

# Life Skills Center

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Phillips and Powderhorn Park  
Minneapolis, Minnesota

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Jeremiah Simones

# Life Skills Center

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

By

Jeremiah Simones

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



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Primary Thesis Advisor



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Thesis Committee Chair

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# Table of Contents

|                                      |    |
|--------------------------------------|----|
| Abstract                             | 1  |
| Problem Statement                    | 2  |
| Statement of Intent                  | 3  |
| Proposal                             | 5  |
| Narrative                            | 6  |
| User/Client Description              | 8  |
| Major Project Elements               | 9  |
| Site Information                     | 11 |
| Project Emphasis                     | 14 |
| Plan for Proceeding                  | 15 |
| Studio Experience                    | 16 |
| Program Document                     | 17 |
| Research Results and Goals           | 18 |
| Results of the Typological Research  | 28 |
| Case Studies                         | 29 |
| Case Study Summary                   | 46 |
| Historical Context                   | 48 |
| Goals of Thesis                      | 54 |
| Site Analysis                        | 56 |
| Conceptual Programmatic Requirements | 69 |
| Conceptual Interaction Matrix        | 70 |
| Conceptual Interaction Net           | 71 |
| Process                              | 72 |
| Final Solution                       | 79 |
| References                           | 92 |
| Figures                              | 95 |
| Personal Identification              | 97 |

This thesis revolves around the concept of inspiring and reviving the youth and communities of Phillips and Powderhorn Park in Minneapolis, Minnesota, through a Life Skills Center that will promote growth and development. There is a problem with the educational system in place today. There is not enough emphasis on learning life skills and too much emphasis on evaluation through formal testing and marking. This thesis intends to explore the options and benefits not yet developed in today's education. Society should not forget to be educating America's young with the skills and knowledge that they will need in everyday life. The Life Skills Center is 92,000 sqft allowing for the use of education to inspire and revive the youth as well as the community of this diverse area in Minneapolis.

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## Thesis Abstract

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Keywords:

Minneapolis,  
education, school,  
youth, life skills,  
community

How can architecture influence the education of the youth  
while inspiring and reviving an inner city community?

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## Thesis Problem Statement

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## Statement of Intent

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**Typology** Education

**Claim** The American pre college education system is flawed. It has not changed and adapted to the world we live in today.

**Premises** Most studies have shown that up to 80% of students entering college admit that they're not certain what they really want to major in, even if they've initially declared a major. In addition, up to 50% of college students change their majors at least once before graduation, and some change their major several times (Temple University, 2011).

“Eighty-one percent of ... [high school dropouts]... said that if schools provided opportunities for real-world learning (internships, service learning projects, and other opportunities), it would have improved the students' chances of graduating from high school” (Bridgeland, Dilulio, & Morison, 2006).

The current system places far too much emphasis on a single pathway to success: attending and graduating from a four-year college after completing an academic program of study in high school. Yet, as we've seen, only 30% of young adults successfully complete this preferred pathway despite decades of efforts to raise the numbers (Pathways to prosperity:, 2011).

**Unifying Idea** A new-age educational system can help the future youth build upon their interests and aspirations while teaching basic life skills. Designing a facility that allows for this type of learning system would be beneficial to the youth, communities, and nation.

**Project Justification** A refocused education system is needed. There is a need to design a facility that will allow for students to learn a more focused trade as well as basic life skills and that will inspire and revive the youth, communities, and nation.

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# Proposal

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“The task of the modern educator is not to cut down jungles, but to irrigate deserts” (C.S. Lewis, retrieved 2012).

These simple words bring to life what needs to be striven for in the public education system. Far too often, high-potential, young adults leave high school early. Not all of these students fall into the all-too-familiar stereotypes of being lazy, unintelligent, and failing. In fact, most of these students have a different story than many may think.

In a study published by Bridgeland, Dilulio, & Morison (2006), the authors surveyed people who had dropped out of high school. Statistics show 88% of those students had passing grades. Furthermore, 62% of them had a C average or higher. With these surprising numbers it can be realized that most of these students are not unintelligent by society’s standards and are not failing in school.

The main reason that most of these students began to drop out is astonishing. In the same study, when the students were asked if they were motivated or inspired to work hard in school before dropping out, 69% responded that they were not. The study later went on to ask what would improve the chances of students staying in school. The top four suggestions were for schools to implement and obtain the following:

- Opportunities for real-world learning (internships, service learning, etc.) to make classroom more relevant (81%).
- Better teachers who keep classes interesting (81%).
- Smaller classes with more individual instruction (75%).
- Better Communication between parents and school (71%).

(Bridgeland, Dilulio, & Morison, 2006).

This information shows that not all students are able to learn in the same manner. Those who stay in school and find it interesting are able to learn in a way that society deems acceptable, but what of those kids that learn in a different way? What about the kids who learn by doing and need to be active in that process?

Society should not be informing the youth as to what they should be in the future and what they cannot be in the future. The youth of today is the future of tomorrow. They will be the driving forces in the economy, politics, education, sports, news, social medias, every current aspect of our world, as well as many new professions and practices that have not yet been invented.

In a 2009 address titled “New Skills for New Jobs” given at a labour market conference, Angeles Bermudez-Svankvist stated, “In the modern labour market, there is no longer a need for street lamplighters or ice deliverers. We have automatic street lights and fridges instead” (as cited in Lindahl, 2010). There is a change in the world and society needs to embrace it. By providing an education system that allows for this change society as a whole will benefit. By opening its eyes and removing the blindfold, society recognizes students of the present have a different vision of the world ahead of them. Opening a different and unique learning environment will help these students become reinvigorated and excited to learn.

# User Client Description

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The project will be designed for high school students of the Phillips and Powderhorn Park neighborhoods in south Minneapolis. The focus will be on those students who have become disinterested or dissatisfied with the traditional public school system. The facility will be owned by the state and will be used by a teaching based faculty and students.

## Users

Faculty: A principal, who will oversee operations and procedures within the school, along with a supporting staff as in a typical public school.

Teachers: Educators and guidance counselors for the students with student-specific interests as the focal point.

Students: Ninth through twelfth grade students who will assist in the care, maintenance and upkeep of the facility, while learning in a non-traditional environment (a studio school).

## Quantitative and Qualitative Requirements

This project is planned to provide schooling for about 200 – 300 students with a 15:1 student-to-faculty ratio max. There is year-round scheduling, as fit for students based upon their needs, personal interests, and seasonal interests. There will be parking available for the amount of people needed in the building. If there are any physical, medical, or mental needs, they will be addressed according to the current state regulations and requirements. The facility will be supervised by faculty and teachers but with the majority of the work being done by the students. Funding will be from taxpayers' money, and the school will be free to the students as is any public school.

# Major Project Elements

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With any educational facility there are key amenities that need to be addressed within the project design. The main focus of this facility is to be flexible and open to new and creative ways of learning. The major spaces listed below will be the foundation for which this learning is explored.

## **Main Entry/ Reception**

The main entry will need to be met with a security system as well as reception desk for helping visitors, students, parents, and faculty. This space will need to be close to the faculty offices and will be where the school is run.

## **Faculty Offices**

Principle and operational faculty are stationed in the faculty offices. There is also a need for individual teachers to have their own space to work... since the classrooms and breakout spaces need to be flexible to change.

## **Lobby**

There needs to be ability for adaptation in the lobby so it can be used as a gathering or work space and for displays, performances, orientations, and any other functions the school sees fit.

## **Library**

The library will contain hard copy media as well as digital media. It will preferably be tied to the surrounding school systems and public libraries of the greater Minneapolis area for a larger catalog.

## **Kitchen/Dining**

Students and staff will have an in house kitchen and washroom; the students will be responsible for upkeep, preparation of food, as well as preparation of eating (with faculty and teacher supervision).

## **Classrooms/ Breakout Spaces**

There will be a wide-based curriculum in which students are introduced to new professions and practices. These students will then begin to focus on what they are most interested in, whether it be working on cars in a breakout space requiring a large amount of room or writing a novel at a desk requiring a small space. These classrooms and breakout spaces need to accommodate and be flexible to all, but are not constrained to do so.

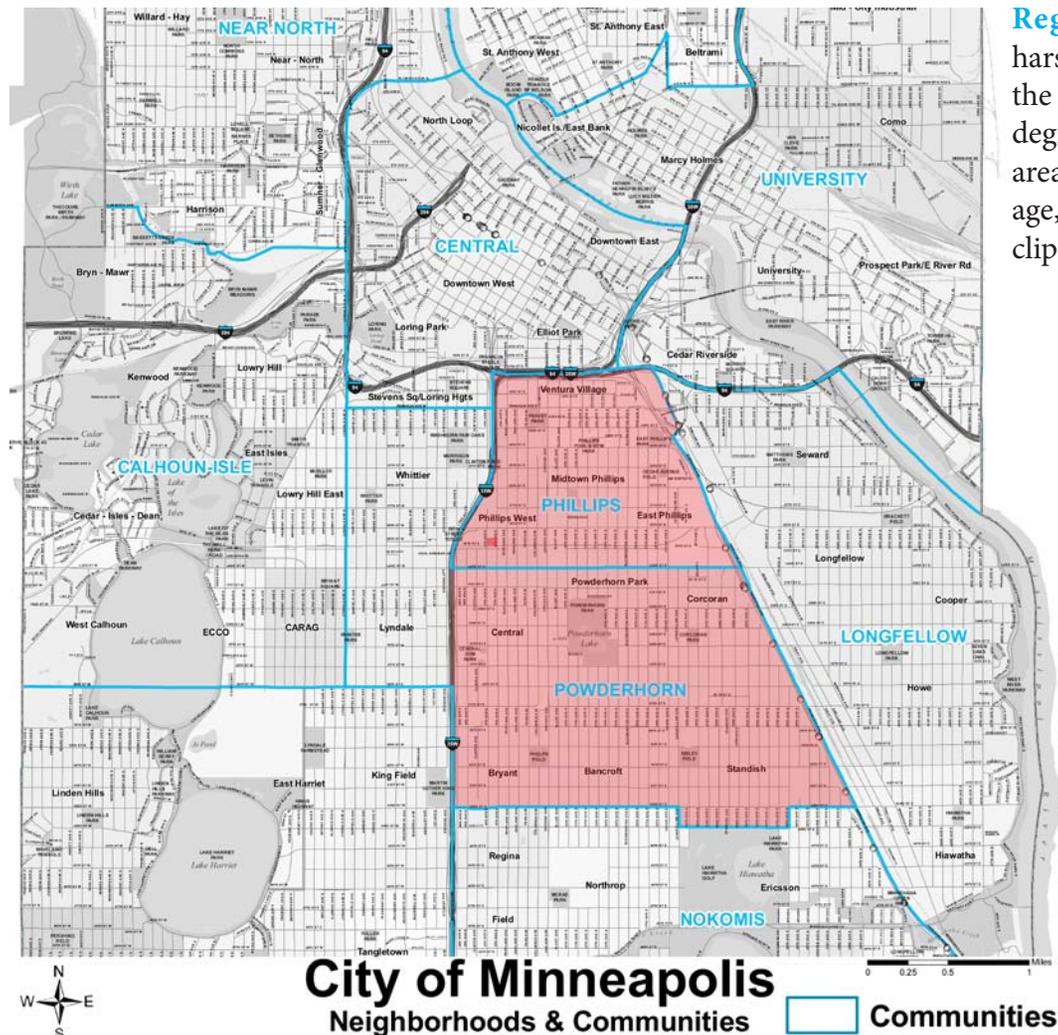
**Gym** The gym will be a place where students can focus on the fundamentals of sports and athletics, whether it is their main focus or a place to get some exercise. This school will be able to provide multiple-use spaces for many recreational and competitive sports.

**Outdoor Space** There will be places for student learning outdoors as well: green houses, gardens, special condition turf management, playing fields, and adaptable spaces for construction or whatever other uses students become interested in.

**Stage** Performances and practices can take place on the stage. The stage will be used for traditional performances but also for any use the school and students feel necessary. This space also needs to be flexible.

**Maintenance/  
Mechanical** As in any building, maintenance and mechanical spaces will be needed for upkeep and functional purposes. In this school, students interested in professions and practices in which knowledge of these operations are necessary will be operating and maintaining these spaces with staff supervision, of course.

# Site Information



[Figure 1]

**Region** - Minnesota has a continental climate, which consists of cold, harsh winters and warm summers. The daily mean temperatures for the Minneapolis-St. Paul area ranges from 74 degrees F in July to 12 degrees F in January. The annual precipitation averages 29.4 in. in the area. The area is known to have large blizzards twice a winter on average, and tornadoes often occur in the southern portion of the state at a clip of 18 per calander year (“Minnesota - climate,” 2010).



[Figure 2]

**City** - According to the most recent census, Minneapolis has a total population of 382,618 people. There are a total of 162,352 households with an average household size of 2.25 and an average family size of 3.15 people. The median age of the city is 31.2 with a median household income of \$37,974 per year. Tthe top four ethnicities in the cities are white (67.98%), African American (20.46%), Hispanic or Latino (7.74%), and American Indian or Alaska Native (3.31%) (“Minneapolis demographics profile,” 2011).



[Figure 3]

**Neighborhoods** - The reason for choosing this general area is because of an interest in the diversity of ethnicities, economics, ages, and growth of families in the area. The Phillips and Powderhorn communities are split into several different neighborhoods and are divided by E Lake St. The chosen neighborhood for my specific site is between East Phillips and Powderhorn Park, along E Lake St.

**Phillips** - Located south of downtown Minneapolis, the Phillips neighborhood is bordered by I-94 to the north, E Lake St. to the south, I-35 on the west and Hiawatha Ave. to the east. It is a mix of residential, commercial and industrial use. Total population for the Phillips community is 19,805, with most of these residents being either between the ages of 25-44 or 5-17. The primary ethnic groups are African American (29.16%), white (24.42%), Hispanic (22.14%), and American Indian (10.83%). The median household income for the area is \$22,044, which is \$15,930 below the city of Minneapolis median household income. The percentage of families with children under 18 is at 69%, which is 19% higher than the city average (“Phillips community,” 2011).

**Powderhorn Park** - Located south of Phillips, Powderhorn Park takes its name from the nearby lake. The neighborhood is bordered by E Lake St. to the north, 38th St. E to the south, Chicago Ave. to the west, and Ceder Ave. S to the east. The total population for Powderhorn Park is 8,957 with the majority being in the age groups of either 25-44 or 5-17. The ethnic distribution of this area is similar to Phillips; white (41.7%), Hispanic (22%), African American (21.71%), and American Indian (4.93%) complete the top 4 ethnic groups. The median household income for the area is \$34,985, which is considerably higher than Phillips, but still about \$3,000 below the city average. Lately, people of the area are beginning to feel that the city is pushing lower income families out of the area with new projects and renovations. The percentage of families with children under the age of 18 is 61% which is 11% higher than the city average (“Powderhorn park,” 2011).



[Figure 4]

**Site** - I have chosen a parking lot about a block north of the busy E Lake St. that creates the border between Powderhorn Park and the Phillips neighborhoods. The lot is bordered by 4th Ave. S to the west and 5th Ave. S to the east. The north side of the lot meets the southern most building of the Wells Fargo Center complex. The complex includes three office buildings and two parking ramps. The closer of the two ramps can be seen in the upper right corner of figure 4. On the south side of the parking lot runs the Midtown Greenway (highlighted light green). This is an old sunken railroad converted to a bicycle/walking corridor that cuts through the majority of the city. The city of Minneapolis has future plans of adding a light rail along this bike path as well. There are also two soccer fields adjacent to the lot. Each of these are open to the public and provide opportunities for further development and use. Just south of the site is E Lake St., which is a major bus corridor with street shops and services. There are future plans to add on-and-off ramps to I-35W as well as to promote new multi-use redevelopments with higher density along the Lake St. corridor (“Phillips community,” 2011).



[Figure 5]

The Phillips and Powderhorn Park communities are very diverse areas within the city. Within the neighborhoods' limits there are several different types of schools for all the young families in the area, but few specialized schools focus on life-skills development and mentoring.

The emphasis will be on providing a “studio school” for students, which will be a place of learning that is not the formal or traditional high school, but allows for teenage students to focus on a more specialized practice or profession. This will allow the students to better prepare themselves for either entering into real world employment or pursuing higher education. To some, this may be their main place of education, while others may see this as a secondary or after-school program. Either would be beneficial to the individual student. By targeting these neighborhoods, many people from different walks of life will be able to utilize the school.

# Plan for Procedure

## Research Direction

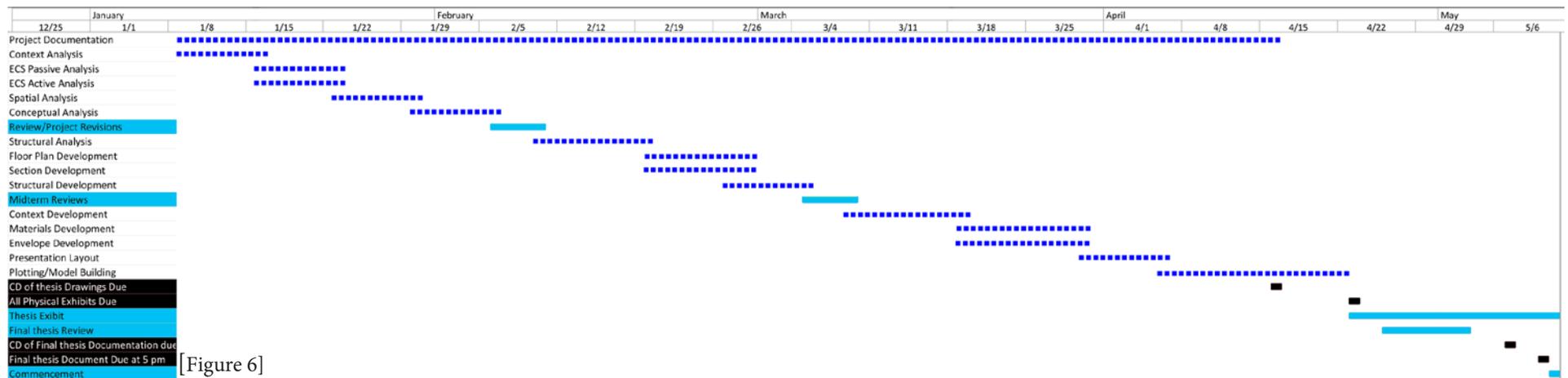
The three main premises will be the cornerstones on which I will build my research. They will be the guides to the final design. I plan to obtain as much knowledge as possible in regards to current education of America as well as Minneapolis. I also hope to gain a greater understanding of “studio schools” and the concept of allowing a student to pursue a more declarative direction in life before college education is obtained, if obtained at all.

## Design Methodology

I will be taking advantage of the quantitative/qualitative mixed method of research. Both qualitative and quantitative data will be collected, reviewed, cross referenced, and will inform my research as well as the future design of my project. No data shall be left underdeveloped or underutilized throughout the process.

## Documentation

During the process, I plan to keep close tabs on what has been done. Each avenue of exploration and research will be kept separately and will be well-preserved in a filing system. This will allow for quick and simple cross references at any point in time during the research. At the end of the project, I plan on making my research and direction of influence clear and concise.



[Figure 6]

# Studio Experience

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## Second Year

**Fall 2008**

Darryl Booker  
Tea House - Fargo, ND  
Boathouse - Minneapolis, MN

**Spring 2009**

Mike Christenson  
Dance Studio - Fargo, ND  
Material Study (Dance Studio) - Fargo, ND

## Third Year

**Fall 2009**

Cindy Urness  
Center of Excellence - Fargo, ND  
Wellness Center - Fargo, ND

**Spring 2010**

Milton Yergens  
Portable Fish House  
Barley Research Facility - Fairfield, MT  
Mixed Use Restaurant - Fargo, ND

## Fourth Year

**Fall 2010**

David Crutchfield  
High Rise/Retroflex - San Francisco, CA  
KKE Precious Object Container

**Spring 2011**

Don Faulkner/Frank Kratky  
Marvin Windows Mixed Use Competition - Fargo, ND  
Oil Boom City Planning - Williston, ND

## Fifth Year

**Fall 2011**

MXC Mental Health/Regenerative Facility - Millerville, MN

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## Program Document

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## Research Results and Goals

The heart of my idea stems from two problems faced in today's society: **dull education** and the **lack of life skills** being taught at home and in schools. What I am proposing is to create an open educational facility addressing these issues for the **youth of a diverse community**. The reasoning for this proposal is to allow students who are unhappy, unmotivated, and uninspired by traditional schooling a different type of **specialized education** that involves interaction, individual development, team development, and an enjoyable learning environment. The facility will also be able to give the community an identifiable facility that enhances the pride and success of these communities.

I feel these issues need to be researched, analyzed, dissected, and addressed with a proposed solution. Below I have indicated the issues and concerns that are the foundation on which this project is being established. I have then found supporting evidence and facts strengthening these underlying concerns and issues. Finally, I have referenced past thesis projects that have investigated similar questions and concerns.

### ACTIVE LEARNING

A large part of my proposed program is to encourage youth to become more active and learn by doing. The goal is to make their education a fun activity they can enjoy. The more interested in something a person is, the more likely they are to do it and do it well. The kids will benefit in ways that may not even be evident to them, thus having positive effects on their overall health. Studies and research has begun to show the importance of balance between all aspects of health. Mental, emotional, spiritual, and social health concerns have increased over the past few decades, and the increase has been for good reason. It is essential to have the necessary balance for an individual to live a healthy and successful lifestyle.

“Physical fitness can help you reduce stress, improve your immune system and help you feel better about yourself. Whether the effects are direct or indirect, exercising can help you support and enhance your overall health” (“Why is physical,” 2011).

“Children's extracurricular activities have been shown to be positively associated with other aspects of children's lives. Studies show that participation in structured extra-curricular programs in adolescence promotes academic achievement and social adjustment” (Kremer-Sadlik & Kim, 2007).

Past thesis project “Living a Healthier Life: A Connection Between Mind, Body, and Spirit” by Amanda Urban in 2005. The final design is a wellness center in Moorhead, MN focusing on the mental, physical, and spiritual benefits of palates, yoga, meditation, and tai chi. The project focuses on improving overall health by way of physical activity for the community.

Past thesis project “Actuated Architecture: Driving Healthy Behavior With Design” by Laura Brunik in 2011. “Architects should start looking at the impact of their design on human behavior in order to promote a healthier society.” “An architectural program for a multi-

purpose health and well-being living center may have what it takes to create healthy lifestyle changes.”

Past thesis project “Live Act: An Architectural Response to Rehabilitation” by Adam Pan-grac in 2011. His narrative says, “Following one’s passion is a must if he/she want to live a happy and joyful life. Doing what brings enjoyment can increase motivation, self-esteem, and overall personal strength.” When discussing healthcare and wellness facilities, Adam has this to say about the change in programming and emphasis. “Physical wellness was no longer isolated from other aspects of well-being. The idea is that a common relationship is shared amongst various aspects of wellness.”

Past thesis project “Healing Dance” by Branden Kalstad in 2010. A dance center for forward thinking in preventative and recovering therapy located in Rochester, MN. Branden’s premises state, “Dancers teamed with physical therapists can provide patients with full mental and physical concentration of the body. Working side by side, teaching each other, dancers and physical therapists can attentively heal patients.”

## MENTORING AND BELONGING

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It is essential for the growth and development of a child that society pays attention to the type of feedback it is giving him or her. The architectural solution for the problems I have addressed will cater to a mentor-based learning program. Principals, teachers, fellow students, parents, and other members of the community will become encouraging, informative, teaching mentors to the children. The end result may be a sort of apprenticeship, or job shadowing program. The people living in the community and working at these facilities will play an important communal part in the children’s education. Community member involvement enhances both the child’s and the mentor’s sense of belonging and connection. There has been evidence that this type of interaction is perceived as positive and beneficial. This educational facility will provide a quality place for kids to go and enjoy, strengthening group participation, interaction, and team spirit on several levels of health and community.

“It is imperative to understand the difference between praise and encouragement. Praise is often mistaken for encouragement and is often given when a child performs well in some activity. What can happen if praise is overused is that the child can begin to think his worth is dependent on winning, or doing well or being smart” (“Understanding the importance,” 2007).

“In a 1992 nationwide study conducted at Pennsylvania State University, researchers compiled a listing of the benefits of local recreation and park services as perceived by the American public. Participants in the study could be divided into two groups: users of local recreation and park services and non-users. Surprisingly, 71% of non-users said they received some benefit from their communities’

parks and recreational services” (“Benefits of parks,” 2007).

Past thesis project “Mtns Edge Community Center: Youth Interaction and Sports Facility Creating Individuality Through Involvement” by Brit Douglas in 2006. The project revolves around providing opportunities as well as encouragement in participation through different activities. Center for youth interaction on an individual and team level. Within the narrative Brit writes, “A new community center can provide children the opportunity to participate in activities that might not have the opportunity otherwise. In addition, it can help unify, strengthen and interlock the four cities [Kootenai County, Idaho] together under one combined idea: a bright future for today’s youth.”

Past thesis project “Communities: Progress Through Gathering” by Mitchell Tromberg in 2011. This thesis focused on helping small rural communities survive by designing a multi-use community center in Burnett County, Wisconsin. Mitchell writes, “The continued success of rural America is dependent on the ability and willingness of the community members to come together and act as a whole.” For Mitchell’s project emphasis he states, “This project will take an in-depth look at how the architecture of a building can encourage people to gather in a manner that promotes communication, the sharing of knowledge, and a sense of communal pride.”

Past thesis project “Diverse Community Center: Redeveloping the Fargo downtown area to unify and unite people amongst various cultures to maintain a diverse community” by Kevin Pham in 2011. The project claim is as quoted, “A cultural center in an urban area can promote communication among users and strengthen the social resilience of a culturally diverse community.” Kevin’s premises is, “When people with different opinions and values gather together to provide an opportunity for community experience, they will break down the barriers often created by the lack of communication between different ethnicities.” The project’s narrative states, “As designers, we must develop a safe, healthy and sustainable community for people. A designer must consider everyone’s needs by gathering information from various cultures and understanding their daily life interactions.”

## COMMUNITY SUPPORT

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Communities around the world are supporting organizations, clubs, groups, benefits, and other community-driven programs that encompass social benefits. Improving the life of the people who live in the spaces cities create should be at the top of every city’s growth plan. Inviting citizens of a specific community to participate in these groups and programs has beneficial implications that reverberate through the community as a whole. The invitation to participate can empower and encourage people to become more involved in the life and activity around them rather than have the individual sitting by idly.

The official website of the City of Johannesburg (2011), in regards to their growth and developments strategy for 2040 states, “Non-Governmental Organizations, Community Based Organizations, Faith Based Organizations, artists organizations established as not-for-profits, and other public-benefit organizations, all play a very valuable role in building stable communities in the Inner City and in providing a wide range of social services to residents in need” (“Community development: charter,” 2011).

“Why Participation Matters. Community participation is not an idle principle. Communities that have chosen to follow it find that not only do they derive more satisfaction from the joy that comes from open community involvement, but they also achieve more results, more rapidly, and with greater benefit to the community as a whole. In short, participating communities succeed better than those that only pay lip service to this important principle” (Reid, 2000).

Past thesis project “St. Paul Community Center: An Adaptive Reuse Project” by Anna Otto in 2007. Although the primary focus of this community center was to reuse the inner city of St. Paul, MN, there is also a concern that inner city residents do not feel the sense of community that we seek as humans. In her theoretical premise Anna wrote, “The thesis will examine different uses in the public environment to enhance urban life and interaction.” Anna states in the project justification, “To create a public space in which many uses and forms of entertainment may be found to encourage social interaction.” Within the narrative I found this quote to relate to the subject matter at hand; “Human interaction is a very basic need that in today’s society we may not get enough of, especially in the inner city environment. In the teenagers and adolescents to interact amongst themselves in ways they would prefer, than there would be in a more suburban setting.”

## FUTURE EDUCATION SYSTEM

I began to question the importance of the relationship between community interaction and identity (on an individual and community level). In my research I found an interesting article written by a professor of philosophy at the University of Kent, Sean Sayers(1999). He makes the connection between the individual and the community in which he or she was raised. I believe this connection can have limitations and constrictions that cannot be avoided. People sometimes do things without truly thinking about them; they do them because that is what they have always done or are accustomed to doing. This is why an alternative learning environment with untapped opportunities is in my vision. Allowing youth options and insight into a different type of learning system is a step in the positive direction. The youth of today is the power of tomorrow; society must let them explore their own potential. Society should strive to educate them to the best of its ability, and if that means restructuring the current education system, then by all means let a new or additional route to a more advanced education be devised. There are students in today’s school systems that do

not feel they are benefiting from their teachers. They feel they are not learning relevant facts and information they need to succeed in everyday life.

“The child is born into a particular family in a particular society. It acquires and accepts the beliefs and values of its initial upbringing immediately and unquestioningly, as simple givens... From the very outset, the child participates actively in its upbringing and education” (Sayers, 1999).

“Eighty-one percent of ... [high school dropouts]... said that if schools provided opportunities for real-world learning (internships, service learning projects, and other opportunities), it would have improved the students’ chances of graduating from high school” (Bridgeland, Dilulio, & Morison, 2006).

Most studies have shown that up to 80% of students entering college admit that they’re not certain what they really want to major in, even if they’ve initially declared a major. In addition, up to 50 percent of college students change their majors at least once before graduation, and some change their major several times (Temple University, 2011).

Our current system places far too much emphasis on a single pathway to success: attending and graduating from a four-year college after completing an academic program of study in high school. Yet as we’ve seen, only 30 percent of young adults successfully complete this preferred pathway, despite decades of efforts to raise the numbers (Pathways to prosperity, 2011).

Past thesis project “Hasting’s Community Wellness Center” by Rachel Rudiger in 2007. This project focused on the health in a community and its surrounding environment in Hasting, MN. Rachel states, “Promote an awareness of environmental issues, community interaction, and identity.” Within the project emphasis Rachel also wrote, “Studies of healthy environments and how people are influenced by their surroundings positively either consciously or unconsciously.”

Past thesis project “Neurotic: Mind, Body, Soul, Architecture” by Amy Chmielewski in 2010. Located in Bismark, ND, this project revolves around the concept that people think differently and “seek out places where they feel comfortable, accepted, or ‘normal’ in society.” The emphasis is on people that can function within society’s norms but still have psychological disorders that affect everyday life. Similarly, there are students that can function within the norm of traditional schooling but find it difficult, boring, and unimportant to what they want to do in life.

It is important for children to have a strong sense of social belonging. There is no reason we cannot and should not provide them with as many positive options to obtain this feeling of social belonging. A place of mentorship, activity, encouragement, guidance and the evidence of success and prosperity as a result of these positive influences is of great importance. Without the recognition of the youth's delicate need for positive reinforcement, children have been known to look in other places to find this sense of belonging. This raises the question of where these kids might be going or what they might be doing in order to achieve that level of social acceptance. I am not saying that by offering a single type of community learning environment we will completely solve this problem, but I do believe that an integral system of education facilities, each with its own specialties and emphasis geared towards a specific interest, will be important in strengthening the child's social inclusion. A child being in an environment where he or she feels comfortable will only enhance the idea that a person interested in something is more likely to do it and do it well.

“Feeling marginal, adolescents join gangs for social relationships that give them a sense of identity” (Vigil & Long, 1990).

“For some youth, gangs provide a way of solving social adjustment problems, particularly the trials and tribulations of adolescence” (Short & Strodbeck, 1965).

“A sense of belonging appears to be a basic human need – as basic as food and shelter. In fact, social support may be one of the critical elements distinguishing those who remain healthy from those who become ill (Pelletier, 1994).

“The social context of sport is salient to participants’ motivation. Participants report social reasons for engaging in physical activities including affiliation, being part of a team, and social status” (Allen, 2003).

Past thesis project “Adolescent Recreational Center” by Kaitlyn Humphrey in 2007. A youth and young adult recreation and event center meant to provide a sense of community and activity in San Clemente, CA. The center includes soccer, baseball, rock climbing, dance, basketball, group spaces, library, computer lab, and additional recreational activities. The theoretical premise states, “How a place can provide youth with a sense of belonging and community through excitement and activity.”

Past thesis project “An Educational Interaction Within Nature” by Trevor Anderson in 2011. The focus is on a junior high school and the ability to improve these students learning curve. “Can the quality of a space enhance someone’s ability to learn?” Within the abstract he writes, “We must continue to advance in the design for schools to keep pace with the ex-

panding knowledge future generations are expected to retain.” Trevor states in his unifying idea, “The mind is influenced by the spaces we inhabit. It is crucial that we as designers find the optimum environment for the mind when information is being presented.”

Past thesis project “Community School: Development of a Rural School into a Community Center” by Ashley Hudson in 2011. A community school located in northern Cass County, ND. Her project justification states, “The future of our communities and society lies in the hands of our youth.” Ashley also writes in her project emphasis, “A community school that will place much emphasis on the education of its youth, community development, and community engagement, in hopes of improved student learning, stronger families, and a healthier community.”

### LIFE LONG VALUE

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Lasting life lessons and values can be sometimes overlooked or forgotten in today’s fast paced society. Life skills have the ability to improve each student on an individual level as well as a community level. There are already existing organizations that attend to this concept and have been successful. There should be more schools and organizations around the country that instill these types of programs into their curriculum and or community. One specific specialization will not solve all of the problems I have addressed, but it can be a strong stepping stone for more education systems similar to this with other professional focuses.

Dance Academy USA prides itself on being the largest dance studio in northern California for over 20 years and specializes in high-quality dance instruction. They have developed the top five lasting values from dance lessons: dancing ability, social interaction, having a healthy hobby, lasting friendship, and educational value respectively (“The 5 lasting,” 2011).

“G.A.M.E. stands for Gonzaga Athletes Mentoring for Excellence. GAME uses athletics and social interactions to increase the self-esteem and resilience of the middle school students they work with. The dedication and lessons learned through sports and other social activities will aid the students in succeeding in middle school and beyond. G.A.M.E. provides the students with tools to succeed in every aspect of their life, not just in sports or athletics.” (“Game,” 2011)

Past thesis project “Lake Superior Dance Center” by Lacie Luchtenburg in 2007. A dance school for Duluth, MN focusing on how a building can impact a learning environment. Lacie’s project justification claims, “Dance will help to instill in students values and ideals that they will be able to take with them for the rest of their life, such as dedication and confidence.”

Past thesis project “Art in Architecture” by John Holten in 2010. The project focuses on how

performing arts and architecture change along with the cultural identity of the times. The project was designed for Grand Forks, ND. The idea is that the theatre is owned and operated by the Grand Forks Public School district. It will be used by students and will include classrooms, production spaces, and clubs. He also plans to have the space utilized in the summer by the Summer Performing Arts Program (SPA).

## IMPACT OF ATHLETICS

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Sports can be very competitive and, in some cases, can cause negative effects on youth if they are not taught correctly or if there is too much emphasis on the wrong aspects. In high school and college athletic programs around the United States, the emphasis and importance has shifted to the negative. There is undoubtedly cases in which this has created issues and negativity towards the realm of sports. With the right type of emphasis and guidance, athletics can become a very positive influence and educational tool to all. Not only can it improve the youth on an individual level, it can also unite a community in places lacking identity and a sense of belonging. A venue for educational advancements, community based events, education, and physical activity can become a strong draw for current and new residents. It may become the backbone on which a community increases interest in the area and boosts revenue for local business.

“Olympism is a philosophy of life, exalting and combining in a balanced whole the qualities of body, will and mind. Blending sport with culture and education, Olympism seeks to create a way of life based on the joy of effort, the educational value of good example and respect for universal fundamental ethical principles” (“Olympic charter,” 2011).

“Mission Statement: The Nashville Sports Council strives to impact the economy and quality of life of the Greater Nashville Area by attracting and promoting professional and amateur sporting events” (“Helping give Nashville,” 2011).

“Community spirit: Civic pride and quality of life enhancement! Sports can unite a community like nothing else. Sports can help define a community and provide a platform for teamwork and common goals” (“Helping give Nashville,” 2011).

Past thesis project “Olympic Aquatic Center” by Timothy Curran in 2007. This thesis centered on the 2016 Olympic possibilities for Chicago, IL. Curran wrote, “There is more to the Olympics than just winning.” He also writes, “The camaraderie of the ‘Olympic Spirit’ will help to bring life back to this neighborhood that once experienced a boom in early days of the 20<sup>th</sup> century.”

## Conclusion

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I feel that I have made great progress and acquired much understanding in this project's direction, emphasis, and overall concept. The topic of education has become a very interesting and informative one. The seriousness and extent of the issues involved were not fully understood or uncovered until I began to delve into this topic. The emphasis of this project is still on improving the education system for our youth, but I have begun to become almost equally as interested in the impact this will have upon the surrounding communities. By combining these two issues, I feel I am complimenting each of them with the other, alleviating concerns with both.

It is clear that there has been a lot of interest in these issues over the past several years. That interest is evident among society, educators, communities, designers, and also in projects done by recent NDSU architecture graduates. The reason this is starting to become a more explored issue is because society is beginning to have some self-reflection; society is beginning to look into its own mirror and is realizing that things will not always be going in a smooth and concise direction. If America is to build and expand upon our successes as a nation, it needs to adapt and change for the future. Right now, the education system has not changed very much in roughly the past 100 years. When comparing this to the economic, technological, environmental, and overall advances that have occurred within that time frame, the gap between all of these and education has visibly increased. If America plans to be at the top of the world's list in many of these categories, it must look into new ways of educating its future.

Each major concern or topic of interest discussed above has begun to harden the true emphasis and direction of this malleable project by way of influential investigation. With each concern opening new doors and avenues of research and interest, I found myself picking up books and articles that I would have never thought to examine at the beginning of my project. These two main concerns of dull education and lack of life skills have touched more than just the top layer; through research, they have forced me to take a scoop out of each and have made an interesting blend to deal with. I do not believe that an architectural solution to these topics will solve all of the nation's education concerns, but it will give the nation a direction to explore. It will provide society with a way of alleviating some of the concerns and pressing problems I have researched. Along the lines of my true understanding in the relevance of this project, I should also state that while I focus on education and communities, there can be numerous disciplines in which this preliminary idea can be applied. This is an interest of mine personally and is not the end-all, be-all solution to the problem. I am using it as a starting point that may have an expanding impact.

I would like to conclude with a few quotes and thoughts from a few of our department's academic pieces that I used to guide my research and development.

“We will seek to maximize our resources through innovative design and the creative use of materials, as we test the boundaries of ecological thinking, research, and applications.”

“Students will bring constructive and new ideas to discussions and critiques, with an emphasis on creativity, forward thinking and innovation throughout the design process.”

“Faculty will strive to establish and sustain an open environment for communication, high standards and expectations, a dedication toward constructive critique, and transparency in assessment. Faculty will challenge students intellectually while providing them access to resources.”

#### Program/Department Vision

“We constantly strive to refine our design ethos through creative problem solving, critical inquiry, ethical leadership, environmental stewardship, engaged citizenship, an expanded world view that welcomes diverse communities and ideas, and a celebration of student life that emphasizes the development of the whole person.”

#### 2009 Conditions for Accreditation

“Design Thinking Skills: Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.”

#### Design Thesis Definition

“A design thesis is a student-generated project that poses an architectural question or theoretical premise/unifying idea that you have not previously investigated in a substantial manner and allows the development of a full year course of study. The requirements of a theoretical premise/unifying idea is meant to make the project more challenging and interesting to you, but at a minimum, the final product of the thesis design effort in any professional degree program must demonstrate competency in the design and assembly of architectural elements.”

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## Results of the Typology Research

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## Case Studies



[Figure 7]



[Figure 8]

## Primary School & Sport Hall

(Jordan, Sebastian, 2011)

Architects:

Chartier-Dalix Architects

Location:

ZAC Rives de Seine, Lot A4 Est.  
Boulogne Billancourt, France

Client:

SAEM Val de Seine Aménagement

Budget:

\$16.8 Million

Project area:

70,900 sqft

Project Team:

Franck Boutté (HEQ consultant)

E.V.P. (structure)

CFERM (fluids)

Fabrice Bougon (economist.)

Atelier d'Ecologie Urbaine (ecologist)

Project Year:

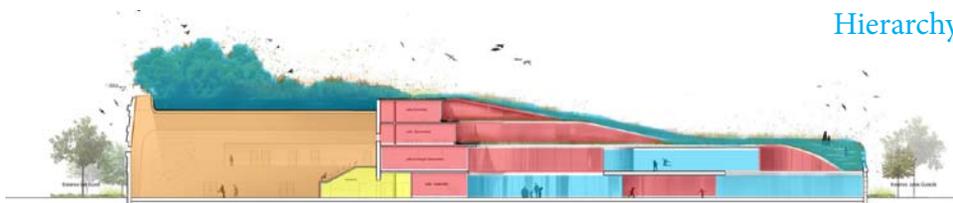
2011-2013

The Primary School & Sport Hall constructed in France was formulated around the idea of bringing a unique environment for learning into the city. It has all the amenities of a typical grade school housed within the shell-like concrete structure. The key component of the facility is a local gym that is to be used by both the students and the public alike. Along with this indoor gym, the design has incorporated an outdoor play area large enough for the total number of students of the school to occupy at a single time. The reasoning behind the large outdoor courtyard was to allow for multiple activities, exploration, and to bring



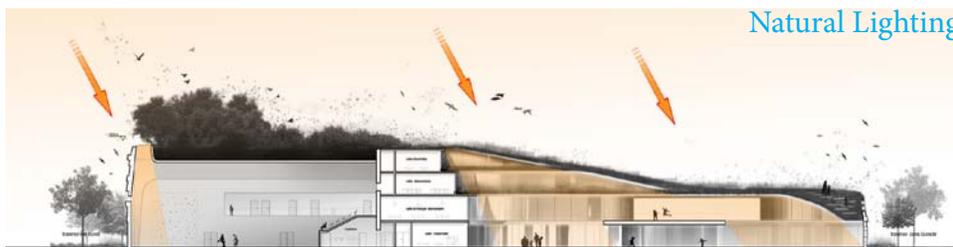
[Figure 9]

### Hierarchy



[Figure 10]

### Natural Lighting



[Figure 11]

### Massing



[Figure 12]

nature into this space by growing local fauna, trees, plants, and wildlife within the faux environment. The architects had envisioned students playing in this outdoor space while the sounds, scents, and feel were that of a living environment. Classrooms were then based off this open courtyard and hug the inner curve of the form. The benefits of this relationship are open views, stronger connection, and an in-house feel to provide a strong correlation between the students both indoors and out.

This case study has several similarities to my unifying ideas and project emphasis, and has addressed many design problems my project aims to resolve as well. This was the main attraction for this to be a project of interest. From this design, it is obvious that there is a need for the community in France to have a building that can bring people together for many occasions as well as utilize a school for other functions. By bringing these two components of a healthy community together, the design team has provided a great example for me to study and analyze. After looking through the different aspects of this building and analyzing the design solutions, a few stand above the rest. The open courtyard was the main point of emphasis for me. This space allows for much more than just what the designers had intended. I believe a space of this quality can be used by many groups, organizations, and functions proposed by the community. Although the initial focus was on the indoor gym, I believe the architects have higher success with the outdoor space. Placing the classrooms around this outdoor space was a great way to focus on the surrounding outdoor environment as well as opening up to natural elements. Instead of this being a sprawling school taking up more space, the designers stacked the classrooms to face the courtyard.

Compared to the other case studies I have researched, this project is much more of an enclosed structure. While this works well for this design and concept, I worry it would hinder my initial unifying idea. I am looking to openly and intensively involve the community and its people with the development of young adults. I need to keep in mind that this space was more for the kids with the option of opening to the public. My focus will remain on a community teaching environment.



Geometry

[Figure 13]



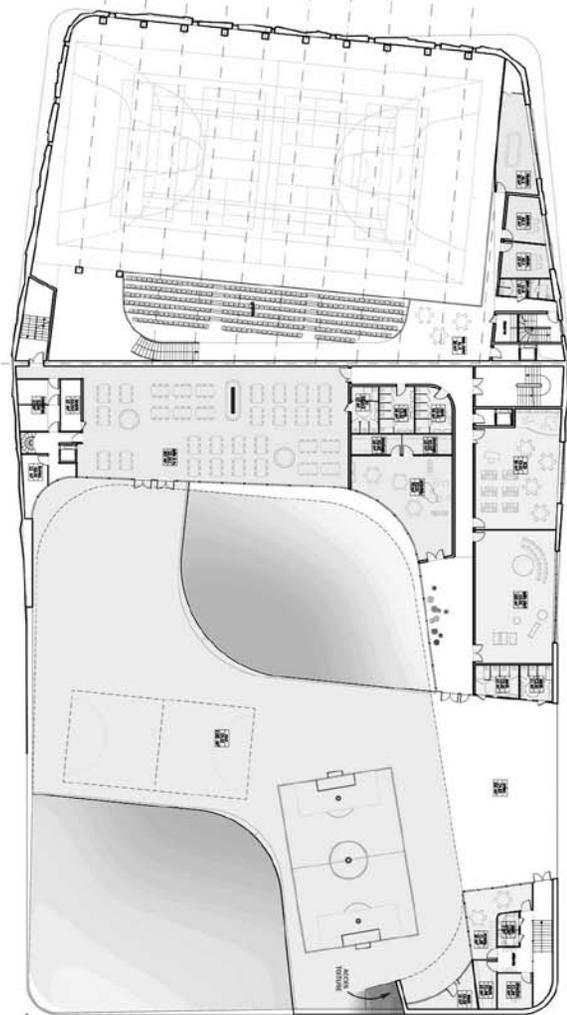
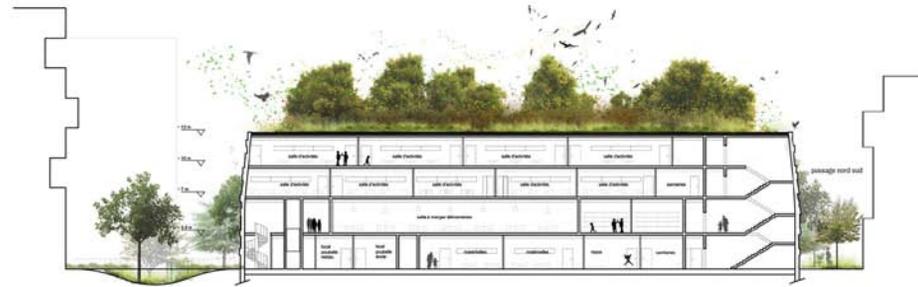
Structure

[Figure 14]



Circulation

[Figure 15]



Plan to Section

[Figure 16]



## CALA

(Minner, Kelly, 2011)

Architects:

Jones Studio

Location:

Tucson, Arizona, USA

Client:

University of Arizona

Budget:

\$9.4 Million

Project Area:

33,645 sqft (new), 37,190 sqft (remodel)

Project Team:

Bill Lloyd (Contractor)

Ten Eyck (Landscape Architect)

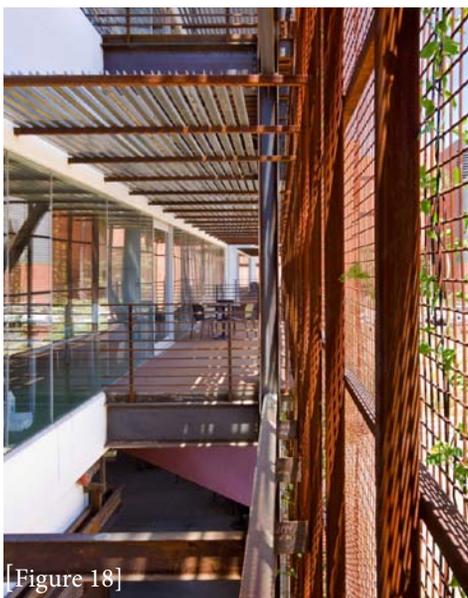
Evans Kuhn & Associates (Civil Engineering)

Rudow + Berry (Structural Engineering)

Project Year:

2007

[Figure 17]



[Figure 18]



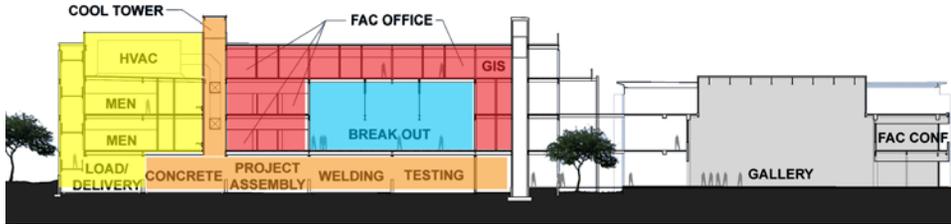
[Figure 19]

Jones Studio was selected by the University of Arizona in 2001 to build an addition to their already existing College of Architecture and Landscape Architecture building. They had five main goals that were important to them when they began their design work: increasing student spaces, increasing programs accessible from a central location, creating an identifiable place to house community outreach programs, addressing known space and building deficiencies, and being environmentally responsible. The building they were adding to was a 35-year-old red brick building. Jones Studio wanted to bring this old structure back to life and make it a focal point that the University of Arizona could be identified by. What they came up with was a 3-story exposed build-

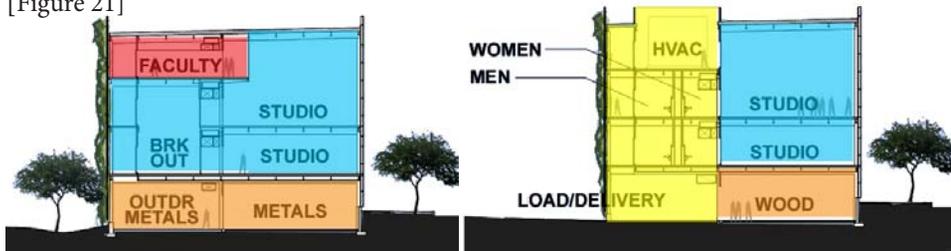
## Hierarchy



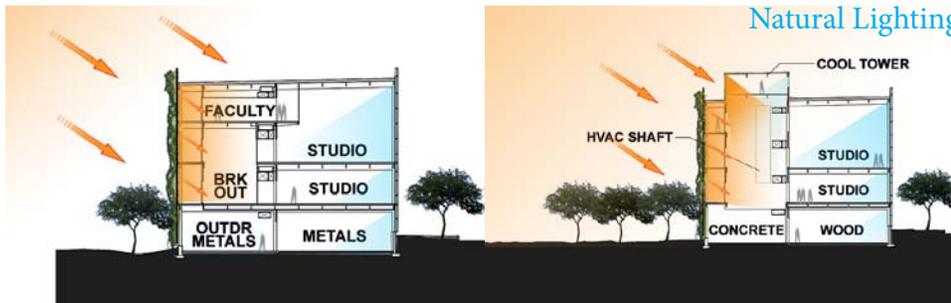
[Figure 20]



[Figure 21]

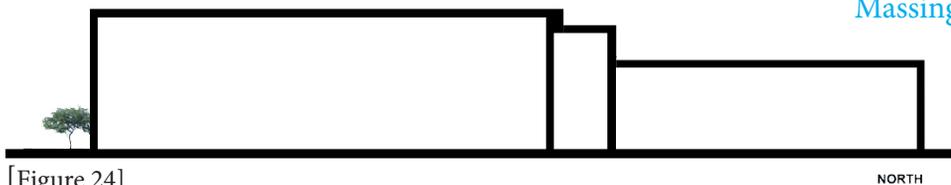


[Figure 22]



[Figure 23]

## Massing

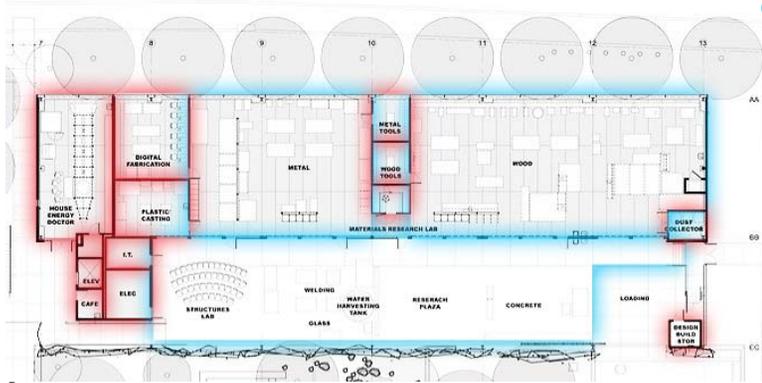


[Figure 24]

ing system for the design students. The building itself is a huge learning tool. The use of exposed systems such as mechanical, structural, and architectural systems allows the students a firsthand look at how a building works. A large amount of glass, steel, and concrete was used to minimize the overall use of materials. The design also includes an outdoor garden space and a green wall for vines to grow on. Both of these are fed by a 12,000 gallon holding tank that collects water from the roof and condensation from the HVAC system. This is another learning tool for the students and keeps the outdoor garden in prime condition; the overall design was to get more people to focus on this portion of the campus. By making a more enjoyable outdoor space, the faculty has seen an increase in usage by the students as well as the public. The building itself also does a great job of being environmentally responsible. The north facade has a large amount of glass while the south has controlled openings, shade canopies, and the green wall. The designers made many spaces for the students that would not be applicable to most other professions. They did a very good job of catering to the students' needs. The building has Sonoran Desert green roof strategies, photovoltaic systems lab; an outdoor studio on the roof for solar projects; 11,500 sqft of shop labs complete with welding, metal and shearing area, benders, 55-ton ironworker, slip roller, wood lab, concrete lab, structures lab, digital fabrication lab, and various dust collecting systems.

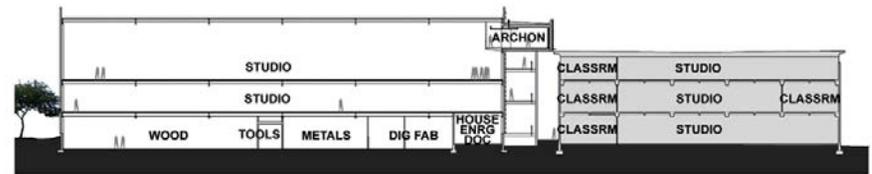
As impressive as this building is, the main reason for me to analyze this building is the fact that architecture students do not learn in the traditional sense of a classroom. Most of the architecture students I know learn best by doing. This is the type of learning system I am looking to create in other professions. Not all students learn the same and the traditional classroom is just not the best for all. A school similar to an architectural studio may be the best way to mold a young student's mind. The fact that this building provides so many great aspects of what a building can offer is the second reason that helped me choose this architecture studio over many others. The use of "green" design and in the practical manner in which it was handled was also impressive. There is great potential for more building designs to utilize this type of care and consideration when in the initial design process, and I hope to achieve this level of responsibility in my design solution.

Geometry



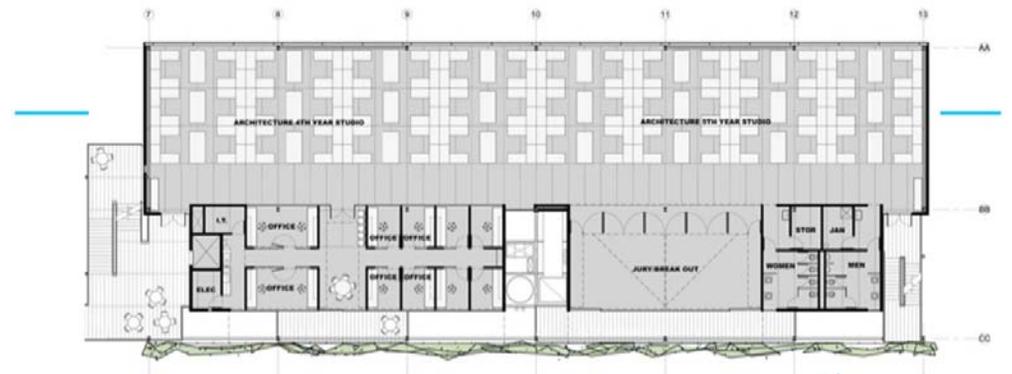
[Figure 25]

Structure



[Figure 26]

Circulation



[Figure 28]

Plan to Section



[Figure 27]

# Carroll A Campbell Jr. Graduate Engineering Center

(Henry, Christopher, 2011)

Architects:

Mack Scogin Merrill Elam Architects

Location:

Greenville, South Carolina, USA

Client:

Clemson University

Budget:

\$41.8 Million

Project Area:

85,000 sqft

Project Team:

Caliber Engineering (Civil Engineering)

Burdette Engineering (Electrical Engineering)

The Facility Design Group (Structural Engineering)

Peritus Engineers Association (Mechanical Engineering)

Project Year:

2006



[Figure 29]



[Figure 30]



[Figure 31]

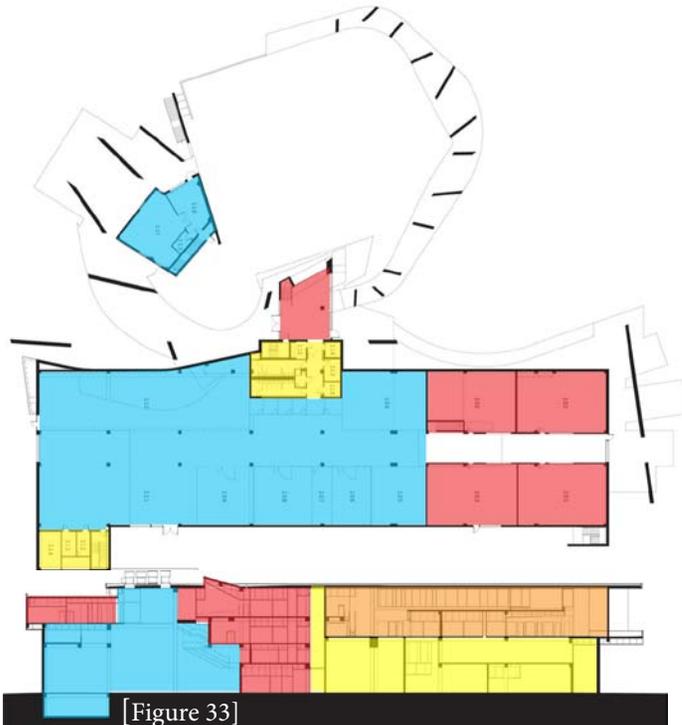
The Carroll A. Campbell Jr. Graduate Engineering Center at Clemson University was designed around the idea of providing a facility for students to achieve a higher education in the fields of sustainability and systems integration with concentrations in lightweight design, electronics, and manufacturing. The key project goals and guidelines were as follows:

- Satisfy the functional requirements of the program of research and the program of teaching
- Empower the individual student



[Figure 32]

Hierarchy

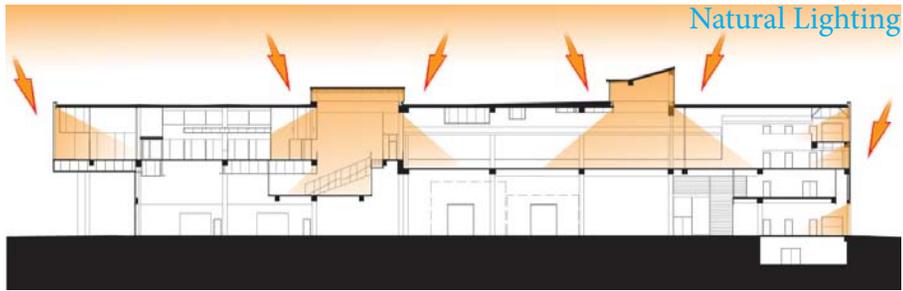


[Figure 33]

- Sponsor both specialized and collective research
- Satisfy the aspirations of the partnership between industry, academia, and the public
- Encourage collaboration
- Be emblematic and incorporate a unique integration of the automobile
- Be environmentally responsible and sustainable
- Have a defined plan for growth and expansion

The program for the building was based off a cluster method. Each individual focus of academia and research was centered on its particular project lead or chair. From there, each one of these clusters was centered on a sort of community or collaboration area. In a sense, this building was designed much like a living organism. Cells are clustered together to make up an organ. Those organs are then centered within the organism as to work together in achieving and maintaining the goal of life. The form of the building closely follows the functions that are working within the space.

A strong consideration for the building was this main concept of clustering many different focuses and explorations within a singular unit while allowing them to collaborate, coexist, and function together for the benefit of all. This is definitely an educational building with many future implications and visions in mind. At the time of construction, the school had an estimate of about 40 new graduate students occupying the building every year. Instead of designing for these 40 new students a year they made the wise decision to design for over 100 new students to enroll and utilize the building each year. One may be able to argue that the unused space at the moment is a misuse of materials and money, but what happens if, for example, the graduate engineering center declines in enrollment? What if the studies currently focused on become obsolete in the wake of new technology? My response to these concerns is that a fine and reputable university such as Clemson is not being irresponsible or overzealous when agreeing to the design from Mack Scogin Merrill Elam Architects for their new graduate center. They are pushing education in a more flexible and open direction. The designers and the university made it clear that this building would be



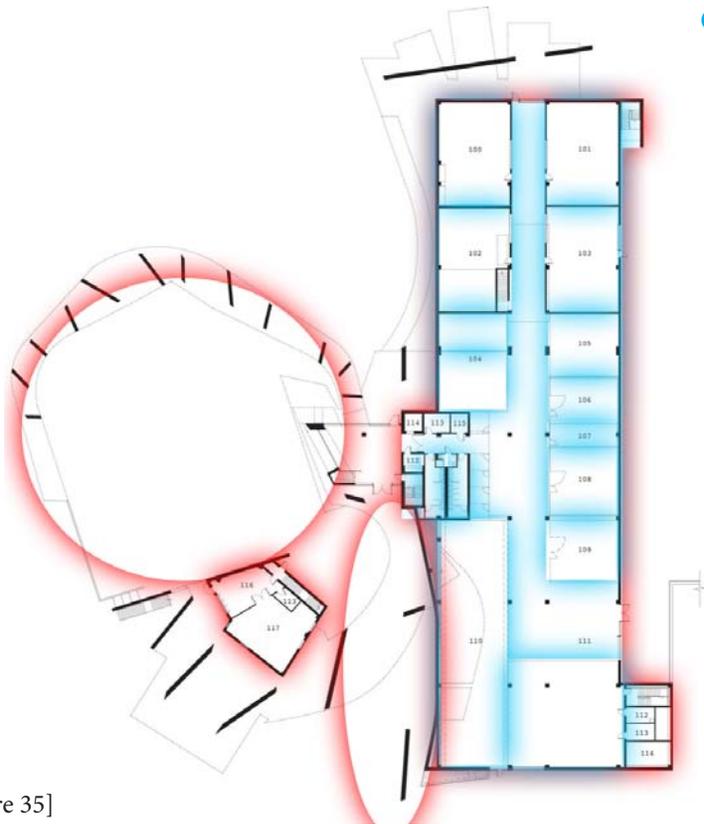
Natural Lighting

Massing



[Figure 34]

Geometry

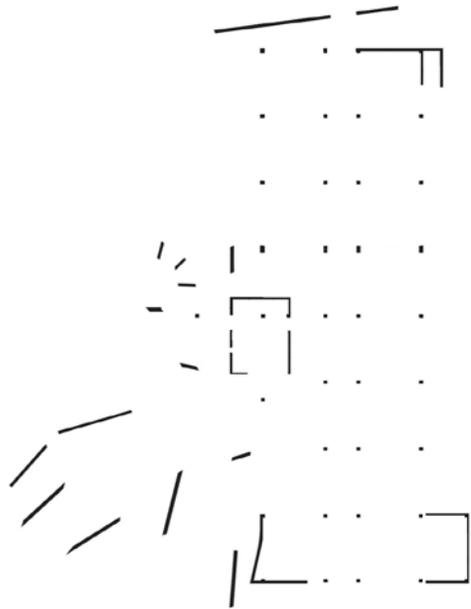


[Figure 35]

able to adapt to the results of research being performed at the graduate center as well as around the world. The spaces were envisioned as having multiple functions and easily arranged for new types of studies. The open clustered design allows for groups of research to move from cluster to cluster if needed and allows for new groups to join the cluster. With a centralized location for collaboration being the key to future growth, this building allows for all types of research to interact.

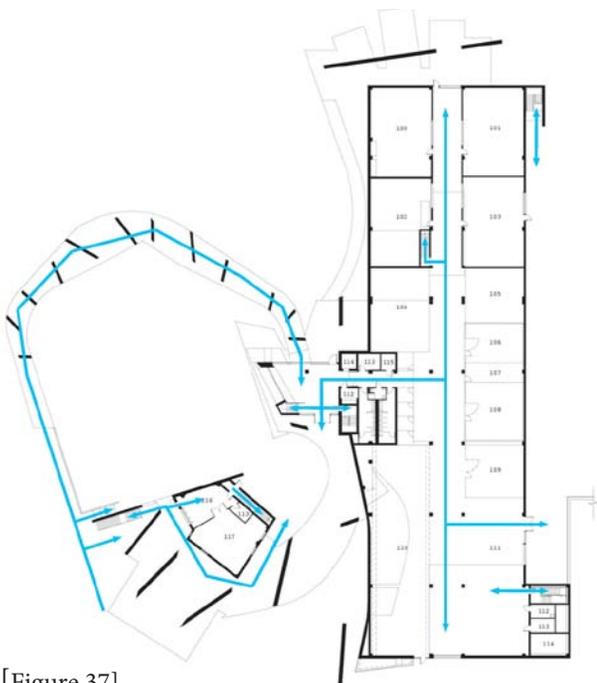
This building has helped me understand how one might be able to design for so many different types of educational focus. The traditional method of handling many different types of research and education was to divide them up into non collaborative rooms. In high schools across the country, students are sent to their individual classrooms for a specialized focus of study. There is little to no mixing of students, teachers, and subjects at the same time. The Carroll A. Campbell Graduate Engineering Center vanquished that idea and built a new, more practical, and a more accurate description of the real-world learning system. The power of minds coming together has little-to-no boundaries. Why should America continue to separate different types of education? Why should they be segmented and isolated? This building was very successful in counteracting the conventional method of education and research, and this is why I chose it as one of my case studies.

Structure

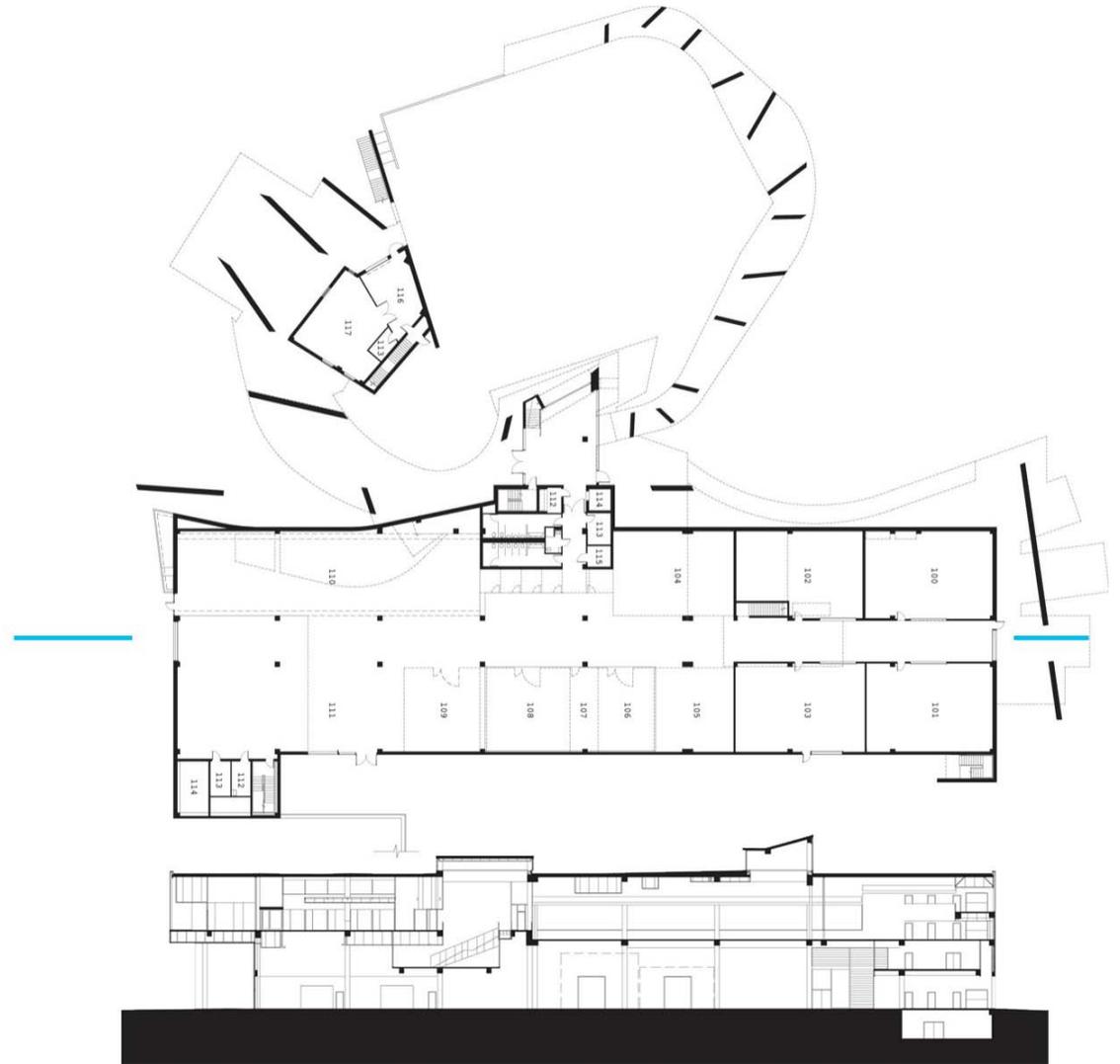


[Figure 36]

Circulation



[Figure 37]



[Figure 38]

Plan to Section

# Health & Sports Education Center of Kang-won National University

(Furuto, Alison, 2011)

**Architects:**

Chul-Hee, Kang and  
Idea Image Institute of Architects

**Location:**

Gangwon-do, Korea

**Client:**

Kang-won University's  
Choon-Chun Campus

**Project Area:**

97,000 sqft site  
54,000 sqft building area  
102,000 sqft floor area

**Project Team:**

Jong-moo, Kim; Yong-won, Kim; Noa, Kim; Eugene Chun Bo-ram,  
Kim; Jeong-Tae, Gwon; Ji-Hyung Kim; Moo-Jong, Yoo; Chul, Gwon



[Figure 39]

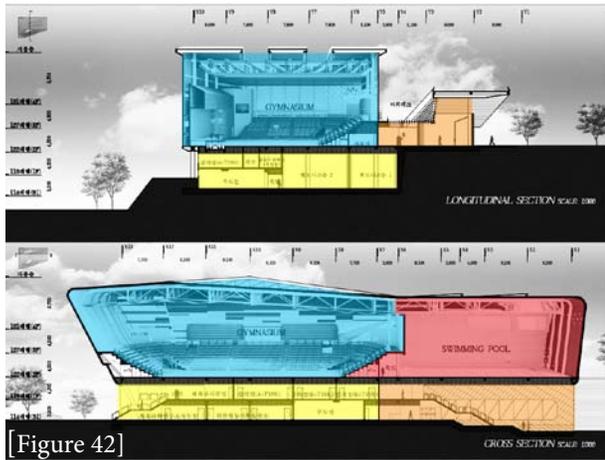


[Figure 40]

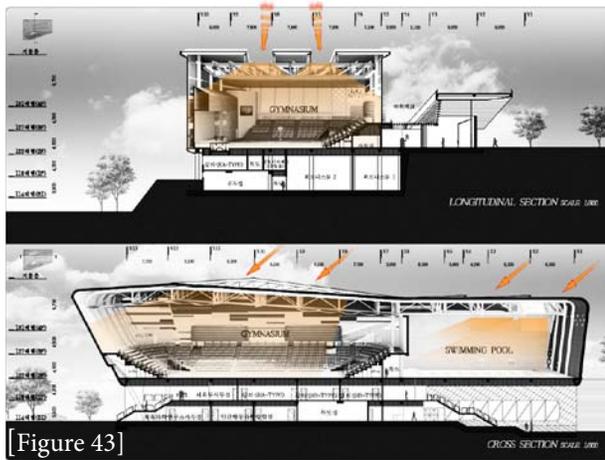


[Figure 41]

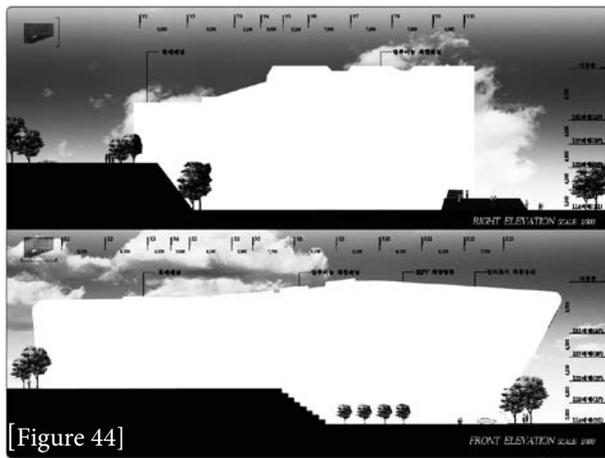
This design has a few unique aspects that have grabbed my attention. The first is how the users enter the building. There are various levels of entry that are located on most sides of the building. I have seen other buildings do this as well, but not necessarily to this level and not particularly with a campus sports-centered educational building. There seems to be a strong effort to connect people to this space at any and all levels. There is space to enter the daily sports program areas for faculty, student, local-resident educational facilities, classrooms, and main facilities for all such as the pool, gym, and exhibition hall. There is even consideration for the entry of professors and staff offices on the highest third and fourth levels. The entire building seems to be one



[Figure 42]



[Figure 43]



[Figure 44]

## Hierarchy

fluid motion in, through, and out of the building. At first, I was a little surprised that there was this much connection and openness. When looking at a university building used by students, faculty, and the public concerns of privacy, vandalism, and theft come into consideration. It seems that this building makes a strong attempt to bring all of these people together without those concerns destroying the design. This idea may be a naive one, but it is inspiring to see done in the design world.

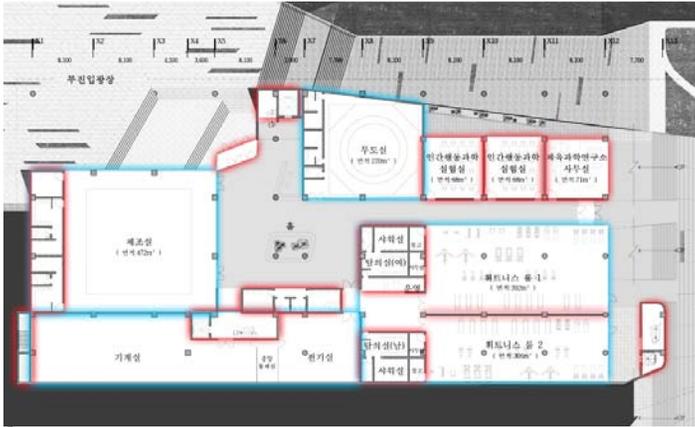
## Natural Lighting

Another concept that drew me to this project was, again, the way in which schooling and athletics have collided into a functional community based structure. The public is welcome to join in with the students' activities and usages. The one thing that I am focusing on is how that interaction between the public and the students can actually be beneficial to both by way of education.

## Massing

This building, for example, brings students in to learn within the classrooms as well as occupy the gym, pool, and exercise spaces. The faculty occupy these spaces as well. The public enters the building to watch the students and faculty or to use the athletic spaces too. However, the connection between the public and the students/faculty ends there. There is not much academic value in their relationship. This is one thing that I intend to do with my design. I believe the relationship between the public and the students can and needs to be of utmost importance. There is so much that we can learn from ourselves and others by interaction, real life learning, and the transfer of wisdom and experience. I feel that one aspect of this design that could have had a positive impact on the relationship between the public and the university would have been the location of the project. If it would have been a possibility, I would have liked to see this project be closer to the general public. The building is in a fairly remote area, making it a bit harder to have the strong relationship to the everyday public.

The designers were also very considerate of the impact of the building on the environment and the usage of passive and active systems. Many skylights were used in the construction to bring in as much natural light into the large spaces of the pool and the gym. Lighting these

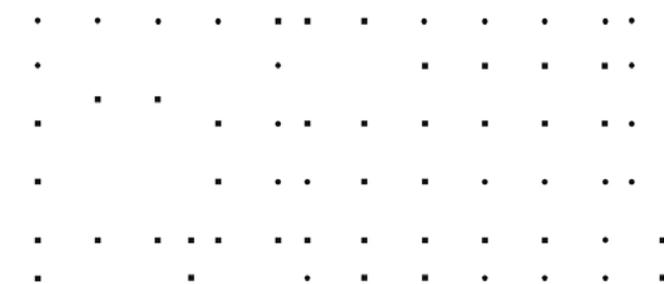


[Figure 45]

### Geometry

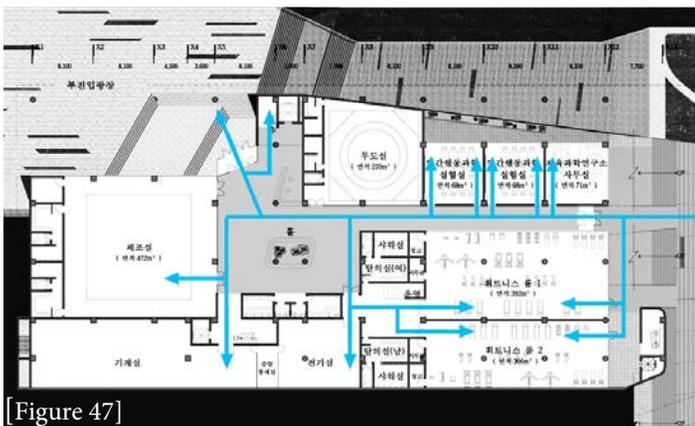
areas of high ceilings can become very expensive, especially if these spaces are made available to all the people around for most parts of the day. The designers also use a lot of power windows that help solve the issues of condensation from the swimming pool and control the shading when needed and radiant heat when desired. The use of patterned glass in the gym also allows for dispersed light to get through but reduces the amount of direct light. This is beneficial for the players and fans for a few reasons. The issues of light reflecting off the hard surfaces and water has been minimized by this intelligent design solution.

In my final design solution, I hope to take a few things away from this project, the most import is the open entry design. I feel this was a successful way of bring people into all portions of the building. My main concern is how to make these openings and entries secure. The area in which I am planning to develop my design is very diverse. I want the people of the area to utilize my design but in a respectful way, for their own benefit. What I need to keep in mind is that this building is for the community and especially the kids. It is for the growth of the youth of the area.



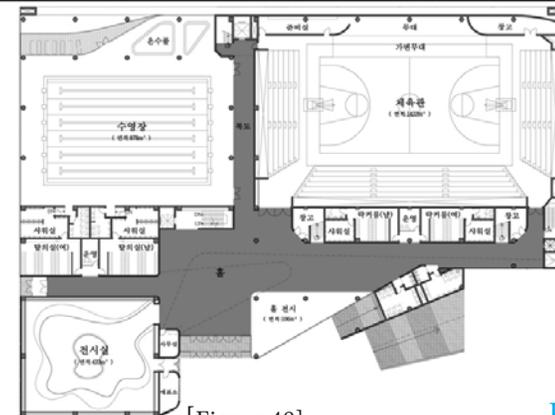
[Figure 46]

### Structure



[Figure 47]

### Circulation



[Figure 48]

### Plan to Section



[Figure 49]

## Football Training Centre Soweto

(Rosenberg, Andrew, 2011)

Architects:  
RUFproject

Lead Architect:  
Sean Pearson

Location:  
Soweto, Gauteng, South Africa

Client:  
Nike South Africa

Project Area:  
590,000 sqft

Project Manager:  
SIP Project Managers Ltd.



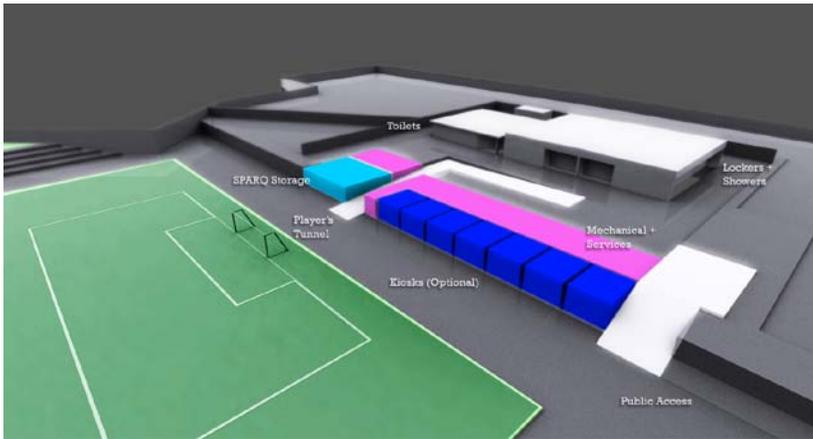
[Figure 50]



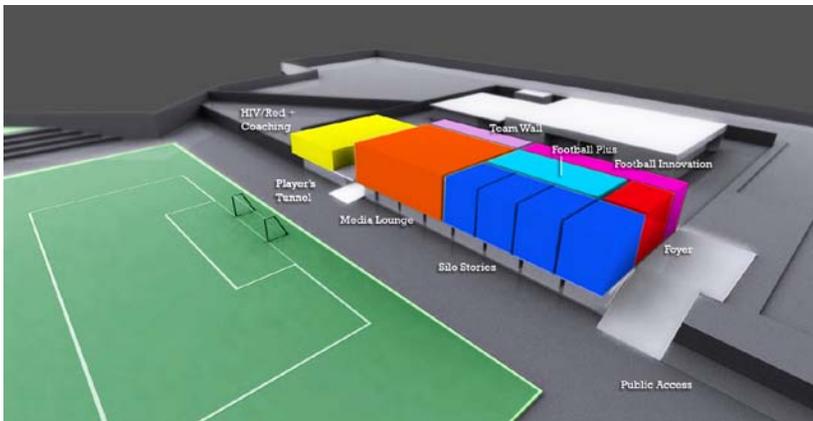
[Figure 51]

The Football Training Centre in Gauteng, South Africa has been the most influential project that I have researched to this point. Before this new design for a new soccer center was conceived, the area hosted around 1,200 teams and 20,000 soccer players each year. Within six months, the new facility was an impressive center for students of the game to enjoy. The overall programming of space relations has been the most impressive aspect of its entirety. When RUFproject joined up with Nike Global Football Brand Design, they did a great job at looking into what the players wanted, needed, and should have. Some of the important spaces incorporated into the design are:

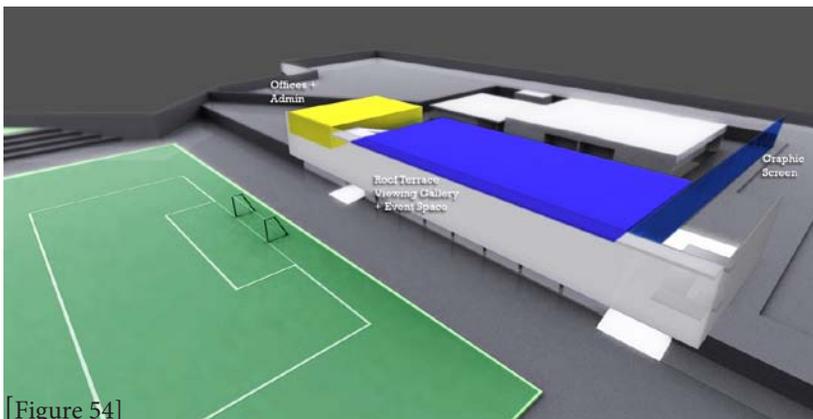
- Two full sized artificial pitches
- Two junior turf pitches
- New lighting
- A clubhouse & player lounge
- An educational facility



[Figure 52]



[Figure 53]



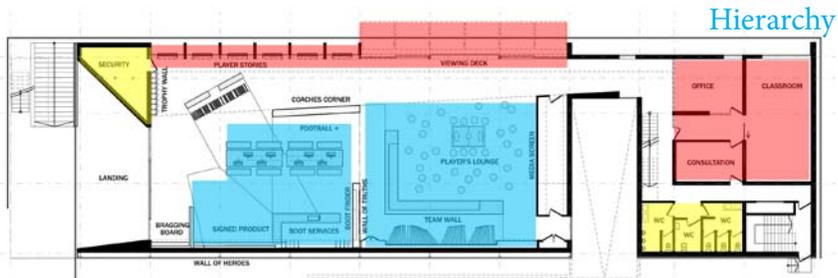
[Figure 54]

- A training gym
- A physio & first aid facility
- A product trial
- Catering
- Administrative offices
- A viewing deck
- Changing rooms

I find the clubhouse & player lounge, educational facilities, training gym, product trial, and viewing deck to be the most interesting and successful aspects of this list. The clubhouse & player lounge was well done for several reasons. It is the main space for all occupants of the building. It brings everyone together. There is no separation between opposing teams or coaches. Everyone gathers in the same space to interact and learn from each other. The designers could have easily broken this space up into many individual gathering rooms for each coach to go over a game plan with his or her team, but that was not the focus of this facility. The focus was to make a state-of-the-art facility for the youth to learn through the sport of soccer.

A second successful space was the educational facility. This was designed to bring in already-existing organizations to teach the kids the important aspects of the game and life. The Grass Roots Soccer & Life Skillz program is a great program that realized kids learn in all different ways. Their main focus is to use soccer as an avenue of education, and is on funding education for the youth of South Africa on the effects, issues, and prevention of HIV, which is an especially prevalent issue in South Africa. This is just one way of using sports to educate the youth. While this education space is flexible, this was the largest issue for the area at the time. The design team did a great job of addressing it and promoting its growth.

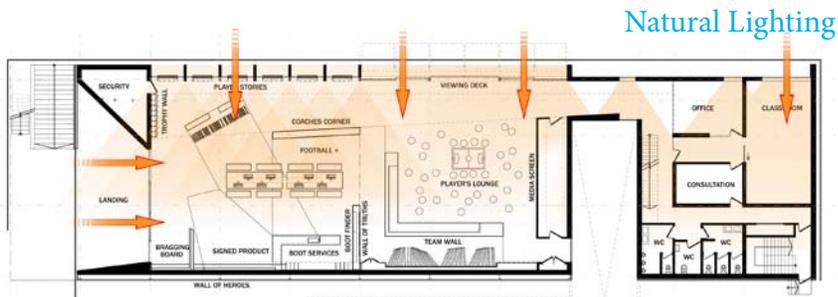
The third important space created was the training gym. The growth of the students' physically was an important part in this space, but it was by no means the only. The concept of having an open, integral connection to all the spaces was carried out especially well in this area. The weight room is right on ground level with nothing but glass separating



[Figure 55]

Hierarchy

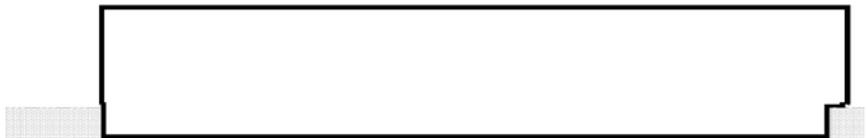
the pitch in which the youth play on and the weight room in which they train in. The connection is strong and motivational for these kids. It provides them with the vision of their goals and the means to create them. The weight room also has visible access to surrounding spaces, differing from some typical high school gyms we see today. Many of the current gyms are not a part of the entire education system but a small part off in the corner where they don't get much visual access. I believe college campuses do a much better job of handling the physical aspect of health and education, but for young teens, this can improved. This facility achieves a higher level of connectivity and importance.



[Figure 56]

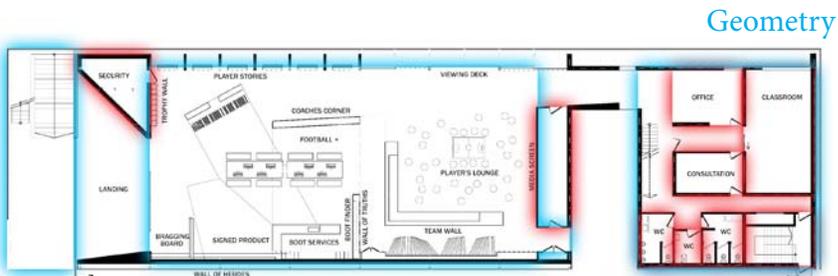
Natural Lighting

Another great idea was the product trial area. The reason I am so keen on this space is because it allows kids to really feel connected to what they are doing. It makes them feel special in the fact that they are the ones testing new products they see advertised. In American society, people tend to put too much emphasis on brand new, expensive items. They are flashed across television screens in an attempt to make people desire them. I can argue that the youth may be the leading front runners when it comes to many of these items. Why not provide these products to the active youth to try the products first? It is as much of a learning experience for the youth as it is for the companies. It gives the kids a chance to gauge what product is best for them while the makers find out what works for the youth and what doesn't. It was a unique and interesting idea that grabbed my attention when researching this facility.



[Figure 57]

Massing

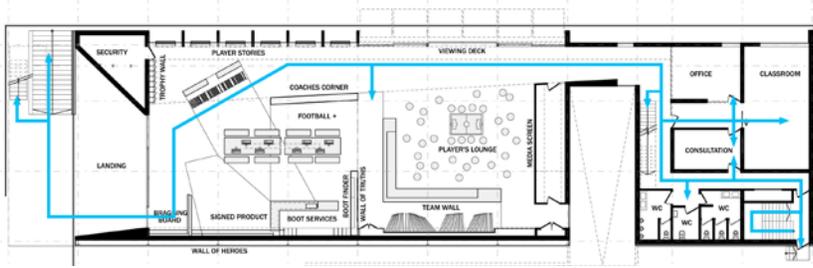


[Figure 58]

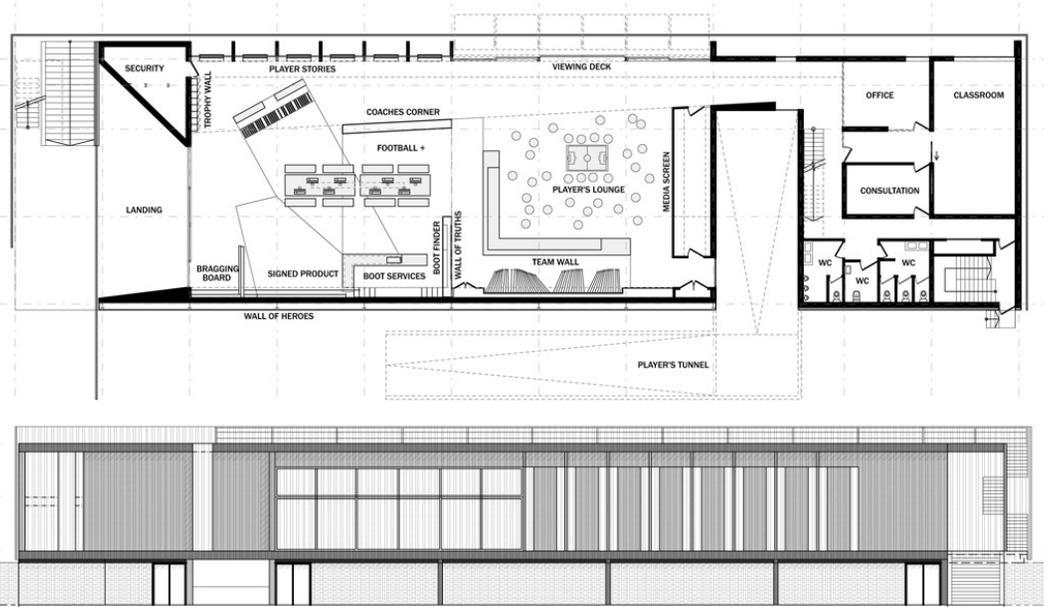
Geometry

The last important space previously mentioned was the viewing deck. The designers were right in providing spaces for spectators to be a part of the whole process. Parents, friends, family, and others can come out and watch the youth as they perform after so much preparation and practice. A sense of achievement and pride can be a healthy feeling for the youth. They should be recognized for their efforts. This is a very important issue I look to address in my design. The community needs to be a part of children's lives. Educationally, emotionally, and physically, the youth looks to adults and the community for guidance and teaching. It is important that this is of great importance within the diverse communities of Phillips and Powderhorn Park.

## Circulation



[Figure 59]

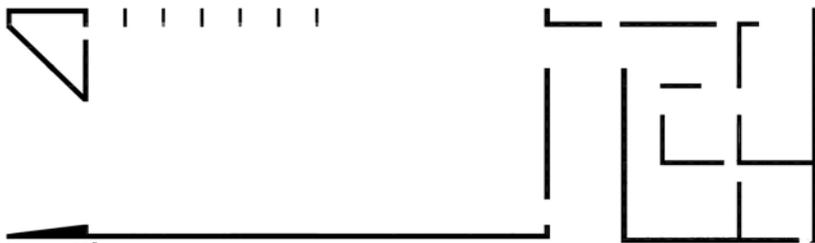


## North Elevation

[Figure 61]

## Plan to Elevation

## Structure



[Figure 60]

After reviewing this mix of typologies, each of the case studies offered a piece of guidance, advice, and direction for my design process. All of them have their own differences and similarities when compared to the direction I wish to take my project. While not all of them hold the same value when compared to my particularly typology, they did satisfy at least a portion of my overall programming and design concepts. Design concepts for a new learning environment for teenagers of the southern Minneapolis communities in addition to the current education system. The projects I researched and reviewed were mostly of this type of learning by doing ideology.

I conducted my case study research with the Primary School & Sport Hall in France, College of Architecture and Landscape Architecture in Arizona, Carroll A Campbell Jr. Graduate Engineering Center in South Carolina, Health & Sports Education Center of Kang-won National University in Korea, and finally the Football Training Centre Soweto in South Africa respectively. The commonality of all of these case studies was their goal of furthering education, but the most important reasons I chose to research these selected projects was because of the fact that all of these projects looked to include the community in the students education in one way or another. Because of the commonalities between these projects my original unifying idea has not been changed much but it has been strengthened. Each of these individual projects has opened my eyes to new ways of bringing the people into these spaces and making them an integral part of the education system. There has been little change from my original concept. The emphasis has shifted slightly, however. My concept of the community teaching the students in their specialized field has become a more important part of this project. I want these kids to be basically job shadowing while in their learning environment. I want them to be taught by the professionals at work instead of being lectured by them. This will be one of the ways I create a public environment instead of strictly an educational environment.

The major differences between the case studies were the locations, cultures, and levels of education. In this section I will be discussing the differences between the levels of education. A few were parts of universities, another was at an elementary level, and another at a high school level.

With each level of education being analyzed I was able to get a sense of how these designers took their particular occupants age, size, IQ, vulnerability, interests, and many more unique traits into consideration. I was able to get an understanding of how the education system grows with the students. It was an idea that had not been a point of interest at the beginning of this process. To understand what type of learning environment the students will be coming from and to which learning environment the students will be going to will only help my design for a learning environment of middle grounds. It is a delicate time for these students and one must design accordingly.

The second and third major difference that was recognized during the research was that of cultures and locations. These case studies range from east to west in the sense of both of these differences. But with these differences I actually found more similarities. This was very surprising to me because I had expected to find a mix of major emphasis. But there wasn't. The differences that were reflected upon the projects due to cultural and global locational differences were minimal. The minor locational differences included shading device and building orientations and slight building space relations which were mostly due to solar paths. The slight cultural differences were that of what they were teaching within their education spaces, while the actual overall importance of the spaces had little to no variation. What I found was actually refreshing and exciting. I found that there is becoming an important trend becoming apparent with the new designs of educational buildings. The emphasis on community and collaboration within the education of our youth can be found around the world. This assumed difference turned similarity in the underlying conceptual ideas have inspired and enhanced my original unifying idea.

The functional and spatial relationships found in each of the projects have yielded little surprises but has been useful for future references. The main universal spaces were found as large open spaces near the points of entry. The more private and specialized spaces became secluded and sheltered within the building's design. The Football Training Centre was the simplest yet the more useful example of this. The spaces were arranged in a way that made them feel open and accessible to all while still offering that level of privacy and individual importance that the users needed.

The historical context of this thesis will examine the social, political, historical and physical effects this project will have on the southern Minneapolis area. Not only will it look at the current effects, but it will also analyze the past and have an educated prediction on the future effects. I will then conclude with a brief analysis of the research findings and the influence they have provided for my progress.

### Social

I would first like to start with the social context of this thesis project. My intention is to create a building that will promote a new type of education that will supplement the current educational system in place. Society needs to realize that not all of the youth are able to learn in the same way.

When I was first entering the education system around the age of five there were not many of my classmates that were considered to have attention deficit disorder (ADD) or attention deficit hyperactivity disorder (ADHD) and needed to take daily medication for this. As time went on a few of my classmates began to become bored and annoyed with the way in which they were learning. They did not feel comfortable sitting through lectures for lengthy periods of time, or having to sit still during nap time. None of the other children including myself thought much of their yearning to be active, touch everything they saw, talk to everyone around them, or to simply play with everything around them. I found myself doing a lot of these things from time to time without giving it much of a second thought. But the teachers and adults around us found this behavior to be inappropriate or disruptive. They would constantly denounce these actions and punish the violators. If the individual student was unable to control themselves within the rules and guidelines placed before them by adults they would be deemed to have ADD or ADHD and were told they were abnormal and needed to take medicine every day to fix them.

I would like to believe that we are exiting this mind set and entering a new one. One that realized a little pill that dulls the emotions and suppresses our children is not the answer. I remember several of my classmates that took these pills. They were more like zombies than

anything else when taking their doses. These kids were mistaken for being out of control and inattentive when actually they were in need of a different type of learning system. Obviously they were in need of a more interactive environment. This holds true for students across the country. America needs to allow students to create their paths of learning and creativity if we want to let them excel. A guided yet loose curriculum may be the key to unlocking viable options for the future of our youth. Sir Ken Robinson is an internationally recognized leader in the development of education, creativity, and innovation. His book *Out of Our Minds: Learning to be Creative* has been a very influential piece of reading during this project's early development. Below is a quote taken from his book discussing the intelligence of creativity, and voices a need to raise our concept of education:

“Raising academic standards alone will not solve the problems we face: it may compound them. To move forward we need a fresh understanding of intelligence, of human capacity and of the nature of creativity. Human intelligence is richer and more dynamic than we have been led to believe by formal academic education. Advances in the scientific studies of the brain are confirming that human intelligence is complex and multifaceted.” (Robinson, 2001)

### Political

The second topic discussed here is the political context that has influenced the education system of today. America has always been a country that prides itself on being the best in any topic or category. When we are not number one we strive to achieve that rank. When we reach the top we take pride in our rank and accomplishments, and our political leaders are the front runners for these actions. It is a sad fact that we as a country have begun to fail our youth. Recent statistics on American k-12 public education displays a shocking realization that we are no longer even close to being at the brim of world education. 68% of American 8th graders cannot read at grade level. 1.2 million students drop out of high school every year, and 44% of those dropouts under the age of 24 are jobless. Our high school graduation rate for the nation is only at 70%, and of the remaining students in school our math ranking is 25th and science is 21st compared to students in 30 industri-

alized countries (“Statistics on American,” 2011). Our politicians have begun to recognize these numbers as a major cause for concern. President Obama emphasized President Bush’s slogan, “no child left behind” when referring to his educational approach labeled, A Blueprint for Reform: The Reauthorization of the Elementary and Secondary Education Act which was published by the United States Department of Education in March of 2010. Within this document he calls for teachers and principals to step up to a higher level and requests the communities of our schools to support the furthered education of our youth in every way possible. At one point Obama discusses the new type of learning America may be looking towards in the future.

“This effort will also require our best thinking and resources – to support innovative approaches to teaching and learning; to bring lasting change to our lowest-performing schools; and to investigate and evaluate what works and what can work better in America’s schools” (as cited in Duncan & Carmel, 2010).

I agree that there needs to be an improved intensity of our education system but at the same time we should be looking to new ways of educating our youth. Obama’s above quote is a great segment from his plan for reforming the education system. What I would have liked to see is for him to call upon more people in power as well. Right now much of America is run by the controlling powers of corporations. There is no secret that these large economic gobblers are what produce much of the products we buy, thus controlling much of the money in circulation. Some wonder how these companies would have an influence upon our education, but what I wonder is why don’t they? With as much push and pull as these companies have it would not take much for them to start making education a much more conversed topic. I will take a few examples and put them into a situation where their clout would be beneficial. When we turn on the television we see advertisements for the latest toys, especially around the holiday seasons. When we open up a web browser and go to a new site you will most likely run across advertisements in the form of pop-ups, side bars, and inserts informing us of the latest electronics. When we drive to class or work we see billboards and electronic displays telling us all about the excit-

ing fashion line coming out in time for the new year. My point is these large corporations put so much money into advertising what they make they are leaving out the important things in life; the future. Without educating our youth we will not progress at the rate expected or needed for our society. Yes, this seems to be a lot to ask of our large selfish monster companies but it would be beneficial for them as well to lobby for a specialized type of education that would promote the youth to become interested in their companies and working for them at a young age. Some may argue this will lead to monopolization, but if we can have our leaders and politicians become the voice of reason, as we need them to be, this could all be very possible. As a society, we need to become more interested in the improvement of our nations and not so worried about the individual gains. Those individual gains will come if we are able to advance our future.

### Historical

The history of education in America has been a long road with improvements and advancements along the way. The country's early education system was like most other things derived from the British. The most preliminary form of public education can be traced back to Connecticut and New Hampshire where the streaming belief of educational focus was that of religious comprehension. This however did not sit well with all because of the difference in beliefs, ethnicities, backgrounds, and heritage and because of this; private schools became the norm for a religious-based education by the 1800's. The idea of public schooling was not fully developed until sometime in the 1840's where mainly the wealthy were able to take advantage of such a system. Thankful due to reformists and politicians with the belief that all children should be educated for the future growth and stability of our country free public education was made available to all by the end of the 19th century. Within a few decades the law was made requiring all children to attend at least elementary school; private or public. Throughout the 20th century education became a compelling part of politics and new laws were passed to ensure the growth of our countries education system, and the graduation rate increased dramatically throughout the 20th century. The percentage of college attendants made a similar increase. Throughout the history of our nation's edu-

cation we have seen major changes, and who is to say these changes should stop? Who is to say that our system is fine the way it is? We have always been about growth and improvement and we are currently in a situation where that growth and improvement has never been more prevalent. Falling into a rut where we continue down the same path as we always have is a dangerous game to play. The concern is that we will not progress the way the world around has been doing so. We will come to a point in our nation's life where we are out dated and out of touch with the current times. The largest thing to come along in our history is our exponential advances in technologies. This is going to be very important to the future, but we should realize also that it will not be the only advancement. The importance of community, knowledge of basic life skills, and interpersonal connection is at risk of becoming a thing of the past. My hope is to keep that connection of great importance. We as humans need to have that connection to others and have the ability to take care of ourselves. We need to have that sense of belonging and of placement and self reliance. It is important to keep this idea firm within my design, yet still be conscious of the changes ahead; technological, scientific, and social (Thattai, 2001).

### Physical

The physical context of the Phillips and Powderhorn Park communities is that of diversity. There are many different ethnic backgrounds and economic differences within the borders of these two communities. E Lake St. is the main corridor that separates the two communities and handles heavy traffic loads around the clock. Although the area has a reputation for being run-down, dangerous, and full of crime, both communities have begun to move in a more positive direction. What I intend to accomplish by introducing a new and improved educational facility is to revive and inspire these two communities. While the youth will be the focus of the project, I truly believe that the community is going to be the key role in making this a successful place of education and growth. Right now, there is a nearby high school that is fairly new to the area. There is also a large Wells Fargo complex just to the north of the site. Many of the people in this area are familiar with this site already because a large portion of the community already commutes to this region for school or work. There is also a nearby market

called Midtown Global Market. This building houses many little shops and food vendors with various ethnic backgrounds and history. It is an amazing place that will only benefit with more exposure. The future of this area has great potential. The city of Minneapolis has already begun planning for the future of these two neighborhoods. They have already converted an old, unused railway system less than one block north of E Lake St. into a biking/walking path. This path directly borders my site, and the city of Minneapolis is also planning to incorporate a light rail along this path. I envision a safe and friendly corridor for the community along with a few light rail transit hubs to accommodate for the large amount of traffic near my site. Along with this public transit, the city has also made plans to add an on and off ramp for the Lake St. and I-35W connection. This will only aid to the growth and improvements of this area. By the time the city is able to compile these new additions, the Phillips and Powderhorn Park communities will become a much more positive place for all. They currently are known as the Minneapolis hub for immigrants and I hope the city will continue to foster this ideology. By improving the once tattered area, many people from around the city will be able to realize as well as utilize the benefits and enjoyment these neighborhoods have to offer (“Phillips community,” 2011) (“Powderhorn park,” 2011).

### Analysis

After reading through the research and compiling this information I have referred back to my original unifying idea. What I have discovered is that the issue of education in America is a broad problem that cannot be resolved with a simple architectural solution. It is one that needs a lot of guidance and direction from many disciplines and professions. What I need to be focused on is providing a space for this to occur. I may have an idea and a direction in mind but I also need realize that what I believe is the proper direction may not ultimately be the direction our society takes. The design of this project will need to reflect upon this. It will need to be an understanding and flexible derivative of my findings. With that being said I will also need to be as assertive as possible in attempting to design the most applicable spaces for the current times as well. This will be a challenge for me throughout the entire process. As Sir Ken Robinson stated, “If you’re not prepared to be wrong, you’ll never come up with anything original.”

# Goals for Thesis

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## Project goals

The overall goal of this project is to improve the students and community academically, professionally, and personally. I intend to achieve these goals by the end of this process, and as a result achieve a Master of Architecture degree. The goals listed below will be the inspirational force behind the project.

## Academic

The academic goal of this thesis project is to convey a solution to the problem I have stated. A clear, concise, understandable solution. It is important that the solution is also relevant and beneficial to the communities of Phillips and Powderhorn Park, as if this were a project to be constructed. The level of detail and attention should not waiver due to the fact it is an academic design solution and not one of professional practice. It is also important that the high level of completion reflect positively upon the architecture program as well as North Dakota State University as whole. By the completion of this project, my goal is to leave no doubt that the final solution and work presented is that of a successful and qualified student worthy of a Master of Architecture degree.

## Professional

The professional goal for this project is to come to a final solution that is of professional quality. This must be represented in all aspects of the preparation, process, concepts, design, and final presentation. The goal is to have my final work be a clear representation of what I am capable of from a professional standpoint. I would like for my work to speak of my level of competence, understanding, and commitment.

## Personal

The personal goal for this project is to finish my thesis with a better understanding of the project's importance on all three levels: academic, professional, and personal. In order to accomplish this, I will need to stay focused and committed to the completion of this project. An important key to finishing this project successfully will be to set timely goals and schedules along the process. Sticking closely to these planned deadlines and work slots, I will be setting myself up for

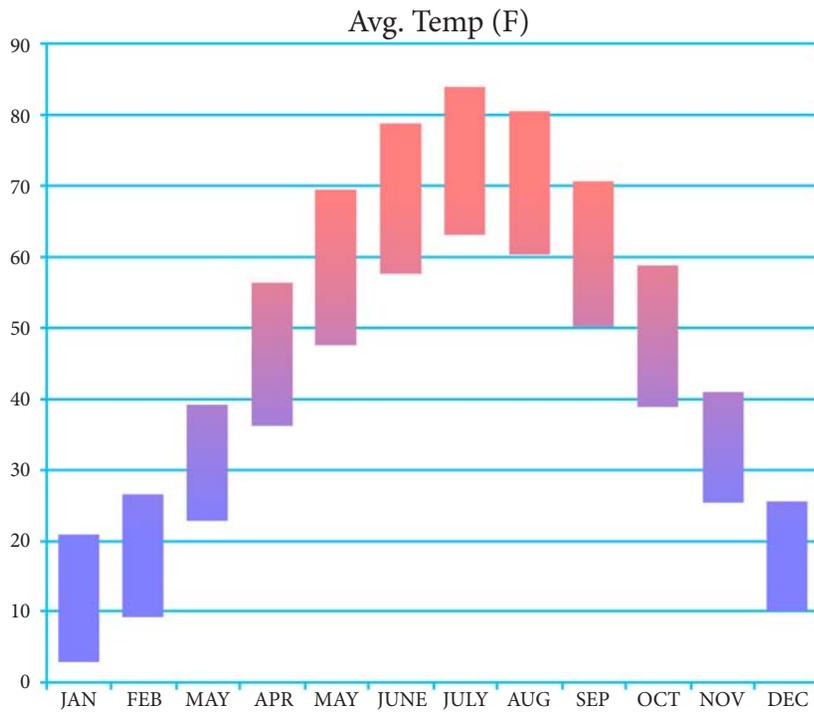
a successful completion with high quality work. During this process I have repeatedly reminded myself to keep an open mind to what the real solution will be. An accepting and accommodating mind is essential to producing a truly responsive and responsible solution. All of these goals are very important, but most of all, I would like to enjoy the process of finishing my schooling. This project is going to be interesting, fun, exciting, educational, and conclusive of my years here at North Dakota State University. I intend to have a great time completing this before I move on with the next stages of my life.

## Intro

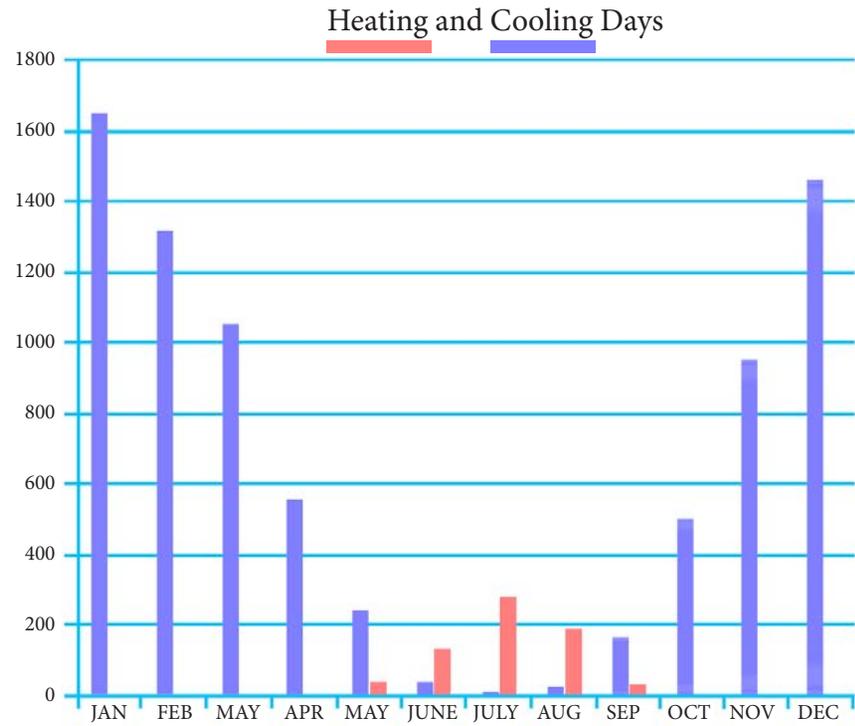
When visiting the neighborhoods of Phillips and Powderhorn Park, I felt the strong sense of an intertwined matrix of multicultural webs that comprised the area's unique traits. Along the main corridor of E Lake St. were little mom-and-pop stores of all kinds. There was a large variety of cultural differences and backgrounds represented along this main mode of transportation. The site I have chosen is less than one block north of E Lake St. and is about one and a half blocks east of I-35W. The specific categories of site analysis are of the site itself and its immediate surroundings.

## Site Plan

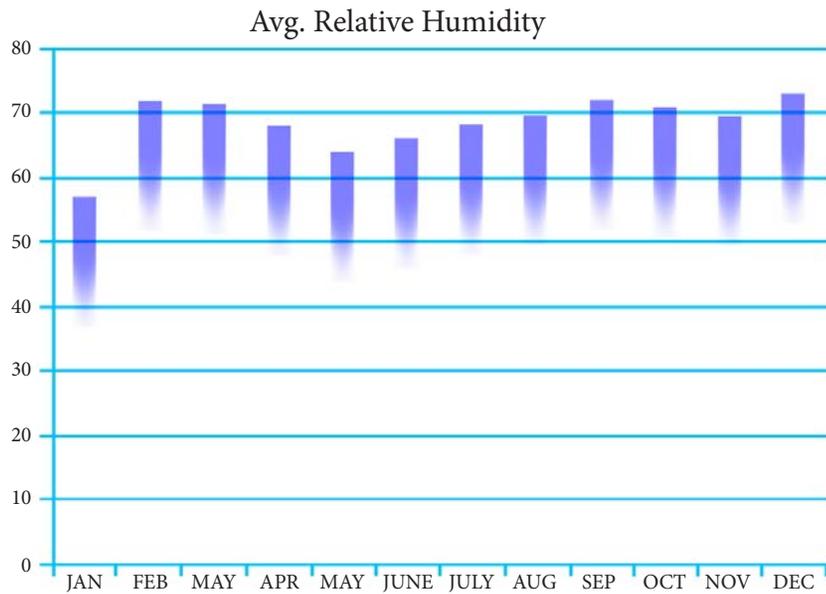
The site itself consists of a large fenced-in parking lot, a second smaller fenced in parking lot, and a large circular structure. The area is gridded by six-foot-high chain-linked fences. If the fences in the area were to be removed, it would make this space much more open and user friendly. The fact that it is so harshly gridded provides little encouragement for the public to use this space other than for parking vehicles. The parking lots are primarily used for the nearby soccer fields. Kix Field is located to the west of the main lot and is accessed through chain-linked gates under the 4th Ave. S bridge. The second smaller field is named Honeywell Home Field and is located to the east of my site, across 5th Ave. S., to the north, is one of the four Wells Fargo buildings and to the south is the Midtown Greenway. The Midtown Greenway, is the bike/walking path running through much of southern Minneapolis and has future plans for a light rail. The main parking lot, the roads, and the Midtown Greenway, are topped with pavement. The smaller lot does have a grass covered border, and the circular structure is surrounded by dirt. Both soccer fields are grass but surrounded by chain-link fences.



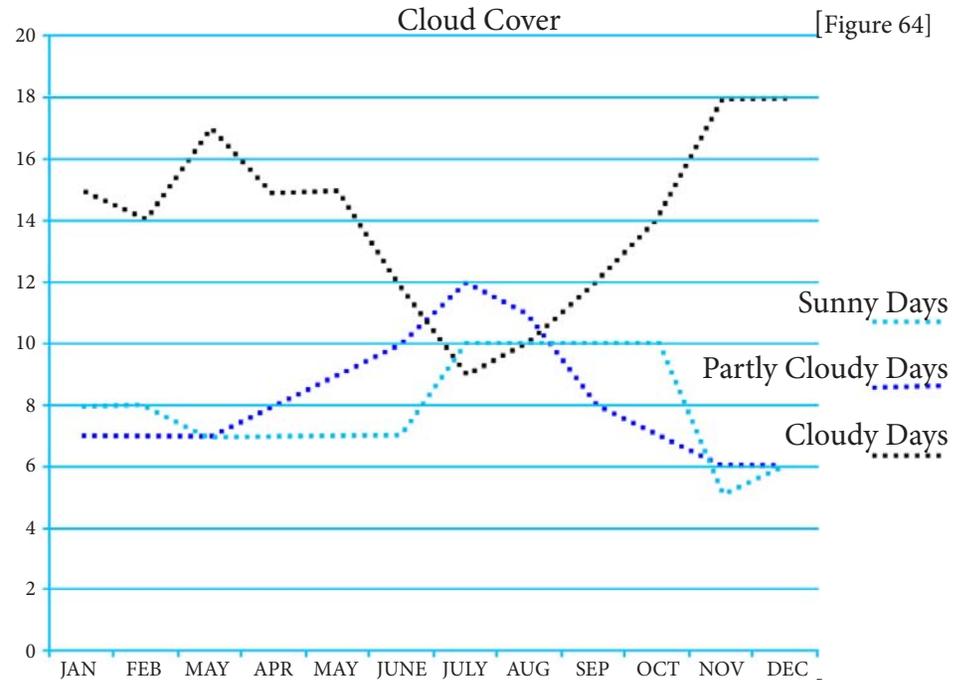
[Figure 62]



[Figure 64]



[Figure 63]



[Figure 65]



[Figure 66]

North



[Figure 67]

South



[Figure 68]

East



[Figure 69]

West

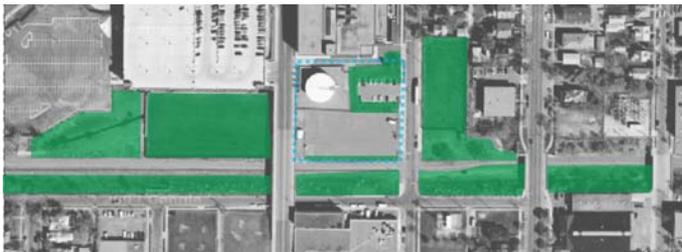
## Section

When standing in the middle of the main parking lot and taking a 360 degree view of the surroundings, I was able to get a good sense of the area's section perspectives. The Midtown Greenway is at the same relative level as the site but is bordered by a sloping bank leading up to E Lake St. In that sloping bank is a building that cuts through it. The north side of this building is about three stories at its highest point and is made of concrete with few north facing windows. When viewing west of my site, you can see the 4th Ave. S bridge that spans across the Midtown Greenway and the chain-link gates to Kix Field. The bridge is about 18 feet in height and is made of stone and concrete. Kix field has a chain-link fence bordering the south and west ends of the field. A brick wall protects the field from a nearby parking garage to the north, and the bridge's stonework and chain-link gate make up the east border of the field. When looking north from the site, you can see the Wells Fargo south building. This building is made of concrete and brick. The south face is very uninviting and dark. There are surprisingly few windows on the south face, which has an irregular shape. Though it's layout is based off a grid pattern, the outline does make diagonal cuts through the gridded pattern. The closer concrete section of the building stands roughly four stories high while the large solid brick stack behind it reaches a peak of about five stories tall at its highest point. Viewing the Honeywell Home Field to the east of the site, one can see rows of three story homes and apartments. The ground begins to slope upward as you move further east. Honeywell Home Field is surrounded by chain-link fences on the north, south, and west sides while a stone retaining wall supports the earth on the east. This is where a lot of the residential meets with the shops and businesses of the area.



[Figure 70]

Shading (Major Buildings and Bridges) Scale 1" = 400' (Google, 2011)



[Figure 71]

Vegetation Scale 1" = 400' (Google, 2011)

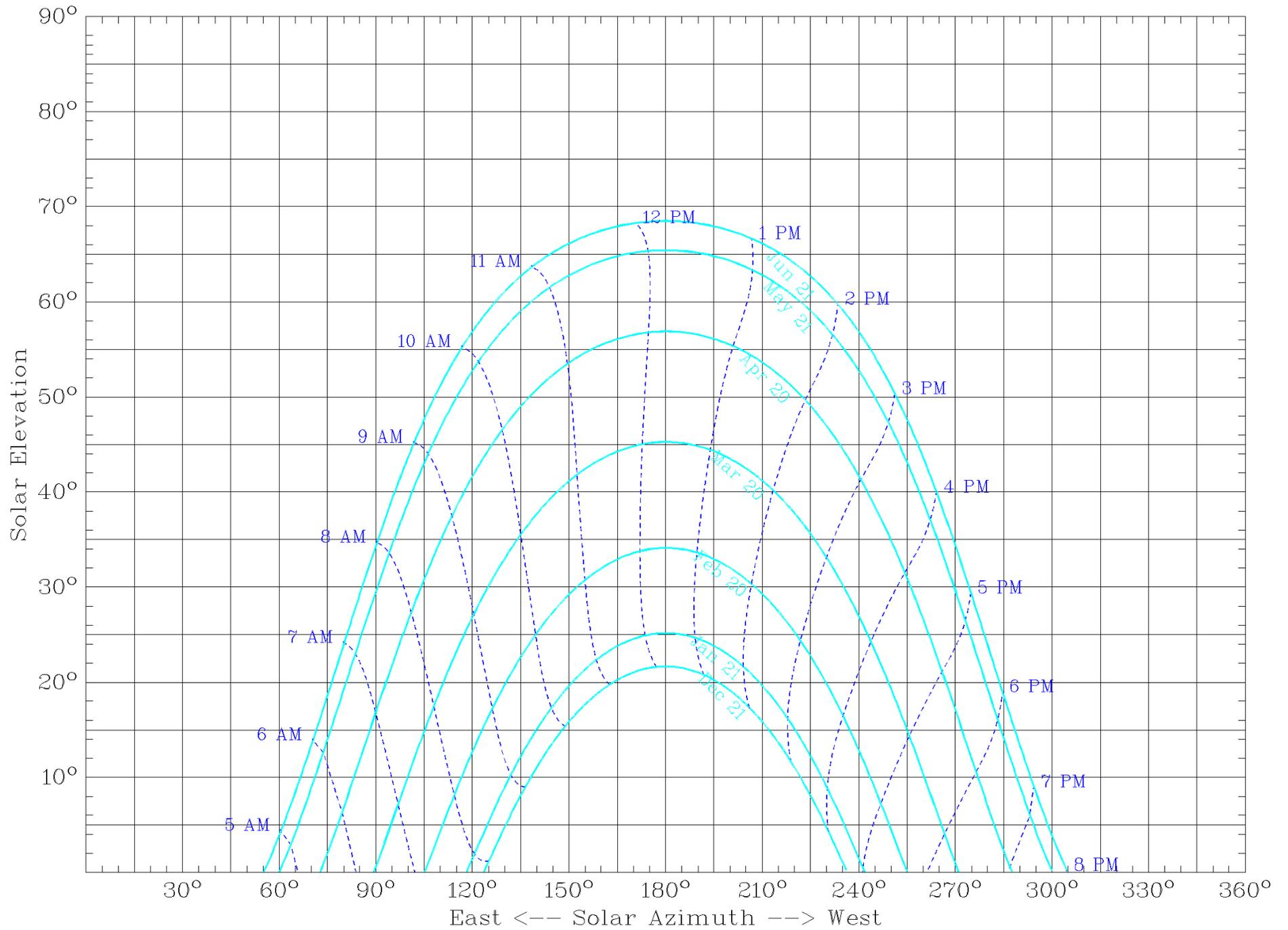
### Light

Overall, the site is not shadowed by anything except the 4th Ave. S bridge late in the day, and this shadow does not cover much of the parking lot. The space between the Wells Fargo building and my site will allow for a large enough space between the two if there are no shadows to be cast upon the Wells Fargo building. Since there are no southern windows close to ground level, the option of building fairly close to the north end of the site is always an option. The site has good southern exposure because of the gap between the southern buildings provided by the Midtown Greenway. This is an important aspect when designing on the site because there may be benefits and negatives to consider.

### Vegetation

There is little vegetation on the site. The main parking lot provides none at this time. Both Kix Field and Honeywell Home Field are covered with grass for the players. Honeywell Home Field has a few trees and bushes helping to make the break between the field and the homes and apartments. Kix field does have trees and vegetation between itself and the parking ramp as well. There is also a small patch of bushes, trees, and grass just west of the field. Vegetation lines the Midtown Greenway but is a bit sparse near my particular site. The secondary smaller parking lot in the northwest corner of my site has some open grass and a few spruce trees of decent size.

# Sun Path

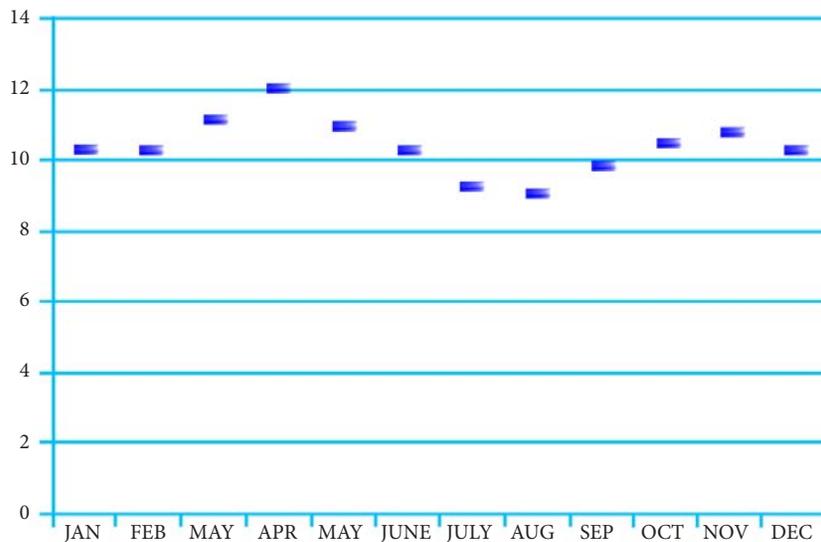


[Figure 72]



[Figure 73] Wind Scale 1" = 400' (Google, 2011)

Avg. Wind Speed (mph)



[Figure 74]

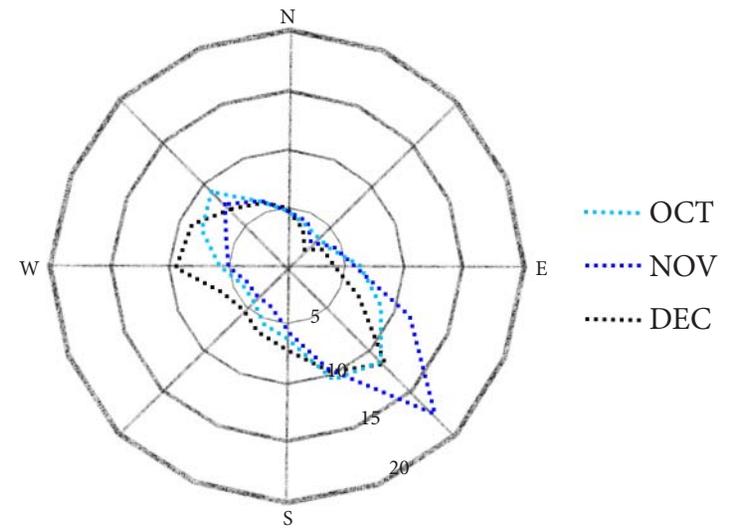
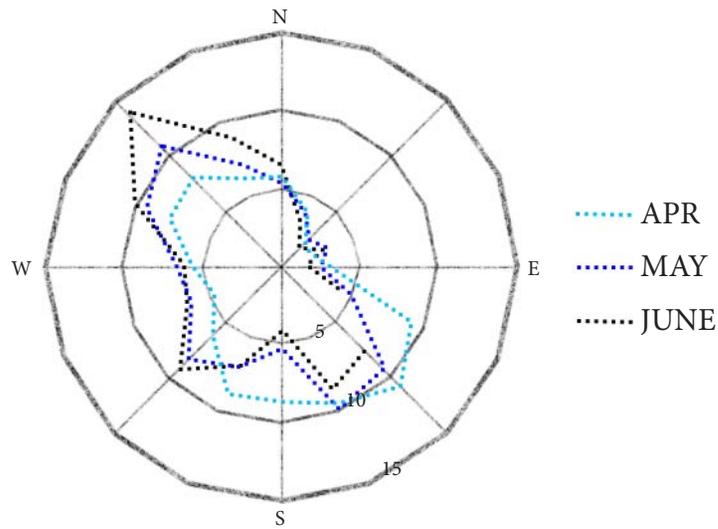
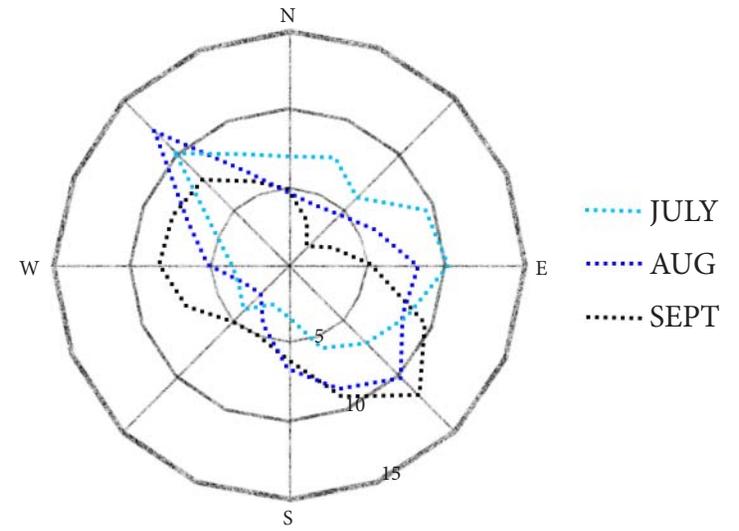
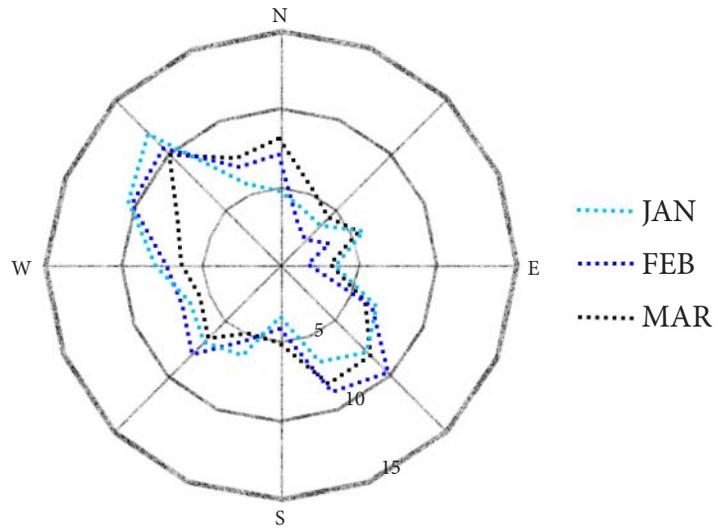
### Wind

The wind is typically coming from either the northwest or the southeast. The strongest northwest winds are prevalent during late winter and spring months while the strongest southeast winds are prevalent during the early winter months. The main alterations to these wind patterns are the Wells Fargo buildings to the north, the 4th Ave. S bridge to the west, and the Shamrock Group concrete building to the south. The fact that my site is in a depression will also affect the wind patterns for the area. The main concerns I have stemming from the Wells Fargo buildings is the wind alley that may be created from the northwest winds. 4th Ave. S may become an alleyway for whipping winds that may funnel onto my sight. The one major advantage to a depressed site is that these winds may, in fact, blow over the heads of occupants on the ground level of the site. The higher my final solution is, the more impact the wind will have.

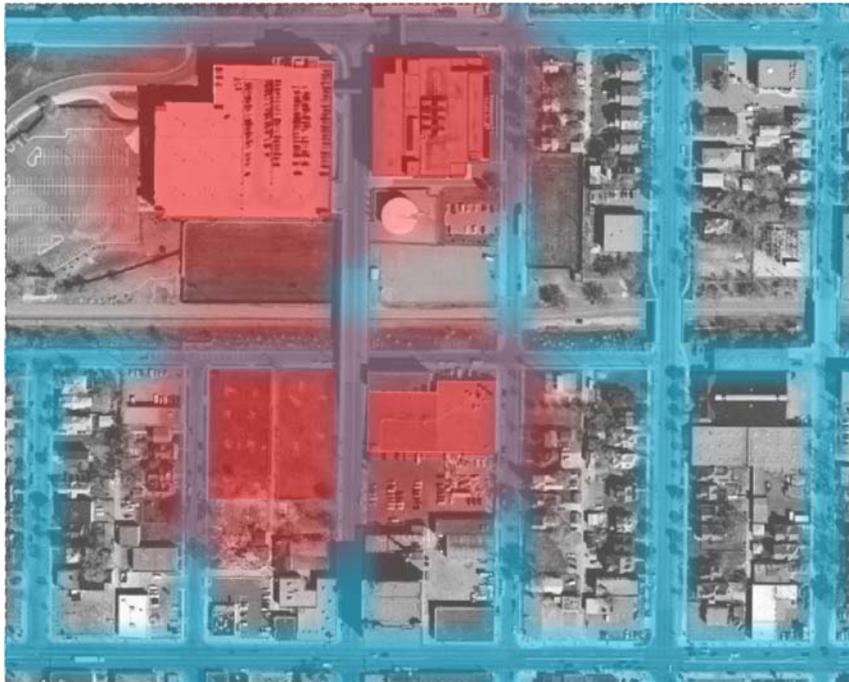
### Snow

The snow accumulation will depend heavily upon these prevailing winds. The snow will be piling up around the northwest corner as well as the southwestern intersection of the Midtown Greenway and 5th Ave. S. The lower elevation of my sight will also be impacted by the accumulation of snow, especially during the spring. Water from the melting snow will move towards this basin, and if the weather becomes warm enough to melt an excess amount of snow, there may be issues with water and flooding.

## Wind Roses



[Figure 75]



[Figure 76]  
Noise (roads and buildings) Scale 1" = 400' (Google, 2011)

### Human Characteristics

At the moment, the site is used for parking for either the soccer fields or the Wells Fargo complex to the north. With the continued improvements of the Midtown Greenway, foot traffic and bicycle traffic is sure to increase. Plans for the new light rail along the Midtown Greenway will also increase the sites exposure. The city of Minneapolis is also planning for a new exit for vehicular traffic to have easier access to Lake St. While all of these new developments are coming to the once slightly-forgotten area, I intend to capitalize upon these future developments and help the area attract new people and grow with these changes. My main concern is making a facility that is for the people of the area and becomes a place they feel comfortable calling their own. I do not want to simply place a fancy new building for people of other communities to enjoy while neglecting the rest of the Phillips and Powderhorn Park communities. This needs to be a place of pride and faithful ownership to these residents.

### Noise

The major noises that will be impacting my site are those of traffic. While the most traveled road is 4th Ave. S, which is a bridge above my site, there is still local traffic moving through this area. The major reasons for the traffic derive from the school to the south and the Wells Fargo buildings to the north. Commuters often travel these side roads to and from work and school. The Shamrock Group building to the south also has drop-off and pick-up for large trucks. This may become a large source of noise during busy parts of the day. The parking ramp to the northwest of the site and just north of Kix Field may also provide some vehicular noise, primarily in the morning and late afternoon which is the typical work day for most who occupy the building.



[Figure 77] Soils Scale 1" = 400' (Google, 2011)

### Soils

The surrounding area of my site has two types of classifications for land. My site and the majority of the area to the south and east of my site are classified as being D34B. The second classification of land is U4A and is the land to the west of my site and the northern-most Wells Fargo buildings. While these two have different classifications, they are very similar. The differences will be pointed out in the following analysis while the similarities will be assumed.

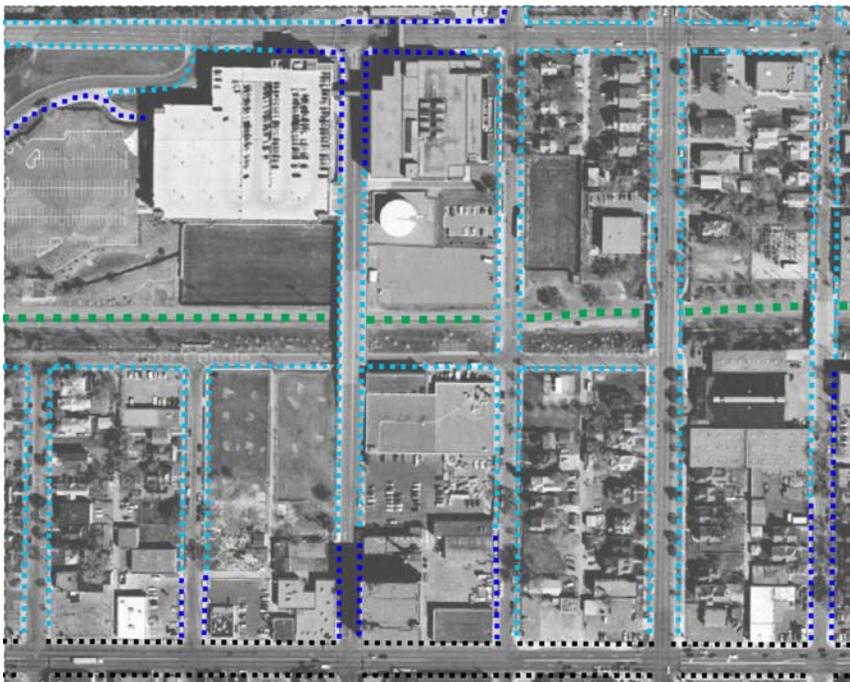
The D34B soil has a 110 to 200 day frost-free period and is broken down into 75% urban land, 20% Hubbard and similar soils, and 5% minor components. The U4A soil has a frost-free period of 155 to 200 days, is 70% urban land, and is 30% udipsamments, cut and fill land, and similar soils. The depth to restrictive features is greater than 80 inches. The landforms formed in this area were developed from historic streams that left terraces and undulations throughout the years. The parent material for this area is outwash. The typical profile for both of these soil types is Loamy sand from 0 to 23 inches and 23 to 80 inches of sand (USDA, 2011).

### Water Table

The depth of the water table for my site and surrounding area is greater than 80 inches. The area is classified as having no frequency of flooding, no frequency of ponding, and is rated as having somewhat excessive drainage. While the information is taken from a government website, I do have some fore mentioned concerns about the possibility of pooling water. The capacity of the most limiting layer to transmit water is high to very high. This is about 6 inches to 20 inches per hour. This transmittance of water allows for any pooling or collection of water to be displaced quickly. This is largely in part to the high amounts of hard surface materials in the area. While this is a good thing, my concerns about the amount of water my site is able to handle begins to show with its available water capacity at a low mark of about 3.9 inches of water. This leads me to believe that if there were to be any problems with displacement of water or drainage, flooding and pooling would be imminent (USDA, 2011).



[Figure 78] Vehicular Traffic Scale 1" = 400' (Google, 2011)



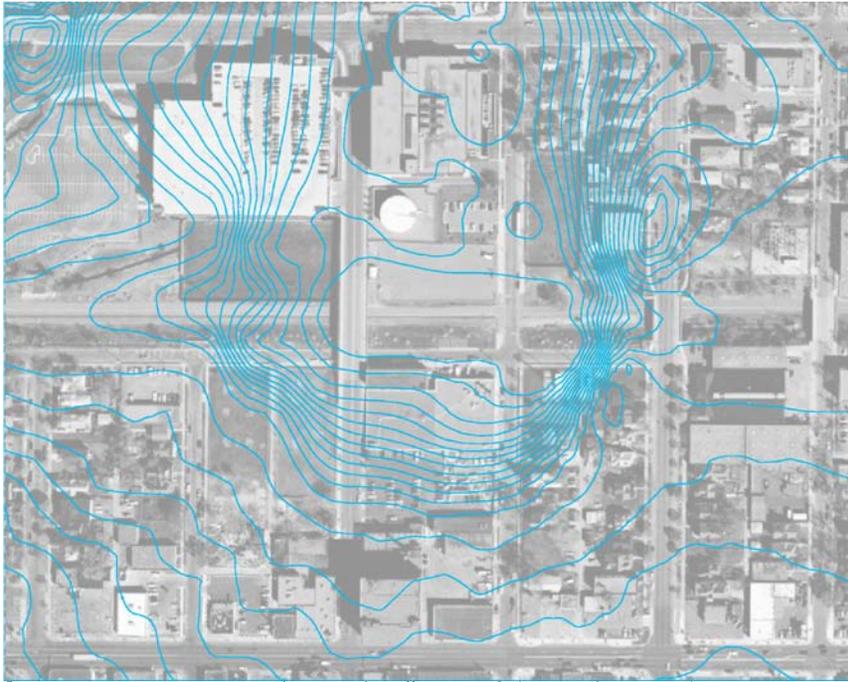
[Figure 79] Pedestrian Traffic Scale 1" = 400' (Google, 2011)

### Vehicular Traffic

The majority of the vehicular traffic is focused on the Lake St. corridor. The four-lane, two-way traffic becomes very dense the closer it approaches the I-35W underpass. This is one of the main concerns for the city of Minneapolis and has been the source of pressure for it to make improvements. A second major artery is the one-way north-to-south traffic of 4th Ave. S, which is used to keep traffic moving quickly through the southern part of Phillips and into Powderhorn Park. It has seen more and more traffic with the growth of these neighborhoods and has also applied additional pressure upon the planning department of Minneapolis to make improvements. To the north of my site runs the one-way west-to-east E 28th St. Although this is not as busy as the other two roads, it still does support a quick flow of traffic and may be hard to cross at times for pedestrians. The 4th Ave. S bridge handles a fair amount of traffic as well. It is elevated and the traffic does not interact with my site directly but can be heard from the parking lot. The traffic next to my site is light and does not cause much concern.

### Pedestrian Traffic

The pedestrian traffic surrounding my site is much like the vehicular traffic. The central focus is along E Lake St. because of the shops and vendors. The walkways become less used the further north of E Lake St. you travel. The Midtown Greenway highlighted in green offers pedestrian and bike traffic and can become heavily used during the warmer months. The other focuses of pedestrian traffic are around the Wells Fargo complex. People working in the buildings do have connecting skyways but use the sidewalks to and from buildings as well as the designated parking areas.

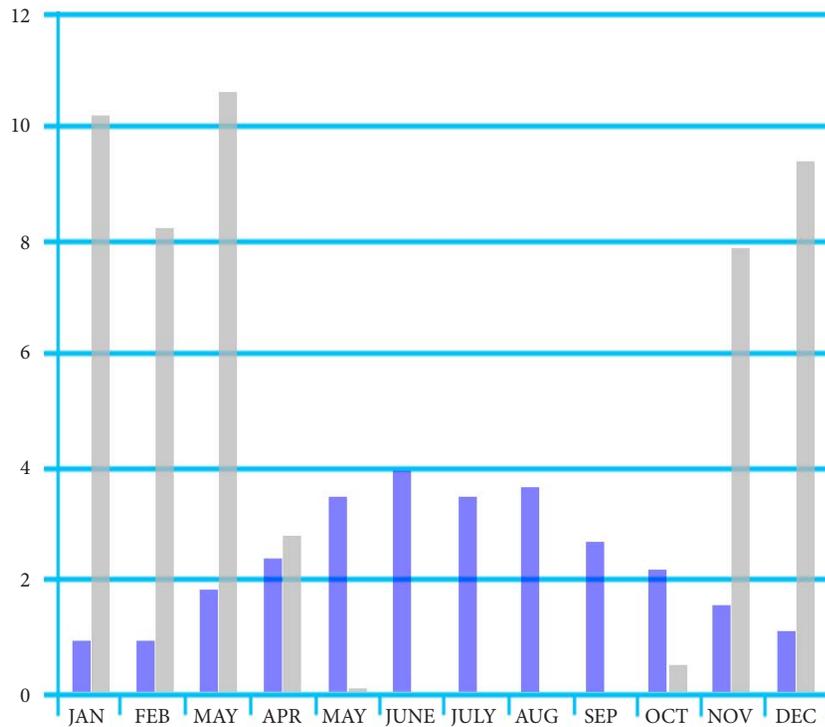


[Figure 80] Topography Scale 1" = 400' (Google, 2011)

### Topography

The site I have chosen is very flat. Figure 80 shows the slope of the area at one-foot intervals. It is apparent that my site sits in a small basin with slopes to the east, south, and west. The north side of my site is very flat as well. My site sits at a lower elevation than E Lake St and rides along the edge of the sunken Midtown Greenway. The distance between the north-facing slope to the south and my site is far enough as to not affect the direct light gain. The east and west slopes will hardly affect the power of the sun as well. These slopes meeting in the basin that is my site has raised some caution about water flow and collection. There is enough proper drainage in the area, but I still would like to keep this issue in mind just in case there were ever to be a problem with this drainage system (Demand Media, 2011).

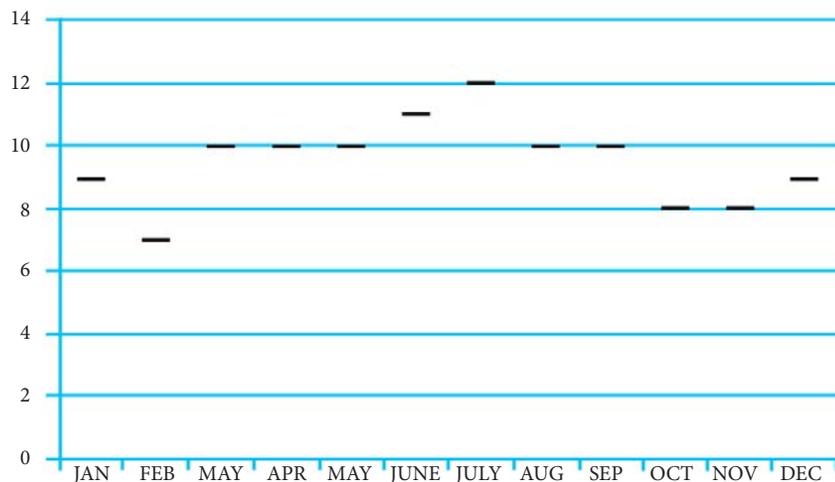
Avg. Rainfall and Snowfall (in)



Water

My site lies in a depression when compared to the surrounding topography, but there is no evidence of erosion or damage. The Midtown Greenway seems to be the main point of water collection in the area, but since the area has enough street drainage and open ground to absorb the water collection, there seems to be little concern with typical rain fall. If the site were to experience torrential downfall, the Midtown Greenway and my site might have to have some improved drainage. This is one thing to keep in mind for heavy downfall as well as in the spring when the snow melts at an accelerated pace.

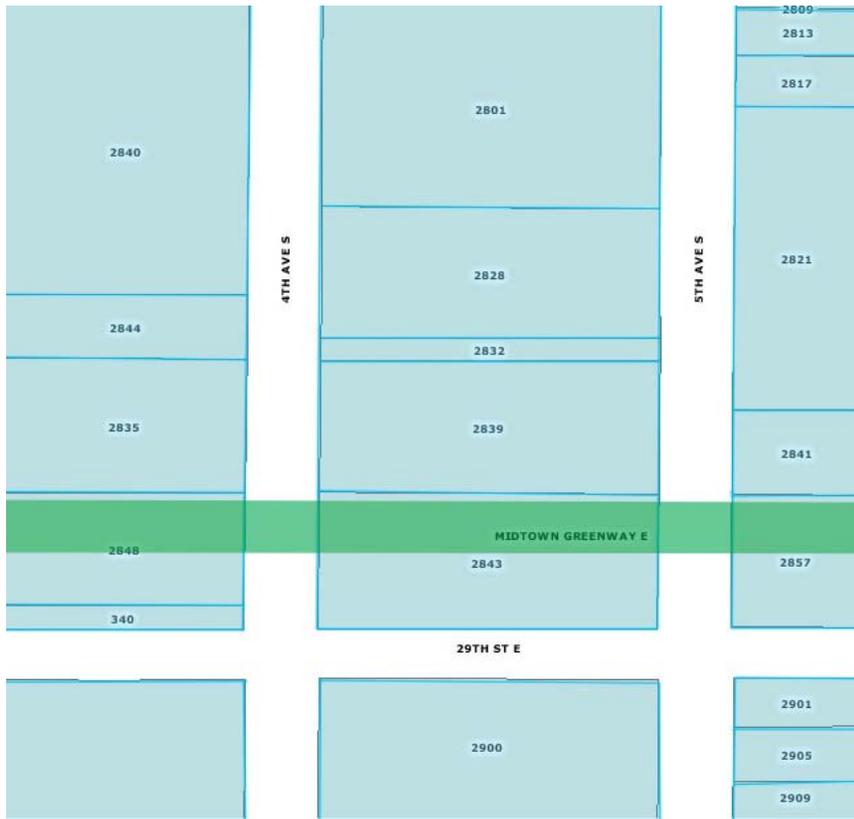
[Figure 81] Days of Atleast .01 Inches of Precipitation (in)



rain

snow

[Figure 82]



[Figure 83]

### Legal lines

Figure 83 shows the parcel lines for the area. The Midtown Greenway is highlighted in green and was once an active railroad running through the city. The owners of all the parcels that make up the Midtown Greenway are owned by Hennepin City Regional RR Authority. These unique parcels are not for sale and are for the sole purpose of future development of a walking/biking path with an addition of a light rail.

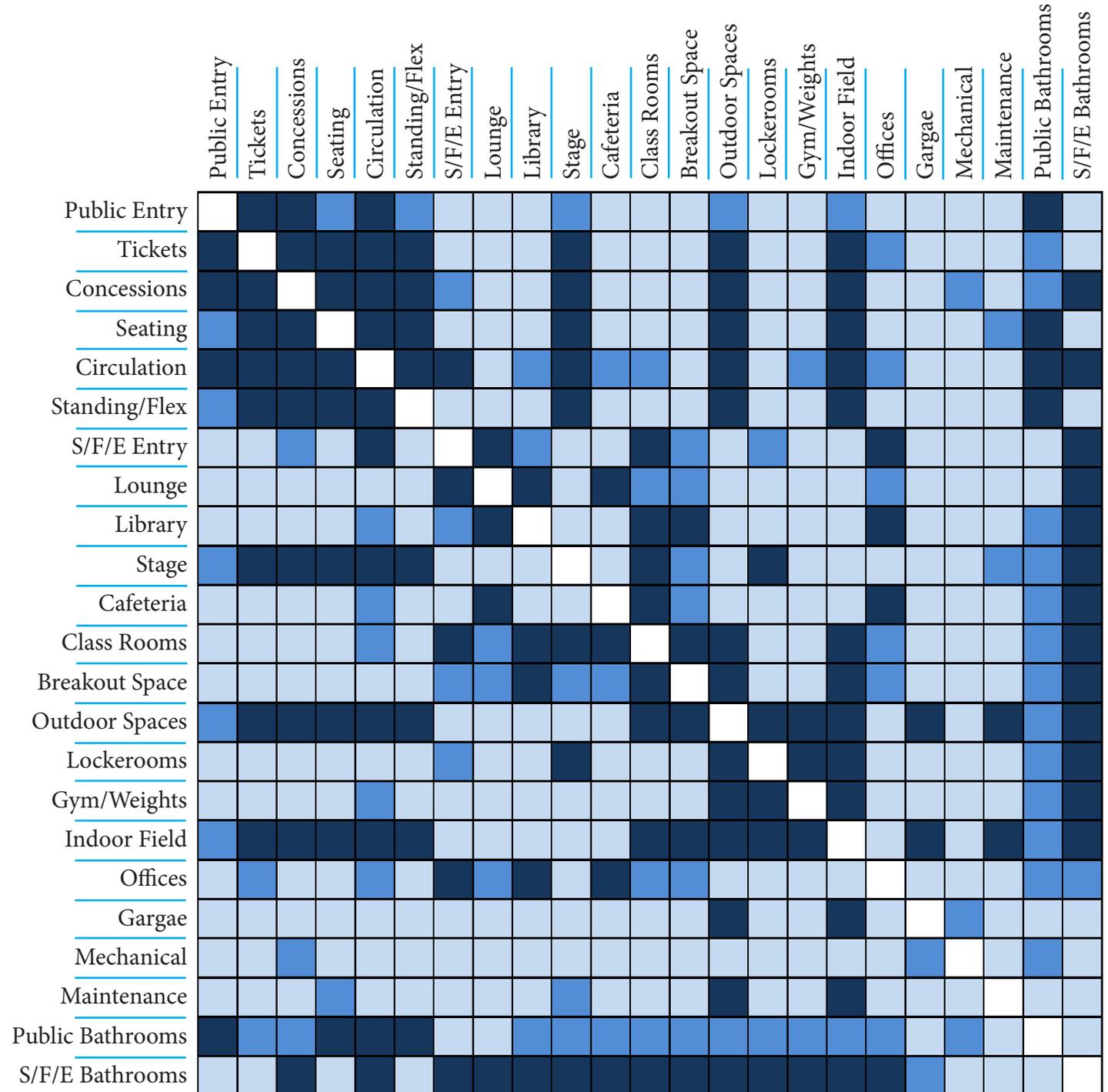
My site takes up two parcel numbers: 2832 and 2839. It appears that when Wells Fargo purchased the land from Honeywell to the north of my site, Honeywell had decided to use parcel 2832 as a skinny plaza. It is located on the south side of the Honeywell company's second building addition, which is now the Wells Fargo South building. The two parcels in which my site lie, 2832 and 2839, are owned by Urban Ventures Leadership. The combined area of the parcels equals .77 acres, or 33,724 sqft. The total payable tax amount for 2011 for both these parcels came to \$578 (Hennepin County, 2011).

# Conceptual Programmatic Requirements

|                 |                          |                          |                  |
|-----------------|--------------------------|--------------------------|------------------|
| Space           | Primary Users            | User Access              | Area (sqft)      |
| Public Entry    | Public                   | All                      | 1,000.00         |
| Seating         | Public                   | All                      | 3,500.00         |
| Standing/Flex   | Public                   | All                      | 1,500.00         |
| Public Toilet   | Public                   | All                      | 1,700.00         |
|                 |                          |                          | 7,700.00         |
| Garage          | Employee                 | Student/Faculty/Employee | 2,500.00         |
| Mechanical      | Employee                 | Student/Faculty/Employee | 1,000.00         |
| Maintenance     | Employee                 | Student/Faculty/Employee | 1,000.00         |
|                 |                          |                          | <b>4,500.00</b>  |
| Tickets         | Public/Employee          | All                      | 750.00           |
| Concessions     | Public/Employee          | All                      | 1,000.00         |
| Circulation     | Public/Employee          | All                      | 2,000.00         |
|                 |                          |                          | 3,750.00         |
| Offices         | Faculty/Employee         | All                      | 2,000.00         |
|                 |                          |                          | 2,000.00         |
| Lounge          | Student/Faculty          | All                      | 2,500.00         |
| Library         | Student/Faculty          | All                      | 3,000.00         |
| Stage           | Student/Faculty          | Student/Faculty/Employee | 1,000.00         |
| Cafateria       | Student/Faculty          | All                      | 3,000.00         |
| Class Rooms     | Student/Faculty          | Student/Faculty/Employee | 3,500.00         |
| Breakout Space  | Student/Faculty          | Student/Faculty/Employee | 2,250.00         |
| Outdoor Spaces  | Student/Faculty          | Student/Faculty/Employee | 4,500.00         |
| Lockerrooms     | Student/Faculty          | Student/Faculty/Employee | 2,500.00         |
| Gym/Weights     | Student/Faculty          | Student/Faculty/Employee | 2,000.00         |
| I "field" Space | Student/Faculty          | Student/Faculty/Employee | 6,000.00         |
|                 |                          |                          | <b>30,250.00</b> |
| S/F/E Entry     | Student/Faculty/Employee | Student/Faculty/Employee | 750.00           |
| S/F/E Toilet    | Student/Faculty/Employee | Student/Faculty/Employee | 1,500.00         |
|                 |                          |                          | <b>2,250.00</b>  |
| Total Area      |                          |                          | <b>50,450.00</b> |

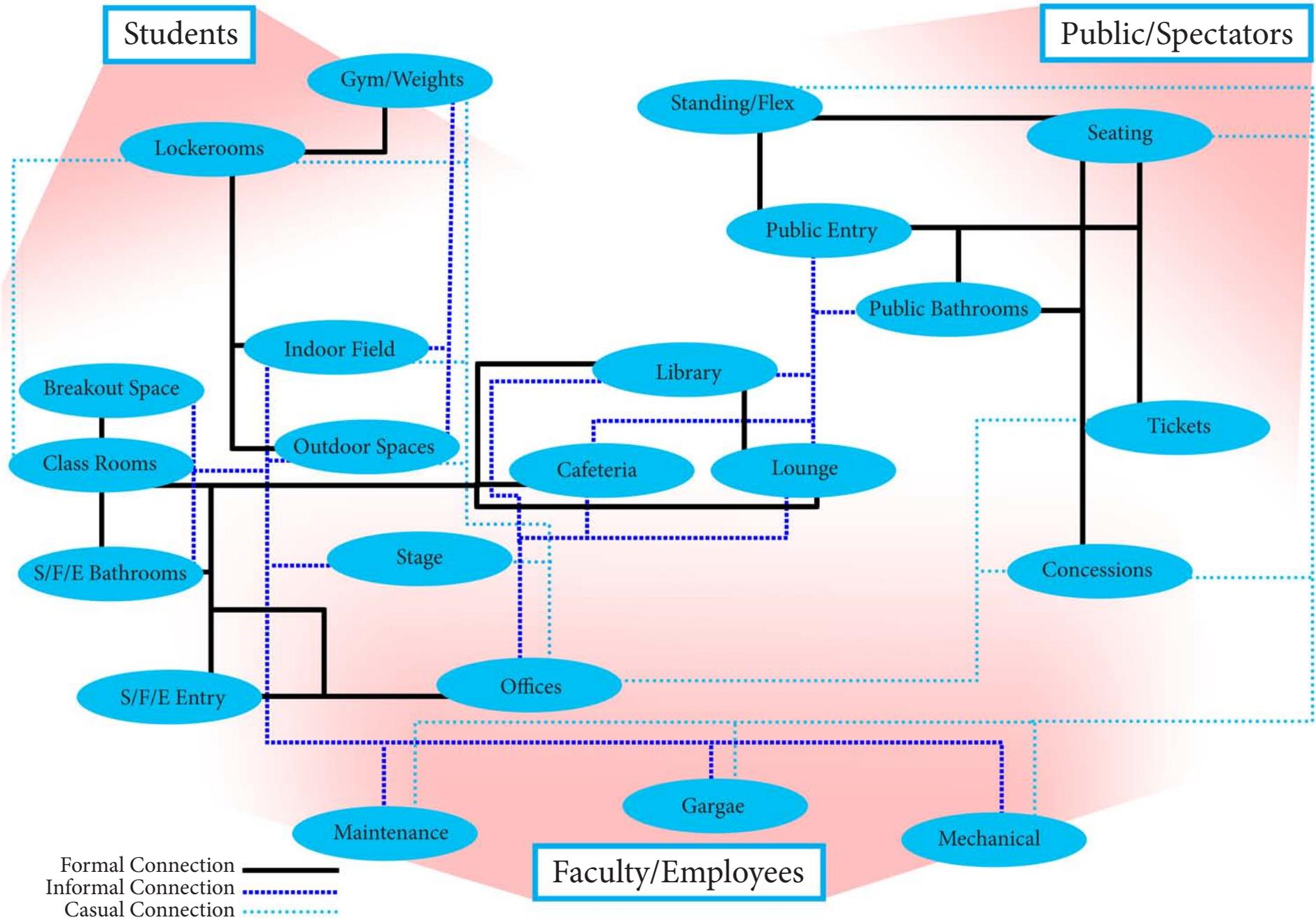
# Conceptual Interaction Matrix

Correlation Between Spaces



[Figure 84]

# Conceptual Interaction Net

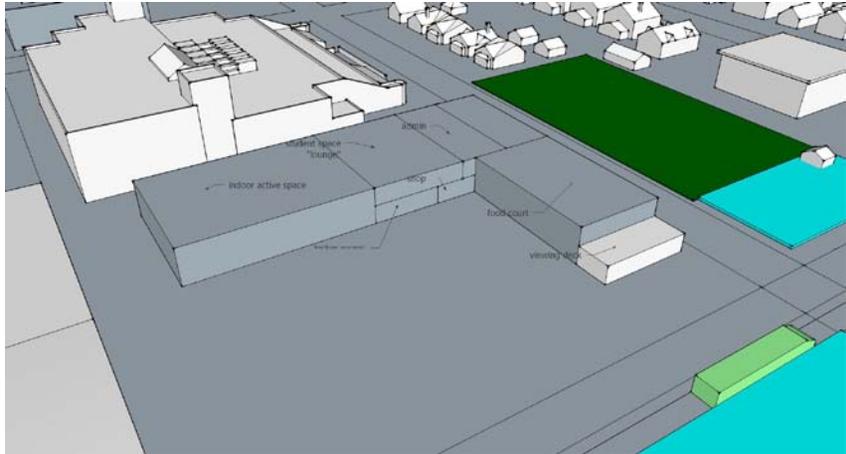
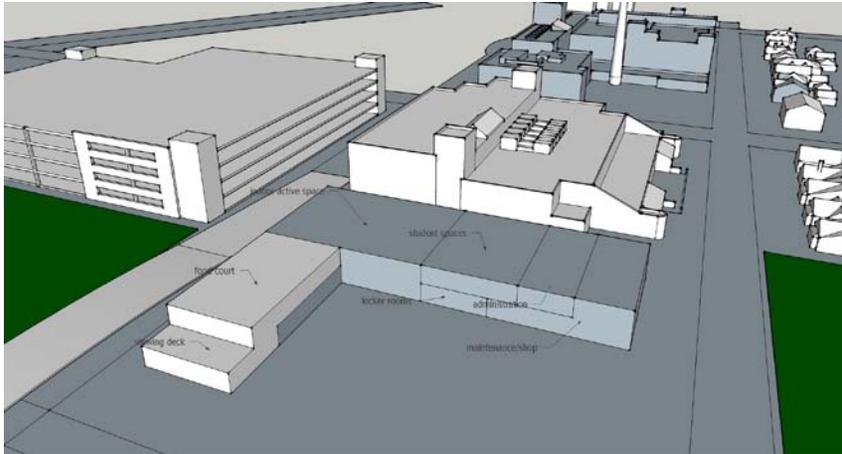
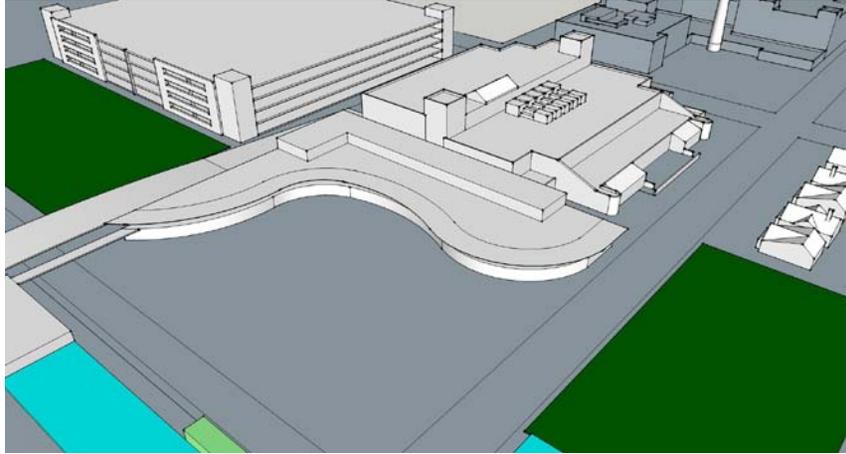
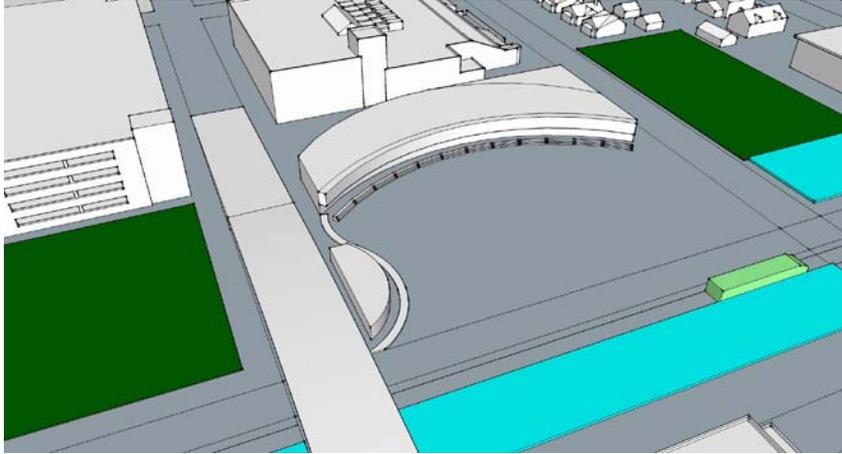


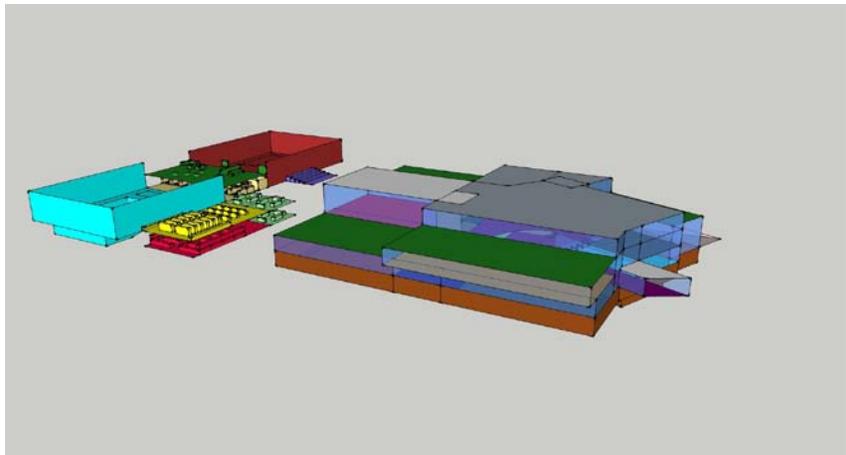
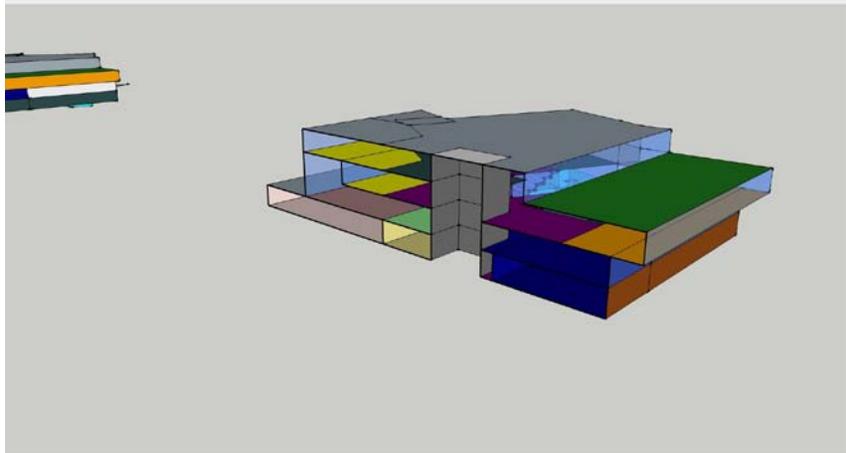
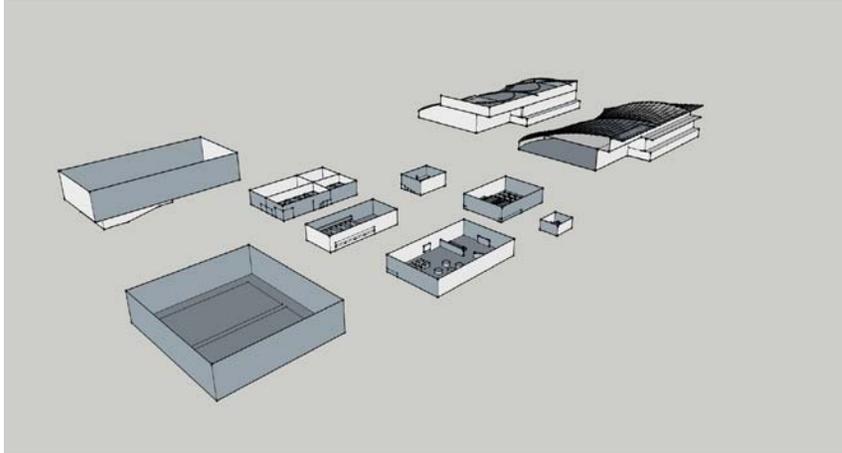
[Figure 85]

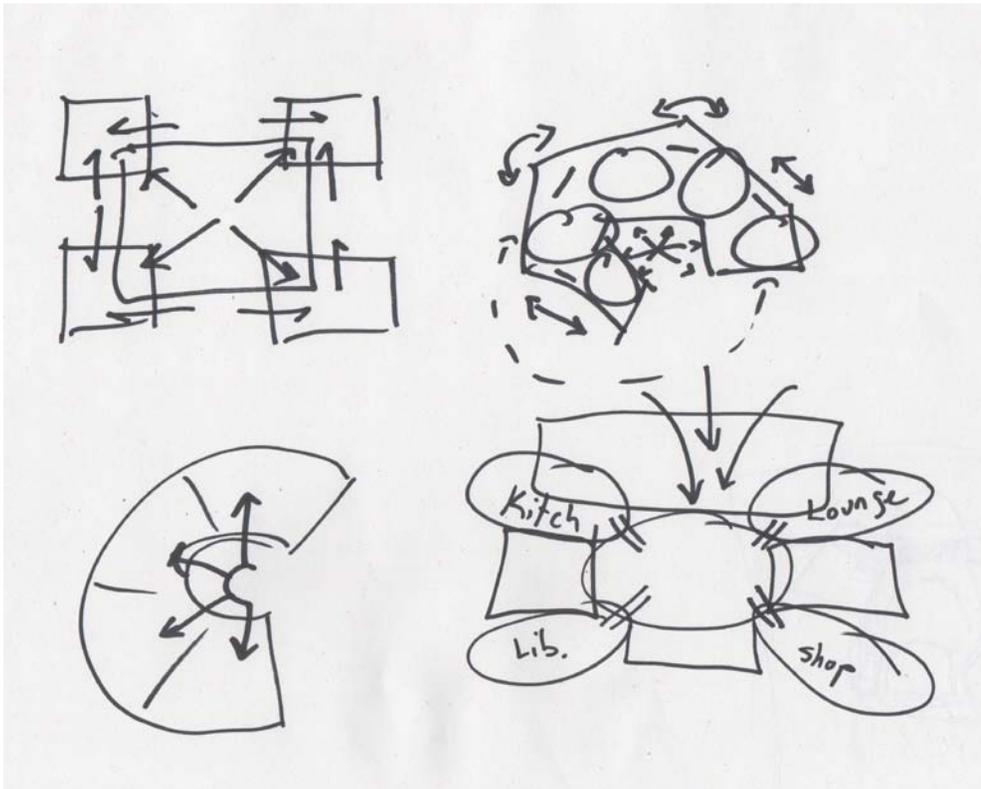
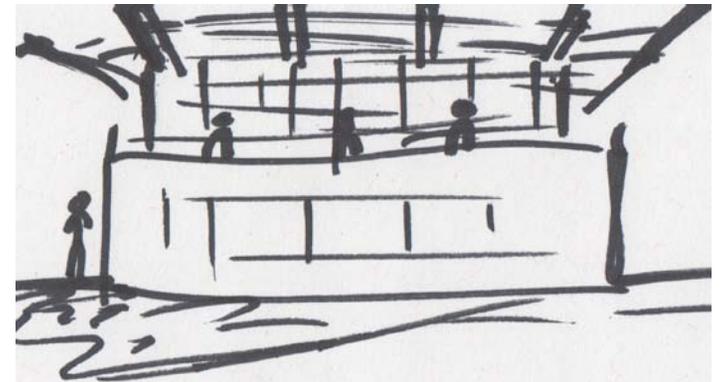
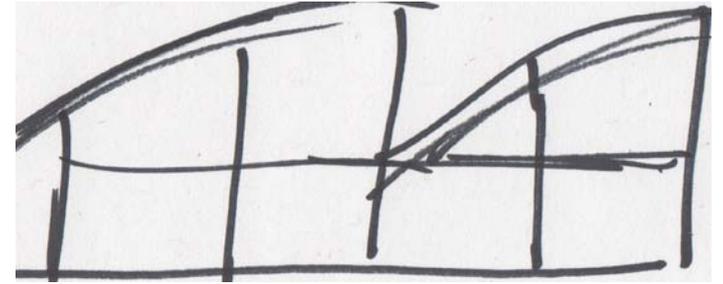
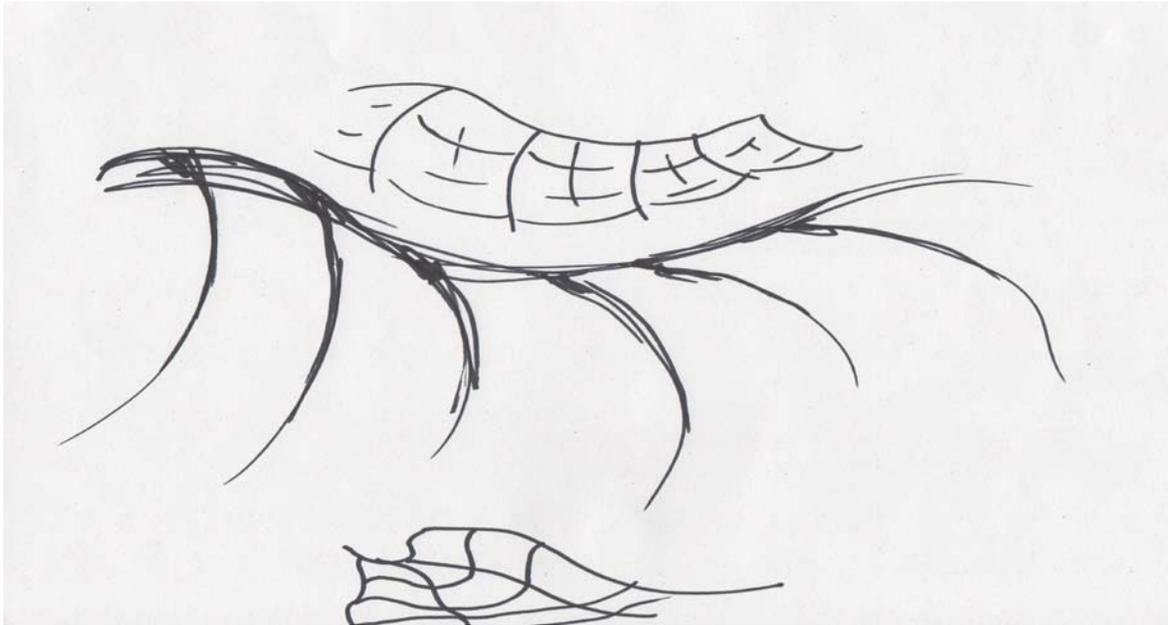
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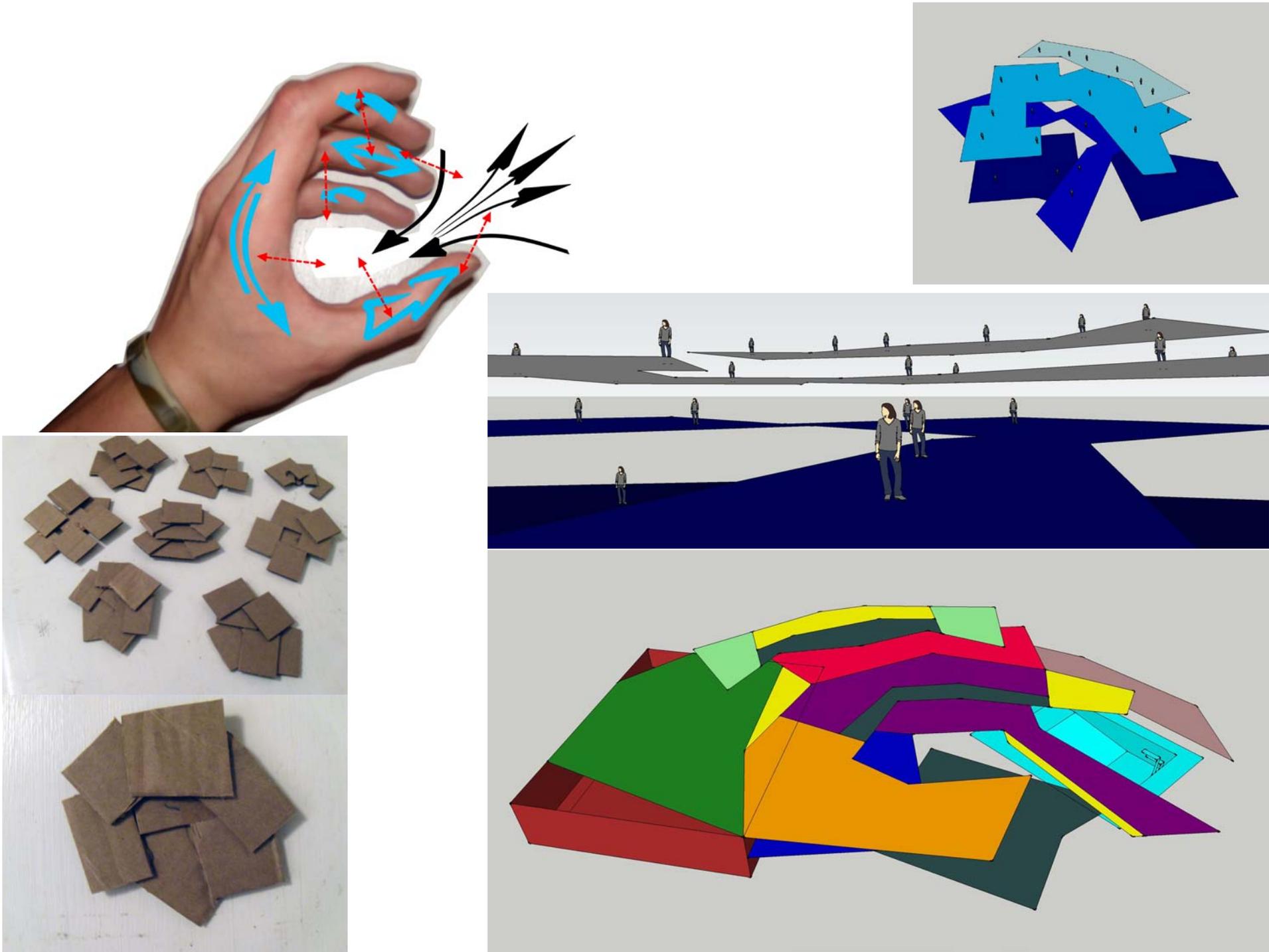
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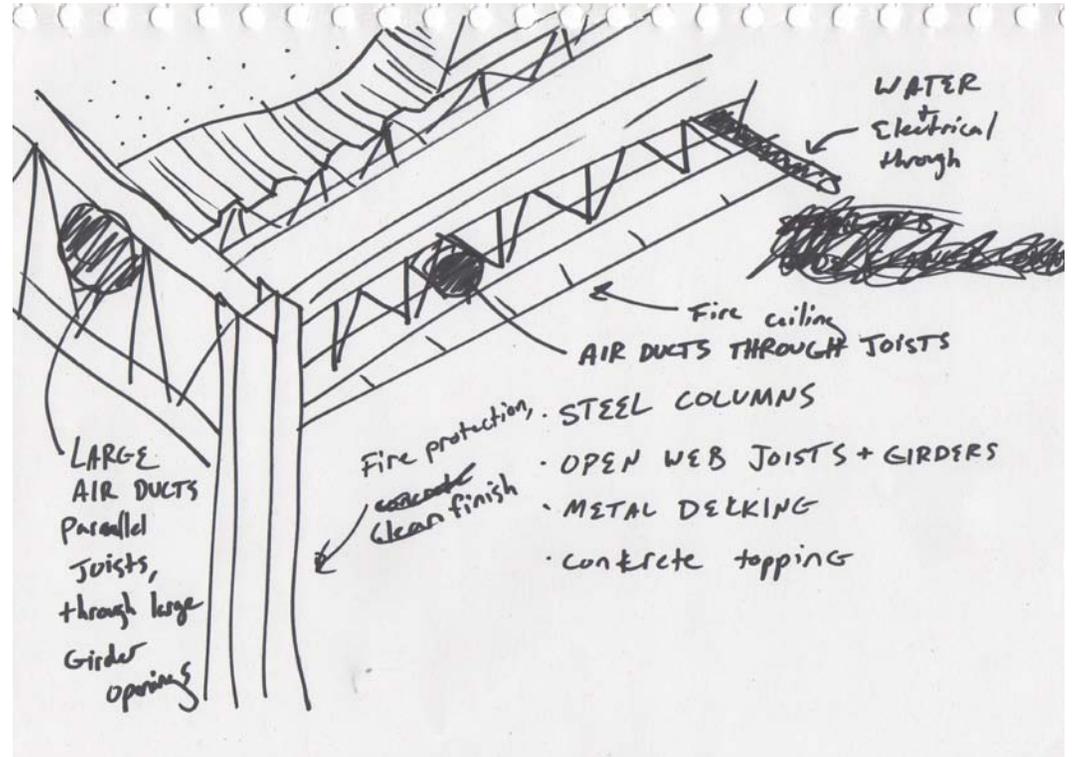
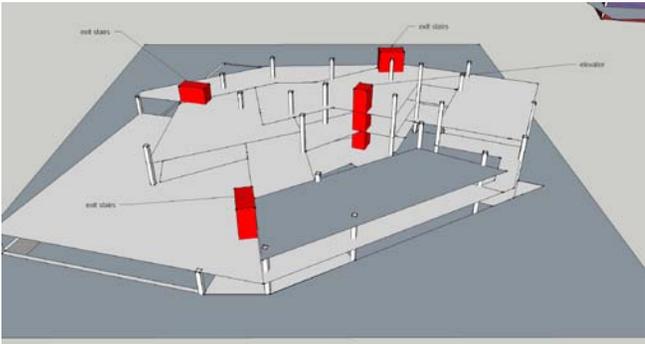
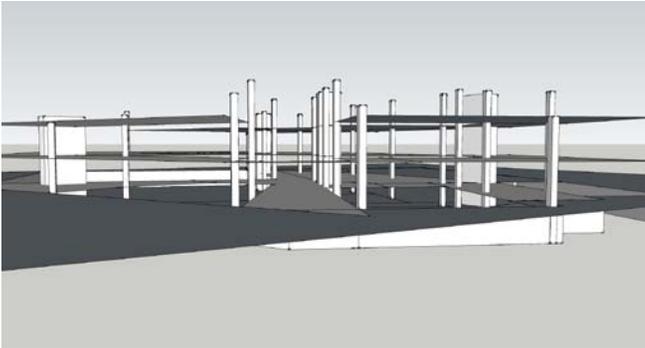
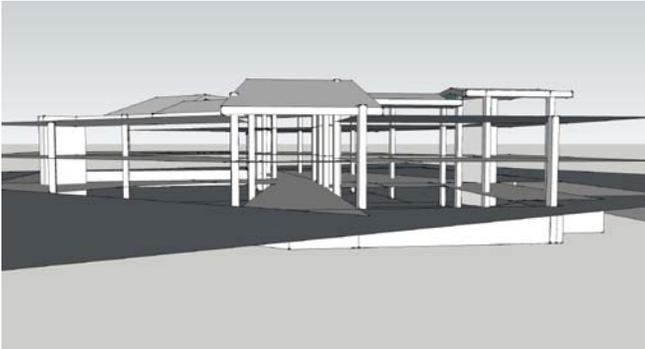
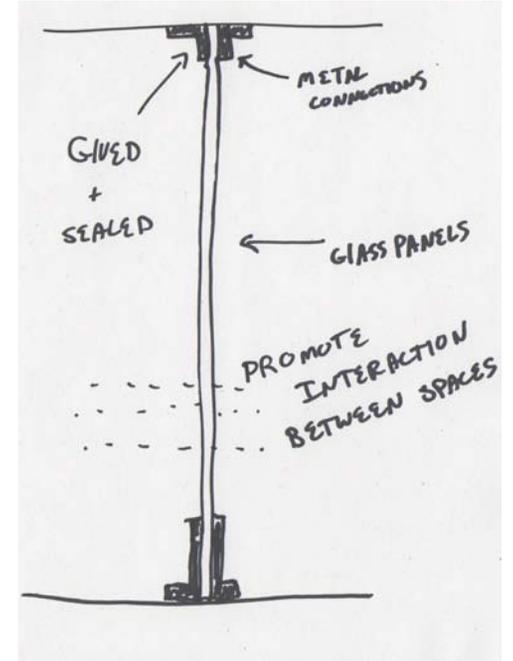
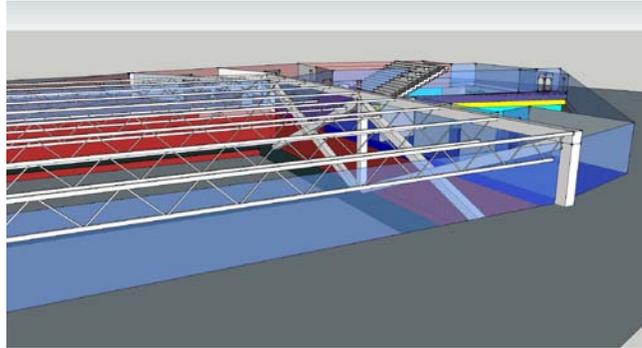
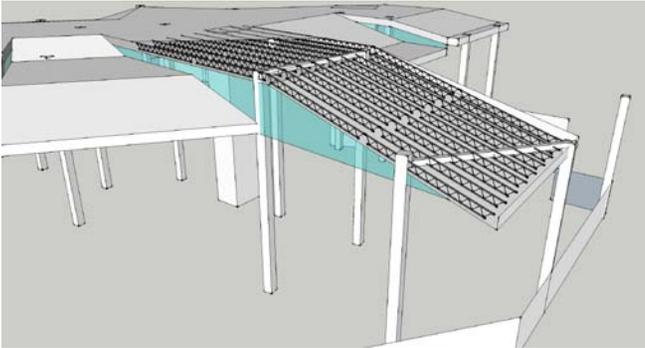
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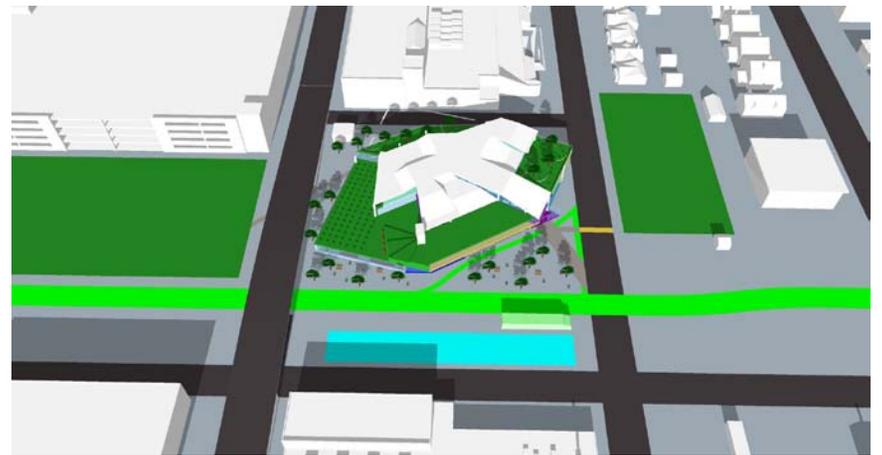
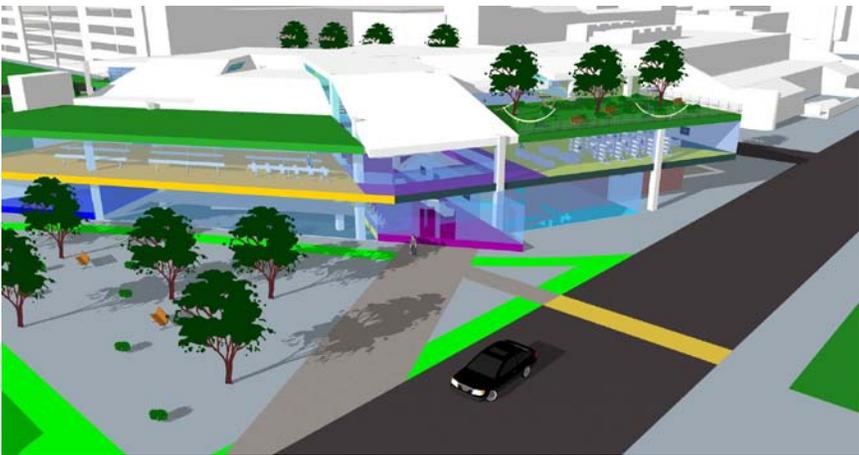
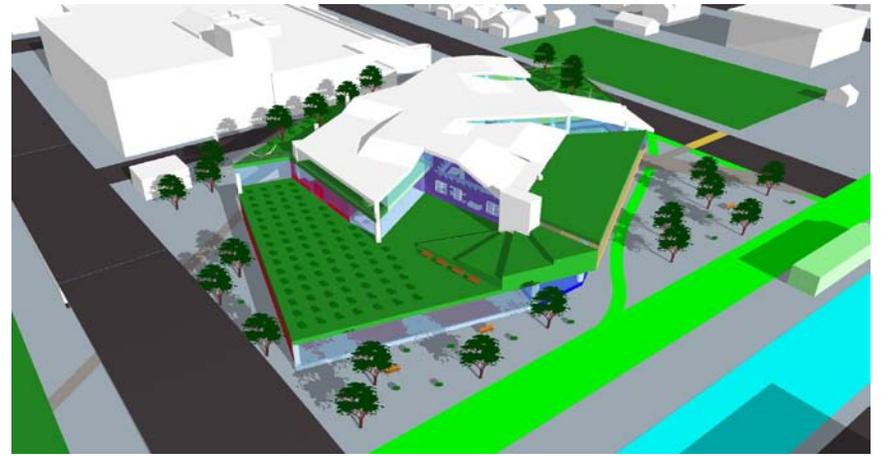
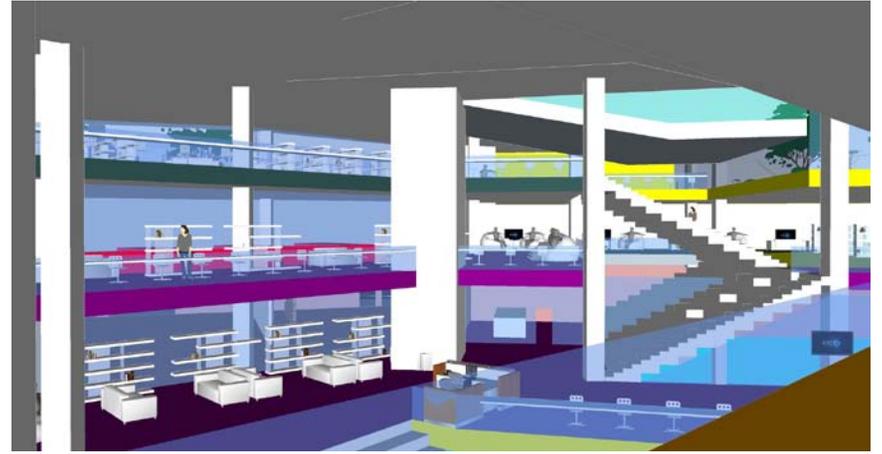
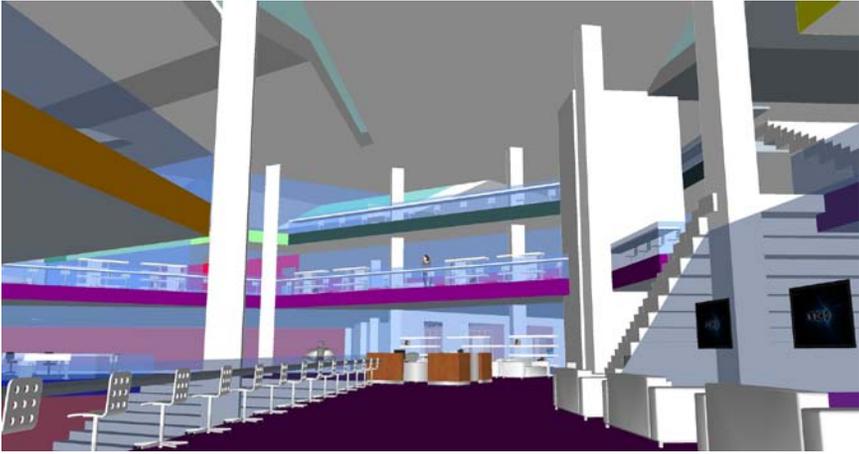












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## Final Solution

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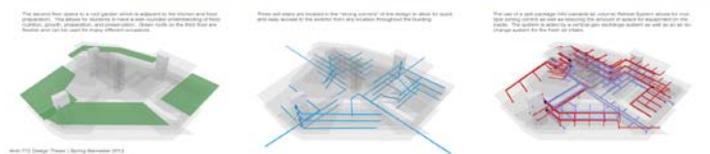


**Life Skills Center**  
 Phillips and Powderhorn Park  
 Minneapolis, Minnesota

The Life Skills Center is a multi-story building designed to provide a safe and supportive environment for young adults. The building features a glass facade and a green roof, and is surrounded by a landscaped area with trees and walkways. The building is located in the Phillips and Powderhorn Park area of Minneapolis, Minnesota.



- 1. Main Entrance
- 2. Lobby
- 3. Classroom
- 4. Office
- 5. Conference Room
- 6. Storage
- 7. Restroom
- 8. Elevator
- 9. Staircase
- 10. Rooftop Garden
- 11. Parking
- 12. Landscaping



Architect: [unreadable]



Architect: [unreadable]

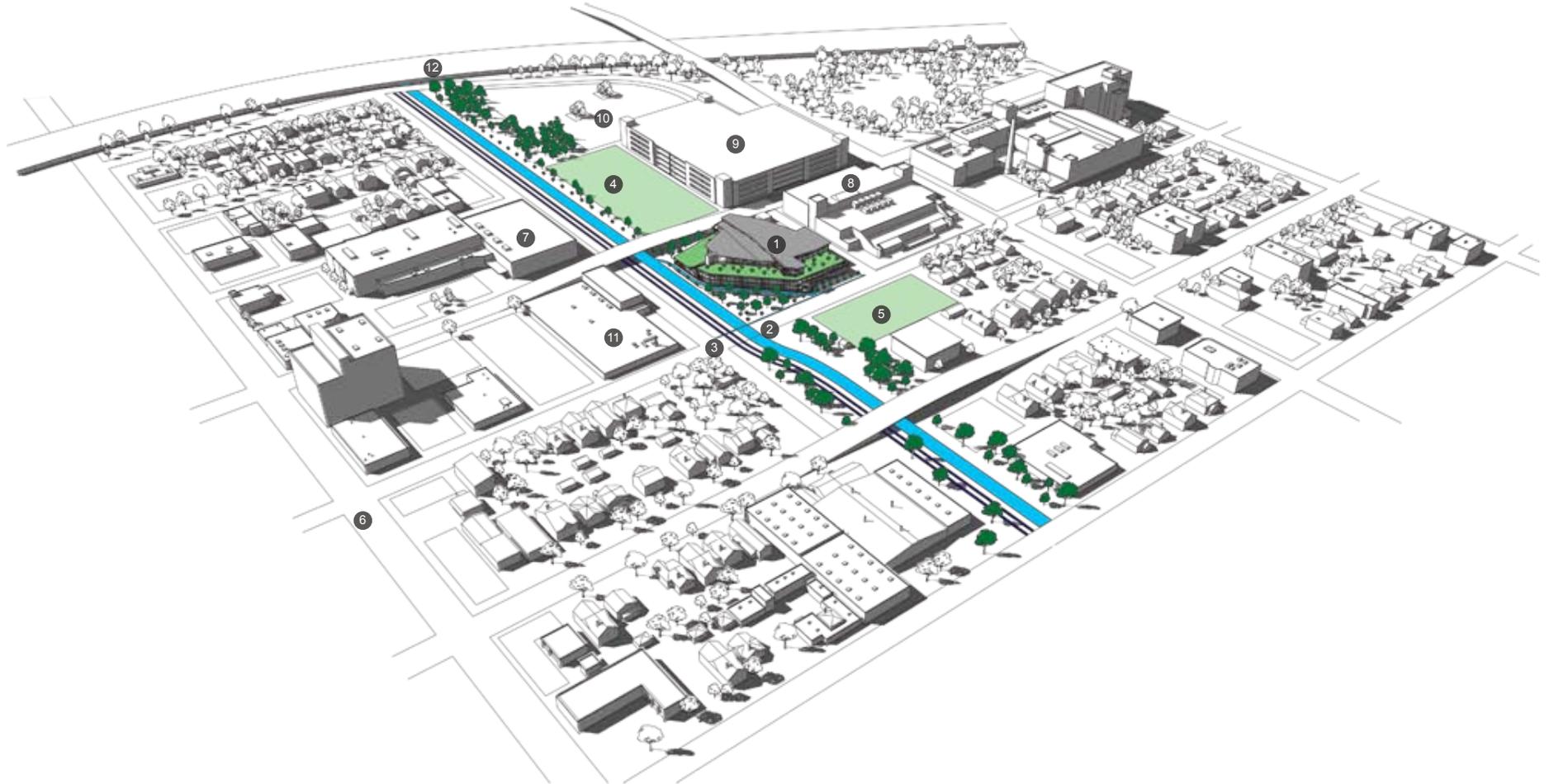


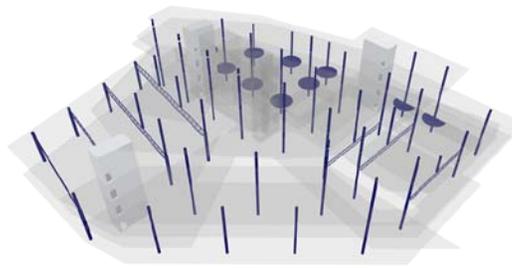
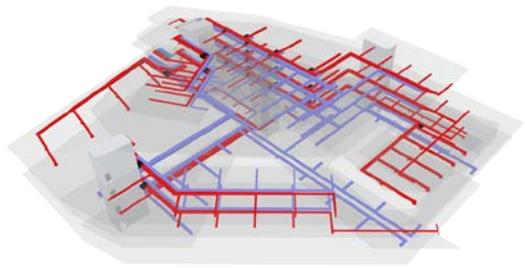
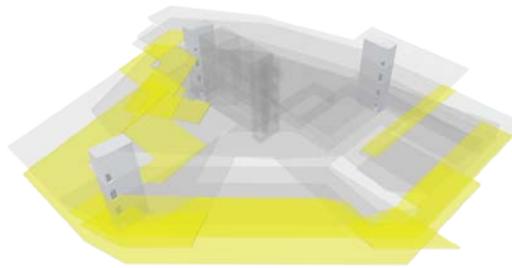
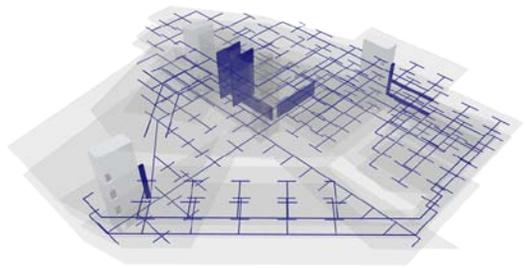
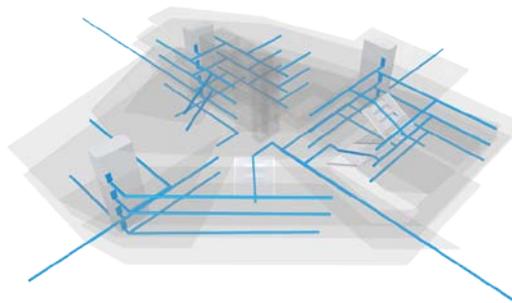
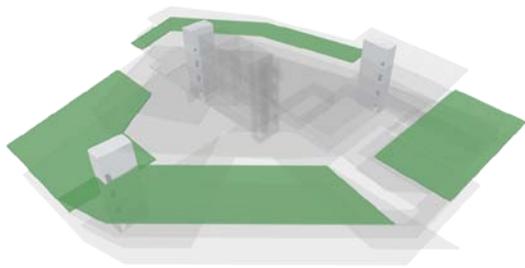






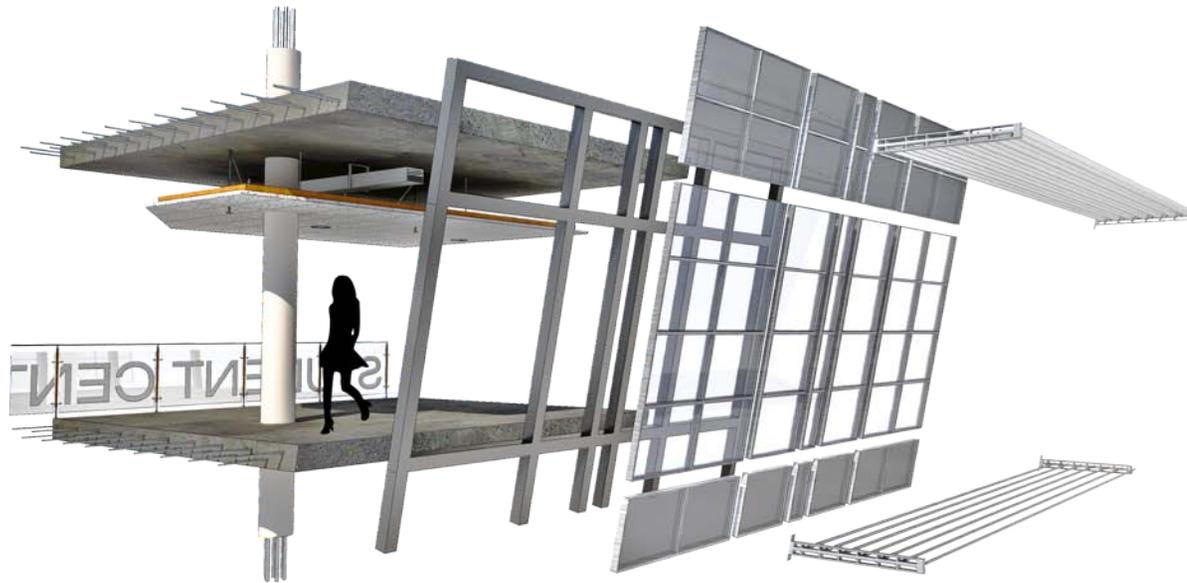
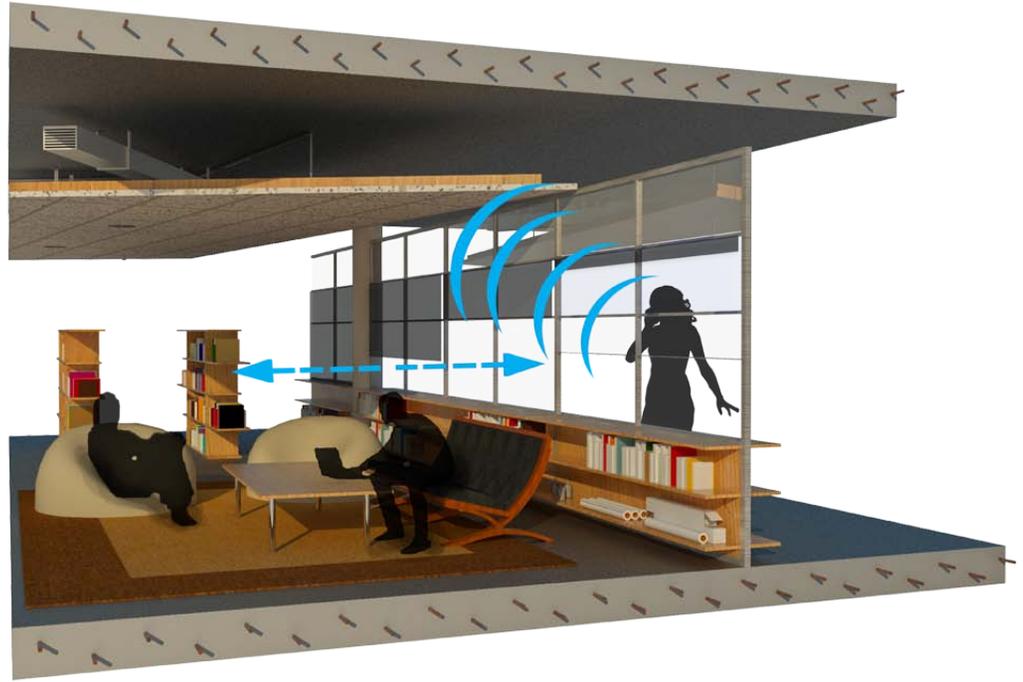
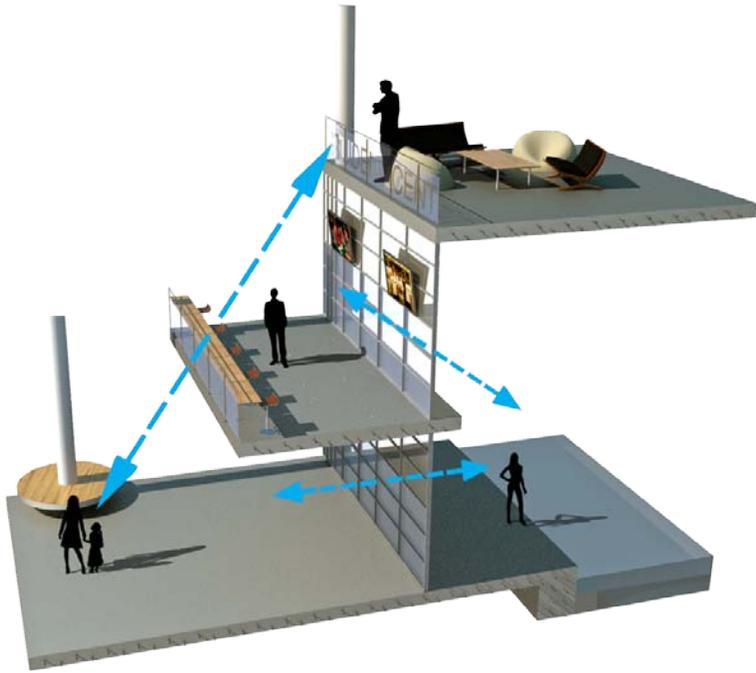
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- 2 Midtown Greenway
- 3 Future Light Rail
- 4 Kix Field
- 5 Honeywell Home Field
- 6 E Lake St.
- 7 Cristo Rey Jesuit High School
- 8 Wells Fargo South Building
- 9 Wells Fargo Parking Ramp
- 10 Wells Fargo Parking Lot
- 11 Shamrock Group
- 12 I-35W

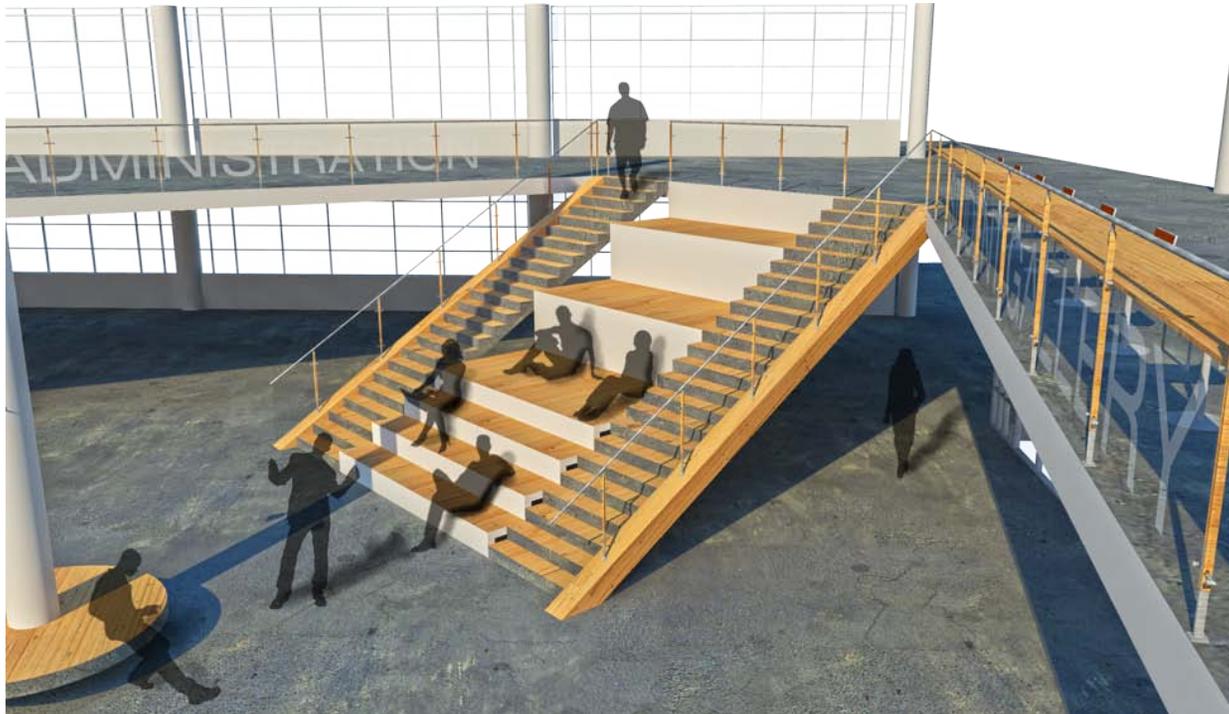


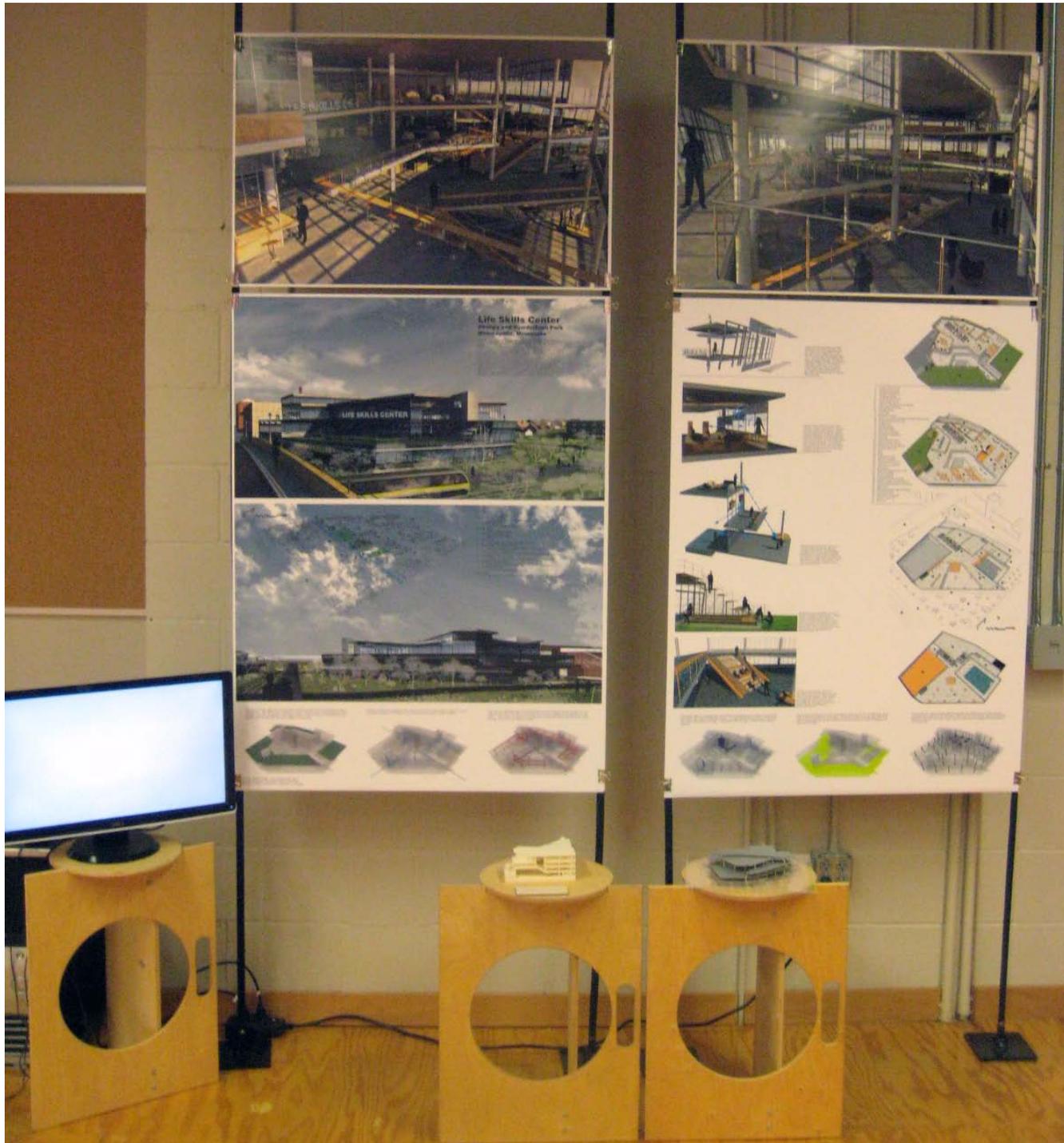


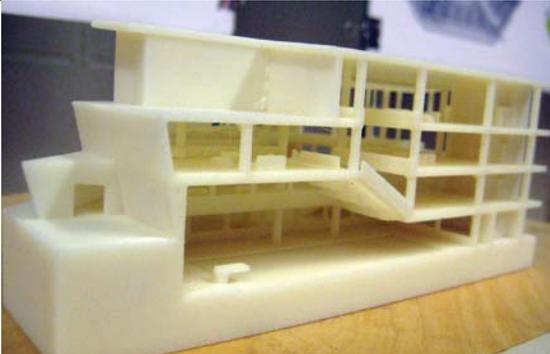
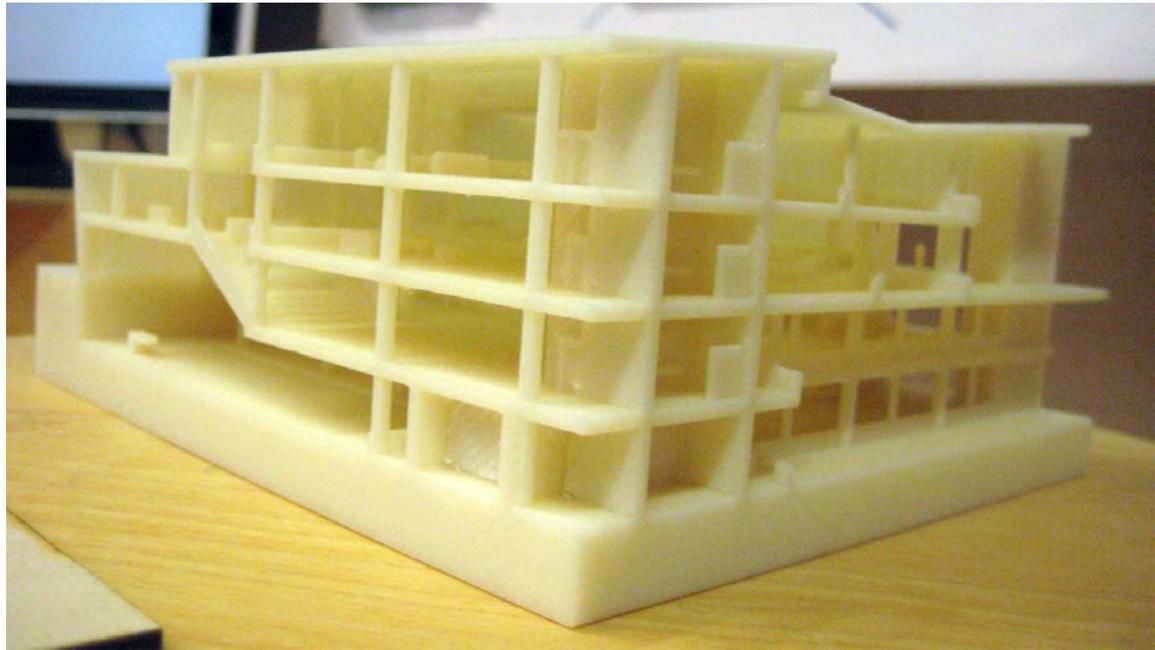
- 1 North Green Roof
- 2 Breakout Rooms
- 3 Group Classroom
- 4 Library/Lounge
- 5 South Green Roof
- 6 East Green Roof
- 7 Open to Shops and Art Below
- 8 Kitchen/Food Prep
- 9 Garden Roof
- 10 Food Bar
- 11 Student Center
- 12 South Lounge (study/tutoring/lounge/study)
- 13 Breakout/Construction
- 14 Auditorium
- 15 Vehicle Shop
- 16 Administration
- 17 Entrance Lounge
- 18 Entrance Vestibule
- 19 Parking
- 20 Mechanical Room
- 21 Men's Locker Room
- 22 Women's Locker Room
- 23 Vehicle Shop Pit
- 24 Gym
- 25 Pool
- 26 Gallery/Lounge
- 27 Men's Lavatory
- 28 Maintenance Room
- 29 Women's Lavatory
- 30 Elevators
- 31 Split Package Mech. Unit
- 32 4th Ave Bridge
- 33 Shop Loading
- 34 Alley/Off Street Access
- 35 Below Grade Parking Ramp
- 36 Vehicle Maintenance Entrance
- 37 Bike Rack
- 38 Midtown Greenway Extension
- 39 Life Skills Park
- 40 Midtown Greenway
- 41 Future Light rail
- 42 5th Ave

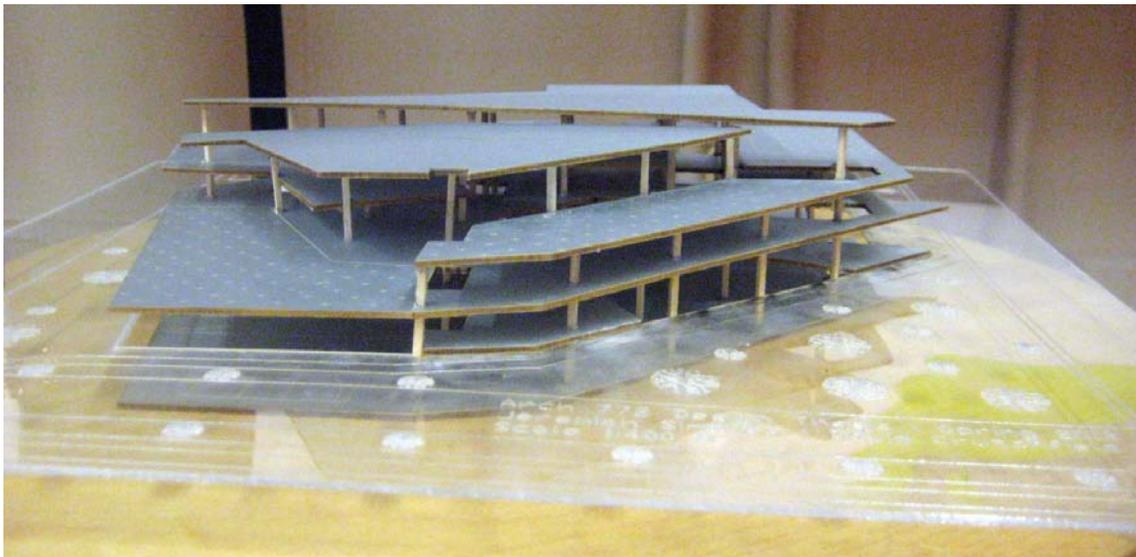
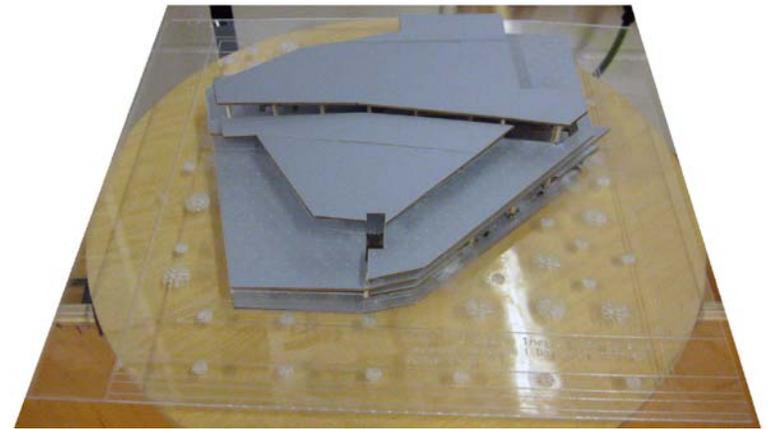
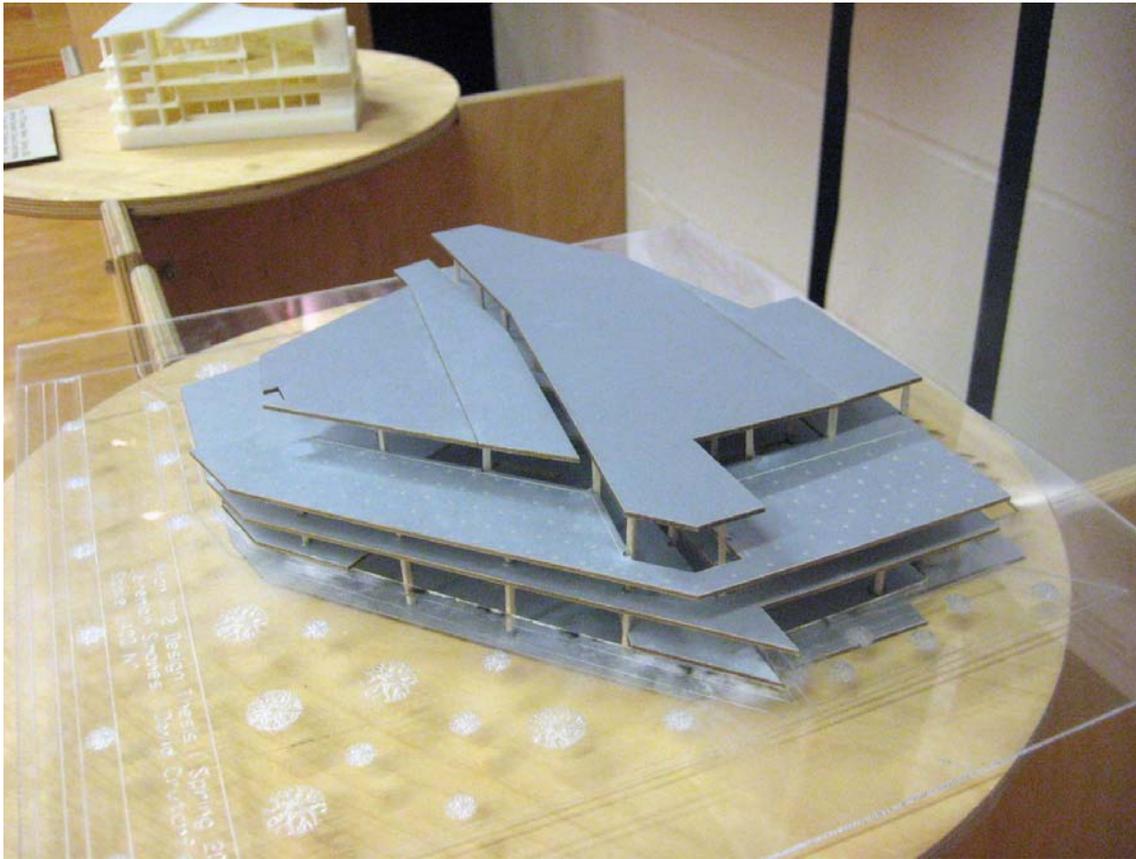












## References

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- Agencies. (2011, Aug. 5). More stadiums than sports in china. Retrieved from <http://www.globaltimes.cn/NEWS/tabid/99/ID/669698/More-stadiums-than-sports-in-China.aspx>
- Allen, J. (2003). Social motivation in youth sport. *Journal of Sport & Exercise Psychology*, 25, 551-567. Retrieved from
- Benefits of parks and recreation. (2007). Retrieved from [http://www.gocolumbiamo.com/ParksandRec/About\\_Us/benefits.php](http://www.gocolumbiamo.com/ParksandRec/About_Us/benefits.php)
- Bridgeland, J. M., Dilulio, Jr., J., & Morison, K. B. (2006). The silent epidemic perspectives of high school dropouts. 12. Retrieved from <http://www.civicenterprises.net/pdfs/thesilentepidemic3-06.pdf>
- Brinkman, T. F. (2005). Confronting the problems of professional sports: A public policy response to franchise relocation and stadium subsidization. Informally published manuscript, Board of Trustees of Vanderbilt University, Vanderbilt University, Nashville, TN. Retrieved from <http://ejournals.library.vanderbilt.edu/ojs/index.php/vurj/article/viewFile/2951/123>
- Community development: charter. (2011, October 21). Retrieved from [http://www.joburg.org.za/index.php?option=com\\_content&task=view&id=2277&Itemid=49](http://www.joburg.org.za/index.php?option=com_content&task=view&id=2277&Itemid=49)
- C. S. Lewis. (n.d.). BrainyQuote.com. Retrieved May 4, 2012, from BrainyQuote.com Web site: <http://www.brainyquote.com/quotes/quotes/c/cslewis165437.html>
- Demand Media, Inc. (2011). Minnesota usgs quad topographic features in hennepin county. Retrieved from <http://www.topozone.com/states/Minnesota.asp?county=Hennepin>
- Duncan, A., & Carmel, M. Office of Planning, Evaluation and Policy Development. (2010). A blueprint for reform: The reauthorization of the elementary and secondary education act. Washington, DC: U.S. Department of Education.
- Fryer, J. (2005, Sep. 11). Saints 23, panthers 20. Retrieved from <http://sports.yahoo.com/nfl/recap?gid=20050911029&prov=ap>
- Furuto , Alison . “Health & Sports Education Center of Kang-won National University / Idea Image Institute of Architects” 18 May 2011. ArchDaily. Accessed 04 Nov 2011. <<http://www.archdaily.com/134897>>
- Google. (2011). Google maps. Retrieved from <http://maps.google.com/maps>
- Helping give Nashville home field advantage. (2011). Retrieved from <http://www.nashvillesports.com/site/community-impact>
- Hennepin County. (2011). Hennepin county property locator. Retrieved from <http://gis.co.hennepin.mn.us/HCPPropertyMap/Locator.aspx>
- Henry , Christopher . “Carroll A. Campbell Jr. Graduate Engineering Center at Clemson University / Mack Scogin Merrill Elam Architects” 18 Apr 2011. ArchDaily. Accessed 04 Nov 2011. <<http://www.archdaily.com/128600>>
- International Olympic Committee, (2011). Olympic charter. Retrieved from [http://www.olympic.org/Documents/olympic\\_charter\\_en.pdf](http://www.olympic.org/Documents/olympic_charter_en.pdf)

- Jordana , Sebastian . “Primary School & Sport Hall / Chartier-Dalix architects” 06 Jun 2011. ArchDaily. Accessed 04 Nov 2011. <<http://www.archdaily.com/141503>>
- Kremer-Sadlik, T., & Kim, J. (2007). Lessons from sports: children’s socialization to values through family interaction during sports activities. *Discourse & Society*, 35-52. Retrieved from <http://www.sagepub.com/oswcondensed/study/articles/01/Kremer-Sadlik.pdf>
- Lewis, C. S. (1997). Etni - english teachers network. Retrieved from <http://www.etni.org.il/quotes/education.htm>
- Lindhahl, B. (2010). Theme: new skills for new jobs - the nordic way. The life and death of a profession, Retrieved from <http://www.nordiclabbourjournal.org/i-fokus/in-focus-2010/theme-new-skills-for-new-jobs-the-nordic-way/creating-new-occupations-as-the-old-disappear>
- Minneapolis demographics profile. (2011). Retrieved from <http://profiles.nationalrelocation.com/Minnesota/Minneapolis/>
- Minner , Kelly . “CALA / Jones Studio” 13 Jan 2011. ArchDaily. Accessed 04 Nov 2011. <<http://www.archdaily.com/103771>>
- Minnesota - climate. (2010). Retrieved from <http://www.city-data.com/states/Minnesota-Climate.html>
- Newsome, M. (2011). Athens’ surprise Olympic dividend. Retrieved from <http://citiscopes.org/stories/citiwire/2011/athens-surprise-olympic-dividend>
- O’Keefe, B., Shaylor, J., Hagan, K., Owens, L., Mullen, S., & Quiana, B. (2005, Feb 5). New Orleans: from Katrina to super bowl 44. Retrieved from <http://abcnews.go.com/GMA/new-orleans-hurricane-katrina-saints-super-bowl-44/story?id=9752021>
- Pathways to prosperity: meeting the challenge of preparing young americans for the 21st century. (2011). Manuscript submitted for publication, Graduate School of Education, Harvard, Cambridge, Massachusetts. Retrieved from [http://www.gse.harvard.edu/news\\_events/features/2011/Pathways\\_to\\_Prosperty\\_Feb2011.pdf](http://www.gse.harvard.edu/news_events/features/2011/Pathways_to_Prosperty_Feb2011.pdf)
- Pathways to prosperity: meeting the challenge of preparing young americans for the 21st century. (2011). Manuscript submitted for publication, Graduate School of Education, Harvard, Cambridge, Massachusetts. Retrieved from [http://www.gse.harvard.edu/news\\_events/features/2011/Pathways\\_to\\_Prosperty\\_Feb2011.pdf](http://www.gse.harvard.edu/news_events/features/2011/Pathways_to_Prosperty_Feb2011.pdf)
- Pelletier, K. (1994). Sound mind, sound body: A new model for life-long health (pp. 137-138). New York: Simon and Shuster. [http://groups.jyu.fi/sporticus/lahteet/LAHDE\\_5.pdf](http://groups.jyu.fi/sporticus/lahteet/LAHDE_5.pdf)
- Phillips community. (2011). Retrieved from [http://www.ci.minneapolis.mn.us/neighborhoods/phillips\\_profile\\_home.asp](http://www.ci.minneapolis.mn.us/neighborhoods/phillips_profile_home.asp)
- Powderhorn park. (2011). Retrieved from [http://www.ci.minneapolis.mn.us/neighborhoods/powderhorn\\_profile\\_home.asp](http://www.ci.minneapolis.mn.us/neighborhoods/powderhorn_profile_home.asp)
- Reid, J. USDA Rural Development, Office of Community Development. (2000).Community participation: How people power brings sustainable benefits to communities. Retrieved from <http://www.rurdev.usda.gov/rbs/ezec/Pubs/commparticrept.pdf>
- Robinson, K. (2001). Out of our minds: Learning to be creative. Chichester, West Sussex: Capstone Publishing Limited (a Wiley Company).

- Rosenberg , Andrew . “Football Training Centre Soweto / RUFproject” 17 Dec 2010. ArchDaily. Accessed 04 Nov 2011. <<http://www.archdaily.com/96408>>
- Sayers, S. (1999). Identity and community. *Journal of Social Philosophy*, 30(1), 147-160. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/0047-2786.t01-1-00009/abstract>
- Short, J.F., Jr., and Strodbeck, F.L. 1965. *Group Process and Gang Delinquency*. Chicago, IL: University of Chicago.
- Statistics on American k-12 public education. (2011). Retrieved from [http://broadeducation.org/about/crisis\\_stats.html](http://broadeducation.org/about/crisis_stats.html)
- Temple University. (2011). University studies parents faq. Retrieved from <http://www.temple.edu/vpus/arc/academicresources/parentfaq.html>
- Thattai, D. (2001). A history of public education in the united states. Retrieved from <http://www.servintfree.net/~aidmn-ejournal/publications/2001-11/PublicEducationInTheUnitedStates.html>
- The 5 lasting values of dance lessons. (2011, July 13). Retrieved from <http://www.danceacademyusa.com/blog/2011/07/13/the-5-lasting-values-of-dance-lessons/>
- Understanding the importance of encouragement. (2007). Retrieved from <http://www.parentingthechallenge.com/encouragement.html>
- USDA. (2011). Web soil survey. Retrieved from <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>
- Vigil, J.D., and Long, J.M. 1990. Emic and etic perspectives on gang culture. In *Gangs in America*, edited by C.R. Huff. Newbury Park, CA: Sage Publications, pp. 55-70.
- Why is physical fitness so important to our overall health. (2011). Retrieved from <http://www.healthhints.org/why-is-physical-fitness-so-important-to-our-overall-health.html>

# Figures

- 1 City of Minneapolis Neighborhoods and Communities (Phillips community. (2011). Retrieved from [http://www.ci.minneapolis.mn.us/neighborhoods/phillips\\_profile\\_home.asp](http://www.ci.minneapolis.mn.us/neighborhoods/phillips_profile_home.asp))
- 2 State Outline Map (<http://www.enchantedlearning.com/usa/outlinemaps/states50/>)
- 3 Phillips Community (Phillips community. (2011). Retrieved from [http://www.ci.minneapolis.mn.us/neighborhoods/phillips\\_profile\\_home.asp](http://www.ci.minneapolis.mn.us/neighborhoods/phillips_profile_home.asp))
- 4 Google Maps Image (<http://maps.google.com/maps>)
- 5 Site Panorama (Simones, Jeremiah, 2011)
- 6 Plan for Procedure (Simones, Jeremiah, excel spreadsheet)
- 7-9 Primary School (Jordana , Sebastian . “Primary School & Sport Hall / Chartier-Dalix architects” 06 Jun 2011. ArchDaily. Accessed 05 May 2012. <<http://www.archdaily.com/141503>>)
- 10-16 Diagrams of Primary School edited in Photoshop (Simones, Jeremiah, 2011) retrieved from (Jordana , Sebastian . “Primary School & Sport Hall / Chartier-Dalix architects” 06 Jun 2011. ArchDaily. Accessed 05 May 2012. <<http://www.archdaily.com/141503>>)
- 17-19 CALA (Minner , Kelly . “CALA / Jones Studio” 13 Jan 2011. ArchDaily. Accessed 05 May 2012. <<http://www.archdaily.com/103771>>)
- 20-28 Diagrams of CALA edited in Photoshop (Simones, Jeremiah, 2011) retrieved from (Minner , Kelly . “CALA / Jones Studio” 13 Jan 2011. ArchDaily. Accessed 05 May 2012. <<http://www.archdaily.com/103771>>)
- 29-32 Carroll A Campbell Jr. Graduate Engineering Center (Henry , Christopher . “Carroll A. Campbell Jr. Graduate Engineering Center at Clemson University / Mack Scogin Merrill Elam Architects” 18 Apr 2011. ArchDaily. Accessed 05 May 2012. <<http://www.archdaily.com/128600>>)
- 33-38 Diagrams of Carroll A Campbell Jr. Graduate Engineering Center edited in Photoshop (Simones, Jeremiah, 2011) retrieved from (Henry , Christopher . “Carroll A. Campbell Jr. Graduate Engineering Center at Clemson University / Mack Scogin Merrill Elam Architects” 18 Apr 2011. ArchDaily. Accessed 05 May 2012. <<http://www.archdaily.com/128600>>)
- 39-41 Health & Sports Education Center of Kangwon National University (Furuto , Alison . “Health & Sports Education Center of Kang-won National University / Idea Image Institute of Architects” 18 May 2011. ArchDaily. Accessed 05 May 2012. <<http://www.archdaily.com/134897>>)
- 42-48 Diagrams of Health & Sports Education Center of Kangwon National University edited in Photoshop (Simones, Jeremiah, 2011) retrieved from (Furuto , Alison . “Health & Sports Education Center of Kang-won National University / Idea Image Institute of Architects” 18 May 2011. ArchDaily. Accessed 05 May 2012. <<http://www.archdaily.com/134897>>)
- 49-54 Football Training Centre Soweto (Rosenberg , Andrew . “Football Training Centre Soweto / RUFproject” 17 Dec 2010. ArchDaily. Accessed 05 May 2012. <<http://www.archdaily.com/96408>>)
- 55-61 Diagrams of Football Training Centre Soweto edited in Photoshop (Simones, Jeremiah, 2011) retrieved from (Rosenberg , Andrew . “Football Training Centre Soweto / RUFproject” 17 Dec 2010. ArchDaily. Accessed 05 May 2012. <<http://www.archdaily.com/96408>>)
- 62 Avg. Temp (F) (Simones, Jeremiah, 2011, Photoshop) info retrieved from (<http://www.city-data.com/states/Minnesota-Climate.html>)
- 63 Avg. Relative Humidity (Simones, Jeremiah, 2011, Photoshop) info retrieved from (<http://www.city-data.com/states/Minnesota-Climate.html>)
- 64 Heating and Cooling Days (Simones, Jeremiah, 2011, Photoshop) info retrieved from (<http://www.city-data.com/states/Minnesota-Climate.html>)
- 65 Cloud Cover (Simones, Jeremiah, 2011, Photoshop) info retrieved from (<http://www.city-data.com/states/Minnesota-Climate.html>)
- 66-69 Photos of Site (Simones, Jeremiah, 2011)
- 70 Shading Map edited in Photoshop (Simones, Jeremiah, 2011) retrieved from (<http://maps.google.com/maps>)
- 71 Vegetation Map edited in Photoshop (Simones, Jeremiah, 2011) retrieved from (<http://maps.google.com/maps>)

- 72 Sun Path (Simones, Jeremiah, 2011) info retrieved from (<http://www.city-data.com/states/Minnesota-Climate.html>)
- 73 Wind Map edited in Photoshop (Simones, Jeremiah, 2011) retrieved from (<http://maps.google.com/maps>)
- 74 Avg. Wind Speed (Simones, Jeremiah, 2011) info retrieved from (<http://www.city-data.com/states/Minnesota-Climate.html>)
- 75 Sun Path (Simones, Jeremiah, 2011) info retrieved from (<http://www.city-data.com/states/Minnesota-Climate.html>)
- 76 Noise Map edited in Photoshop (Simones, Jeremiah, 2011) retrieved from (<http://maps.google.com/maps>)
- 77 Soils Map edited in Photoshop (Simones, Jeremiah, 2011) retrieved from (<http://maps.google.com/maps>)
- 78 Vehicular Traffic Map edited in Photoshop (Simones, Jeremiah, 2011) retrieved from (<http://maps.google.com/maps>)
- 79 Pedestrian Traffic Map edited in Photoshop (Simones, Jeremiah, 2011) retrieved from (<http://maps.google.com/maps>)
- 80 Topography Map edited in Photoshop (Simones, Jeremiah, 2011) retrieved from (<http://maps.google.com/maps>)
- 81 Avg. Rainfall and Snowfall (in) (Simones, Jeremiah, 2011) info retrieved from (<http://www.city-data.com/states/Minnesota-Climate.html>)
- 82 Days of Atleast .01 Inches of Precipitation (in) (Simones, Jeremiah, 2011) info retrieved from (<http://www.city-data.com/states/Minnesota-Climate.html>)
- 83 Legal Lines (Simones, Jeremiah, 2011) info retrieved from (Hennepin County. (2011). Hennepin county property locator. Retrieved from <http://gis.co.hennepin.mn.us/HCPPropertyMap/Locator.aspx>)
- 84 Interaction Matrix (Simones, Jeremiah, excel spreadsheet, Photoshop)
- 85 Interaction Net (Simones, Jeremiah, Photoshop)

NDSU has given me the opportunities to explore and pursue my personal interests and aspirations.



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## Personal Identification Jeremiah Simones

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2124 County Road 44  
South Haven, MN 55382

320 492 3336

Jeremiah.Simones@gmail.com

Annandale, MN