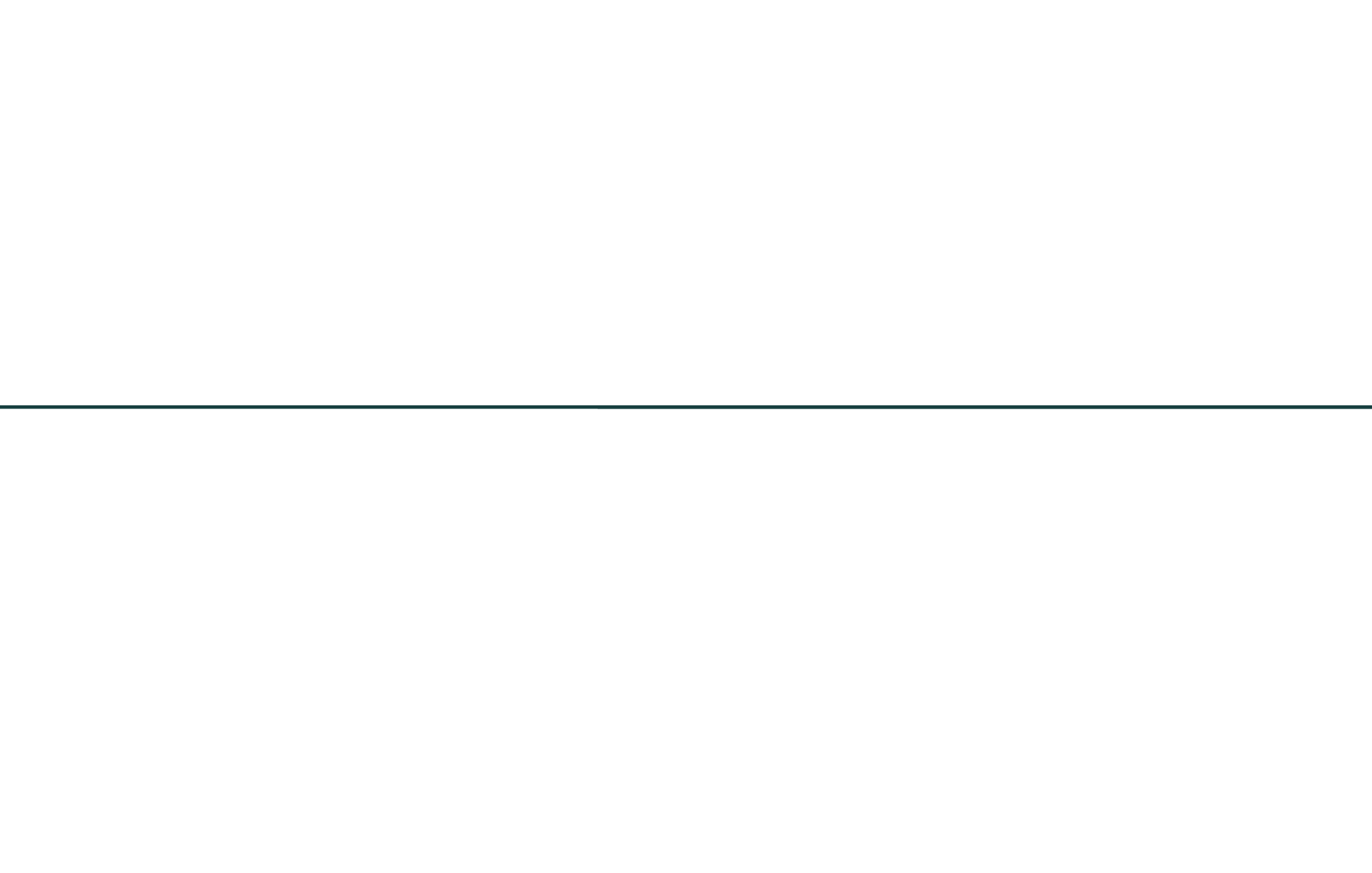




RESURGENCE



RENEWAL | REVIVAL | RESONANCE



THANK YOU

This architectural thesis is a culmination of years of passion, patience, and dedication. And I owe most of it to the wonderful and incredible group of people who have been my core motivators through my academic career. Words will never be able to begin to explain how grateful I am and how priceless your unconditional encouragement has been for me throughout this process. Thank you for believing in me when I couldn't even do it myself, for celebrating the highs, persevering through the lows, and everything in between. I couldn't have done it without you and wouldn't be where I am today; I owe my success to you - my family, my friends, fellow students and advisors.

CATHERINE ELAINE GROTH

BLENDING OF CROSS-DISCIPLINARY FOCUSES OF
SOCIO-ECONOMICS, CULTURAL
RELEVANCE & ARCHITECTURAL DESIGN

RESURGENCE: A Design Thesis submitted to the Department of Architecture &
Landscape Architecture of North Dakota

by

Catherine Elaine Groth

In partial fulfillment of the requirements for the degree of
Masters of Architecture



Ganapathy Mahalingam, Primary Thesis Advisor & Thesis Committee Chair

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ABSTRACT

Detroit, Michigan, is on the cusp of the biggest economic crisis of its history. This architectural thesis will seek to blend the elements of socio-economics, cultural relevance and historical significance in order to provide a sustainable solution for Detroit's revival. The project will be a mixed-use, urban infill master-plan development with a cross-disciplinary focus of sociological, economical and architectural trends. A multi-use, dynamic arts centre will be individually developed and detailed with the integration of studio spaces for students to practice in. Flexibility and adaptability of individual and holistic design elements will be integrated in order to appropriately respond to the ever-changing economic demands and climate of the city. The development will provide low to moderate income living arrangements, integration of green spaces to encourage healthy lifestyles and to encourage impromptu, casual performances and the opportunity for the community to display and celebrate their rich history and cultural background.

PROBLEM STATEMENT

HOW CAN ARCHITECTURE HELP TO BEGIN TO BLUR
THE LINES BETWEEN OTHER DISCIPLINES,
INFLUENCES AND CIRCUMSTANCES?

STATEMENT OF INTENT

TYOLOGY

A master plan redevelopment
Urban infill

Housing, Site Development, Performing & Creative Arts Centre

CLAIM

Through cross-disciplinary focus, architecture can bring together critical cultural aspects to create a powerful and purposeful connection to the community to celebrate, sustain and encourage safe and meaningful spaces for positive self expression.

PREMISES

Art has an incredible healing power that is self sustained and is solely controlled by the individual. It allows one to reveal positive and creative elements within oneself and can contribute to a powerful, overall holistic expression of oneself. Architecture can not only provide these creative opportunities but can begin to inspire and encourage positive expression and become a connector back to its societal context and environment. Architecture truly becomes holistic when it seeks to embody the culture, societal influences and problems, becoming a catalyst for economic and personal revival.

UNIFYING IDEA

The true power of design rests in its capability to create, sustain and encourage environments that can begin to change the core of a city. Providing the basics of safety, health and wellbeing, design can seek to push the boundaries even more by beginning to change the mentality of such a violent city towards one of positive creative expression in light of such a decline. Architecture becomes a beacon of hope, of promise, of unity and resurgence.

JUSTIFICATION

With Detroit's revival just breaking over the horizon, the people of the city are finally looking towards the future. More and more emphasis and concern are being given to critical areas that have been overlooked and sidelined before. The arts community within Detroit have acted as a catalyst in the city's resolve to not give up, clinging to the place they call home and refusing to desert it. There is a need for safe, creative and positive spaces for these creative minds and the public alike to be able to express themselves in light of all of the violence that constantly surrounds them. These spaces will enrich the lives of the community and increase the wellbeing of it as a whole. Each person deserves the opportunity to be able to creatively express themselves, it is a basic human right. You can take away a person's home, job, family, almost everything they have in their life, but you cannot take away a person's creativity, imagination or hope. This master plan redevelopment will explore the power of culture, art, and community as a positive means to the end of the desolation that this city has been subjected to for far too long.

Architecture has the capacity to directly impact human behavior, development and environment on one of the greatest of scales within society. Acoustics, colors, materials, organization and proportions are just a few of the elements that can be used to manipulate the human experience and perception of a space. It is through these mechanisms that we, as designers, can begin to positively impact people's lives for the better. I truly believe that through architecture, some of the greatest advances in culture, economics and societal reform can begin to take place.

Through this project, I will seek to provide a holistic and innovative design solution for the residents of Detroit. So many countless examples exist of individual elements such as micro-banking and pocket neighborhood that yield positive results concerning economic reform. My thesis project will effectively and sustainably combine these unique design solutions to provide the residents of Detroit with a safe and stable community that will become the basis for a larger economic reform throughout the city.



THE PROPOSAL

NARRATIVE

Detroit, Michigan, has often recently been overlooked, undervalued and unappreciated. Currently sitting as the poorest, most-abandoned and crime-ridden city in America, there are a lot of reasons to do just that. The culture in America that has developed since the Industrial Revolution has been one of instant gratification, that quantity is better than quality. With the rise of social media and technology over the past decade, that culture has been fueled by feelings of self-entitlement and demands for quick, fast and easy solutions. Basically, when something doesn't work, just quit and give up on it in order to pursue greener grasses on the other side of the field. This culture that we have created ourselves has driven us into the deepest economic (and personal) depression of our nation's history. We are presented with endless opportunities for more, yet we always seem to feel less fulfilled and emptier than ever. If we are to escape this endless cycle of wasteful time and money, we need to redevelop this culture towards one of "less is more" and begin to celebrate things that are outside just material gains. I strongly believe that architecture has the capacity to provide a means for this cultural revitalization and an escape from this economic crisis we have been forced into. Detroit is the perfect candidate for such a revolution and contains all of the elements necessary to make it work.

I have always been fascinated with how architecture possesses the capacity to directly impact people's lives in the most fundamental of ways. Every aspect of our existence happens within or surrounded by structures that humanity itself has created and articulated. Through my research in various sociology and business classes, I have begun to draw parallels between the disciplines. Through this thesis project, I hope to utilize strategies and premises from those disciplines to direct the design and progression of the project. By creating a centralized, holistic community development with the capability to develop its own micro-economy, the underprivileged residents of Detroit will finally have a stable place to call home. Technology and communication infrastructure will become a key development within this project as it will provide citizens direct access to exchange useful and critical information about their community and to quickly and effectively resolve issues as they arise.

My time spent in the architecture program here at NDSU has also inspired me to pursue this typological research for my thesis in an unconventional way. Throughout the years, I have grown incredibly close to my classmates seeing as I've spent the better portion of my life with them throughout my academic career. I consider them my 'studio family', and each of us have undertaken unique roles in that scenario. We really have developed our own little micro-community on which we rely on each other for more than just academic help. We inspire each other and truly wish to see each other succeed. Even though we are constantly surrounded by technology, we first seek each other's help and gravitate towards physical interaction. It's the perfect example of how our intrinsic human nature seeks belonging on a physical and emotional level in spite of all this technological "assistance."

It's incredible what we have been able to accomplish as a group, and I have learned some of the biggest life lessons through my interactions with my classmates. If a small band of sleep-deprived architecture students can come together as a community and do so many great and wonderful things, imagine what a larger community could do in an urban setting?

“ART WASHES AWAY FROM THE SOUL THE DUST OF
EVERYDAY LIFE.”

PABLO PICASSO



USER/CLIENT DESCRIPTION

The primary users of this development will be the local residents of Detroit, Michigan. Primary focus will be given to those with middle to low-income status in order to provide more affordable housing creative opportunities for the underprivileged and disadvantaged. Because the core group affected by the violence lies predominantly between the ages of fourteen and twenty-four, these youths will be a primary focus for this development and arts centre. Parking requirement for all user groups will be through one of the many parking ramps adjacent to the site. Peak usage times will vary depending on the wide variety of groups utilizing the development. Business professionals commuting to and from work will increase foot traffic during the early morning and late afternoon hours, which college students and families may travel more sporadically throughout the day. At any given point, light to medium foot traffic and facility usage will be happening. This is largely due to the differentiation between the many different user groups that will inhabit this development.

It is in the inherent nature that physical, mental and medical limitations and persons with disabilities will be a part of this community. Therefore, accessibility will be integrated throughout every aspect of the design project to avoid discrimination and limitation of facility usage. Special consideration will be given in this area in the way that minimal accessibility requirements will not only be met, but will be exceeded and maximized to become a truly holistic part of the design solution.

Economic, cultural, social and political issues befall these user groups in a significantly impactful way. The development will seek to provide a sense of place and community for those affected by the recession in Detroit, both directly and indirectly. A majority of the current residents of Detroit lost their house and/or job and have had to forgo life advancement opportunities such as education and career development because of that. Complicated political issues prevent critical laws and regulations from passing in order to begin to help the locals rebuild their community and life. Economic growth and redevelopment can begin on the smallest of levels, and developing a self-sufficient neighborhood will become a starting point for an even more grandeur revolution.



MAJOR PROJECT ELEMENTS

Multiple elements will come together to make this urban infill redevelopment project successful. Key components include individual residential units in various sizes, outdoor riverwalk system, kinetic and permanent performance spaces, and studio spaces for rehearsals and classes, and recreation provisions. A critical component will involve the integration of a centralized community plaza space in which residents can come together. The public at large will be encouraged to utilize the spaces, with little restrictions given on age requirements and other demographics in order to reduce discrimination. Teachers and faculty will include visiting artists, dancers, theatrical and performance backgrounds, janitorial staff and administration to organize events both within and outside the facility.

Art knows no age, no socioeconomic status, no gender, no prejudice. This facility will do the same.

SITE ANALYSIS

This site was chosen for its dynamic and unique location. Adjacent to downtown Detroit, nestled along the riverwalk and the iconic GM Renaissance Centre. The site currently sits as a series of abandoned, empty and unused parking lots. The site is unique as it is surrounded by four additional large parking garages which also see little to no activity or usage at any given time. Predominantly bordered by the creative class, this area experiences heavy foot traffic along the riverwalk and the plaza in front of the Renaissance Centre. The city of Detroit has done a wonderful job at developing the riverwalk, but it begs to be furthered even more and so many opportunities exist for expansion and redevelopment. The project will be located along the Detroit Riverwalk between the blocks of St. Antoine Street and Atwater Street. Detroit is the largest city in Michigan consisting of a metro population of 5.2 million people. Popular historical nicknames for Detroit include Motor City and Motown. The site was selected with the intentional possibility of it being a brownfield redevelopment site. Railroad tracks used to run along adjacent to the site, transporting harmful and toxic materials throughout the area on a consistent basis. Currently, the site sits as a severely under-utilized parking lot development. Situated between the river, the current General Motors headquarters and a series of deteriorated and abandoned buildings, the site is a prime location to become a nucleus of southeast Detroit.



IMAGE VIA GOOGLE MAPS / FIGURE CREATED IN ADOBE ILLUSTRATOR



SITE, RIVERWALK

Multiple cities were considered for this design project that would best support this urban redevelopment typology. Initially, international sites such as Mumbai and New Delhi were more favorable as they presented incredible economic concern and capacity for redevelopment projects. National sites such as Chicago and Minneapolis were also considered as urban hot-spots and centers of great cultural affluence. Finally, Detroit was settled on for a variety of factors. First, its current severe economic decline; second, the potential for redevelopment through abandonment and desolation; third, the critical need for job creation and economic stimulation, and lastly, the desire for a centralized arts center in which the underground artistic movement can adequately express themselves rather than being continually suppressed and limited.

Frankly speaking, Detroit is one of the most difficult problems to solve and presents the biggest challenge. Through this, though, I believe that the greatest rewards are possible and the potential exists for a great amount of success. This project demands that multiple disciplines be brought into play if it is to be successful.

Once Detroit was chosen, the site was selected upon prior research and from physically visiting the area. Southeast of downtown Detroit, the site sits adjacent to the General Motors Headquarters and the Renaissance Center. Bordered by the newly redeveloped riverwalk system to the south, the site consists of a string of seemingly abandoned and severely underutilized parking lots. This particular area is a transition point between the bustle of downtown, the beautiful riverwalk, and scattered abandoned buildings and businesses. The crime rate for this neighborhood, just like the rest of Detroit, is incredibly high and yet still receives a significant amount of pedestrian traffic on the edges of the site.

Absolutely no residential units exist here, with commercial and retail development dominating the area. Choosing this site is intentional because it will seek to bring more businesses and residential developments back into the community and will take advantage of the incredible opportunities it presents. As the development will demand an increase in residential density, small business retail opportunities and public means of displaying art and performing, economic activity will increase and help propagate further stabilization throughout the entire metropolis as a whole.



PLAZA, GM RENAISSANCE CENTRE

DEMOGRAPHICS

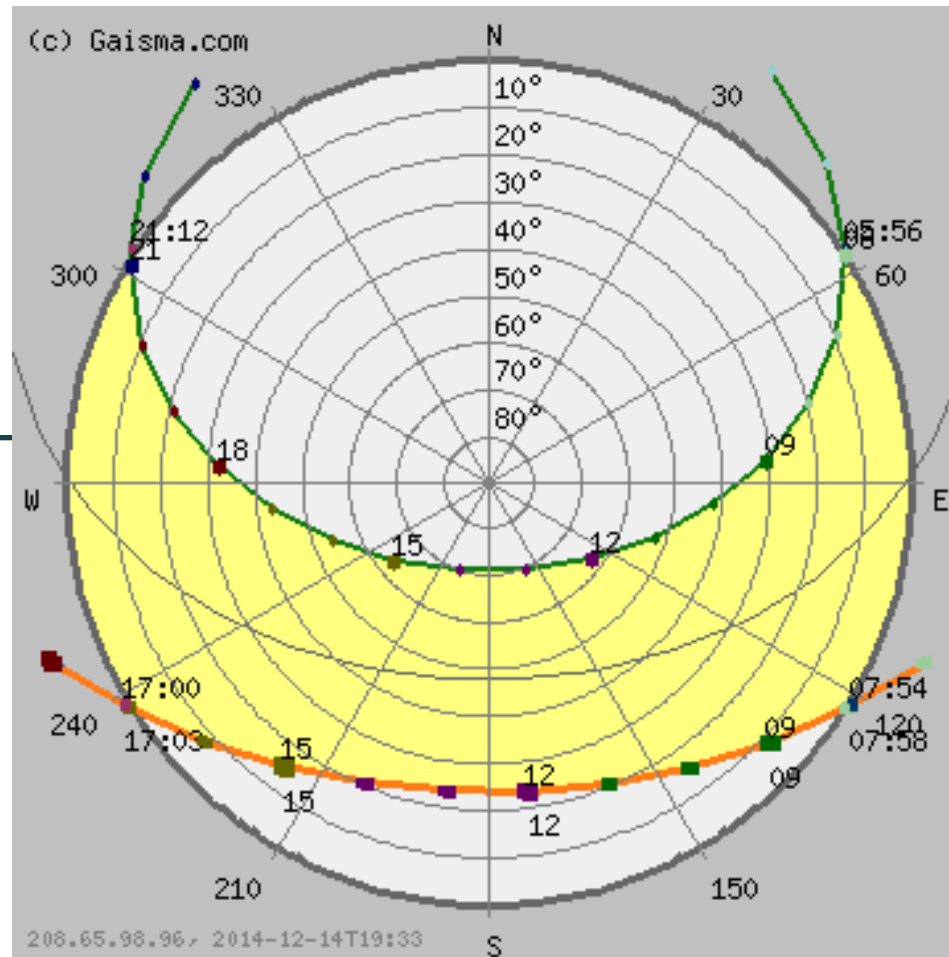
Located in the Waterfront Neighborhood, the site comprises a total of roughly a quarter of a square mile. The estimated population for this neighborhood is 1,475 people with the density being about half that of the total average of the city of Detroit as a whole. African Americans dominate over 75% of the population within this area, with the vast majority of household incomes residing below \$30,000 per year. Average rental prices are slightly higher than those of Detroit as a whole, fluctuating between \$700 and \$750 per month. Ages are fairly young averaging between 32 and 38 years old. Household sizes remain incredibly small with an average of 1.6, 15.4% of those being family units.

The vast majority of the residents in this neighborhood are single, un-married individuals with no children or dependents of any kind. A staggering 60% of females in this area are single mothers, while only 22% of males are single fathers. Most residents are native to the area, speaking English as the primary language. The area is severely under-educated, with over 60% of residents receiving less than a high school education. Most of the residential units are multi-bedroom, suggesting that multiple families or unrelated individuals live and room together.

CLIMATE

The average wind speed in Detroit is 10 miles per hour, roughly the same as Minneapolis and Dallas for examples. The site in particular experiences most wind gusts from the south and east, as it is immediately bordering the waterfront with no physical obstructions. The slope of the site is basically non-existent as it is entirely paved parking lots, which also increase wind speed and providing little access for drainage. No shading exists whatsoever on the site, and noise levels remain fairly low due to little vehicular and pedestrian traffic.

Noise comes from the natural sound of the water of the river and can sometimes be faintly heard from downtown to the northwest during peak hours. 572 feet above sea level, Detroit is bordered by the Detroit River to the south and Lake St. Clair to the east.





SITE PANORAMA



SOUTH



NORTH



EAST



WEST

SITE CONTEXT



SITE CONTEXT



LIGHTING / DISTRESS

Lighting on the site is primarily done through natural means, as the site is incredibly open and unobstructed by any buildings immediately within the boundary lines. Thus the direct sunlight is continuous and consistent throughout the entire day. Few streetlights line the perimeter, but are few and far between. Natural distress on the site has occurred as time goes on due to the site being over-exposed to the various elements. The winds coming off of the water bring along salt, escalating erosion and stripping away at the metal coatings of railings, streetlights, etc.

Not many green spaces or public parks exist within the metropolis area. Instead, a high percentage of the area is dominated by a concrete and asphalt jungle, which contribute to the heat island effect often raising temperatures within the city. Average annual precipitation is 31 inches, varying between rain and snow-fall as the seasons change. Detroit experiences the four seasons, typically found within the Midwestern context. Average temperatures range from 20 degrees Fahrenheit in the winter to the upper 80's in the summer.*

*All quantitative information gathered from
city-data.com.

SOILS & VEGETATION

Absolutely no vegetation exists within the immediate site. A great deal can be found along the riverwalk that borders the site to the south, consisting of a wide variety of trees, shrubbery and natural prairie grasses. The dominant soil order is alfisols, which have a high native fertility. Forming under a forest, these soils have a subsurface horizon in which clays have accumulated.

INFRASTRUCTURE

Since its beginning development over a hundred years ago, Detroit's infrastructure has been highly organized and depended on as a trading hub, which demands adequate and efficient transportation. Half of the population of the U.S. is less than 500 miles away from Detroit, making it easily accessed and highly desired as a means of exporting and importing various services and products. The Ambassador Bridge, connecting Detroit to Canada, has over 10,000 trucks pass across it daily making it the busiest border crossing in North America (Ladetto, 2014).

The Detroit Metropolitan Wayne County Airport is the 18th busiest airport in the world, offering 280 international flights weekly. Cargo movement through this airport is critical as well. Annually, DTW has more movements than JFK and LaGuardia airports in New York, and even the Boston Logan Airport in Massachusetts (Ladetto, 2014).

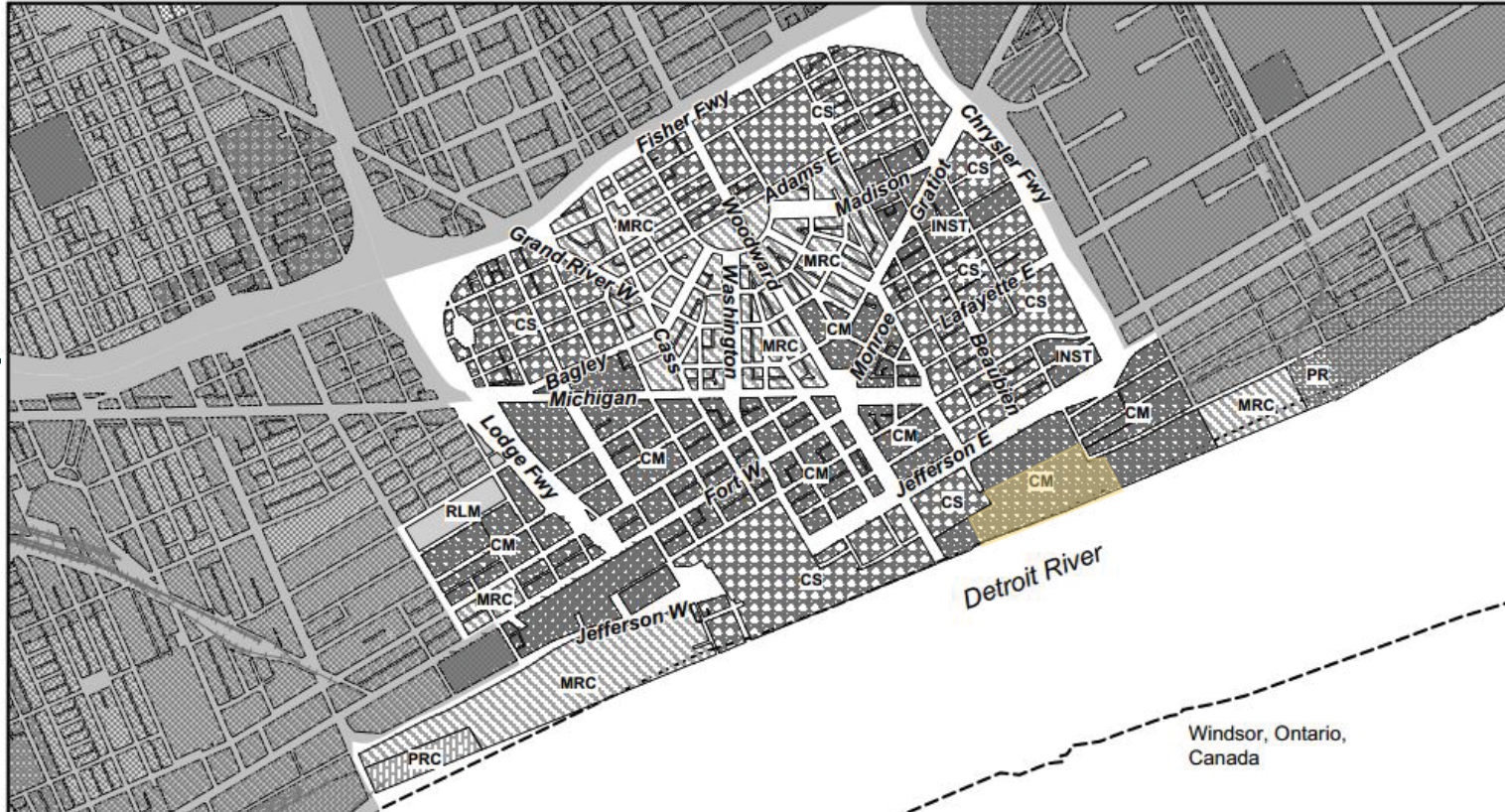
Railways have been an essential component of Detroit's history. As a busy port city, railroads were often seen as one of the most reliable means of transporting goods and people into and out of the city. Michigan Central Station, completed in 1914, consists of a three-story train depot and an eighteen-story office tower, both which were never fully utilized. Today, it still holds the record for the tallest train depot in the world to be build. Now completely abandoned, the station serves as a national historic monument, paying tribute to the glory days of Detroit's past. Many attempts have been made to destroy and tear down the building, but the public has fought back, ultimately succeeding by getting it registered as a national historic landmark.

Located on the water, Detroit has been a critical port city for its entire history. The Port of Detroit is the third largest international gateway in the United States, connecting the Great Lakes and the entire Midwest to the St. Lawrence Seaway, importing over 750 million tons of steel annually (Ladetto, 2014).

During the economic decline, the entire infrastructure system of Detroit has been steadily collapsing. Many streets, roadways, parking facilities, railways and transportation systems alike have not been kept up adequately and have fallen victim to the elements. The four seasons and fluctuating temperatures take quite a toll on the roadways and pedestrian pathways alike. Detroit's bankruptcy has not left any money to maintain these major roadways, causing them to fall to disrepair often past the point of being able to be utilized anymore. Road closures are a frequent cite in the metro area.

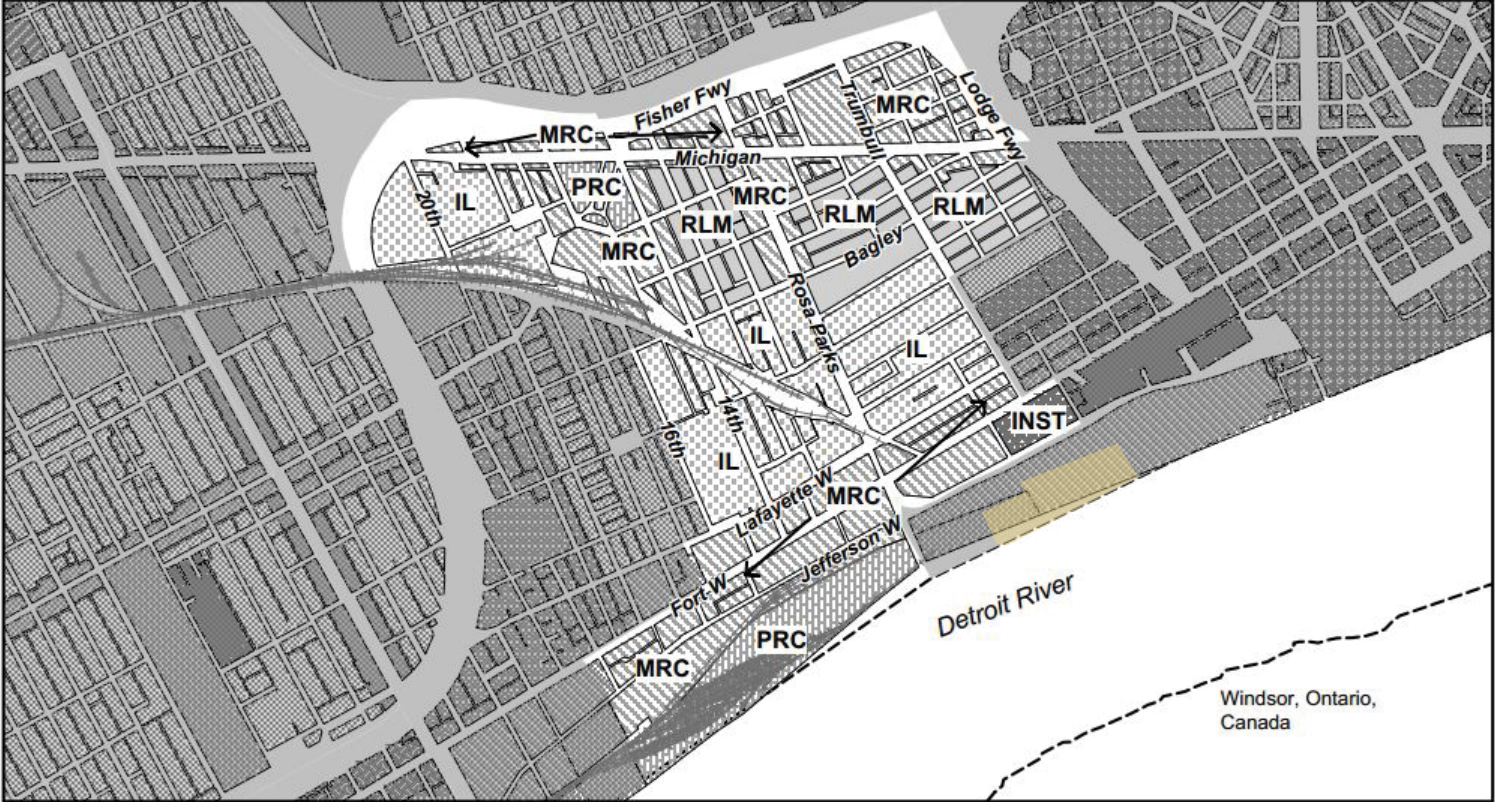


Current Zoning



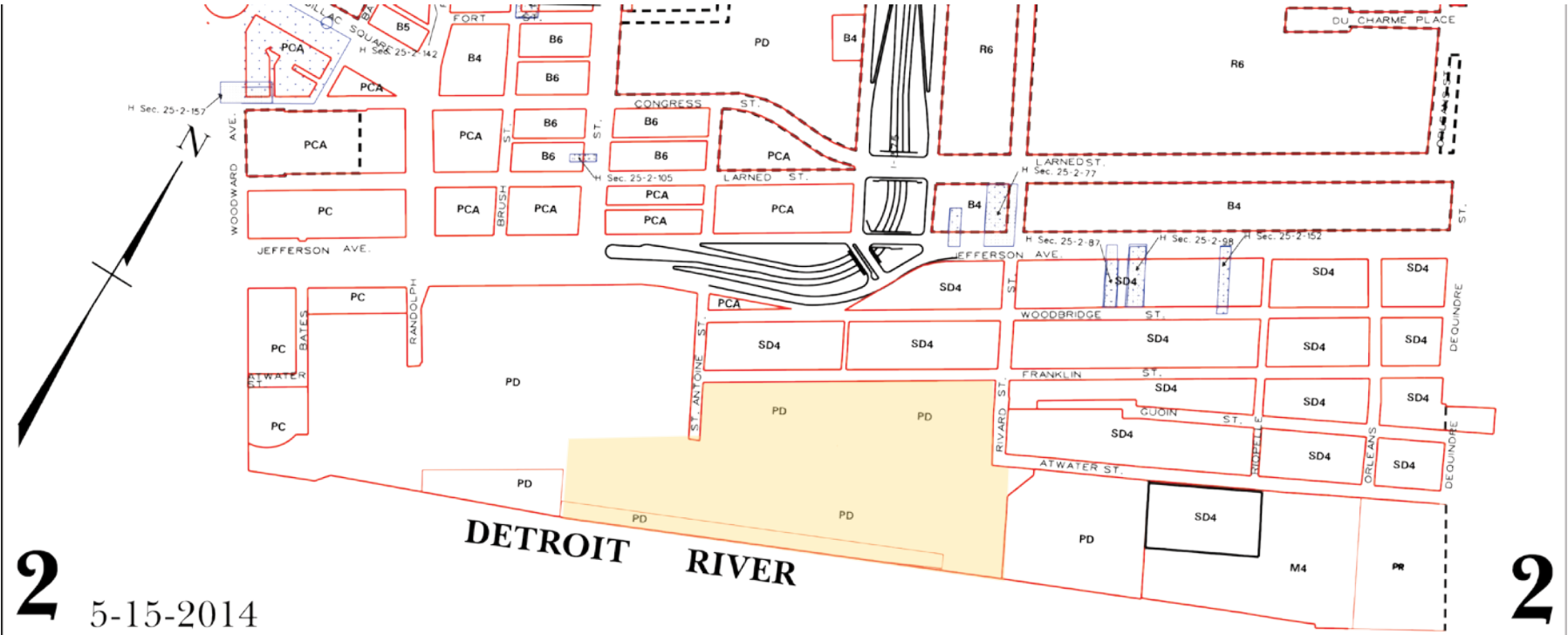
<http://www.detroitmi.gov>

Future Zoning



<http://www.detroitmi.gov>

Zoning Ordinance



2 5-15-2014

<http://www.detroitmi.gov>

The current zoning ordinance for the site is Commercial according to the Detroit Master Plan set out in 2009. Future plans label the area as PD, or Planned Development district. According to the municipal website, the restrictions and intentions for this district are as follows:

“This district will permit planned developments throughout the City and will be particularly useful in urban renewal areas. Such planned developments shall be substantially in accord with the goals and objectives of the Master Plan, by having a major land use that corresponds to the most general category of land use, which are Residential, Public/Civic/Institutional, Retail/Service/Commercial, Manufacturing and Industrial, and Other, proposed in the Master Plan for the area involved. Such planned developments shall provide a desirable environment for the uses proposed and shall not be out of harmony with their general surroundings. The regulations of the district are designed to accomplish this by permitting flexibility in overall development while ensuring adequate safeguards and standards for public health, safety, convenience, and general welfare and, where applicable, encouraging historic preservation.”

Arts



1. Magenta Giraffe
2. Studio Couture
3. Skidmore
4. AIREA
5. Dumouchelle
6. ARTLAB J
7. Chene Park
8. Detroit Opera House
9. Urban Bean Co.

Figure created in Adobe Illustrator & via maps.google.com

Upon research, little to no art galleries or performance venues remained open after the economic decline. Those that do remain open, such as the Detroit Opera House, target a higher-class audience and seek to bring in larger venue performers. Few coffee shops scatter the area, providing simple acoustic or poetry-slam performances. Chene Park is a wonderful outdoor performance venue along the Riverwalk, but once again targets more famous performers and seeks to draw large crowds typically found at rock concerts. ARTLAB J is a wonderful facility that seeks to bring together artists, performers and creative minds alike, but upon further investigation seems to be quite elitist and enrollment is expensive and selective. ARTLAB J is also located far away from the downtown area in a not-so-safe neighborhood, something that would deter young children and adults alike from frequenting the area. The current arts system in downtown Detroit is scattered and shaky at best, and is elitist by targeting such a narrow audience and excludes a large majority of the community, something that cannot be heavily relied on or sought out.

Residential



1. Jean Rivard
2. Renaissance City
3. Broderick Tower
4. Himelhoch
5. Security Trust
6. River Place

Figure created in Adobe Illustrator & via maps.google.com

Even in economic decline, the housing market in the downtown area remains highly priced and aimed at providing luxury and high-quality appliances/materials/etc. A high majority of these luxury residencies had at least a quarter (even up to 75%) of their units unoccupied and available for immediate rental. The exception to this were the Himelhoch Apartments, with rent actually based on income. Income restrictions of \$22,900-\$26,150/year allow lower-income families to be able to have access to quality living. The units are simplistic, yet meet all of the basic requirements of comfortable living and accessibility. Interestingly enough, these apartments are located in the heart of downtown near Circus Park amongst the other luxury towers and amenities. Himelhoch Apartments are a concrete, successful example of the ability to provide critical amenities and a pleasant way of life to those typically ignored and excluded from such "privileged access".

Income



Figure created in Adobe Illustrator & via maps.google.com

< \$25,000
< \$37,500

The primary income levels of the surrounding context is low to low-middle, reflecting on the younger generations and families living in the area. Many of these people are living just barely above the poverty line, with minimal access to facilities and amenities that are within their means of living. The residential developments that target affordable housing and these societal classes are located on the outskirts of the city, often in dangerous neighborhoods. These people deserve the opportunity for safe, accessible and centralized living accommodations just like everyone else, regardless of socio-economical status, circumstances or upbringing. Providing a residential development in the area that provides affordable housing through means of income/salary maximums will begin to bring this concept back into the downtown area, something that has been long forgotten.

HISTORICAL CONTEXT

Detroit, Michigan has a rich history, beginning as one of the key trading posts between various Native American tribes for hundreds of years. Detroit, becoming an official city in 1815, began to gain fame by becoming the final stop of the Underground Railroad. Detroit gained the nickname of 'Motor City' after Henry Ford built his first car in Detroit in 1896, revolutionizing the automotive market with the development of the moving assembly line. Dozens of automotive companies flooded the city, escalating the population to a staggering 1.87 million in 1950. Headquarters of these car companies included General Motors, Chrysler and Ford. It was the reliance on a singular industry, though, that contributed to Detroit's fateful decline.

When the industry began to experiment with automation, thousands of jobs were replaced, forcing factory workers to seek out jobs outside of the metro area. Many companies began to outsource work to international locales which often offered cheaper labor costs and more cost-efficient solutions. Through the 1970s and 1980s, the industry began to see rapid decline as energy crises began to occur followed quickly by several economic recessions.

Because officials were so blindsighted by the incredible amount of success within the motor industry, they did not see the need to diversify their investments into other sectors within the city, such as education or banking. Similar to the Dot Com bust of Silicon Valley in the 1980s, the recent severe economic depression that is plaguing Detroit is just another lesson for the history books. In 2010, the population of Detroit had declined to just above 700,000 residents, the lowest ever since 1910 when the automotive boom began. Manufacturing jobs within Detroit have shrank from over 200,000 to just barely 20,000 in present day.

Historically, our nation has been plagued by a staggering (and concerning) amount of economic crashes and downfalls. Recession after recession, we have been on what seems to be a never-ending roller-coaster, and it isn't slowing down anytime soon. Easily disheartened and unsatisfied, our culture has propagated a sense of immediate gratification and demands solutions that simply cannot be provided over such a short period of time. Granted, something needs to be done in order to alleviate the symptoms, but are we truly targeting the real problem?

Not a single bit. A plethora of examples exist that seek to resolve the economic crisis on a variety of levels including political and policy reform, housing projects, job creation and stimulation, and the list goes on. But most, if not all, of these projects act as an independent solution, paying little mind to the cultural and environmental context that surround them. The solutions that will actually be successful and provide stability will be comprehensive ones that take into account a wide range of disciplines and factors.

CULTURAL CONTEXT

Detroit is a vibrant community, rich with cultural affluence and a history to rival any other major American city. Infamously nicknamed 'Motown', Detroit has been a launching pad for many artists' famous careers. Established in 1959, Berry Gordy Jr. established Motown Records, which quickly started producing the most singles than any other record company. Becoming the largest African-American owned and operated business within the U.S., it became a symbol of hope and freedom from oppression at a national scale.

Many social issues have plagued Detroit as it has evolved through the generations. One of the most well-known issues was centered on a major traffic pathway, 8 Mile Road. 8 Mile Road was a road that culturally and socially separated the middle-class, affluent white suburban families with the lower-class, minority African American residents. High crime rates plagued this area in particular, giving birth to many horror stories and urban legends alike as time went on. The stratification of the various social classes only became more severe over time as issues of agreement increased with the influx of a wide variety of ethnic groups seeking their own bite of success.

Detroit's colorful background and diversification brought with it a great deal of social issues and clashing between the various groups. The white working-class insisted on the violent segregation of neighborhoods and clustering suburbs, investment firms plagued the city with shaky financial deals, and the automotive executives stripped the inner city of its most critical infrastructure by relocating production plants to the outskirts of the metro area (Webb, 2013). Political offices were often split down the middle, with new elections only worsening the situation as politicians sought to unravel what was previously done; a never-ending cycle of confusion and law reform with no concrete closure was quickly developed. It simply became an overly-complicated issue of parties not being able to compromise with each other, one that would only worsen over time until the system cracked completely.

Detroit's demise wasn't fated in the slightest, nor was it destined to such a severe economic downfall. Instead, it was the outcome of many independent factors that simply were not handled efficiently and effectively, both at the local and national levels. Spanning over fifty years, Detroit's decline has been steadily crashing into the ground, and quite simply, it seems as if we just averted our gaze, crossed our fingers and hoped for the best.

Detroit's fate rests in the hands of those directly affected by the crisis, the residents. Not the politicians and big business CEO's who hide behind their big cushy office chairs. There is a movement that is rumbling in whispers and an energy can be felt in the streets. The day-to-day resistance of Detroiters to not give up hope is what is fueling this movement, pushing for critical reform in all levels of societal issues. Every effort must be made to bring together all of these independent factors in a comprehensive solution, one that will seek to not just mediate the symptoms but treat the problem.

PROJECT EMPHASIS

This project will primarily emphasize on the utilization of an urban infill master plan redevelopment design to encourage the positive arts revival community within Detroit. Through researching sociological premises and theories related to the cultural history of Detroit, a hybridized approach pulling principles from business economics, architectural theory and socioeconomics alike will be the forefront of the research and design process. Detroit is in desperate need of a revitalization, one that stretches far beyond the typical bounds of economic and business development. By combining those principles with that of architectural and sociological theories, a holistic approach can be created in order to ensure Detroit's sustainable and stable success.

By focusing on developing a communal neighborhood within the master plan redevelopment, the residents of Detroit will be able to rediscover a sense of place and sense of community again, something that has been lost due to the economic crisis shaking Detroit. The concept is to help the residents rebuild a life for themselves and to become wholly dependent on themselves to create their own happiness.

Residents will have the opportunity to come together in a centralized location to discuss ideas, concepts and concerns with each other about their community in order to better approach problems and conflicts that may arise. This is to provide a positive outlet for the residents and to begin to develop a more solid economic structure that the community can depend on for a stable revival. The residents should feel a sense of safety and security within the development.

GOALS

This project will enable residents of Detroit to become stable in economic and personal revival. The basic necessities of health, safety and belonging will be met in order for self-actualization to occur in order to live a truly holistic and healthy lifestyle. In the academic sense, through this project I will seek to further my understanding of architectural and sociological theories. I also hope to gain a more thorough understanding of how to holistically incorporate a wide variety of different design elements in order to create a more continuous and fluid design solution. I also hope to become more aware of ADA disability guidelines and practices by exceeding minimum requirement expectations. Building codes, structural and mechanical design and construction techniques are also critical areas of interest that I wish to research further and gain a better understanding of through this thesis project. I will utilize my studies in the various sociology classes I have taken to apply those principles in a cross-disciplinary focus, along with business and economic strategies as well. Through this project, I will seek to discover how architecture is influenced by outside factors including these various disciplines.

In the professional sense, I am seeking to develop my research and analytical skills in order to prepare for pursuing a doctoral degree within the next five years. These are also critical skills that will help me in advancement of my architectural career. As I seek to work within the urban planning and design fields, this project will help me become more familiar with the practice and will give me a hands-on opportunity to see exactly what elements need to come together for this type of design solution.

In the personal sense, this project will be extremely self-gratifying. Throughout my entire life, I have always been interested in helping others. I chose to study architecture in order to directly impact people's lives in one of the most fundamental ways. I am seeking to grow as a designer as much as I can throughout this project. I will be putting the most effort that I ever have into this design solution. I will be open to different theories and design methodologies that I normally would not be accustomed to seeking out or considering. I will seek to push my own boundaries and comfort levels when gathering research, trying new ideas and concepts, and openly discussing and presenting my ideas. I will become more confident in my skills as a designer and entrepreneur, and won't hesitate to seek out new criticisms or feedback at each point of the design process.

PLAN FOR PROCEEDING
DESIGN METHODOLOGY

Strategies will include preliminary research and documentation, critical analyzing of the data gathered, problem seeking and creation, and iteration development. Preliminary research done in previous architectural classes (especially Professor Crutchfield's Greenwash seminar last spring) and over the summer will be a key component in developing the theoretical premise and project direction. Technology will become a key component throughout the design process, including documentation through various Microsoft Office applications and design process development through various 3D-modeling software applications.

The methodology will include a cross-disciplinary focus, utilizing the research and study of key theoretical premises of each. Sociology, business economics and architecture are the disciplines which will be focused on.

Priority will be given to the development of the elements stated by the theoretical premise, which include equal dedication of the various disciplines being drawn together. The data collected will be continuously integrated throughout the entire design process in order to complete the most holistic design solution possible to satisfy the theoretical premise.

It should also be noted that at several stages during the design process, the information gathered so far will be critically reviewed and re-analyzed in order to seek out the best design solution possible. This is to ensure the direction of the design project follows the intent set forth by the theoretical premise, as it is easy to 'lose sight' of the overall goal in specifics and minute details.

RESEARCH DIRECTION

A qualitative approach will be taken during this research process investigating theoretical premise and the project typology. By following this system of inquiry, an inductive process will be taken to seek clarification of multiple factors that are included in this cross-disciplinary focus of an urban-infill, master plan redevelopment of downtown Detroit.

An inter-subjective approach will also be key in the understanding that the significance of values and meaning in framing the goals of the research and/or interpreting the results. In this regard, causality is just one of the many possible relations or interactions within the phenomenon under study, especially when focusing on the business and economic aspects of the design solution. In the specific architectural sense related to this study, this perspective would foreground the values and intentionality of the researchers' interpretations and actions of meaning at all scales of environments, including how these transactional relations are situated in the larger social or historical context (Groat, 78).

A degree of objectivism can be utilized and referenced as well, though. There are critical concerns when solely depending on an inter-subjective approach. By introducing objective factors, a more rigorously articulated and systematic, hybridized approach can be referenced upon. As the researcher, I will be able to develop a systematic approach in measuring and analyzing the data collected during the research process in order to have a system of standardization with the results and data gathered. The inter-subjective approach will then develop from my understanding and analyzing of the data based on premises uncovered through the research process.

Transferability will also be a key component of developing this research as it is seeking to apply the conclusions gathered from each discipline independently researched into one cohesive design solution to be applied to current sustainable architectural trends and development. Dependability will be utilized in order to provide a fundamental framework for the consistency of the data collected. It should also be noted, though, that certain instabilities can arise either because different realities are being researched or because of instrumental shifts stemming from developing insights of myself as the researcher. Dependability will be ensured completely when I am aware of these various possibilities and proceed to ensure that the research being gathered is coherent and correctly reflected upon as to the best of my professional and academic ability.

The theories and schools of thought applied to this problem statement include a historical and correlational approach. The research is historical in the sense that the city of Detroit has a rich and vibrant history, one that is inherently unique and completely sets it apart from every other city in the world. The historical context will become critically important in regards to Detroit's significant recent economic downfall. In order for me to correctly interpret the information, I will arrange the evidence in an interpretive and consistent framework. Thus the output of the historical research will be most cohesively covered in a narrative sense.

A structuralist approach in the historical sense will allow for a theoretical understanding in the linguistic turn. Detroit is comprised of a wide variety of cultural and ethnic backgrounds, including sub-cultures of graffiti artistry and street performance, each having their own organic properties and unique differences. It will become key to recognize these differences and to utilize this approach in order for the most holistic understanding of each culture to be analyzed and integrated into the design solution.

Correlational research will also become a critical component in the sense that the focus may be less on observable facts gathered, but on the ascribed meanings or attitudes that each implies. This will allow for a look into possible relationship studies which could focus on predictive power of each disciplinary focus in an attempt to develop a singular design solution. Causal comparative design will focus on the historical and cultural contexts or elements. Research will be gathered and analyzed with the focus of investigating possible biases that drive certain design, economic and cultural principles.

Sociological focus and research will include that of organizations and work environments and their typical hierarchical structure in order to decipher what works best in a successful economic state. Other sociological areas of research will include cultural development, primarily focusing on those found within the metro area of Detroit. A great deal of research will need to be done on historical trends including cultural, economical and governmental types.



VIA GOOGLE IMAGES



VIA GOOGLE IMAGES

CASE STUDIES

ATMOSPHERE

A high-rise residential complex concept to be built in Kolata, India, is seeking to develop a new housing typology in order to respond to the ever-changing dynamics of the growing family. The eighty units will be able to flex and adapt internally, growing and adjusting to the family as it grows over time. This will allow multi-generational families to remain together instead of being forced to split up and deviate from typical Indian culture. The four different unit types offered are arranged in traditional bungalow-style housing, each with generous outdoor terrace area in order to maximize outdoor exposure.

Between the two towers, 'Deya' provides a porous connection pathway one hundred meters up in the air. This amorphous form is in stark contrast to the rectilinear design of the two residential towers that it connects. Deya will provide residents with communal activities while providing a semi-protected exposure to the outside air. The skin will be composed of mesh panels which will wrap themselves around the structural ribs. The poetics of Deya are revealed as the panels change in porosity responding to different lighting conditions. Deya will provide the residents with a truly unique and relaxing environment in which one can escape from the chaos of the city.

The design is holistically tied together through the Hindu teachings of the ancient science of Vaastu. In Atmosphere, the arranging and ordering of homes according to this system promotes harmonious living. Vaastu extends holistically beyond simply just the units, encompassing the whole physical form at a both a macro and micro scale. This strengthens the overall poetics to truly make this design more than just another development, one that transcends everyday existence to provide residents with a sense of place and comfort. Structurally, the design is incredibly simplistic and is balanced with the poetic aesthetics of the Deya bridge. The simplistic floor plans allow for maximum flexibility and adaptability, something that will be key in the success of this thesis project as it seeks to respond effectively to the ever-changing climate of the economy.



CANDLESTICK POINT / HUNTERS POINT SHIPYARD

Located on a 702 acre brownfield site on San Francisco's southeastern waterfront, this master site plan will be comprised of 10,500 homes, 4 million square feet of commercial and office space, community buildings and gardens, and cultural amenities such as a performance center. Once a vibrant and thriving community, years of misuse and treatment of the land have turned it into the empty wasteland that it has become.

In 1974, the naval shipyard closed, resulting in over 5,000 jobs lost and an exodus from the area shortly thereafter.

Through vigorous and continuous and open dialog between the city of San Francisco and the Bayview community, plans have been developed and reworked in order to ensure that the area will become a thriving waterfront community that will become a nucleus for southeast San Francisco. Much of this movement has been sparked and driven by a local group of artists that have taken up an informal residence in some of the old naval barracks on the site.

The development will become a center for green development and practices, as the UN just recently selected the site to become the new headquarters for its Global Compact Center which will study solutions to fight for global warming. The plan will repair the environmentally damaged site and provides sustainable development in environmental, economic and social terms by focusing on four key strategies. Concerning jobs and culture, 11,000 new jobs will be created and international markets and artist studios will become a focus for the mixed-use core. Nearly 50% of the development will be dedicated to open space and park creation including a continuous shoreline park and 3.5 walking trail along State Park. 32% of the housing created will be considered affordable, dedicated to low and middle-income families. These units will be evenly disbursed throughout the community to avoid segregation and discrimination. It is important for every member of the community to feel connected to one another, regardless of income or class level. The current housing development on the site, Alice Griffith, will be redeveloped phased manner in order to avoid displacement of the residents that currently live there.



Environmentally, a number of initiatives will be introduced in order to begin to undo the negative effects of previous industrial development on the site. Several miles of the neglected shoreline will be redeveloped and restored to more natural conditions to promote natural development and to provide the residents with a direct opportunity to connect to the water. At some points, the elevation will be slightly raised to combat possible sea level rises due to climate change. Innovative structural solutions will be integrated to improve utility management and to avoid further contamination. Such sustainable technologies include landscape grey water usage, district-wide underground piped trash collection, and green rooftops to filter and store storm water.

UNIVERSITY CULTURAL COMPLEX

Located in San Andreas Cholula, Mexico, this project was developed with the intention of creating a multidimensional space that allows for the realization of cultural, scientific, artistic and technological manifestations within the realm of the university. This will maximize human interaction and formation through an integration of learning and the arts and utilizing technology in a way for positive attitudes to be developed and to encourage a sense of identity. This will allow the community to perceive, live, feel and relate to the culture in a way never been done before.

Comprising an area of approximately 88,000 square meters, the overall design will be simplistic in the style of Mies Van der Rohe's main architectural concept of 'less is more'. The complex is based off of elegant compositional shapes balanced by pure, smooth white volumes. The structures will be monochromatic and geometric to create harmonious spaces, connected through large longitudinal lobbies.



Key project elements that can be found within the six buildings include cafeteria options, artistic workshops, a symphony performance hall, business and real estate opportunities, an art gallery, virtual classrooms, and a convention center with adaptable dimensions to respond to different events. The overall encompassing design solution has a minimalist typology which allows each individual part to achieve its fullest potential to contribute to the whole.

TYPOLOGICAL SUMMARY

This series sought to investigate individual and holistic design elements typically found within a master-plan development, and ones that this thesis project is seeking to integrate. Each case study strengthened the theoretical premise by solidifying key elemental concepts such as project elements and programmatic requirements, including concepts not initially addressed.

Such discovered concepts that were not previously discussed included minimalist design solutions, and the even distribution of various programmatic requirements. Beforehand, I had normally perceived master-plans to be quite expansive and intrinsically complicated, yet within each case study, the success was highlighted through simplistic iterations.

Through simplification, specific design elements can be detailed to a greater expression in order to bring out the artistic poetics which elevate each project from a plain architectural development. Beauty is often found in the most unexpected of places, and it is within these opportunities that the greatest potential lies. Because this thesis project will be addressing a wide range of architectural, sociological and economical premises, simplification of certain elements will become necessary in order to fully explore each as thoroughly as possible.

Our infatuation and romancing of the industrial era has gotten way out of hand. It has driven our economy six feet into the ground and we are continuing to poison our world with toxins, pollution and human excess. Our worst nightmares are coming true, yet we insist on blindly running away from them and the waves of data crashing against us. Urbanization has typically focused on driving nature out from the city; we need to develop a means of bringing it back in. Eco-districts, consisting of buildings working together under one holistic, diversified system, will be the forefront of this cultural movement. Eco-friendly buildings become interactive, integrated teaching tools for occupants on how to sustainably construct their lives beyond just recycling and living minimally, for sense of ownership is the surest form of sustainability. The local populations, regardless of where they are found, must have the opportunity to express themselves and make themselves known. This can and will be done through the redirecting of traditional viewpoints away from infrastructure and material dependence to one of well-being and experiencing life fully in the place where one resides. The cities are the best place to make use of scarce resources; we must re-tune many of our culturally typical intuitions regarding industrialization, scale and efficiency. In order to make this movement happen, diverse perspectives need to be brought together under the common thread of sustainable design through business opportunities, sociological research, and positive economic growth and development.



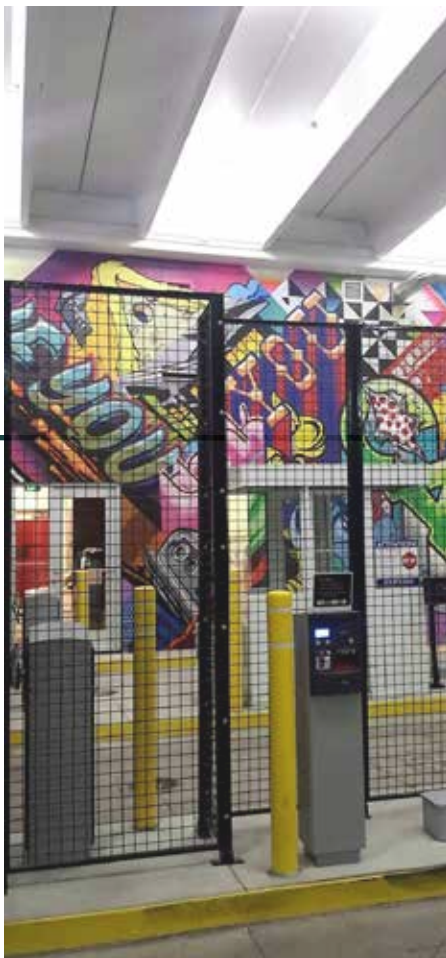
PROGRAM

RESEARCH / ANALYSIS

Sparked by a conversation over coffee with a close friend on a cold April morning, an unexpected (and very hesitant) journey began. Consulting with one of my favorite friends to intellectually converse with, the proposition to explore various communities for my thesis proposal were heavily debated and argued over. Torn between my intense wanderlust desire and the obligation for practicality, far-fetched locales such as Mumbai and rural Indonesia were quickly shot down and countered with simpler areas within the Continental U.S. The intent was to select a site that desperately needed economic help and regrowth, one that would provide multiple opportunities for redevelopment and enhancement. Chicago? No, that was too easy and was already promoting many positive changes and economic reform. Neglected suburbs of Minneapolis? Those were minute in comparison to the overall whole of the metropolis which is thriving and one of America's healthiest cities, both in economics and physical well-being. Detroit? No, that would be too difficult to even attempt. But wait, isn't that the whole point of my intent?

Pointing out multiple reasons as to why Detroit would be the ideal site, the solution became quickly obvious. Against much of my hesitation and uncertainty, I settled on Detroit, Michigan as the primary city in which my thesis project would be located. At the not-so-gentle encouragement of my friend, I begrudgingly began to research into the city's history and current economic state. I couldn't have been more surprised at what I discovered.

To put it quite simply, I fell in love with Detroit.



A ferocity thrives in Detroit, one unlike found in any other place. Amidst all of the chaos, destruction and despair, a pulse is beating strong and is growing in loudness every day. This heartbeat belongs to the typically under-privileged minorities of the metropolis. Street and graffiti artists alike have banded together to transform the desolate and abandoned into incredible pieces of art. An entire artistic movement has evolved, fueled by these atypical creative types, which gives a new meaning to street art and sheds a positive light on typically bad consequences. This movement has shown Detroit, the greater national (and even international) communities how silver linings can be found even in the worst and most terrible situations. World-famous artists and performers are being drawn to Detroit to display their own works, such as Pose, Revok, Rime, Sever, Flying Fortress, Nychos, Zes, and RISK, to name a few (Swift, 2004). These incredible displays of art splatter across the burned, abandoned and broken faces of Detroit, giving beauty to something once thought unsalvageable.

Up-and-coming street artists aren't the only group being attracted to Detroit's unique situation. While the overall population of Detroit continues to decline, various ethnic group populations remain steady, with some groups actually increasing in numbers. Korean business owners are expanding their business to other ethnic clientele in an attempt to stay open, and it's working (Advincula, 2013). Arab-Americans and Latinos are steadily immigrating into the area, taking advantage of ultra- cheap land and housing costs, allowing them to invest in various business opportunities and opening their own businesses as well. An investment of \$200 million over the past fifteen years into the southeastern area known as "Mexicantown" has yielded positive results with an incredible boom of retailers, residential developments and restaurants in the area (Advincula, 2013). The economic crash has inspired many African-Americans to begin taking classes in order to have better skill sets to get jobs and be able to provide for their families. This not only provides more opportunities for people to get jobs, but puts money back into the economy and helps to keep the educational sectors open and functioning during the crisis.



One of the biggest and most affluent influences on Detroit's revival is Dan Gilbert, owner and CEO of Quicken Loans. Since he moved the company headquarters to downtown Detroit in 2010, Gilbert has invested a "down payment" of \$1.3 billion in a wide variety of projects across the city (Free Enterprise Staff, 2014). The positive effects of his efforts are already being experienced by residents and are beginning to attract more business and traffic back into the downtown area, in particular. Personally dubbed as "Opportunity Detroit", Gilbert has made incredible advances in the area and is holly committed to the cause. "He seems to consider it his duty to rebuild what a previous generation allowed to fall apart. He aims to turn downtown into a high-tech hub, where young entrepreneurs both live and work. (He and a handful of companies are offering rent and mortgage subsidies to people willing to live downtown.) These pioneers will have easy access to high culture: the city's leading museum, the Detroit Institute of Arts and the Detroit Opera House are nearby, as are stadiums for the city's professional baseball and football teams," (Segal, 2013). Gilbert's efforts can be compared to those made by Doug Burgum here in Fargo. Founding the Renaissance movement in downtown Fargo, Burgum has invested an incredible amount of money into the area which has transformed it from a desolate, undesirable area to the most energetic and sought-after in the entire metro. Key elements that have contributed to the success of both parties not only include monetary investments, but political and economic reforms such as tax incentives and re-zoning various areas to better respond to current demands.

Pocket neighborhoods are a new, up-and-coming trend being developed across the United States. Based off original and antique concepts found across all cultures outside of the post-industrialization era, pocket neighborhoods are being sought after again. Ross Chapin, one of the many key proponents of the movement, explains why pocket neighborhoods are so critical in today's society: "The fabric of social health in our society has been fraying, in part because many people lack networks of personal and social support. Family members can be spread across the country, friends live across town, and neighbors don't know one another. A listening ear or helping hand is not available when it's most needed."

Pocket neighborhoods can help mend a web of belonging, care and support. Their protected setting encourages informal interaction among neighbors, laying the ground for caring relationships. All of these encounters strengthen webs of support and friendship, which are the basis for healthy, livable communities."

SUMMARY

If Detroit is to get back on track, unconventional and atypical measures will have to be taken; with the greatest risks come the greatest rewards. By focusing on providing opportunities for the underprivileged, minority communities of Detroit, great advances within the city will be made. These micro-communities will provide the basis for socio-economic reform, becoming an example to which the whole can be replicated by.

Pocket Neighborhoods foster critical relationships that become necessary for maintaining healthy and viable communities. The micro-community generated becomes dependent on itself rather than the larger society as a whole, and is therefore better able to quickly respond and adapt as various situations arise. Problems are solved quickly and efficiently instead of getting lost in translation in a larger, often unorganized political system. Community members are more actively included in decision-making and become each other's primary sources of protection and information exchange.

Through the development of micro-communities, money generated is kept within the local system by focusing on incorporating small-businesses and sourcing local services, materials and products instead of relying on corporate, big-box retailers and providers. In order for people to get back on their feet, they first and foremost need a place to live. Basic human needs such as health, safety and welfare need to be met before greater degrees of change can begin to take place.

It is our basic, intrinsic human nature to want to be amongst others and to belong in a community. A clear, everyday example that I have personally experienced is through my time spent at NDSU in the architecture program. Our open studio environments has fostered a sense of community and togetherness, something that has only been strengthened and emphasized with each passing year. We have banded together as a community of students to address problems we were not satisfied with, which in return have propelled significant reform within the department. Open dialogue between us students is encouraged, and we often seek out each other's help first and foremost before anything else. We celebrate each other's success, and encourage those struggling with matters, even those outside of school.

"I invite all of you to close your eyes, close them tightly, and block out all of these images telling you that you can't. Welcome to the world of no limits where your eyes don't have to dictate what is and what is not possible. I challenge you, do not ask why. Rather, dare to see no limits and ask why not."

Interaction Matrix

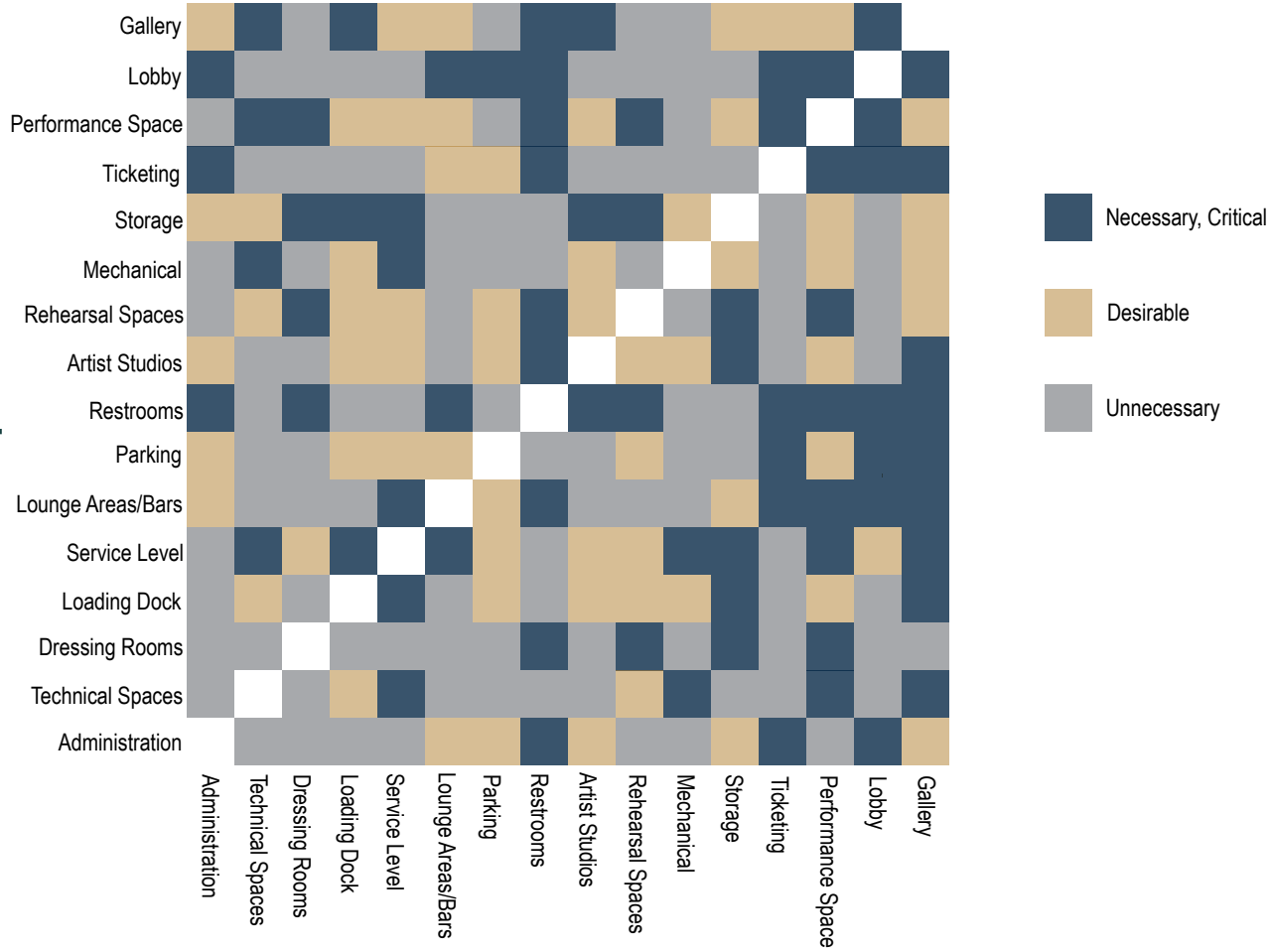


Figure created in Adobe Illustrator

A project of this scale needs to have a high degree of programmatic planning and spatial organization. Three main spaces comprise the main building being detailed, the arts center. First, the lobby serves as a critical centralization point between the various components of the building and acts as the main connection pathway between elements. Second, the main performance space designed to accommodate a wide variety of venues and acts; and third, the gallery and adjacent artistic studio spaces which will allow in-house artist residents, faculty and students alike to work in close proximity to where they can display their work.

Interaction Matrix

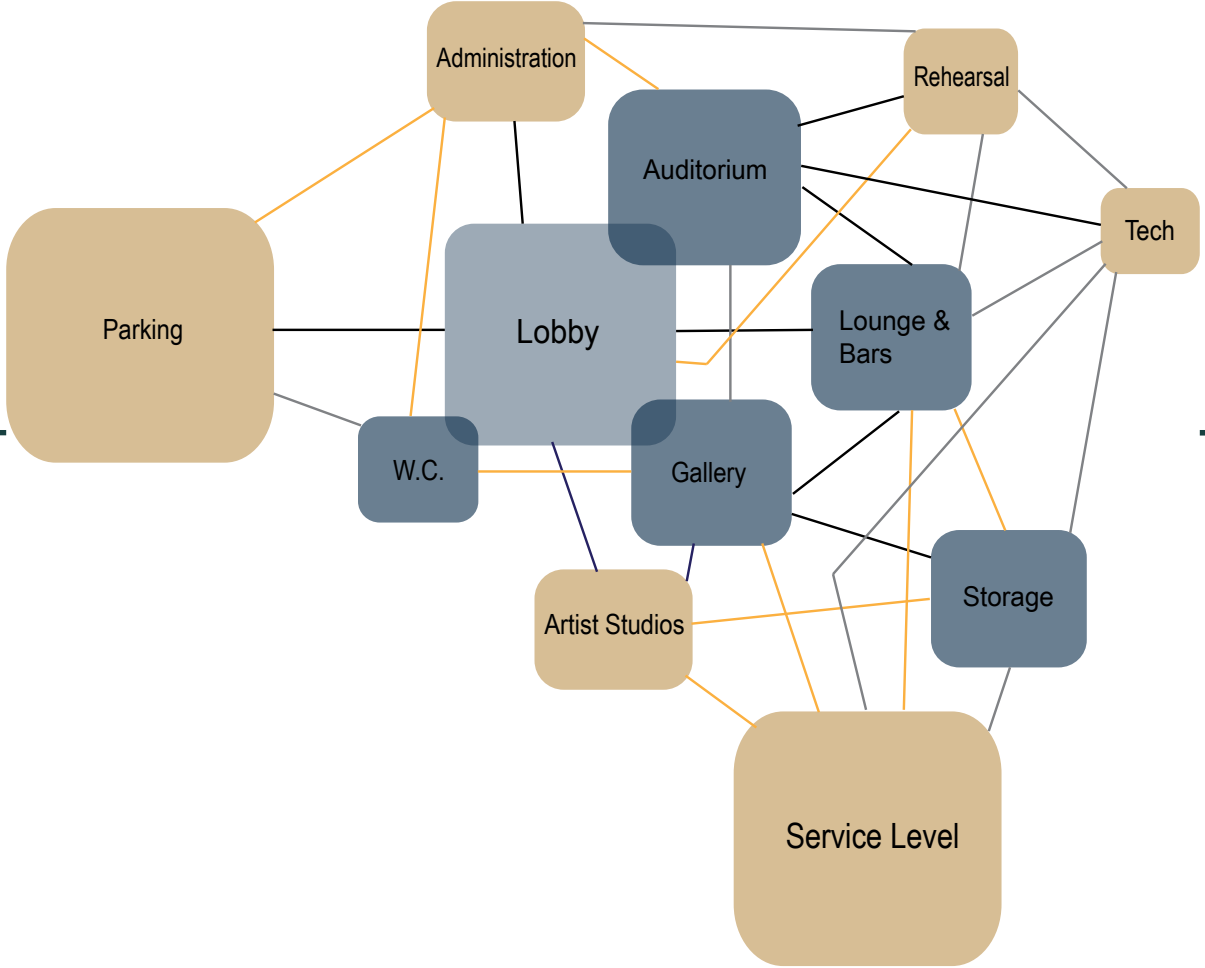
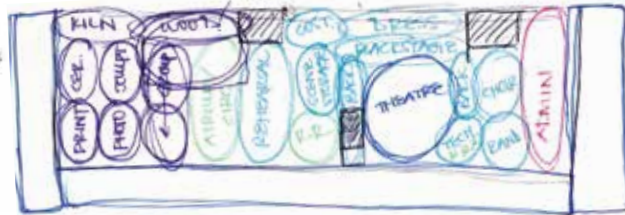
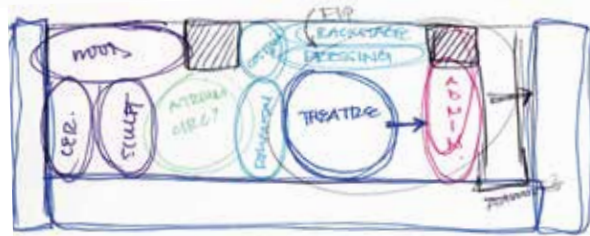
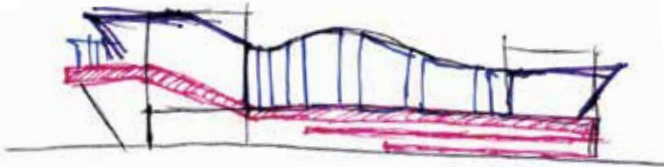
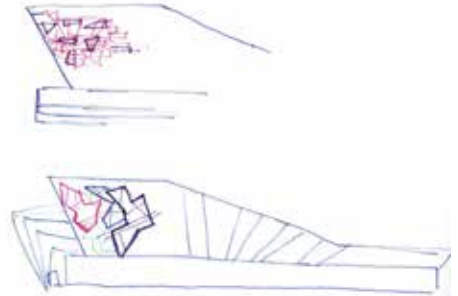
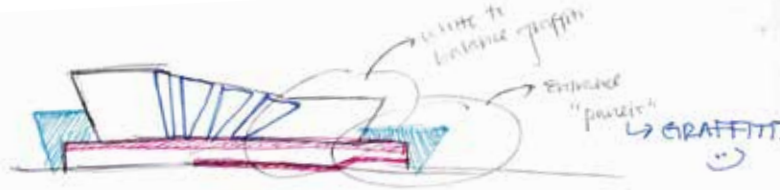
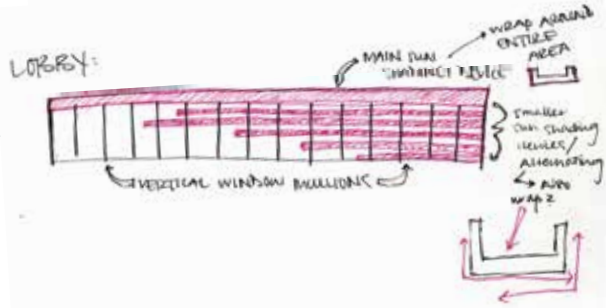
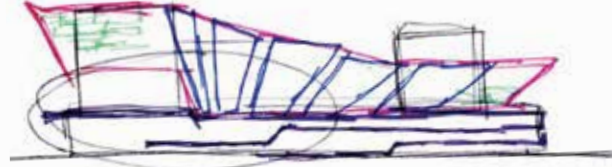
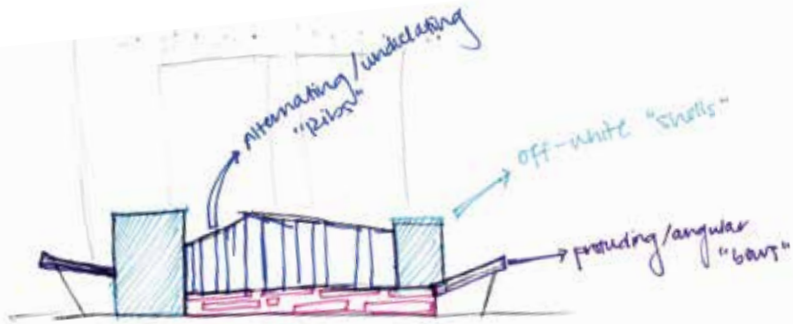


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PROCESS



Through discussions, reflection upon historical and cultural context, initial design concepts focused on the heritage of Detroit. Initially developing as a predominant port city, the concept of a ship being docked along the water's edge was discovered and explored. Following inspiration from Zaha Hadid's works and her focus on deconstructivism, and Jean Nouvel's intricate facade designs that manipulated light, shadow, and geometry to produce incredible interior experiences, the facade development began. Seeking to bring the programmatic elements of creativity, inspiration and imaginative exploration through the exterior envelope, it was critical to push the boundaries of typical design constraints. Spatial organization was designed around the concepts of community, collaboration and interconnectivity.

THE DESIGN



SITE + HOUSING

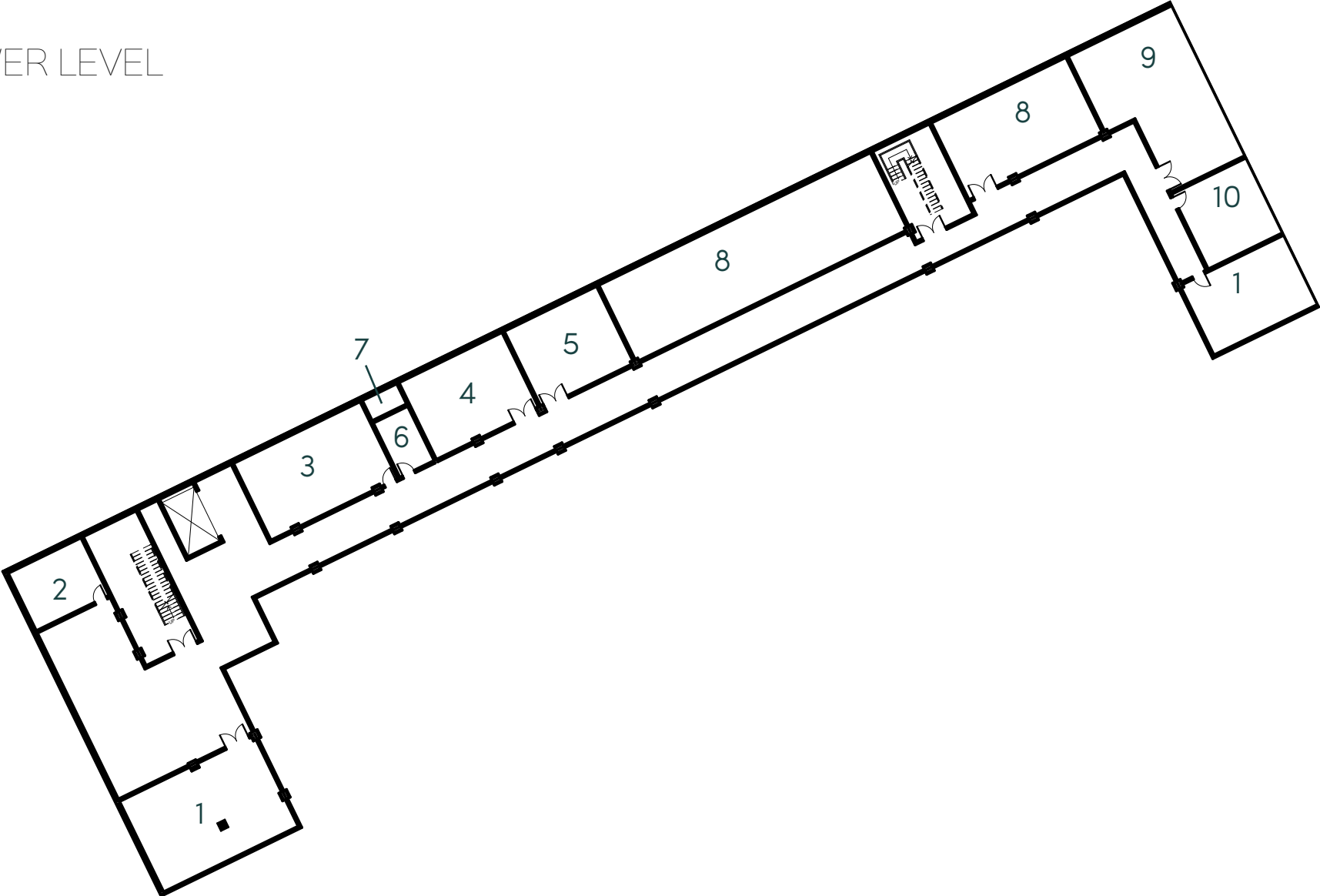


It quickly became apparent that a successful design solution that would adequately address all of the premises and research would require the development of more than just a singular building. Instead, a dynamic master plan was proposed to include housing, green spaces, riverwalk development, and the arts centre.

Green spaces were designed with varying levels of topography to encourage healthy exercise opportunities and to offer various levels of seating and exploration. Impromptu venue spaces are integrated throughout the site to provide impromptu venue spaces for performances in a more casual and low-pressure setting.

Housing developments that target the low to low-middle income levels are designed to provide a safe yet accessible environment. The development of eight foot high brick walls with locked gates begin to securely develop the barrier between private and public uses. The integration of vegetation along this border would also be proposed and based off of the development of the riverwalk that already exists on the site. These town homes provide optimal view to the river and also to downtown, to reflect upon the past yet eagerly looking out towards the future simultaneously.

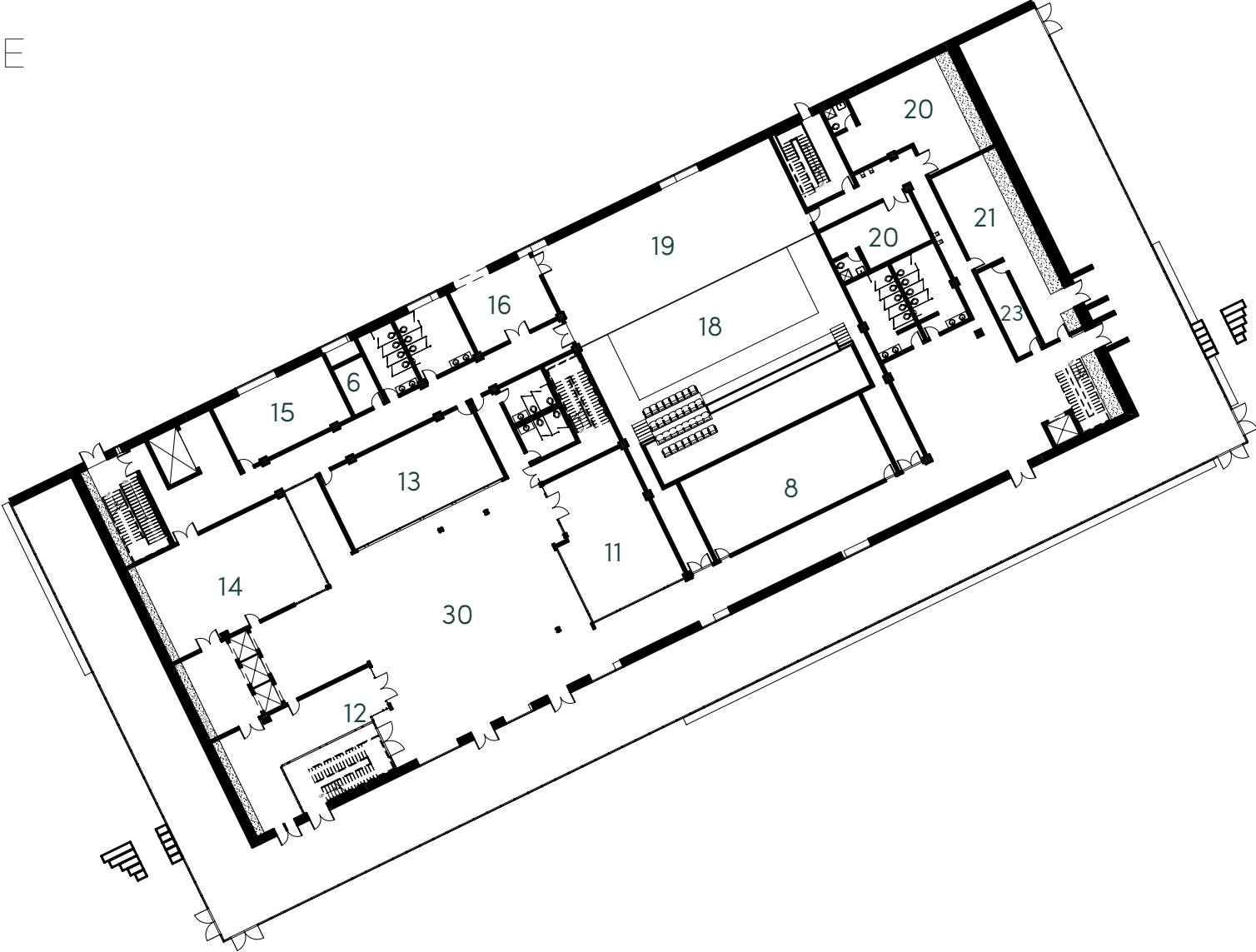
LOWER LEVEL



- 1 - ELEVATOR SERVICE
- 2 - FIRE PUMPS
- 3 - BOILER ROOM
- 4 - CHILLED H2O PLANT
- 5 - DOMESTIC WATER PUMPS
- 6 - JANITORIAL
- 7 - CHIMNEY/WASTE
- 8 - STORAGE
- 9 - SECURITY
- 10 - TELECOMMUNICATIONS

13,344 SQ. FEET

LEVEL ONE

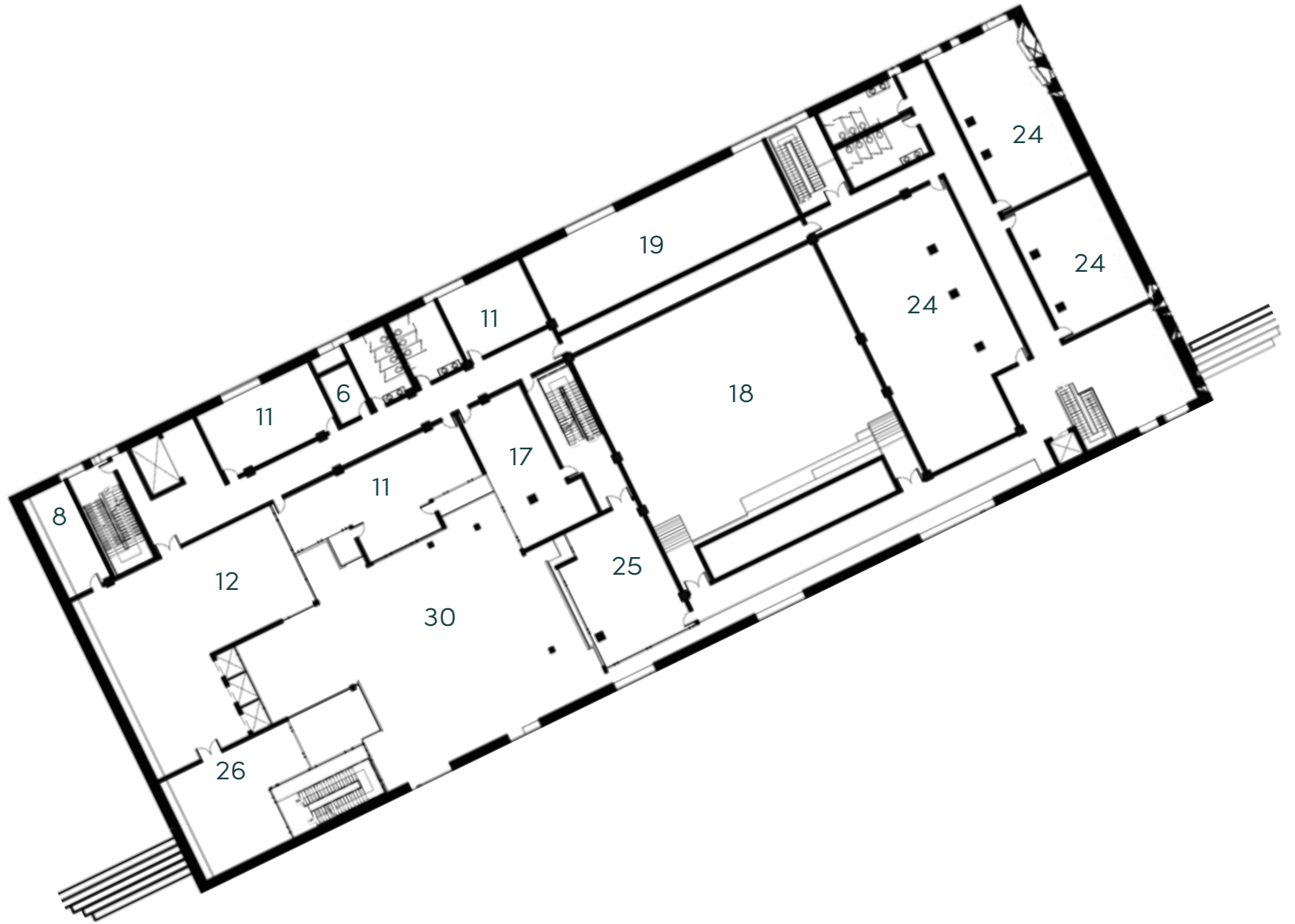


- 11 - BREAKOUT
- 12 - LOUNGE
- 13 - CERAMICS
- 14 - SCULPTURE
- 15 - WOODSHOP/KILN

- 16 - DELIVERY
- 18 - THEATRE
- 19 - BACKSTAGE
- 20 - DRESSING ROOM
- 21 - ADMINISTRATION
- 22 - FACULTY
- 23 - TICKETING

40,166 SQ. FEET

LEVEL TWO



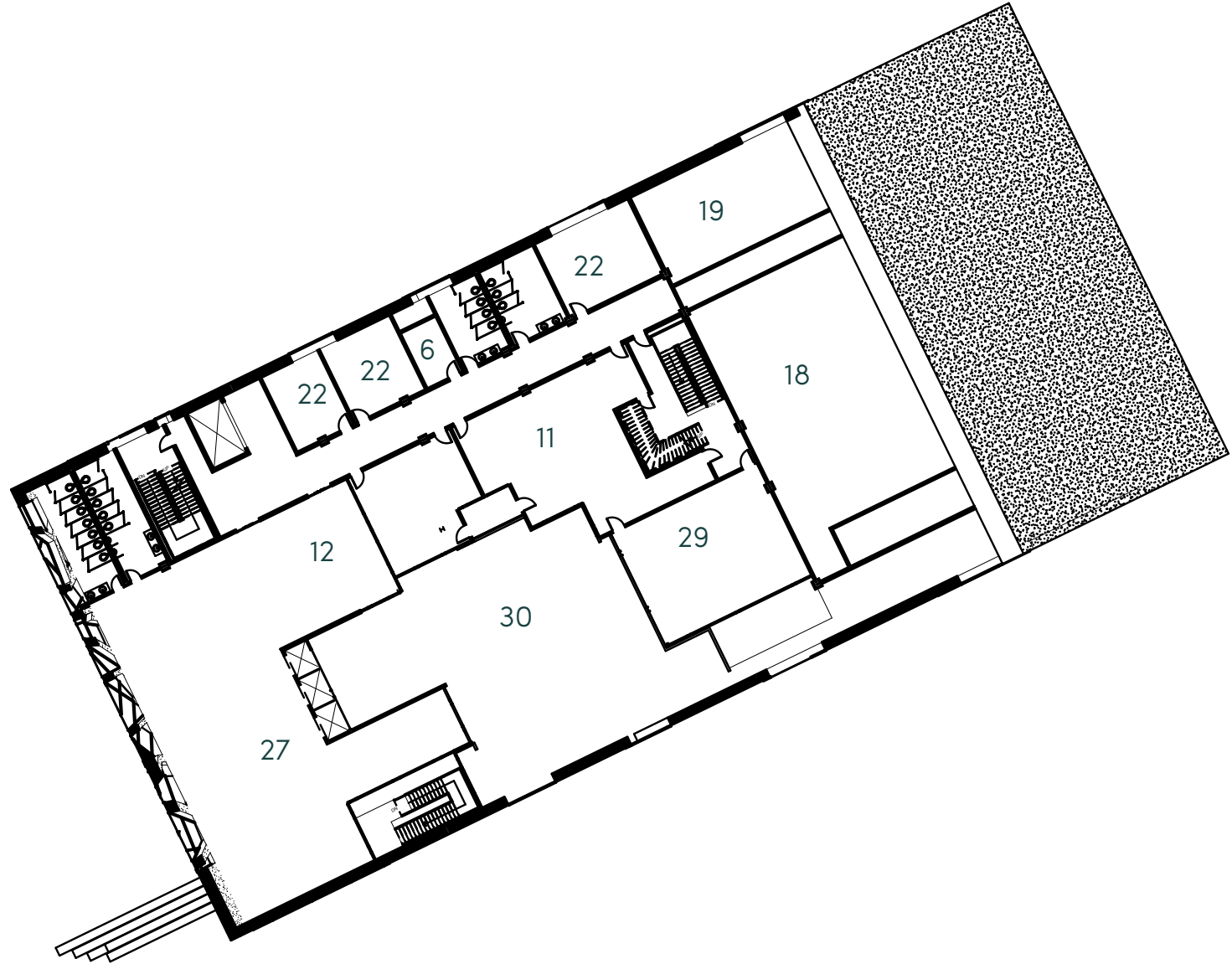
24 - REHEARSAL

25 - PHOTOGRAPHY

26 - PRINTMAKING

22,692 SQ. FEET

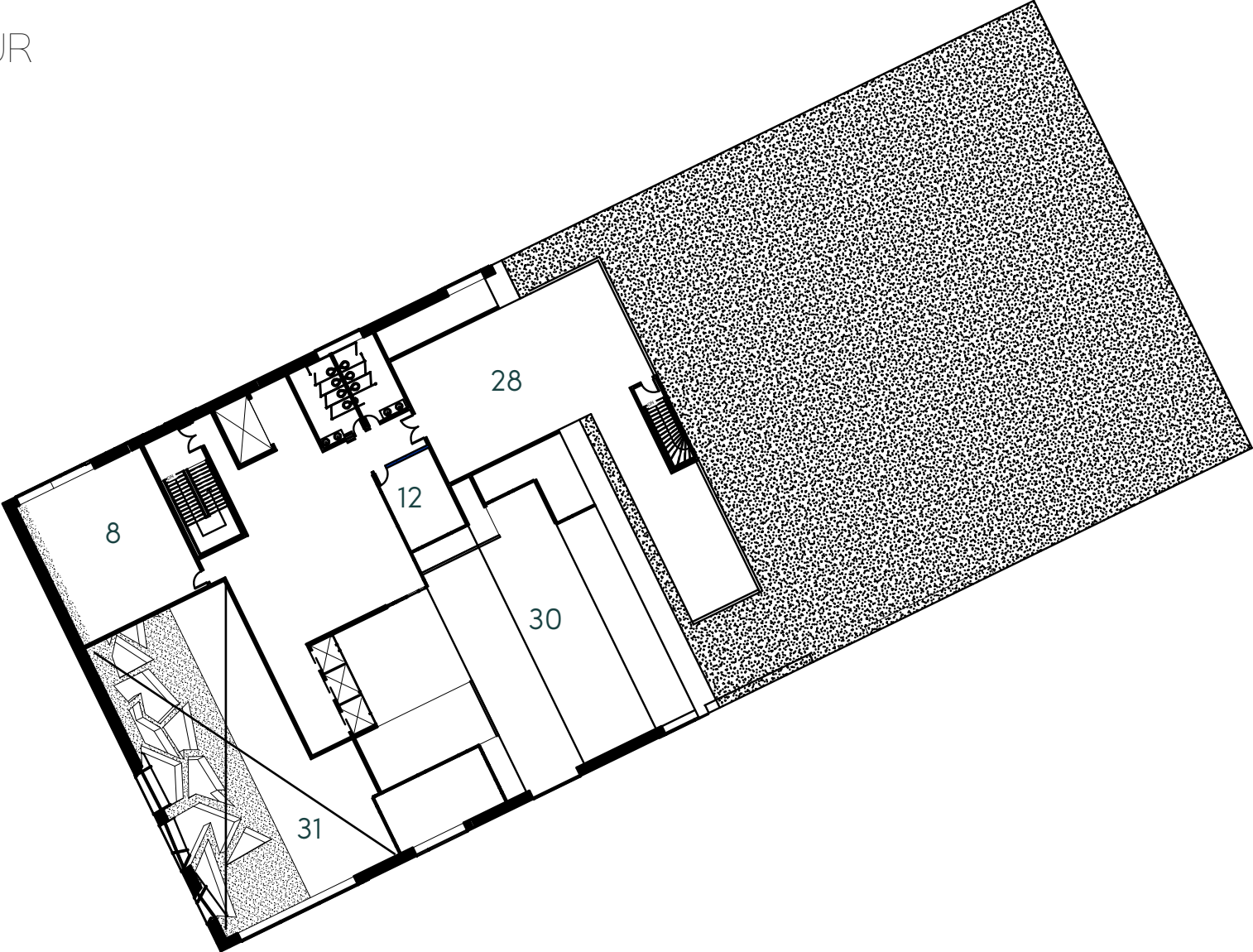
LEVEL THREE



27 - GALLERY
29 - DRAWING

13,843 SQ. FEET

LEVEL FOUR



27 - GALLERY

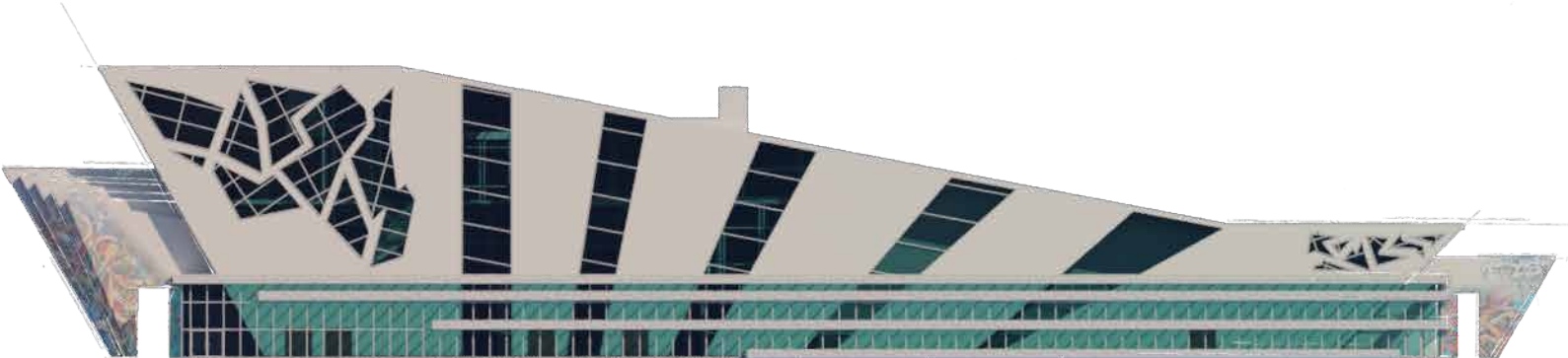
28 - ROOFTOP GARDEN

31 - OPEN TO GALLERY
BELOW

6,902 SQ. FEET

TOTAL - 96, 947 SQ. FEET

SOUTH ELEVATION



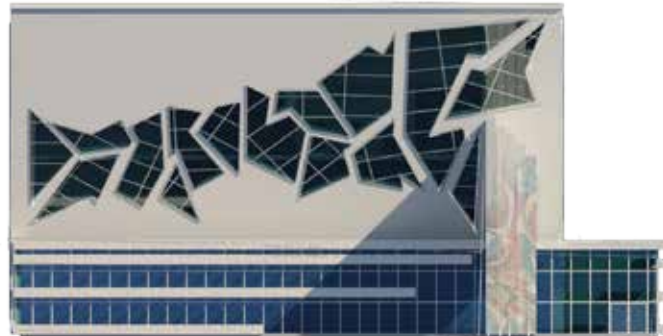
Graffiti is introduced to the design through the angular entrance panels, encouraging the creative community to express themselves in a positive and cultural setting. Participants are able to “walk through” the artwork, fully immersing them in the experience and beginning to blur the lines between program and built design.

NORTH ELEVATION



The undulating vertical glass curtain wall panels reflect upon the intricate and dynamic layers that comprise Detroit.

WEST ELEVATION



Geometric, angular glass curtain wall panels were designed to reflect upon Detroit's brokenness. Instead of this "shattered" illusion being of a negative connotation, it is instead integrated as a positive means to something more beautiful emerging out of the despair.

EAST ELEVATION

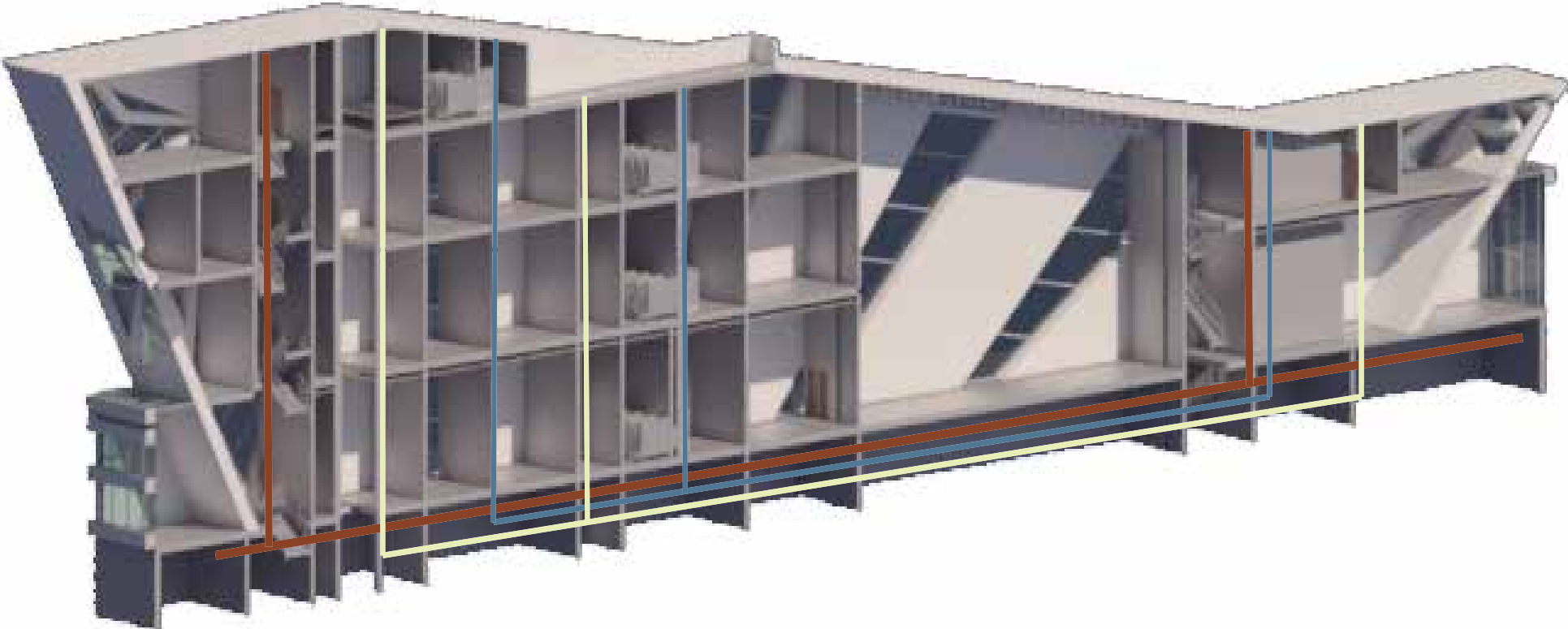


The geometric glass curtain wall panels are wrapped around the entirety of the building facade in order to provide maximum daylighting opportunities to not only increase happiness, well-being and creativity, but to reduce the demand for interior artificial lighting to reduce costs and impacts on the environment through reducing the demand on active mechanical systems. The panels are also slightly tinted/glazed to reduce the impact of solar heat gain in the warmer months.



The exterior facade consists of precast glass fiber reinforced concrete curtain wall panels. This system was chosen as it allowed intricate detailing of individual panels in order to allow for the integration of the geometric glass curtain wall panels. Materiality of the exterior facade is a white-washed concrete to provide a clean and consistent basis for the other dynamic elements taking place along the facade. The interior structural system is a light gauge steel framing system, which the exterior concrete curtain wall panels would be tied/connected to. Structural steel trusses of a five foot depth span the atrium and theatre spaces.

HVAC / MEP / FIRE SPRINKLER SYSTEM



HVAC - YELLOW
FIRE SPRINKLER SYSTEM - RED
MEP - BLUE



ATRIUM

Classrooms, breakout spaces and studio spaces are centralized around the atrium to promote collaboration and open communication between participants. The skylight introduces natural daylighting into the center of the building, providing additional lighting to the interior spaces.

Views showing the experience of being in the various classrooms/breakout spaces etc. looking out into the atrium space.



CLASSROOMS / BREAKOUT



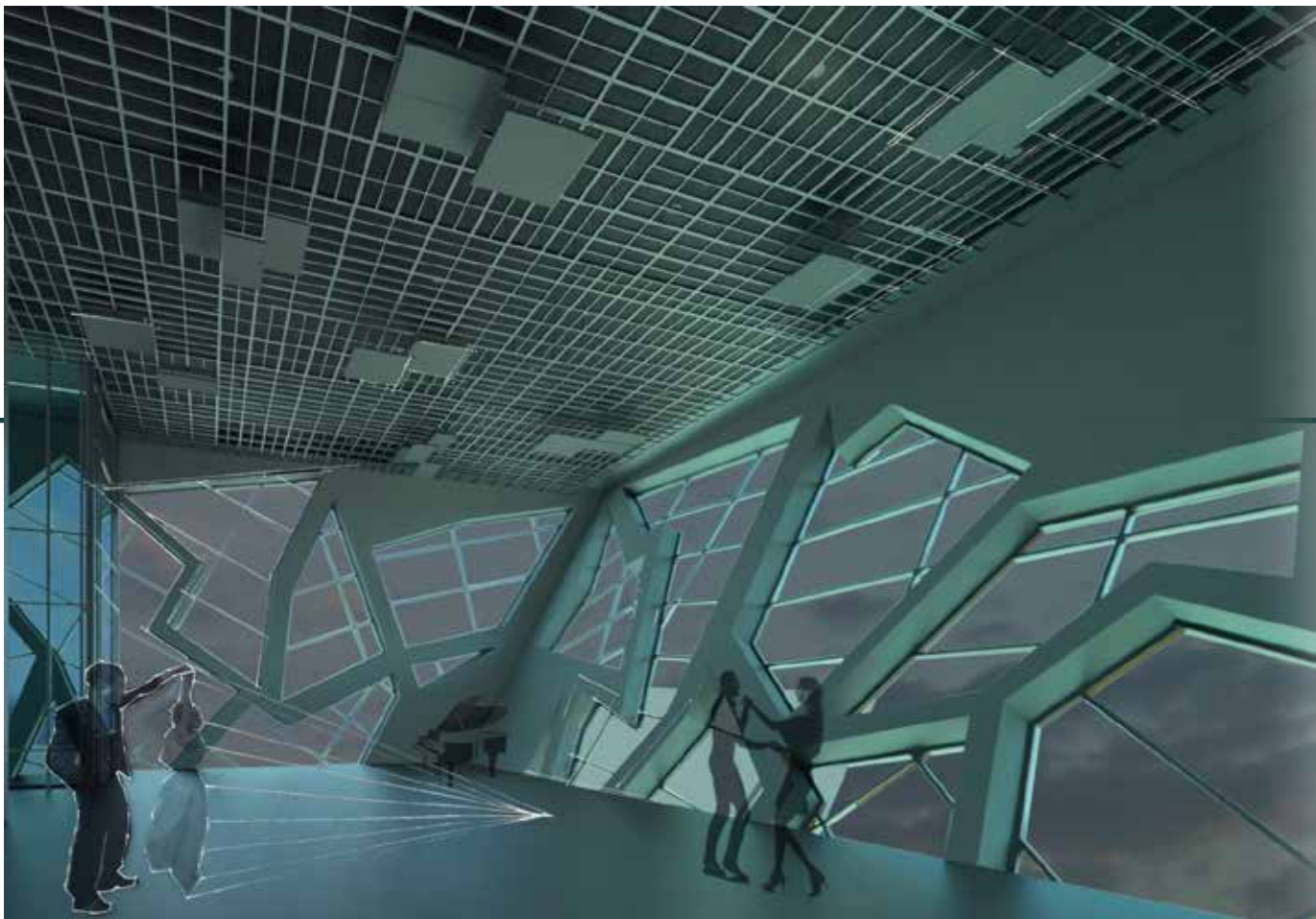
ROOFTOP GARDEN

The rooftop garden is integrated to provide participants yet another opportunity to go outside and to enjoy the views extending over the river to the Windsor, Canada skyline and to downtown Detroit. Graffiti is also incorporated to celebrate Detroit's incredible and creative arts community.

VIEW TOWARDS GM RENAISSANCE CENTRE



The lobby space wraps itself around the southern, eastern and western edges of the building in order to accommodate the variety of access points that people would be coming to from different points of the site. It also provides opportunities for display and exhibition of various projects produced in the arts centre, and acts as a means for people to begin to see what is happening on the inside as a means of inviting and enticing them inside.



GALLERY

The gallery is a dynamic, multi-use space that allows for maximum flexibility and adaptation of the space, offering breathtaking views out over the river and back to downtown. Not only does it serve as an exhibition space for artwork and creative displays, but can be used as a venue for receptions, weddings, meetings, banquets etc.



FINAL DISPLAY

REFERENCES

Detroit Is A Hotbed of the World's Best Graffiti Artists. (n.d.). Retrieved December 15, 2014, from <http://detroit.curbed.com/archives/2012/09/this-post-was-authored-by.php>

Detroit Ethnic Media Tell Different Story -- Immigrants Key to Revival - New America Media. (n.d.). Retrieved December 15, 2014, from <http://newamericamedia.org/2013/08/ethnic-population-in-detroit-remains-optimistic-despite-bankruptcy-filing.php>

Segal, D. (2013, April 13). A Missionary's Quest to Remake Motor City. Retrieved December 15, 2014, from <http://www.nytimes.com/2013/04/14/business/dan-gilberts-quest-to-remake-downtown-detroit.html?pagewanted=all>

Gilbertville: A Billionaire's Drive To Rebuild The Motor City. (n.d.). Retrieved December 15, 2014, from <http://www.forbes.com/sites/joanmuller/2014/09/29/gilbertville-a-billionaires-drive-to-rebuild-the-motor-city/>

Pocket Neighborhoods • Creating Small Scale Community in a Large Scale World. (n.d.). Retrieved December 15, 2014, from <http://www.pocket-neighborhoods.net/whatisaPN.html>

Detroit History. (n.d.). Retrieved December 15, 2014, from <https://www.detroitmi.gov/Residents/AboutDetroit/DetroitHistory.aspx>

(n.d.). Retrieved December 15, 2014, from <http://www.forbes.com/pictures/emeh45mifi/a-declining-population-in-a-wide-spread-city-17/>

Anatomy of Detroit's Decline. (2013, August 16). Retrieved December 15, 2014, from <http://www.nytimes.com/interactive/2013/08/17/us/detroit-decline.html>

Classic Motown. (n.d.). Retrieved December 15, 2014, from <http://classic.motown.com/history/>

Cruz, G. (2009, January 12). Motown. Retrieved December 15, 2014, from <http://content.time.com/time/arts/article/0,8599,1870975,00.html>

People's World. (n.d.). Retrieved December 15, 2014, from <http://peoplesworld.org/detroit-through-the-lens-of-class-and-race/>

Detroit Is A Hotbed of the World's Best Graffiti Artists. (n.d.). Retrieved December 15, 2014, from <http://detroit.curbed.com/archives/2012/09/this-post-was-authored-by.php>

Detroit Ethnic Media Tell Different Story -- Immigrants Key to Revival - New America Media. (n.d.). Retrieved December 15, 2014, from <http://newamericamedia.org/2013/08/ethnic-population-in-detroit-remains-optimistic-despite-bankruptcy-filing.php>

Segal, D. (2013, April 13). A Missionary's Quest to Remake Motor City. Retrieved December 15, 2014, from <http://www.nytimes.com/2013/04/14/business/dan-gilberts-quest-to-remake-downtown-detroit.html?pagewanted=all>

Gilbertville: A Billionaire's Drive To Rebuild The Motor City. (n.d.). Retrieved December 15, 2014, from <http://www.forbes.com/sites/joanmuller/2014/09/29/gilbertville-a-billionaires-drive-to-rebuild-the-motor-city/>

Pocket Neighborhoods • Creating Small Scale Community in a Large Scale World. (n.d.). Retrieved December 15, 2014, from <http://www.pocket-neighborhoods.net/whatisaPN.html>

(n.d.). Retrieved December 15, 2014, from <http://average-rainfall.findthebest.com/l/120/Detroit-Michigan>

Intellicast - Detroit Historic Weather Averages in Michigan (48234). (n.d.). Retrieved December 15, 2014, from <http://www.intellicast.com/Local/History.aspx?location=USMI0229>

Alfisols home. (n.d.). Retrieved December 15, 2014, from <http://www.cals.uidaho.edu/soilorders/alfisols.htm>

Infrastructure. (n.d.). Retrieved December 15, 2014, from <http://www.detroitchamber.com/economic-development-2/region-over-view-2/infrastructure-2/>

Historic Detroit. (n.d.). Retrieved December 15, 2014, from <http://www.historicdetroit.org/building/michigan-central-station/>

Beshouri, Paul. "The Palms Apartments: Architectural Brilliance, Now Restored." Curbed Detroit. Curbed, 30 Sept. 2013. Web. 11 Feb. 2015.

"Himmelhoch Apartments | FOURMIDABLE Real Estate Management." FOURMIDABLE Real Estate Management. N.p., n.d. Web. 21 Jan. 2015.

"Broderick Tower." Broderick Tower. N.p., n.d. Web. 21 Jan. 2015.

"Detroit Loft Space | Luxury Lofts in Downtown Detroit | Security Trust." Security Trust Lofts RSS2. N.p., n.d. Web. 21 Jan. 2015.v

"Jean Rivard Apartments |." Jean Rivard Apartments. N.p., n.d. Web. 21 Jan. 2015.

*All photos were taken by the author, Catherine Groth [2015] unless otherwise noted.

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