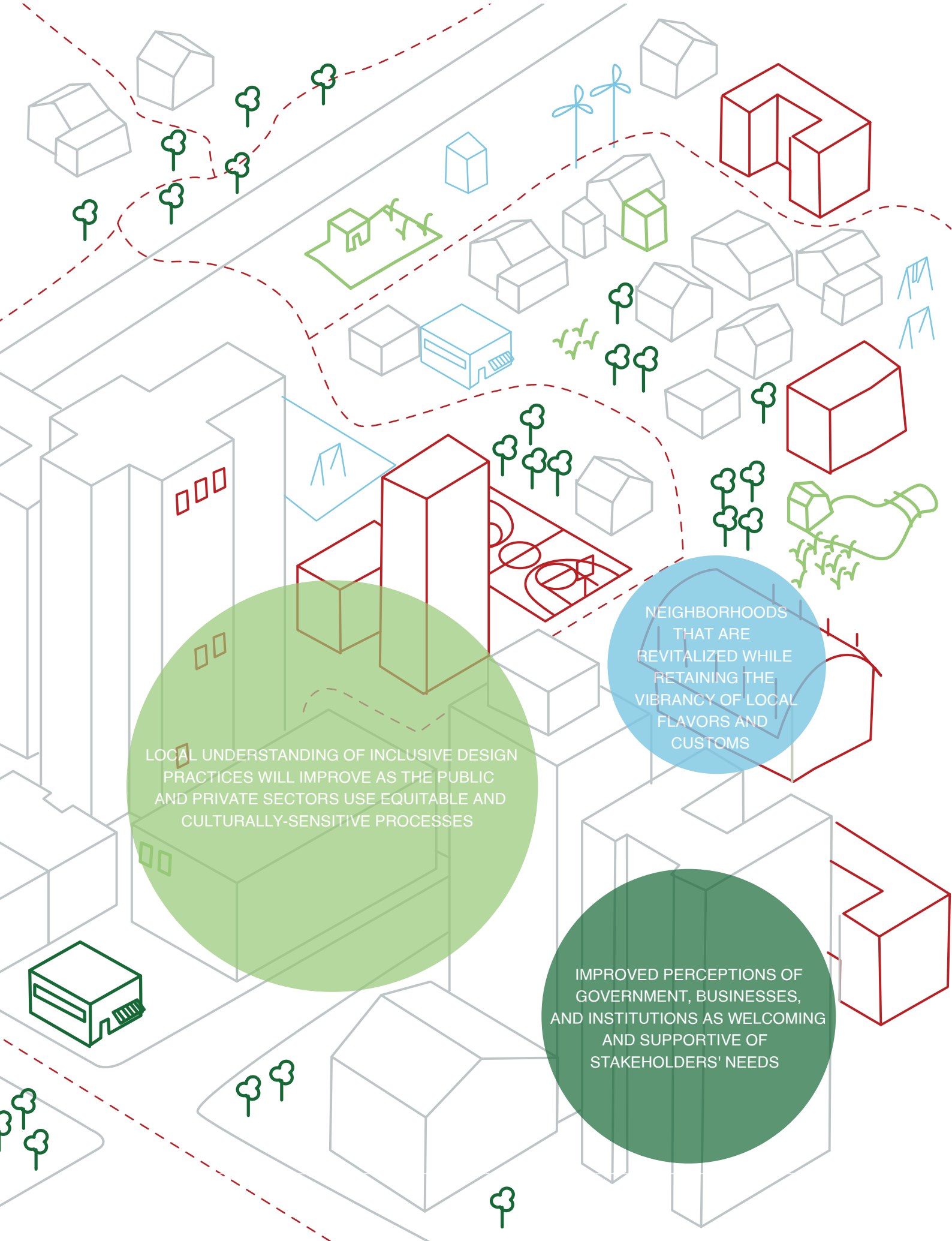
INVEST IN DESIGN FIRMS




INCREASED AMOUNT OF SQUARE FOOTAGE ALLOCATED TO DESIGN BUSINESSES
A GREATER NUMBER OF BUSINESSES PRACTICING INCLUSIVE DESIGN
DEVELOPMENT OF NEW PRODUCTS AND SERVICES THROUGH INCREASED ACCESS TO PROTOTYPING AND PRODUCTION FACILITIES
MORE RESIDENTS PARTICIPATING IN DETROIT'S ECONOMY THROUGH ENTREPRENEURSHIP AND JOB OPPORTUNITIES BY WAY OF ACCESSIBLE FABRICATION SPACES OR NEIGHBORHOOD-ORIENTED CO-WORKING SPACES
CO-WORKING SPACES
JOIN US !
DESIGN SUPPLIES

FOCUS ON POLICY




LOCAL UNDERSTANDING OF INCLUSIVE DESIGN PRACTICES WILL IMPROVE AS THE PUBLIC AND PRIVATE SECTORS USE EQUITABLE AND CULTURALLY-SENSITIVE PROCESSES
NEIGHBORHOODS THAT ARE REVITALIZED WHILE RETAINING THE VIBRANCY OF LOCAL FLAVORS AND CUSTOMS
IMPROVED PERCEPTIONS OF GOVERNMENT, BUSINESSES, AND INSTITUTIONS AS WELCOMING AND SUPPORTIVE OF STAKEHOLDERS' NEEDS

These strategic approaches must follow recommendations in order to work. In terms of talent, they are:

- Support youth initiatives that include design as a core subject;
- Promote the many ways to secure a job in a design-driven company;
- Advocate for professional development programs that help workers succeed in design-driven industries that may be impacted by technology;
- Encourage design firms to provide necessary and meaningful professional training for talent at all levels;
- Create an inclusive design certification program that trains designers in culturally competent design practices;
- Collaborate with professional organizations to provide opportunities that support and nurture Detroit's diverse talent;
- Commit to funding annual global exchange opportunities to promote Detroit designers.

As for how to invest in the design business, however, the tips to follow are:

- Use Design Core's business curriculum to educate designers on how to access mainstream capital;
- Work with lenders to improve their understanding of and offerings for creative businesses;
- Encourage lenders to create a new pool of capital for design and inclusive design businesses;
- Promote new and existing makerspaces to design-oriented businesses seeking affordable, move-in ready facilities;
- Develop new tools and programs to support the prototyping, commercialization and scaling of product-based businesses in Detroit.

Finally, on policy and advocacy, the recommendations are:

- Commit to policies that improve communication and decision-making around land use, zoning, and infrastructure through the use of human-centered design;
- Preserve Detroit's cultural integrity by increasing capacity and

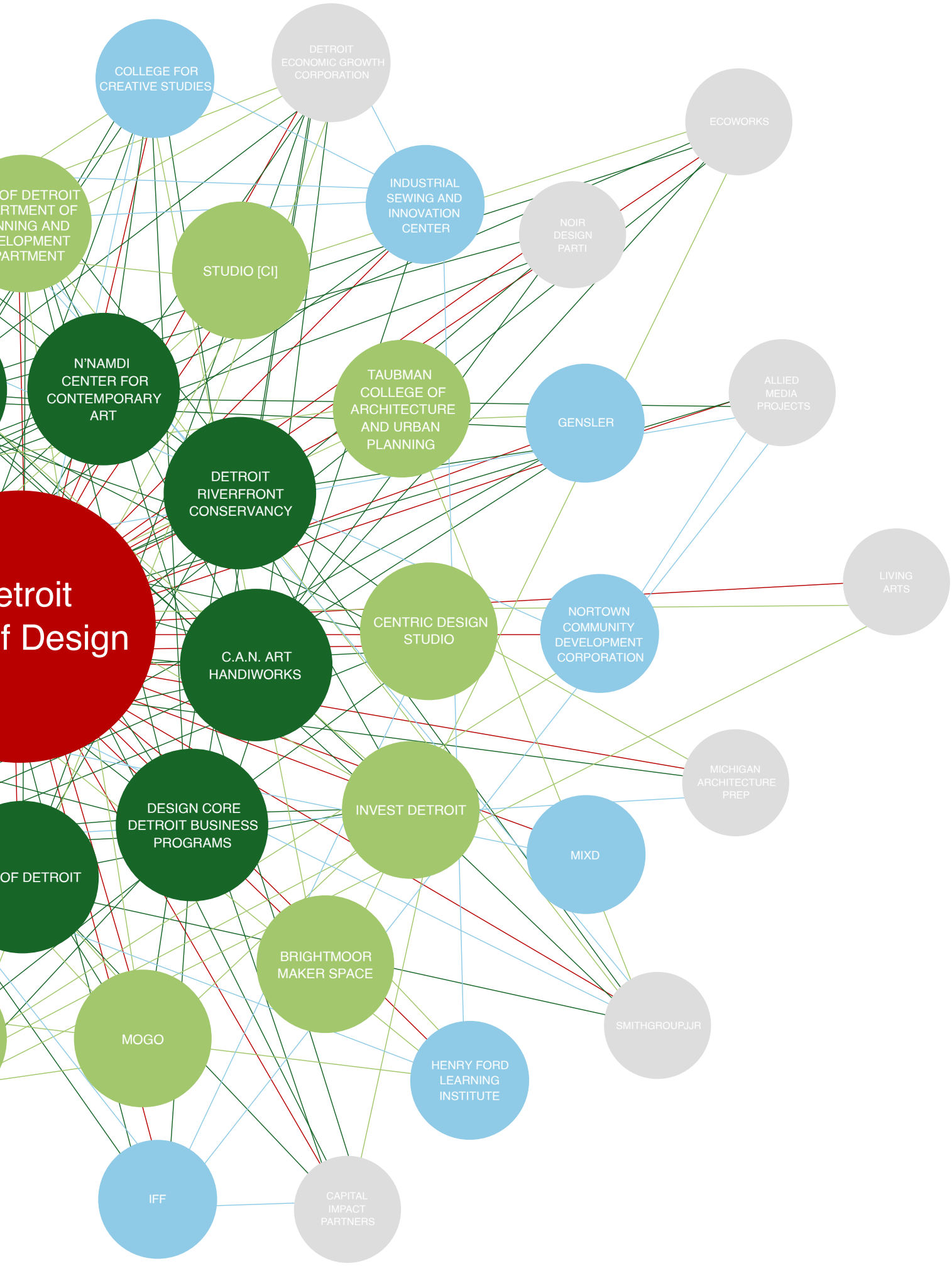
accountability for arts and culture in city government;

- Support initiatives in city agencies that use human-centered design to improve systems and processes;
- Treat every development, public and private, as an opportunity to invest in inclusive design;
- Use data and human-centered design to improve mobility in Detroit;
- Pilot projects in the business community that use inclusive design practices to increase understanding of the strategic value of this approach;
- Support policies and practices that result in public sector and private companies hiring local emerging design firms to fulfill contracts.

In 2019, the Detroit City of Design network included 52 partners working on 62 projects to cultivate talent, invest in design, and support policies that demand inclusivity.

Detroit City of Design Network in 2019.
Source: Inclusive Design Together (designcore.org)
Personal rework.


CITY OF DETROIT DEPARTMENT OF TRANSPORTATION
DETROIT INSTITUTE OF ARTS
400 FORWARD
THE PLATFORM
MICHIGAN HISTORIC PRESERVATION NETWORK
TECHTOWN DETROIT
GRACE IN ACTION
LAAVU
DESIGN CORE DETROIT
UNIVERSITY OF DETROIT MERCY SCHOOL OF ARCHITECTURE
THE CHARLES H WRIGHT MUSEUM OF AFRICAN AMERICAN HISTORY
LAWRENCE TECHNOLOGICAL UNIVERSITY
DETROIT JUSTICE CENTER
CULTURESOURCE
CREATIVE MANY MICHIGAN
CRANBROOK ART MUSEUM
THE UNIVERSITY OF MICHIGAN DEARBORN/FORT ROUGE GATEWAY PARTNERSHIP
AIA DETROIT
ROSSETTI
COMMUNITY ARTS PARTNERSHIPS
ACCESSIBLE DESIGN WORKSHOP
IT STARTS AT HOME
SOUTHWEST DETROIT BUSINESS ASSOCIATION
HAMILTON ANDERSON
DETROIT FUTURE CITY
SIMONE DESOUSA GALLERY


COLLEGE FOR CREATIVE STUDIES
DETROIT ECONOMIC GROWTH CORPORATION
ECOWORKS
INDUSTRIAL SEWING AND INNOVATION CENTER
NOIR DESIGN PARTI
STUDIO [CI]
N'NAMDI CENTER FOR CONTEMPORARY ART
TAUBMAN COLLEGE OF ARCHITECTURE AND URBAN PLANNING
GENSLER
ALLIED MEDIA PROJECTS
DETROIT RIVERFRONT CONSERVANCY
LIVING ARTS
CENTRIC DESIGN STUDIO
NORTOWN COMMUNITY DEVELOPMENT CORPORATION
C.A.N. ART HANDIWORKS
MICHIGAN ARCHITECTURE PREP
DESIGN CORE DETROIT BUSINESS PROGRAMS
INVEST DETROIT
MIXD
BRIGHTMOOR MAKER SPACE
SMITHGROUPJJR
MOGO
HENRY FORD LEARNING INSTITUTE
IFF
CAPITAL IMPACT PARTNERS

In Design Core Detroit's 2021 Annual Report, is evident the difference the organization has made in the success of a growing network of diverse designers. Design Core provided more than 750 individual services to members and non-members of the Detroit Design Network, including connections to resources and new business opportunities, educational programs, coaching, promotion and more. They connect members with potential clients, partners and other programs that can help them grow their business; they award opportunities through the Detroit Month of Design and other programs; and they raise awareness about the process of inclusive design and implement accessible design options for neighborhoods and local businesses. Design Core and the City of Detroit are positioned as leaders locally, nationally and internationally. Until then, the Month of Design of 2021 has been the largest, with 116 applicants, 85 events, more than 150 designers and participants, 60 locations, 12 neighborhoods, 50.000 attendees and $100.000 invested. In 2021 the Detroit Design Network has grown to 110 members, of which 58% are women-owned, 33% are minority-owned, and there are also 6% owned by immigrants and 2% owned by veterans.



Balance of different design disciplines in the 2021 Design Core Annual Report.
Source: DesignCore_2021_AnnualReport.pdf
Personal rework.

Every year a challenge is launched, as a platform to develop ideas that improve access and opportunities in Detroit through the practice of inclusive design. Selected through a competitive process, teams of designers, residents and stakeholders develop concepts to address the digital divide in Detroit neighborhoods through community technology projects, they receive inclusive design training, resources, and professional support. Another challenge involves the creation of adaptive clothing and accessories, participants are challenged to use an inclusive process to create accessible new products for active people with limb loss during Detroit Month of Design. The teams are first trained in anti-ableism and inclusive design; they bring together design and manufacturing for products that could be designed, prototyped and manufactured in Detroit; they raise awareness of the ableist biases that often exclude people with disabilities from the design process and encourage them to incorporate it into their practice; and they create new connections

and business partnerships for local and national designers, manufacturers, partners and sponsors. Another challenge concerns the creation of innovative commercial prototypes, Commerce Design Refresh Grant winners implement their projects.

4

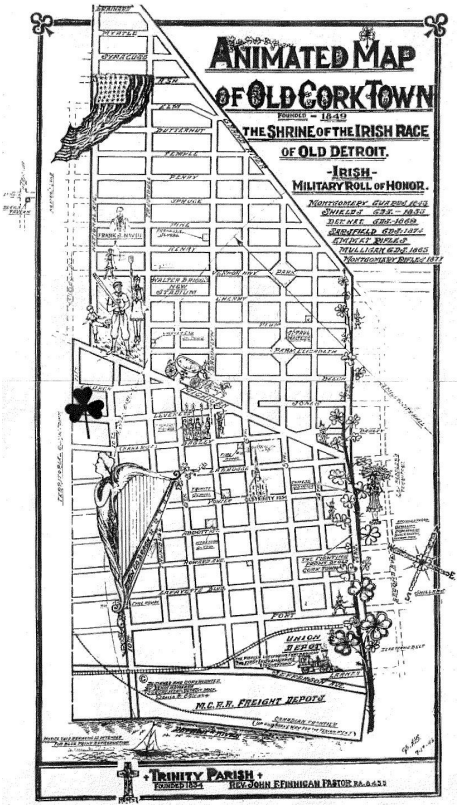


Historical Corktown District Sign.
Personal photo.

CORKTOWN ATLAS

Neighborhood History

Originally, the area known as Corktown was bounded by the Detroit River, Eighth Street, Vernor Highway, and Third Street. Early residents came from Kerry, Limerick, Tipperary and other parts of Ireland, including County Cork, from which the neighborhood takes its name. By the 1890s, the increasingly affluent Irish community was dispersing throughout the city, more and more Corktown residents claimed other ethnicities, such as American and Protestant. The Corktown area consists of two neighborhoods designated by the City of Detroit as Historic Corktown and North Corktown. Although historically connected, the construction of several highways has isolated the Historic Corktown neighborhood from the North Corktown area. Early Corktown residents built single-family homes and rowhouses in the Federal Style, which was popular at the time. Later construction in the neighborhood reflected the architectural trends of the period, so new buildings were often modest one- or two-story rowhouses with Italianate and Queen Anne style details. By 1890, houses for sale in the area ranged in price from $1,000 to over $10,000. Most homes were sold for between $2,000 and



FOUNDING / SETTLEMENT

In the 1600s, about 100,000 people from five tribes lived in Michigan.

In the early 1700s, villages were established in the Detroit area under British, French, and American rule. Main roads developed parallel to the coastline, forming informal trade routes. The city of Detroit grew from a fur trading station to a center of the automotive world.

In the 1820s and 1830s, the opening of the Erie Canal brought a significant number of new immigrants, many of whom settled in the city center.

IMMIGRATION

As immigration increased in the mid-
the population began to move west fro
This development was characterized b
th-south and east-west grid patterns,
Community facilities, places of worship
during this period.

After the Civil War, Corktown diversified
co, and Malta who were attracted to
automotive jobs.

PRE 1800

1850

$5,000 and were considered comfortable rather than luxurious. In addition to the modest frame homes, larger brick and stone structures were also built in the area (Robinson, Remensnynder, Gabler, 2019).

One of the largest construction projects in Corktown before the freeways was the development of Michigan Central Station. Located at the corner of West Vernor and Michigan Avenues, the station was completed in 1913. It was built on land already owned by the Michigan Central Railroad and was located near the new rail tunnel to Canada. Initially the station was surrounded by homes and businesses, but a proposal was made to create a park in front of the station, and the city had identified the area that would become Roosevelt Park. Initially known as the Esplanade, the cost to the city to purchase and demolish approximately 200 houses in the area was estimated at $500.000. The project was prepared by Burnham and Bennett, Chicago architects highly regarded by the city's Beauty Movement. It would be another six years before the area

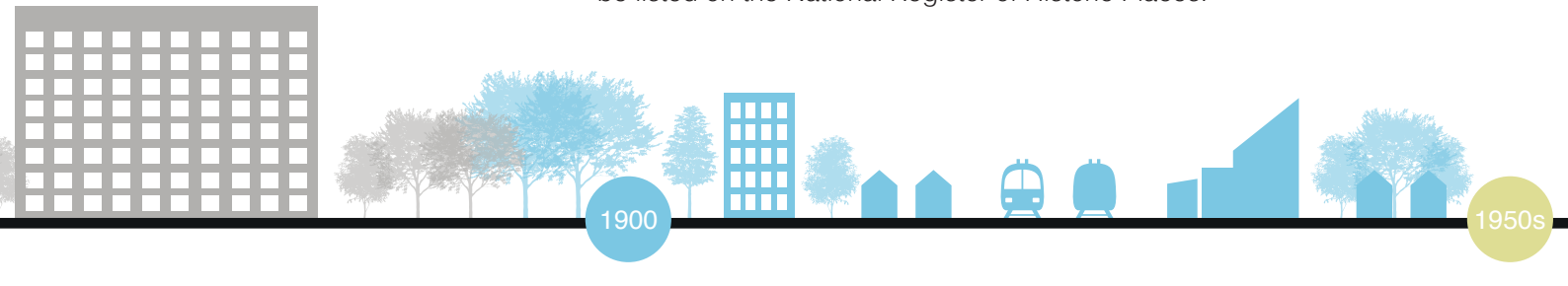
Animated map of Old Cork Town, 1849.
Source: Historic Corktown | Detroit's Oldest Neighborhood

19th century, especially from Ireland,
m Downtown Detroit toward Corktown.
by the overlapping of conventional nor-
and many new row houses were built.
, and civic buildings were constructed

d with immigrants from Germany, Mexi-
Detroit's factories, which were rich in

THE PEAK

In the late 1890s, Detroit's streetcars became electric, and buses were introduced in the following decades. By 1956, Detroit had the largest streetcar system in the nation. Michigan Central Station was the main depot for intercity passenger trains, where many generations of new residents first set foot in Corktown. In the early 1920s, with the creation of the Detroit Rapid Transit Commission, a plan for a "superhighway system" was created.
Michigan Avenue was not only a major route to Downtown, but also a thriving retail area, a major entertainment center, and one of the most important gathering places in Corktown. Tiger Stadium, located at the corner of Michigan Avenue and Trumbull Street, hosted Detroit Tigers baseball for more than a century, as well as concerts, Detroit Lions football games, and other events.
Throughout the 20th century, Corktown was diverse and thriving enough to be listed on the National Register of Historic Places.



was cleared, with much of the delay caused by lawsuits filed by former property owners who protested the demolitions. The northern boundary of Roosevelt Park extends to Michigan Avenue, the main commercial street of Corktown. The street was first planned in the 1820s as a mean of connecting Detroit to Fort Dearborn in Chicago and was considered a military highway. The city's original plan envisioned Michigan Avenue as 200 feet wide, matching the width of Detroit's other thoroughfares such as Washington Boulevard or Madison Avenue, but its location caused the road to be narrower than planned. Congestion on the roadway led to approval of its widening in 1925, and the buildings on the south side of the street were removed in 1939. In those years Corktown's two major landmarks were Tiger Stadium and Michigan Central Station and almost all blocks were developed with houses or other small businesses (Robinson, Remensnynder, Gabler, 2019).

Major freeways were built in Detroit in the 1960s, with the last stretch of Interstate 75 opening in 1970. Hundreds of homes and

URBAN RENEWAL

In the 1940s, Michigan Avenue and other radial streets were widened for automobiles by tearing down buildings and paving wider streets. Streetcars continued to run along Michigan into the 1950s, but the vision of a rapid transit system never materialized.

After World War II, city planners proposed redeveloping much of the neighborhood to build new factories, demolishing more than 75 acres of homes and businesses and displacing residents.

This planned industrial development was only partially realized, and Corktown was further devastated by the construction of the Fisher and Lodge highways in the 1960s.

The Detroit riots of 1967 also caused considerable unrest and tension, furthering economic disinvestment and depopulation.

The last Amtrak train left Michigan Central in 1988, leaving the building vacant.

THE GREAT RECESSION

The construction of I-75 and subsequ
created unique identities for neighborh
North Corktown and Historic Corktow
with different demographic and urban
The first decade of the 2000s was a ti
communities, including Corktown's res
In 2009, both General Motors and Chr
years later, in 2013, the city itself de
Great Recession.

In 2009, Tiger Stadium, which had al
was demolished and replaced by Corr
However, this period in Corktown's hist
community organizations dedicated t
nefits, including the North Corktown N
ktown Historical Society. The energy of
the city's planning processes will cont
economic development and the soul o

1950s

2000s

businesses were demolished to make way for the freeway. In addition, the West Side Industrial Project in the southern part of Corktown included the removal of all buildings first from 77 acres and then another 101 acres of land. The change in use of the West Side Industrial Area is evident, with larger industrial buildings scattered where hundreds of small houses stood only a few years earlier. The project was based on the projection of city taxes, before demolition the area yielded $106,000 per year, after the demolition it was estimated to return $450,000 per year. New housing in the North Corktown area, the first in the area in more than two decades, was developed to provide affordable options for neighborhood residents before they lost their homes to expropriation. In the last decades of the 20th century, individual buildings were targeted for demolition rather than large-scale clearance projects. On the northwest side of North Corktown and the southwest side of Historic Corktown, almost every block had vacant lots and parking spaces had expanded in area (Robinson, Remensnynder, Gabler, 2019).

Corktown history timeline.
Source: Greater Corktown Framework Plan Final Report.pdf(Shared) - Adobe cloud storage
Personal rework.

ent decades of neighborhood change
hoods north and south of the highway.
n have experienced unique changes
characteristics.
me of great challenge for many Detroit
idents and businesses.
ysler filed for bankruptcy, and just four
clared bankruptcy in the wake of the

ways been a landmark for Corktown,
ner Ballpark.
tory was also marked by the
o promoting social and economic be-
eighborhood Association and the Cor-
f these groups and their involvement in
inue to be the foundation for inclusive
f Corktown for years to come.

PLANNING FRAMEWORK

Corktown has experienced a revitalization over the past 10 years, evidenced by public and private investment along the Michigan Avenue commercial corridor and new residential growth in the neighborhood.
With a stabilizing population, large institutions such as Ford Motor Company (which is redeveloping Michigan Central Station) are building on community development, initiated by residents and small business owners.
The resilience and attachment of the neighborhood's residents is evident and the redevelopment area will continue to grow and evolve, thanks to a mix of locals and a steady flow of creative people into the area, attracted by the neighborhood's eclectic character and history.



The Historical Corktown District has benefited from the designation of several areas as historic districts[31], it is likely that these denominations have allowed the area to retain some of its original density. In recent decades, a large number of buildings have been demolished throughout the Corktown area, and even more are vacant or in disrepair. Despite the losses, residents continue to have a positive attitude and signs of revitalization and restoration are evident in both neighborhoods. These efforts can be encouraged and strengthened through active preservation initiatives, to have maximum economic impact they must extend beyond existing neighborhoods to consider properties that could be viable restoration projects, using incentives such as federal historic tax credits[32] (Robinson, Remensnyder, Gabler, 2019).





Most Holy Trinity Catholic Church and Michigan Central Railroad Station.
Personal photos.

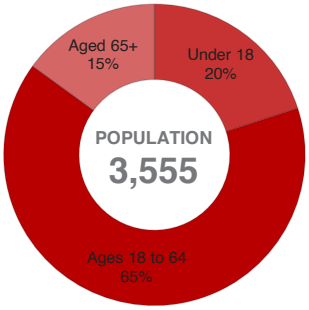
31. The Michigan State Historic Preservation Office (SHPO) has identified a total of seven historically significant resources. These include one district and three buildings (Corktown Historic District, Most Holy Trinity Catholic Church, Trinity Episcopal Church and Penn Central Station/Michigan Central Railroad Station) listed on the National Register of Historic Places (NRHP), two buildings (Joseph H. Esterling House and Mary Bell's Millinery-John Allen's Café) listed on the State Register of Historic Sites (SRHP), and one local historic district (West Corktown Addition to the Corktown Historic District). However, all of these nominations are dated and would need to be updated.

32. Current federal law provides a 20% credit on income tax liability for property owners for substantial rehabilitation that meets the Secretary of the Interior's (SOI) Standards for Rehabilitation. Credits are only available for places that derive income from the building, which means the building could be an industrial or commercial property, but it can also be adaptively reused to convert a commercial building into a residential property.

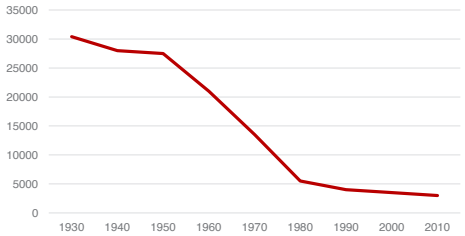

HISTORICAL CORKTOWN
WOODBRIDGE
JEFFRIES
TRUMBULL AVE
ROSA PARKS BLVD
CORE CITY
14th ST
MIDTOWN
CASS CORRIDOR
MARTIN LUTHER KING JR BLVD
Trinity Episcopal Church
GRAND RIVER AVE
NORTH CORKTOWN
M-10
DOWNTOWN DETROIT
I-75 / FISHER FWY
MICHIGAN AVE
CORKTOWN
Mary Bell's Millinery-John Allen's Cafe
CENTRAL SOUTHWEST
I-75 / I-96
BAGLEY ST
Joseph H. Esterling House
W LAFAYETTE BLVD
Most Holy Trinity Catholic Church
Michigan Central Railroad Station
HUBBARD RICHARD
MEXICANTOWN
HUBBARD FARMS
WEST SIDE INDUSTRIAL
DETROIT RIVER
WINDSOR
National Register of Historic Places (NRHP)
State Register of Historic Sites (SRHS)
Corktown Historic District
Local-City of Detroit Historic District
(West Corktown Addition to the Corktown Historic District)
N
0
100
500 m

Existing Conditions

Bordering east with Downtown, Corktown is strategically positioned to improve network connectivity and public realm within and beyond the neighborhood. It presents several types of large buildings including industrial, commercial, residential (single-family and multi-family), educational, religious, and a variety of recreational uses. Today, the area is characterized by large areas of open space that were historically occupied mainly by residential buildings. The neighborhood shows a morphological rupture dictated by the old railroad system and a strong situation of decay defined by the abandonment of the medium/large built structures (Michigan Central Station, Roosevelt Post Office, 1448 Wabash, etc.) that separate the eastern part of the neighborhood from the western one (Bottero, Datola, Fazzari, Ingaramo, 2022).



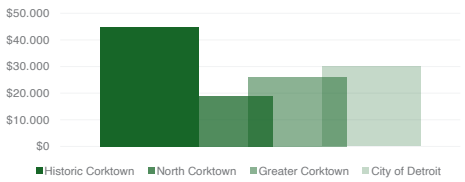
Population Today



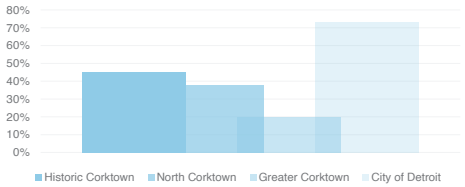
Population Trend

Socio-Economic Portrait

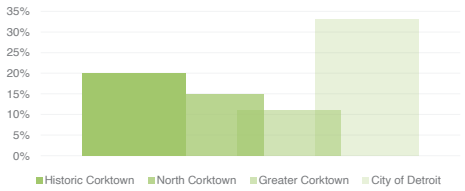
- **Population:** Census data indicates that Corktown had a total population of approximately 3.555 people in 2019. The neighborhood peaked in the 1930s with about 30.400 residents, since then the area has experienced significant population loss through 2010. However, the demographics within Corktown vary, from 2010 to 2017 North Corktown continued to experience population loss (-5%), while Historic Corktown experienced population growth (+10%). Compared to the City of Detroit as a whole, which experienced a population decline (-5%), Corktown has the potential to bring a critical mass of people back to the area, in part due to Ford's investment in the neighborhood;
- **Income:** Similarly, Historic Corktown has experienced significant income growth and higher median household incomes than North Corktown and the City of Detroit in general;
- **Housing:** Unlike the City of Detroit, most of Corktown's housing stock is multi-family rental housing. Corktown has a higher proportion of single-family and owner-occupied homes than North Corktown. From 2010 to 2018, the number of residential units in Corktown grew slowly, with more rehabilitation projects than new construction. In 2019, the situation reversed, with many



Median Household Income



Single Family Homes as Percentage of Total Units

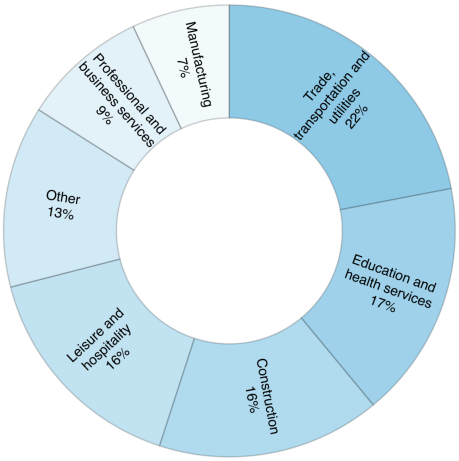


Percentage Units Owner-Occupied


ANALYZED AREA
WOODBRIDGE
JEFFRIES
TRUMBULL AVE
ROSA PARKS BLVD
CORE CITY
14th ST
MIDTOWN
CASS CORRIDOR
MARTIN LUTHER KING JR BLVD
GRAND RIVER AVE
NORTH CORKTOWN
M-10
DOWNTOWN DETROIT
I-75 / FISHER FWY
MICHIGAN AVE
CORKTOWN
CENTRAL SOUTHWEST
I-75 / I-96
BAGLEY ST
W LAFAYETTE BLVD
HUBBARD RICHARD
MEXICANTOWN
HUBBARD FARMS
WEST SIDE INDUSTRIAL
DETROIT RIVER
WINDSOR
Buildings
Parks
Highways
Railways
Main Roads
Building Lots
River
Boundaries
N
0
100
500 m

more units being built than the neighborhood's annual demand alone. This suggests that recent and upcoming market-rate developments are responding to and anticipating outside demand to support absorption;

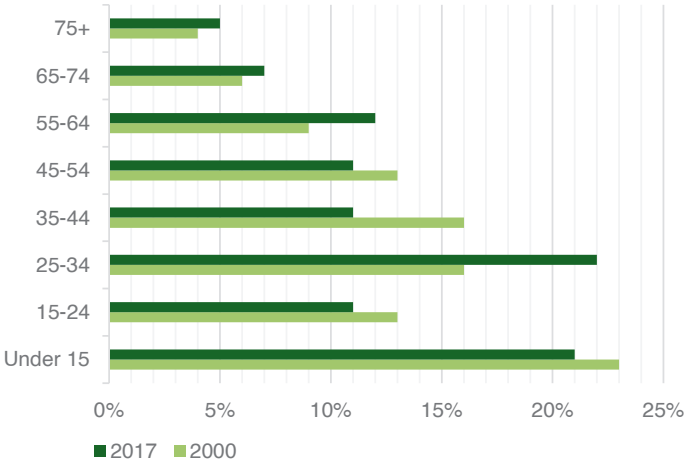
- **Employment:** Corktown residents work primarily in Downtown, Midtown, New Center/North End, and Corktown. Corktown has 4.600 jobs, most of them in the retail, food service, wholesale and logistics sector, which accounts for 22% of the area's employment. In contrast, there has been a decline in education and health services jobs. In 2019, the unemployment rate was 6.9%, with the potential to decrease due to Ford's investment.
- **Age:** The population is dominated by middle-aged residents, with an average household size of 1.9 people in 1.707 households, but the neighborhood is not well equipped to support a locally aging population. Since 2000, Corktown's young adult population (ages 25-34) has grown, while North Corktown's age composition has remained constant;
- **Education:** Residents of Historic Corktown have similar educational attainment levels as Downtown, while North Corktown has lower levels of education, tending toward the city average;



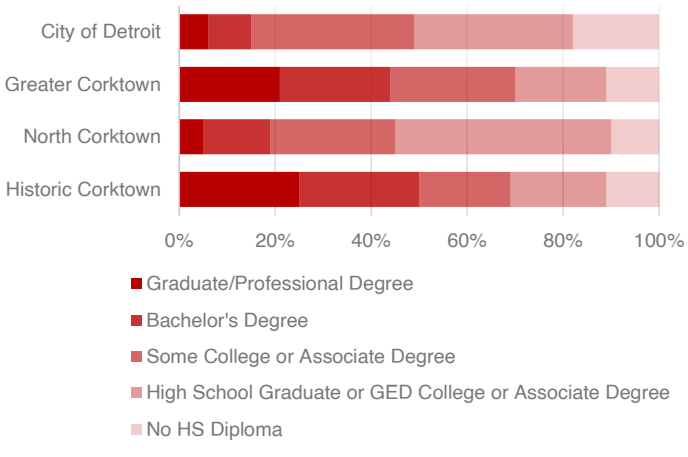
Employment by Industry



Change in Jobs



Population Breakdown by Age



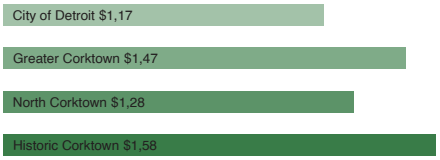
Educational Achievement of Residents

Source: Greater Corktown Existing Conditions Appendix.pdf (detroitmi.gov)
Personal rework.

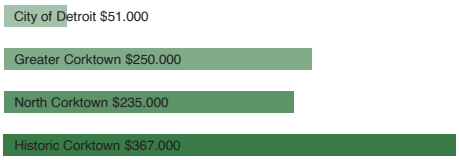

YEAR BUILT
WOODBRIDGE
JEFFRIES
TRUMBULL AVE
ROSA PARKS BLVD
CORE CITY
14th ST
MIDTOWN
CASS CORRIDOR
MARTIN LUTHER KING JR BLVD
GRAND RIVER AVE
NORTH CORKTOWN
M-10
DOWNTOWN DETROIT
I-75 / FISHER FWY
MICHIGAN AVE
CORKTOWN
CENTRAL SOUTHWEST
I-96 / I-75
BAGLEY ST
W LAFAYETTE BLVD
HUBBARD RICHARD
MEXICANTOWN
HUBBARD FARMS
WEST SIDE INDUSTRIAL
DETROIT RIVER
WINDSOR
< 1900
1900-1924
1925-1949
1950-1974
1975-1999
2000-2020
No Data
N
0
100
500 m

Market Assessment

- **Residential Market:** Corktown has a variety of housing types, ranging from new multifamily developments to historic single-family homes and large tracts of vacant land. Compared to the City of Detroit as a whole, both Historic Corktown and North Corktown have higher median sales prices and average rents. Many home sales have occurred near Michigan Ave with prices comparable to those in Downtown, as well as in North Corktown between Rosa Parks Boulevard and Trumbull Ave. Location and housing conditions are key and significant factors in determining the value of homes in Corktown. Homes near Michigan Ave and commercial areas tend to command higher prices, while proximity to vacant lots tends to lower prices. Well-maintained homes can sell for over $300 per square foot (6 times the city average), while homes in need of rehabilitation or demolition sell for less than $80 per square foot. Currently, Historic Corktown has a strong market for rehabilitated single-family homes due to the existing historic building stock, but new construction is more limited. In contrast, North Corktown is experiencing fewer renovations and more new construction through traditional financing. Multifamily rents in Historic Corktown have increased 103% since 2009, far outpacing the growth in median household income (+21%) over the same period, suggesting a growing unaffordability of multifamily units. Although the multifamily market has been stagnant for a long time, developments currently in the pipeline are poised to take advantage of stable vacancy rates. Newly constructed multifamily units command the highest rents around Michigan Avenue, while older properties have rents that are 35-45% lower. As Ford arrives and the market gains momentum, demand for housing will increase, reinforcing the need to preserve and expand affordable housing. Public subsidies, including loans, grants and land, will remain the primary source of funding for new affordable housing, as market rents are not sufficient to fully subsidize the development of mixed-income projects;
- **Retail Market:** Michigan Avenue is Corktown's main retail corridor, more than half of the businesses are restaurants and bars,



Median Home Sale Prices



Average Multifamily Rent PSF
Source: Greater Corktown Existing Conditions Appendix.pdf (detroitmi.gov)
Personal rework.

BUILDING TYPE



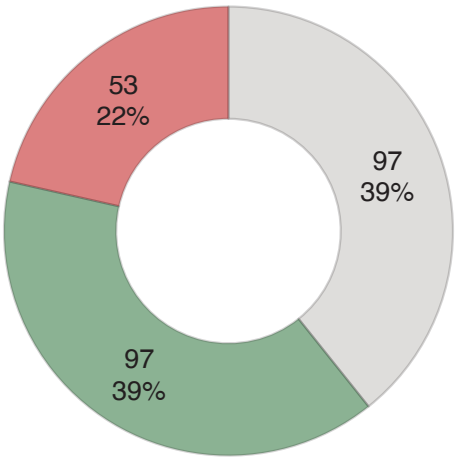
making it Detroit's dining destination. What is lacking, however, are convenience stores, such as affordable grocery stores and locally owned businesses. New developments in Historic Corktown have the highest rents because they are located in well-known destinations and offer upscale, quality space. Outside of Michigan and Trumbull, which have average rents of $20-$24 per square foot, retail rents reflect the city average of $12-$14 per square foot. As new and renovated retail space has come online, average rents in these areas of Corktown have risen and are nearly on par with those in Downtown. Historically, Corktown has experienced a loss of commercial space due to obsolescence. Today, the two main types of new commercial development are: new construction (retail space divided among local businesses due to limited interest from large retailers and the community's need for smaller retail spaces) and historic rehabilitation (unique smaller retail spaces that attract local and new businesses as a destination for the neighborhood and the larger metropolitan area);

- **Commercial Market:** Corktown has a significant amount of office and industrial space, its strength remains in industrial leasing although vacancy rates of 48 and 4% respectively. A notable trend is occurring in Historic Corktown, with many office and industrial developments[33].

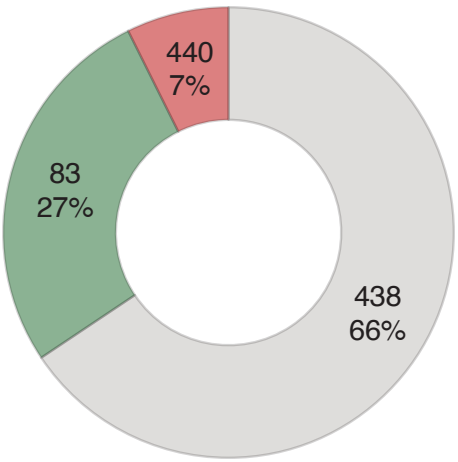
Vacancy and Property Ownership

- **Vacant Land:** Approximately 48% of all parcels in Corktown are identified as vacant, providing a number of opportunities for new development and improvements to the open space network. Of the total vacant land 40% is residential, 40% is commercial and 20% is industrial. Within Corktown, there are over 950 vacant residential lots totaling 97 acres, more than half of which are publicly owned, suggesting that growth can occur without relying solely on private sector investment and interest. The existing vacant land has the capacity to accommodate new residents with a mix of housing types.

33. Michigan Central Station (Ford - in development), 1800 18th Street (Bedrock - in development), MyLocker.com Expansion (MyLocker - in development), The Assembly (Bedrock - Completed 2019), The Factory (Buhl Family and Britt Greene - Completed 2018), Office/Data Center (Bedrock - Completed 2015).



Vacant Area (in acres)

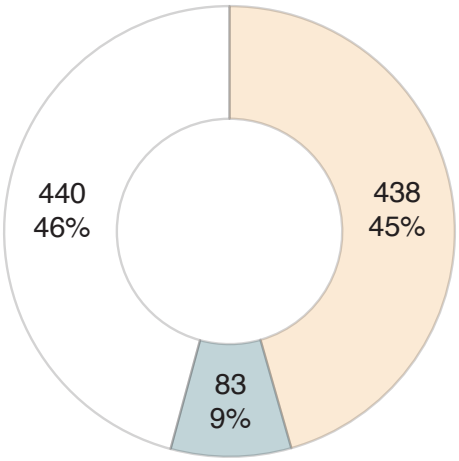


Vacant Parcels
Source: Greater Corktown Existing Conditions Appendix.pdf (detroitmi.gov)
Personal rework.

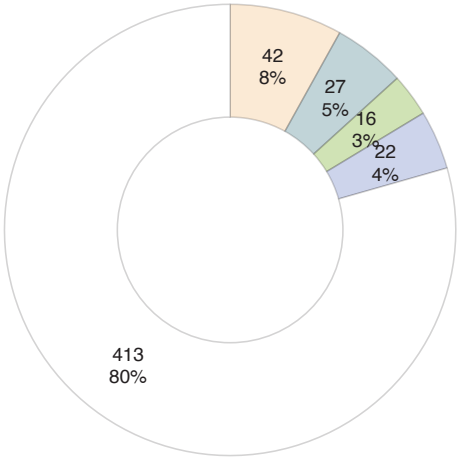
VACANT LOTS


WOODBRIDGE
JEFFRIES
TRUMBULL AVE
ROSA PARKS BLVD
CORE CITY
14th ST
MIDTOWN
CASS CORRIDOR
MARTIN LUTHER KING JR BLVD
GRAND RIVER AVE
NORTH CORKTOWN
M-10
DOWNTOWN DETROIT
I-75 / FISHER FWY
MICHIGAN AVE
CORKTOWN
CENTRAL SOUTHWEST
I-75 / I-96
BAGLEY ST
W LAFAYETTE BLVD
HUBBARD RICHARD
MEXICANTOWN
HUBBARD FARMS
WEST SIDE INDUSTRIAL
DETROIT RIVER
WINDSOR
Commercial Vacant
Residential Vacant
Industrial Vacant
N
0
100
500 m

- **Public Ownership:** Publicly owned and land bank controlled properties provide opportunities for inclusive housing development in Corktown. The Detroit Land Bank Authority (DLBA) controls approximately 40 acres of land in North Corktown, but almost no land assets in Historic Corktown. The Planning and Development Department (PDD) and the City own a few large complexes of land in Historic Corktown and a few scattered sites in North Corktown. The location and clustering of publicly owned land presents significant opportunities for community improvement and development through a phased approach;
- **Private Ownership:** Ford Motor Company is the largest private landowner in Corktown with over 21 acres of land, mostly in Historic Corktown. Throughout Corktown, 16% of the total land area is publicly owned and 84% is privately owned;



Vacant Residential Parcels



Parcel Ownership by Area
Source: Greater Corktown Existing Conditions Appendix.pdf (detroitmi.gov)
Personal rework.


PROPERTY OWNERSHIP
WOODBRIDGE
JEFFRIES
TRUMBULL AVE
CORE CITY
ROSA PARKS BLVD
14th ST
MIDTOWN
CASS CORRIDOR
MARTIN LUTHER KING JR BLVD
GRAND RIVER AVE
NORTH CORKTOWN
M-10
DOWNTOWN DETROIT
I-75 / FISHER FWY
MICHIGAN AVE
CORKTOWN
CENTRAL SOUTHWEST
I-96 / I-75
BAGLEY ST
W LAFAYETTE BLVD
HUBBARD RICHARD
MEXICANTOWN
HUBBARD FARMS
WEST SIDE INDUSTRIAL
DETROIT RIVER
WINDSOR
Land Bank Authority
Detroit Public Schools
City Public Work
City Planning and Development
Ford Motor Company
Other Ownership
Parks
N
0
100
500 m

Landscape

- **Open Spaces:** More than half of Corktown's land cover consists of impervious surfaces, which include both allotments (cemented vacant lots, parking lots, etc.) and streets. Historic Corktown is characterized primarily by impervious surfaces on public and private property, while North Corktown is characterized by vegetated and permeable areas;
- **Green Areas:** Corktown's green areas network consists of a mix of city-owned parks and other spaces managed by neighborhood groups. There are a variety of park sizes, ranging from small parks (0.03 acres) to larger parks such as Roosevelt Park (8 acres). Although current facilities offer some programmatic activities such as sports fields, dog parks and children's playgrounds, there is a need for more programmatic activities in existing and new parks to encourage use and a sense of community. There is also the necessity to create spaces for outdoor activities such as fitness, as well as places for rest, reflection and elements that incorporate art. Three major green spaces are currently planned within and adjacent to Corktown: Roosevelt Park, May Creek Greenway[34] (part of the Joe Louis Greenway[35]), and West Riverfront Park[36]. The continued development of the green space network and connections between these adjacent parks will enhance the neighborhood's appeal to residents. Urban agriculture is an integral cultural component of the North Corktown neighborhood, but not of the historic district. There is a desire to maintain the neighborhood's legacy of small-scale productive spaces and community gardens while prioritizing soil health, restoration and stormwater measures. In addition, future open space improvements should be sensitive to existing flora and fauna habitats to ensure harmonious and ecological growth. The existing urban tree canopy is an important resource for community health and should be measured and evaluated with realistic tree planting goals;
- **Community Amenities:** The Corktown neighborhood has many facilities such as schools, parks and churches that have the potential for revitalization and reuse in the community regardless of socio-economic background. However, many of these faci-

34. Led by the Detroit Riverfront Conservancy, the non-motorized paved trail will provide a new travel alternative between Corktown and the West Riverfront. The new greenway will extend for 0.67 miles between 14th Street and Bagley Street, and Jefferson Avenue at Ralph C. Wilson Jr. Centennial Park. The Conservancy and other project partners, such as Ford Motor Company, envision the new greenway as a safe and convenient route for bicyclists, pedestrians and other users to enjoy for recreation and to reach local destinations. Other planned features include a children's play area, amenities such as benches and bicycle parking, and stormwater management features. Like the Dequindre Cut, the new greenway will be built along an old railroad bed that dips below surrounding streets.

35. The Joe Louis Greenway will honor famed boxer Joe Louis by creating equitable spaces through art, programming and economic opportunity for all. The 27.5-mile greenway will connect parks and neighborhoods throughout the city, allowing residents to safely travel from McNichols to the riverfront without a car through a combination of new trails, protected on-street bike lanes, and connections to existing trails such as the Dequindre Cut and the RiverWalk. The greenway encompasses the cities of Dearborn, Hamtramck and Highland Park, connecting them to larger trail systems that span the State and pass through five Counties.

36. Ralph C. Wilson, Jr. Centennial Park will revitalize an abandoned riverfront and create a new dynamic interface between the Detroit River and the City through activities that meet

LANDSCAPE


WOODBRIDGE
JEFFRIES
TRUMBULL AVE
ROSA PARKS BLVD
CORE CITY
14th ST
MIDTOWN
CASS CORRIDOR
MARTIN LUTHER KING JR BLVD
GRAND RIVER AVE
NORTH CORKTOWN
M-10
DOWNTOWN DETROIT
I-75 / FISHER FWY
MICHIGAN AVE
CORKTOWN
CENTRAL SOUTHWEST
I-96 / I-75
BAGLEY ST
W LAFAYETTE BLVD
HUBBARD RICHARD
MEXICANTOWN
HUBBARD FARMS
WEST SIDE INDUSTRIAL
DETROIT RIVER
WINDSOR
Parking Lots
Permeable Surfaces
Urban Agricolture
Community Gardens
Open Spaces
N
0
100
500 m

lities are currently abandoned, underutilized or lack adequate services. Social and recreational spaces have not been at the forefront of government funding efforts, but part of the funding should now be directed to reintroducing facilities that rehabilitate these underutilized spaces. Neighborhoods do not have libraries or recreational facilities built to serve the community, schools and educational facilities are limited and, as a result, families with children often choose to travel to attend school in a better location.

Infrastructure System

- **Streets:** The City of Detroit owns and maintains most of the streets in the Corktown area. The local street grid is interrupted in several areas and is truncated at I-75, forcing travelers to use busier north-south arteries (Trumbull, Rosa Parks, 14th) or pedestrian bridges to connect from one neighborhood to another. A majority of the neighborhood's major streets are in poor condition and should be improved. Michigan Avenue is the primary connection between Corktown and Downtown. Key network priorities are connectivity to neighborhood amenities, the riverfront and Downtown. North-south connections between North and Historic Corktown can be enhanced with vehicular and pedestrian bridges that include adequate lighting, signage and street furniture. Emphasis should be placed on connective pathways that prioritize pedestrians and bicyclists, protected from the street but integrated into the rest of the streetscape. The majority of streets (over 80%), especially in residential areas, do not have marked crosswalks at intersecting streets or alleys. In general, sidewalks exist on most streets, but gaps should be filled and the physical condition of existing ones should be improved. In addition, the majority of intersections in residential areas are controlled by 2-way stop signs and yield signs that could be made safer. There is a need to increase pedestrian crossings and slow vehicle traffic, especially along Michigan Ave, to improve safety;
- **Bike Lanes:** The majority of existing bike routes in Corktown

the needs of the community. The 22-acre park will engage the river by breaching the dam that currently defines the riverfront. A two-acre water garden will be the experiential and geographic center of the park. An expanded and diversified shoreline will increase habitat for vegetation, birds and aquatic life. A series of rocky beaches, vegetated edges, preserved seawalls and freshwater wetlands will provide new urban nature experiences for people of all ages, abilities and backgrounds. Throughout the park, smaller lawns, gardens, groves, promenades and plazas complement the larger landscape features, including comfort stations, two "park houses" with indoor sports facilities, a play area inspired by the ecology of the Great Lakes, and a large event lawn with sweeping river views.

INFRASTRUCTURE



are not protected from traffic and share the right-of-way with vehicles. Where bike lanes do exist, the network is discontinuous and does not meet the requirements for safe infrastructure design. Future improvements to the bike network include infrastructure such as lighting and paint markings to improve safety and visibility;

- **Public Transportation:** Corktown is currently served by 7 bus routes that operate on major corridors connecting east-west to Downtown and north-south between North and Historic Corktown. Michigan Avenue should have buses running every 20 minutes on a 24/7 basis, while north-south bus service should be limited to rush hour, running every 30-60 minutes. Unfortunately, the reality of public transportation is very different from the planned vision, with no 24/7 or late-night service, far fewer buses than planned, bus stops that are defaced or unrecognizable, and poor safety due to the kind of population that uses public transportation. This is due to the fact that in Detroit, the Motor City, most people own a car and use it for every trip, no matter how small. Connectivity throughout the neighborhood could be improved by increasing service frequency, safety, and bicycle infrastructure;
- **Parking:** In addition to on-street parking, there are over 5750 total parking spaces in Corktown. However, over 60% of the parking lots in the area are fenced off, limiting access to residents and visitors, and half of the lots are poorly paved and maintained. Several parking lots are adjacent to vacant lots or are not in use, indicating an untapped supply of parking in the area. Parking lots in North Corktown account for approximately 25% of all lots, compared to over 75% in Historic Corktown.

LANDMARKS



1. Slows Bar BQ
2. The Sugar House
3. O'Connor Realty
4. Former Detroit Athletic Co.
5. Nemo's Bar
6. The Brooklyn Street Local
7. Hostel Detroit
8. Nancy Whiskey Pub
9. Mercury Burger & Bar
10. Former Hello Records
11. Mudgie's Deli and Wine Shop
12. John K. King Used & Rare Books
13. Former Michigan Central Station
14. Former Le Petit Zinc
15. Green Dot Stables

1.



2.



3.



4.



5.



6.



7.



8.



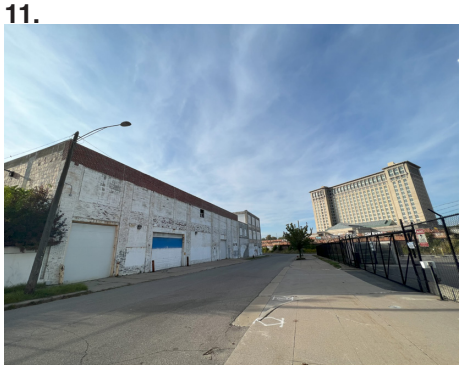
9.



10.



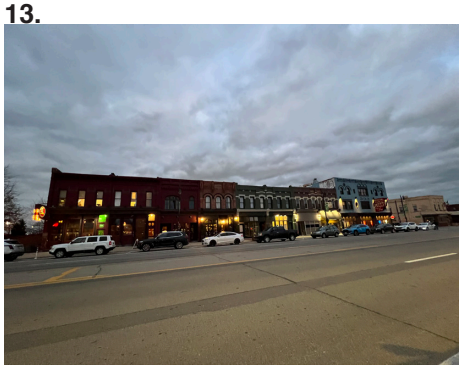
11.



12.



13.



14.



15.



Personal photos.

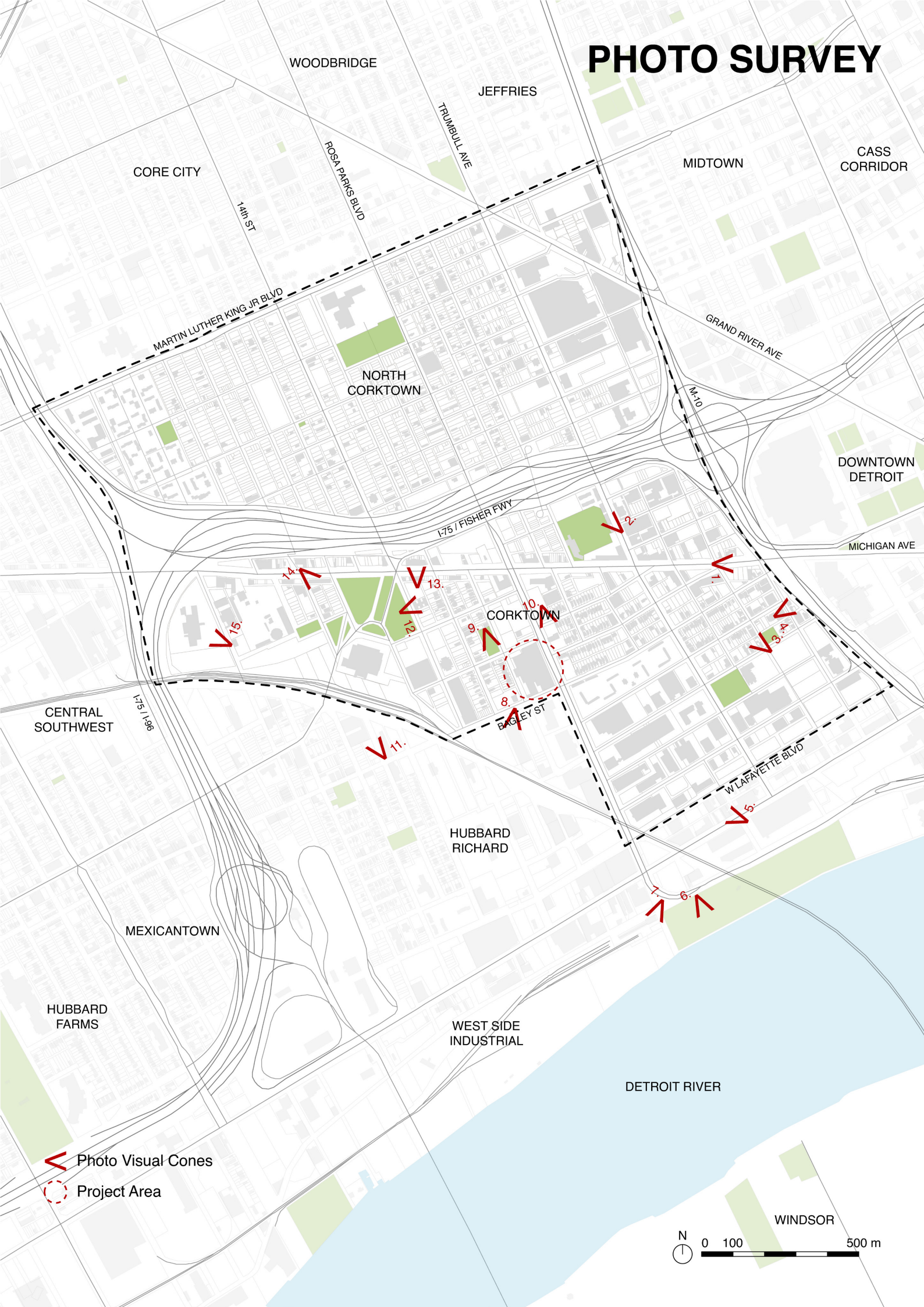


PHOTO SURVEY
WOODBRIDGE
JEFFRIES
TRUMBULL AVE
ROSA PARKS BLVD
CORE CITY
14th ST
MIDTOWN
CASS CORRIDOR
MARTIN LUTHER KING JR BLVD
GRAND RIVER AVE
NORTH CORKTOWN
M-10
DOWNTOWN DETROIT
I-75 / FISHER FWY
MICHIGAN AVE
CORKTOWN
CENTRAL SOUTHWEST
I-75 / I-96
BAGLEY ST
W LAFAYETTE BLVD
HUBBARD RICHARD
MEXICANTOWN
HUBBARD FARMS
WEST SIDE INDUSTRIAL
DETROIT RIVER
WINDSOR
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.
13.
14.
15.
Photo Visual Cones
Project Area
N
0
100
500 m



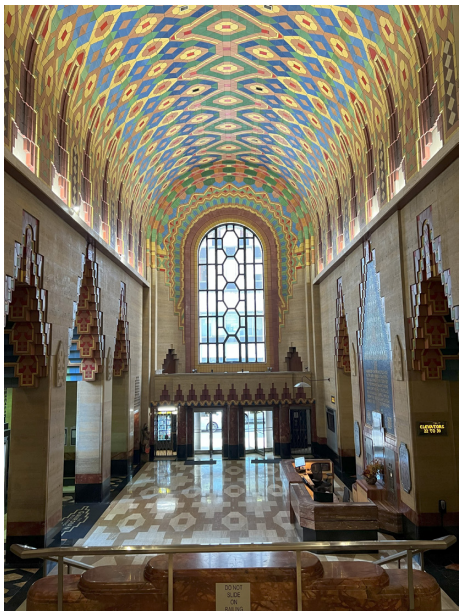




















Detroit Riverwalk - Hart Plaza - Guardian Building - Comerica Park - Ford Field - Eastern Market Shed - Eastern Market Shops - The Heidelberg Project - Detroit Public Library - Cadillac Place and Fisher Building - Fisher Building. Personal photos.

DISTANCES


Project Area
Distances
Analyzed Area
Main Buildings
Makerspaces
Key Places
People Mover
Q-Line
The Heidelberg Project
Henry Ford Hospital
Wayne State University
Medical Center
Eastern Market
Campus Martius Park
Hart Plaza
Detroit Riverwalk
Ambassador Bridge
1 km
2 km
3 km
4 km
5 km
1. Renaissance Center
2. Guardian Building
3. Aretha Franklin Amphitheatre
4. Michigan Central Station
5. Fox Theatre
6. Comerica Park
7. Ford Field
8. Little Caesars Arena
9. Masonic Temple
10. Museum of Contemporary Art
11. Michigan Science Center
12. Museum of African American History
13. Detroit Public Library
14. Detroit Institute of Arts
15. Detroit Historical Museum
16. Ford Piquette Avenue Plant Museum
17. Cadillac Place
18. Fisher Building
19. Albert Kahn Building
20. Motown Museum

Future Perspectives

The abandonment of medium/large constructed buildings offers an opportunity to rethink the area, re-establishing the continuity of the neighborhood through the rail axis and reconnecting the city to its waterfront through the north-south connection. Both programmatic lines define the working basis for urban development, removing the urban centrality of Michigan Avenue, where most commercial activity has been concentrated to date, and relocating it within the Corktown neighborhood, becoming a new urban reference. New residential spaces aim to invite a safe urban center through a mixed and complex urban structure. The design of the new landscaping shapes a new identity for the area, creating a series of buffers within the environment. Density is achieved through the adaptive reuse of buildings such as the Michigan Central Station (Bottero, Datola, Fazzari, Ingaramo, 2022).

Ford Investment Michigan Central Station

Development in Corktown has recently increased in response to market optimism and changing housing preferences, and has been supported by major private and public investments and policy initiatives. Prominent among these investments is the $740 million Ford Plan, which calls for the rehabilitation of three existing buildings, including Michigan Central Station, the Book Depository and the Factory, and the construction of two new accessory buildings. In total, the Ford plan will create a 1.2 million-square-feet campus for 5.000 employees: 2.500 Ford workers and another 2.500 support employees. The revitalization of the abandoned train station would turn the city's narrative of decline into a beacon of rebirth. In addition, the city's investment in redeveloping Roosevelt Park across from the Station has the potential to serve as a catalyst for further growth in the neighborhood. Corktown has a long history of grassroots efforts by small business owners and residents to build up the neighborhood and encourage development along Michigan Avenue, this investment in retail along Michigan Ave and Trumbull Ave encourage residential development in the surrounding areas. Ford's investment

will have an unprecedented impact on Corktown's growth, it must be strategically leveraged to serve existing and future communities. Ford's investment will have an impact on:

- **Residential Growth:** New workers hired in Corktown are expected to be in advanced technology and manufacturing occupations, some of them will seek to live in Corktown for the same reason that Midtown and Downtown have experienced increased residential demand. Residential preferences have shifted to walkable environments in amenity-rich neighborhoods close to employment centers;
- **Commercial Development:** Walkable areas around the new Ford campus will benefit from employee spending, and depending on where new workers choose to live, will help activate commercial corridors. About 700.000 square feet of commercial space will be built on Ford-owned parcels, including a key node between Rosa Parks Boulevard and Michigan Avenue. The creation of a new mobility-focused campus will accommodate 5.000 new employees. Although oversupply will not affect the Corktown office market, future demand is expected to increase for ancillary businesses that can support the new campus.

Ford's community investment will accomplish the following goals:

- Create and protect affordable housing in the impact area to help existing residents;
- Support neighborhood development;
- Ensure that impact area residents have greater access to training and employment opportunities;
- Ensure that impact area businesses are not displaced and that any new retail and services are accessible to the community;
- Involve impact area residents in mobility planning and development;
- Commit to additional benefits requested by the community, such as improving mobility and community amenities, preserving local culture, and ensuring environmental and neighborhood safety;
- Mitigate the construction impacts of the development.

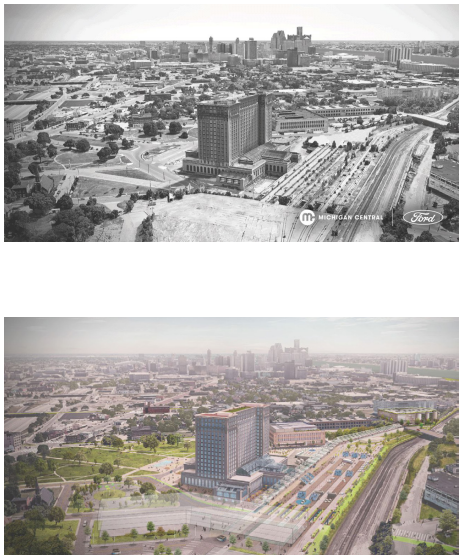


Michigan Central Site Plan.
Source: How Ford plans to transform iconic Detroit train station into innovative 30-acre campus - mlive.com

Michigan Central Station was once the gateway to the Motor City and one of the largest train stations in the United States. When the imposing Beaux-Arts building opened in 1913, it was the tallest train station in the world and Detroit was thriving. The station's opening coincided with the peak of rail travel in America and the rise of Detroit as a global leader in industry and innovation. At its busiest, the station handled 200 trains and 4.000 customers a day. As Detroit's economy slowed, so did traffic in and out of Michigan's Central Station. The last train left in 1988, and the station remained abandoned until Ford became the new owner in 2018. No other building better symbolizes Detroit's past, present and future, from the city's grit and rebirth to its role in the history and future of mobility. Soon, The Station will be an iconic mixed-use hub for Michigan Central, Detroit and the world. It will be 30 inclusive, vibrant, walkable acres, anchored by the iconic Michigan Central Station, with labs, work and innovation spaces, testing infrastructure, restaurants, retail, event and

exhibition spaces, public art, and indoor and outdoor community spaces. The grand waiting room, arcade and atrium will provide public spaces for all, while the tower will be transformed into modern office spaces. It will connect to the surrounding neighborhoods and the city through enhanced networks and preserve the area's history with a mix of old and new, including new and revitalized buildings. Working with and in the community, Michigan Central will prioritize the needs of local residents and businesses. It will open in 2023 with initial occupancy and phased activation thereafter.

Michigan Central will be a place where cutting-edge startups, experts from diverse fields, top academics and community leaders come together to develop solutions and expertise that address pressing societal challenges and help usher in a more accessible and sustainable future for all. Michigan Central is building a world-leading community focused on developing solutions and expertise at the intersection of mobility and society. Here mobility innovators from around the world will develop, test and launch new urban transportation solutions. Ford's vision for Corktown is part of its plan to reshape the future of global mobility by working with key partners and suppliers and connecting to a broader network of urban and regional resources and testing. Access to transportation means freedom of movement, and the way we move is changing rapidly. Ford's vision is a new approach for the future, it does not advocate integrating new technologies into an outdated urban transportation system, but creating new and innovative ways to help people get around and live better lives through autonomous and connected vehicles, smart roads and infrastructure, public transportation and micro-mobility. It is essential to test new technologies on real streets, in a dynamic urban community, to pave the way for a more connected, autonomous and electrified future. One of the most significant mobility projects in the United States is taking place on Michigan Avenue, which aims to become one of the world's first connected and autonomous vehicle corridors, connecting Corktown and Downtown Detroit to Ann Arbor and continuing Michigan's leadership in smart infrastructure and future mobility solutions. The Michigan Mobility Corridor has an



Michigan Central before and after the Ford Plan.
Source: Michigan Central Station Renovation | Development Plans

important goal: to close the long-standing gap in access to reliable public transportation in Southeast Michigan.

Greater Corktown

The City of Detroit launched the Greater Corktown Planning Framework study in 2019, the plan was developed by the city's Department of Planning and Development (PDD) and the Department of Housing and Revitalization (HRD). It is an initiative to engage residents in creating a plan that promotes inclusive growth in Detroit's oldest established neighborhood while preserving the community's unique character, cultural heritage and integrity. Greater Corktown is the name of the planning study area, which consists primarily of the North Corktown and Historic Corktown neighborhoods, with portions of the Core City and Hubbard Richard neighborhoods. The planning team, with the help of residents, identified challenges and opportunities and developed practical strategies for:

- Urban design and landscape;
- Development and zoning;
- Streetscapes and Connectivity;
- Enhancing the pedestrian experience;
- Historic preservation;
- Housing Development and Rehabilitation.

The Neighborhood Framework consists of recommendations derived from the Vision and Principles:

- **Vision:** "Corktown is a neighborhood with good bones - its existing streets, blocks, shops and parks set out the structure for its future - one that will play host to new and existing residents, businesses and visitors.";
- **Principles:** Corktown for Everyone - History and Heritage - Sustainable and Resilient - Safe Streets.

There are three frameworks around which this plan organized community input:

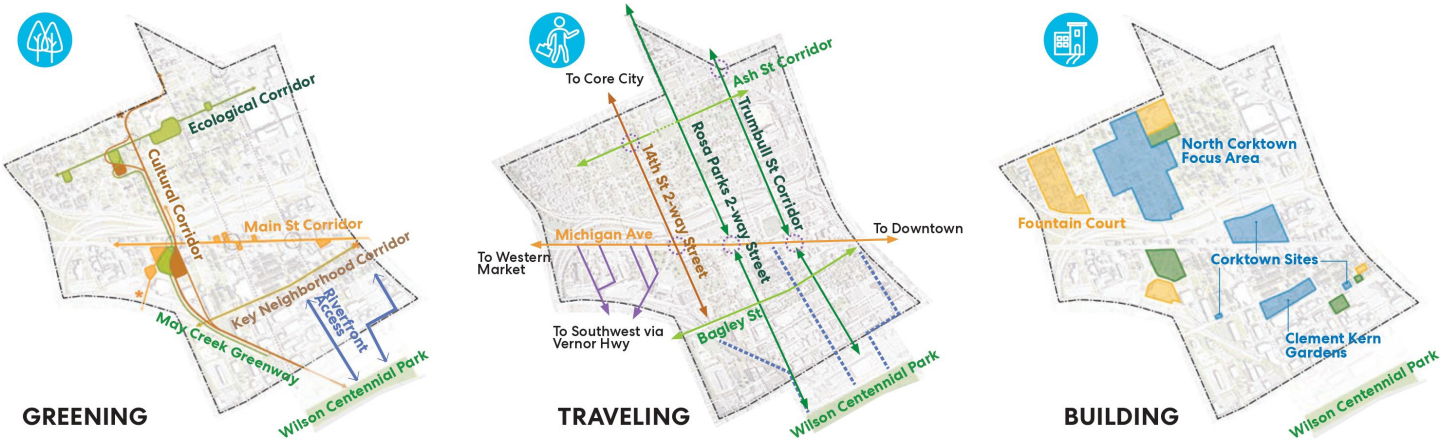
1. **Greening:** parks, open space, sustainability, ecology;

2. **Traveling:** circulation, traffic, parking, walking, transit;
3. **Building:** land use, development, housing, commercial uses.

The strategies are issue-based recommendations that apply to the entire study area:

- Create and Promote Inclusive Community
- Strengthen, Preserve and Increase Community-Serving Retail Options;
- Activate Publicly-Held Land;
- Implement Parking System Improvements;
- Promote Parks, Ecology, and Active Landscapes;
- Protect and Improve Community Managed Open Space;
- Provide a Comprehensive Network of Complete Streets;
- Integrate Transit Network Improvements;
- Strengthen Gateways and Connections.
- **North Corktown:** Ecological Corridor - Ash St, Cultural Corridor 14th Street, Neighborhood Links - Rosa Parks, Intersection Improvements, Community Hub at Owen School Site, North Corktown Development;
- **Historic Corktown:** Ecological Corridor - Bagley St, Cultural Corridor - 14th Street, Neighborhood Links - Rosa Parks, Intersection Improvements, Roosevelt Park, Michigan Ave Main St, Improved Access to Waterfront.

Greater Corktown Framework.
Source: Greater Corktown Framework Plan Final Report.pdf(Shared) - Adobe cloud storage



A centerpiece of this plan is to preserve and promote housing affordability to allow more units to be built at a lower price and provide an opportunity for owners to build wealth, by:

- Ensuring no displacement of existing affordable housing units in Historic Corktown;
- Expanding affordable housing options and encouraging home-ownership through subsidized housing projects and supportive services with mixed-income units;
- Identifing sites, consisting of public and private land, suitable for housing development;
- Pursuing federal funding strategies to implement the projects;
- Revisiting existing zoning ordinances to increase the density of residential development in certain nodes and allow accessory units.

The Plan casts a wide net of strategies to help moving the study area forward, with several key takeaways framing the following recommendations:

- Inclusive neighborhood development is a key driver of the goals to maintain and promote housing that is affordable, accessible and community oriented;
- The large amount of vacant land provides an opportunity for both development and preservation to maintain and respect the neighborhood's rich heritage and historic significance;
- Safe streets offer improved connectivity for vehicles, pedestrians and bicyclists through improved street and sidewalk design;
- Build on catalysts and existing investments;
- Addressing funding realities through partnership and collaboration among public, private, nonprofit and philanthropic entities, using this plan as a shared vision for the future;
- Build resilience through a mix of sustainable new and existing development, open spaces and parks.

Specific physical project recommendations are separated into North and Historic Corktown, recognizing the differences between the two neighborhoods.



Greater Corktown Plan.
Source: Greater Corktown Framework Plan Final Report.pdf(Shared) - Adobe cloud storage

The Implementation and Action Plan includes specific policies, funding, and land use recommendations to turn the ideas into reality. Funding the projects in this plan is not easy, but it is possible through a mix of public, private and philanthropic funding. The City and its stakeholders will need to work together and use the Plan as a roadmap and unified vision for the study area. Public capital will be needed to meet affordable housing goals and for infrastructure projects (including roads and parks).

A variety of tools are available within Corktown to help offset development, including:

- **District-based Tools:** New and expanded tools could significantly support development. Expanding the Neighborhood Enterprise Zone could encourage smaller residential projects by exempting them from higher taxes, while creating a Corridor Improvement Authority (CIA) or Targeted Redevelopment Area (TRA) could capture additional tax revenue to fund neighborhood improvements;
- **Site-specific Tools:** Targeted mitigation and financing tools could support individual projects. The Commercial Rehabilitation Act (CRA) and Obsolete Property Rehabilitation Act (OPRA)

can be applied to commercial properties to fund improvements and redevelopment, while Brownfield Tax Increment Financing can be used for site preparation and infrastructure improvements;

- **Other Relevant Funding Sources:** There are numerous local, state, philanthropic and private funding sources that can be combined with the other financing tools. Depending on the project, there are various targeted grants, loans, tax credits and abatement programs designed to remove barriers to neighborhood improvement.

Fighting Gentrification

In Corktown gentrification is beginning to affect the area, and the resulting problems could be negative for current residents. The biggest benefit of gentrification is that it brings in wealth, which provides the city with more tax revenue and encourages further growth. This can attract more wealth and repeat the process, revitalizing the area. The downside is that the wealthier people who move in end up displacing the current residents, who are probably poorer. When they leave, they take with them some of the culture and characteristics that attracted these areas in the first place. Newcomers to the area need to integrate into the existing community rather than create a bubble within it. Neighborhood residents are also often neglected and resentful of not receiving the resources they need. Detroit's recent recovery has favored areas around Downtown, Corktown is in that ring but a larger area of the city is not getting the attention it needs (Delonis, 2019).

Detroit has been selected to receive a $30 million grant from the U.S. Department of Housing and Urban Development's (HUD) highly competitive Choice Neighborhoods Initiative[37], to bring 500 units of affordable housing to the Corktown neighborhood. What was once a solidly working-class neighborhood has seen an influx of people from more affluent backgrounds, and housing and land costs have skyrocketed since Ford announced its investment. The project

37. The Chosen Neighborhoods Initiative (CNI) is a federal program that leverages significant public and private resources to support locally-driven strategies. These strategies are targeted to neighborhoods with high concentrations of public housing through a comprehensive approach.

is part of Mayor Mike Duggan's efforts to prevent gentrification and displacement as neighborhoods revitalize. Detroit is one of only five cities nationwide to be selected and will receive the largest amount offered through the Choice program. The grant is supported by partners including Ford and other economic development initiatives in the Greater Corktown area. The historic Detroit neighborhood, which has seen rising rents as a result of new development, will now see more than $200 million invested in 840 new housing units, at least 60% of which will be set aside as affordable housing to ensure that Detroiters of all income levels can afford to live there.

"*This is the city we are trying to build, where longtime Detroiters know they won't be pushed out by development and where residents of all income levels can live side by side in quality housing in any neighborhood in the city*", said Mayor Duggan.

The planning area for this initiative is bounded by Martin Luther King Jr. Boulevard on the north, Fort Street on the south, the Fisher Freeway on the west and the Lodge Freeway on the east, and includes both Historic Corktown and North Corktown. In addition to new housing, the grant will help the city leverage tens of millions of dollars in infrastructure improvements, better public spaces, more amenities and a community center with childhood education and health services for residents.

The Greater Corktown Framework Plan played a key role in the application to secure funding for the various projects throughout the neighborhood. As part of the application, the City of Detroit identified potential Critical Community Improvements (CCI) that consist of a limited number of high-impact, neighborhood-serving improvements designed to link new housing developments with existing resources. The plan focuses on three key areas:

1. **Left field of the former Tiger Stadium site:** The first phase of development on this 3.7 acre site along Fisher Service Drive and Cochrane Street will include a new $29 million, 120 unit building. 48 of the units will be affordable, with rents ranging from

30 to 80% of the Area Median Income (AMI). The project, developed by American Community Developers (ACD), was selected for Low Income Housing Tax Credit (LIHTC) funding;

2. **Clement Kern Gardens:** This 7 acre site, owned by ACD, currently has 87 units of townhome-style affordable housing built in 1985. When it was built, the site was closed off with berms and a fence, and roads were cut. According to the plan, the structures will be demolished and rebuilt in phases, and all existing residents will have the option to remain in the rebuilt Clement Kern Gardens or be given priority to move to another Corktown property. They will be offered the option to stay and will not pay higher rents for their new, higher quality units. Their rents will continue to be based on income, and their housing needs and status will be prioritized throughout the project. The site will also see the restoration of the street grid to reconnect the community to the neighborhood, and the addition of mixed-income housing to create a more integrated community;
3. **North Corktown:** This area has 143 vacant, publicly-owned lots on 14.6 acres that will be transformed into new housing. The framework also calls for a new neighborhood service center and outdoor recreation area at the former Owen School site.

5



Cunningham Warehouse, Detroit
Personal photo

DESIGN PROJECT

Adaptive Reuse

The concept of adaptive reuse was introduced to the field of architecture in the 1960s and 1970s as a result of increasing attention to environmental concerns. This paradigm has attracted more attention in the last decade to redevelop historic buildings and urban areas, it can be considered as a stimulating approach to architecture and urban design. Adaptive reuse addresses the promotion of sustainable development, with a special focus on the adaptation of the existing built environment and the promotion of the circular economy model, with specific attempts to improve the local economy, environment, social conditions and the transfer of identity to future generations. In this sense, the adaptive reuse paradigm also fits into the debate on the balance between social, cultural, functional, environmental and economic objectives. Moreover, when applied to the revitalization of historic buildings or urban areas, it aims to meet the needs of communities while preserving their historical significance and cultural value. When dealing with adaptive reuse decision-making, a variety of issues and challenges arise, creating complex and multidimensional problems. The decision-making process is complex and requires the involvement of stakeholders in assessment and decisions to determine the most appropriate future for a building in a particular place and time. The assessment of adaptive reuse for architectural heritage is a multi-stakeholder process that includes the preservation of historical, economic, scientific and aesthetic value, as well as medium- and long-term development visions combined with planning actions (Bottero, Datola, Fazzari, Ingaramo, 2022).

The Corktown neighborhood was selected as a case study because of the multifaceted and multidimensional challenges that the adaptive reuse of a large, currently unused building within the neighborhood, would face. It embodies several principles of the adaptive reuse paradigm, from selecting the most appropriate function for transformation to integrating sustainable development, including social, economic and environmental considerations. A new approach is proposed for a Detroit neighborhood that encourages a new form of urban manufacturing, elevating the historic district to an updated urban center that promotes new forms of aggregation rather

than segregation, sharing rather than perpetuating the individuality inherited from the past. The scenario of a future Corktown shifts the focus away from the center of work activities to a new system that makes adaptive reuse a strength, creating urban spaces in favor of new forms of aggregation and slow mobility.

Project Area

The project area consists of three warehouse buildings for sale located in an opportunity zone, in the heart of Corktown within walking distance to retail, restaurants and bars.

Property informations:

- **Location:** 1927, 1924, 1551 Rosa Parks Boulevard;
- **Cross Streets:** Bagley Street;
- **Zoning:** Industrial M-2;
- **Property Type:** Industrial, Mixed Use;
- **Subtype:** Distribution, Warehouse, Manufacturing, Flex Space, Light Industrial;
- **Year Built:** 1921 - 1987;
- **Total Building Available:** 314.864 square feet;
- **Acreage:** 7.740;
- **Stories:** 1 - 2;

Project area.
Source: Industrial Property Portfolio for Sale in Detroit, MI (crexi.com)
Personal rework.



- **Clear Height:** 12’ - 30’;
- **Grade Level Doors:** 24 (12 x 14), (10 x 12);
- **Truck wells or Docks:** 4;
- **Roof Type:** Flat;
- **Construction/Siding:** Steel Frame;
- **Exterior Construction:** Steel/Masonry;
- **Parking:** Ample/Fenced;
- **Lease Rate:** $5.75/sq.ft. G+U;
- **Sale Price:** $15.000,000 (1927, 1924 Rosa Parks Boulevard);
- **Taxes:** $56.067,81 (2021);
- **Tenancy:** Multiple Tenants;
- **Ownership:** CDS Properties, 1551 Rosa Parks LLC;
- **Former tenants:** Bailey Telecommunications (Information), Bhullar Imports Inc (Retailer), Hartiage Works (Services), Old Newsboy Goodfellow Fund (Services), Vetbuilt (Professional, Scientific, and Technical Services), WMP Investments LLC (Finance and Insurance).







1927 Rosa Parks Boulevard - Cunningham Warehouse

Characteristics of the building:

- 271.797 square feet;
- 18’ - 30’ ceiling height;
- 16 (12x14) grade level doors;
- 16 structures on parcel;
- Built in 1921;
- CDS Properties;
- $1.302,200;
- Warehouses - Storage Building;
- Great soaring ceilings, exposed brick and windows for natural light.



An additional parking lot associated with this site is located at 1720 Rosa Parks Boulevard:

- 25.968 square feet;
- CDS Properties;
- $82.100 total parcel value;
- Parking lot paved - Industrial Vacant.

Cunningham Drug was a Detroit based drugstore chain founded in 1889 by Andrew Cunningham. Through mergers with other chains between 1931 and 1964, it became the largest drugstore chain in Michigan and it had locations in several other States. Cunningham also had some small drugstores in Michigan branded as Schettler's in major hotels and upscale retail establishments. A small number of Cunningham's were renamed Dot Discount, an experiment that lasted a couple of decades, several years after all Cunningham's in the Detroit area had closed. The chain sold twenty-eight of its Michigan stores to a private company in 1982, which renamed them Apex Drug and later sold them to Perry Drug Stores, another Detroit area chain. Because of the crisis, the remaining stores were gradually sold or closed, and in late 1991 the last five in operation, all in Florida, were sold to Walgreens.



Cunningham Warehouse.
Sources: (423) Pinterest



Cunningham's Drug Store, 1976.
Sources: Cunningham Drugs, Detroit, Michigan, 1976 - The Henry Ford



1927 Rosa Parks Boulevard today.
Personal photos.



The analysis of the building facades makes it possible to understand the successive historical phases that have affected it. These are mainly modifications made to the skeleton of the building (i.e. subtractions and additions of volumes, but also openings and closings of windows and doors). They have probably been modified according to the uses, and therefore the needs, that must have taken place in the building over the course of time. Storage activities, which required an enclosed environment protected from natural light, led to closing off the original windows with brick infill and the insertion of smaller and smaller openings.

The Project's intention is to remove the infill and bring back the large windows that characterize the building as an example of a Daylight Factory, whose architectural aspects of flexibility and transparency will be taken up.

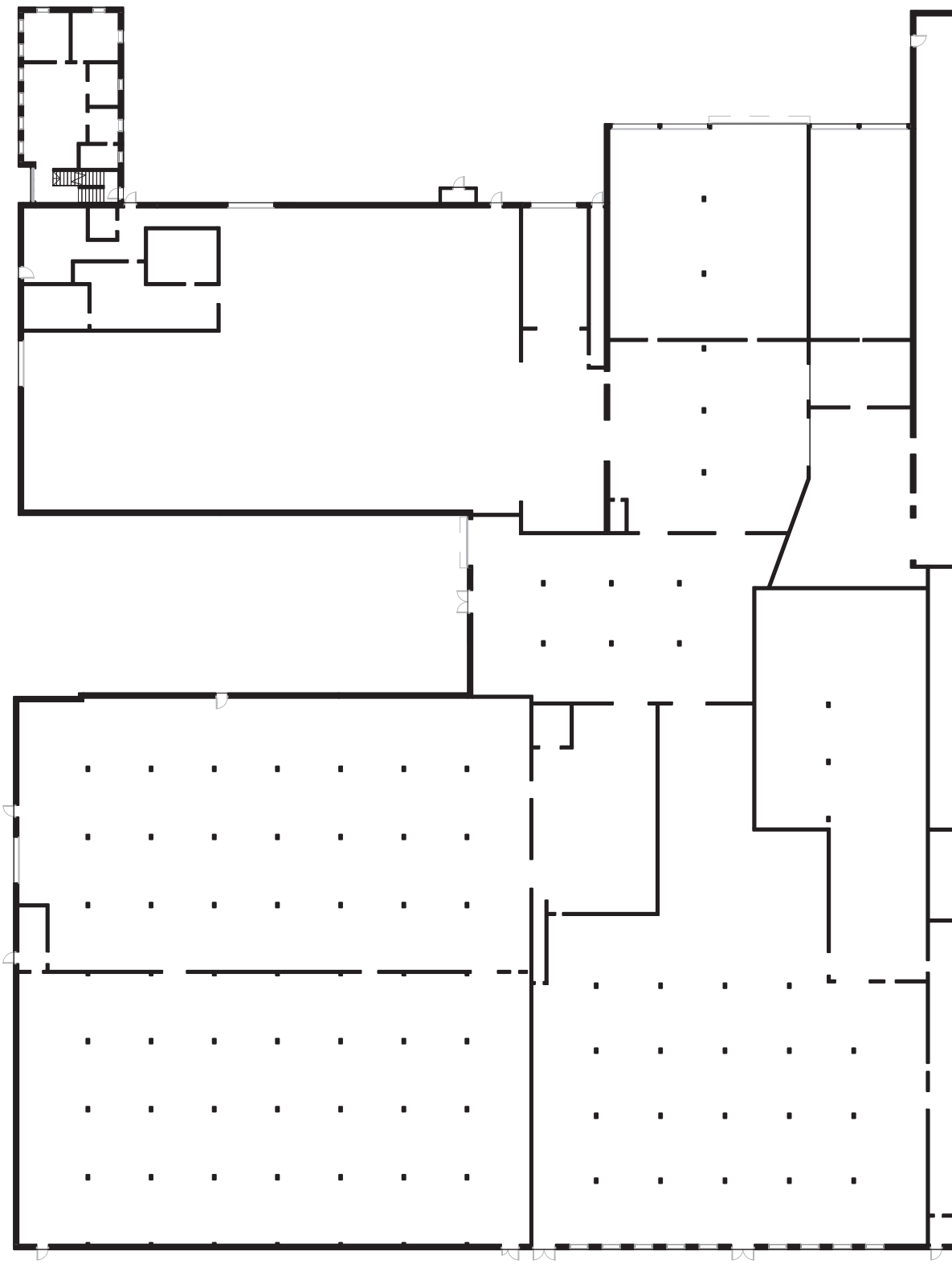
The facades of the building are almost entirely clad in brick, with colors ranging from orange to red. The use of brick on the facade, which is more noble than concrete, represented the intention to ennoble the building when it was used for commercial purposes. For this reason, in the design phase, there is the desire to preserve this cladding as much as possible.







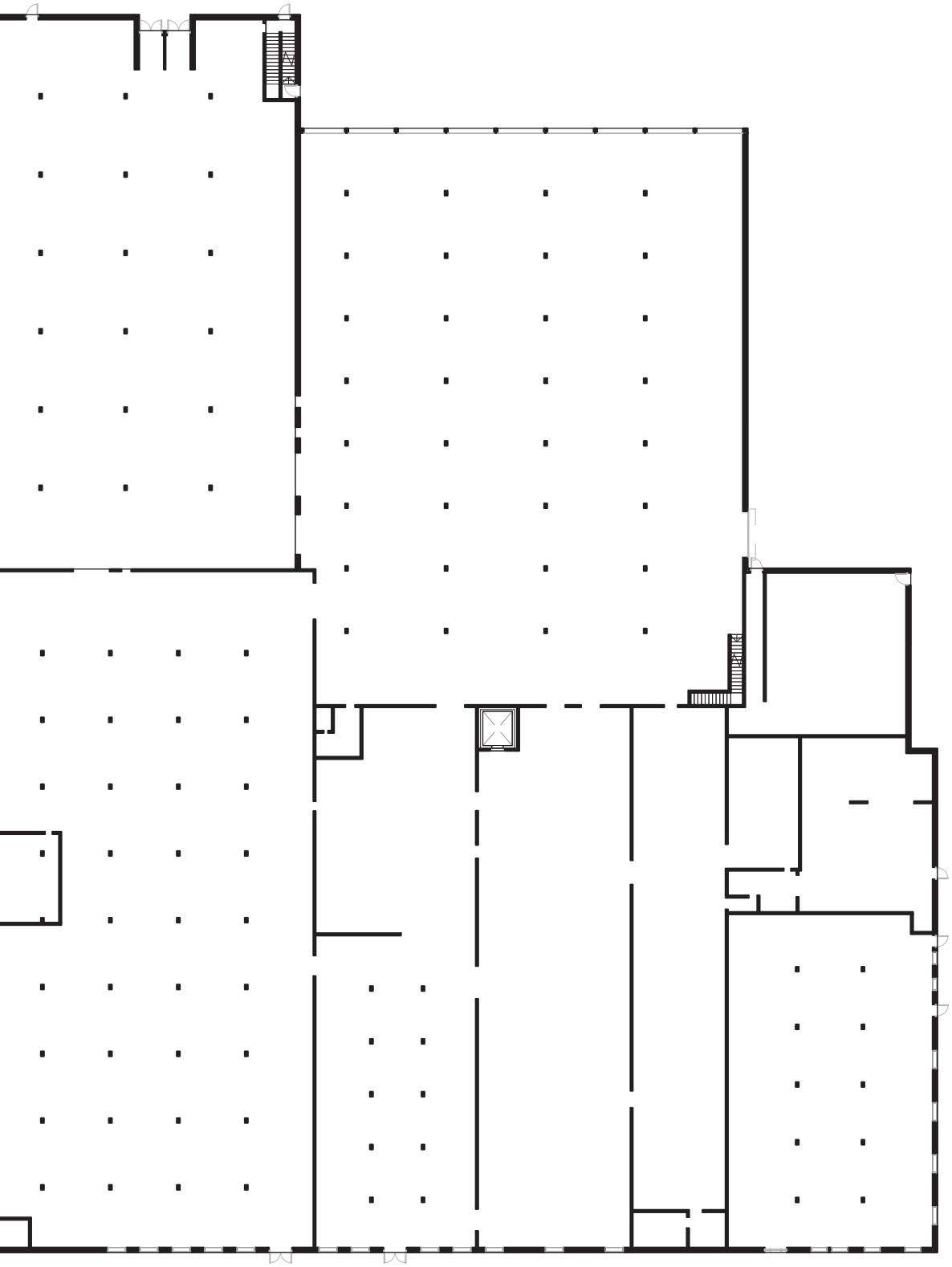


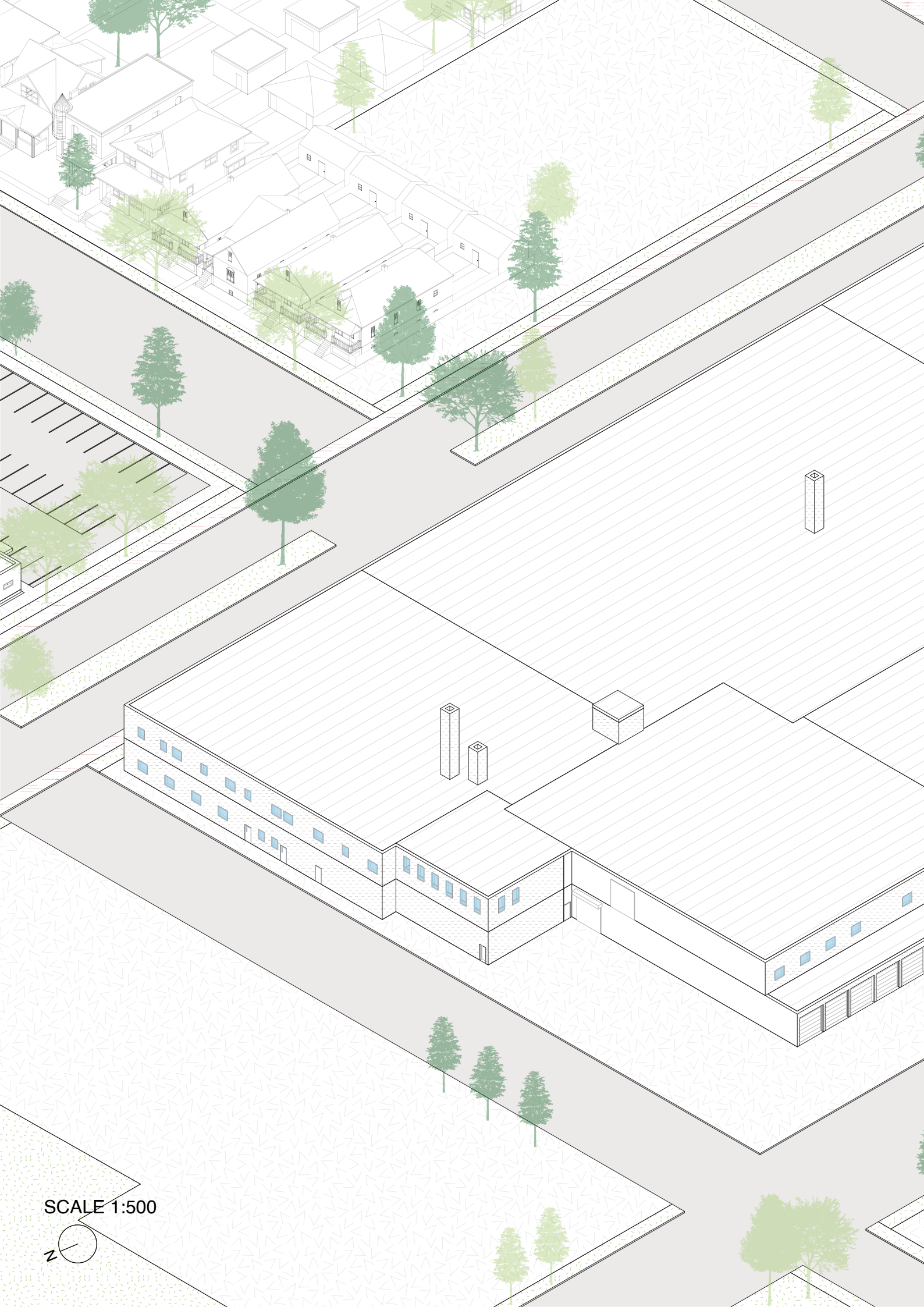


SCALE 1:500

N

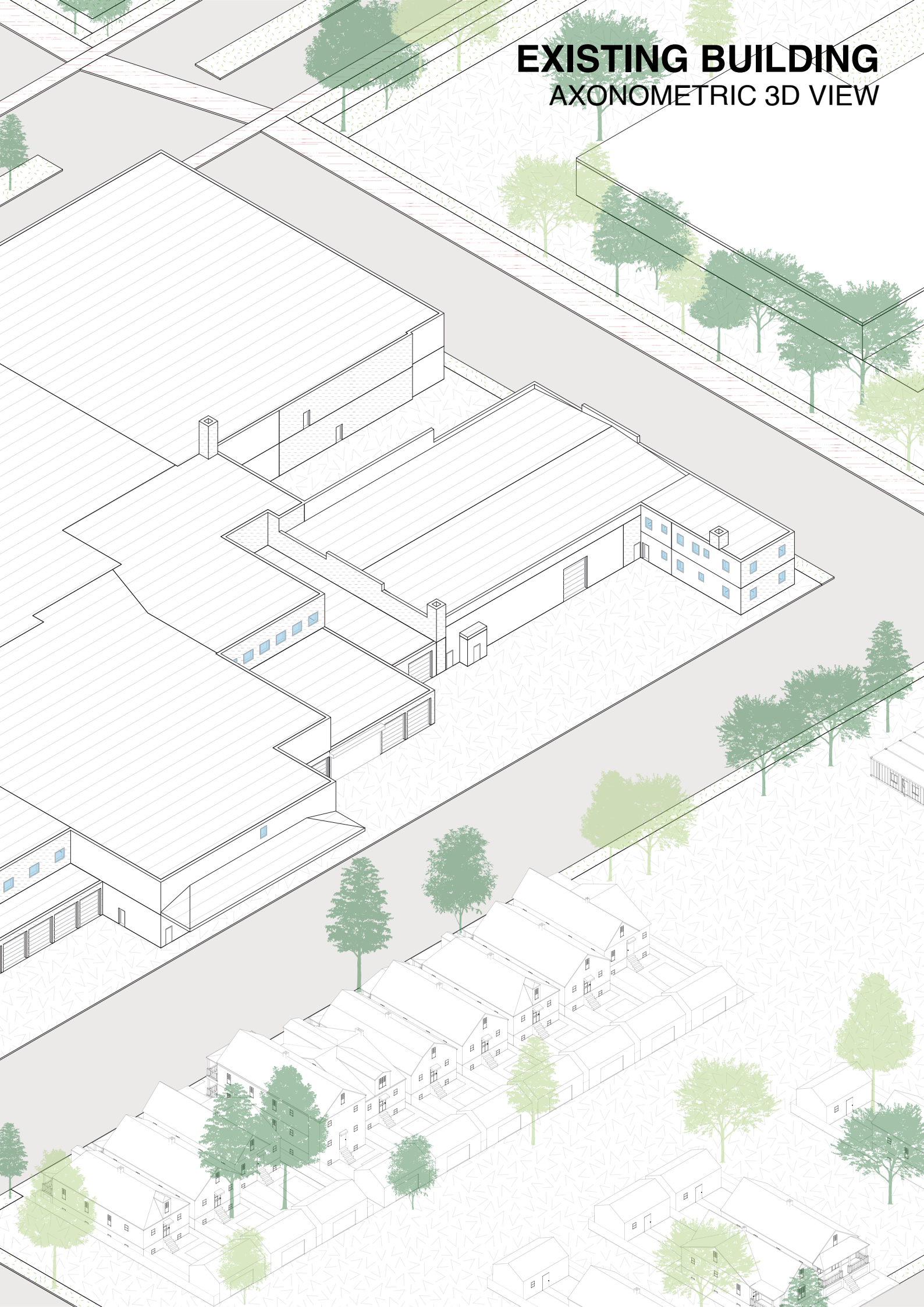
EXISTING BUILDING
GROUND FLOOR PLAN




SCALE 1:500
N

EXISTING BUILDING

AXONOMETRIC 3D VIEW



Architectural Design

The goal of the project is to create a new typology of Uban Manufacturing space, a mixed-use building that blends into the urban context of the existing fabric and can be replicated in the many buildings with similar characteristics to the one being studied, in Detroit and beyond.

Architecturally, the first step taken was to act on the existing building through a series of subtractions and replacements. The pre-existing portions that were chosen for demolition were considered the least relevant from a historic preservation viewpoint.
It was decided to subtract parts of the building and maintain their trace by inserting full-height glazing. The same type of intervention was carried out where these subtractions had already occurred in the past and where the building appeared somehow cut off.

The next phase of the project was to figure out how to reuse such a large space, by subdividing it and creating separate, but still somehow interconnected, environments. This was done by identifying the items each Makerspace might need, organized by category (Machinery, Storage, Workbench, Leisure) and by size (S, M, L, XL). These spaces were then assembled through a matrix of block intersections in accordance with the spatial and design needs of each Makerspace.
The result was 15 different laboratories of 4 dimensions:

- **S:** Jewelry - Graphic Design - Coding;
- **M:** Health and Beauty - Painting - Electronics - Textile;
- **L:** Sculpture - Music - Photography - Robotics;
- **XL:** Industrial Design - Metalwork - Woodwork - FabLab.

To these Makerspaces it should then be added a series of additional indoor and outdoor spaces designed according to the same dimensional scheme:

- **S:** Green Area;
- **M:** Shop;
- **L:** Apartment - Gym - Outdoor Sport Area - Restaurant;
- **XL:** Bar - Shared Kitchen - Outdoor Play Area;

- **XXL:** Concert Hall - Art Gallery.

In order to best arrange these spaces within the project area, they were divided into 4 categories (Laboratory, Studio, Flexible Space and Digital Space) to better analyze their needs according to spatial, acoustic, lighting characteristics, number of users, type of work, and so on.

This spaces are then accompanied by accessory rooms, which can be divided into different categories:

- **Leisure:** Entrance Hall - Common Space - Lounge Area - Outdoor Patio - Outdoor Green Court - Indoor Event Space - Outdoor Terrace;
- **Administration:** Administration Room - Offices - Human Resources - Reception - Ticket Office;
- **Utility:** Raw Materials / Components Storage - Finished Goods Storage - Closet - Bathrooms - Technical Room - Laundry Room;
- **Distribution:** Stairs - Elevator - Industrial Elevator - Hallway;
- **Other:** Coworking - Conference Room - Meeting Room.

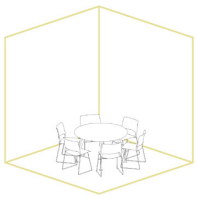
The latter spaces are flexible and multifunctional environments that can accommodate classes, meetings, conferences, community gatherings, training and educational programs for children, and more.

Some Makerspaces (Jewelry - Health and Beauty - Painting - Textile - Sculpture) are designed to have their own shop within the building, directly connected to the lab and facing the street, to facilitate the process of affirmation within the community. On the ground floor there is a large Outdoor Exhibition Space / Art Gallery for those who want to exhibit the work produced in the building spaces, two Outdoor Terraces and the Restaurant has an Outdoor Green Court with outside tables.
The location of the retail and dining spaces on the ground floor is meant to encourage people to experience the street and revitalize the public space, the intent is to reintegrate manufacturing into the urban fabric.

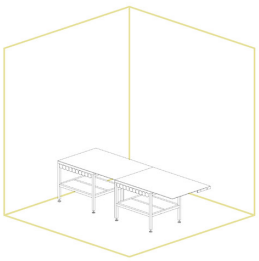
Workbench



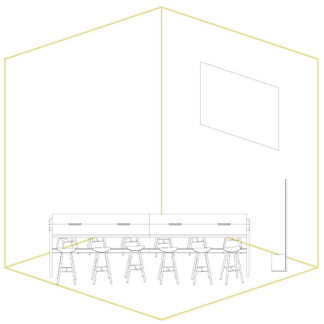
S



M

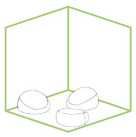


L

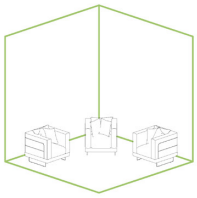


XL

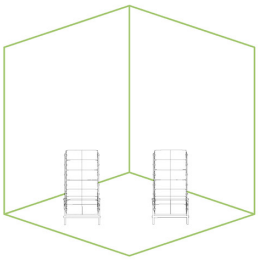
Leisure



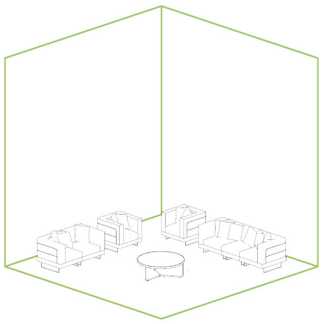
S



M

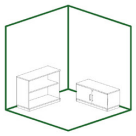


L

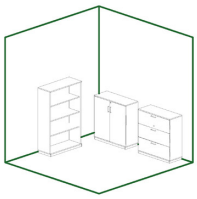


XL

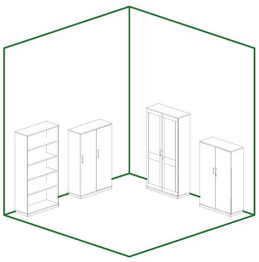
Storage



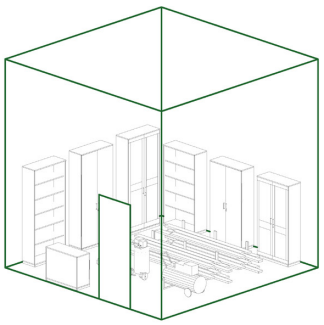
S



M



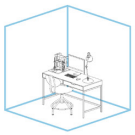
L



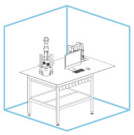
XL

MAKERSPACES ELEMENTS

Machinery



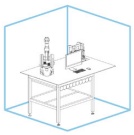
S



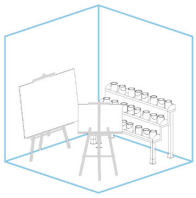
S



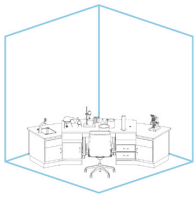
S



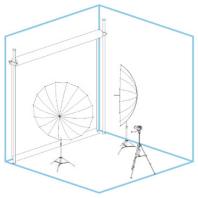
S



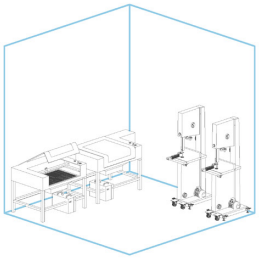
M



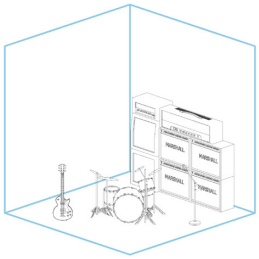
M



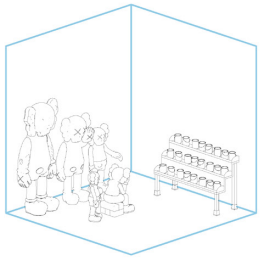
M



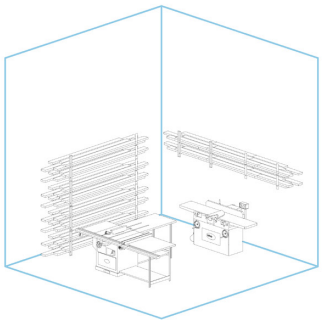
L



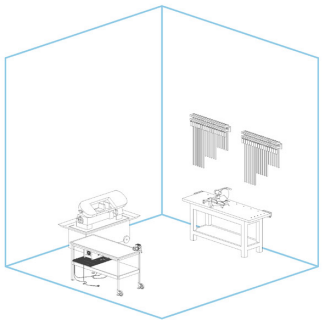
L



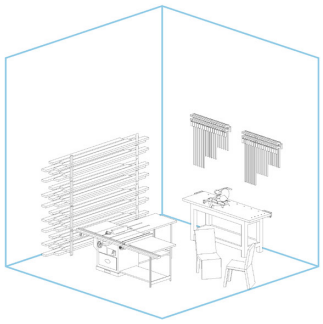
L



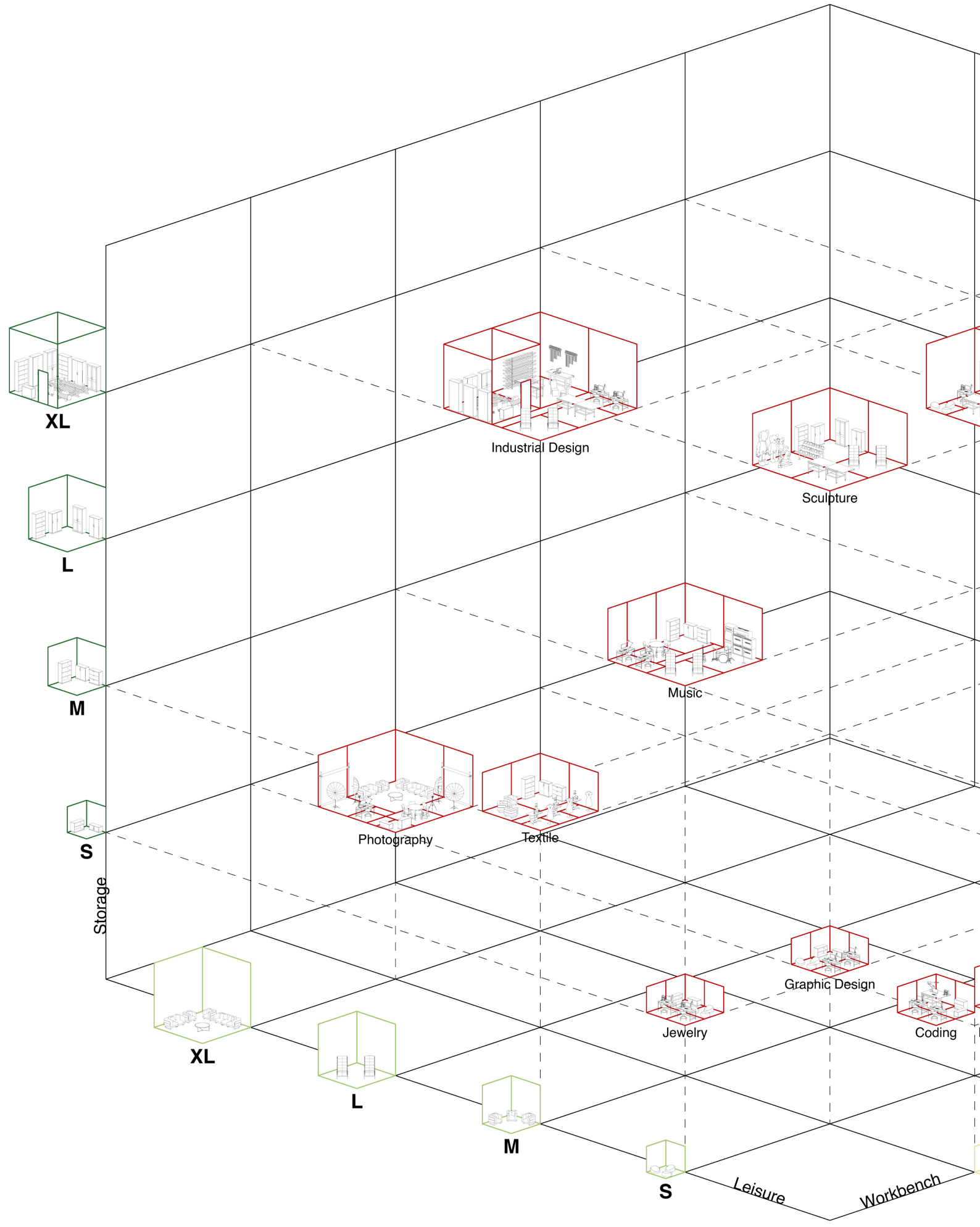
XL



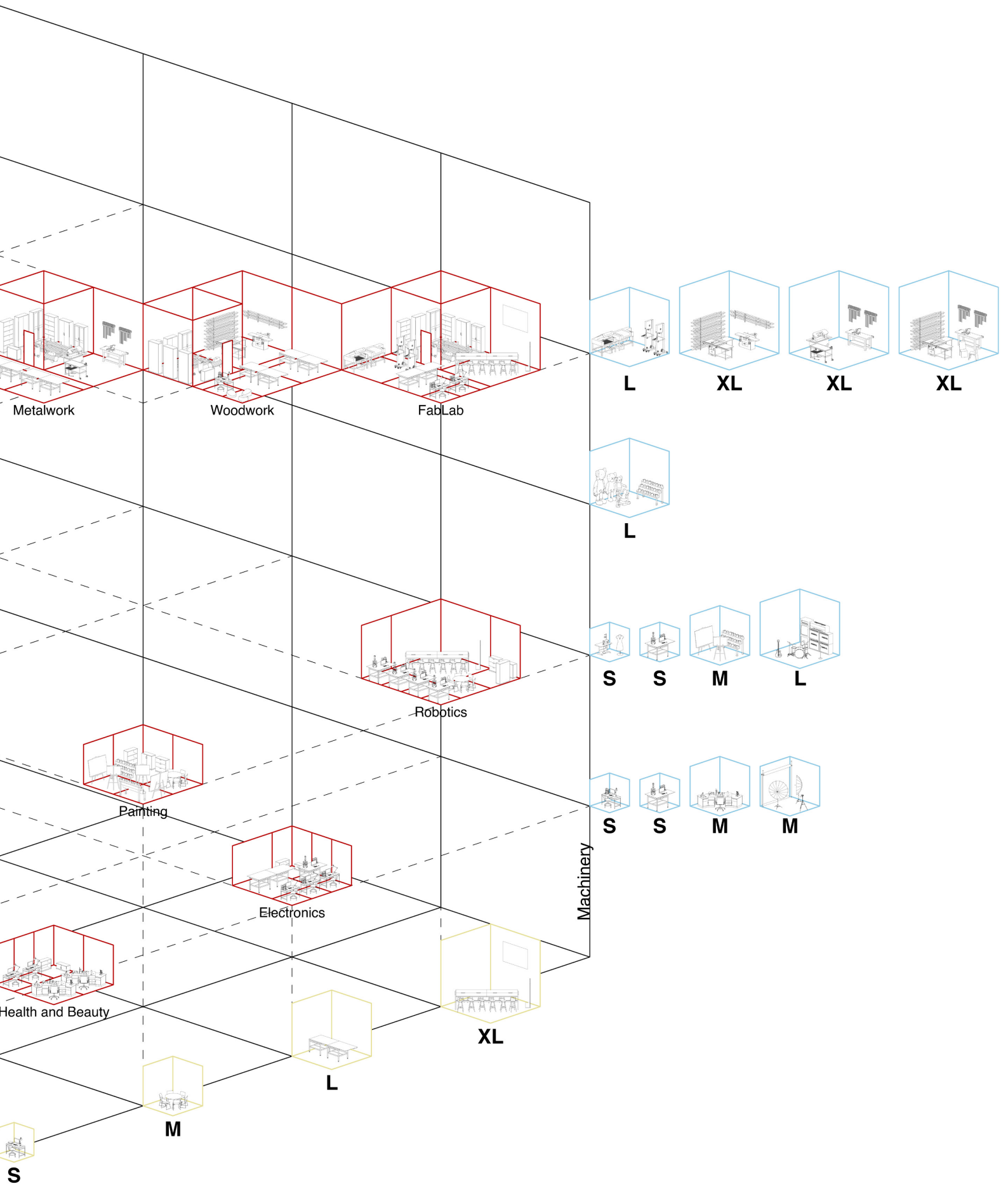
XL



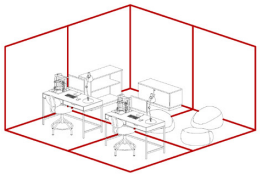
XL


XL
L
M
S
Storage
Industrial Design
Sculpture
Music
Photography
Textile
Graphic Design
Jewelry
Coding
XL
L
M
S
Leisure
Workbench

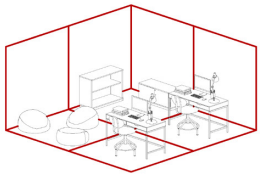
MAKERSPACES MATRIX



S

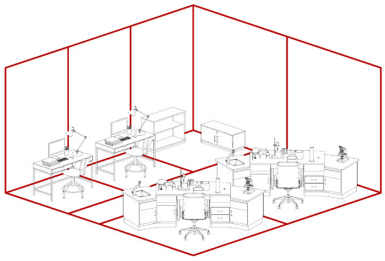


Jewelry

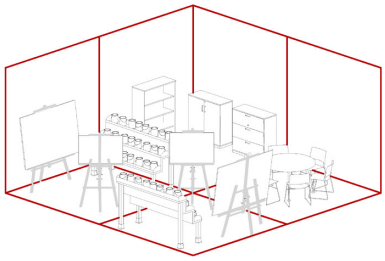


Graphic Design

M

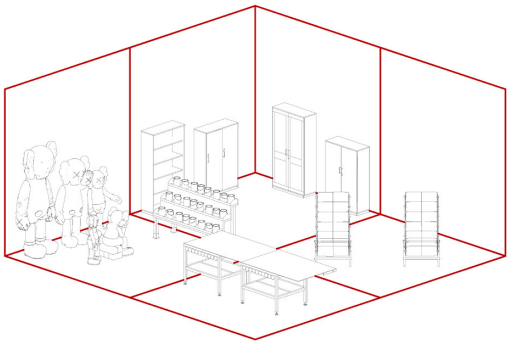


Health and Beauty

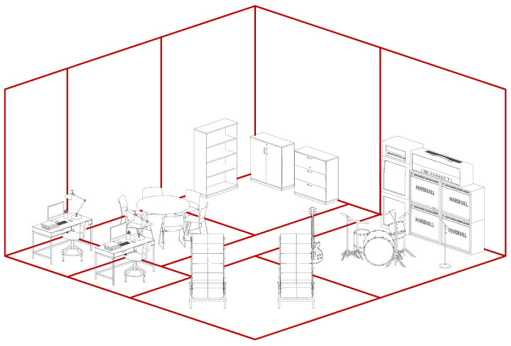


Painting

L

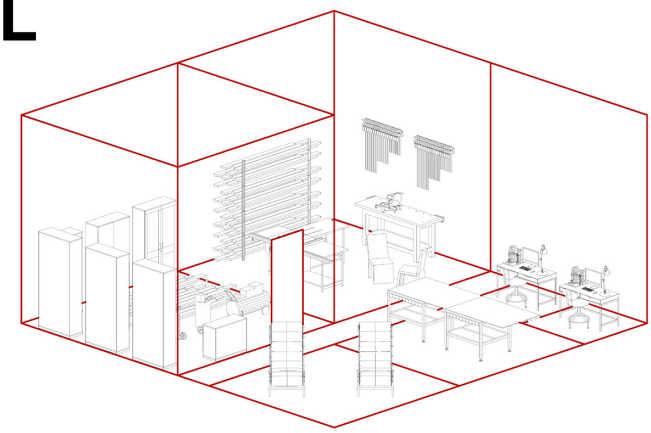


Sculpture

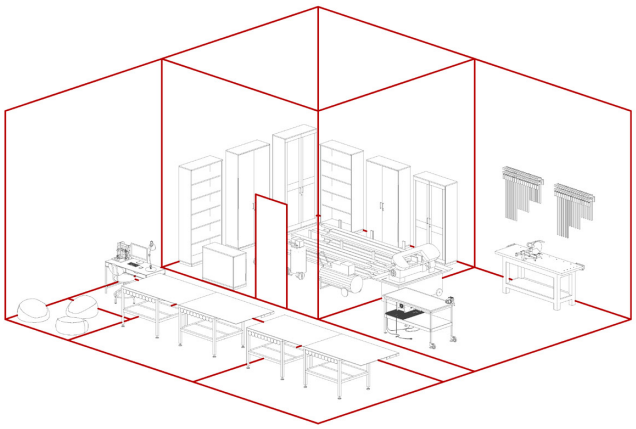


Music

XL

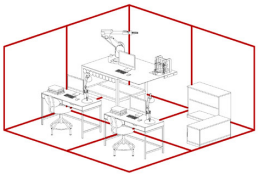


Industrial Design

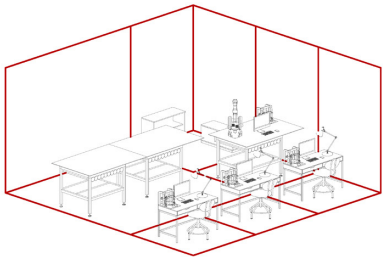


Metalwork

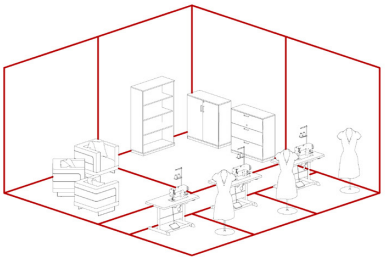
MAKERSPACES



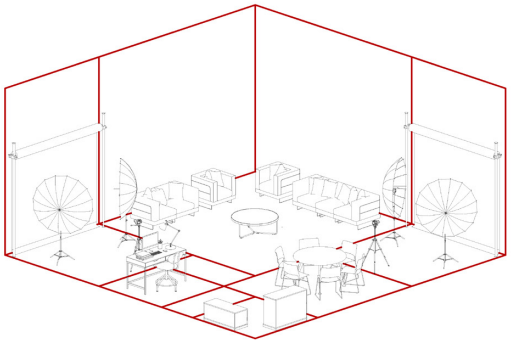
Coding



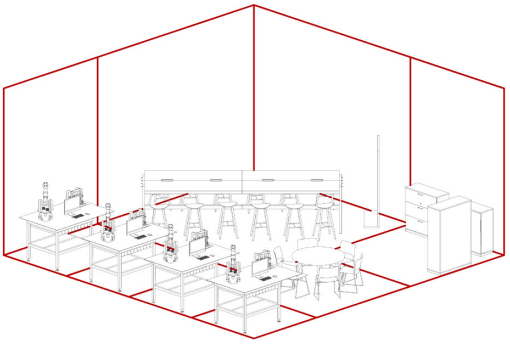
Electronics



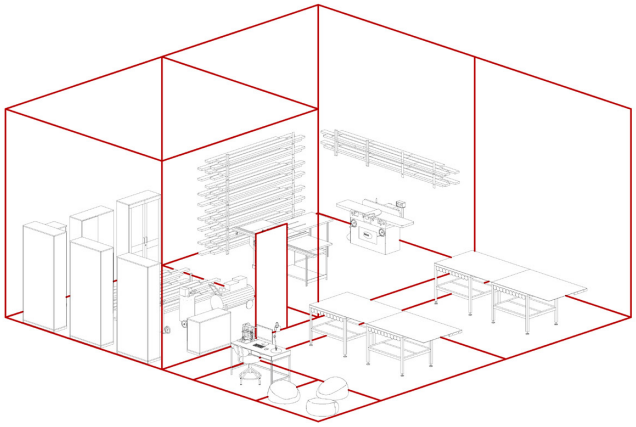
Textile



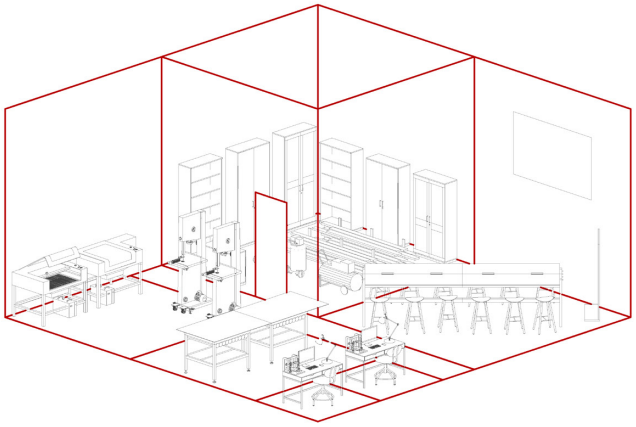
Photography



Robotics

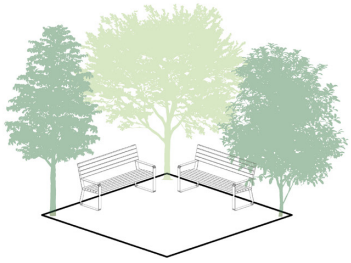


Woodwork



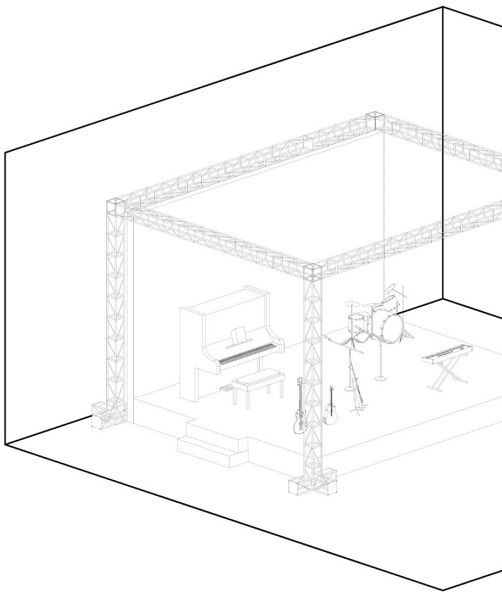
FabLab

S



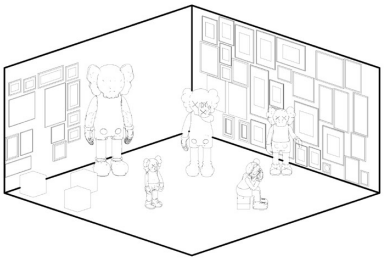
Green Area

XXL



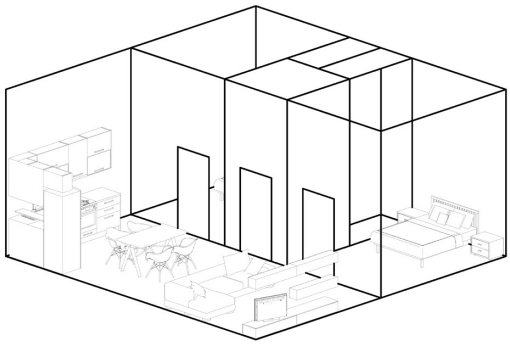
Concert H

M

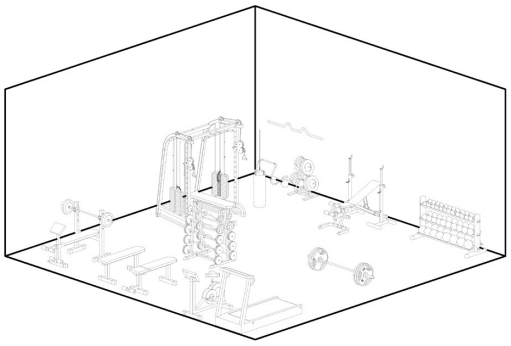


Shop

L

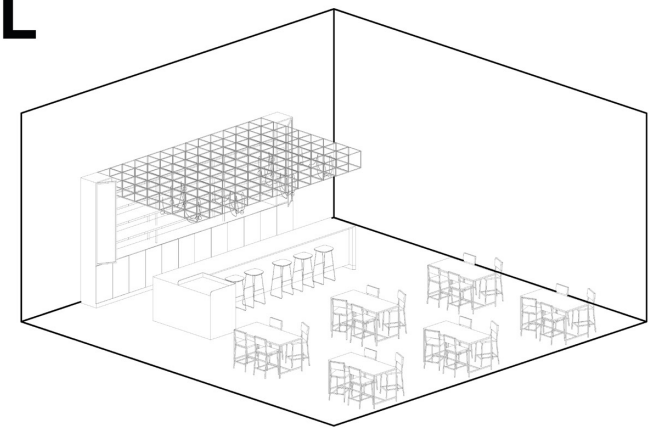


Apartment

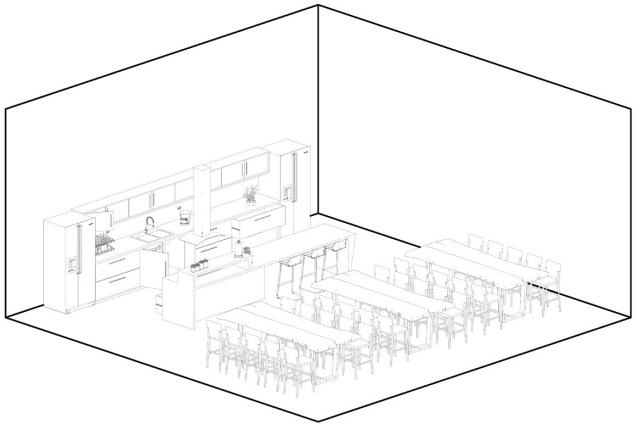


Gym

XL

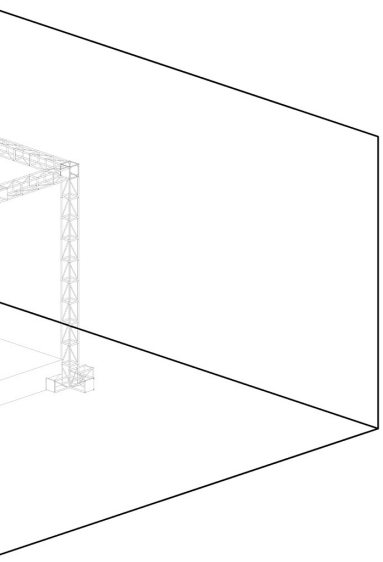


Bar

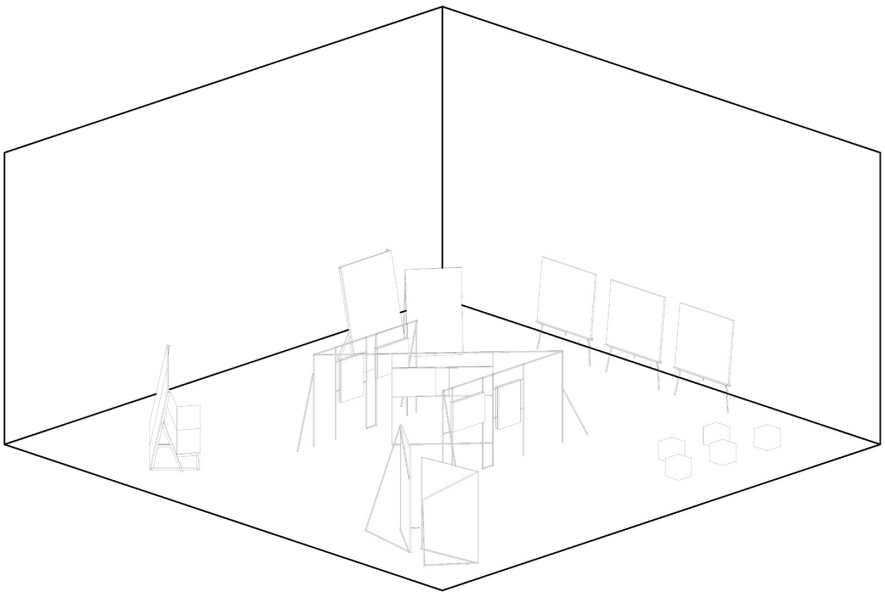


Shared Kitchen

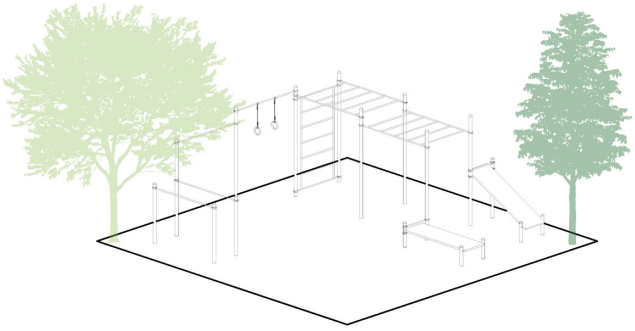
ADDITIONAL SPACES



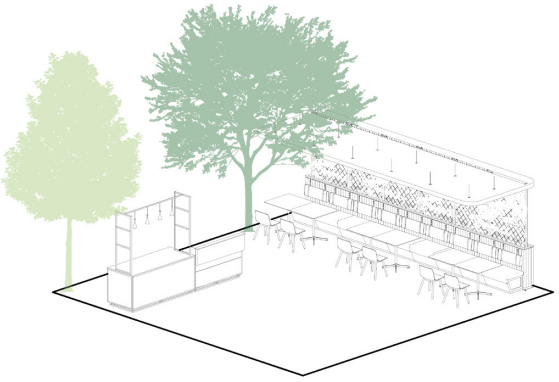
Hall



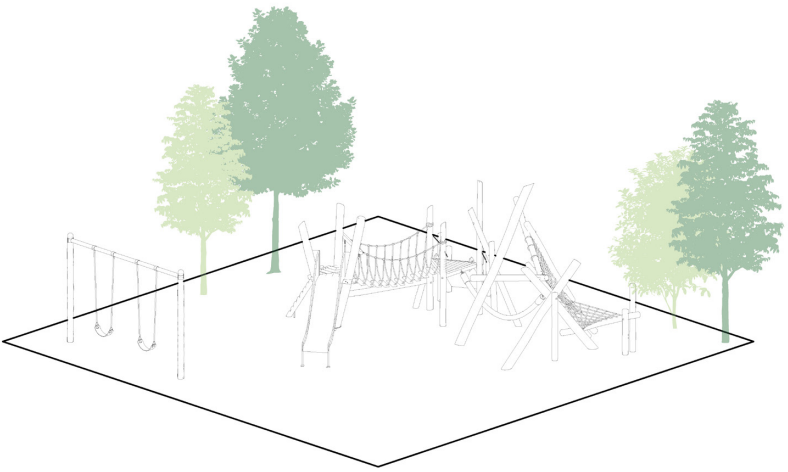
Art Gallery



Outdoor Sport Area

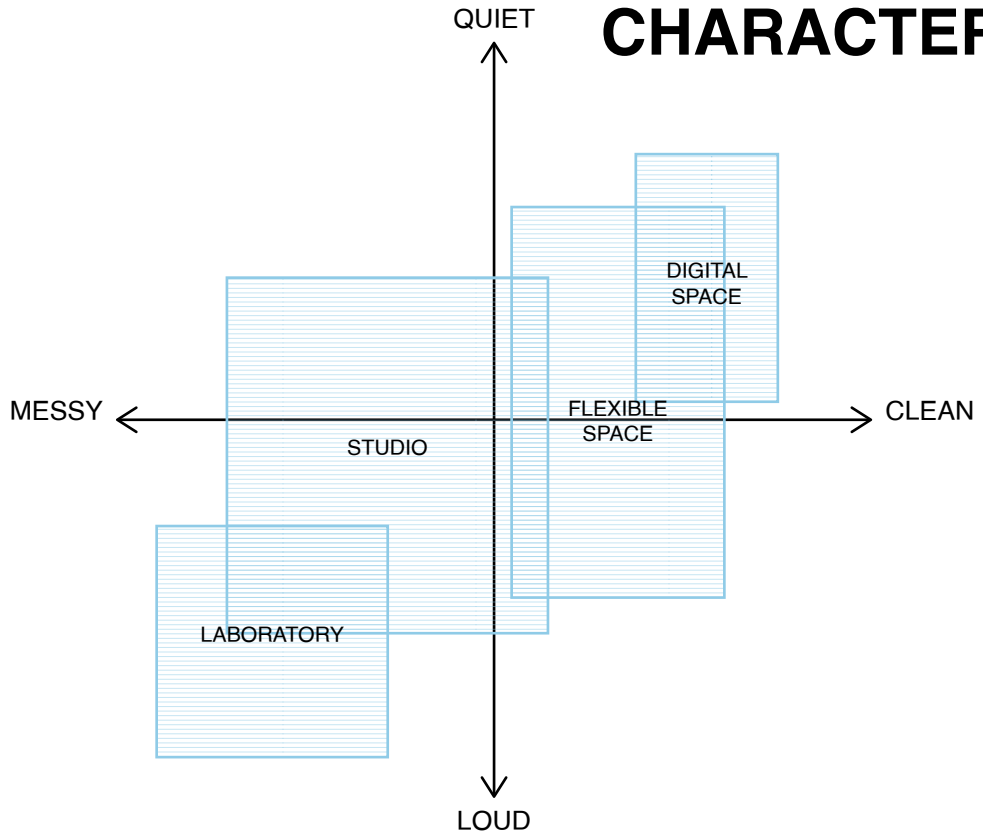


Restaurant

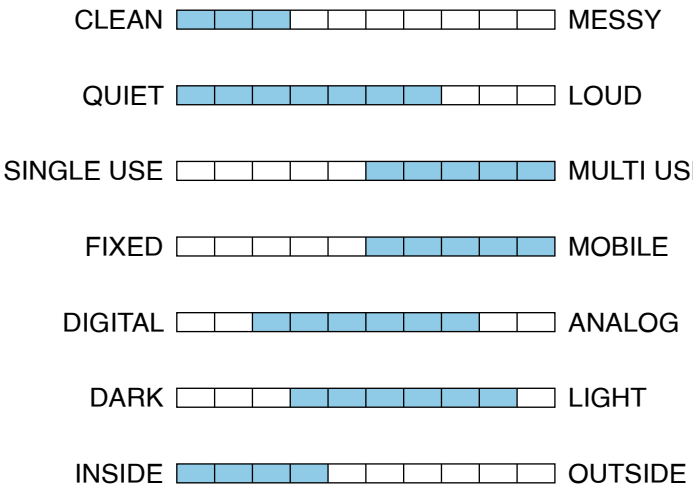


Outdoor Play Area

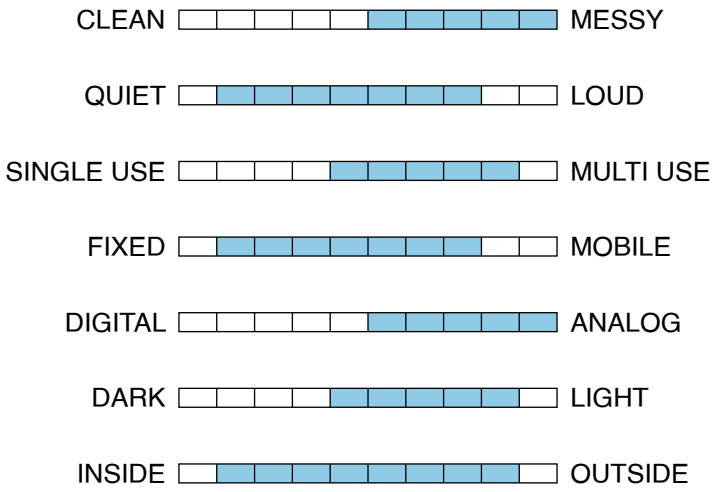
CHARACTERISTICS



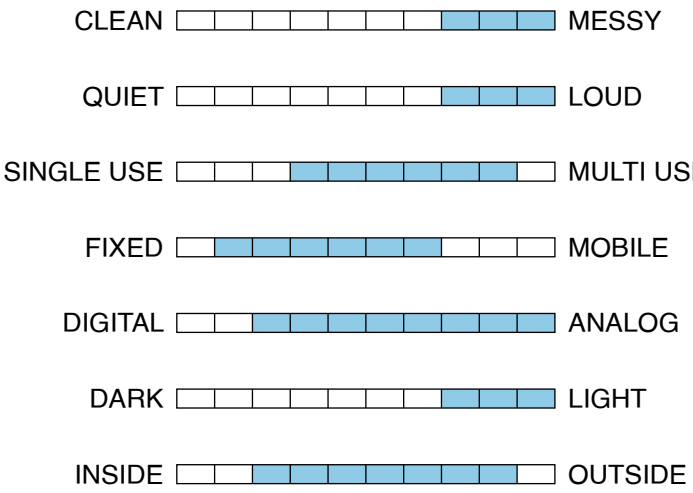
FLEXIBLE SPACE



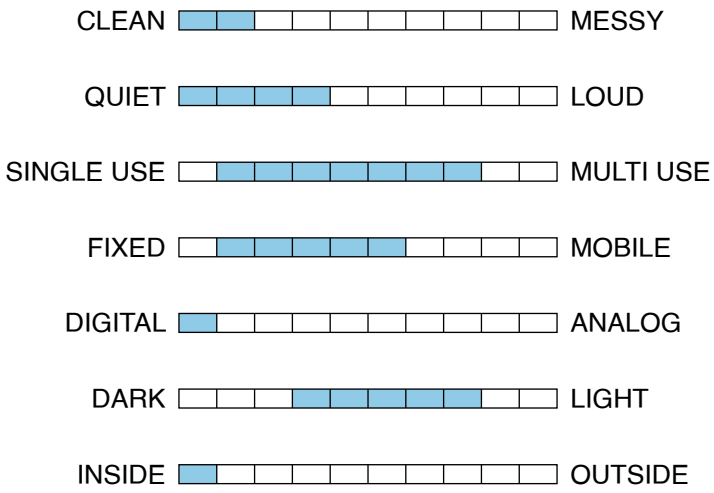
STUDIO



LABORATORY



DIGITAL SPACE



The city today is the place where people work, live and consume, activating a process of urban symbiosis, a dynamic synergy and mix of functions, activities and mobility between residents, workers and the production system. Based on this phenomenon, the factory becomes an ecosystem open to the city, defined on the one hand by the imposing static nature of the red brick skeleton and on the other by the dynamic nature of the production and manufacturing activities, visible through the large transparent windows.
The principle of transparency is promoted in Urban Manufacture through a reference to Nina Rappaport's Spectacle Factory. This criteria aims for a direct connection between manufacturing spaces and the surrounding urban area, allowing passersby to observe the production process or part of it.
Transparency generates economic value by attracting new consumers and visitors, together with social value for the community by engaging and educating the public about production and "know how".

In the reuse of the building's interior, an effort was made to preserve the existing partitions as much as possible and to add mainly transparent vertical walls to separate the different laboratories and spaces, while keeping them connected to each other.
According to the principle of Adaptive Reuse, the structural skeleton of the building is maintained, the contents are adapted to the container, and the potential of the existing structures is maximized by subdividing the interiors as needed, providing private/semi-private spaces within the collective and public ones.

A separate discussion is needed for the building area dedicated to housing; affordable rentable apartments were included to allow some of Detroit's makers and others to live and work in the same place. These spaces are equipped with all the facilities of shared living, but also with all the private spaces one may need. There are a total of 18 apartments, five on one level and 13 on two levels.

- Apartments on one level consist of: Living room - Kitchen - Bathroom - Double Bedroom (one or two depending on the size of

the apartment).

- The two level apartments are lofts consisting of: Kitchen - Bathroom - Double Bedroom - Single Bedroom (or another Double Bedroom for larger ones) - Walk-in Closet - Living Room - Private Studio.

There are multiple entrances on all sides of the building, most are for workers only, others are open to the public and some are for the exclusive use of residents. There are also loading/unloading docks at the beginning and end of production chains, where raw materials enter and finished goods leave. These production chains are designed specifically for each Makerspace based on its size and needs, connecting raw material entry points to finished product exit ones, via storage areas. Industrial elevators make it possible to extend the chains and create production areas also on the second floor.

The next phase consisted of adding new volumes to the existing building, using materials and forms that contrasted with those already in place, while maintaining the industrial design style. Lighter, metal-framed steel and glass volumes were added to the exposed brick and plaster basement.
These are three different blocks that have been added to what previously was the roof system:

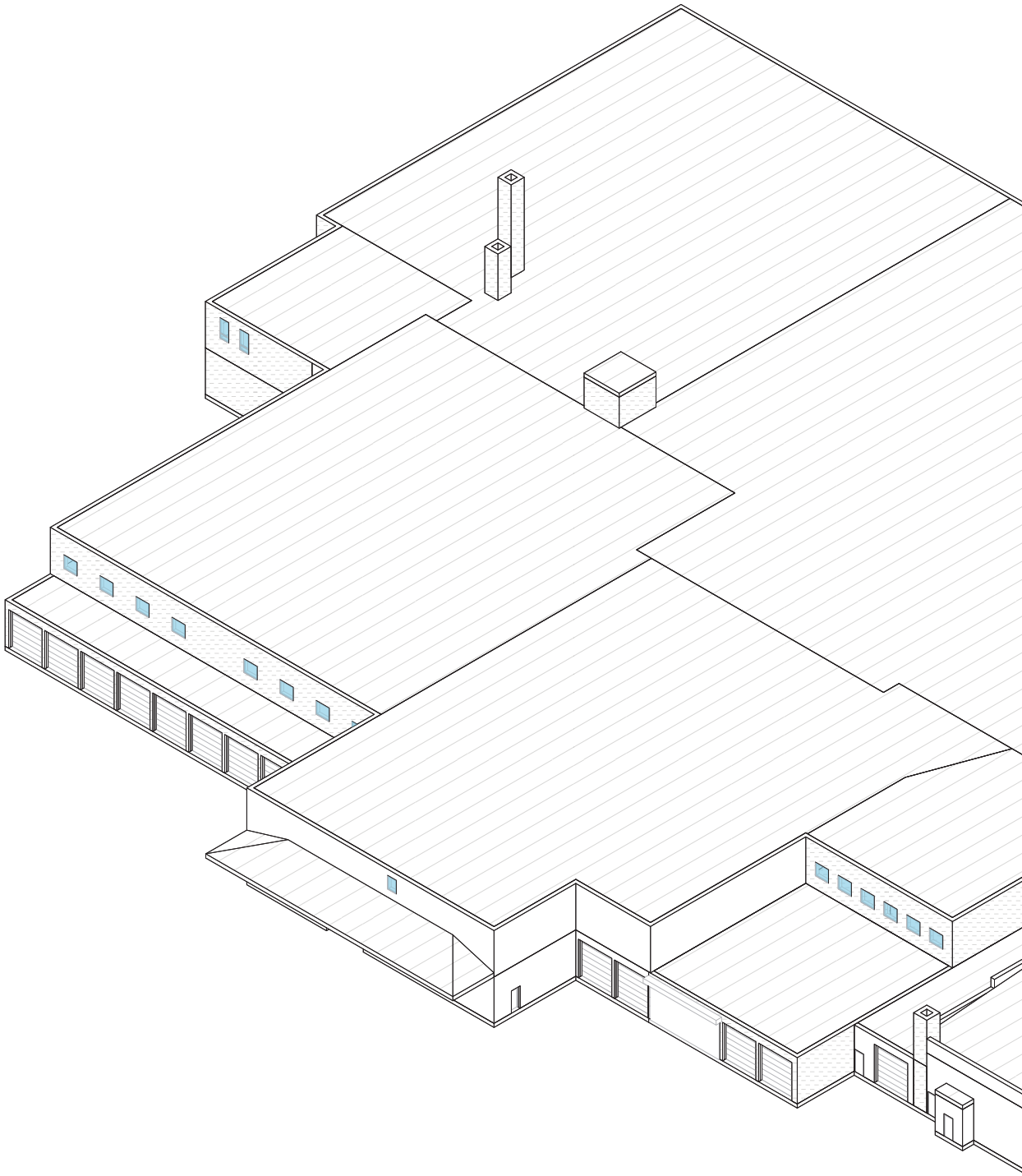
1. The first block consists of the two-story apartments, designed in a shed shape for reasons related to the revival of industrial design style and for a matter of energy efficiency. The sheds face South and have solar panels on the roof in order to make the intervention sustainable. This orientation also allows interior spaces to be protected from direct sunlight while still allowing natural light to enter from the North.
2. The second block, which houses a Greenhouse and a Winter Garden, has the peculiarity of presenting a great light between the pillars, solved structurally by the presence of a truss beam. This area is intended to have a self-sustaining function for the building from an agricultural perspective, with a space where everyone can grow and harvest their own 0-mile vegetables. In

addition to the indoor space, which is especially useful during Michigan's cold winters, there is an adjacent growable outdoor area.

3. The third block is the largest of the interventions, extending over two floors from the rooftops and housing a number of different functions. The second floor includes: Restaurant - Indoor Event Space - Rooftop Event Terrace. On the top floor, instead, there are: Exhibition Space - Projection Room. Architecturally, this block is characterized by being covered in reflective glass windows and by the movable walls of the Rooftop Event Terrace, which can be closed or opened to increase or decrease the interior space, depending on both the weather conditions and the will of the event space renter.

The blocks are connected by an exposed structure, partly covered and partly with climbing vegetation. This structure has a distributive function between the blocks and the vertical distribution system, all with the convenience of not being exposed to any atmospheric conditions. The same type of structure has also been added next to the commercial spaces and on the large terrace located on the second floor.
Regarding the roof paving, it has been decided to cover some areas with a practicable green roof, in order to make the intervention more sustainable and usable.

Throughout the building there will also be murals created by the artists who will live or work in the building, both on some of the plastered walls of the existing basement and on specially dedicated walls in the new intervention. This idea aims to bring those who live and work in the building closer to it, to make it somehow their own, to give voice to their spirit and the spirit of Detroit.



SCALE 1:500



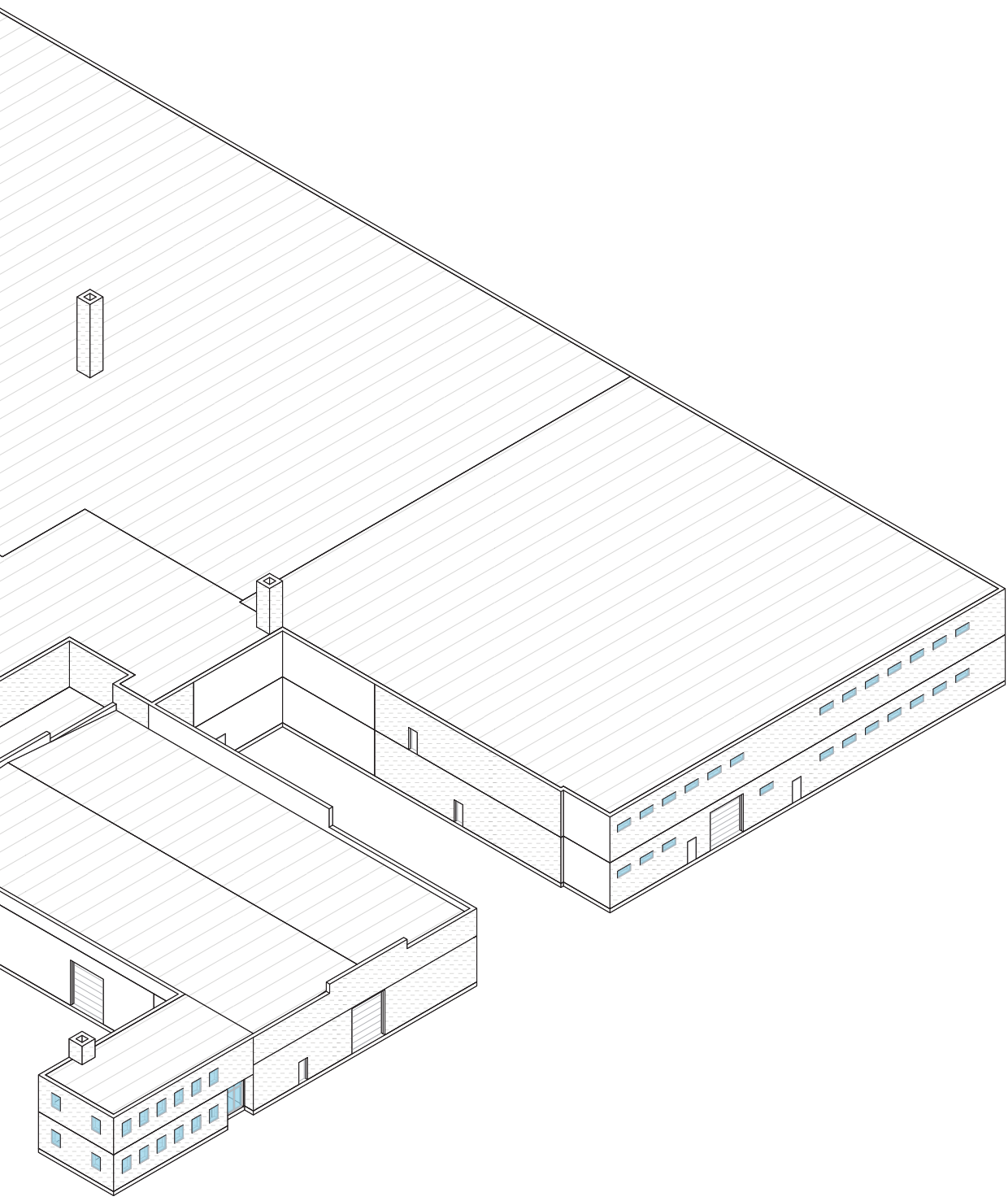
EXISTING BUILDING
MATERIALS

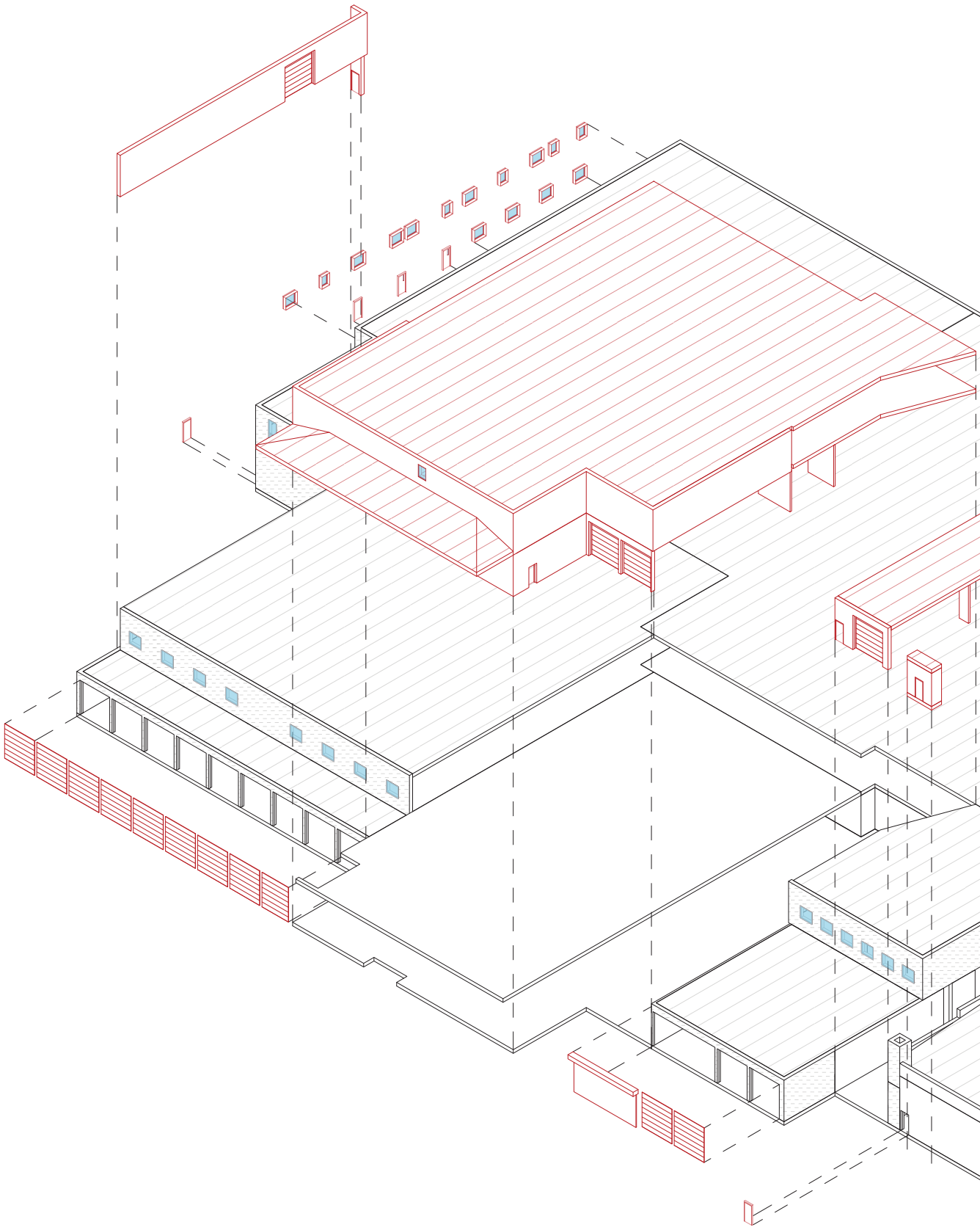
Exposed Bricks

Covering System

Glass

Plaster

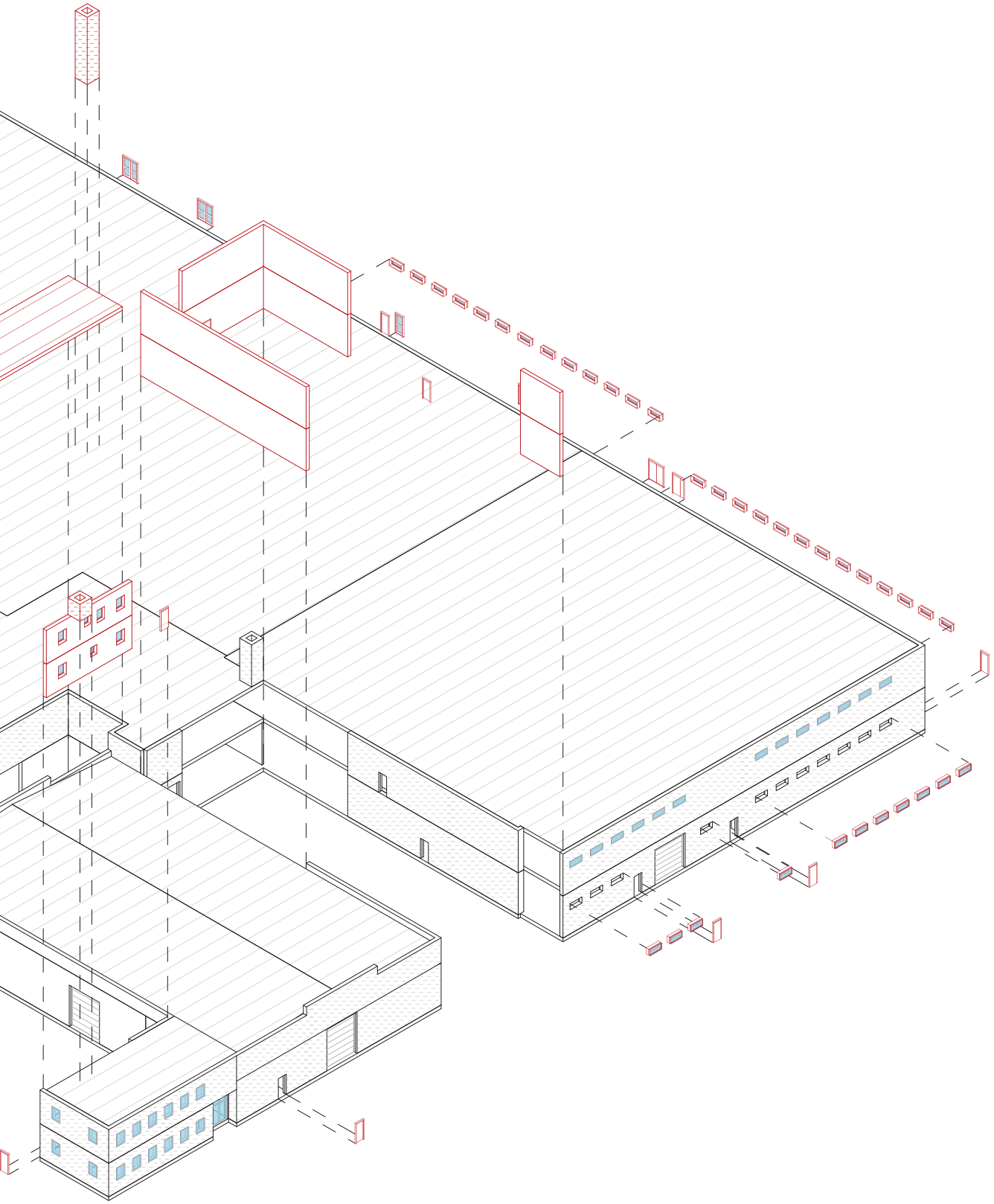


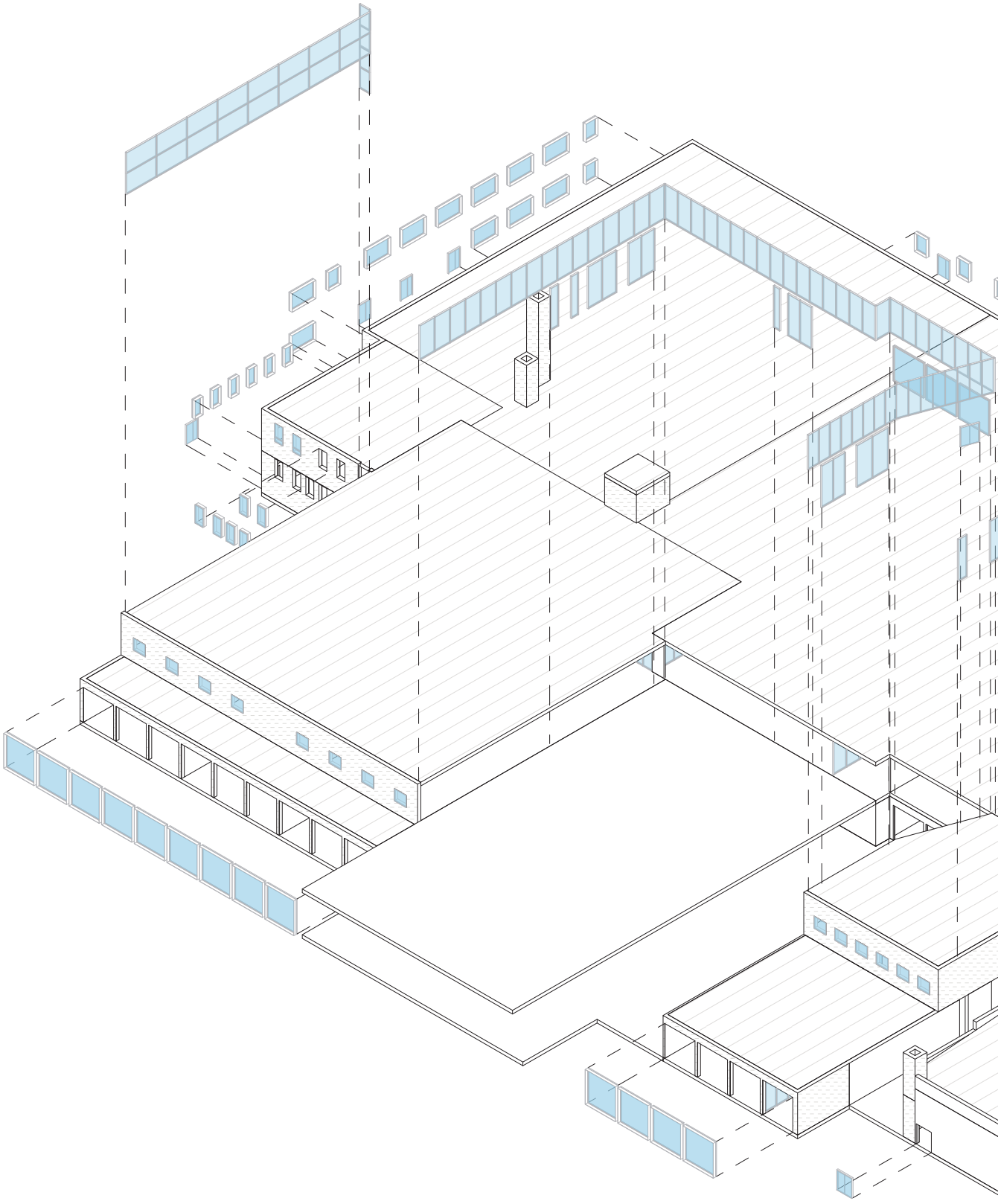


SCALE 1:500

N

EXISTING BUILDING
SUBTRACTIONS

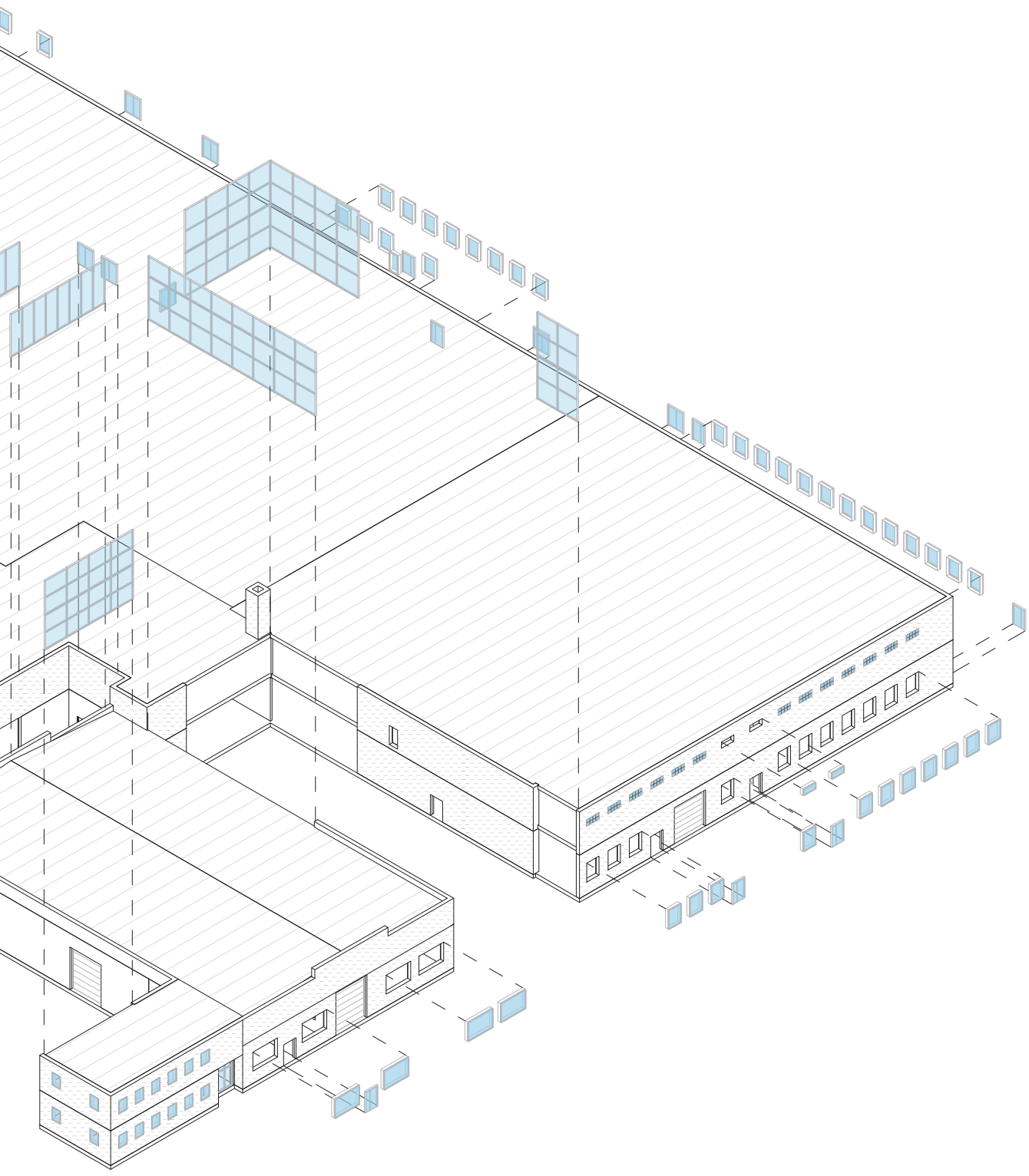


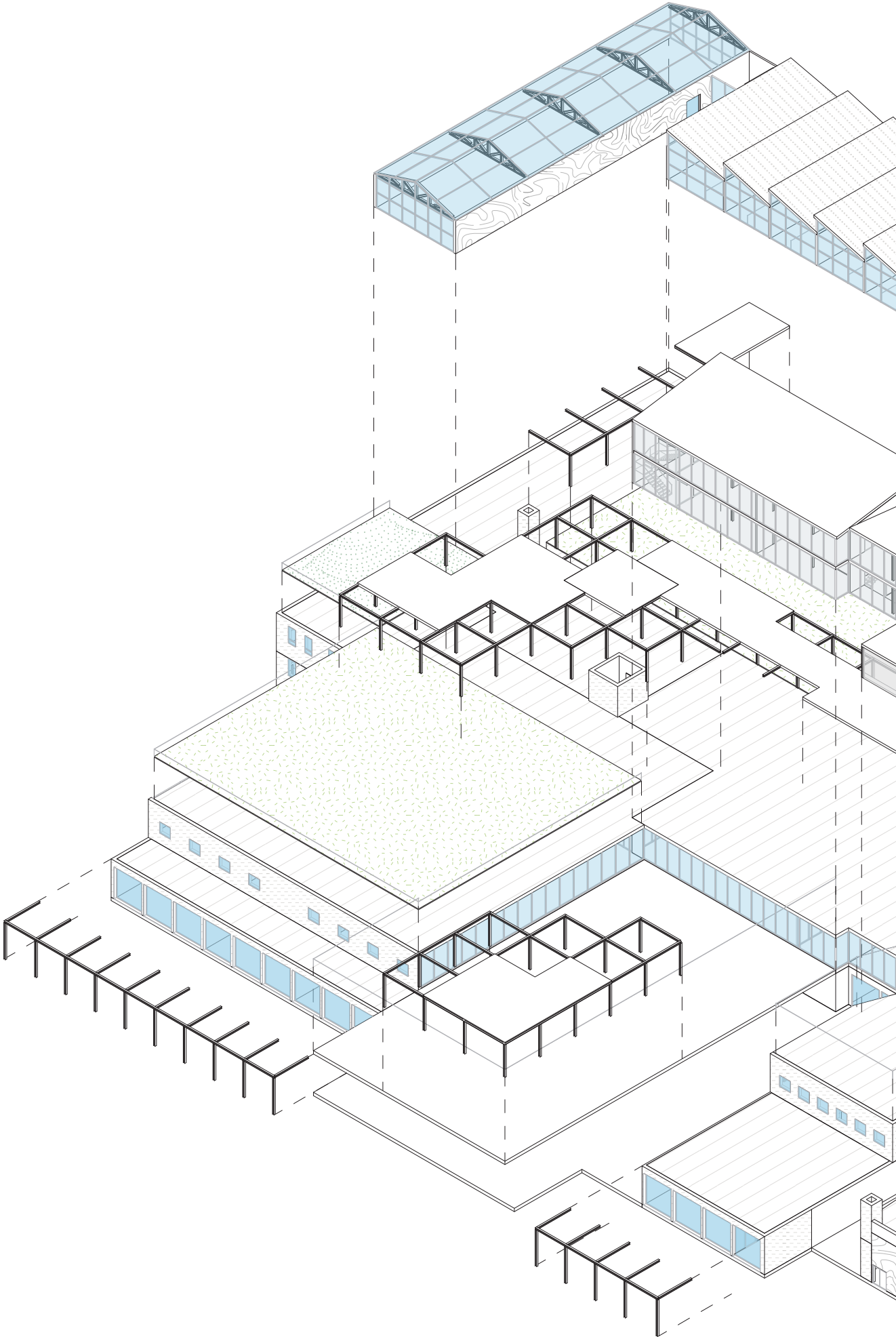


SCALE 1:500

N

PROJECT
REPLACEMENTS

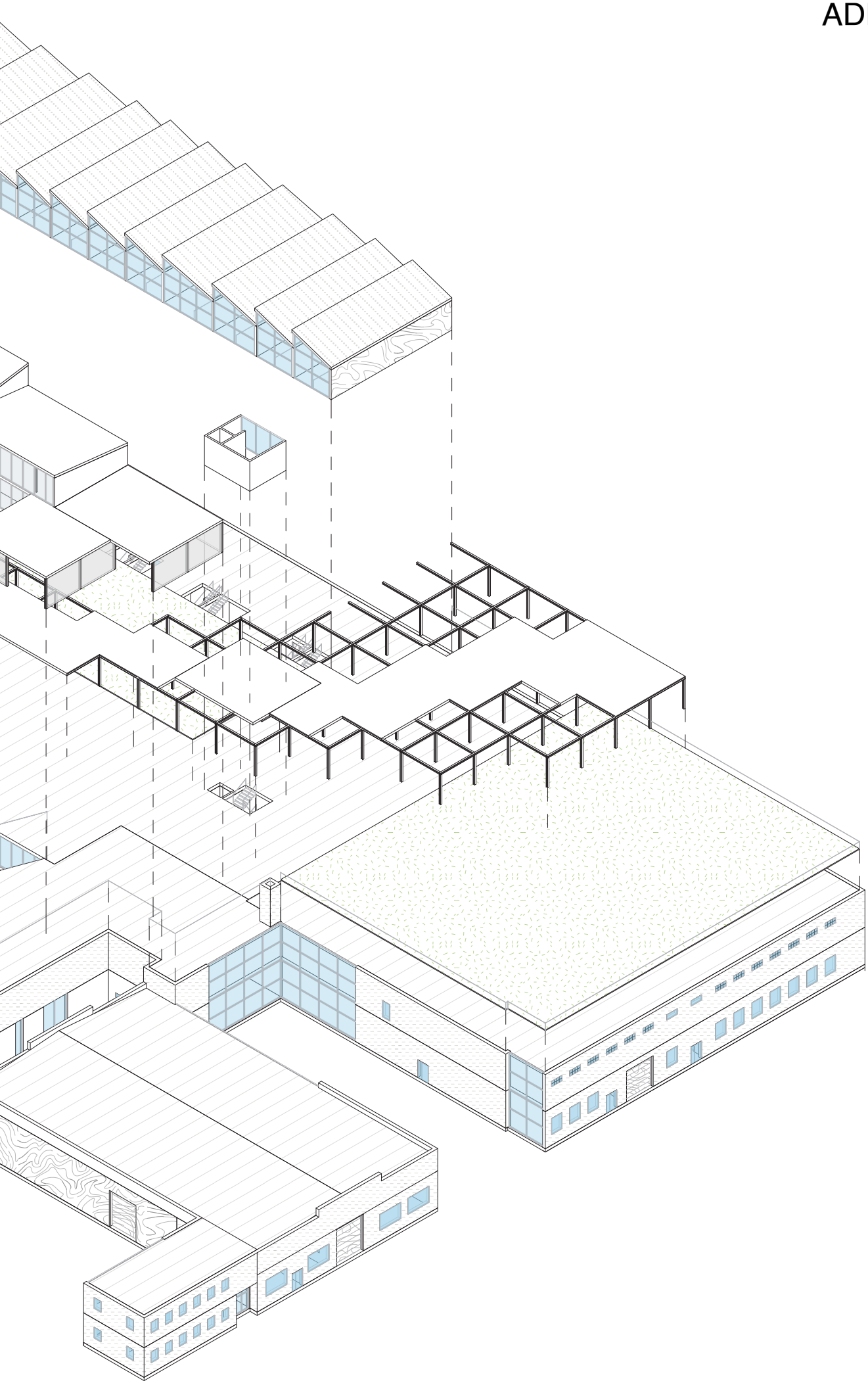


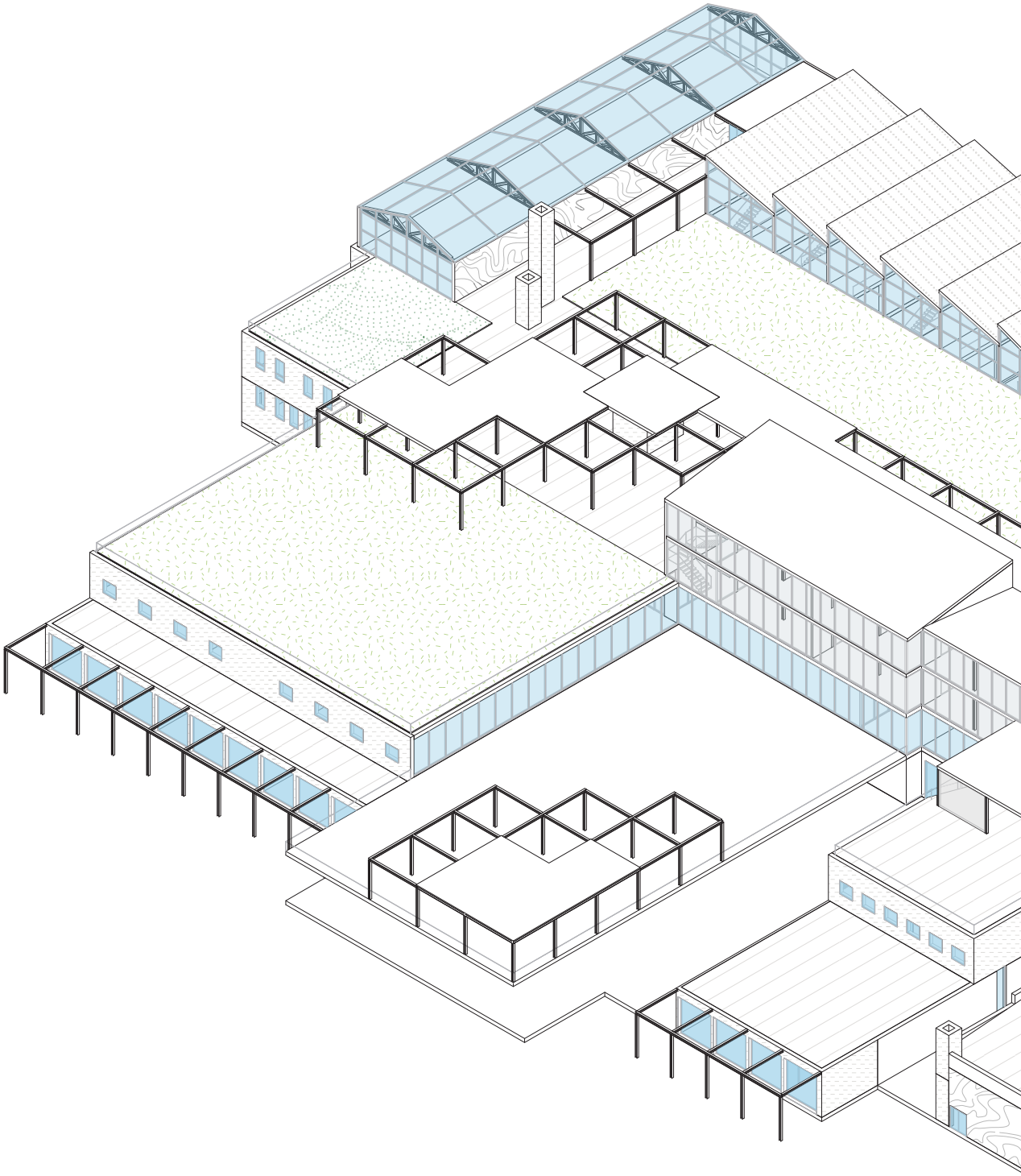


SCALE 1:500

N

PROJECT
ADDITIONS

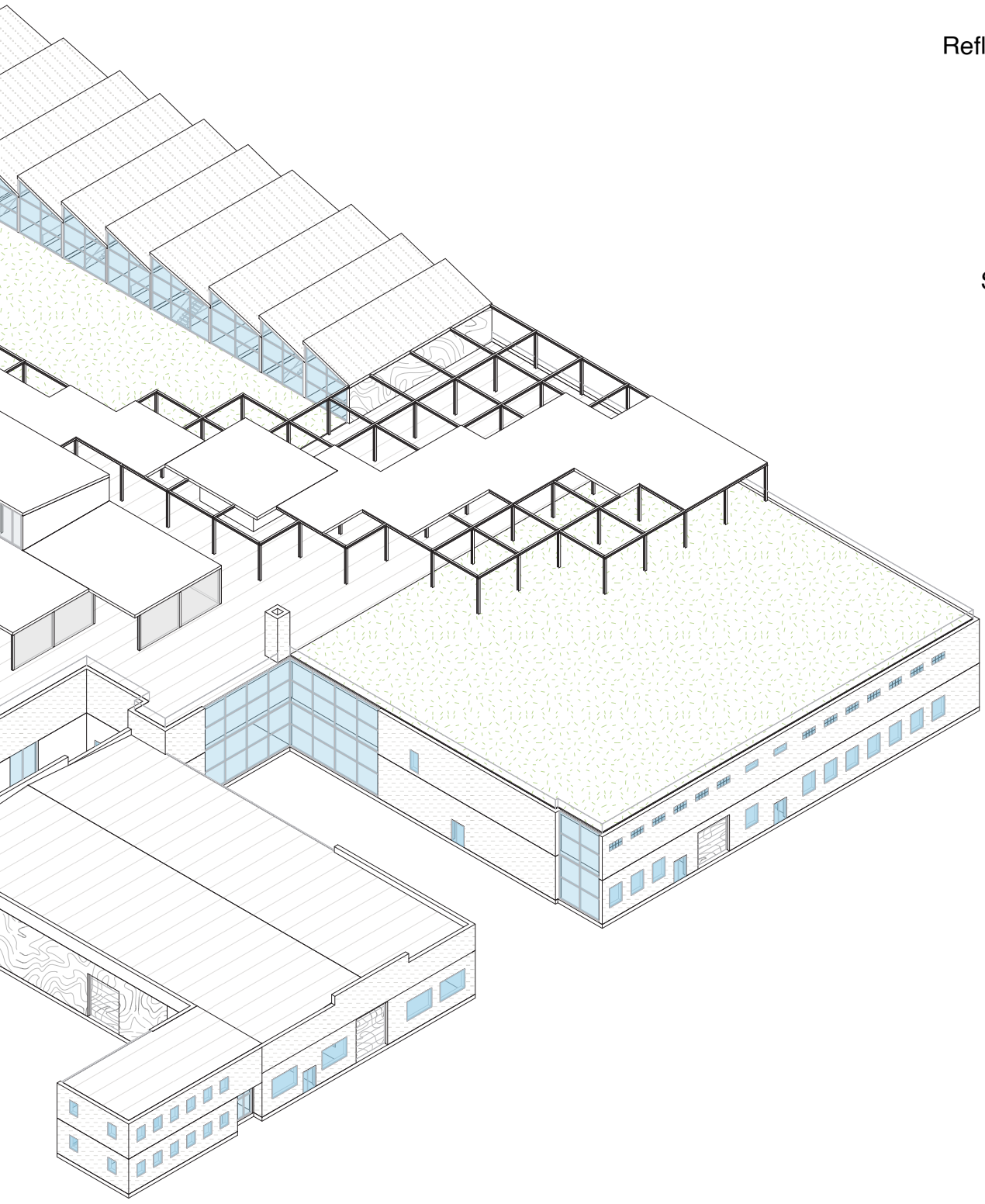




SCALE 1:500



PROJECT
MATERIALS



Exposed Bricks

Covering System

Glass

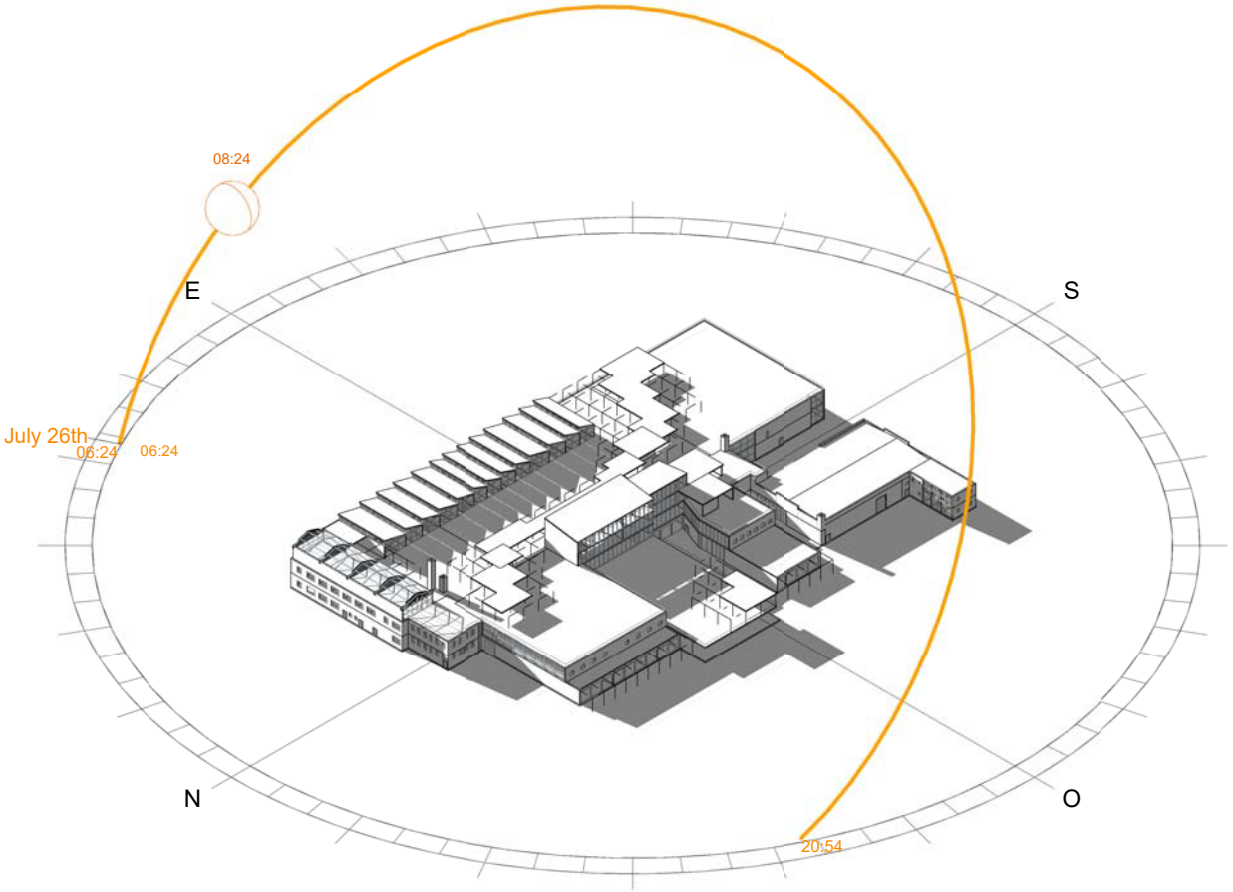
Reflective Glass

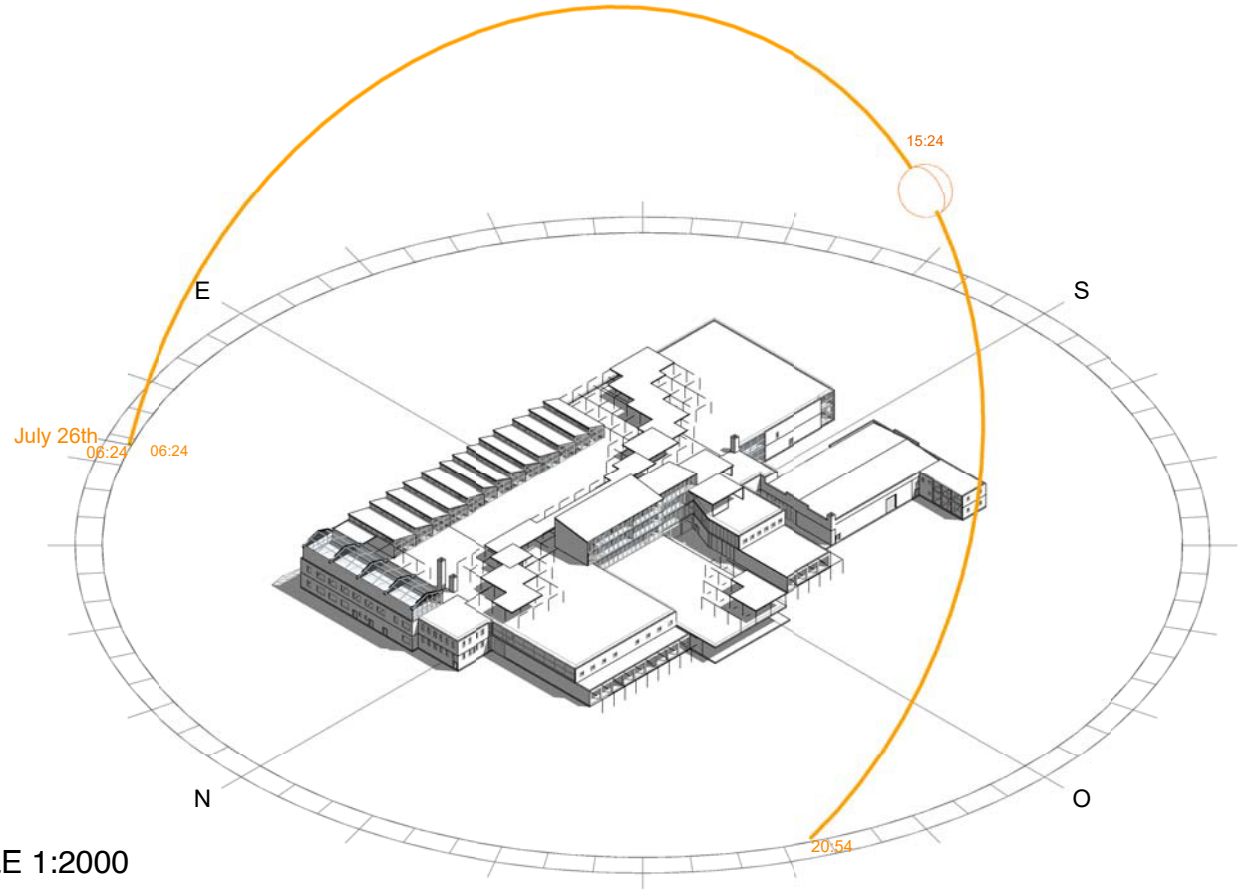
Murals

Green Roof

Cultivations

Solar Panels

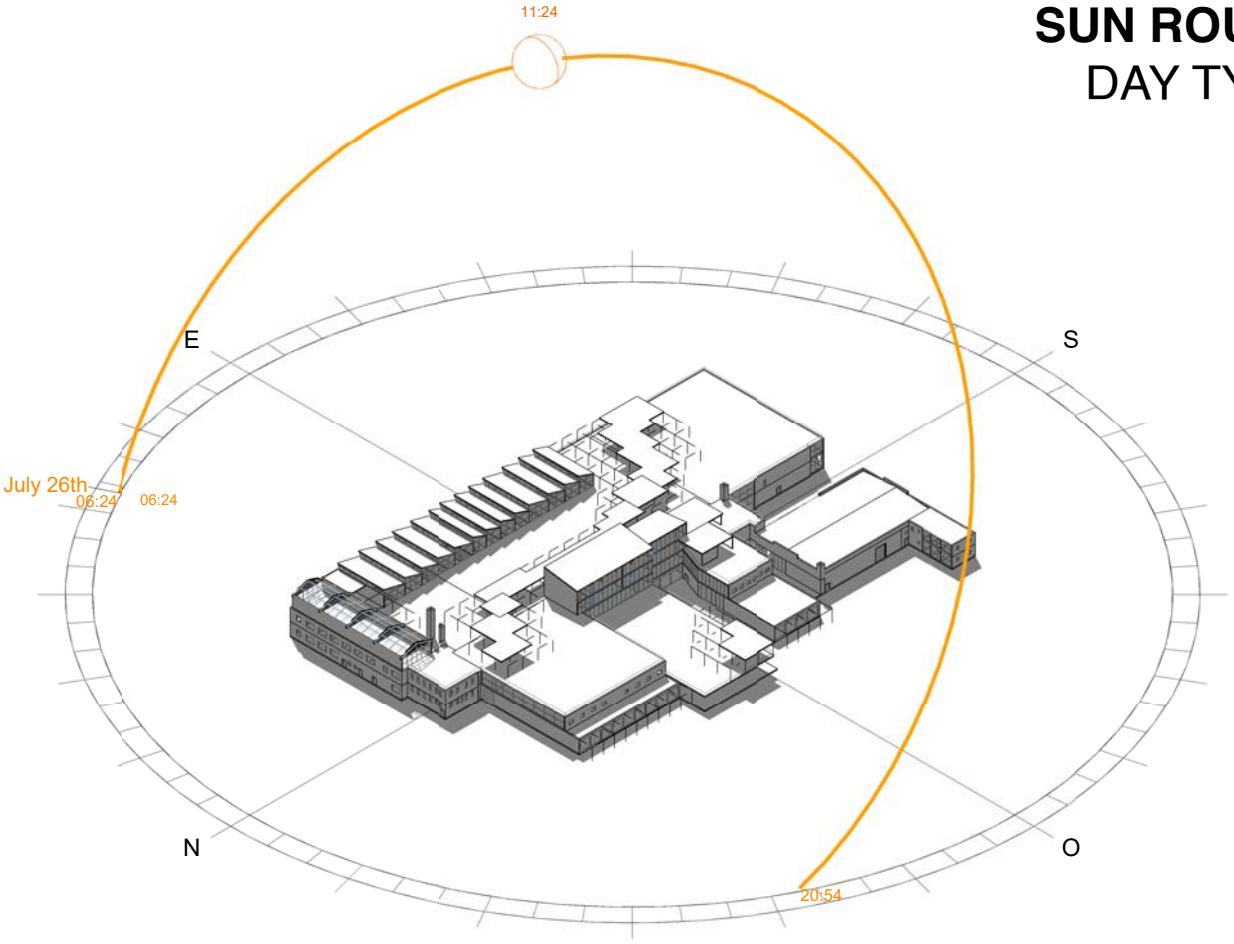


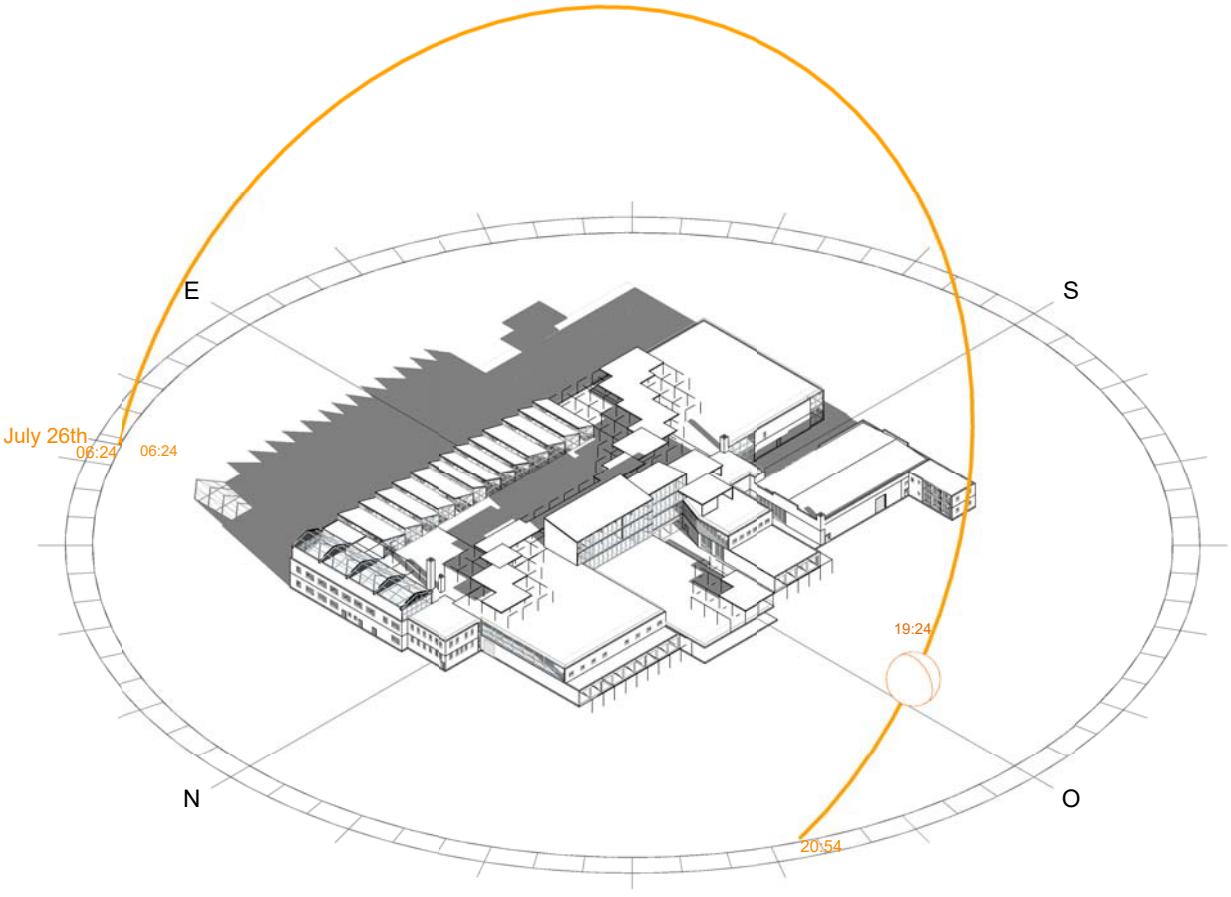


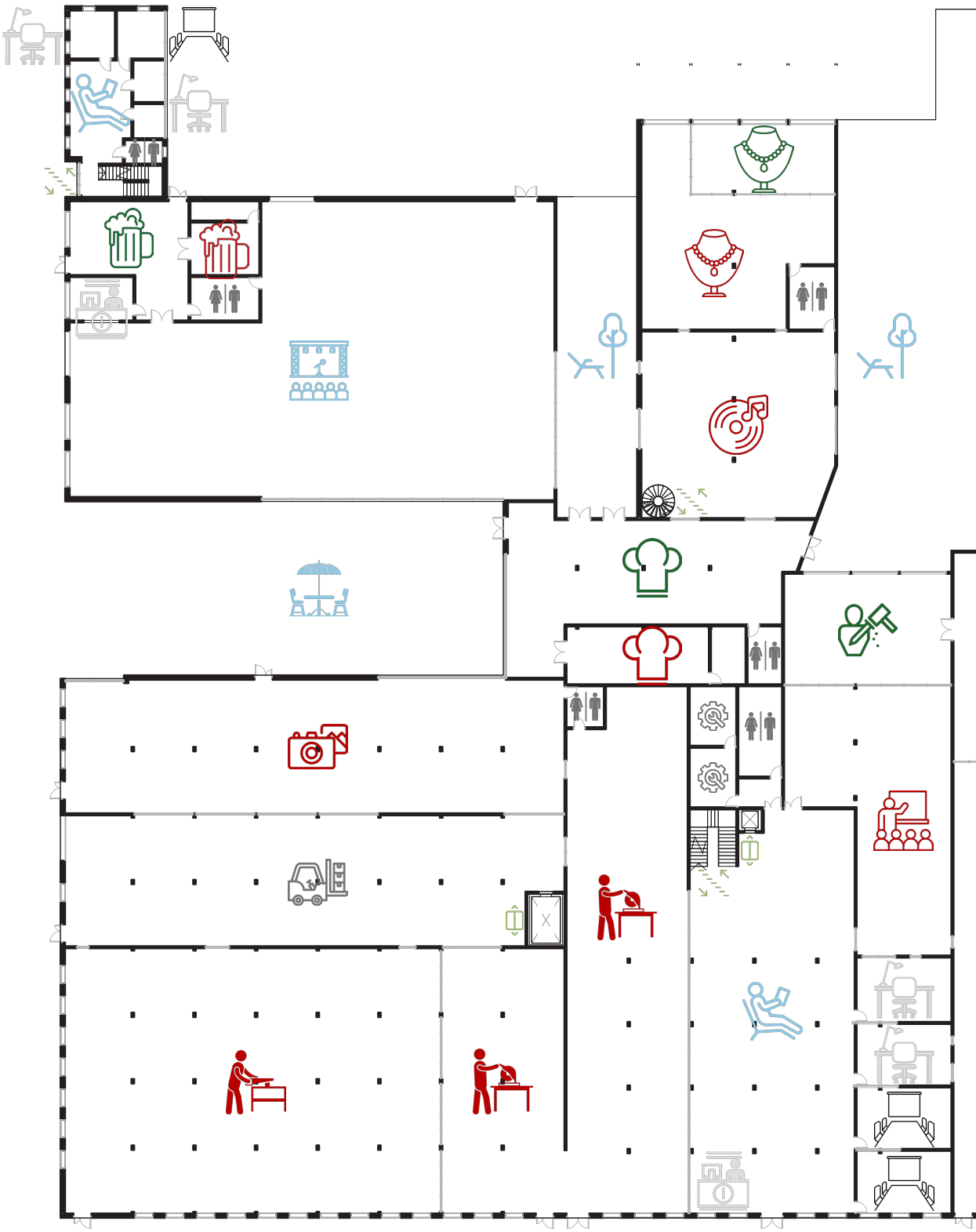
SCALE 1:2000

N

PROJECT
SUN ROUTE
DAY TYPE

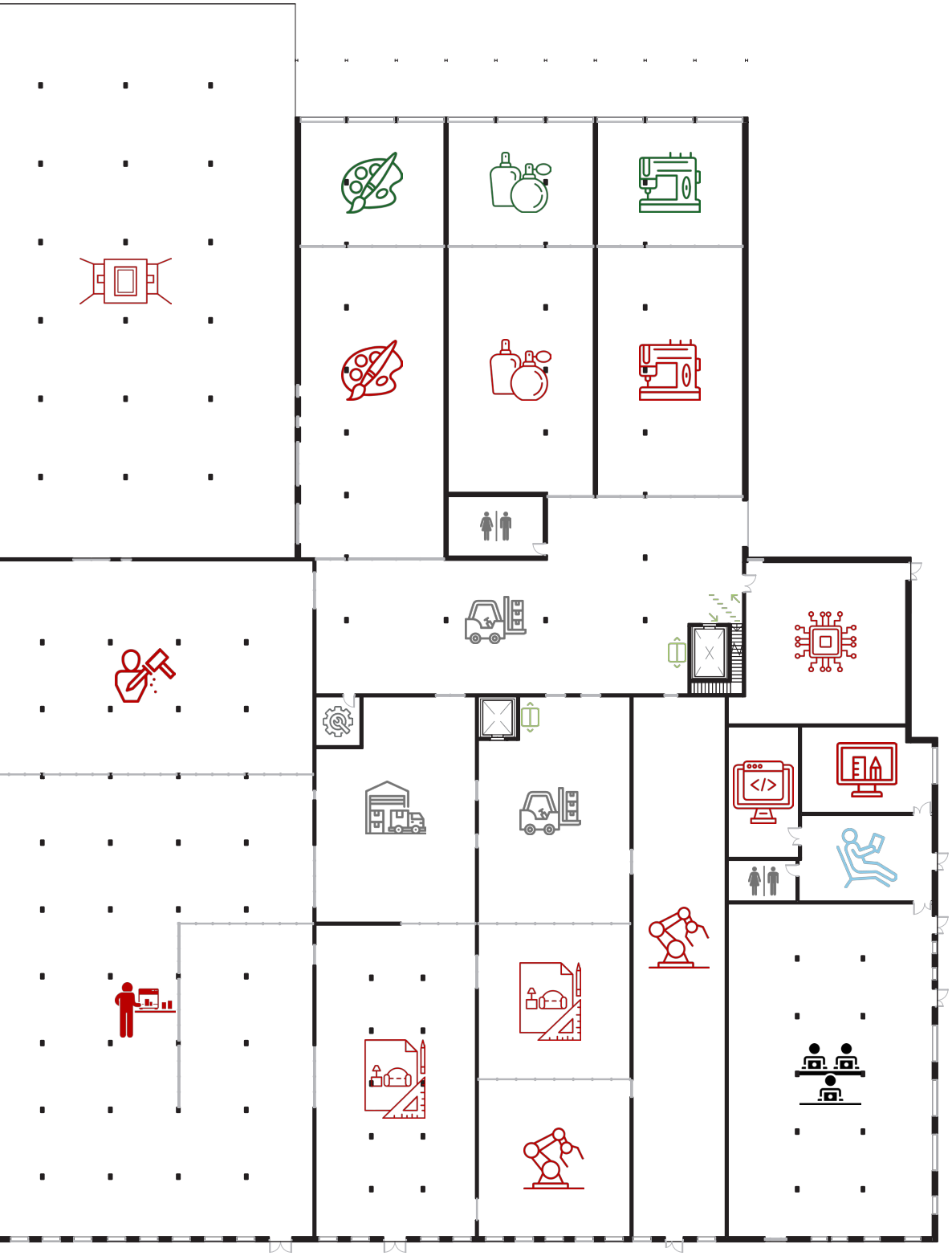




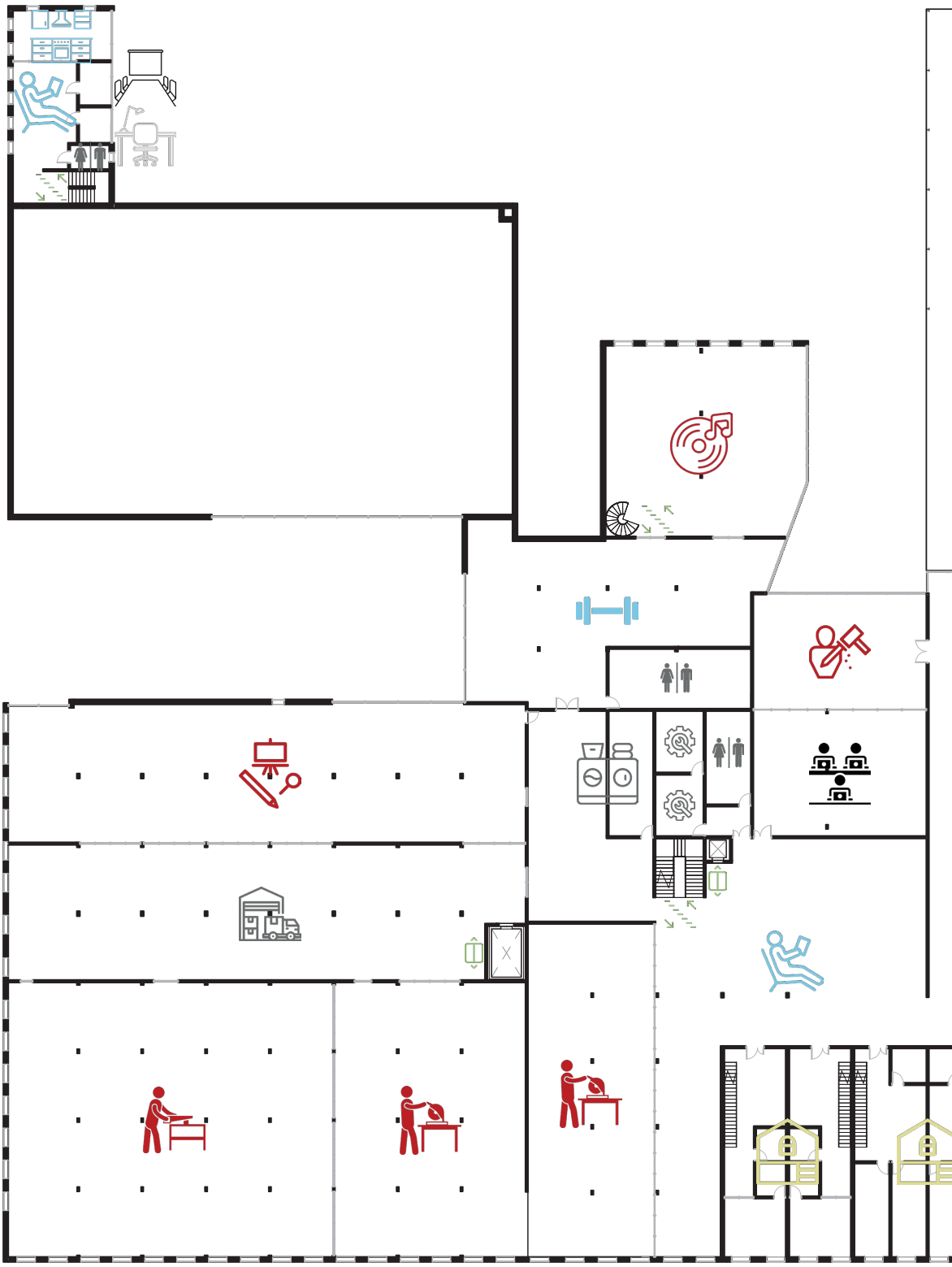


SCALE 1:500

PROJECT
USE FUNCTIONS
GROUND FLOOR PLAN

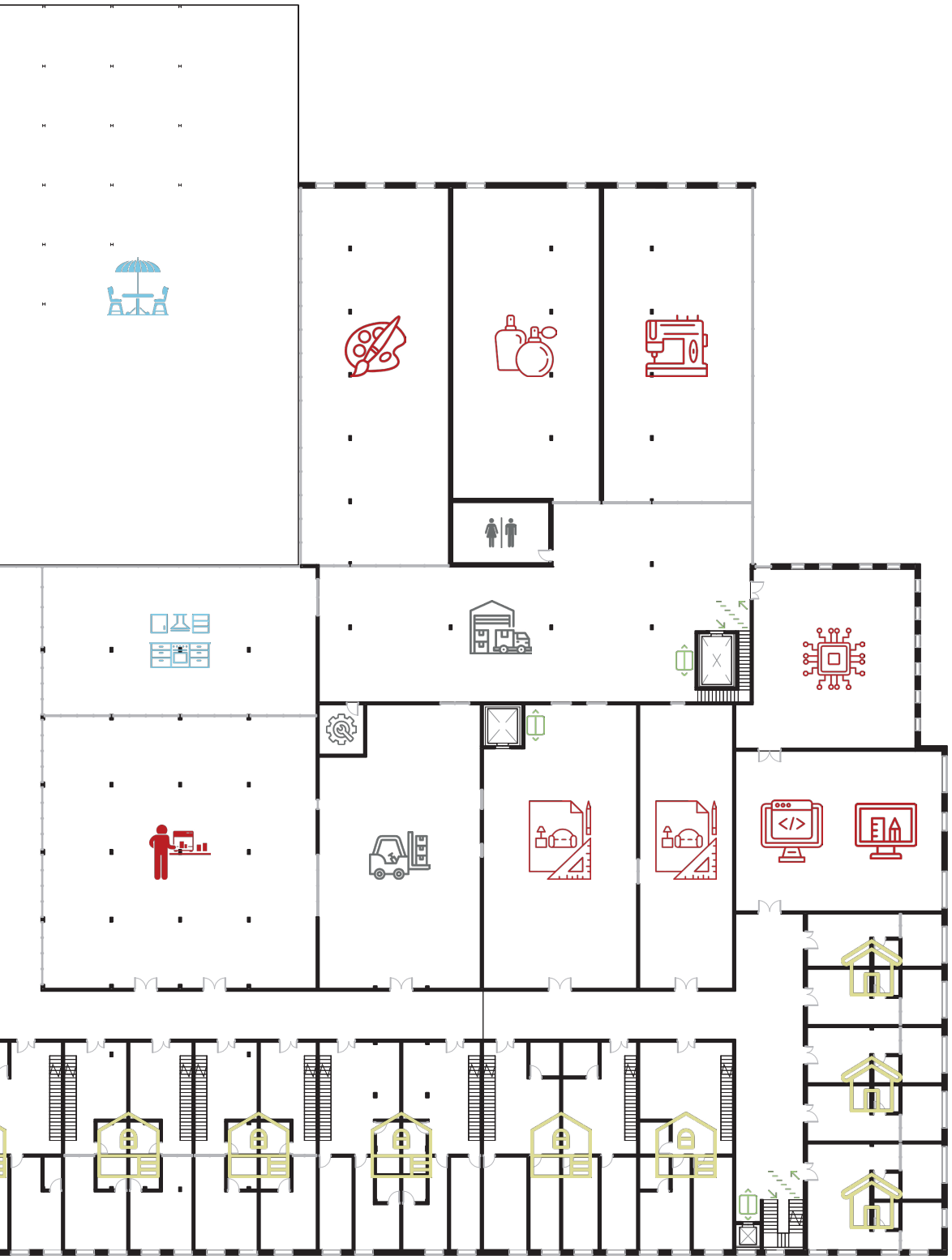


Manufacture
Commercial
Leisure
Administration
Utility
Distribution
Other



SCALE 1:500

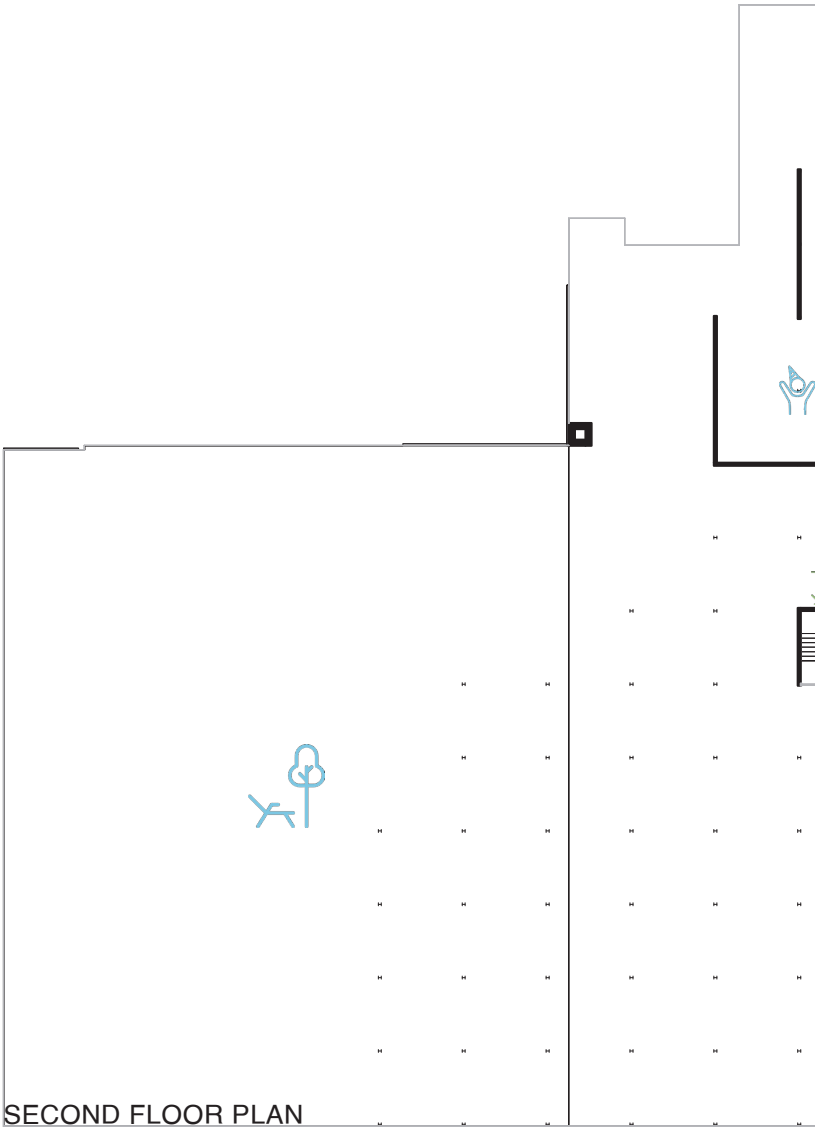
PROJECT
USE FUNCTIONS
FIRST FLOOR PLAN



Manufacture
Live
Leisure
Administration
Utility
Distribution
Other



ROOF PLAN

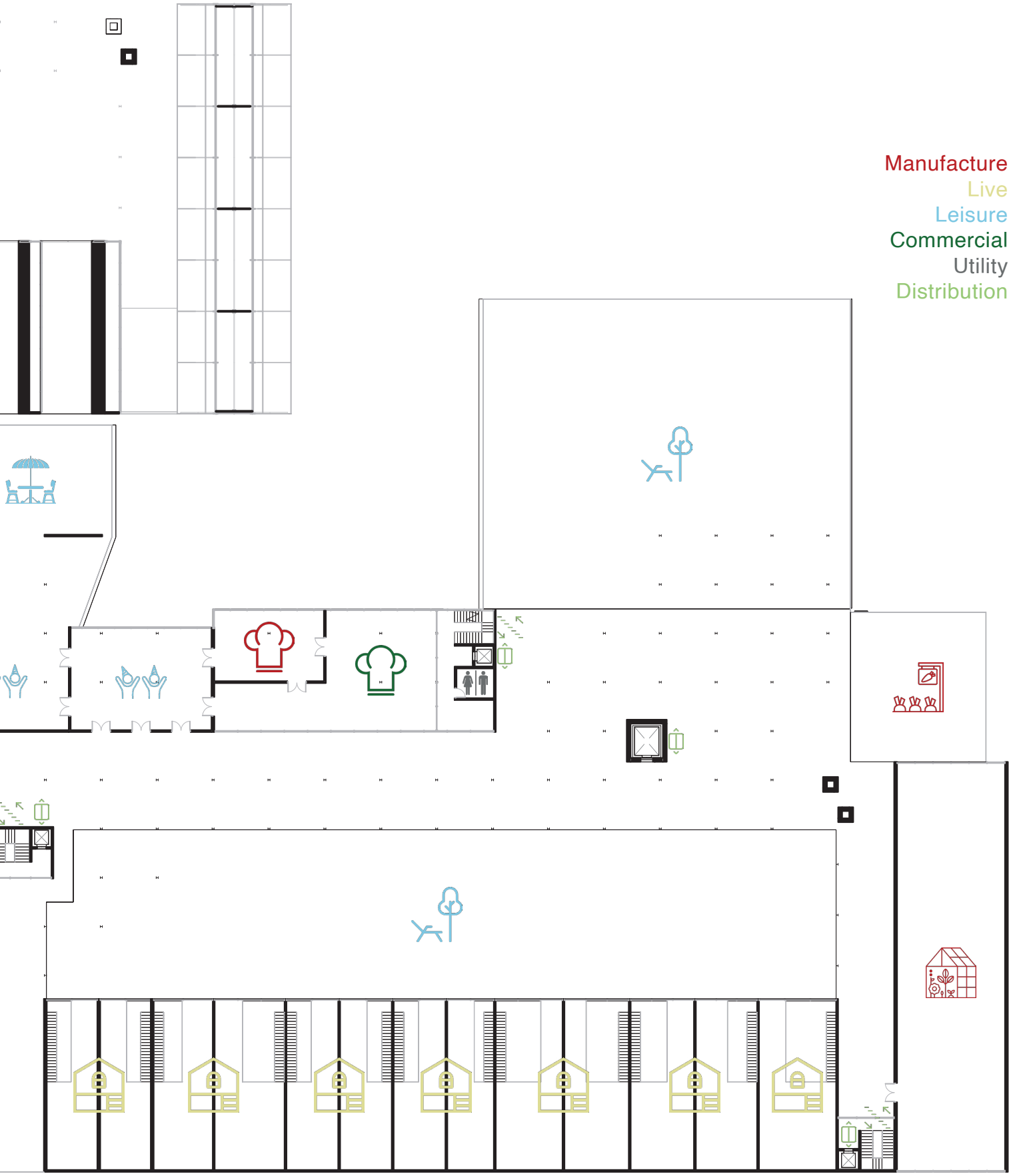


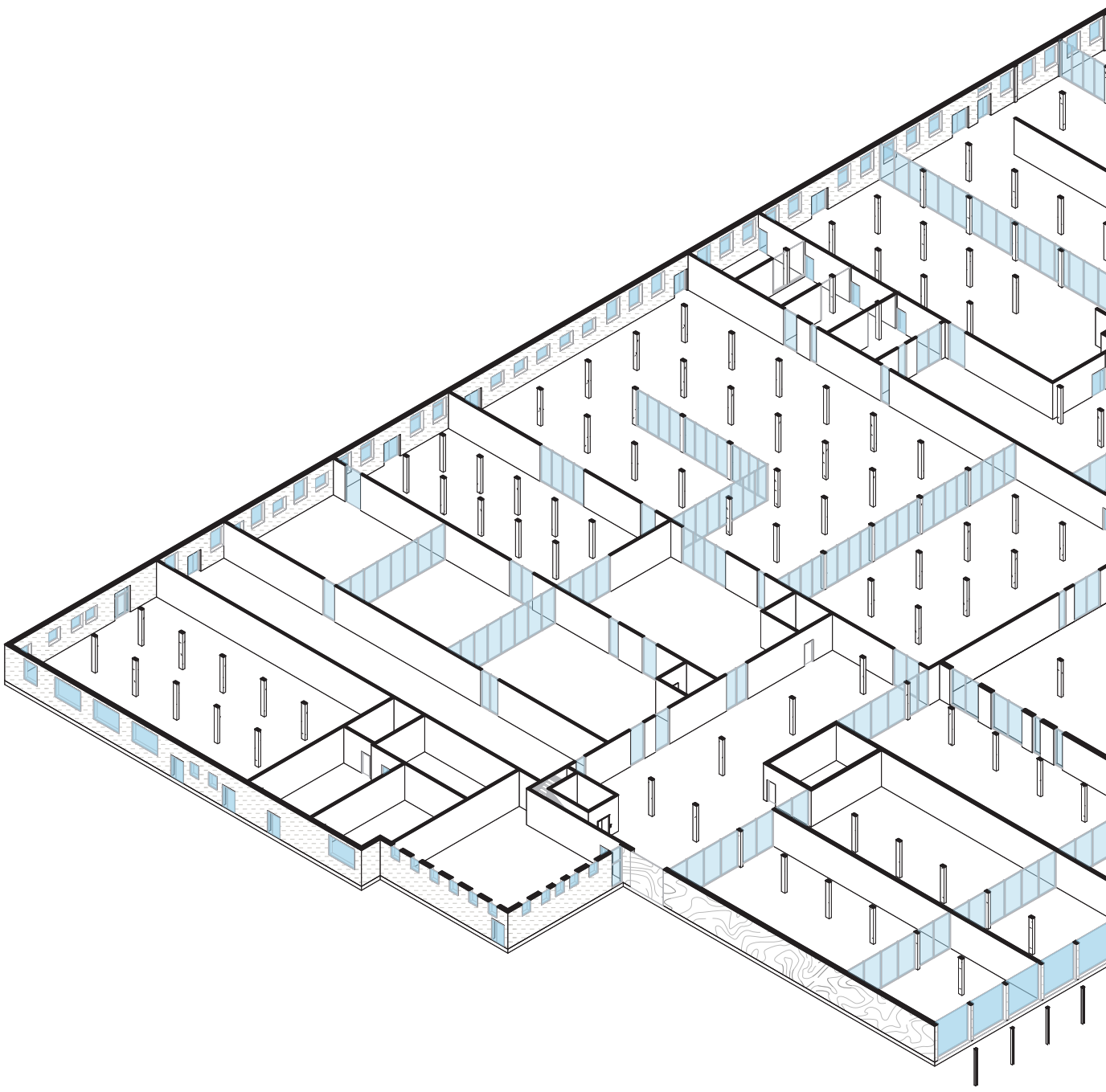
SECOND FLOOR PLAN

SCALE 1:500

N

PROJECT
USE FUNCTIONS
ROOF PLAN - SECOND FLOOR PLAN

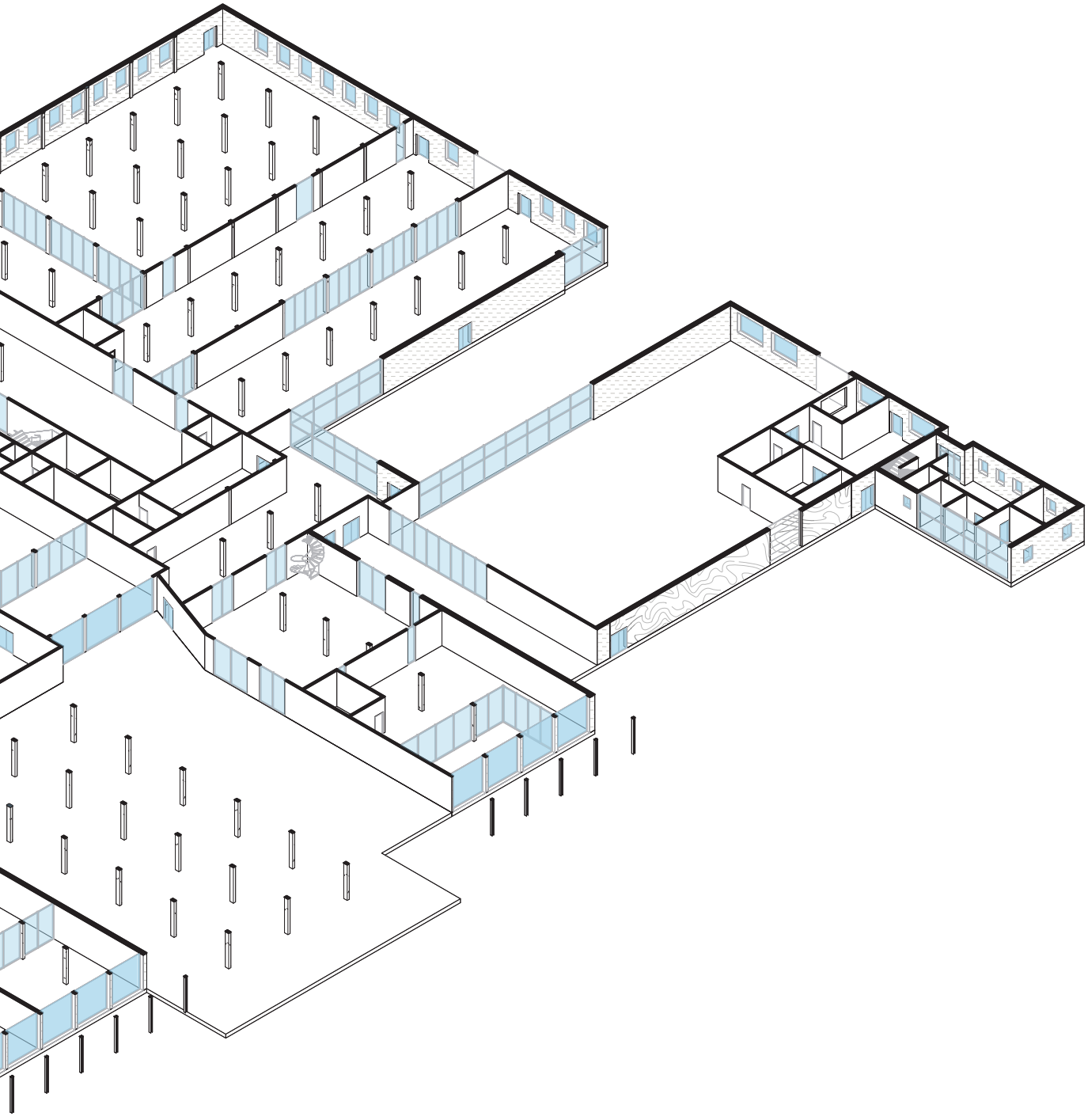


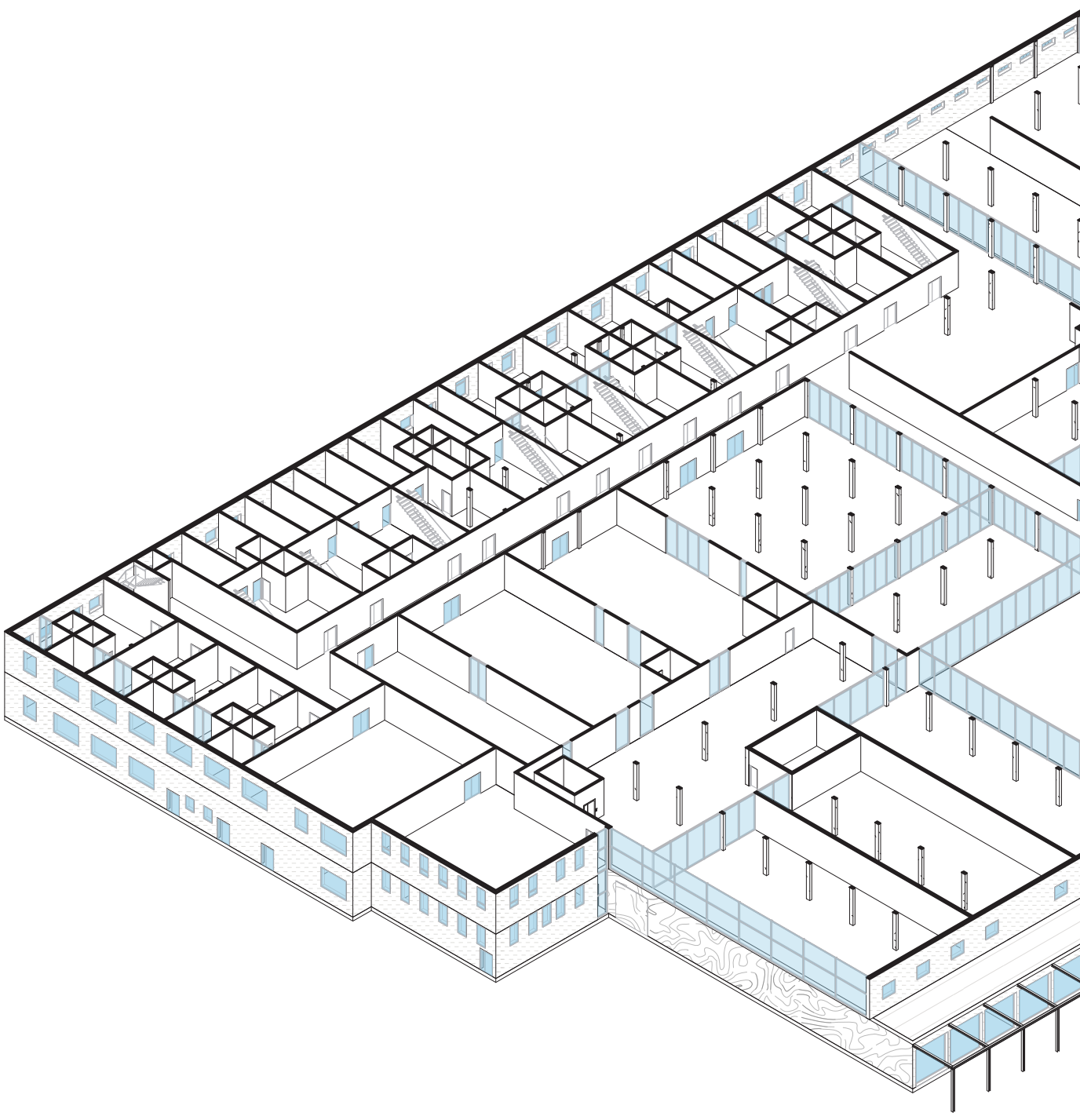


SCALE 1:500

N

PROJECT
AXONOMETRIC CROSS-SECTION
GROUND FLOOR

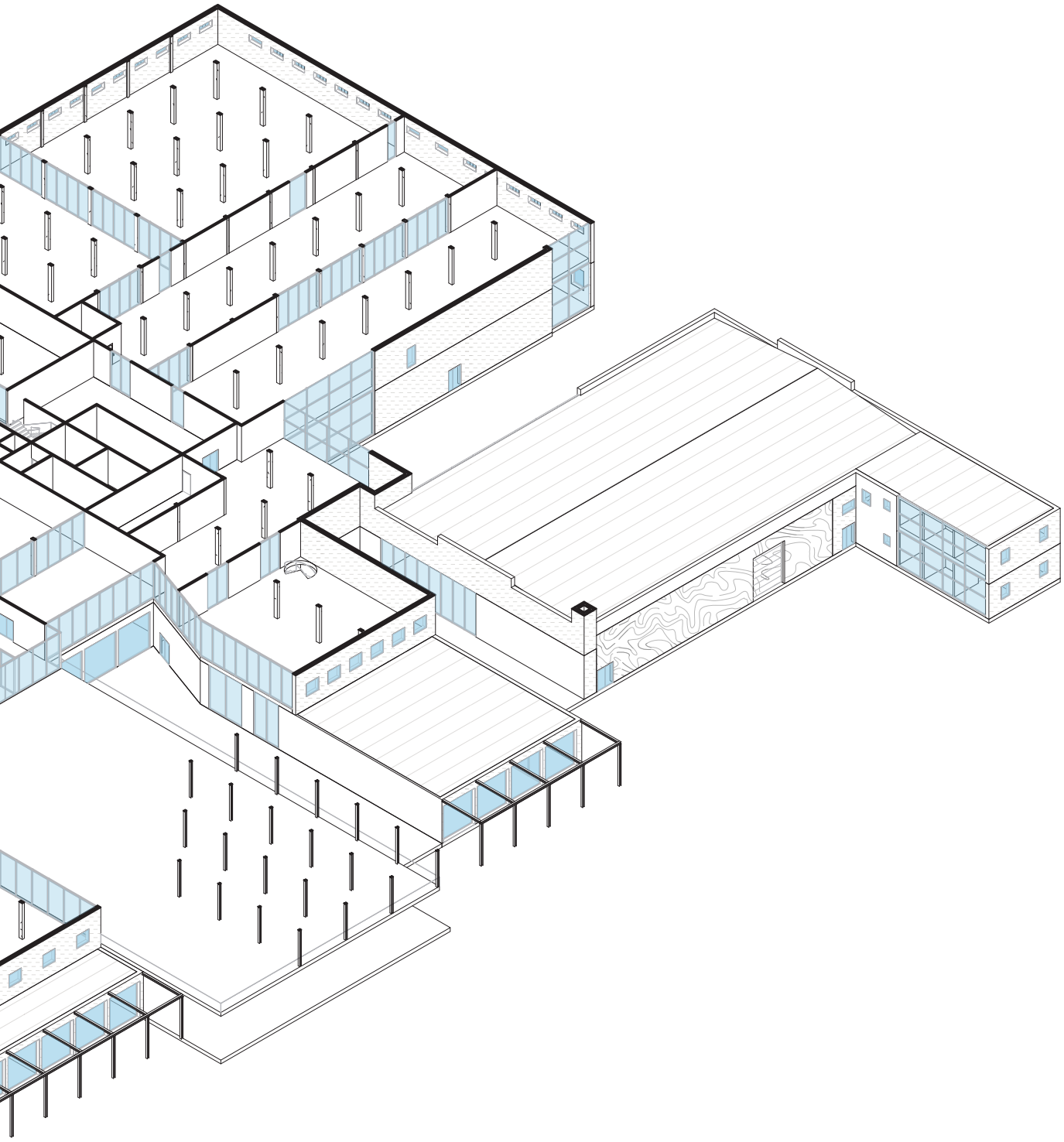


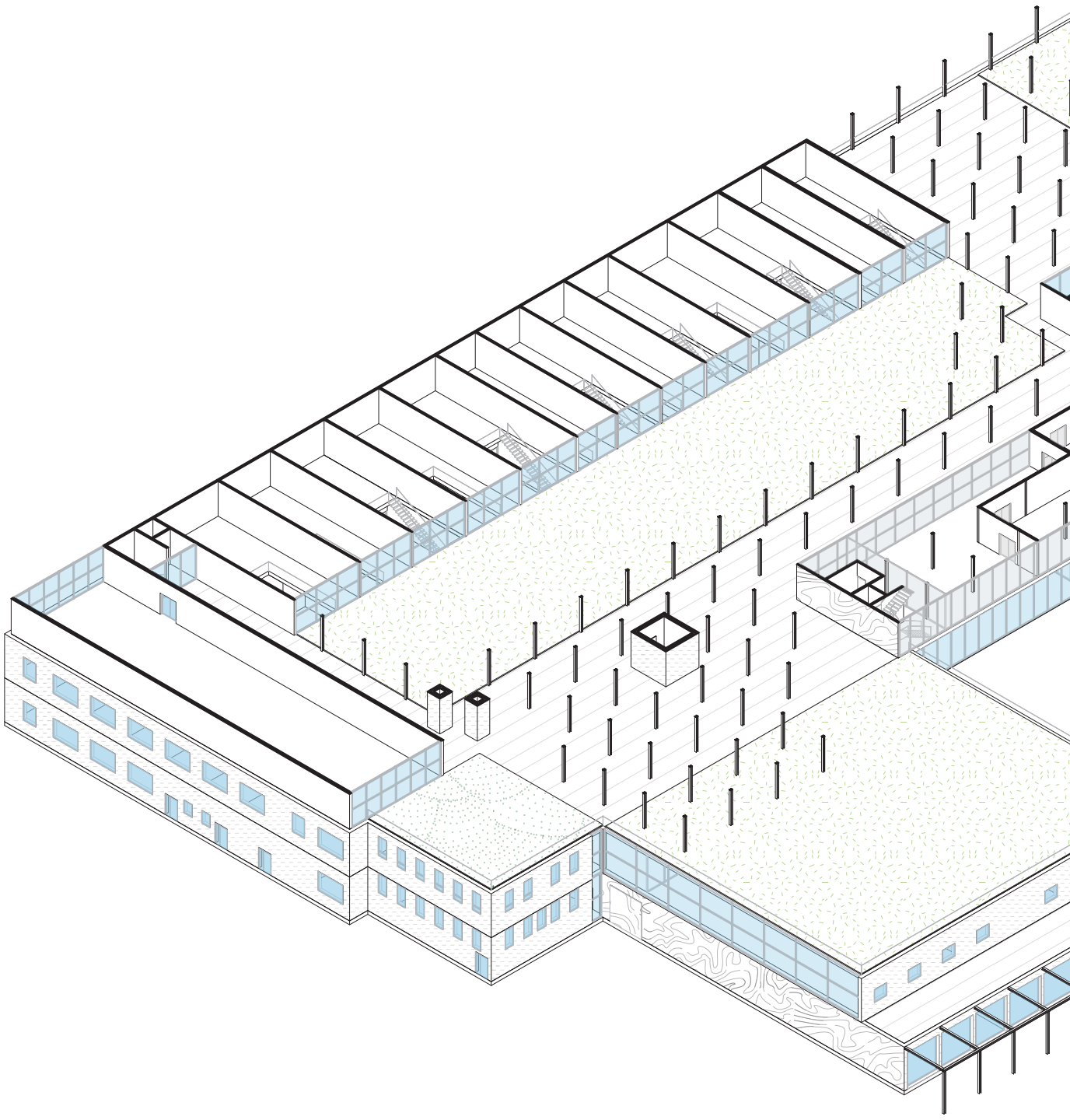


SCALE 1:500

N

PROJECT
AXONOMETRIC CROSS-SECTION
FIRST FLOOR

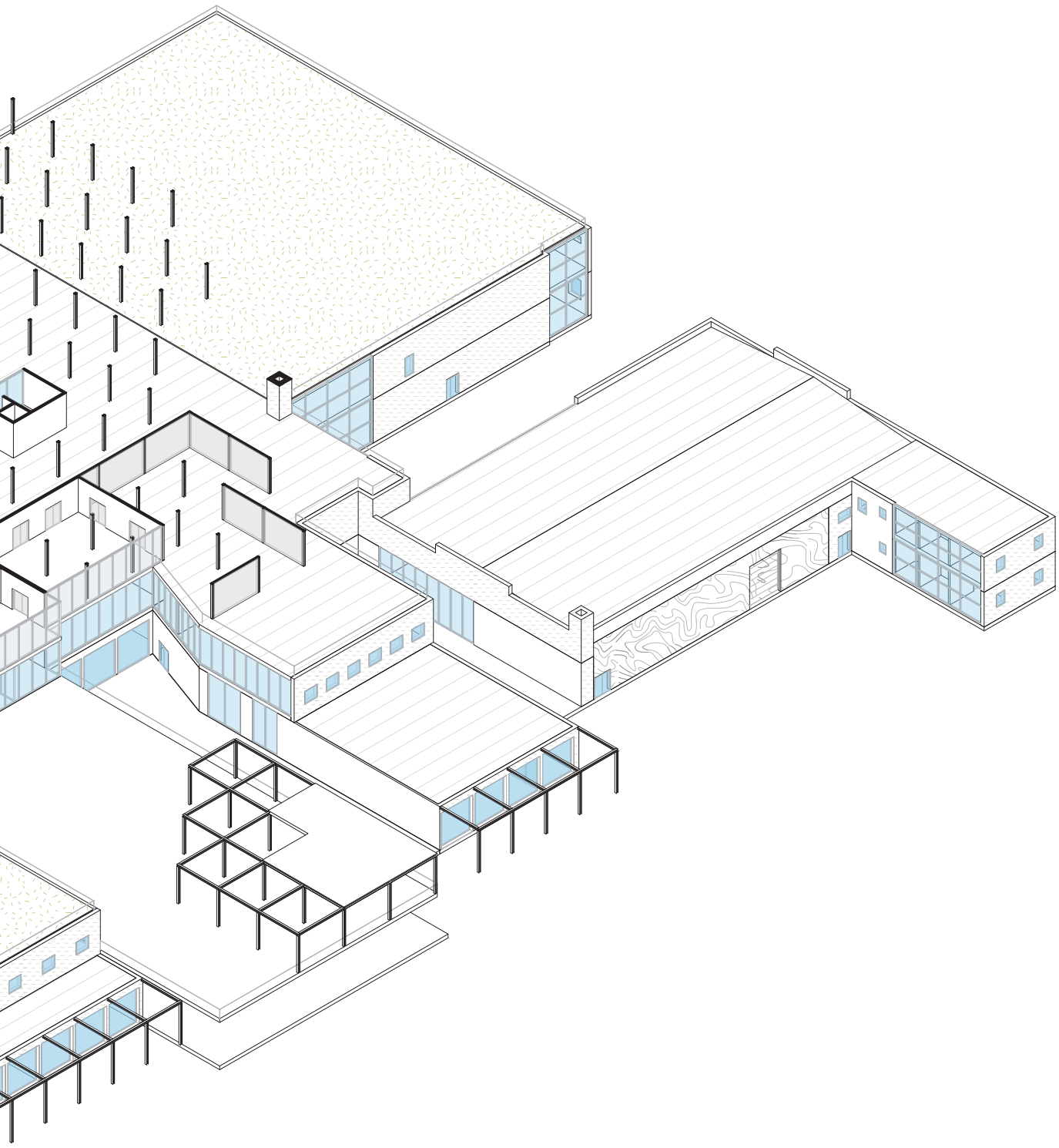


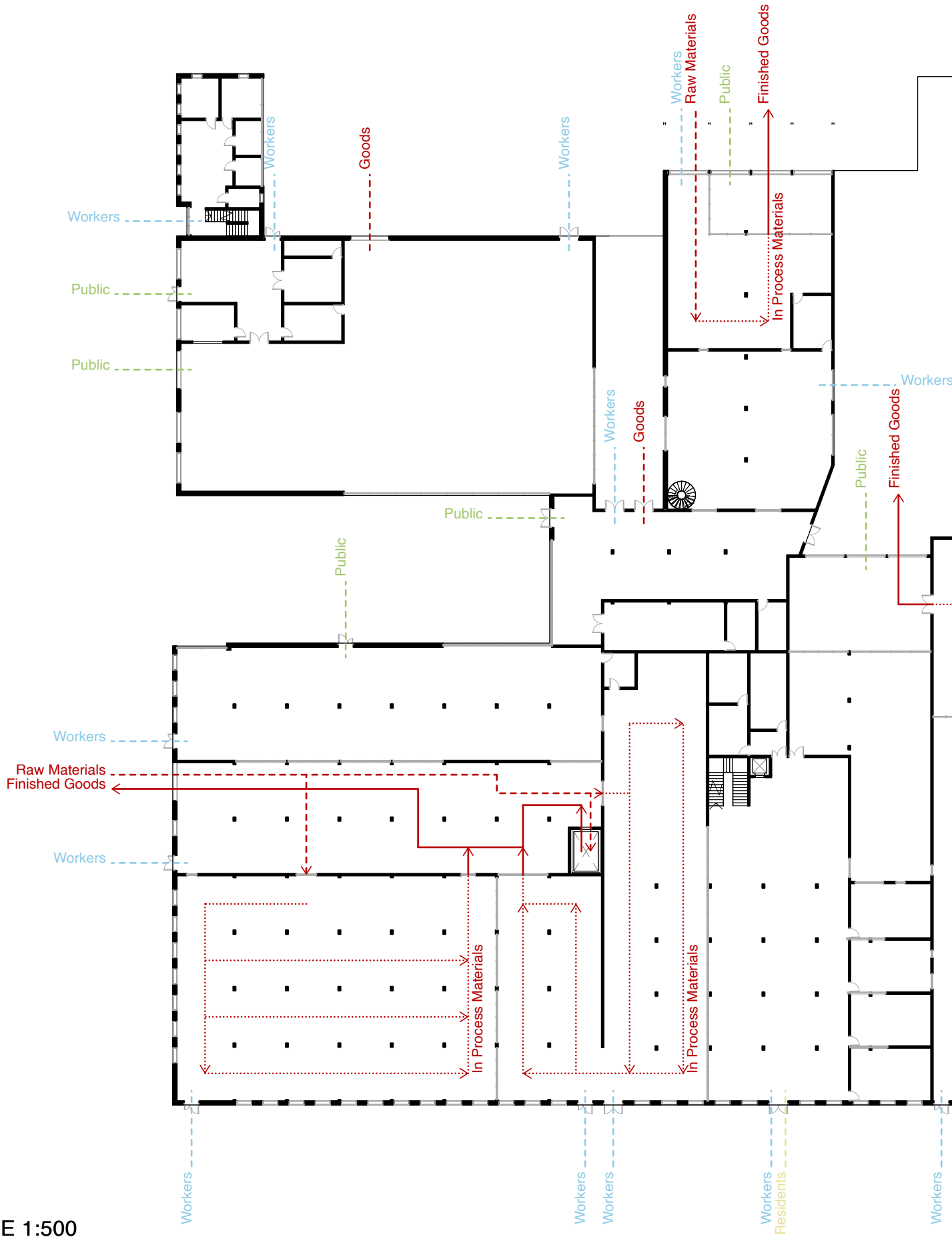


SCALE 1:500

N

PROJECT
AXONOMETRIC CROSS-SECTION
SECOND FLOOR

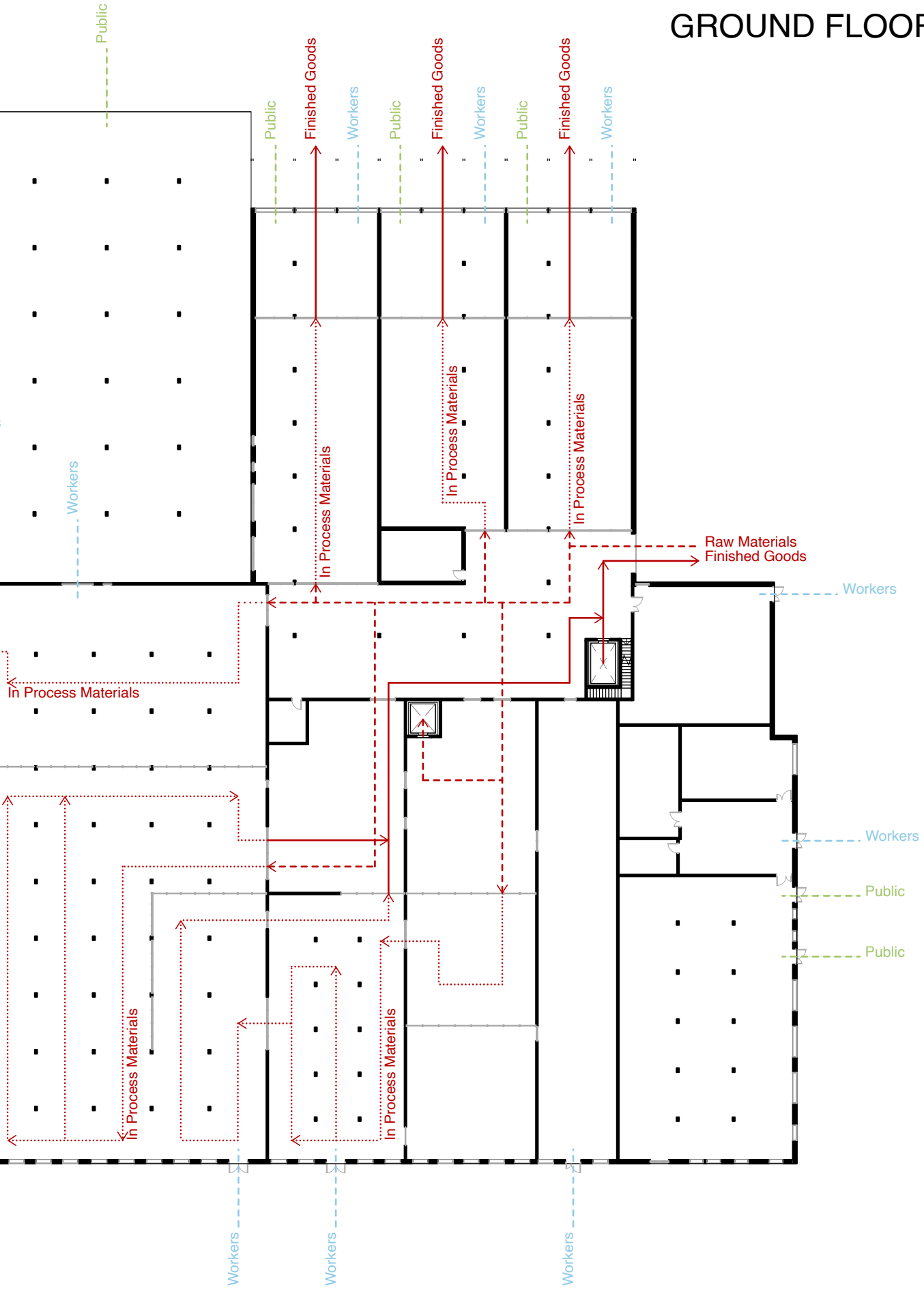


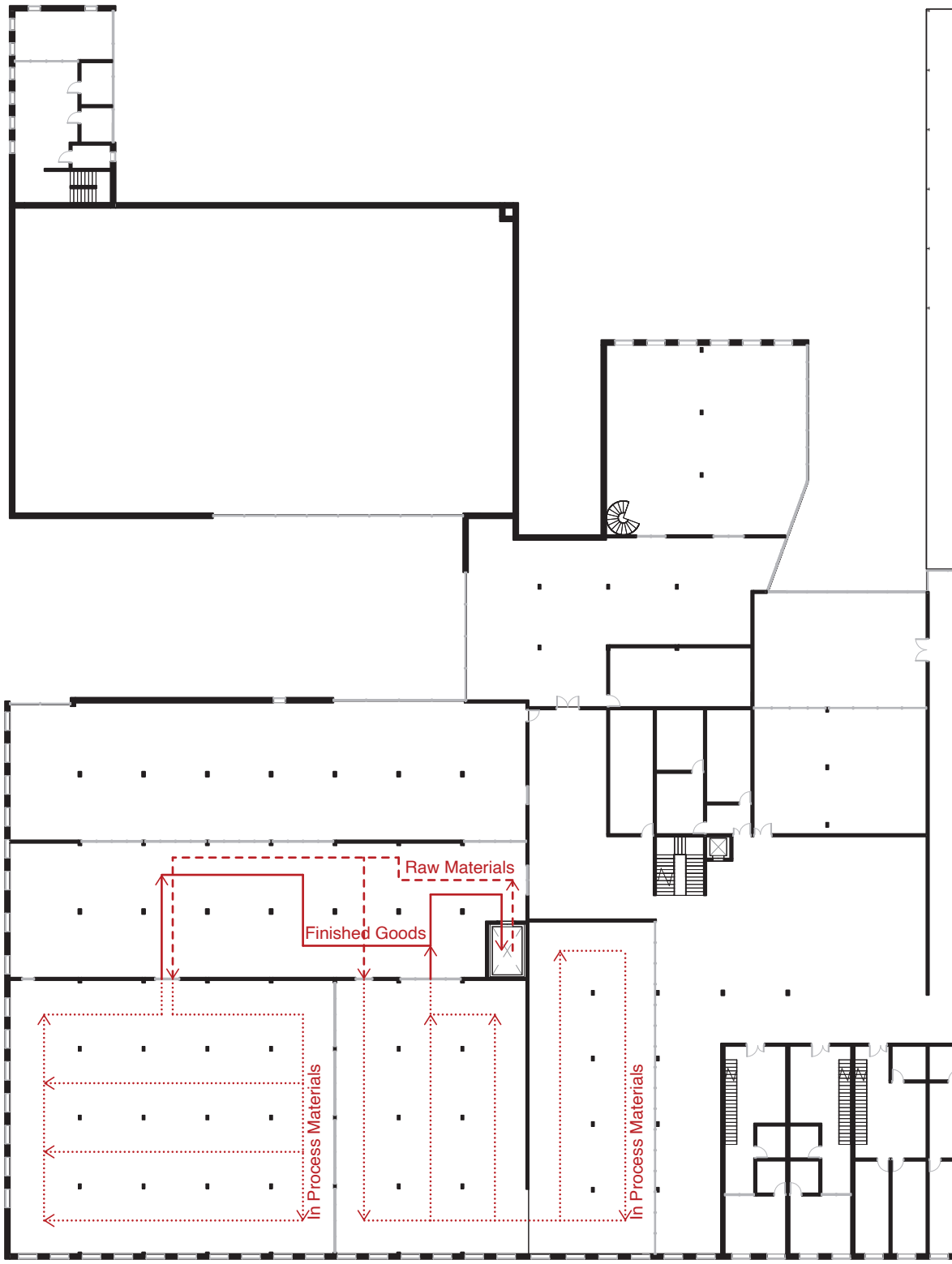

Workers
Public
Public
Workers
Goods
Workers
Workers
Raw Materials
Public
Finished Goods
In Process Materials
Workers
Goods
Workers
Public
Finished Goods
Public
Public
Workers
Raw Materials
Finished Goods
Workers
In Process Materials
In Process Materials
Workers
Workers
Workers
Residents
Workers

SCALE 1:500

N

PROJECT
PATHS
GROUND FLOOR PLAN

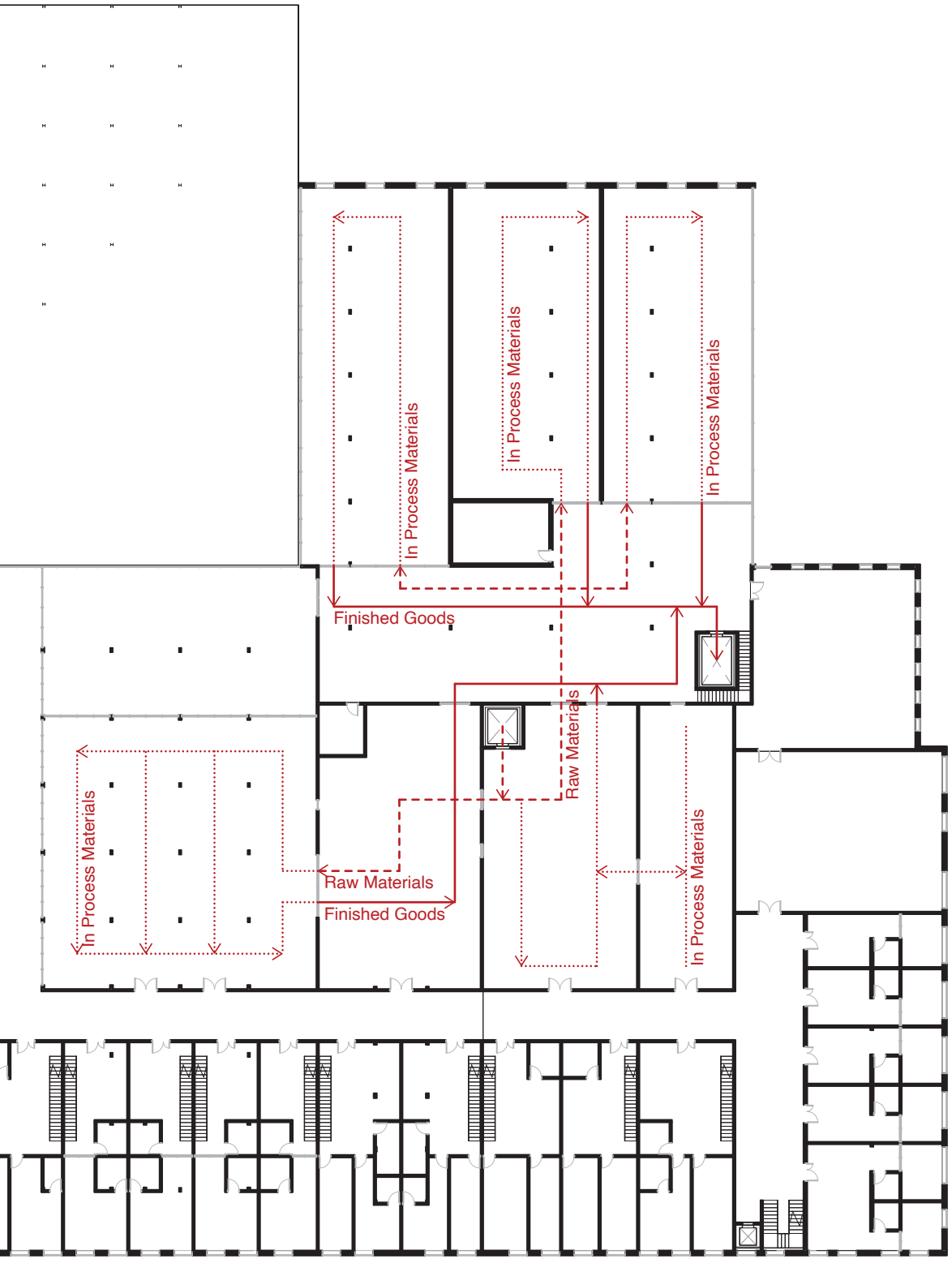


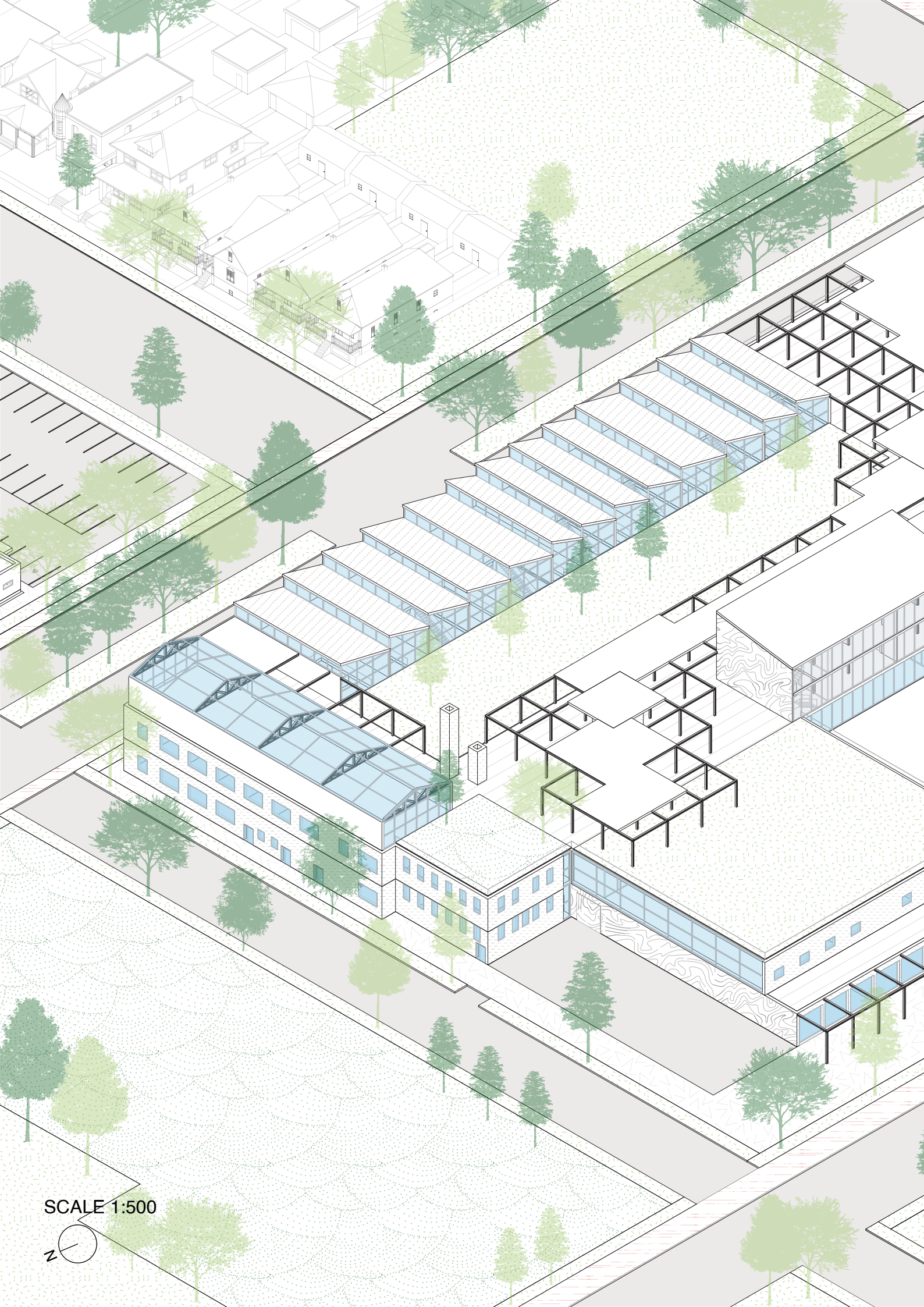

Raw Materials
Finished Goods
In Process Materials
In Process Materials

SCALE 1:500

N

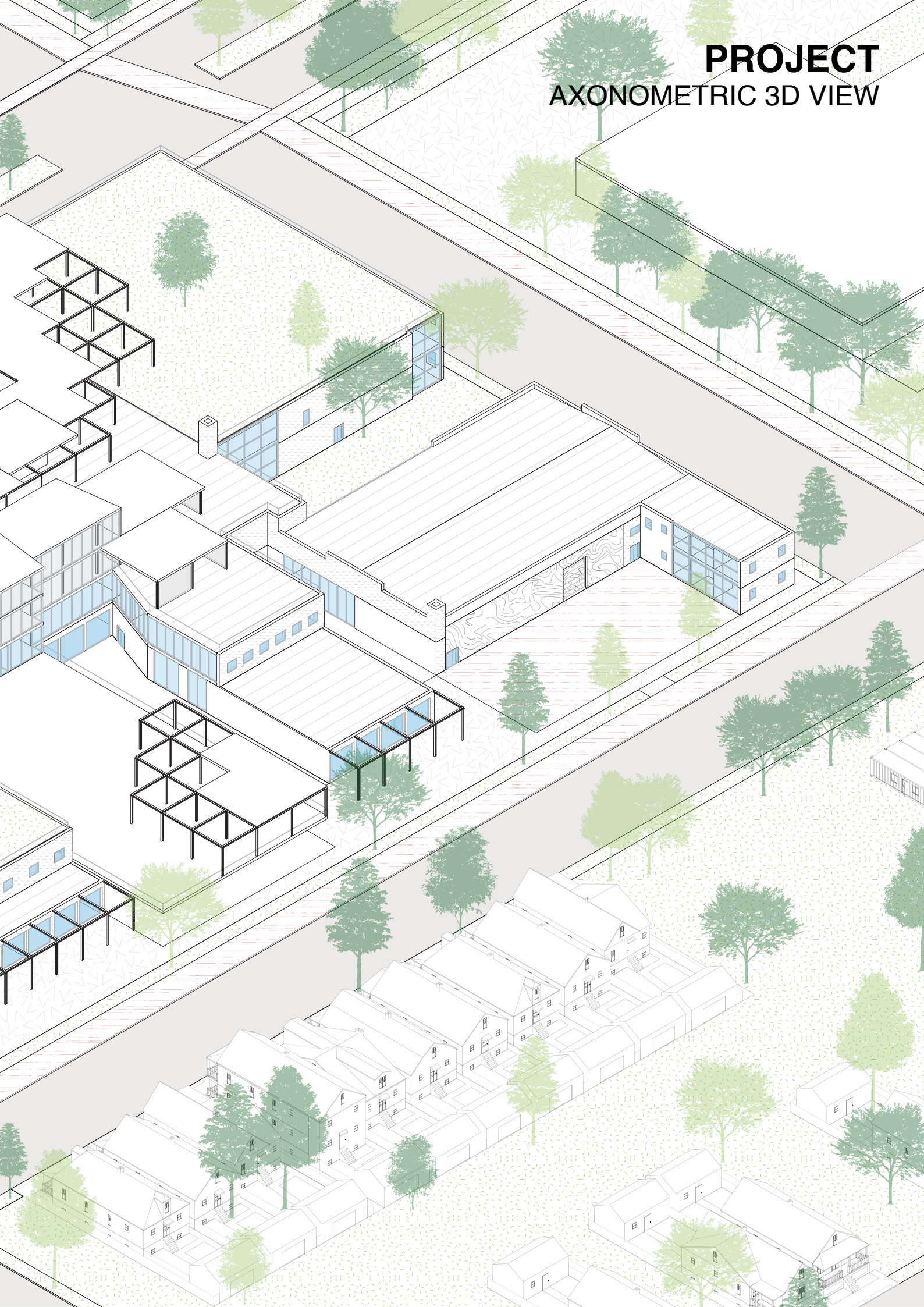
PROJECT
PATHS
FIRST FLOOR PLAN




SCALE 1:500
N

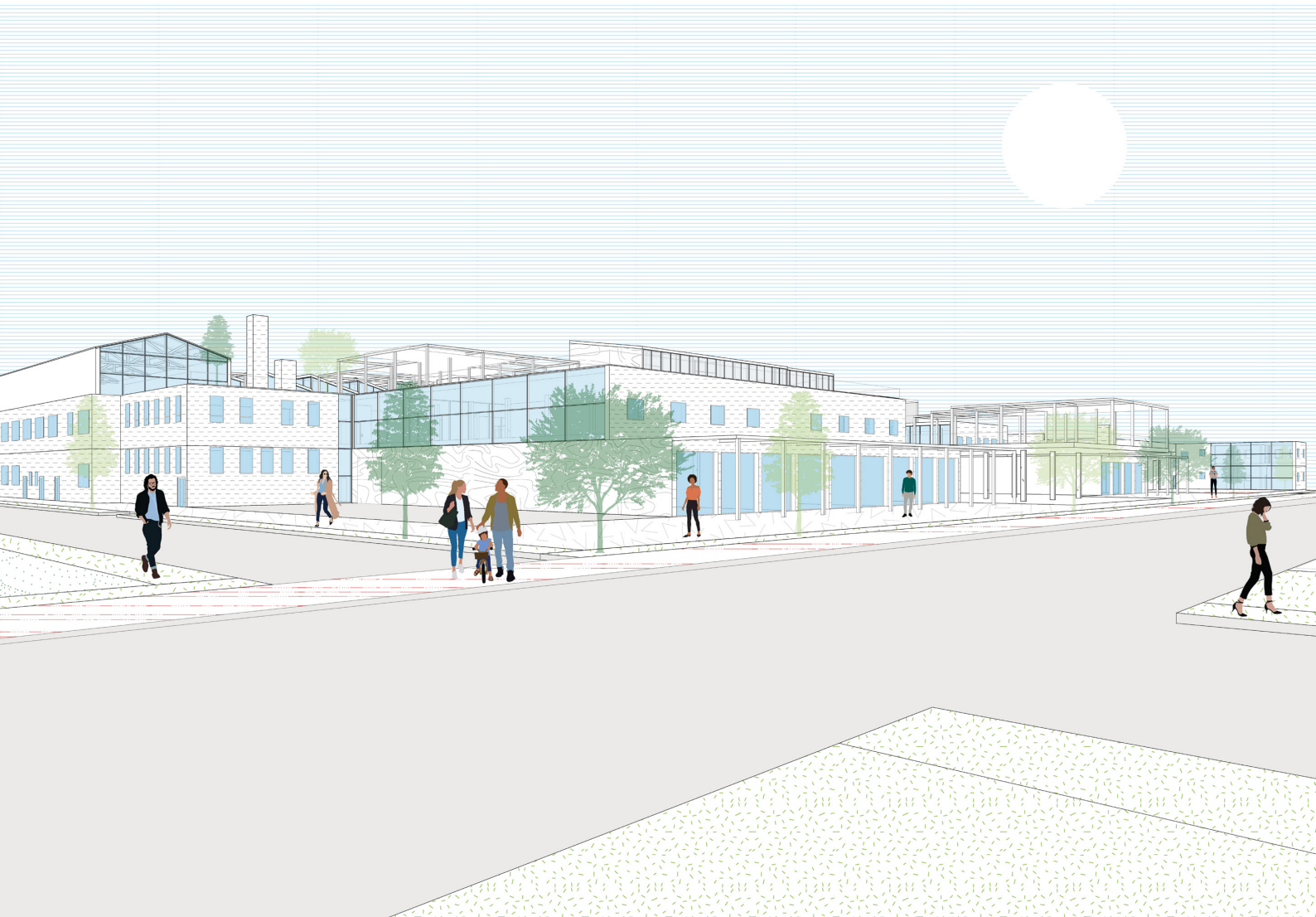
PROJECT

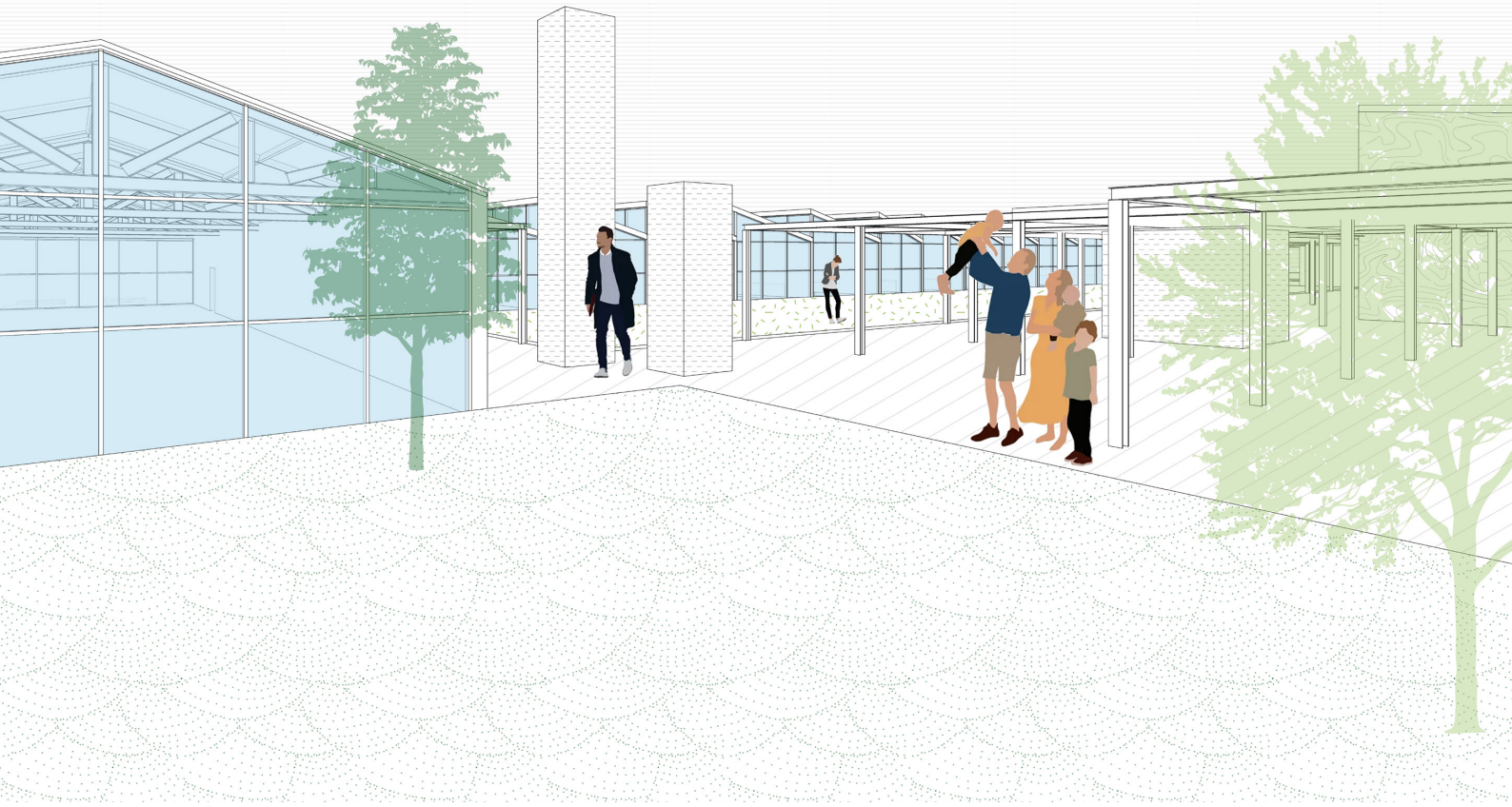
AXONOMETRIC 3D VIEW



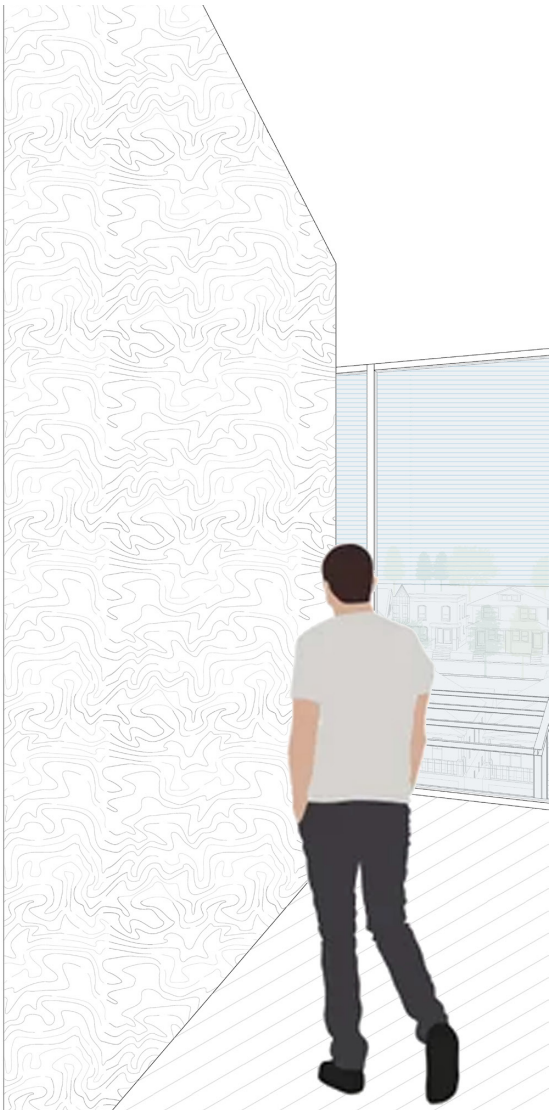
From an urban planning point of view, the space around the building has been enriched with tree-lined paths on the sides of the streets, extensions of the existing bicycle lanes to make it easy to reach every part of the building by bike and green areas dedicated to outdoor sports and play. A bicycle parking area has also been included in a strategic spot for easy access to all functions of interest to the public. A large cultivable area has been identified in the surroundings of the building, serving as an extension of the cultivable space realized on the roofs.

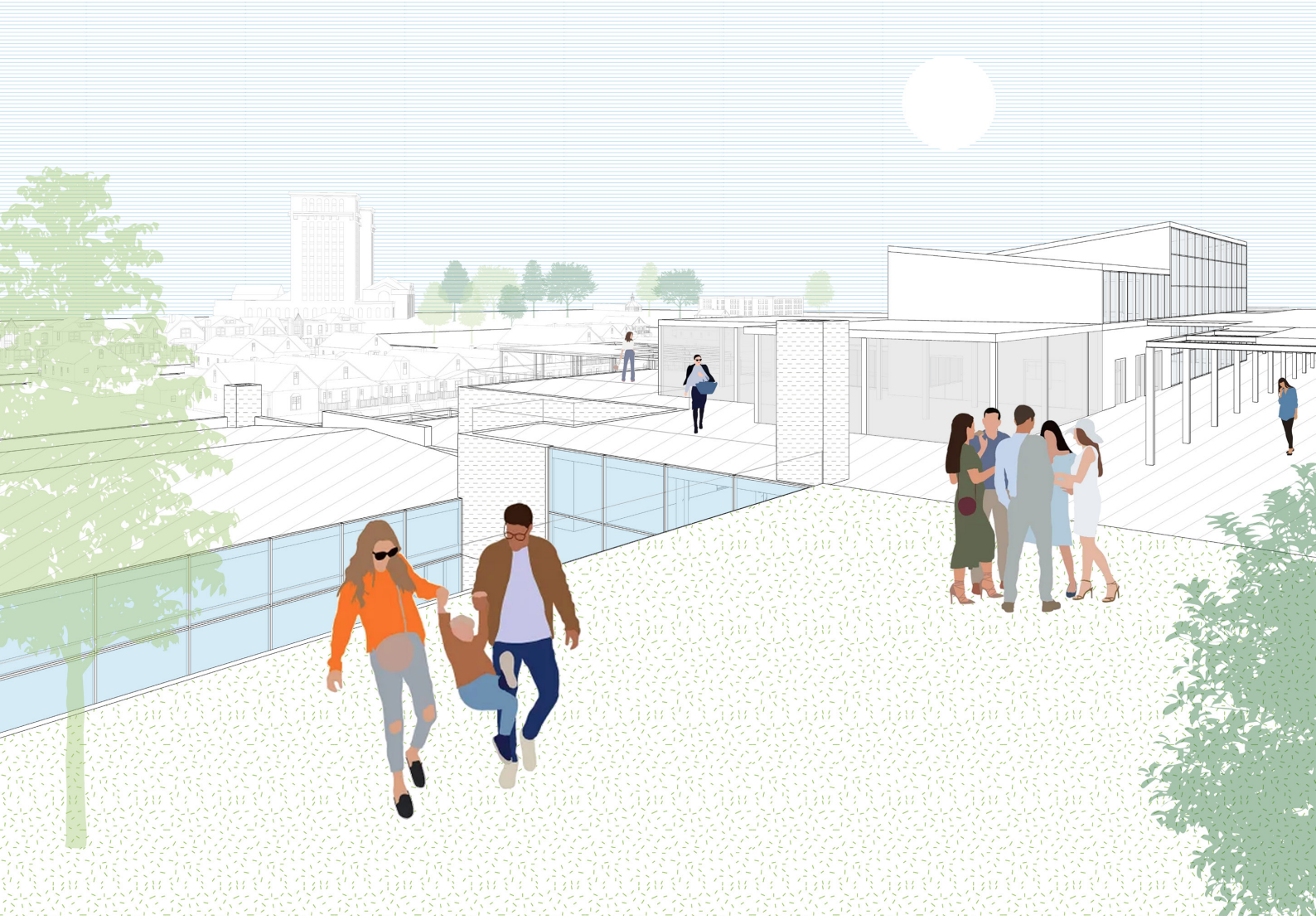
These improvements are proposed to begin on this block and then expand to the surrounding ones, to the entire neighborhood, and then to other areas of Detroit.

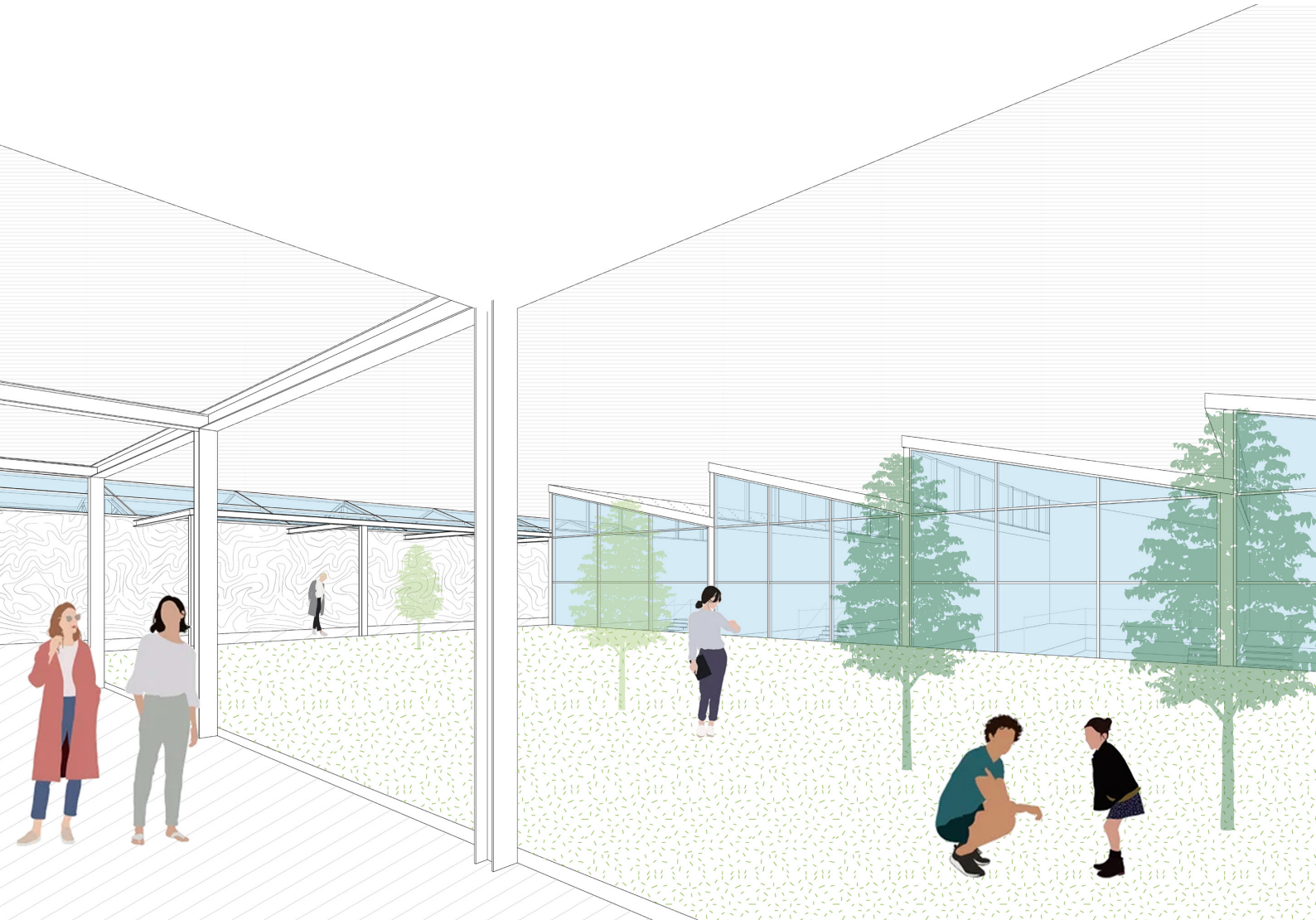












6



Michigan Central Station, Detroit.
Personal photo.

CONCLUSION

“Detroit Creative City - Urban Manufacturing” is first of all a work of study and analysis of the history of Detroit and, more generally, of the processes of deurbanization and shrinkage that have afflicted American Rust Belt cities in the post-industrial period, up to and including current attempts of revitalization.
The process of analysis is followed by a critical examination of the role of the Maker Movement and Creative Cities in this renaissance, and how the return of Urban Manufacturing to cities may change their appearance and destiny.

The social implications of urban growth and the new geography of production within the urban ecosystem have provided an important starting point for reasoning about the future expectations of the city. The re-establishment of production in the urban environment is both an economic and an urban issue; thanks to the return of the Creative Class the new manufacturing must adapt to the continuous evolution of the city.

It is then considered the role of architecture in this context, and how the Adaptive Reuse of abandoned buildings can be, or should be, a solution to this transformation. It is up to the architect to understand the dynamics of change, to exploit the potential that cities offer, to redefine abandoned spaces and to guide future transformation processes, always taking into account the possible social disadvantages that may result, first and foremost that of Gentrification and segregation.

Detroit’s designation as one of the Cities of Design is an indication of the city’s enormous potential in this area, of the legacy that has defined it since its founding, and therefore the logical focal point for its revitalization.

In conclusion, the proposed work represents a critical reworking of the events and phenomena that characterize American post-industrial cities, with the intention of developing an overall project that takes into account the local historical context of reference, but also

offers an European approach.
The goal is to hypothesize a project proposal that can catalyze new developments and provide a starting point for short- and long-term reuses. Starting with one of the many abandoned warehouses in the Historic Corktown District, an attempt is made to create a Makerspaces model that can be applied to similar buildings to the one being studied, which can be found in most American cities.

BIBLIOGRAPHY

Articles

BAJWA H., SHIELDS M., *Detroit: Past and Future of a Shrinking City*, 2022 in Economy League – Detroit: Past and Future of a Shrinking City

BOOZA J., METZGER K., *On some socio-economic aspects of Detroit*, 2004 in WP Band III (Detroit) (shrinkingcities.com)

BORDINE K., *Michigan Municipal League – Ponyride*, 2013 in case-study-ponyride.pdf (mml.org)

BOTTERO M., DATOLA G., FAZZARI D., INGARAMO R., *Re-Thinking Detroit: A Multicriteria-Based Approach for Adaptive Reuse for the Corktown District*, 2022 in Sustainability | Free Full-Text | Re-Thinking Detroit: A Multicriteria-Based Approach for Adaptive Reuse for the Corktown District (mdpi.com)

CARMICHAEL M., *Will today's high-end urban amenities become tomorrow's status quo?*, 2017 in WTF-Housing-2017-Ipsos.pdf (creativeclass.com)

CAVALCANTI G., *Is it a Hackerspace, Makerspace, TechShop, or FabLab?*, 2013 in Is it a Hackerspace, Makerspace, TechShop, or FabLab? - Make: (makezine.com)

CEZANNE C., DRIGGINS K., ROGERS R., *Detroit City of Design Action Plan*, 2018 in OG-Detroit_ActionPlan_Exo_180410_final_web.pdf (designcore.org)

CITY OF DETROIT, *Appendix: Supplemental Existing Conditions and Observations*, 2021 in Greater Corktown Existing Conditions Appendix.pdf (detroitmi.gov)

CITY OF DETROIT, *Detroit selected for highly competitive $30M HUD grant to help bring 500 affordable housing units to Corktown area*, 2021 in Detroit selected for highly competitive $30M HUD grant to help bring 500 affordable housing units to Corktown area |

City of Detroit (detroitmi.gov)

CITY OF DETROIT, *Greater Corktown - Neighborhood Planning Framework Study*, 2020 in Greater Corktown Framework Plan Final Report.pdf(Shared) - Adobe cloud storage

COPE M., *In Detroit time*, 2004 in WP Band III (Detroit) (shrinkingcities.com)

DELONIS K., *The Corktown District Gentrified*, 2019 in The Corktown District Gentrified (arcgis.com)

FLORIDA RA., PEDIGO S., *The Consumer Redefined: The Creative Class*, 2017 in FINAL-LE-MIAMI-REPORT.pdf (creativeclass.com)

FLORIDA R., *Confronting the New Urban Crisis*, 2017 in Richard Florida Introduces the “New Urban Crisis” - Bloomberg

FLORIDA R., *The Creative Class and Economic Development*, 2014 in Economic Development Quarterly-2014-Florida-196-205.pdf (creativeclass.com)

FOGGIN M., *The State of Urban Manufacturing - Detroit City Snapshot*, 2018 in City-Snapshot-Detroit-Final.pdf (urbanmfg.org)

GALLAGHER J., *Design industries are critical to Detroit’s future but need nurturing*, 2018 in Detroit Free Press.pdf (creativeclass.com)

GAMBLE A., *Cityscape: A Journey Through the Shrinking City of Detroit*, 2016 in Cityscape: A Journey Through the Shrinking City of Detroit | SkyriseCities

HELLER C., *The luxury-goods company Shinola is capitalizing on Detroit*, 2014 in The luxury-goods company Shinola is capitalizing on Detroit - The Washington Post

HERRON J., *I remember Detroit*, 2004 in WP Band III (Detroit) (shrinkingcities.com)

KAVANAUGH K., *OmniCorp Detroit hacks into Eastern Market's energy*, 2010 in OmniCorp Detroit hacks into Eastern Market's energy (modeldmedia.com)

MARINELLI A., *L'interminabile rinascita di Detroit*, 2015 in L'interminabile rinascita di Detroit | Corriere.it

MOY J., *On Shinola, Detroit's Misguided White Knight*, 2014 in On Shinola, Detroit's Misguided White Knight | Complex

MONDRY A., *'We wanted to remain a freak show': Behind the ambitious Recycle Here redevelopment*, 2020 in 'We wanted to remain a freak show': Behind the ambitious Recycle Here redevelopment - DETOUR (detourdetroiter.com)

NAUDIN L., SAMUR M., *Report-ness Detroit*, 2018 in Report-ness Detroit – urbanNext

PARK K., *Shrinking City Detroit*, 2004 in WP Band III (Detroit) (shrinkingcities.com)

ROBINSON E., REMENSNYNDER K., GABLER B., *Corktown Framework: Historic Preservation Perspective*, 2019 in Corktown Planning Framework Report Supplemental Information.pdf (detroitmi.gov)

RODWIN L., *Review: 'The Death and Life of Great American Cities', by Jane Jacobs*, 2021 in Review: 'The Death and Life of Great American Cities,' by Jane Jacobs - The New York Times (nytimes.com)

SANDS D., *Detroit's Southwest Greenway expected to start construction in summer 2021*, 2021 in Detroit's Southwest Greenway expected to start construction in summer 2021 (modeldmedia.com)

SASSEN S., *Cities Today: A new frontier for Major developments*, 2009 in Cities Today.pdf (columbia.edu)

TRALDI L., *Richard Florida: le città si (e ci) salveranno. Ecco come.*, 2017 in de la republica.pdf (creativeclass.com)

Books

ANDERSON C., *Makers: The New Industrial Revolution*, New York, Rizzoli Etas, 2017

DETROIT FUTURE CITY, *2012 Detroit Strategic Framework Plan*, Detroit, Inland Press, 2012

FLORIDA R., *The New Urban Crisis: How Our Cities Are Increasing Inequality, Deepening Segregation, and Failing the Middle Class and What We Can Do About It*, New York, Basic Books, 2017

FLORIDA R., *The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community and Everyday Life*, New York, Basic Books, 2002

HATCH M., *The Maker Movement Manifesto: Rules for innovation in the new world of crafters, hackers, and tinkerers*, United States, McGraw-Hill Education, 2013

HIRSHBERG P., DOUGHERTY D., KADANOFF M., *Maker City: A Practical Guide for Reinventing American Cities*, United States, Make Community, 2016

INGARAMO R., *RUST REMIX. Architecture: Pittsburgh versus Detroit*, Siracusa, LetteraVentidue, 2017

JACOBS J., *The Death and Life of Great American Cities*, New York, Random House, 1961

PEPPLER K., HALVORSEN E., KAFAI Y., *Makeology: Makerspaces as learning environments*, New York, Routledge, 2016

RAPPAPORT N., *Vertical Urban Factory*, Actar Publisher, New York, 2012

Thesis

GEMIGNANI V., *Remaker urban manufacturing Detroit*, Rel. Ingaramo R., Politecnico di Torino, Corso di laurea magistrale in Architettura Costruzione Città, 2017

GEMMI F., *RE LEARNING Urban Manufacturing Detroit*, Rel. Ingaramo R., Politecnico di Torino, Corso di laurea magistrale in Architettura Costruzione Città, 2017

MONTIPÒ C., *Loft Working. Basic observations on urban manufacturing spaces in North American cities*, Rel. Robiglio M., Politecnico di Torino, Doctoral Program in Architecture, History and Project, 2019

NUZZO F., *Remaking Pittsburgh: urban manufacturing*, Rel. Ingaramo R., Correl. Montipò C., Qick S., Politecnico di Torino, Corso di laurea magistrale in Architettura Costruzione Città, 2017

POLVERINI D., *Remaking Pittsburgh Urban Manufacturing*, Rel. Ingaramo R., Politecnico di Torino, Corso di Laurea Magistrale in Architettura per il Progetto Sostenibile, 2018

Websites

[ENC60] Detroit Shrinking City – Prolab (dpa-etsam.com)

1551 Rosa Parks Blvd - Hubbard Richard - Regrid

1720 Rosa Parks Blvd - Corktown - Regrid

1924 Rosa Parks Blvd - Corktown - Regrid

1927 Rosa Parks Blvd - Corktown - Regrid

1927 Rosa Parks Blvd, Detroit, MI 48216 - Cunningham Warehouse | LoopNet

Creative Class Group Home - Creative Class Group

Cunningham Drug (U.S.) - Wikipedia

DesignCore_2021_AnnualReport.pdf

Detroit | Creative Cities Network (unesco.org)

Dreamtroit Artist Housing - 1+1+ Architects (oneplusone.plus)

Dreamtroit to Transform Lincoln Street Art Park + Recycle Here Creating Affordable Live/Make Artist Community - PLAYGROUND DETROIT

Ecosystem Map - Detroit v6 small (designcore.org)

EMPOWERMENT PLAN

FY21-22+Annual+Report.pdf (squarespace.com)

Home - Design Core Detroit

Inclusive Design Together (designcore.org)

Industrial Property Portfolio for Sale in Detroit, MI (crexi.com)

Joe Louis Greenway | City of Detroit (detroitmi.gov)

LST IND Write Up w/ Map

Maker City Book

Maker culture - Wikipedia

Meet the founder creating warm coats – and big opportunities – for Detroit's homeless | Personal Investments | The Guardian

Michael Van Valkenburgh Associates Inc | Ralph C. Wilson, Jr. Centennial Park Detroit (mvvainc.com)

Michigan Central

Ponyride – Social entrepreneurship

SEMCOG Building Footprints

shrinkingcities : Detroit

Small-business incubator Ponyride sells Corktown building for $3.3M. (detroitnews.com)

The maker movement manifesto: rules for innovation in the new world of crafters, hackers, and tinkerers - ProQuest

ACKNOWLEDGMENTS

Vorrei ringraziare la Professoressa Roberta Ingaramo per avermi seguita nello svolgimento del progetto di tesi e per aver reso possibile il programma di scambio con la Lawrence Technological University di Detroit.
Ringrazio i Professori Scott Shall e Anirban Adhya per avermi aiutata nella fase di analisi svolta in presenza, sempre pronti a rispondere a tutte le mie domande.

Ringrazio coloro che mi hanno accompagnato nelle visite dei Makerspaces, perché hanno svolto un ruolo essenziale nello sviluppo del mio progetto.
E ringrazio Detroit, per avermi fatto vivere questa esperienza e per aver di gran lunga superato le mie aspettative.

Un grazie speciale va ai miei genitori, la mia forza e la mia roccia da sempre, senza di voi non sarei dove sono oggi. Grazie per essere stati sempre un passo dietro di me, supportandomi anche quando gli obiettivi sembravano troppo grandi, o lontani, per essere raggiunti.

Ringrazio mia sorella, sei e sarai sempre un punto di riferimento.
Ringrazio i miei zii, i miei nonni e anche due nonni bonus che ho avuto la fortuna di avere vicino a Detroit.

Ringrazio le mie coinquiline e tutti i miei amici, in particolare quelli che mi sopportano ormai da anni.

E infine ringrazio Nicolas, l'unico che probabilmente sarà arrivato davvero a leggere fino a questo punto, per la pazienza e il supporto dimostratomi durante tutto questo percorso. Ma anche, e soprattutto, per credere sempre in me ed essere sempre al mio fianco, in tutte le sfide che la vita ci mette davanti e che superiamo insieme.

A zia Anna Maria.