

EMPOWERING YOUTH: THE POTENTIAL OF ATHLETICS

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

By

JeAnna Marie Miller

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

North Dakota State University Libraries Addendum

To protect the privacy of individuals associated with the document, signatures have been removed from the digital version of this document.

May 2022



Table of Contents

List of Tables and Figures.....	6
Thesis Abstract.....	9
Thesis Narrative.....	10
Project Typology.....	13
List of Typological Precedents.....	14
Major Project Elements.....	15
User/Client Description.....	16
Site and Context.....	17
Project Emphasis.....	18
Goals of Thesis Project.....	19
Plan for Proceeding.....	20
Project Justification.....	24
Historical and Cultural Context.....	28
Literature Review.....	32
Interview.....	40
Case Studies.....	43
Site Analysis.....	60
Performance Criteria.....	65

Table of Contents

Research Appendix..... 66

Process Documentation..... 70

Project Solution Documentation..... 82

Performance Analysis 84

Research Method Critique..... 92

Digital Presentation..... 94

Project Installation..... 102

Appendix..... 104

List of Tables and Figures

Fig. 1.1.....	8
Fig. 1.2.....	9
Fig. 1.3.....	9
Fig. 1.4.....	9
Fig. 1.5.....	9
Fig. 1.6.....	12
Fig. 1.7.....	12
Fig. 1.8.....	12
Fig. 2.1.....	29
Tbl. 2.2.....	32
Fig. 2.3.....	42
Fig. 2.4	42
Fig. 2.5	43
Fig. 2.6	46
Fig. 2.7	46
Fig. 2.8	47
Fig. 2.9	47
Fig. 2.10	47

List of Tables and Figures

Fig. 2.11.....	47
Fig. 2.12.....	52
Fig. 2.13.....	52
Fig. 2.14.....	53
Fig. 2.15.....	53
Fig. 2.16.....	56
Fig. 2.17.....	56
Fig. 2.18.....	57
Fig. 2.19.....	57
Fig. 2.20.....	57
Fig. 2.21.....	60
Fig. 2.22.....	61
Fig. 2.23	62
Fig. 2.24	62
Fig. 2.25	63
Fig. 2.26	63
Fig. 2.27	63
Fig. 2.28	63

Thesis Abstract

My thesis focuses on designing a sports complex geared towards mentoring and encouraging young kids in athletics and opening their eyes to future opportunities. Many children today enjoy participation in sports, but society puts so much pressure on performance that the fun of learning and competing is lost. The goal of this project is to create a space that builds character by supporting relationships between athletes, parents, and coaches. In order to succeed in these goals, this project asks the question: how can intentional design influence the people interacting with the built environment? Can a building help foster relationships?

This complex would be structured to support kids of all backgrounds regardless of sport, ability, or socioeconomic status. The master plan includes facilities for multiple disciplines including Special Olympics, non sport specific team building activities, as well as spaces to connect with other athletes and coaches. Overall, the center will be used as a vehicle to make a positive impact on the future of our youth.

Thesis Narrative

As a young student, sports were the most important thing in my limited life experience. The influence of my coaches and teammates may have been one of the biggest factors in developing the character of who I am today. One thing that really helped jump start this growth was the opportunity to attend sports camps both on my own and with my teammates.

I tried all kinds of activities before settling on competing in cross country, Nordic skiing, and track and field in high school. One of my favorite parts of joining the cross country team was the three day camp we attended as a team at the beginning of the season. We would go to a small camp on the river and spend the weekend playing silly games, working on speed and endurance, and learning about the history of the team. This short amount of time was invaluable for us to get to know our teammates and learn the culture of hard work and respect, which had been carefully cultivated by our coaches over decades of experience.

Because of my talent and my family's resources, I was also blessed to be able to attend multiple sport camps on my own for cross country and track and field. I enjoyed them immensely, and they were a good recruiting opportunity for college athletics. In fact, the camp I attended at NDSU was very influential in my decision to join the Bison Track and Field team. However, as a retired athlete, the most important things I learned from sports weren't technical skills, but soft skills like leadership, teamwork, time management, and work ethic. These were a result of building relationships with teammates and coaches who poured into me as a student and helped me grow and mature not only as an athlete, but as a person. As a coach, I've seen firsthand the effects that an encouraging mentor can have on a young athlete. With the vast number of children today who participate in sports, it's important that we seize the opportunity to teach and encourage our kids.

I believe that sports camps can be the perfect setting for teaching these sorts of skills and building these relationships. However, access to these camps can be difficult, especially for kids involved in team sports. For one thing, they can be expensive. Depending on the length, location, and equipment needed, the cost can deter many parents from letting their children

participate. Schools may not have the budget to allow attendance either, and smaller teams don't always have the support of booster clubs and other outside donors. The availability of facilities can also be a challenge for teams wanting to participate in a camp in season; while many colleges host different camps during the summer or off season, their facilities and schedules would struggle to accommodate everyone at the same time.

The other factor is more psychological; when I attended sports camps on my own, there was a certain stigma that the kids there were either rich or really good. While it's important for kids to have dreams, it's also important to know that very few high school athletes will continue to play in college, fewer will go D1, and even fewer will go pro. Some kids may not possess the talent to compete at such a high level, and many just want to have fun. The lessons learned and the fun enjoyed shouldn't be limited to those with money or a high skill level; it's important that these camps be accessible to all socioeconomic classes and all kids regardless of ability. I want to create a learning environment free of the pressures that kids feel to perform while opening their eyes to future opportunities. Whether it's a career as an NBA basketball player, or simply realizing they do have the determination to obtain a college degree, these life lessons can have a major impact on a child's future. These sorts of camps have so much potential; I want to capitalize on the opportunity to teach kids and make that opportunity available to all of them through a well designed space.

Project Typology

Design for Kids

This project will be design with kids ages 12-18 as the main users (middle school and high school students). This means the building needs to be durable and safe. I want to make sure it promotes learning and growth, similar to a school.

Design for Sports and Physical Activity

This project is designed for both structured athletics and unstructured play. This means that the building will house the specific facilities needed to support specific athletics, as well as more general multi-use spaces. The surrounding site will be designed for less structured play to encourage kids to spend time outdoors.

Design for Community

While children will be the main users of this space, I want it to be able to be used by the surrounding community. This means the spaces need to be accessible and available for rent.



Fig. 1.1

List of Typological Precedents



Fig. 1.2

Piedmont Hills High School Science and Life Skills Complex San Jose, California

This new facility focuses on a single aspect of the high school education: science. The goals of the building were to create a cost effective, energy efficient space with indoor and outdoor classrooms all in effort to make learning fun for the kids.

Kloden, Egmont High School Hou, Denmark

The sports center for Egmont High School is unique in how it integrates handicap accessible solutions into their facility. Since many students deal with disabilities, the design of the space provides elements to suit distinct needs while creating a cohesive and interactive environment.



Fig. 1.3



Fig. 1.4

Northstar Christian Academy Sports Complex Alexandria, Minnesota

The Northstar Sports Complex is the national headquarters of the Fellowship of Christian Athletes hockey program, housing one sheet of ice and additional ice support space. The campus also includes a small school with several classrooms and a chapel for intentional learning and spiritual growth.

The São Luís Sports & Arts Gymnasium São Paulo, Brazil

The São Luís facility in Brazil is part of an update to the educational system in the area. The new building boasts four outdoor sport courts, a gymnasium plenty of natural lighting, and open air circulation. The facility is also very sustainable by controlling solar heat gain and collecting rainwater.



Fig. 1.5

Major Project Elements

ATHLETIC COMPLEX

basketball, volleyball, soccer, football, soccer, track and field, hockey, weight room, locker rooms, practice fields etc

LEARNING SPACES

common gathering areas, digital viewing classrooms, study spaces, etc.

OUTDOOR ACTIVITIES

practice fields, water activities, hiking/running trails, challenge course, backyard games, etc.

PROGRAM SUPPORT SPACE

dormitories, kitchen and dining, offices, welcome center, storage

User/Client Description

The client for my project is Fellowship of Christian Athletes (FCA). FCA would have the main ownership and use of the camp, running one or two week sport specific camps for students during the summers while the rest the year will be open to guest groups. For example, there could be a football camp hosted by FCA for one week in July that kids from all over the area could participate in. Then in early fall, a specific school could rent the facility for a weekend of team building with their specific football team. The facility could also function as a host for competitions for schools, clubs, and other organizations. The clients could structure their staff between part time summer staff and full time management. This structure is often used by camps around the country; oftentimes college students may work at camp during the summer while adults take full positions such as administrators, maintenance management, and hospitality for the rest of the year. The main demographic I want the clients to focus on is middle school and high school aged youth from a variety of socioeconomic backgrounds; however, guest groups are open to younger children, college students, masters divisions and families.

Site and Context

One of the goals of this project is to create a space where kids can experience nature. Given my own upbringing in Minnesota, I'd like to work in an area with which I'm familiar and have invested a lot of time and effort. The camp will be situated in a small town area where it's not hard to escape the urban jungle but still has adequate space for lodging and food for additional travelers. Since the greater Twin Cities is the largest metropolitan area in the Upper Midwest, the camp will be located within a few hours of the heart of the city. This can help keep costs low for many participants by reducing travel time.

Three different sites were considered: Lacrosse, WI, Winona, MN, and Alexandria, MN. Each of these small towns is within about two hours from Minneapolis and boast of notable natural beauty. LaCrosse was ultimately chosen for various reasons discussed later.



Alexandria, MN

Pros: Near I-94, lots of lakes, central MN, low crime rate

Cons: not near any major colleges



LaCrosse, WI

Pros: beautiful bluffs, on the Mississippi River, near I-90, U of W nearby

Cons: higher crime



Winona, MN

Pros: near the river

Cons: high crime rate

Project Emphasis

To create a space where kids can escape the business of home, experience nature, and focus on learning important life skills to prepare them for the future through athletics. The complex will have the intention of fostering relationships between athletes and coaches, promote future involvement, and focus on character development before technical development.

To create a space that promotes holistic well being; the building should be sustainable and include plenty of natural light. The building is centered around relationships, not sports. Of course, people are needed to create this sort of programming, but architecture can encourage those relationships.

To create a pattern for other camps around the country that can be integrated into a specific site with specific sports in mind.

Goals of Thesis Project

1. To inspire young athletes to learn and grow through physical activity, competition, and positive relationships.
2. To affirm the value and dignity of athletes through quality design and intentional programming.
3. To promote well being by creating a safe learning environment that address body, mind, and spirit; holistic well being.

Plan for Proceeding

Design Methodology

- Graphic Analysis
- Interviews
 - Mark Nelsen (former cross country coach, YMCA board member)
 - Meghan Orgeman (track and field/strength coach, high school guidance counselor)
 - Northstar Christian Academy Staff
- Site Visits
- Online Research

Documenting Design Methodology

- Prioritize Data Collection and Assessment
 - Interviews
 - Research Precedents
 - Research Child Psychology
 - Analyze Potential Sites
- Compile Digital and Physical Research into Sketchbooks and Google Suite
- Organize Information to PDF
- Print Thesis Research as a Book

Plan for Proceeding

Schedule

October 17-23

- Site visit on weekend
- Formulate interview questions

October 24-30

- Reach out to interviewees, schedule meeting times
- Continue researching precedents

October 31-November 6

- Research sports psychology

November 7-13

- Research child psychology
- create graphics for psych research

November 14-20

- Finish interviews

November 21-27

- Choose site
- Create graphics for site analysis

November 28-December 4

- Finalize Thesis Goals

December 5-11

- Finish site analysis
- Start organizing graphics in InDesign

December 12-16

- Finish organizing PDF

RESEARCH







PROJECT JUSTIFICATION

Why is the project defined important to me as a person?

My project is important to me because I have a lot of personal experience in sports in K-12, clubs, and college as well as coaching. There's so much potential for personal growth and learning, but there's also a lot of stress surrounding amateur sports. I want kids to be able to have the same good experience that I learned to pursue only after going through a lot of stress and frustration.

Why is it important to do this project at this stage of academic development?

This is the first project I've had that is a fully integrated design experience with a topic that I get to choose. Technically wise, it will give me an opportunity to put all the skills I've learned in this program to use. In regards to my design philosophy, it gives me an opportunity to pursue something I'm passionate about and help me develop my priorities as an architect.

Why is it important to do this project at this stage of your professional development?

Thesis can be as close or as far from reality as we choose to make it. The importance is that it's our last chance as students to fully immerse ourselves in a design topic that we choose, not given to us by a client. I think this choice is fundamental to continuing to develop our design philosophies before starting full time work. It gives us a chance to discover what matters to us as people and as designers and opens the imagination to the possibilities given to us by our degree.

How is the project going to add to my knowledge base?

This project will help me learn how to research, how to read, how to let old tradition and current thinking inform my design.

Why is doing the project important for the profession at this time?

I think it's incredibly important for our profession to recognize the importance of people, of belief, and of relationships. Some firms do this well and some do not; this project can become an example of choosing the priorities on which we base our projects.

Why is the project important as an academic exercise at this time?

This project is important to academia as exploration. As a project that will likely never be built, I have the privilege and obligation to push the limits of what architecture can do simply for the sake of wondering. The theoretical nature of the project provides opportunity for growth and progress while minimizing the risks and repercussions of failure.

Is the expenditure of funds to implement the project justified?

Parents are already spending ridiculous amounts on youth sports; the funds required for this project are nothing out of the ordinary, but may yield a benefit greater than simply financial aspects.

Where might the funds come from for the project, and are the sources justified?

There could be multiple sources for the project funds; since this project is being built with an organization like FCA or Young Life in mind, most of the funds would probably come from them. Other possibilities could include local schools and churches, who would likely help provide scholarships to cover the fees of the children who attend, which would also help cover a portion of the building costs.

Is the project justified based on a return on investment? Are these returns monetary, or are they intangible?

The return on investment on this project is mainly intangible; it would help influence our youth for the better and empower them to become leaders in their communities back at home, impacting multiple communities. However, a facility like this would be able to host events such as tournaments, games, or family events to help generate revenue.

Why is the project important to be implemented in its social context?

This project is important because the culture of youth sports needs to be changed, not only for the kids but for parents as well. Excelling in athletics has now become a way to join "the cool kids," the "achievers" when in reality, these kids are all on the same playing field. It also needs to be changed in the parents mind that youth sports is not a means to an end, not a ticket to a full ride scholarship.

Why is the project important to be implemented in its cultural context?

The culture of youth sports is very competitive and driven, and matters to a lot of people in America. It's important that parents and children view athletics as an opportunity to learn, not an opportunity for scholarships.

How is the project justified in its chosen site location?

The project was placed in the particular location because of its proximity to the I-90, the distance from Minneapolis/St. Paul, and the number of colleges in the area. Being near a metropolis and a major interstate helps to reach a large number of students, and the numerous colleges nearby provide opportunities for partnership including use of facilities, networking opportunities with coaches and athletes, and the potential for college athletes to become part time staff.

Would the project contribute to the advancement of the profession?

Yes; this project can serve as an example of how architecture can influence and foster relationships.

Can the project be left for someone else in the profession to solve? If so, why should you solve it?

Any project could be left for someone else to solve given direction. However, what makes me capable and necessary for solving this issue is that I have a vested interest and concern for this problem. That's why it is imperative to have diversity in our firms; it's so we can gain different perspectives. Other people can bring problems to light that we might not have seen and solve them in ways that we may not think of.

HISTORICAL & CULTURAL CONTEXT

HISTORY

Organized sports couldn't have started without requiring all kids to go to school. Massachusetts did this in 1852, and by 1918 all of the other American states had done the same. Compulsory schooling first began adding structure to a child's day, which in turn generated "free time." Safe places to play, such as playgrounds popped up as a result of this framework of time, followed by organized sports. Sports provided even more structure, and offered life lessons that kids couldn't be guaranteed to learn in the park or on the playground.

The Great Depression essentially wiped out public funded programs, causing fee based programs to take their place, such as Little League Baseball. Unfortunately, poorer families were fenced out of athletic opportunities. While these "pay to play" league grew in size and popularity, concerns were raised about the separation between children with talent and those without. By the 1960s, a movement had been created around self esteem and putting off the start of interscholastic sports until middle school, which is still generally the case today.

Prior to 1972, most sports catered to boys. However, after Title IX was passed, the number of girls playing sports exploded. Before this act, only one in every twenty-seven girls was involved in sports. In 2016, two out of every five girls was involved in high school athletics, an increase of almost one thousand percent.

Later in the 70s when the Baby Boomer generation started graduation high school, colleges were swamped with a record number of applicants. Prior to this, being smart was good enough to get into school; now colleges had to be more selective. Excelling in athletics became a ticket to college, a new way to differentiate from the "average student" and opportunity for scholarship. Parents who saw an opportunity started pushing this level of competition as the norm, which created a new breed of athlete: the specialist.



CULTURE

Since the normalization of athletic scholarships, youth sports programs have become more and more specialized and competitive, forcing kids to choose early and commit fully. This also took resources from local leagues and again pushed the less financially fortunate out of the picture. Sports has become a status symbol, a way to separate the “cool” kids from “the rest.” Some of this is due to the tendency of comparison and wanting to fit in during the turbulence of adolescence. However, much of this is due to the culture that has been created around athletics, from parents, from coaches, and the rest of society.

One question to ask is who is being served by youth competition: the parents or the students? While the answer to that question should be obvious, parents are almost becoming a higher priority than the kids. As one parent put it, “youth sports is now a form of entertainment for the parents. We’re just giving them what they want.” It’s clear that the effects of travel sports and multiple games a day are damaging to the kids and their programs, so why does the status quo continue?

Some parents may be living vicariously through their kids, but most are not intentionally trying to hurt their children. One of the problems is cost. Many parents feel the need to “get their money’s worth,” playing five games in forty-eight hours because they want to feel that the time and money was worthwhile. Yes equipment, venues, and travel are all expensive, but the root issue is that we view that sport as an investment, a means to an end. If that end was to learn life lessons and have fun that would be one thing, but generally it’s not, and this needs to change.

In the 70’s when sports first became a legitimate means of accessing college, we had no reason to think it would change the culture of athletics, but it affected everything. Now instead of character building and a good time, there was a monetary dream attached, one that many parents have fallen prey to, and by proxy, their children. Becoming elite, playing D1, and going pro have become the hopes and dreams of so many kids, which in and of itself isn’t bad, but can be dangerous when it becomes the only goal.

This drive to become elite at a young age puts both an over and under emphasis on winning, and creates a culture that discourages enjoyment. Programs putting all the emphasis on winning travel long distances, make cuts, and don’t distribute even playing time all in the name of competition. While sports is a place to win and lose, introducing an atmosphere of ultra competitiveness at such a young age doesn’t allow a child time to develop that sense of competition on their own. Instead, rivalries are created and loss comes with bitterness. On the other hand, giving everyone a trophy takes away an opportunity to learn how to be a

gracious loser, and when the reality of losing is finally experienced, again there is bitterness. Saying that everyone is amazing is just another way of saying no one is. Both approaches are only concerned with short term goals, but ultimately set kids up for failure in the long run. This is the opposite of the lessons that sports are supposed to teach.

We must consider the purpose of youth athletics. Is it to get a scholarship? To win at all costs? Or to build character? So many parents are sending their kids to camps to perfect their skills and learn to compete. At the heart of this competition is play, which is essential for learning, and if we want kids to learn, the environment must reflect that desire. This is where architecture comes into the picture.



Fig. 2.1

LITERARY REVIEW

Learning in Sport: From Life Skills to Existential Learning

Noora J. Ronkainen

SUMMARY

The widespread belief that sports are an excellent learning tool and contribute to youth development is both widespread and standard throughout the United States. However, research and communities are unclear on exactly what the educational benefits of sports are. While everyone agrees to the importance of sports, the knowledge base surrounding that idea is scattered and conflicting. Sports psychology generally focuses on life skills, concepts that can transfer to non sport activities such as setting goals, teamwork, and time management. This paper looks at the broader “things” learned in sports that are supposedly transferable and their usefulness, and proposes a more extensive form of learning that can contribute to growth and self awareness.

EXPLORATION OF CONTENT

LEARNING LIFE SKILLS

Generally the “life skills” associated with sports include setting goals, controlling emotions, discipline and work ethic, and regulating self esteem. When life skills are the main focus of learning, there’s no questioning of what is being learned, and fails to see a broader opportunity for learning. What is being learned is simply boiled down to what is positive, useful, and functional. While this can be true, there’s no guarantee that each child will have this experience. Stress, exclusion, and arrogance are all also by products of sports that cannot be ignored. While these things are not the positive experience we hope for our children, they should be treated as valuable learning experiences rather than problems to be hidden and removed.

Life skills are also difficult to quantify. There’s a reason they are also called soft skills; they are difficult to measure and list. They are defined as skills that can be transferred to other disciplines, but exactly how and when that transfer takes place is hotly debated. Aside

from things like setting goal and time management, there are many personal qualities, values and attitudes that are taught that may not be filed as skills at all. Work ethic and self esteem are not easily listed on a resume, yet they are still learned and taught. The question is how?

A great metaphor for life skills is a tool box; each skill is added to the box and taken out and used later in life as need arises. The way these tools are added to the toolbox is debated; are they simply gathered as a by-product of participating, or do they need to be taught intentionally? Simply being involved does not guarantee learning, but creates an opportunity through creating a certain environment.

Many sport studies do not clarify how skills are transferred, and many that do shrink a whole experience to a category that doesn't make sense. There is also the assumption that the method of skill transfer is the same even though the range of life skills we could list is extremely diverse. Transferring goal setting from football to job seeking is one thing, teaching identity transformation that transfers between experiences is another.

There is also the possibility of wanting to avoid teaching and transferring certain skills learned in sports. The competitive nature of athletics teaches some to be ruthless, aggressive, and arrogance. This requires coaches, parents, and athletes to be mindful of what is being learned regardless of what is being taught.

While life skills are supposedly empowering, they are often a means to a capitalistic end: creating economically productive citizens. Sports can often be seen as a way to curb deviance and establish confidence, even dominance. While they seemingly promote self sufficiency and autonomy, our kids are very much under the influence of coaches, who in worst case scenarios, essentially become disciplinarians that kids are subordinate to. A major issue is that sports generally lack in teaching critical thinking. In teaching responsibility, many coaches simply teach obedience, discouraging creative thought and independence. There's a reason for the "dumb jock" stereotype; most sports don't teach skills that motivate social change. This paper doesn't offer solutions to these problems, but instead an alternative train of thought. The alternative to assuming a false assurance of skill transfer is to embrace the messy, non linear learning patterns that have always defined humanity.

Existential Learning

Existential learning delves more into transformation and character development rather than rational competence development, embracing the ambiguity and fluidness of humanity. Instead of practical skills, it focuses on meaning and value in choices.

Existential learning can focus both on self and environment. Learning associated with self is relational and requires reflection. Sports may teach a student that they are strong willed and resilient, but can also teach them about their fragility in body and emotion. By reflecting on both strengths and weaknesses, athletes can learn more about themselves and thus make resolutions towards inner change. The outward focus of existential learning teaches about relationships, both the positive and negative aspects. Recognition of those negative experiences lends an honesty to sports that lets athletes choose how they want to respond.

An existential view of learning recognizes that some kinds of learning are difficult to articulate, and may even happen subconsciously. Instead of adding tools to a toolbox, it focuses on the habits formed by reacting to new situations and experiences. An encounter with something new or negative forces us to reevaluate our current way of thinking and allow for new possibilities. Though there is uncertainty, it does not mean the coaches have no role; instead coaches and mentors are required to get to know their athletes personally to figure out how they process these encounters and what is most important to them.

Focusing on an existential learning style helps reinforce the distinctiveness of each individual and encourage their capacity for growth. While life skills can help with social competency, existential learning recognizes the importance of the individual. Instead of the outcome being a means to achievement, the outcome is change and self improvement. It allows students individuality instead of being objects of another's agenda. The goal is to develop athletes who can think critically and creatively about their own involvement in sports, and can avoid continuing the cycle of harmful attitudes and practices.

	LIFE SKILLS	EXISTENTIAL LEARNING
WHAT?	Skills and competences (Objective, standardised)	Being-in-the-world (Subjectivity, uniqueness)
	Positive entities/experiences	Both positive and negative experiences (crisis)
	Functional abilities	Understanding, attunement
	Active dimensions	Both active and passive dimensions (e.g. openness, receptivity, affectivity)
HOW?	Mainly taught	Mainly caught
	Teacher-led	Learner-led
	Linear and continuous processes	Non-linear and discontinuous processes
	Accumulation / Adding to the toolbox	Crisis -> Critique -> Transformation
	Demonstration, modelling	Encountering otherness
	Practising in a narrow sense (improving skills)	Practising (effort and repetition) in a broad sense aimed at self-transformation
WHY?	Employability, productivity	Meaningful life
	Socialisation to dominant norms	Critical awareness
	Adaptation	Authenticity

Tbl. 2.2

REVIEW

Generally, I agree with much of this article. The shift in learning focus is slight, but could have a big impact on how sports are implemented and perceived in culture, and relates quite well to the change I want to inspire through my project. The effects of this article mainly relate to the language I will be using when describing the goals of my design. In designating uses for spaces with particular vocabulary, I can help influence coaches and staff in how to program their team philosophies. One thing I found lacking in this article was clarity; though much of the complaint with focusing on life skills was lack of definition and narrow mindedness I did not find their open minded solution to provide much more definition of learning. While I appreciate the recognition of the ambiguities of learning, I believe there needs to be more structure. The problem with their view of existential learning is that it is very reactive; letting students learn from both good and bad experiences. While this is important, adults need to be actively teaching positive lessons to students in order to help them prioritize good behavior not only as a productive citizen, but to grow deeply as an individual. This cannot be done without a clear set of morals to guide and teach students while they are still learning how to form meaningful relationships with others around them.

LITERARY REVIEW

The Good Father: Parental Expectations and Youth Sports

Jay Coakley

SUMMARY

This article explores the expectations of parents, specifically fathers and how they relate to youth sports. Parenting expectations have changed quickly in recent years for fathers involving the changing of traditional family values (like fathers as the heads of households), the feminist movement encouraging gender equity for parents, and progressive ideas of sexuality and gender. All of these factors contribute to parents being held more responsible than ever for their kids' locations and behaviors. When the quality of parenting is tied to the actions and achievements of the children, it's natural that parents would turn to something like sports to monitor the success of their children and thus themselves. Sports are easily measurable, and since men generally have or claim to have more knowledge of the subject, they have become a way of linking a child's success with the value of the parent.

EXPLORATION OF CONTENT

CHANGE AND GROWTH OF YOUTH ATHLETICS

The author reflects on the changes in how the child/parent relationship is viewed in terms of sports. As a young boy when he excelled, his father was told he was lucky to have such a kid. As a father himself, observers remarked that he must be proud of his children's accomplishments. Now athletic achievement is in some ways directly attributed to the parents, shown by fathers being interviewed in hopes to answer how they created such a successful athlete. This cultural shift is seen all over the United States; fathers are expected to actively advocate for the success of their children. As social standards have changed, the meaning and purpose of fatherhood has been neglected by researchers, the thought being that the role of father and mother are equal. However, for the purpose of this article, the author focuses on fatherhood as it is easier seen in the history of how parent/child relationships have evolved in sports.

Youth sports have been growing in popularity since the 1950s for a number of reasons:

1. An increasing number of single parent families
2. The growing view that parents are solely responsible for the control of their children and development is directly impacted by parenting strategies
3. The assumption that involvement in sports automatically generates positive experiences and character growth
4. Belief that the world outside of the home is dangerous
5. Concern that children (mainly boys) will engage in deviant behavior unless controlled by adults
6. Increasing cultural status of athletes and sports related events

These reasons in particular explain why parents prefer to have their children under supervision. Sports are also easily scheduled, easily measurable, and contain the possibility of future status and position within a community. All of these reasons taken in conjunction with one another make it obvious why athletics are such an attractive opportunity to parents. For fathers, they become a comfortable setting where they can prove their competency through the performance of their children.

Fatherhood in Contemporary Society

Changing definitions of fatherhood also impact the relationship between sports and children. As they were historically the primary breadwinners of families, fathers easily and often became alienated from their wives and kids, leaving mothers to develop the closer and more nurturing relationships with their children. Because of this, the power of a father in the home became increasingly tied to income and the ideology of male supremacy. This power became even more eroded as more women began to work outside the home after WWII. Feminism only forced the issue, and soon fatherhood was left in the limbo of an undefined role, split between public and private life. Adopting a hands on co-parenting approach was and still is seen as unconventional and uncomfortable by many men, making them even more defensive. Since men felt out of touch with their families and were offered little flexibility with their work, they were faced with either renegotiating their job/career or aggressively work to change the domestic sphere to be more male dominant.

While this explanation is simplified, it is fairly accurate. Many men were not surprised by these challenges and may have seen them coming, but still had to deal with them. However, the actual time that fathers have spent with their children has barely increased over the years. The discrepancy between the new style of fatherhood being preached in the states and the lack of quality time with children is something that needs more research and time to be fully understood. However, the involvement of fathers in their children's athletics does provide some insight into the dynamics of twenty-first century fatherhood.

Fathers and Youth Sports

Sports have consistently offered fathers an opportunity to be involved with their children without challenging gender norms. While operation of churches, schools, and childcare have been largely dependent on the work of the female, youth sports have become increasingly institutionalized rather quickly. In some ways, the men that serve as coaches and officials are very committed to traditional gender norms (think of the coaches that refer to the players as “girls” when they are playing badly). Another aspect of this can be using sports as a way to toughen their boys up for the real world, or reaffirming that females are still “ladies” even though they are athletes. Mothers also contributed in gender normative roles to make sports enjoyable for their husbands and sons by serving as launderers, chauffeurs, cooks and social directors while the fathers coached, critiqued, scouted. In this way, both parents claimed a moral value out of the achievements of their children in athletics.

Some parent involvement may be guided by progressive ideals, others use it as “quality time” away from home while the wives continue to take care of all the domestic obligations. And, in cases where a child shows exceptional talent, the father often takes main responsibility for selecting clubs, equipment, and pays the bills, reaffirming his status as a good father, though he often does not drive the children to practice or do their laundry.

With all of the parenting opportunities in place, it’s not surprising that fathers become comfortable using athletics as a vehicle for spending time with their children. Even as those programs have become more exclusive and expensive, parents show increasing willingness to alter their budgets and schedules to accommodate those costs. For example, parents of elite ice hockey players spent an average of \$5000 and \$20,000 per year for the participation of that one sport. Although they admitted that the expense was excessive, they continued to believe that the time with family and potential future payoff of status or scholarship was worth the money.

Parental Commitment to Children’s Athletics

The commitment of the parents to their child’s activities is vital because of the massive drain of money, time, and energy. Before the 1980’s, most of children’s athletics were funded by the public and organized by neighborhood, so kids could be involved without significant drain of financial resources and parental involvement. However, as these programs have become more privately owned, regional, and competitive, children are more reliant on their parents for participation. However, parents have seen participation as more and more important as time goes on.

Most parents believe that sports produce positive experiences, and many hope for future benefit, whether it be financially or socially. However, this does not explain the feeling of

total responsibility that parents seem to feel for their children's achievements; that is explained by the inherent value of themselves that parents tie to their children. If a child fails visibly, the parent is considered responsible. If the child excels, the parent is held in such high esteem that they are consulted by others looking to improve their own parenting skills. Because of this, parents internally blame themselves for their child's failure, and feel deserving of special credit when they succeed.

With this in mind, sports have become a way to symbolize the moral value of the parent. Talented athletes are a valued commodity, which leads parents who feel the need to "invest" in their children's sport; to not make that investment would be a moral failure. This in turn means that single parents or low income parents who lack the resources to make those investments are failures as parents. The atmosphere of competition on the kid's field is extended to the social structures of their families. Being "good becomes" "being good at things," and development of skill is appraised only in comparison to others.

Are the issues of fatherhood contributing to the commitments required of parents and the competitive nature of sports? The author believes this to be likely. As fathers feel obligated to be involved in the lives of their children, sports offer a path that allows them certain privilege as men and allows them to be involved in a way that lets them claim they share the responsibility of their children's upbringing with their partners. The lack of research in this area only contributes to the continual allowing of this behavior and means this paper can only be described, as the author calls it, "informed speculation." The hope is that it spurs further research into the dynamics of fatherhood to correct these problems in the future.

REVIEW

I found this article to be a surprisingly harsh take on fatherhood, but the self awareness of his writing was refreshing. While I would not say that the problems with athletics for our youth are distinctly a result of the brokenness in father/child relationships, I do believe that it is a factor. As I am not a parent myself, I can't speak from experience about the difficulties in tying one's own value to their children, but I can imagine. The culture of sports does not make this any easier. If anything, I found it encouraging that tackling this problem can affect not only kids, but parents as well. I can certainly relate to the competitive nature of these programs, and also fall victim to the stress of trying to meet unrealistic expectations. While my parents were clear about affirming my value outside of performance, the atmosphere of society and the cultural expectations still made sports difficult to navigate. This system sets both the child and parent up for failure, as value is assigned in comparison to others' performance instead of something inherently possessed as human beings. This article reaffirmed a lot of my own experience, and reaffirms my theoretical premise of wanting to create a space where sports are an activity to be enjoyed, not a place to assign personal worth.

INTERVIEW

RICK RANDAZZO

Executive director of Northstar Christian Academy
Former United States Naval Academy head hockey coach

Could you explain a bit of your background? How did you become involved with Northstar?

I started with FCA hockey 2008 running camps and clinics around the country (all 50 states), and eventually met with the people looking to start Northstar in Alex. The entire program is centered around discipleship.

Can you describe the mission of Northstar and how you hope to accomplish it?

The goal for Northstar Christian Academy and the Knights hockey program is to develop athletes to become fully devoted to Christ. The mission for the sports complex is to provide safe place where athletes and coaches can come and compete as well as grow in their faith.

What does participation in the academy look like?

We have 48 players who have moved from across the country to compete on our team and learn. They have a full class load through the Academy. We want them to develop in academics, athletics, and their spiritual life. They live with host families around the town and play teams from across the country.

Do you have to join the academy to have access to the space?

No; the Alex hockey association rents the ice, and the soccer, football, baseball and ultimate frisbee teams rent the field house. The space has also been used for lacrosse clinics, track and field training sessions, and birthday parties. And obviously it's available for FCA camps.

Any thoughts to starting a girls team?

Yes, it's a popular question! We'd like to start a girls team but first need to hire a female leader; we're currently not set up to have another team, but look forward to that in the future.

How do you integrate your faith with the nonprofit; is everyone welcome?

This is somewhat tricky, people get offended by things and they share it with us. The opportunity is there; people can use the space and if they don't like what we stand for they don't have to. We have a statement of faith that you do have to read when you rent the facility, and have the ability to deny anyone access as the owners. Our goal is to eventually have 100 percent of our programming with a Christian component. The idea isn't to kick out the Alexandria baseball [or other sports] team but to also start some Christian baseball programming.

What was your role in the design process of the campus?

I was one of two or three of us who did a lot of design. We worked on design for a school first. We bought almost 40 acres, the school was built first, then sports complex. FCA/NCA is the main user. We looked at other ice rinks [Utah] as case studies and found that including indoor soccer expanded our opportunities significantly. We added ten more sports just by adding turf to our facility.

How was the design of this facility affected by the Christian principles of you (the clients)?

Our main chapel inside is all glass, everything is fully visible. Other teams get a chance to be part of chapel worship.

Do you think the buildings themselves affect your athletes/users beyond just a practice space or learning space?

Yes, the team from Chicago was blown away by everything they saw. Our building helps in recruiting, D1 college coaches get excited when they see it. The facility is incredible for coaching, for the program, and for the school.

What are some of your hopes and dreams for your program and facility?

Right now we have the school and the sports complex. We'd like to add dorms, outside fields, a large field house [for a second ice sheet]...

We'll be moving to 3 teams soon [currently have two teams]. We're the number two prep team in the country and get hundreds of applications every year, it's been incredibly successful. Expanding to include another team will allow us to turn away fewer students.

Why didn't you choose to place this in a larger community?

We didn't want in a bigger city because we wanted Northstar to be really important to the town. We have a bigger impact in a smaller community. For example, we helped with a major fundraiser for the police and fire department, there was three or four hundred people involved, and it was a big deal to see NCA there. We have a large presence here.



CASE STUDIES

Piedmont Hills High School Science and Life Skills Complex



QUICK FACTS

Project Type: High School

Location: East San Jose

Size: 177600 square feet

Key Elements: cost effective, energy efficient, indoor-outdoor learning, making learning fun

Program: three buildings, one story classrooms and labs, outdoor terraced seating

Architect: LPA



Fig. 2.3



Fig. 2.4

PROJECT INFORMATION

The science and technology program of Piedmont Hills was long housed in temporary facilities. Because of growing student interest and population, the school needed to expand and create an environment conducive to learning, as well as make a facility that could house the technology needed to elevate the STEM curriculum. In order to create a fully engaging learning and playful experience, the architects designed an indoor-outdoor learning facility. Each classroom and lab is one story, with large glazed overhead doors that open to central courtyard. The paths and seating areas are terraced in response to the steep slope of the existing site, which also helps connect the first and second floors. The layout of the entire complex is playful, inviting students to interact with the architecture and stimulate imagination.

Cost and sustainability were both very important to both clients and architects. Wood frame construction helped offset the high cost of building in the bay area, with openings integrated early in the design process to allow for maximum natural light while maintaining integrity of the shear walls. Solar orientation allows for self shading while shed roofs collect rainwater in intentionally placed planters. Overall, the building has an extremely low carbon footprint, with an EUI of only 38, a 72% reduction in energy compared to the surrounding region.

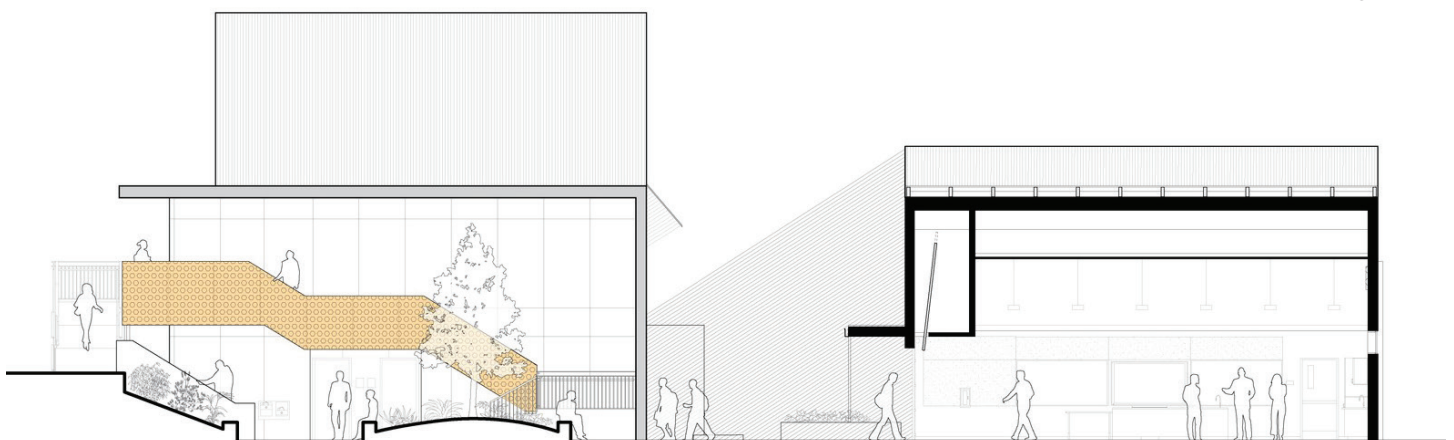


Fig. 2.5

ANALYSIS

While this case study does not deal directly with sports, the emphasis on learning and play is important to my project. This design is also a great example of integration within a larger campus, sustainability, and blending indoor and outdoor facilities. Overall, this precedent contributes to the premise of my thesis by highlighting the importance of play and opportunity for education through a specific experience.

KLODEN



QUICK FACTS

Project type: Sports facility expansion

Location: Hou, Denmark

Size: 59201.51 square feet

Key Elements: Easy access for students with a range of disabilities

Program: Seven elements with multiple functions: mountain, equator, cliff, ocean, glacier, plain, desert

Architect: CEBRA

Fig. 2.6



Fig. 2.7

PROJECT INFORMATION

The Kloden facility is an expansion of the Egmont High School sports facility in Denmark. Since almost 50% of students live with a disability, the main goal of the facility was to create a space that was easily accessible for a person of any disability, physical or mental. The Kloden (Danish for “the globe”) consists of seven distinct elements with multi-functional purposes. Six elements are named after a type of geography, such as “ocean” or “desert”, and are encircled by a walking track, aka “the equator.” According to the architects, the metaphor of the earth and landscape is meant to celebrate differences and promote unity.

While many users do experience disability, the facility is also open to the general public. Each element is distinct in color, texture, and shape to help users navigate the facility with ease. They are also meant to be accessible to users of various ability, with different slopes in ramps that allow for different uses, challenges, and goals.

Fig. 2.8



Fig. 2.9

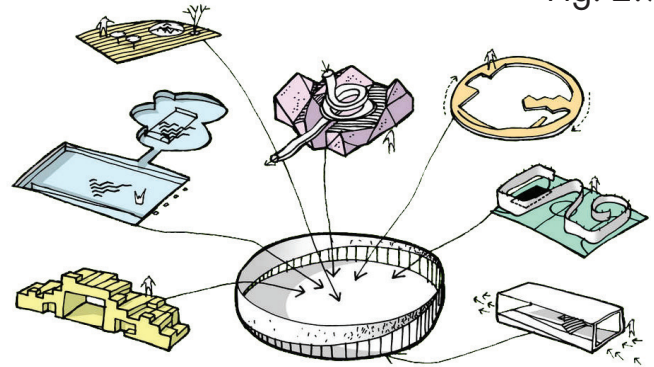


Fig. 2.10

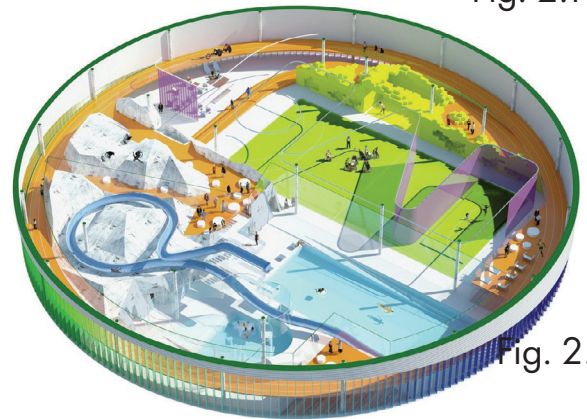


Fig. 2.10

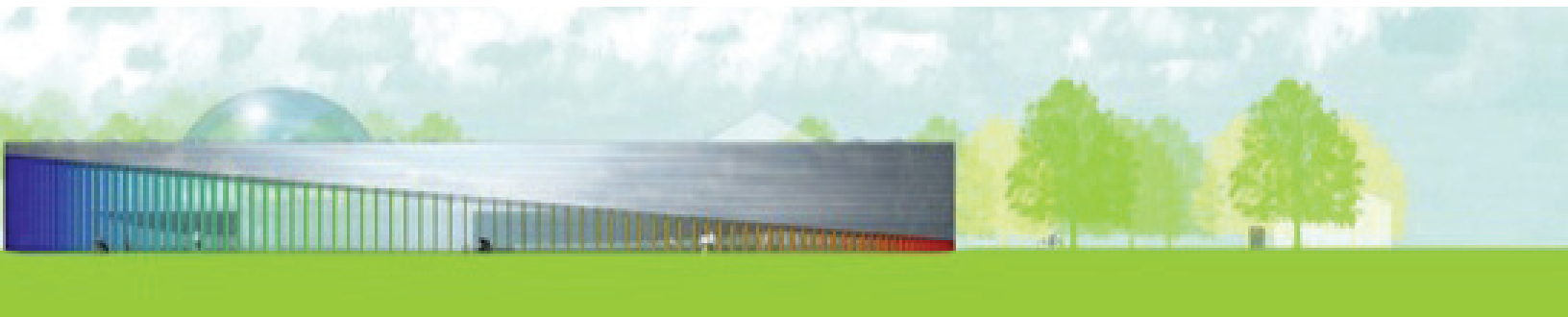
Fig. 2.11



ANALYSIS

The Kloden is a relevant precedent for my design in many ways. For one, the program is focused on sports, students, and well being. The smooth integration of accessibility for all users is definitely something I need to take note of. This case study will help inform my theoretical premise, and help shift the focus of inclusivity to allow for disability integration beyond the ADA requirements.





NORTHSTAR CHRISTIAN ACADEMY



QUICK FACTS

Project type: Educational campus

Location: Alexandria, MN

Completed Buildings: 2

Key Elements: Emphasis on hockey, faith based, private school, FCA associated

Program: Fieldhouse (turf), ice sheet, conference/video area, chapel, dining, lockers, medical training room, classrooms, computer lab, breakout space

Architect: JLG



PROJECT INFORMATION

According to their website, the mission of Northstar Christian Academy is “to train students to independently and critically think while providing students with the opportunity to embrace a Christ-centered Biblical worldview as true and as the foundation for learning.” This school, in conjunction with their sports programs, are associated with Fellowship of Christian Athletes (FCA).

This facility was designed to become the national FCA hockey headquarters, as hockey is a big part of Minnesota culture. The campus currently consists of two buildings: the school and the fieldhouse, both which sit adjacent to the local high school. Students can enroll from all over the nation, and stay with host families in the area. While most classes can be taught at the academy, there is also a close association with the public school that allows for other specialized classes like art and music.

The performance center itself is a great space for athletes to train, with ample daylighting and the latest technology in training for hockey. The values of the organization easy to see, with the main focus of the lobby being the elevated chapel. Athletes not only have access to the ice, but a video room, sauna, weight room, and shooting bays. The additional soccer field is also available for rent for birthday parties, local frisbee leagues, and other organizations.

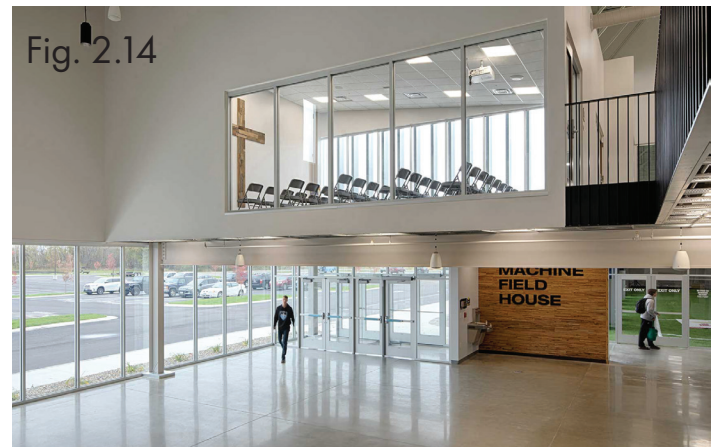


Fig. 2.14



Fig. 2.15

ANALYSIS

The Northstar Academy is probably the least architecturally flashy out of all of my case studies, but it most closely resembles the goals of my project. The unique combination of sports and faith reflects the same sort of character growth I hope to inspire through my design. The boldness of sharing the beliefs of the organization is something to consider; while I share the same faith, I hadn't originally considered making my project an overtly Christian facility. In tying architecture to religion, I could risk alienating certain demographics from the space. However, because the fundamental belief in Christianity is love regardless of your neighbor's disposition, I think a religious facility could still be highly successful. Part of what makes this academy successful is that it's built and maintained on strong convictions. My faith has an underlying effect on my thesis premise regardless of how I choose to display it, but this case study forces me to consider the possibilities of choosing to be more up front or less overt about the faith based principles that inform my design.





São Luís Sports & Arts Gymnasium



QUICK FACTS

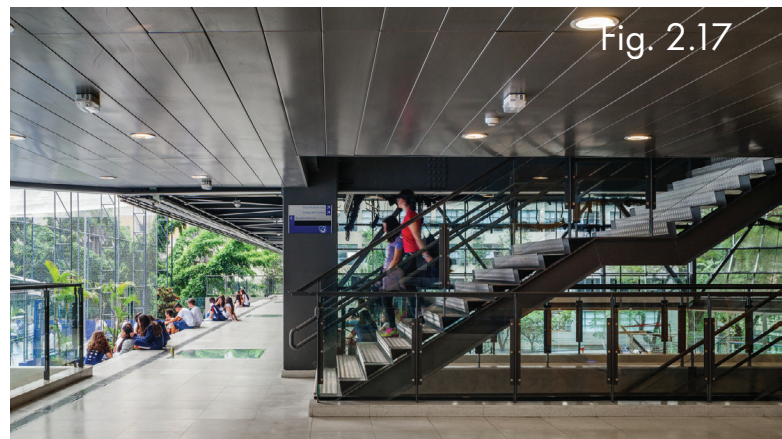
Project type: Sports and Arts Facility

Location: São Paulo, Brazil

Key Elements: Emphasis on athletics and arts, open air circulation, lighting in sports facilities, roof level soccer field.

Program: Four sport courts, gymnasium, permanent openings to bring in fresh air, angled screening, special glazing to control solar heat gain

Architect: Urdi Arquitetura



PROJECT INFORMATION

The São Luís Sports & Arts Gymnasium is part of a plan being implemented in São Paulo to update and adapt the education system. This facility was built on the same site as the previous building, which was completely demolished for the project. The new facility expanded from one sport court to four, two of which are outdoors on the upper level.

The facade of the building is mainly designed to help with climate control. Permanent openings help move air into the space while the glazing is treated to help reduce solar radiation. The sliding doors along the north facade allow for cool breezes to move through the building, or block higher winds, and the angle of the screening helps control the solar heat gain while also providing shelter from any rain. The glazing also allows for plenty of natural light inside the gymnasium.

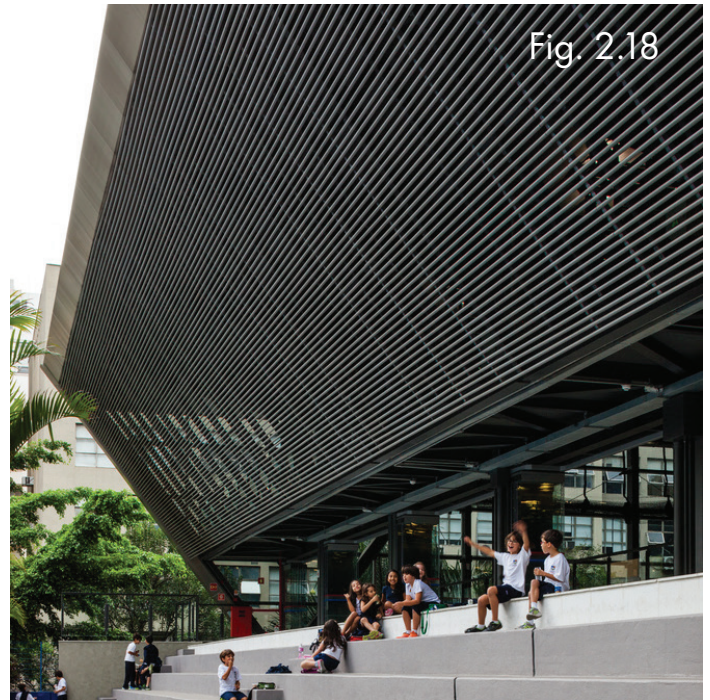


Fig. 2.18



Fig. 2.19



Fig. 2.20

ANALYSIS

The São Luís Sports & Arts Gymnasium was probably the most helpful case study for me in an architectural sense. I had some difficulty in deciphering the architectural drawings as they were all labeled in Portuguese. However, the graphic notations were fairly standard and easy to understand. In some ways, this project was very successful. The building expanded the previous sport courts by using the roof space and retractable bleachers, and inspired me to move my field house to a second floor. However, some features were not as successful. The space did a very good job of bringing in natural light and fresh air. Unfortunately, this causes a lot of glare on the gym floors, which can be seen in the photos on the previous pages. This could be improved by shading devices or a different treatment on the glass. The lighting in this facility is something I hope to both emulate and improve in my project.





SITE ANALYSIS



Fig. 2.21

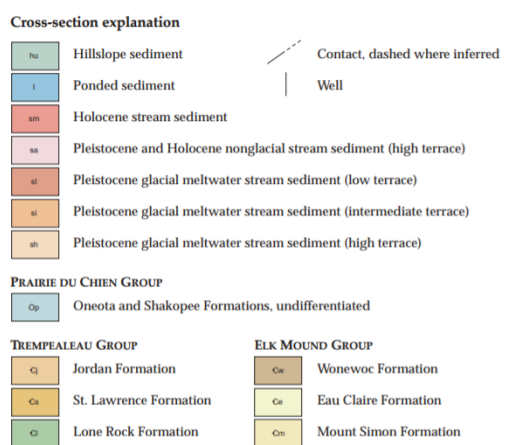
SITE SELECTION

This site location was chosen for a variety of reasons, the first being proximity to a metropolis. LaCrosse is located about 2.5 hours southeast of Minneapolis, the largest metropolis in the area. Being situated on an interstate highway also gives the advantage of easy travel. The town is home to three different colleges that could partner with my project to expand facilities and provide part time staff. The area boasts beautiful natural landmarks such as the Granddads Bluffs, Mississippi River, lakes and marshes, as well as a historic downtown and riverwalk.

LOCATION: La Crosse, Wisconsin

SOIL ANALYSIS

As shown in Fig. 2.22, the soil near La Crosse is highly varied. The downtown riverfront area, where my project will likely be situated, contains mainly Pleistocene glacial meltwater stream sediment, a very gravelly sand which will be suitable for building. However, careful tests will need to be run as much of Lake Onalaska shore is surrounded by fine sand that will not support construction. Some of the shore is also protected wetlands.





SITE SELECTION

Another reason for choosing LaCrosse was the proximity to colleges and universities. There are three universities in the town, including the University of Wisconsin LaCrosse, which has one of the highest rates of outdoor activity in the nation. These colleges offer opportunities to form relationships with other sports programs, and could eventually create partnerships that allow for the use of their facilities. This way, I can focus on building something that the area needs instead of making copies of other athletic facilities.

My site specifically is on the north side of town, on an island in the Black River. The context is ideal; there's a softball field, tennis courts, track, and beach that are all available for public use and within one mile of this island. Again, the most sustainable thing to do is to use what's already there instead of creating duplicates of other facilities.



SITE VISIT

Since LaCrosse is almost seven hours away from Fargo, a site visit would have been difficult to schedule. Fortunately for me, I know a student attending UWL; I was able to send her to the site and see the place for myself via video call. She was also very helpful in understanding the culture and feel of the city.

The pictures below show the site in early March. At this point, most of the snow was melted, although it was still very chilly. The site itself is a public park, but isn't well used. The north side is a large parking lot and boat landing that would be sufficient for my new building, as it's generally empty. The east perimeter is lined with boat slips for the houseboats that are common to the area. The spot I chose to place my building is ideal; it's currently a large gravel parking lot that is rarely used. This will make preparations for construction easier as it's already graded and doesn't require any tree removal.



Fig. 2.25



Fig. 2.27



Fig. 2.26



Fig. 2.28



PERFORMANCE CRITERIA

In order to assess the success of a building, there must be certain criteria against which the design is evaluated. To create successful architecture, these criteria must be considered early in the design process to be well integrated with the design solution. I've chosen to focus on space allocation, environmental performance, psychological impact, code compliance, and cost. Each of these will be measured using various methods and technologies, as well be compared to current precedents.

Space Allocation

Assessing where spaces are placed and how large they are will help improve the flow and orderliness of the design, as well as helping the building cut down on wasted space. The building will be measured in square feet and cross referenced with the average and maximum occupancies. This will be done by diagramming the most logical relationships between spaces and their sizes, and comparing occupancies to the International Building Code.

Environmental Performance

The main environmental factors I will be looking into are lighting, thermal, and energy performances. These can be measured through Autodesk Insight's early energy modeling technology. The results generated will show mass models, diagrams, and approximate building EUI.

Psychological Impact

While psychological impact may be difficult to measure, it's perhaps the most important factor to the success of the project. This can be measured through surveys of users both before and after using the space (in a theoretical context, it will be measured by conducting surveys of the target audience). The results will be shown as diagrams.

Code Compliance

While adhering to code is an automatic requirement, I'd like this building to go above and beyond the minimum standards, specifically in the ADA requirements. This will be done by conducting case studies and searching the minimum requirements listed in the IBC.

Cost

Since a large factor in making my facility accessible is through the cost, analyzing the expense of building and maintaining my project is a must. This will be done by using a pro forma to estimate a budget, as well as researching the current costs of materials in the region.

APPENDIX

INTERVIEW TRANSCRIPTS

LITERARY REFERENCES

Coakley, J. (2006, August 22). The good father: Parental expectations and youth sports. Taylor & Francis Online. Retrieved December 11, 2021, from <https://www.tandfonline.com/doi/full/10.1080/02614360500467735?scroll=top&needAccess=true>

Ronkainen, N. J. (2020, January 9). Learning in sport: From life skills to existential learning. Taylor & Francis Online. Retrieved December 16, 2021, from <https://www.tandfonline.com/doi/full/10.1080/13573322.2020.1712655?ai=uy&mi=f1xlgk>

OTHER REFERENCES

Cilento, K. (2010, May 14). Kloden, Egmont High School / Cebra. ArchDaily. Retrieved December 17, 2021, from <https://www.archdaily.com/60075/kloden-egmont-high-school-cebra>

Evans, T. J. (2003). Wisconsin geological and natural history survey. Retrieved December 2, 2021, from <https://wgnhs.wisc.edu/pubshare/B101-plate01.pdf>

A history of youth sports in the US. iSport360. (2021, June 8). Retrieved December 17, 2021, from <https://isport360.com/a-history-of-youth-sports-in-the-us/>

1 Home. NorthStar Christian Academy. (2021, December 14). Retrieved December 17, 2021, from <https://www.nscacademy.org/>

JLG Architects. (n.d.). Northstar Christian Academy Sports Complex. JLG Architects. Retrieved December 17, 2021, from <https://jlgarchitects.com/projects/northstar-christian-academy-sports-complex?category=sports>

JLG Architects. (n.d.). Northstar Christian Academy. JLG Architects. Retrieved December 17, 2021, from <https://jlgarchitects.com/projects/northstar-christian-academy/>

Kloden // cebra architecture. CEBRA architecture. (2020, May 7). Retrieved December 17, 2021, from <https://cebraarchitecture.dk/project/kloden/>

Kloden in Hou, Denmark by Cebra architect. ArchShowcase. (2011, June 18). Retrieved December 17, 2021, from <https://www.10.aecafe.com/blogs/arch-showcase/2011/06/18/kloden-in-hou-denmark-by-cebra-architect/>

O'Sullivan, J. (2015, April 5). The adultification of youth sports. Changing the Game Project. Retrieved December 17, 2021, from http://changingthegameproject.com/the-adultification-of-youth-sports/?inf_contact_key=130bd0c6a13fa870bebf60d484888df36728c3c59a8124019285967573889a66

Piedmont Hills High School Science and Life Skills Complex. Sustainable Design Architecture Firm - LPA Inc. (n.d.). Retrieved December 17, 2021, from <https://lpadesignstudios.com/projects/piedmont-hills-high-school-science-and-life-skills-complex>

Silva, V. (2021, October 8). Piedmont Hills High School Science and Life Skills Complex / LPA. ArchDaily. Retrieved December 17, 2021, from https://www.archdaily.com/969697/piedmont-hills-high-school-science-and-life-skills-complex-lpa?ad_source=search&ad_medium=search_result_all

Unsplash. 42 best free thesis, sport, human and outdoor photos on Unsplash. (n.d.). Retrieved December 15, 2021, from <https://unsplash.com/collections/IPHjzuEFUqU/thesis>



DESIGN S



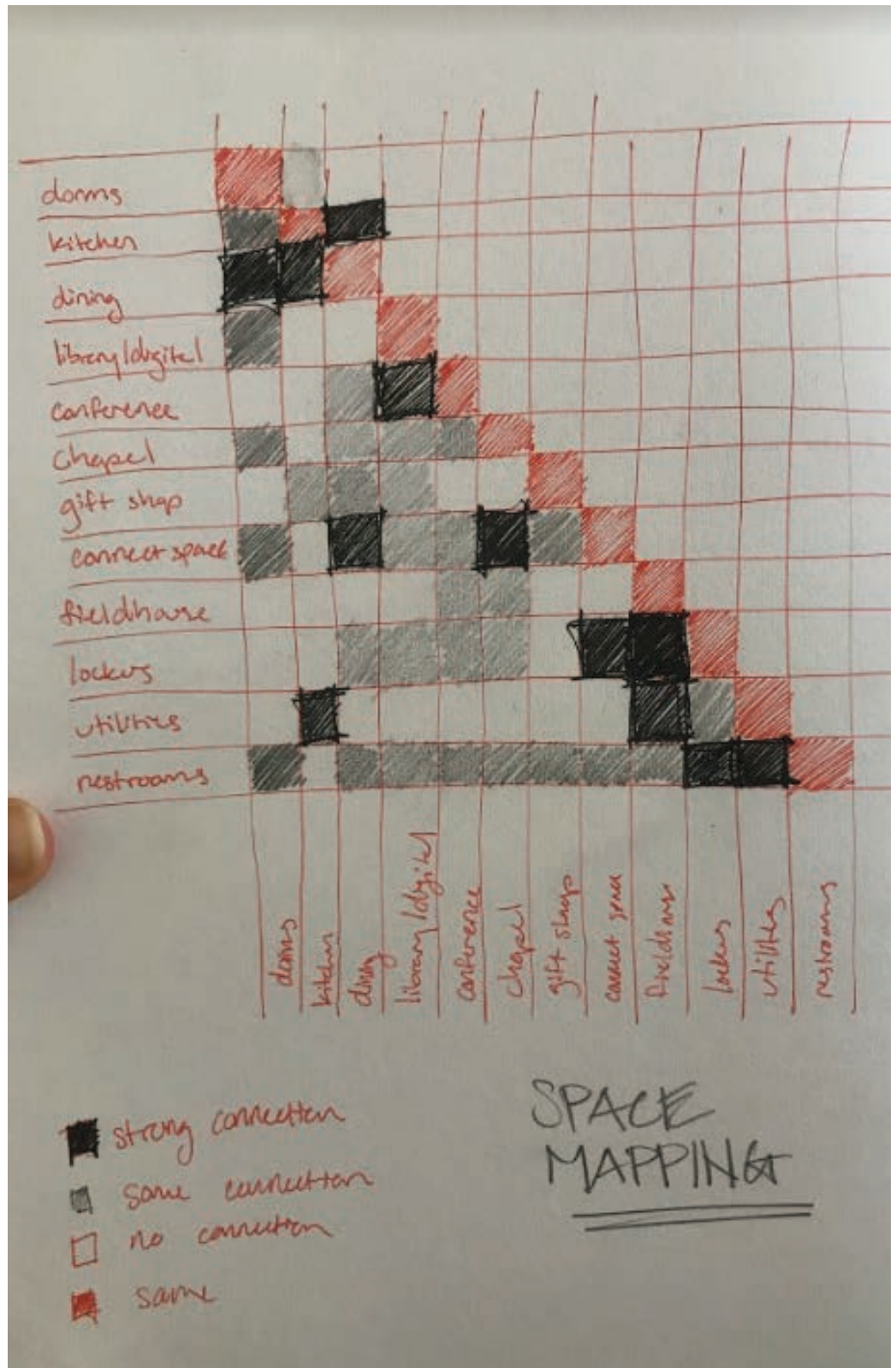
OLUTION

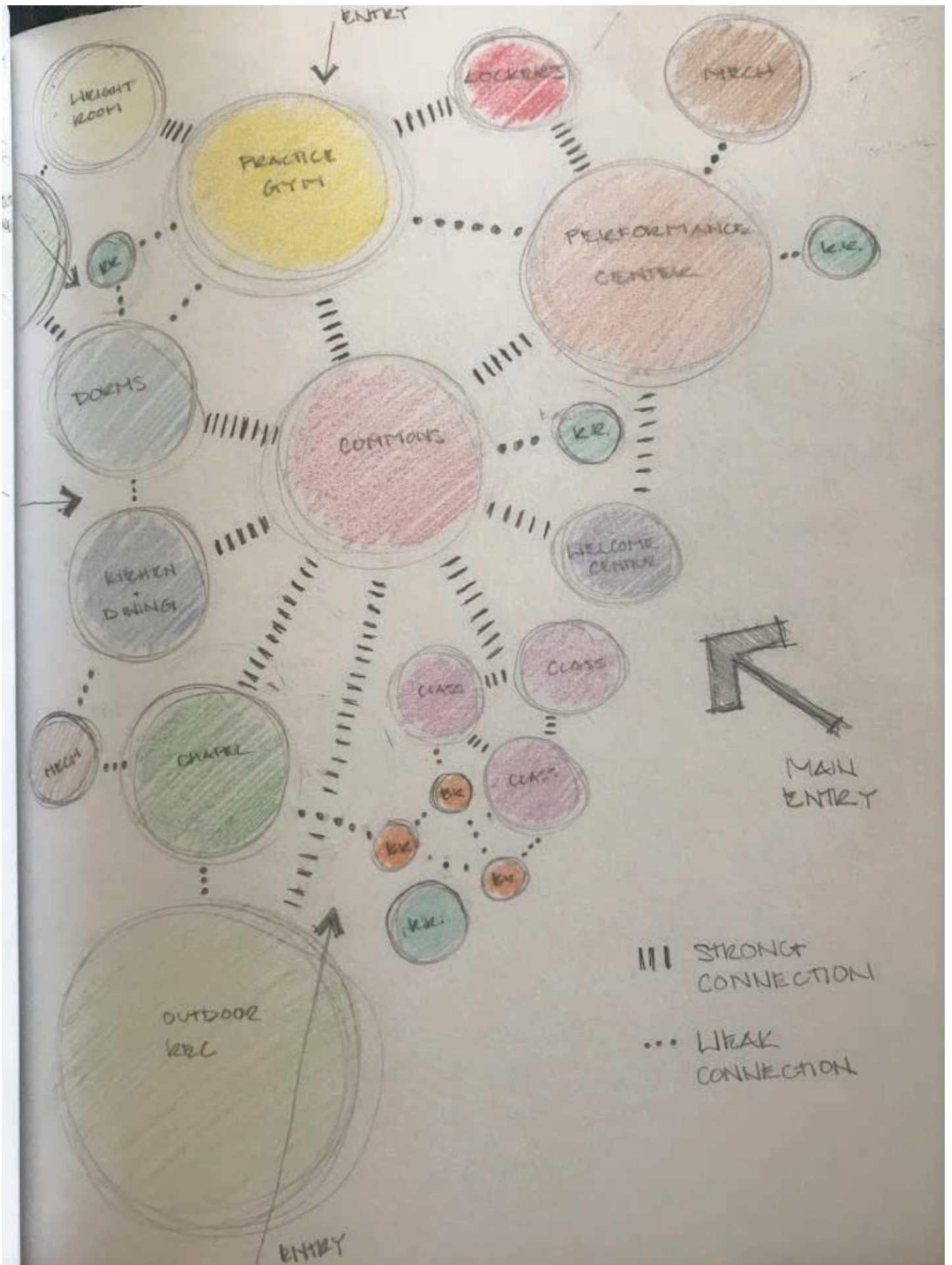
PROCESS DOCUMENTATION

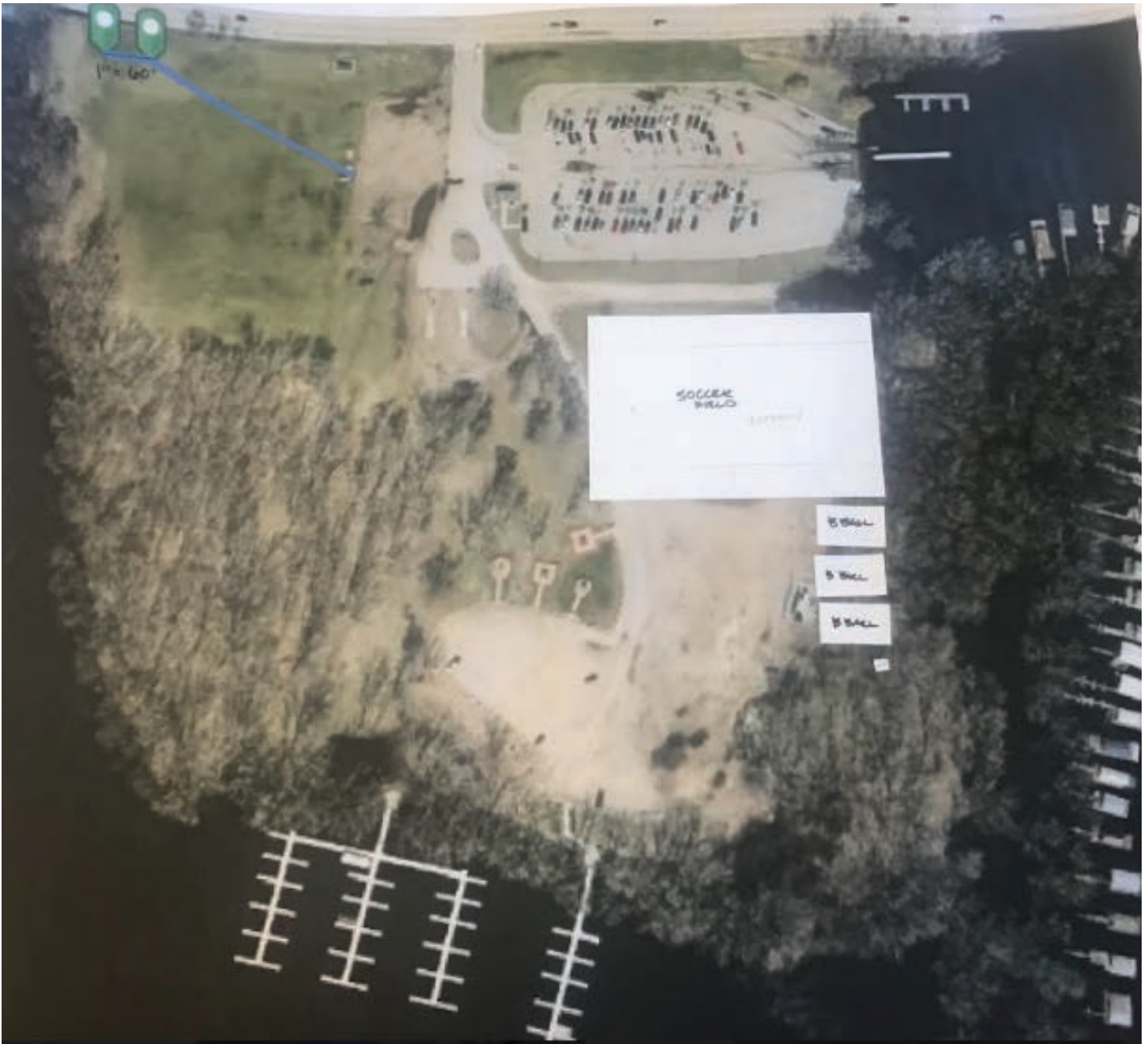
Space Mapping and Spatial Ideation

To begin my design process, I started by trying to figure out what kind of spaces I would need in my building. While this was some very preliminary space mapping, it helped me determine the relationships between those spaces and how I should start arranging them based on those relationships.

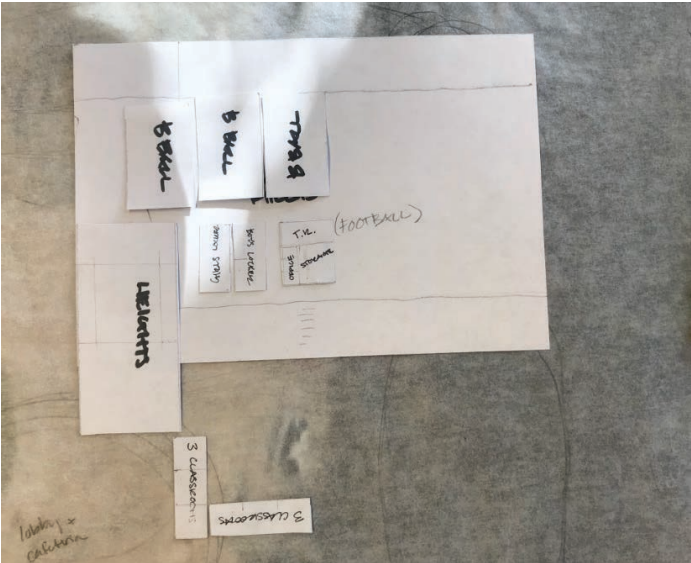
Later in the process, some of these spaces were changed or eliminated based on the context of the site.

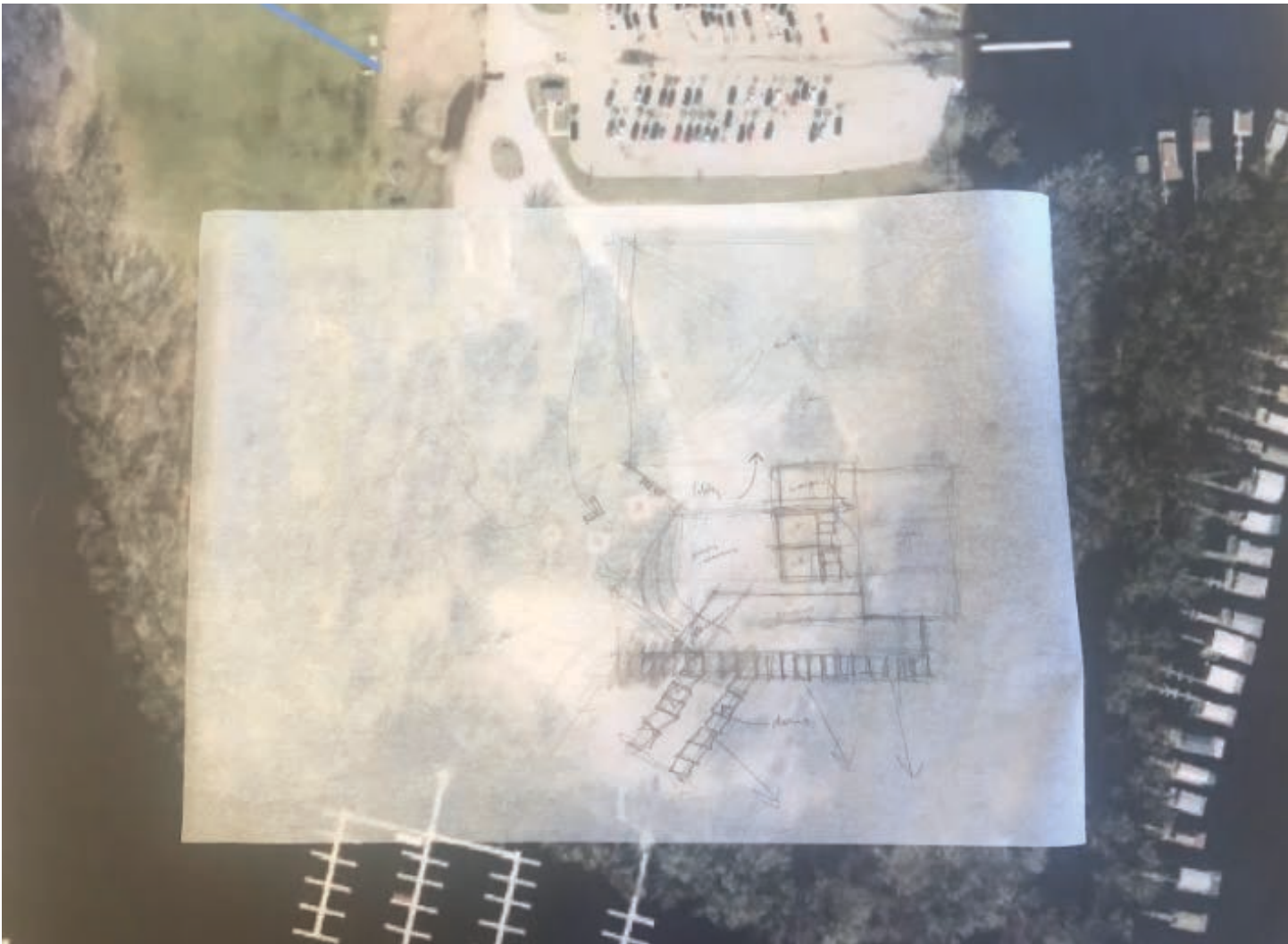




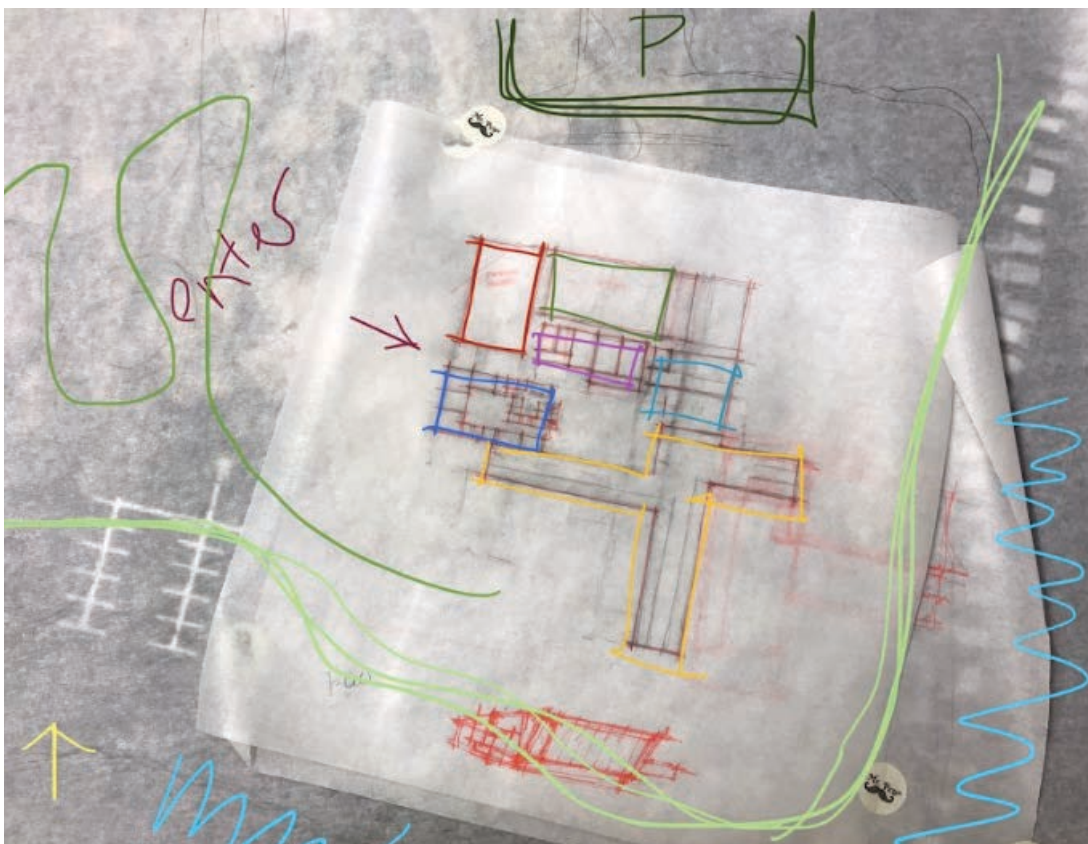
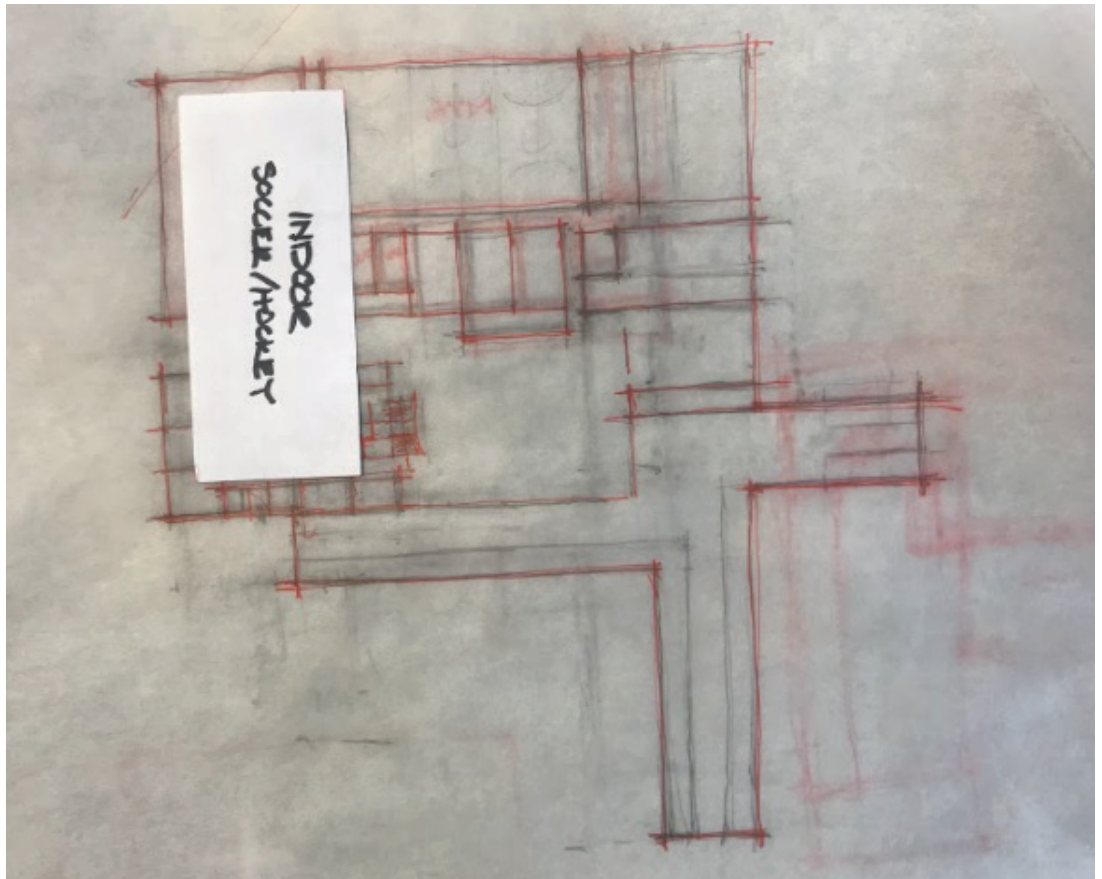


The next part in my process was starting to work with the site and spaces to scale. I printed off a photo of my site at 1" = 60' scale. Because some of the spaces I needed were so big (like basketball courts and a field house), I cut out those pieces at the same scale and used them as building blocks to arrange my building. I combined these with sketches in order to figure out my floor plans.

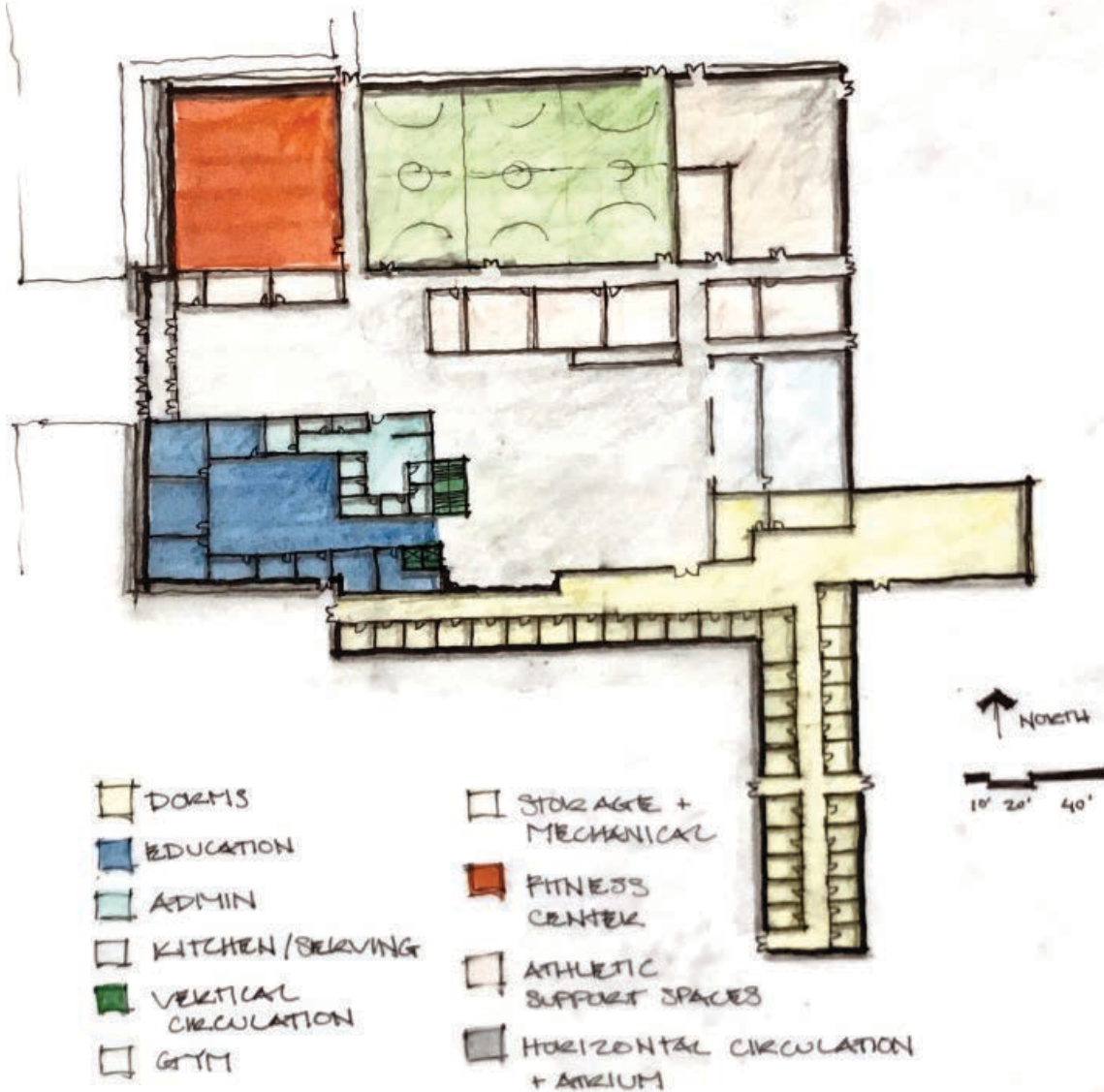




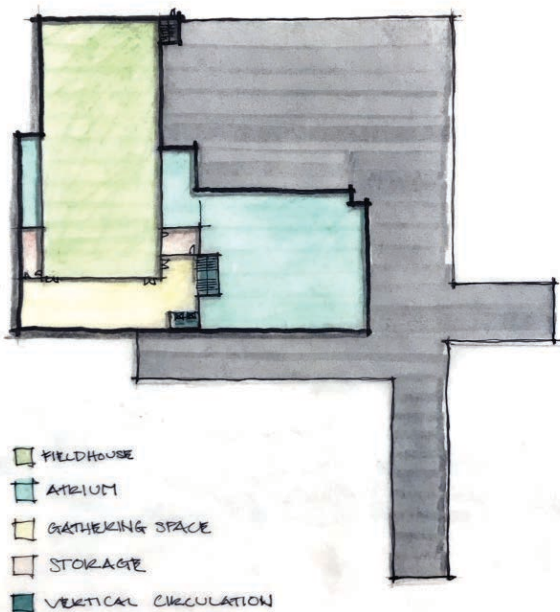
When I combined the paper spaces with sketches, I came up with a radial floor plan centered around a large gathering space for students.

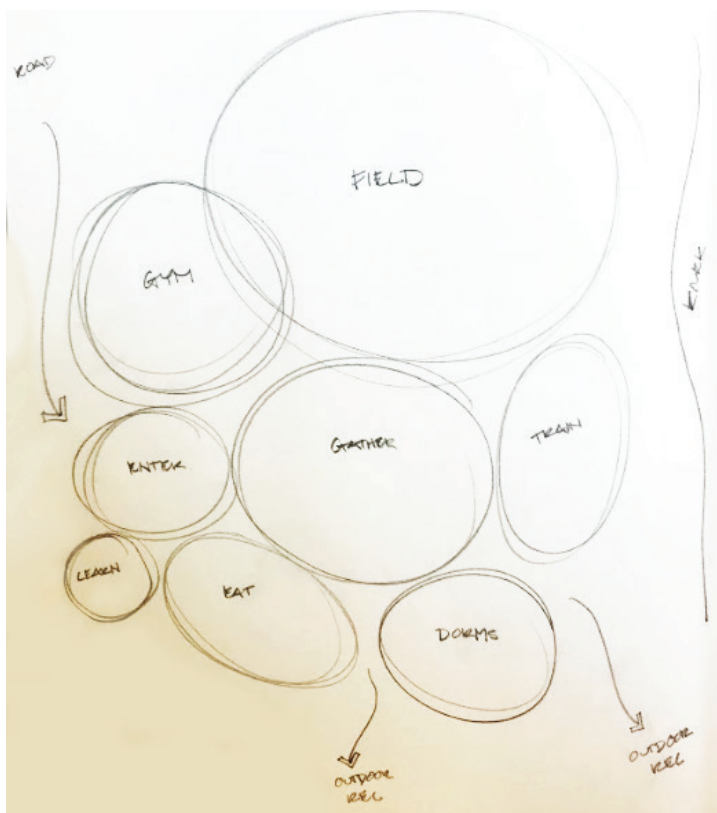
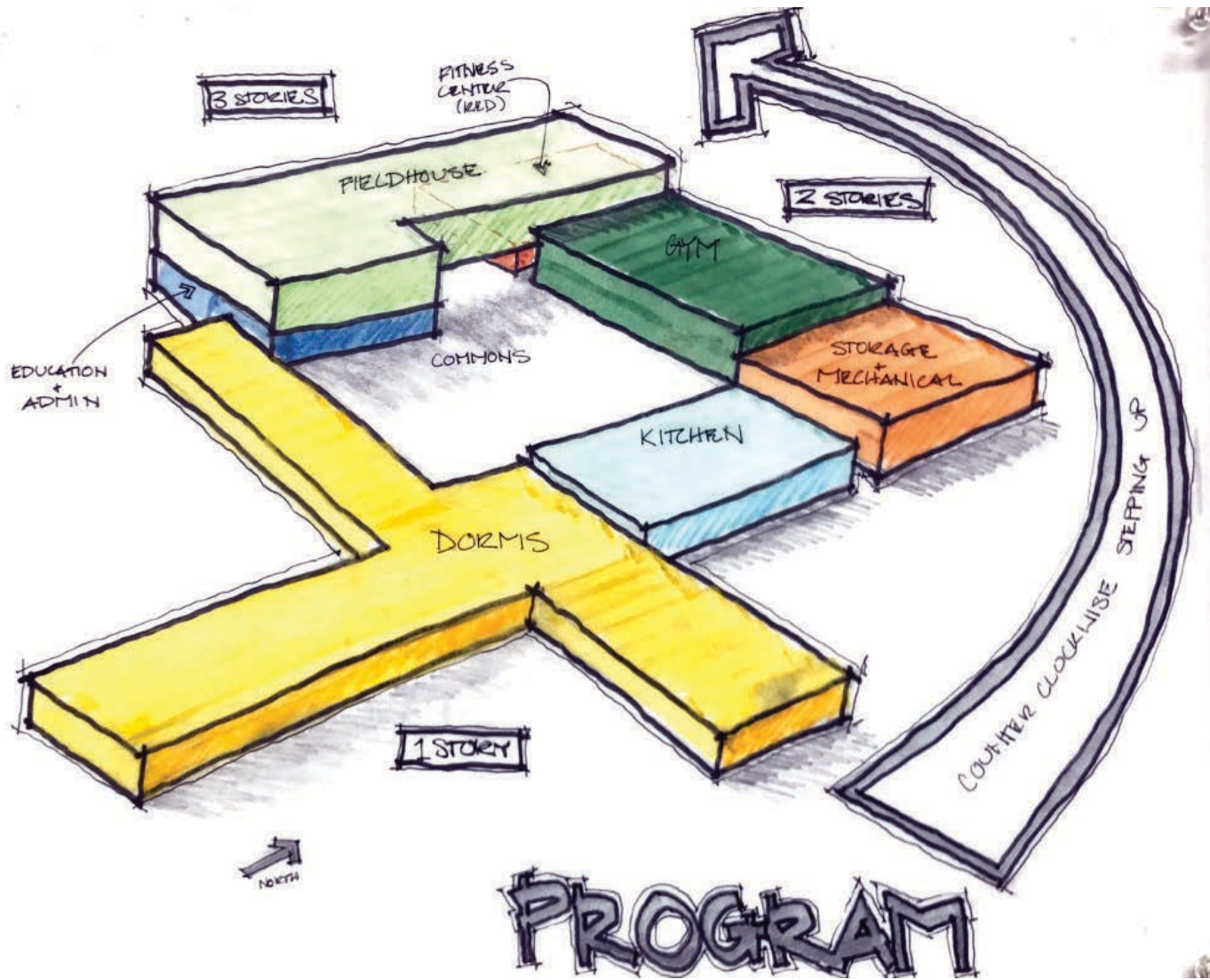


The site plan has most of the sports facilities facing north, with the main entrance on the west side.

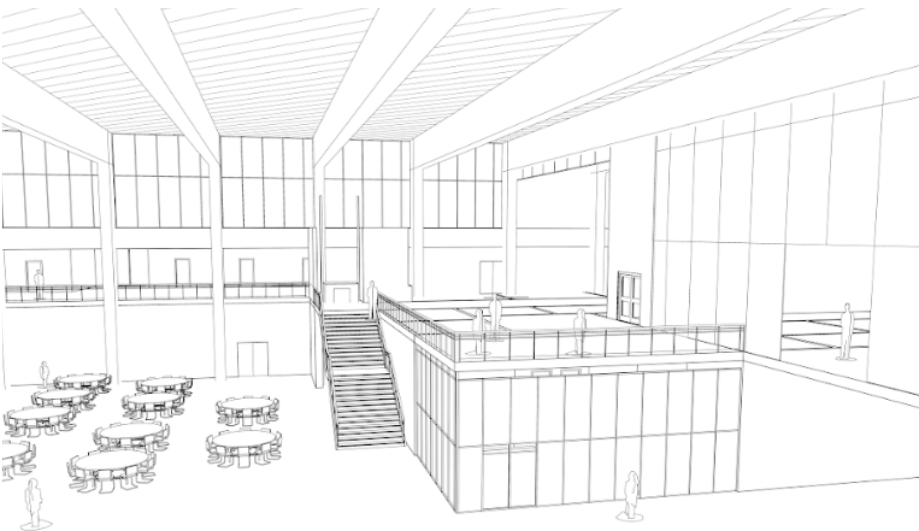
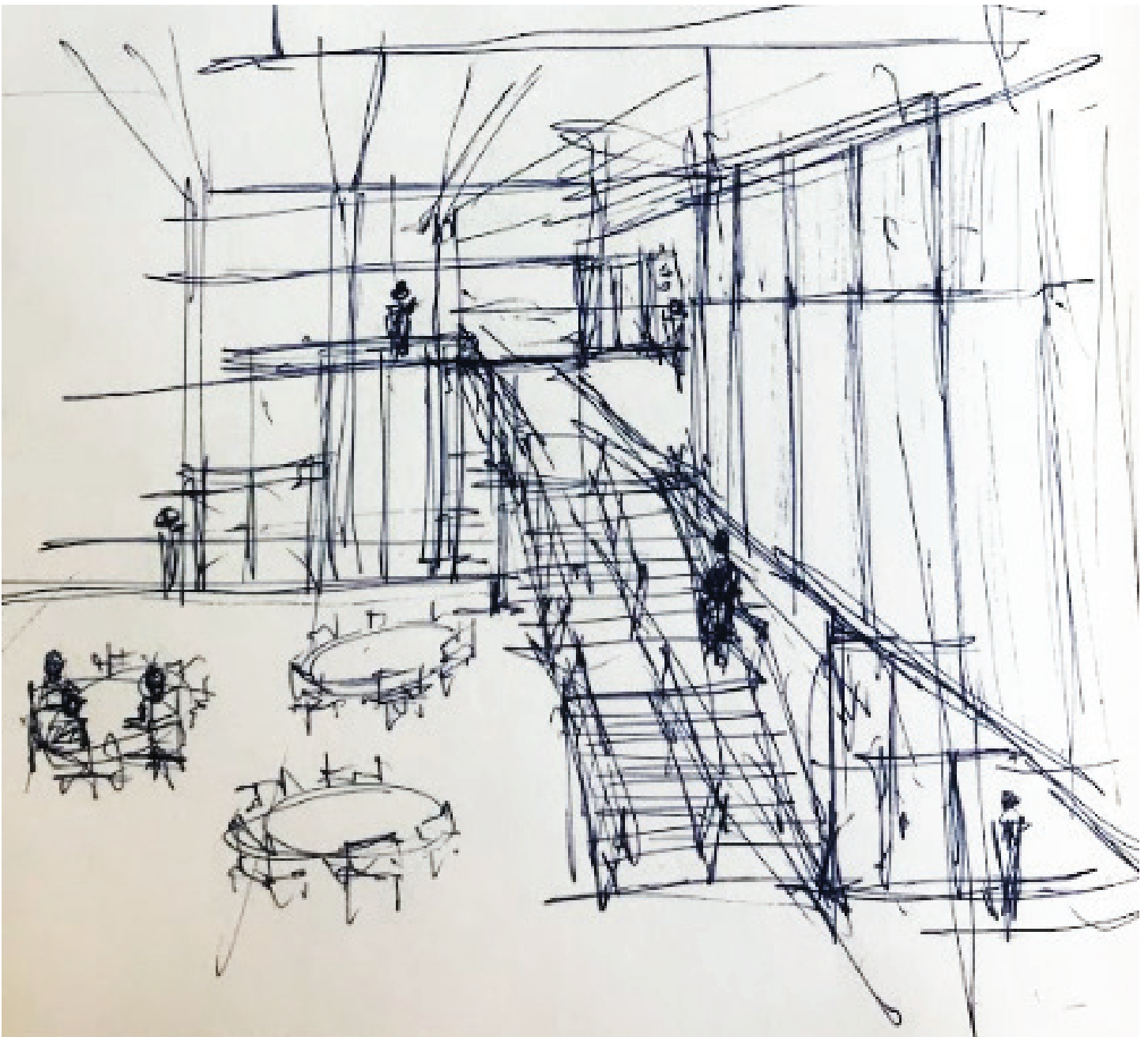


These were the floor plans I drew up for mid semester critique. I was inspired by my Brazil case study to move the field house to the second floor, which helped save space and created mezzanine gathering space for students that overlooks the main commons.



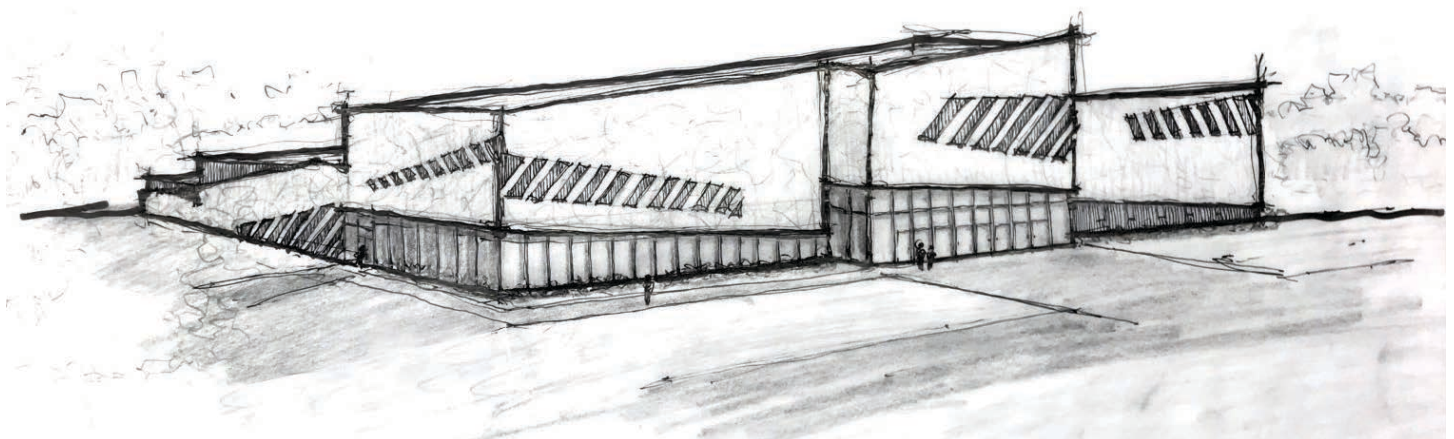
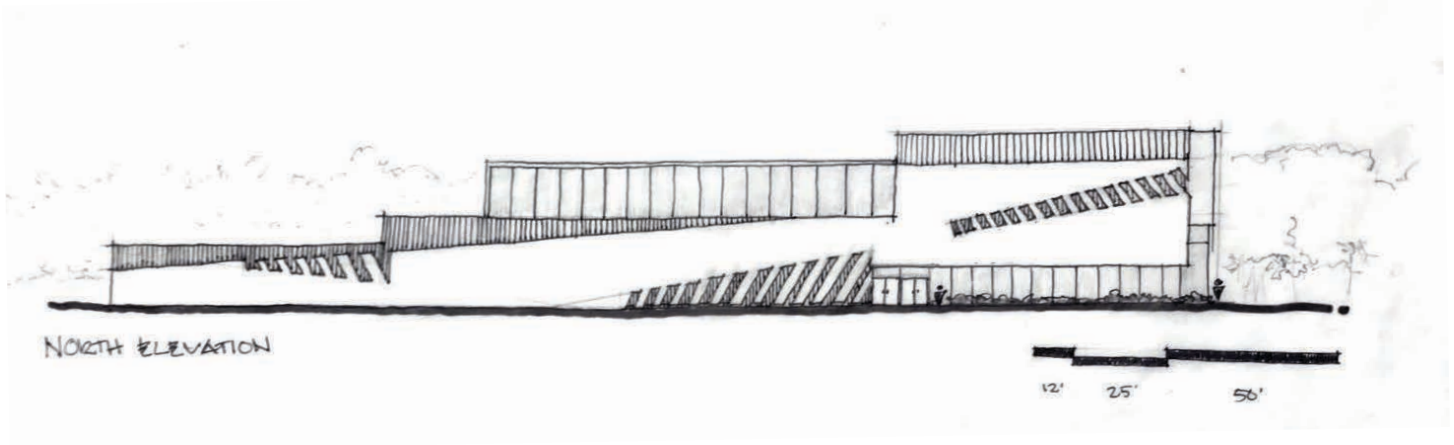
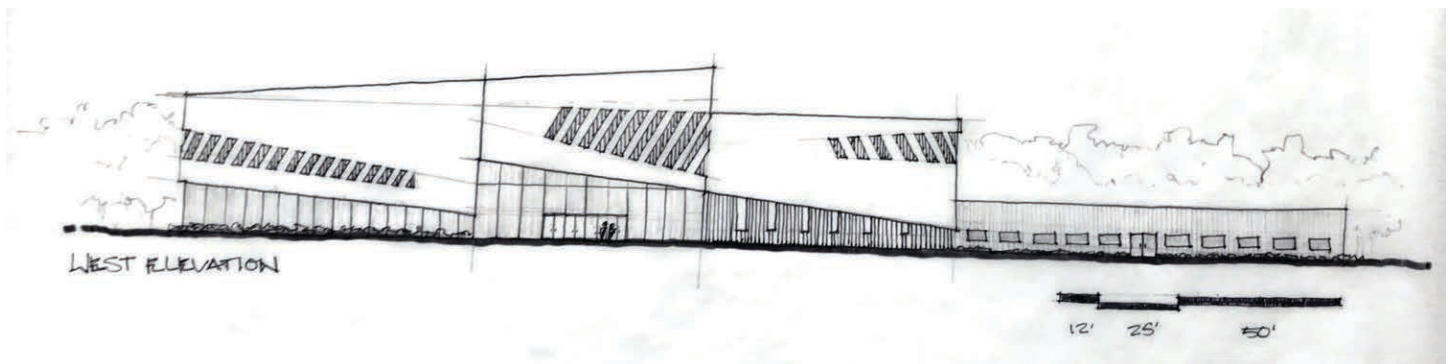


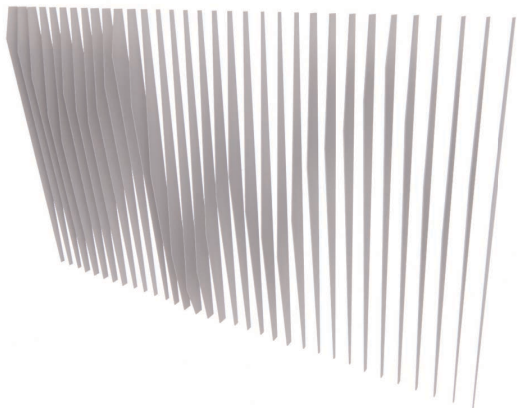
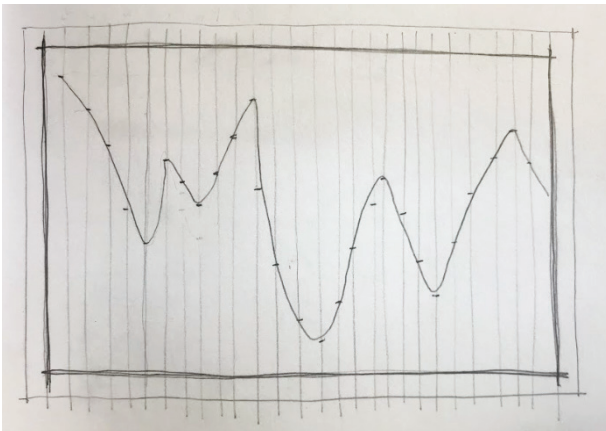
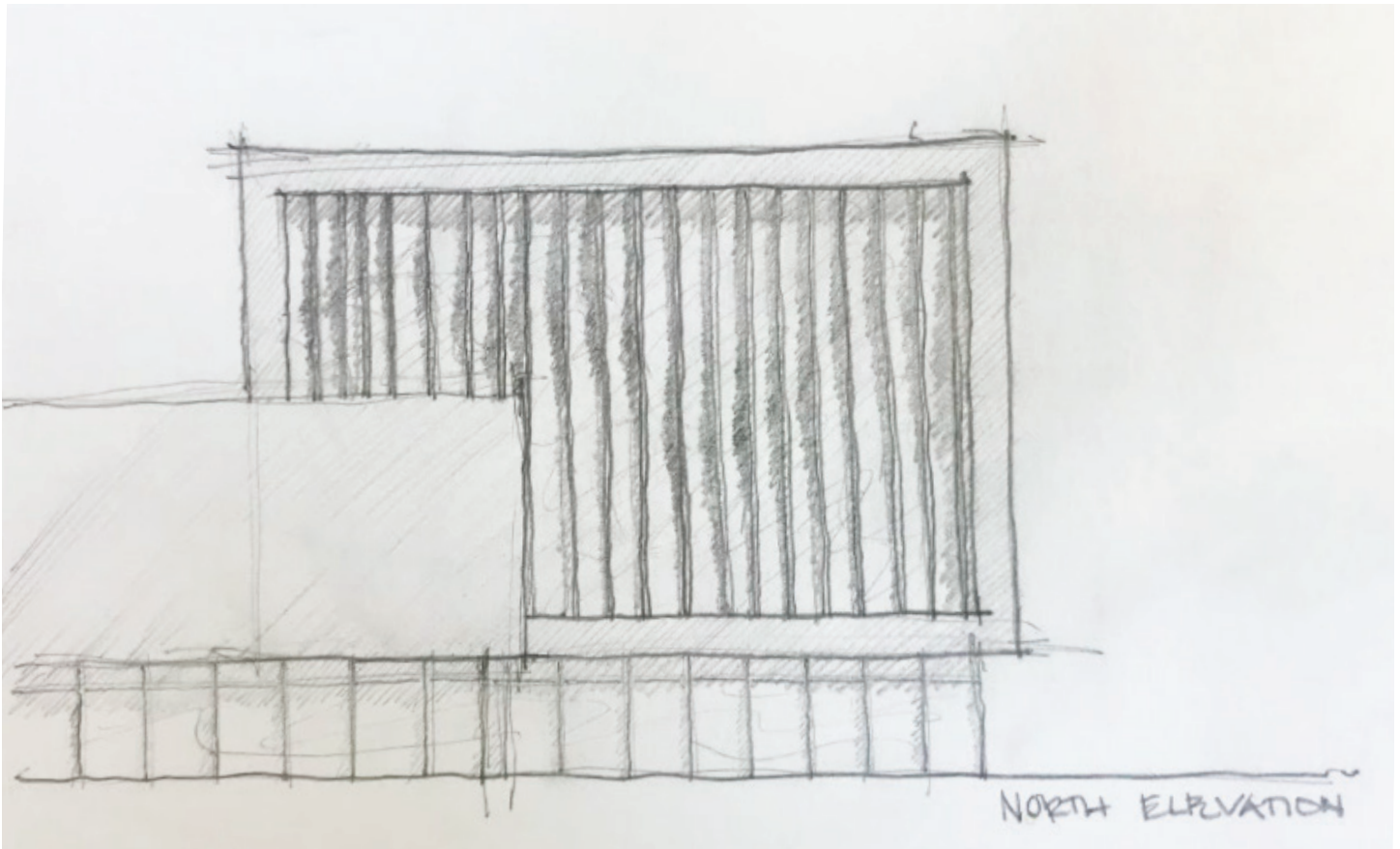
My original bubble diagrams had all of the main facilities gathered around a central atrium. In 3D, this became a pinwheeling form that stepped up in a counterclockwise fashion. The program developed for my mid semester critique shown above stayed relatively the same, with the exception of the dorm rooms which were consolidated to avoid the long hallways.



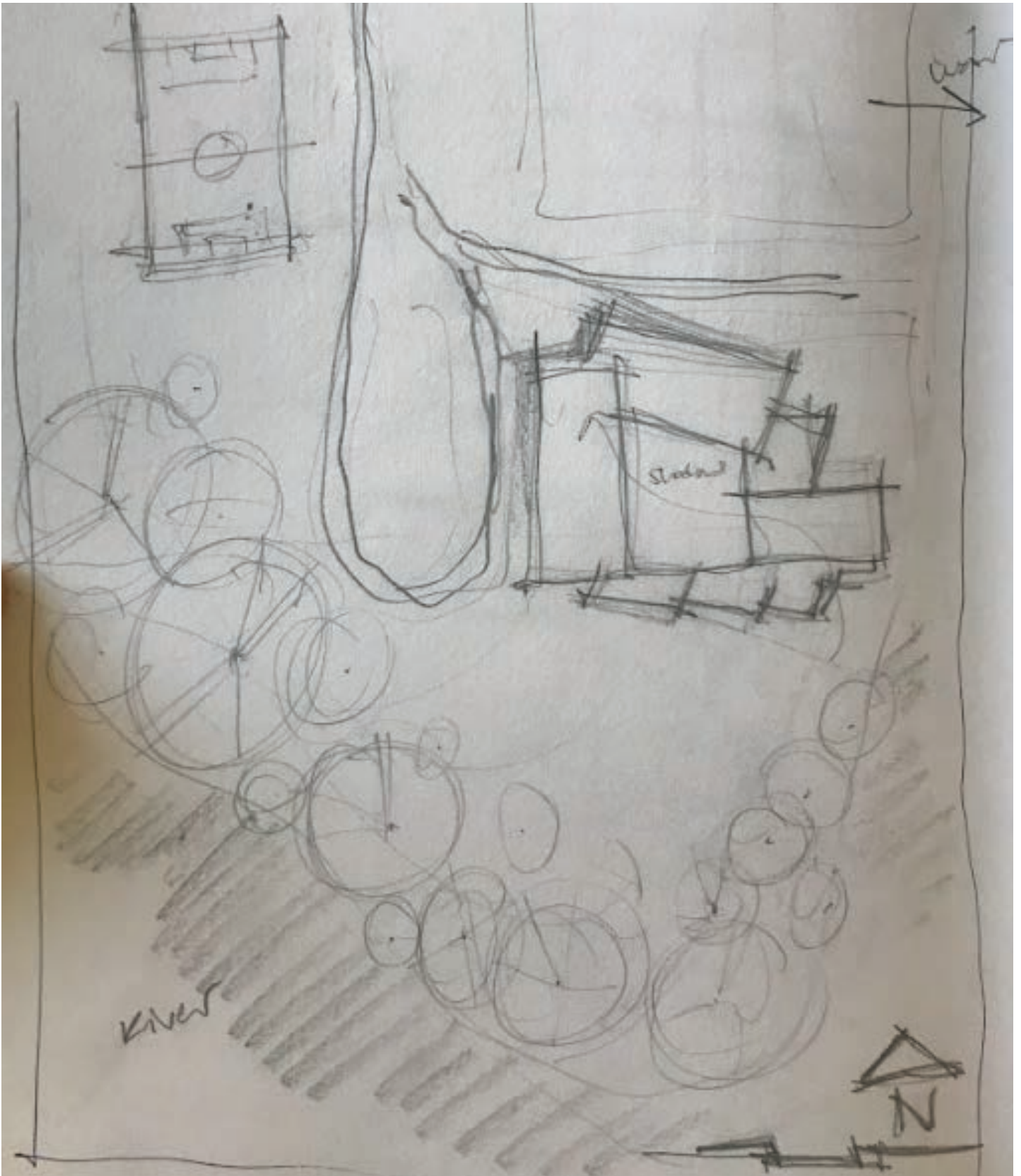
This sketch shows an interior render of the main atrium space. By moving the field house to the second floor, I was able to create a vista from the commons. Students on the first floor could look up and see students playing and competing in the field house that bridges the entrance. The wire frame drawing shows a later view of this space in Revit.

The sketches below show the exterior screening of the building as of our mid-semester critique. This iteration of the design was actually rejected in favor of a better solution for lighting in athletic facilities. This idea didn't make good use of north light and the slats let in too much light from other sides, which would cause glare. The screen also was mostly useless along the north side by the basketball courts since it wasn't shading any glazing. The main takeaway from this idea was to keep the first floor as glazing and create a screening system that diffuses the light instead of simply blocking it.

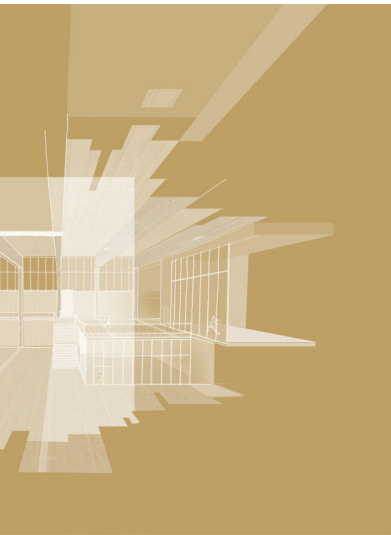




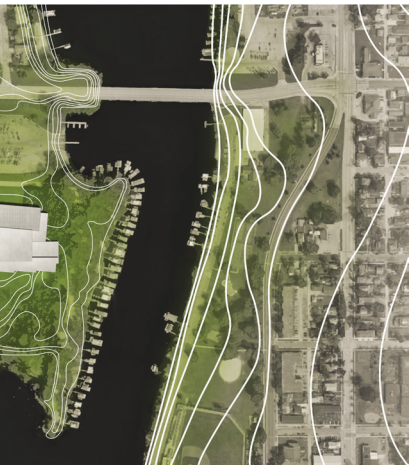
The sketches here show the improved shading system I developed for the athletic spaces. Instead of a screen that wrapped the whole building, I developed a system of fixed louvers that would help diffuse the light from the north. Each louver is triangular in shape, with the deepest point of each fin being at a different height. I originally determined these heights in a sketch, then developed the fins in Rhino. The difference in depth creates an illusion of movement as a callback to the motion of sports, giving the exterior of the building a more lively appearance. It also plays with shadows in a way that creates real movement as the sun travels across the sky. Once the geometry was created, I assigned different shades of green to the fins to heighten the idea of movement and provide a burst of energy by bringing color to the facade.



The sketch above shows the finalized site plan before it was constructed in Revit. The floor plan reflects the changes made since the mid semester critique, with some of the spaces shifted at an angle to make the plan more dynamic. It also shows the change in the footprint for the dorms.

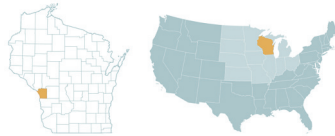
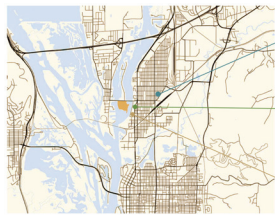


EMPOWERING YOUTH: THE POTENTIAL OF ATHLETICS



The influence of sports in modern society cannot be overstated. Not only are they a pastime, but they offer role models, money, and a chance at glory. For children, athletics can be a powerful tool in developing character and teaching valuable life lessons. However, society's attitude toward sports has shifted less from teaching youth and more towards entertaining parents. Kids today face enormous pressure of performing to the expectations they perceive from family, friends, and spectators, all while accepting that only the talented will receive society's recognition. This project seeks to use architecture to acknowledge the value of the athlete as a person, not just the records they set.

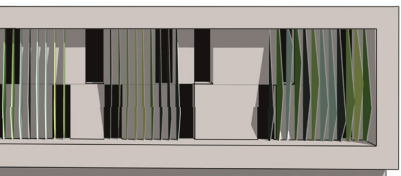
Beauty in architecture affirms the dignity and value of those who interact with the space; it's affirmation for the skilled athlete as well as the one just participating for fun. My thesis is all about encouraging the athlete's sense of self and connecting them to coaches, to parents, and to teammates. The building is designed to create a safe learning environment that focuses on character growth before technical skill by incorporating space to gather as well as compete. This intentional design will create an environment where relationships are fostered, inspiring and empowering the next generation.



Site: LaCrosse, Wisconsin

La Crosse, Wisconsin was an ideal site for a variety of reasons. To start, it exists at the intersection of two interstate highways and is less than two hours from Minneapolis and Eau Claire. There are also three universities in the city, which could potential provide opportunities for partnerships with college sports programs.

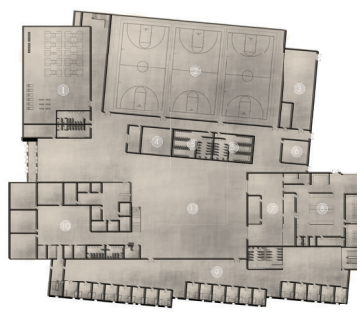
The specific site is located on an island on the Black River on the north side of town. The site is conveniently less than a mile from a track, softball field, and tennis courts that are open to the public.



For sports is the lighting system. Direct sunlight can cause glare, which competing indoors, but lack of natural lighting gives the space an... as well as raising energy costs. This complex incorporates natural... side of the building, as well as utilizing a system of vertical shading... aluminum fins became a major element in the design, as both a... tive way to incorporate color and character. The panels run directly... e parts of the gymnasium and academic wing, and the south side

Plan Key

1. Fitness Center
2. Gymnasium
3. Mechanical/Storage
4. Athletic Training
5. Locker Room
6. Multipurpose Space
7. Servery
8. Food Services
9. Dormitories
10. Academic/Administration
- 11 Athlete Commons
12. Mezzanine
- 13 Roof Garden
14. Fieldhouse



Level 1 ▲
25' 50' 100'

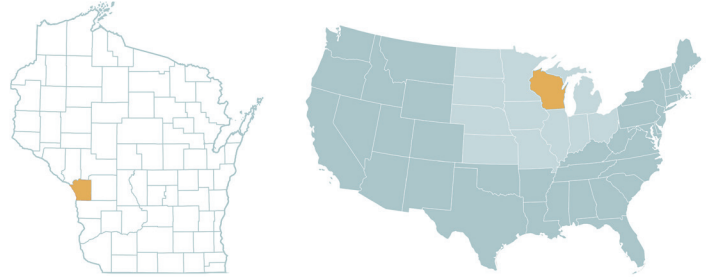


Level 2 ▲
25' 50' 100'

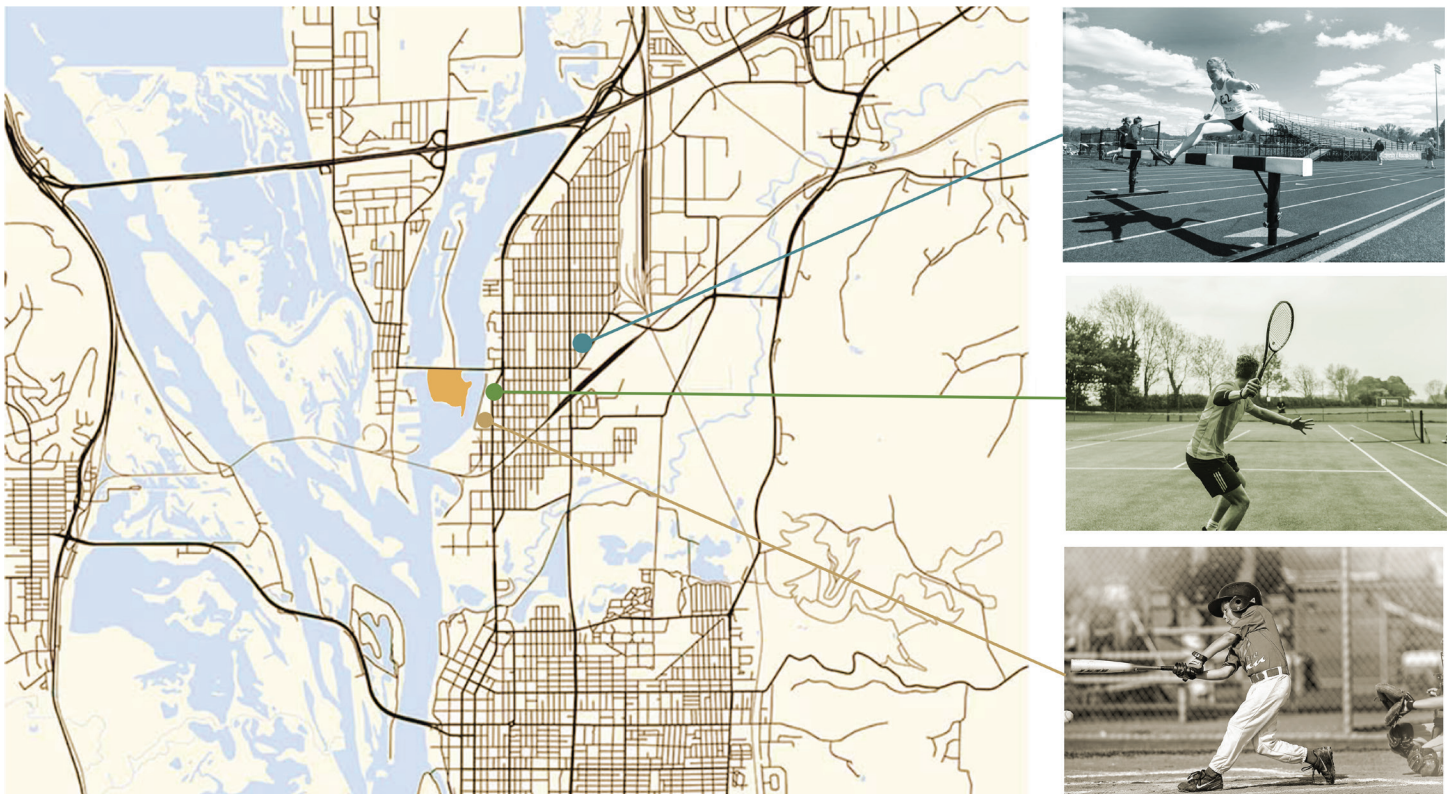


PERFORMANCE ANALYSIS: RESPONSE TO SITE AND CONTEXT

I believe that this project did a good job of responding to the site and the site context. The area was originally chosen for its natural beauty, proximity to a large metro area, and the surrounding colleges. Being only two hours from Minneapolis, MN, Eau Claire, WI, and Madison, WI creates a large fairly small radius with a large population of potential users. LaCrosse was also ideal because of the three colleges in the area. This allows for potential relationships with those schools and their athletics programs. In the future, FCA could partner with these colleges to use their facilities, recruit athletes, and employ college students as part time help.



With further digging into the LaCrosse area, Veteran's Park was chosen as an ideal site. With contacts at UWL, I was able to virtually visit a few potential spots in the area and eventually chose the island in Black River. There were two main reasons to choose this spot. First of all, the site is near a community that values the outdoors. Just within one mile of the site, there is public access to a track, tennis courts, softball field, and beach. I believe that choosing this



island was a sustainable decision because it allowed me to avoid recreating assets that are already in use. The most sustainable thing to do is to make use of what is already available. By situating my site near these amenities, I could avoid constructing facilities for tennis, track, and softball, and instead partner with the local community.

The other reason this site was chosen was for its architectural and community potential. Currently, the park is 12 acres of dying grass and empty parking lot. My building would be placed on the large gravel lot, which would cut down on site preparation and avoid disturbing the more desirable natural locations around LaCrosse. The lot is flat, which limits the amount of grading which would be necessary, and there are no trees where the building would be placed. The boat landing and parking lot is already much bigger than it needs to be, and could serve as parking for my facility as well, which cuts down on the surface area would need to use. The other perk of this spot is its prominence in the community. The east side of the site is lined with boat slips for houseboats, which are common in the area. Anyone who owns or rents a boat slip has to travel past my building, which doesn't infringe on their property, but invites anyone moving by to take a look at what's going on inside.

Overall, I believe this project successfully integrated the site with the project. The stepped architecture of the roof reflects the stepping down to the river, while the programming reflects the needs of the community without overbuilding. If this project were to be built, I believe that both the client and local community would benefit from its placement.



PERFORMANCE ANALYSIS: RESPONSE TO PRECEDENT RESEARCH

Out of the four case studies I did, two were very helpful: the Northstar Christian Academy and the São Luís Sports & Arts Gymnasium. These case studies illustrated things that inspired my design, as well as mistakes I wanted to avoid. My biggest takeaways focused on the client for the project, and lighting in athletic facilities.



The case study of Northstar Christian Academy (NCA) was most helpful in terms of figuring out my client and purpose. NCA is the national hockey headquarters for Fellowship of Christian Athletes (FCA) and is located in Alexandria, MN. FCA is one of the few organizations that works with students to develop wellness in all areas of life, which was one of my goals for the project.



I've had some experience with them as a high school and college athlete and found it to be a very encouraging organization, unlike many clubs that only care about elite performance. FCA is also a great client considering how they function; they can run sport specific camps, leadership training, as well as college, high school, and middle school clubs. Their programming is ideal for reaching out to young athletes as well as engaging the local community.

An interview with the executive director of NCA was also helpful in understanding the facility in Alexandria. While NCA is a prep school for hockey, they have been able to host at least ten other sports in their facility simply by the decision to add a field house with an indoor soccer field to their design. Even though hockey facilities need very specific equipment and can only cater to one sport, turf is very usable for many sports. This is a big way that NCA has been able to market themselves to a larger audience.

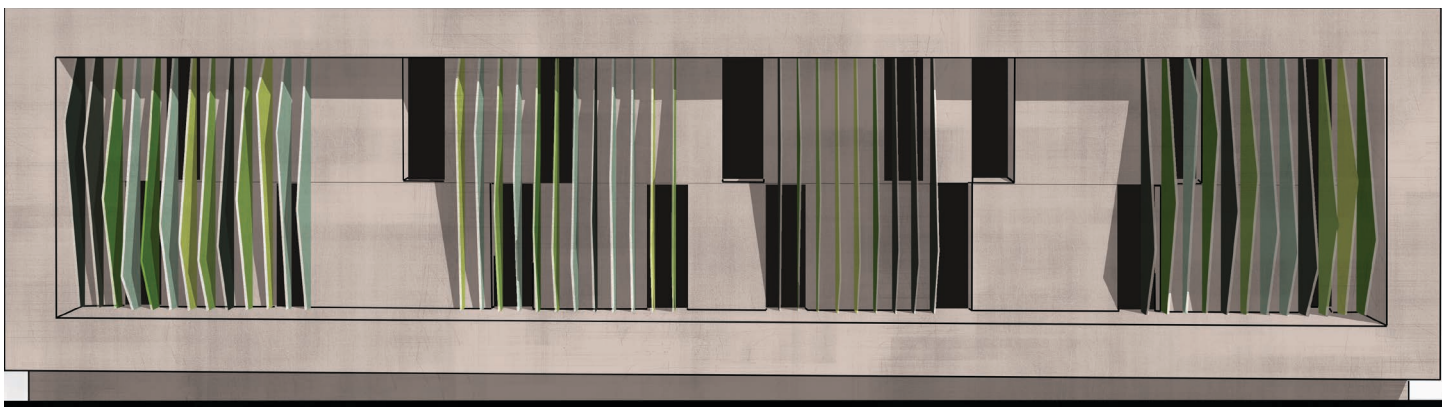
This case study and interview helped me understand how FCA works as a client and why they would be helpful for my project. It was also beneficial to see what kinds of facilities were most desirable to the local community, and how to engage students as well as their families.

The São Luís Sports & Arts Gymnasium precedent study was more helpful on the technical side of architecture, specifically looking at lighting. Figuring out how to bring light into an athletic space is a difficult task; most indoor sports take place on a wooden court that easily reflects light, and all athletes are can be affected by the glare of direct sunlight through windows or reflected off the floor. Including natural light was an important goal of mine in this project, and this case study helped me figure out how that should be done.

As you can see by the interior shot of the gym, this facility includes plenty of glazing. Natural light is abundant throughout the entire facility either through windows or permanent openings. The south side of the building is screened at an angle with metal fins that help diffuse sunlight and shield the open air hallway that runs along that edge from rain. However, the architects failed to use any sort of screening around the gym, which causes a lot of glare, which can also be seen in the interior photo.



This issue of glare was something I wanted to avoid while still bringing in natural light, which is why I placed all of the openings in the athletic facilities on the north side of my building. However, this wasn't a foolproof solution here in the northern hemisphere. In the winter, the sun travels from the northeast to northwest, causing some direct light early in the morning and later in the day. Because of this, I also developed a louver system that would diffuse that light even more, allowing for soft natural light to enter the facility without causing issues. This louver system became an iconic part of my design, and was installed on the south side as well to shade the dormitories.



Overall, the precedent studies were very helpful to my research. The study of NCA was invaluable in choosing a client and further developing my goals for the project. The Brazil gymnasium was helpful in responding to a common problem designing for athletics, and provided an example of how even the most beautiful buildings aren't always the most functional. I do wish I had been able to find a better example of lighting in a gymnasium; at the time I hadn't realized how big of an issue this would be in my design and how much influence it would have over the final form. However, I believe that this case study was adequate in informing my process since I was able to respond to the problems I saw, and come up with a better solution for my final project.

PERFORMANCE ANALYSIS: RESPONSE TO GOALS AND PROJECT EMPHASIS

The goals of my project were fairly straightforward in theory:

1. To inspire young athletes to learn and grow through physical activity, competition, and positive relationships.
2. To affirm the value and dignity of athletes through quality design and intentional programming.
3. To promote well being by creating a safe learning environment that address body, mind, and spirit: holistic well being.

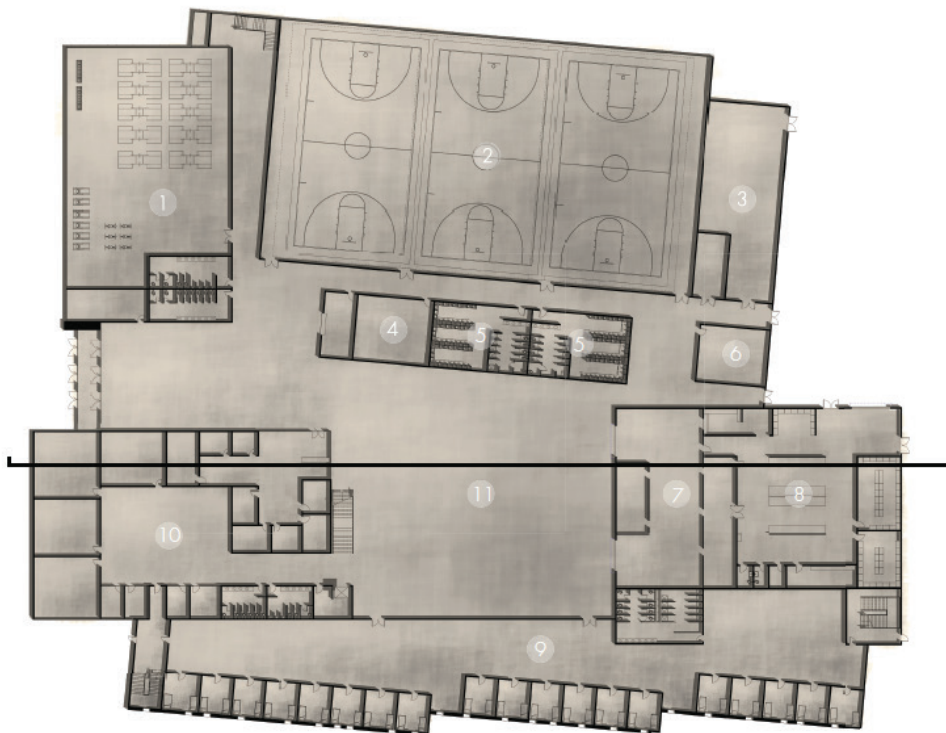
However, actually implementing those goals turned out to be more difficult than I originally anticipated. I believe that architecture is capable of a lot; it can inspire creativity, affirm inherent dignity of its users, and provide for one of our most basic needs: shelter. My project was very good at encouraging the goals I set, but in order to really reach them, I needed people. This is why finding a client whose values aligned with my goals was imperative.

I went about achieving these goals in two ways: first of all, to create a sports facility that was more focused on people than sports, and secondly, to design with a client in mind that would encourage the holistic well being of the users.

To start, I wanted to create a space that wasn't performance focused. Young athletes often get tunnel vision when trying to achieve a specific goal. If that goal is not achieved (which is certain to happen at some point), the self esteem of the athlete crumbles because he or she has their entire identity wrapped up in the concept of being an athlete. In their minds, if they are a failure as an athlete, they are a failure as a person. Many sports facilities reinforce this tunnel vision by creating a stellar performance area with every other space being treated as secondary. Hallways are dimly lit, bare, and meant to be rushed through. Amenities such as concessions and training rooms are often dirty, with as much lighting as an old basement. The only place the athletes are meant to gather is the locker room, which is often dirty, dim, and usually smells of three day old basketball socks. The most exciting team pep talks, halftimes, and victory celebrations are all held in the locker room, as well as the quiet clean up and tears after a loss or injury. As an athlete myself, many the best memories with my team happened inside a locker room. In this project, I wanted to bring the team atmosphere and connection outside of the lockers and to the rest of the facility.

PLAN

Level 1



Key

1. Fitness Center
2. Gymnasium
3. Mechanical/Storage
4. Athletic Training
5. Locker Room
6. Multipurpose
7. Servery
8. Food Services
9. Dormitories
10. Administration/Academic
11. Athlete Commons

Level 1 ▲

25' 50' 100'

The floor plan above shows the thought that went into the creation of this project. Instead of being a place to warm up, compete, and leave, this building is designed as a place to stay and connect. The entire plan is constructed around a central atrium where students can meet friends, eat, and gather for assemblies. The academic wing also offers classroom space to learn from coaches and professionals, as well as breakout spaces to work with teammates. The dormitories also have a large, long gather space akin to a college student center. Athletes can relax on couches, play ping pong, read in a window seat or play boardgames with friends. The entire space is dedicated to areas that encourage the user to linger, connect, and engage with the space and the people around them.

As great as this design could be, architecture can't force relationships. Without people making intentional decisions, all the goals of this project remain unfulfilled. However, I believe that this project is successful by seeking out people who are willing to take on that role, and using architecture to encourage those relationships. Just because there is space to gather doesn't mean that people will gather, but if there's no place to gather, they won't. This design may not force relationships, but it certainly can be a place to foster them.

RESEARCH METHOD CRITIQUE

The majority of the research I did was qualitative in nature, which I believe was most helpful for the type of project I was doing. Much of my inspiration came from personal experience, and testimonies from others about their own similar experiences. Talking to other athletes and students was incredibly helpful to help define the goals of the project and figure out what those students need. I also believe that conducting the interview with the executive director at NCA was helpful because again, this project is subjective in nature.

The research I did in the precedent studies and site analysis was also mainly qualitative. With the precedent study of NCA, the most helpful information was gained by interviewing the director and hearing how the surrounding community responded to the building. The virtual tours of LaCrosse were also invaluable. Seeing the space via Zoom gave me both firsthand experience of seeing the space, and secondhand experience of the feelings, culture, and history from the student I collaborated with.

There was room for quantitative research as well throughout this process. Some of the site analysis involved looking at sun angles, soil studies, and average temperatures in the area, all of which informed the design. The other research included looking at different types of glazing and lighting for an athletic facility. However, even in this case, the most helpful research was the qualitative data that recorded the look and feel of spaces using particular materials.

DIGITAL PRESENTATION

EMPOWERING YOUTH: THE POTENTIAL OF ATHLETICS

AN ARCHITECTURAL THESIS BY JEANNA MILLER

RESEARCH

Thesis Abstract

- Problems of pressure in youth sports
- Culture's treatment of sports as a means to an end
- Reintroducing sports as a method of learning and growth
- Using architecture to affirm the value of the person



RESEARCH

Goals



Inspiration



Affirmation



Well being

RESEARCH

Typology

-Design for kids (12-18)

-Design for sports and physical activity

-Design for community



RESEARCH

Client

-Fellowship of Christian Athletes (FCA)

-Sport specific summer camps

-Works with individual teams

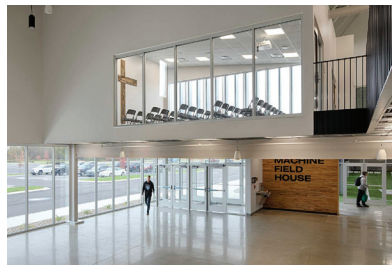


RESEARCH

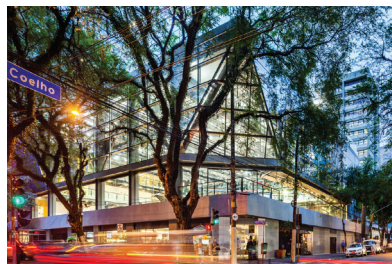
Case Studies



Northstar Christian Academy
Alexandria, MN



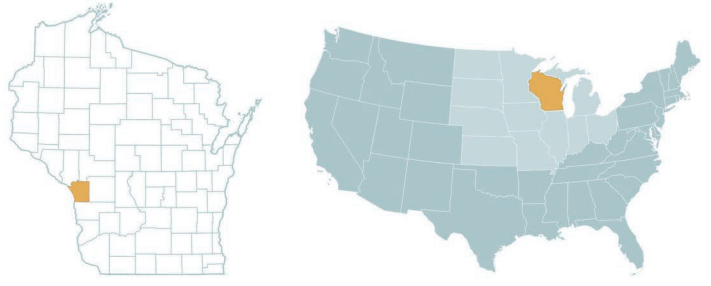
São Luís Sports & Arts Gymnasium
São Paulo, Brazil



SITE

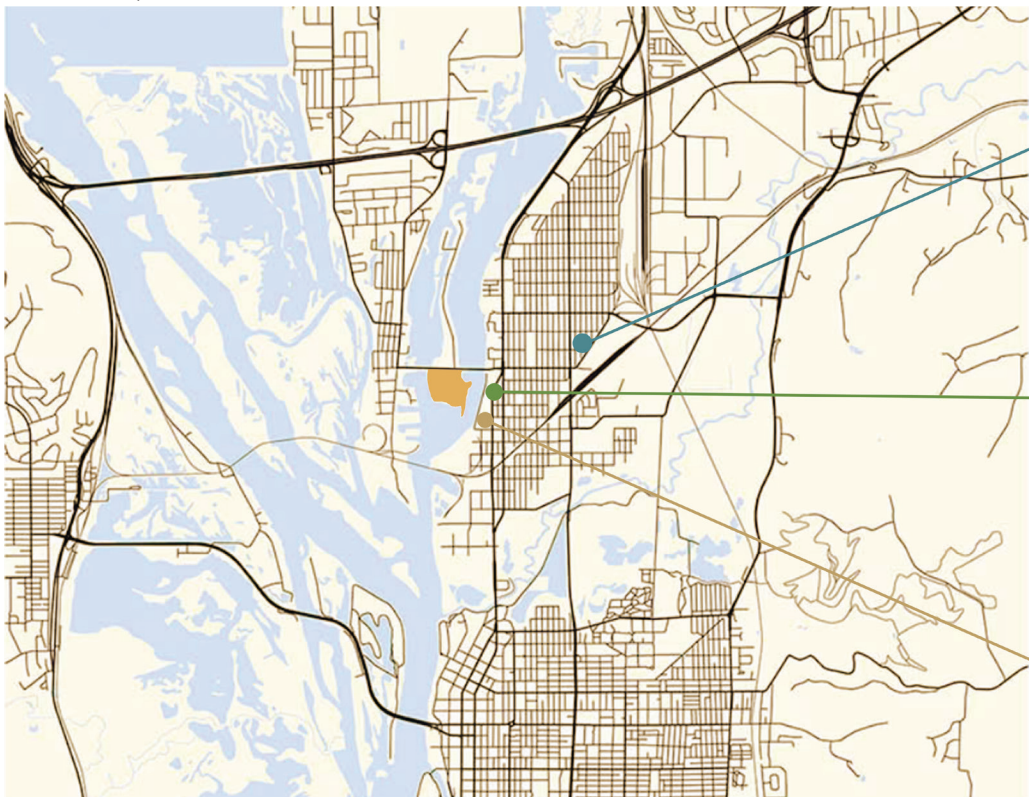
LaCrosse, WI

- Natural landscape
- Proximity to major cities
- Nearby colleges and universities



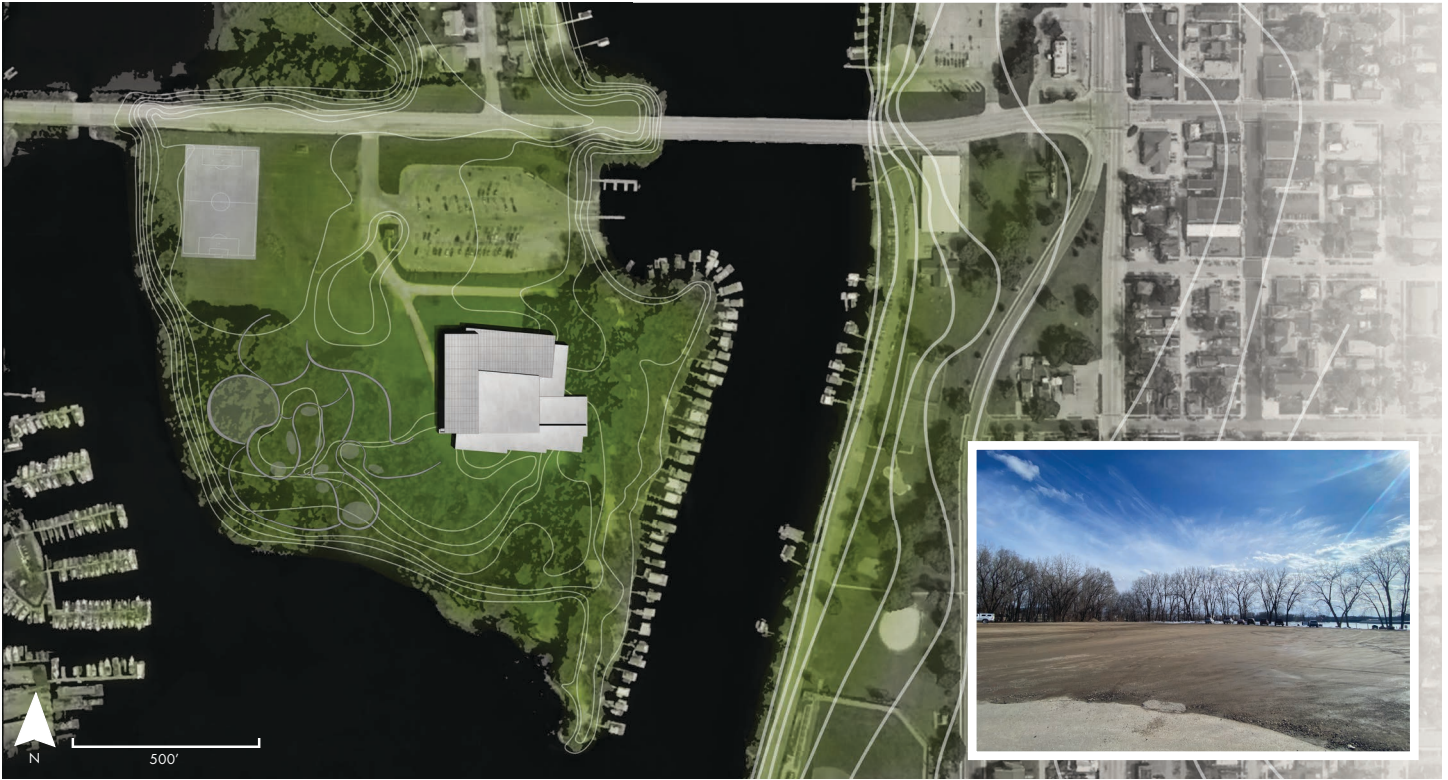
SITE

LaCrosse, WI

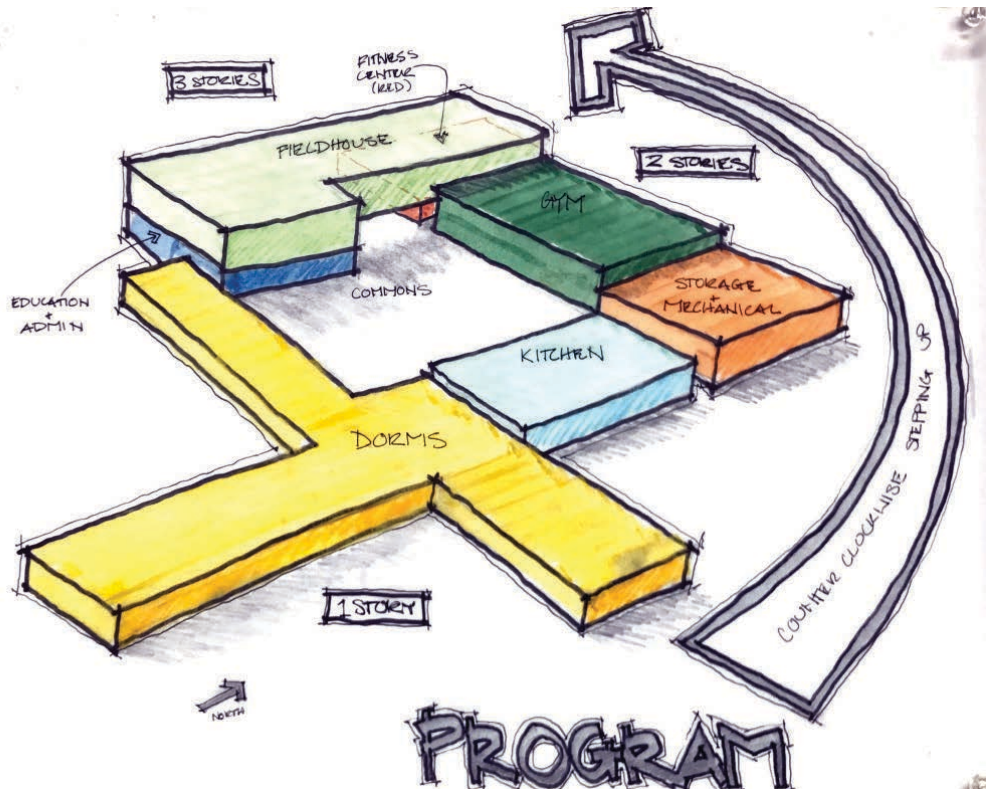
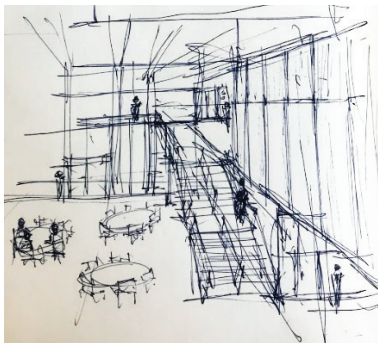
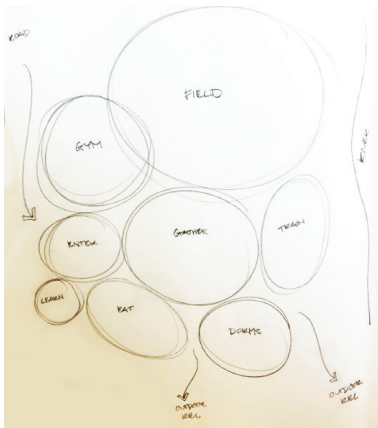


SITE

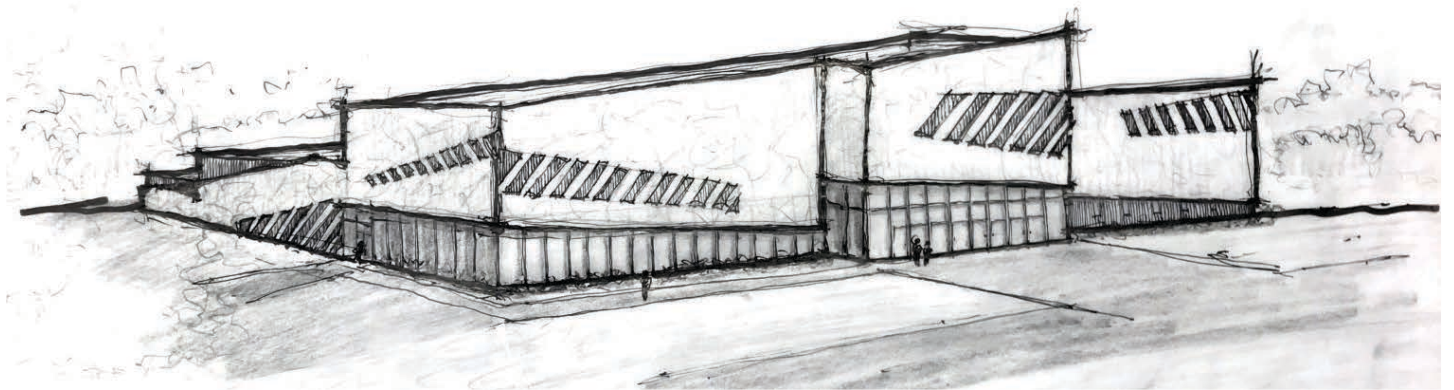
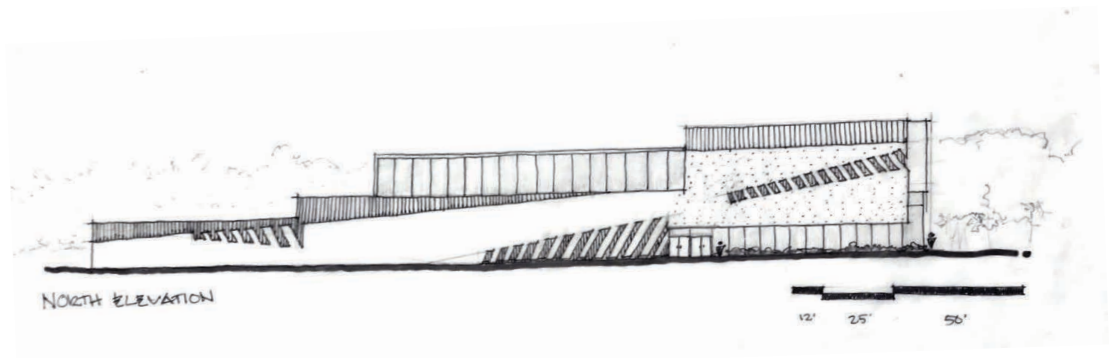
LaCrosse, WI



PROCESS

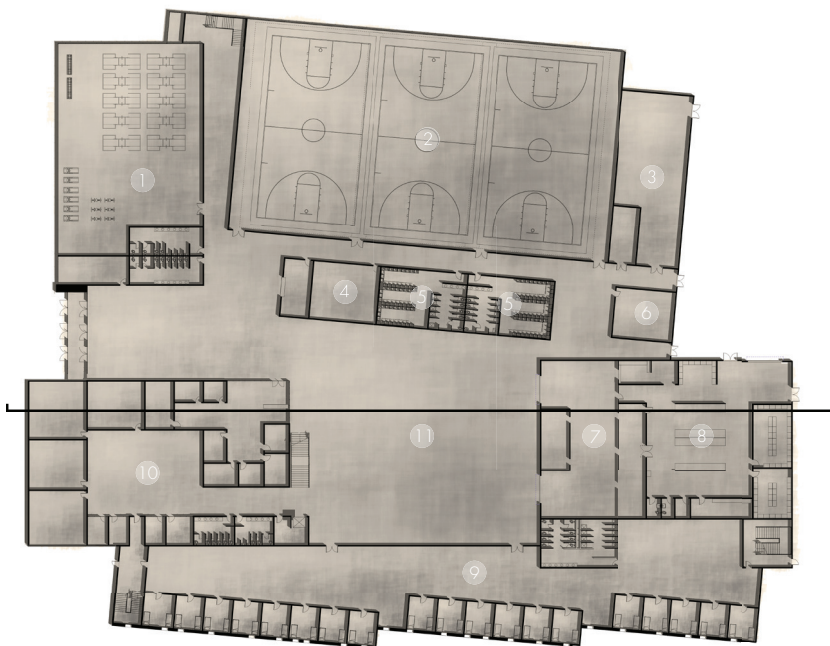


PROCESS



PLAN

Level 1



Key

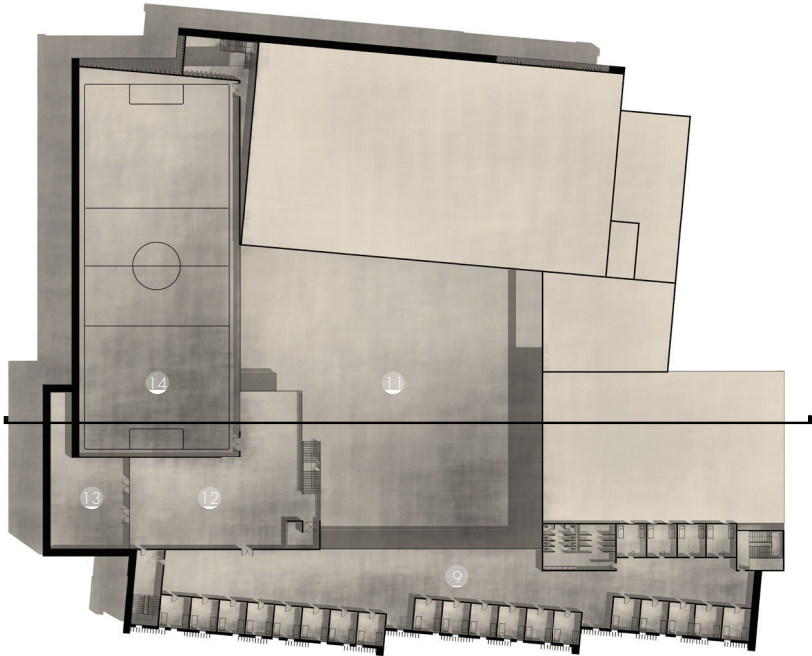
1. Fitness Center
2. Gymnasium
3. Mechanical/Storage
4. Athletic Training
5. Locker Room
6. Multipurpose
7. Served
8. Food Services
9. Dormitories
10. Administration/Academic
11. Athlete Commons

Level 1 ▲

25' 50' 100'

PLAN

Level 2



Key

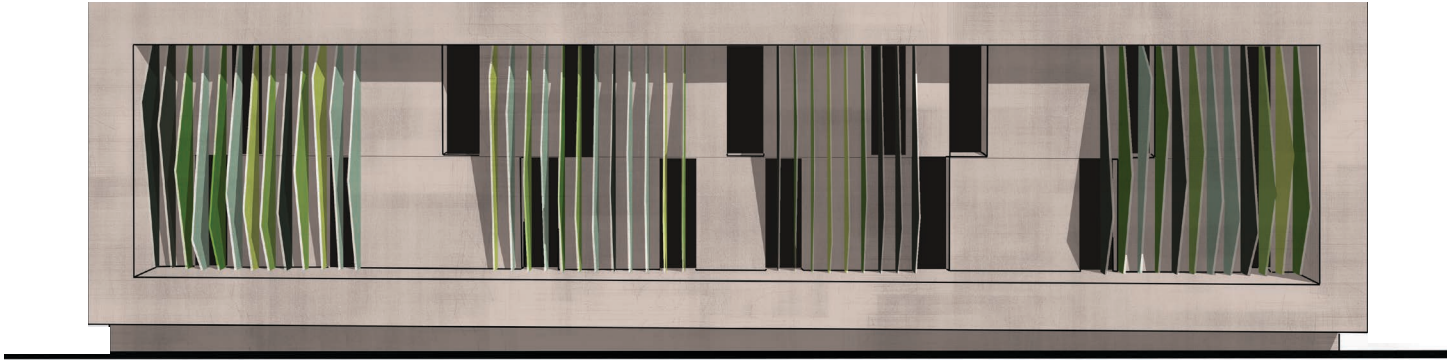
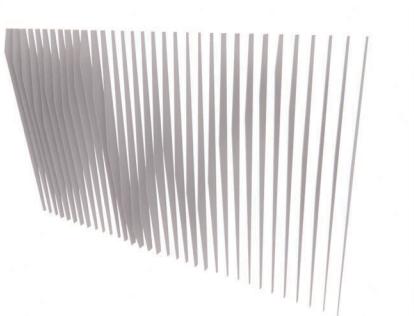
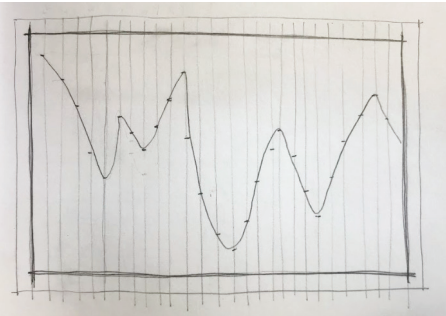
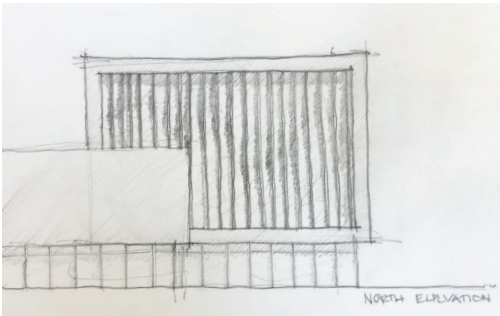
- 9. Dormitories
- 11. Athlete Commons
- 12. Mezzanine
- 13. Roof Garden
- 14. Field house

SECTION

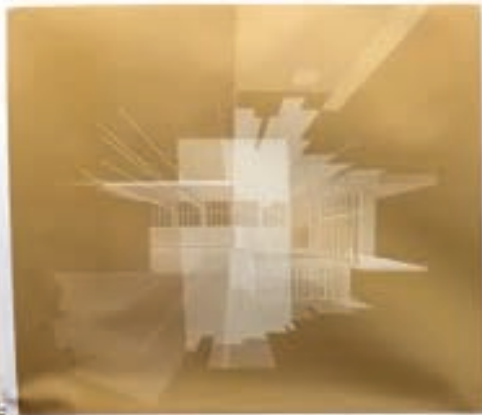


EXTERIOR DETAILS

Louver System



PROJECT INSTALLATION



EMPOWERING YOUTH: THE POTENTIAL OF ATHLETICS



The reduction of space in modern society cannot be dismissed. Not only are they expensive, but they offer little flexibility, money, and a chance at glory for children, athletes, and so on. Modern society is becoming more and more dependent on technology. However, today's athletes need a place to go for their training, and more modern, empowering spaces. Athletes face physical pressure of performing, the mental pressure of performing, and the pressure of the audience. All while competing for glory. The project seeks to use architecture to acknowledge the value of the athlete's experience, which is the overall goal.

Beauty in architecture offers the dignity and value of those who interact with the space. It's a reflection of the athlete's life, as well as the one who is participating in it. The focus is on creating a space that is both functional and inspiring. The building is designed to create a safe learning environment for athletes, and to provide growth before technical skill by providing space to gather as well as compete. The overall design will create an environment of one where athletes are valued, supported, and empowered by the new generation.



of Green Woods is a new and exciting addition to the campus. It is a place where athletes can go to train, to learn, and to grow. The building is designed to create a safe learning environment for athletes, and to provide growth before technical skill by providing space to gather as well as compete. The overall design will create an environment of one where athletes are valued, supported, and empowered by the new generation.



- 1. Main Office
- 2. Gymnasium
- 3. Performance Center
- 4. Athlete Housing
- 5. Athletic Center
- 6. Multi-Use Space
- 7. Parking
- 8. Bus Station
- 9. Entrance
- 10. Reception
- 11. Conference
- 12. Restrooms
- 13. Storage
- 14. Walkways



One of the main goals of designing this project is to create a space that is both functional and inspiring. The building is designed to create a safe learning environment for athletes, and to provide growth before technical skill by providing space to gather as well as compete. The overall design will create an environment of one where athletes are valued, supported, and empowered by the new generation.



The final boards are installed and on display in the gallery on the 5th floor of Renaissance Hall.

APPENDIX

REFERENCES

Dr. Bakr M. Aly Ahmed (thesis advisor)

Dan Miller (JLG Architects)

Rick Randazzo (Northstar Christian Academy Executive Director)

Bethany Miller (University of Wisconsin LaCrosse student)

PREVIOUS DESIGN STUDIO EXPERIENCE



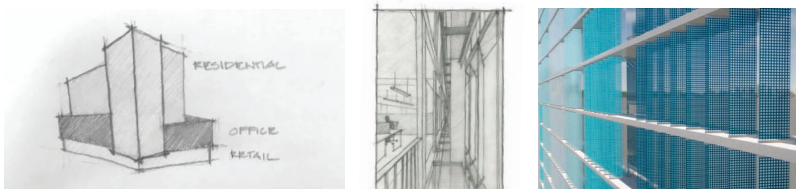
5th Year Design by Sketching Studio
Professor Bakr

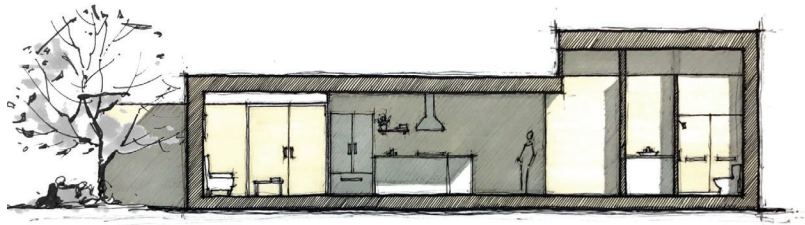
Designing a hotel and conference center in downtown Fargo.



4th Year Capstone Studio
Professor Hussein

Designing a high rise building in the Miami Arts District.





3rd Year Studio

Professor Bakr

Designing a five star resort on a Japanese island



2nd Year Studio

Professor Gerub

Designing a mixed use building in downtown Moorhead.



2nd Year Studio

Professor Yergens

Designing and building a birdhouse in the style of a Pritzker winning architect.

