THE PUBLIC PITCH: REIMAGINING THE STADIUM PRECINCT AS A COMMUNITY ANCHOR

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ABSTRACT

The Cincinnati riverfront area circulating West of Paycor stadium is underdeveloped and lacks community inclusion. Additionally, the current sports program is privatized and gated off, resulting in a divide between public and private. As time has progressed this area has seen various development proposals, illustrating the need to reinvigorate the area and turn unappealing parking lots into community green spaces. One such project even proposes enlarging the privatized area by expanding the gated practice field area, further reducing the community's access to the riverfront. Consequently, these projects do not provide a substantial solution that reinvigorates the area and blends the public and private. Thus, it fails to strengthen social belonging and expand upon Cincinnati's longstanding sporting culture, ultimately losing the focus on community. Community-centered sports infrastructure, accompanied by new community spaces, offers that solution. This design direction intends to provide the community with the opportunity to get involved and immerse themselves in the rich sporting atmosphere that Cincinnati exudes, while enjoying the green space development that follows on from the Banks Development, and creates a beautiful environment that flows across the entirety of the riverfront.

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DEDICATION

To my beloved mother, whose strength instilled in me the determination to persevere through every challenge. Her spirit lives on in my creativity and passion. To my father, for his unwavering support and the example he sets each day. To my partner, who stood beside me through every step, every frustration, and every success—your constant support made this journey possible.

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Finally, I would like to extend my appreciation to the other faculty in the architecture department and my peers, thank you for your compassion and thoughtfulness.

Start of Thesis: Spring 2025

Thesis Statement + 3 Key Words:

1. **Adaptability** – the ability to adjust to changing needs, conditions, or environments in real time.
2. **Flexibility** – emphasizes the capacity of systems or designs to accommodate a variety of uses or functions without major overhauls.
3. **Innovation** – the application of creative, forward-thinking solutions to address complex and evolving challenges.

Thesis Statement:

We are entering an era in sports defined by rapidly evolving demands and increasing complexity—where both the needs of athletes and the expectations placed on facilities are changing at an unprecedented pace. To meet these modern challenges, solutions must be capable of adapting to shifting circumstances. Modular design emerges as a compelling response to this need, offering a flexible and scalable approach that allows sports facilities to adapt in real-time. By enabling situational responsiveness and supporting a wide range of functional requirements, modularity equips the sports industry to meet its diverse and dynamic challenges head-on.

Abstract

World-class sporting events are often held in grand, state-of-the-art stadiums, fueling a cycle of building ever-larger venues. This “out with the old, in with the new” mindset leads to the abandonment of older stadiums, many of which fall into disrepair after being used only for occasional high-profile events. This results in significant waste—both structural and financial. At the same time, professional athletes, particularly in individual sports, frequently struggle to access specialized facilities for offseason training. They require high-quality equipment and environments to maintain peak performance, yet appropriate venues are often scarce.

Both issues—stadium waste and the lack of accessible training spaces—highlight the need for innovative solutions. One promising answer lies in modular design.

Modularity offers a sustainable and flexible approach to stadium and facility construction. For aging stadiums, modular systems allow for reuse and adaptation rather than demolition.

For athletes, modular training spaces can be easily customized and relocated, providing year-round access to tailored environments.

Advancements in design and construction technology have made modular solutions more viable than ever. These systems are faster to build, easier to adapt, and more environmentally sustainable than traditional methods. By integrating modular design into sports infrastructure, we can extend the life of existing stadiums and support athletes with versatile, high-performance training environments.

This article explores how modular design can help solve these dual challenges. With many Olympic stadiums now sitting idle, the potential for repurposing through modularity is clear. Embracing this approach can reduce waste, improve accessibility, and create more resilient, cost-effective sporting venues.

Ultimately, modular construction offers a path toward a smarter, more sustainable future in sports, benefiting both the facilities themselves and the athletes who rely on them.

Introduction:

Professional sports are becoming increasingly competitive, with the demand for perfection higher than ever, providing athletes with only the slightest chance at victory. As a result, the emphasis on off-season training is more crucial than ever, as effective training is key to ensuring peak performance during the season. However, managing off-season training can be challenging without access to dedicated training facilities, like those available to most team sports. This highlights the need for individual professional athletes to have access to a specialized performance training center.

By embracing the concept of modularity, we can create an adaptable facility that meets the comprehensive needs of athletes in individual sports, enabling them to train effectively during the off-season. This approach not only enhances training but also allows for a customized, efficient space for athletes to optimize their performance.

On the other hand, sports stadiums that host large-scale events are often not managed effectively. Organizations frequently build new, state-of-the-art stadiums, only to let older ones deteriorate or be abandoned after one-time events. Stadiums are often designed for single-use events and then left idle once they conclude. To address this, we need to implement a more systematic approach centered around modularity. Stadiums should be designed to allow for reconfiguration to accommodate different sports and be used year-

round. Alternatively, modular designs can facilitate easy assembly and disassembly after events, reducing waste and improving the efficiency of sports infrastructure.
This approach will not only optimize the use of sports venues but will also promote sustainability and better resource management, creating a more dynamic and efficient sports infrastructure.

Modularity:

Before we can meaningfully engage with the idea of modularity—particularly in the context of modular design—we must first understand what it means to speak of a concept. A concept is not a singular or isolated idea. Rather, "every concept has components and is defined by them. It therefore has a combination."[1] This statement emphasizes that concepts are inherently composite. They emerge from the interaction of multiple elements, and it is through the synthesis of these elements that the overall meaning of the concept takes shape. Concepts are structured frameworks of understanding, and only by recognizing and defining their components can we fully grasp their significance.
With this foundational understanding, we can begin to explore the concept of modularity. To understand modularity, we must identify its constituent parts and how they relate to one another. A helpful starting point is Modularity Theory, which is also known as the Theory of Interdependence and Modularity. This theory "explains how different parts of a system's architecture relate to one another and consequently affect the development and adoption of that system."[2] This definition tells us that modularity is not just about separation or compartmentalization; it's about the relationships between elements—how the structure of a system influences both its function and its adaptability. Each part within a modular system contributes to the system as a whole, and the way these parts interact determines how efficiently the system can evolve, scale, or respond to new conditions.
A second key component of modularity involves its contrast with the concept of independence. The distinction between these two terms helps clarify what modularity is not, and therefore, what it is. As noted, "an independent component is a more unique component, individually created for a specific purpose, whereas modularity is a form of components that fit and work together in well-understood and highly defined ways."[3] This means that while independence implies a self-contained function, modularity implies intentional interconnectivity. Components in a modular system are not random or isolated;

they are designed to integrate seamlessly within a predefined framework. The contrast helps us understand that modularity depends on compatibility and cohesion—components must be both functionally useful on their own and purposefully constructed to work in conjunction with others.

Yet, modularity still allows for a degree of autonomy within a system. This leads to the third component of the concept: the interplay between independence and integration. As one source explains, “Modules are units in larger systems that are structurally independent of one another but work together. The system as a whole must therefore provide a framework – an architecture – that allows for both independence of structure and integration of function.”[4] This duality is central to modular thinking. It allows for flexibility, customization, and scalability—because while the modules may be independent in form or function, they are still bound by a larger organizational structure that ensures harmony and coherence. A truly modular system provides a flexible yet stable framework where parts can be added, removed, or rearranged without disrupting the entire system.

Having identified and examined these core components, we can now articulate a comprehensive understanding of the concept of modularity. Modularity describes a system made up of distinct, yet interrelated, units. These units may possess individual qualities or even operate semi-independently, but they are intentionally designed to relate to and function within a larger whole. Modularity is, fundamentally, a structural and functional principle: it seeks to balance division with unity, specialization with integration. As one source succinctly states, it is a concept that “displays systems and components, that fit and work together in order to achieve desired outcomes.”[5] This synthesis of separation and cohesion lies at the heart of what makes modular systems both resilient and adaptable.

With this conceptual framework established, we are now equipped to move from theory to application—specifically, to examine how modularity is applied in architectural design. In doing so, we will explore how modular thinking influences the way buildings are conceived, constructed, and adapted, and look at examples of architectural structures that embody modular principles in practice.

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[1] Deleuze, Gilles. “What is a Concept?” In What is Philosophy? eds., Gilles Deleuze and Felix Guattari. New York: Columbia University Press, 1996. [pp.15–34]

[2] Modularity theory. Christensen Institute. (2024, September 4).

[3] Modularity theory. Christensen Institute. (2024, September 4).

[4] Baldwin, Carliss Y., and Kim B. Clark. Design Rules, Volume 1, The Power of Modularity. Cambridge, MA: MIT Press, 2000.

[5] Modularity theory. Christensen Institute. (2024, September 4).

Training facility application – nontangible:

With a clearer understanding of modularity established, we can look at the first major application: the professional sports athlete facility. This facility serves as a response to a growing challenge in the sports industry—how to support the evolving physical, mental, and performance-based needs of elite athletes within a single, cohesive environment. Rather than focusing solely on the physical arrangement of components, this project explores modularity as a conceptual and functional framework that enables adaptability over time. In this context, modularity is applied in an accommodating manner rather than a physical manner. It informs the structure’s ability to respond to changing programs, schedules, technologies, and athlete needs without requiring a complete redesign. For example, training zones, recovery areas, and wellness spaces are not rigidly defined but instead designed to transform based on fluctuating performance goals. This flexible approach allows the facility to remain relevant and highly performing as the athletes it serves continue to evolve. By embedding adaptability into the very logic of the facility, modularity becomes a non-tangible yet foundational principle—ensuring the structure supports not just the sport, but the progression of the athlete.

Sports stadium application – tangible

Building on the conceptual foundation of modularity and shifting focus from the training facility, this section of the thesis explores its application within the context of sports stadium design. Modern stadiums face a range of complex challenges—rising construction and maintenance costs, environmental concerns, and the increasing demand for multi-functional use. Traditional stadiums are often inflexible, designed for a single sport or event type, and struggle to remain relevant year-round. In contrast, a modular design approach offers a solution to these issues. By applying the concept of modularity to stadium architecture allows for scalable, reconfigurable spaces that can adapt to different sports, entertainment events, and community functions. Real-world examples, such as the Qatar 2022 World Cup's Stadium 974, which were built using repurposed shipping containers and designed for disassembly, highlight how modularity can support sustainability, reduce material waste, and offer relocation or repurposing options. Furthermore, modular stadiums can evolve alongside their communities, adjusting in size or function without requiring demolition or full-scale renovation. By embedding adaptability, sustainability, and versatility into the core of stadium design, modularity not only addresses current issues but also sets a progressive path for the future of sports architecture.

Case Studies:

Sports training facility: RedBull APC

This is a relevant case study related to the sports training facility side of my thesis because of aspects like Sport specific, privatized, adequate space and all encompassing. The facility is equipped to unique equipment that allows athletes to complete specific training to help them with their sport, this allows for the athletes to receive the best possible training to better prepare themselves for the coming season. Given the intense nature that comes with sports and the demand to find train space, the selling point of this type of facility is it privatization which gives curtain athletes an edge over the competition. While my thesis won't aim to segregate and privatize completely, this concept of providing a more elevated and higher level of training to a wider audience will help elevate professional sports and

potentially bring forth the next super stars. A benefit of this facility is the space it provides and allows for curtain types of training to take place because of it. It is large enough to host many athletes at one time and still provides enough space for training. Another factor that other training facilities lack is the location and housing factor, resulting in travel time issues for the athlete. In the case of the RedBull APC This factor is addressed in a problem-solving way. Housing isn't directly attached to the facility, but officials help set athletes up in nearby (very close) hotels.

Sports stadium Facility: Qatar 974 Stadium

To address the issue of creating new materials to build a stadium this case study is made from shipping containers and exhibited a modular structure which can allow for easy disassembling as well as a material sustainability solution. Additionally, the choice to use shipping containers opens the doors/possibilities for different programs to take place in this setting. As such, the shipping containers and stadium have been repurposed for different uses, such as classrooms. This stadium makes use of repurposed materials rather than developing new construction and new materials.

Sports Stadium facility: Hard Rock stadium – Miami

The selling point of this stadium is its ability to stay operational for multiple sports and be more active throughout the year, therefore reducing its dormant time and maintaining a level of functionality preventing it from rotting away. The stadium can be reconfigured to accommodate different sports (tennis & football), allowing it to be used all year round. This is a modular system that allows for reconfiguration addressing a version of sustainability in the sense that materials aren't going to waste. This case study serves to prove that through modularity a project and have multiple programs even at such a large scale, ultimately opening the doors to more events and allowing the stadium to stay active and not rot away.

Data Analysis:

- More versatility

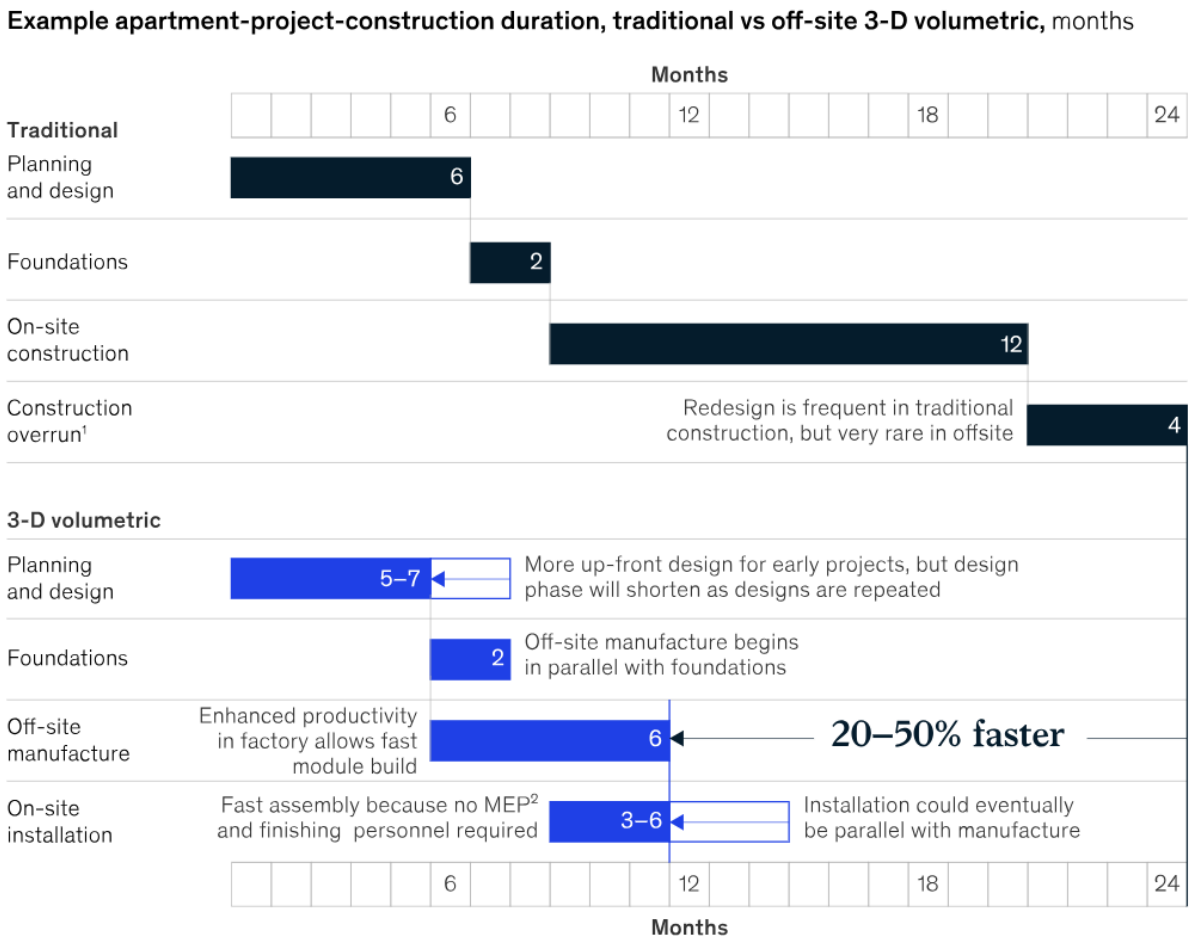
Through modularity stadiums can accompany multiple sports, ultimately keeping stadiums active and bringing in more income due to the larger number of events being held in the stadium. In the scope of a training facility, through modularity athletes from different sports can have their needs met, due to the variety and versatility the facility provides. Ultimately, the needs of athletes in different sports can be met, further boosting performance and increasing the sports the athletes are involved in.

- More sustainable

Modularity holds an element of sustainability in the sense that it can work with existing materials and keep facilities operational all year round to prevent used materials from going to waste and need replacement due to not being maintained. Modularity also allows for a partial time use system (Constructed -> Deconstructed) therefore allowing facilities to get their use and then ultimately taken apart and have their materials relocated somewhere else to prevent them from going to waste. This prevents the facilities from being dormant and going to waste, rotting away and taking up space, reaching a point where the materials cant be used again due to lack of maintenance.

- Shorter production timeline

Given Modularity is a concept that makes use of a systematic structure that works together, kind of like building blocks, it ultimately reduces the entire production process given that there aren't that many individual parts there require their own production process.



Above is a comparison between a traditional project and a project that makes use of a 3D volumetric system, essentially a modular system that works in unison. And as you can see in the graph the time frame to complete a project with the volumetric system is significantly shorter than a traditional system. Ultimately, this allows a project the uses a modular system to take less time to produce, allowing to it being operational soon and save on production costs.

- The potential for moveable construction

Sometimes a stadium just isn't in the right spot and such a demand for a new one is created. Through a modular system we can create an approach that allows for Constructed -> Deconstructed -> Constructed in new location. This elevates the need for always having to build a brand-new stadium in every possible location, saving on production, costs and materials.

Sites:

Manchester, UK (Salford Quays / Greater Manchester area):

This is a possible site location and probably my most favored one. Manchester has a very rich culture in sports and can often be compared to or on par with the sports culture of Boston. Additionally, the location of the stadium being close to the water opens the possibility to include water sports into the training facility, sports like rowing and swing proved the water meets the necessary requirements. Also, the selected location I close to the city which provides athletes the opportunity to explore other activities outside the field of sports with ease. This site also offers easy access for fan which promotes and ease to creating attraction to ongoing events in the stadium

Despite the location being in an area that already has stadiums and sports facilities the selling point for my stadium in the area is the versatility and new element to it. Everyone loves the site of a new and modern stadium as can be seen by the excitement surrounding the new stadiums that have been developed. Also, with the stadium being able to advertise multiple sports in a single location unposed to one sport adds an additional wow factor which sets it apart from the other stadiums nearby. As for the training facility, the fact that it will utilize the most recent and advanced training materials and equipment will allow it to stand out from similar facilities.

Las Vegas, Nevada (South Strip / Henderson):

The second site I am looking at is in the USA and similar to Manchester the Las Vegas strip already has a large sports and excitement factor surrounding it, so adding a new and advanced style stadium in this area will fit very nicely. This site is also already a large tourist attraction and as such another one-of-a-kind stadium will add to the excitement that surrounds Las Vegas. Also, by having it located in an already large tourist destination, it opens the doors to allow the stadium to receive large attractions right off the back. As for the training facility, it is similar reason talked about before there were a lot of facilities which mine could piggyback off of them to further boost it and make it stand out.

Both sites offer a unique opportunity in their own ways, and it could come down to which site offers the most opportunity for different sports to take place. Additionally, another factor to consider is the year-round weather and how it might impact what sports can take place at curtain times. Overall, both sites have huge possibilities and have their own unique selling points.

Conclusion:

In this thesis, I have theorized the application of modular design within the context of modern sports infrastructure, exploring how this approach can address the growing complexities and demands of both training facilities and sports stadiums. Through an in-depth review of theoretical sources, I have identified modularity as a principle that integrates adaptability, sustainability, and scalability—key factors needed to meet the dynamic needs of athletes and sports venues. I have analyzed case studies and real-world examples to illustrate how modular systems can be applied in both tangible and intangible ways, highlighting the ability to create flexible, multifunctional spaces that respond to evolving requirements.

By extrapolating design tactics from these sources, I have developed a conceptual framework for modularity that can guide the design of sports facilities. This framework emphasizes the importance of creating environments that are not only physically adaptable but also operationally flexible, allowing for continuous relevance over time. In forming the contextual setting for my thesis design inquiry, I have examined both the environmental and functional challenges of sports infrastructure, considering how modularity can reduce waste, optimize space, and enhance the longevity of facilities.

In conclusion, I have demonstrated that modular design offers a comprehensive, forward-thinking solution that can significantly enhance the functionality, sustainability, and resilience of sports facilities. Through this exploration, I have laid the groundwork for a design methodology that allows for more responsive, adaptable, and efficient sports infrastructure—ultimately addressing both current and future challenges in the sports industry.

Annotated bibliography:

Baldwin, Carliss Y., and Kim B. Clark. Design Rules, Volume 1, The Power of Modularity. Cambridge, MA: MIT Press, 2000.

The sources address the key concepts when it comes to the theory of modularity. This source addresses the contributions modularity can have to the world of design and illustrates the need for it. This source also helps to define the theory behind modularity and relate it to design and ultimately the application of it in design work such as architecture. This source is useful as it provides clarity as to what modularity is, allowing for a full understanding of what is being said and meant by the term modular design, ultimately providing a criteria and guideline for this style/type of design.

Deleuze, Gilles. "What is a Concept?" In What is Philosophy? eds., Gilles Deleuze and Felix Guattari. New York: Columbia University Press, 1996. [pp.15–34]

In this source the author aims to establish guidelines for what a concept is and isn't to ultimately establish a definition as to what a concept is. The Sources dives deeper into the theory of what a concept is and how it relates to philosophy, ultimately establishing a criterial as to what a concept is. This provides a framework for when it comes to trying to establish new concepts and ensuring that it meets these guidelines and can ultimately be called a concept. This source is valuable as it can help define and categorize the theory of modularity and apply it to philosophy and real-life architecture.

Carpo, Mario. "Excessive Resolution: From Digital Streamlining to Computational Complexity." Architectural Design 86, no.6 (November 2016): 78-83.

This source focuses on the idea that ornament in architecture is shifting from supplementary decoration to an integral part of form. This source helps present an idea that the form of a structure and be the decorative aspect of it and that the need to implement specific decorative aspect and be voided in some sense. This source can help present the idea that modular design, though it may be a new design concept, it can achieve beauty through its form and present aspect of decoration through its form. With new technologies such as CNC Milling and 3D printing, modular design can be achieved through the form of the design in a decorative way. This source will help explain that with the possibilities of

new and advanced technology we can explore ways of modular design that achieves the sustainable aspects of it but also provides decorative aspects that display beauty in this method of design.

Retsin, Gilles. “Something Else, Something Raw: From ProtoHouse to Blokhut – The Aesthetics of Computational Assemblage.” Architectural Design 86, no.6 (November 2016): 84-89

This source addresses the concept of how new digital techniques and allow for new forms that would otherwise be unavailable without advancements in technology. The source talks about making forms in a way that exhibit smooth and continuous transitions which is ultimately achieved through special technologies that are able to focus on finer details that allow for this kind of form exploration. Essentially this source helps provide context on how advanced technology can help explore new ways of creating forms and can be linked to new design concepts. Conditionally, this can be then applied to modular design, in the sense that

Modularity theory. Christensen Institute. (2024, September 4). https://www.christenseninstitute.org/theory/modularity/

This is a simple source that aims to provide a clear definition of modularity and link it to literal terms like the creation of smart phones. This source also provides clarity on the difference between independent architecture and modular interface, ultimately allowing for a better understanding of modularity and the benefits of it. This source also provides a short video which helps visually explain modularity and link it to real world examples for a better understanding. The is source is valuable as it allows for a simple understanding ultimately providing a base understanding of modularity that can be built upon through other sources that investigate the finer details of the concept of modularity.

Fenwick Iribarren Architects. (2022). FIFA Arenas: Stadium 974 by Fenwick Iribarren Architects in Ras Abu Aboud, Qatar. STIRworld. https://www.stirworld.com/see-features-fifa-arenas-stadium-974-by-fenwick-iribarren-architects-in-ras-abu-aboud-qatar#gallery-11

This article details the design and innovation behind Stadium 974, a modular stadium constructed for the 2022 FIFA World Cup using repurposed shipping containers and a steel

frame. It is the first fully demountable stadium in World Cup history. The source is highly relevant as it provides a real-world case study of modularity applied to a large-scale sports facility, demonstrating sustainability, reusability, and flexibility benefits central to your thesis argument. It also supports your conceptual framing of modularity as a design solution rather than a strict physical arrangement.

McKinsey & Company**.** (2019). Modular construction: From projects to products. https://www.mckinsey.com/capabilities/operations/our-insights/modular-construction-from-projects-to-products

This report explores the transformative potential of modular construction in the broader construction industry. It discusses how modularity shifts building practices from one-off projects to repeatable, scalable systems like product manufacturing. The insights into cost savings, speed, and scalability are directly applicable to your thesis, particularly when discussing the economic and operational benefits of modularity in sports architecture. The report also underscores the growing relevance of modular approaches in addressing time-sensitive and high-performance construction demands.

KieranTimberlake. (2022). Mass timber systems: Evolving from building products to product platforms. Mass Timber Conference. https://masstimberconference.com/report/content/mass-timber-systems-evolving-from-building-products-to-product-platforms/

his article examines how mass timber systems are being developed as modular product platforms rather than isolated materials, signaling a shift in construction logic toward modular thinking. Although focused on material systems, the discussion provides conceptual parallels to modular sports architecture, especially in terms of sustainability and repeatability. The article reinforces the importance of modularity as a systemic design strategy and offers valuable insights into how material choice and modular thinking can intersect in the creation of more adaptable sports facilities.

ASB GlassFloor. (n.d.). Sports floor for multiple disciplines. https://asbglassfloor.com/

This commercial site highlights ASB Glass Floor's innovations in flooring systems designed for multiple sports within a single space, using programmable LED lines and adaptable surfaces. Although a product-focused source, it is useful in demonstrating how modular thinking can extend to interior systems and user experience within sports facilities. The floor's ability to switch between sports functions reinforces your argument for multifunctionality and non-tangible modularity that enhances user adaptability without changing the structural footprint.

Baldwin, C. Y., & Clark, K. B. (2000). Design Rules: The Power of Modularity. MIT Press.

This book explores the theory of modularity, focusing on how modular systems in design allow for flexibility, scalability, and adaptability. It provides a deep theoretical foundation on the concept of modularity, which could support your exploration of how modular design can be applied to sports facilities and stadiums.

Gann, D. M., & Salter, A. J. (2000). Innovation in Project-Based, Service-Enhanced Firms: The Construction of Complex Products and Systems. Research Policy, 29(7-8), 955-972.

This article discusses the application of modular design in construction, particularly in the context of large-scale projects. It addresses how modularity can be used to optimize project efficiency and adaptability—key themes in your thesis related to modular sports facilities and stadiums.

Wang, S., & Liao, L. (2020). Modular Construction and Its Applications in Sustainable Building Design: A Literature Review. Journal of Building Engineering, 32, 101479.

This paper provides a comprehensive review of modular construction, focusing on its benefits for sustainability and flexibility. It discusses how modular systems can be applied to various types of buildings, including sports infrastructure, providing valuable insights into the practical implementation of modularity in construction.

Addendum 1:

"Modular design: built to adapt, ready for the future of sports."

Thesis statement:

As the demands of the sports industry evolve at an unprecedented pace, facility design must prioritize adaptability and resilience. Modular construction provides a transformative solution, offering the flexibility to accommodate changing needs, optimize resources, and address the diverse challenges facing contemporary sports infrastructure.

Key points:

Evolving demands: The sports industry is changing at an unprecedented pace.

Design priorities: Facilities must focus on adaptability and resilience.

Solution: Modular construction is presented as a transformative approach.

Flexibility: It enables facilities to adjust to changing needs.

Efficiency: Optimizes the use of resources.

Problem-solving: Addresses diverse challenges in modern sports infrastructure.

New Abstract:

Global sporting events increasingly drive the construction of monumental, high-tech stadiums. Yet this rapid cycle of building and replacement often results in abandoned or underutilized facilities, contributing to structural decay, financial inefficiencies, and environmental waste. As the demands of the sports industry evolve at an unprecedented pace, the design and management of facilities must prioritize adaptability, resilience, and sustainability. This research, based on theories of speculative design, architectural modularity, and adaptive reuse, examines modular construction as a transformative strategy to meet these challenges.

Unlike conventional building methods, modular systems allow for flexibility, scalability, and reuse, enabling venues to evolve in response to shifting needs. Advances in prefabrication and digital design expand the potential of modular stadium components, allowing for easier reconfiguration and extending the lifespan of existing infrastructure. This adaptability offers an alternative to the costly demolition-and-rebuilt cycle by supporting new facilities that can be incrementally expanded or repurposed.

The research employs two primary methods: speculative design frameworks and case study analysis. Case studies highlight strategies that integrate modular approaches into stadium and arena design, emphasizing resilience, cost-effectiveness, and community-cantered programming. The current phase of the research explores time- and scale-based studies leading to the development of a "kit of parts," which includes strategies for flexible space and returning idle facilities to the community for cultural and recreational use. Future phases will apply and test these strategies at a specific site with identified stakeholders. The implications extend beyond mega-events such as the Olympics or World Cup, where numerous stadiums now sit idle. Modular approaches can generate multipurpose venues that better serve local communities, accommodate diverse sporting and cultural events, and reduce financial burdens on host cities. By optimizing resources and minimizing waste, modular design not only advances sustainability goals but also enhances accessibility and inclusivity in sports infrastructure. Ultimately, this research positions modular construction as both a technical and cultural shift in how sports facilities are conceived, used, and sustained—with significant relevance and impact on the future of global sports architecture.

Analysis

As my thesis progressed through development stages, it underwent changes as can be seen in the change in the difference in the thesis statement from the beginning to the one above. My thesis sought to establish a solution to the fact that sports stadiums are not used as much as they should be and ultimately produce waste. Additionally, I tried developing a community sports facility that was focused on bringing the community more involved in sports and bridge public and private.

One of the biggest changes or developments that happened in my thesis was the aspect of site location, where originally there was no mention of Cincinnati as an opportunity as a site for my thesis. However, after inspection I soon found that Cincinnati was a perfect location to explore my thesis. It ultimately had the opportunity to develop that area around eh stadium to create it more community based and bring more people into the world of sport and the stadium was hardly used throughout the year meaning there was a problem present in relation to what my thesis was directed towards.

Through extensive study and analysis, it was essentially established the location to apply my thesis would be Cincinnati. Little did I know my thesis would undergo even greater changes based on this area and scope.

As time and work progressed on my thesis application in Cincinnati, a small shift started to occur. As development continued, I started to focus on the community aspect rather than the modular aspect in my thesis. I started to concern myself with bringing people together through sport and creating a sports atmosphere not only in the stadium but around the stadium. Little did I know I was weeding out the modular design aspect bit by bit.
As time progressed and more reviews and meetings occurred a common theme which asked me to go bolder with the modular design aspect and push past aspect that has already been done. As such I conducted research and export terms such as kinetic design and speculative design to find a solution to create a solution which would solve the issue I was addressing. Whilst working on this new idea I was still exported how to develop community space and bring the community together through sport and around sport. A community sports facility was a huge focus which aimed to de-gate a private practice facility and make it more community accessible with the goal of being the community together with sport as the central link.
Overall, my thesis started as concept to allow for stadiums to become more usable throughout the year and develop a facility that would allow for off-season training for individual sports athletes, all through modular design. However, as time progressed it shifted slightly to becoming more community focused with the goal of bringing the community together through sports with an aspect of modular design to allow for stadium to be used more times throughout the year.

Design Process:

Title:

Modular Futures Rethinking Stadium Design through Adaptability, Sustainability, and Community Use

The Big Picture: Sports Facilities



Stadio Sant'Elia in Cagliari, Italy



Author Study: Image layering & Ai

Stadium Lifespan

- Large scale stadiums receive little use year round and ultimately decay over time - leading the abandonment and the creation of waste
- Olympic stadiums constructed for a single event and then most of the time abandoned, left to rot

Private Vs Public

- Private facilities are gated off and not community inclusive and promote segregation of the community from the private facility.
- public facilities promote community inclusion and cohesion amongst society

Discourse Board:

Thinkers: Discourse

OMA - adaptive and modular construction



David Baker Architects - modular design and prefabrication.



Thinkers: Artists

Sol LeWitt - modular sculpture creator



david umemoto - modular solid form sculptures that are pieced together



Topic:

- Systematic approach
- Modularity
- Adaptive

Thinkers: Subject Matter

System thinking & complexity theory - aleksandr bogdanov



Speculative design - Retsin, Gilles



Condition:

Cityscape stadiums



Urban Stadiums



Decay and longevity
Reuse and multi purpose
Adaptive and systematic

Thought Leader:

—

Article: by Buro Happold

The Hospital of the Future: OMA



This thesis or revolutionary project address an issue related to decay and longevity of hospital structures and their struggle to keep up with ever-changing demands and technological developments in healthcare.

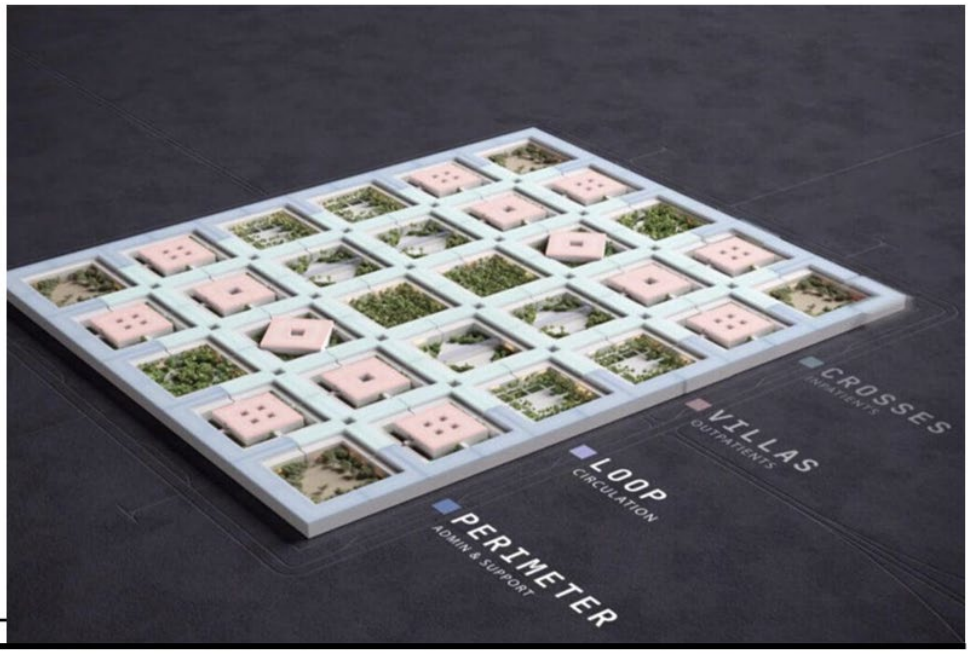
A focal point of the project is it aims to have an impact on all groups involved in hospitals, focusing on the whole and not just a select group.

Solution: modular systematic approach

- Rather than the conventional medium-rise towers, the thesis flattens the structure and places patients on the ground floor, with clinical services above.
- The thesis adopts a **modular** system that allows for rapid adaptation which utilizes a kit of parts around an industrialised construction approach.
    - The modular system breaks the project up into 4 quadrants - within each quadrant, the kit of parts enables and allows for easy adaptation to perform new functions.
    - The quadrants are self-sufficient and able to operate as independent hospitals.

Key words:

- Modular
- Self sustaining
- adaptive
- Systematic
- Independent
- Resilience
- Technologies



Design methods:

With this project being so out of the box and experimental, OMA utilized speculative scenarios and prototyping to try different systems and explore ‘what-if features’ creating a scenario where no stone was left unturned.

Axonometric and exploded diagrams were utilized to view the shape of the hospital and explore spaces within. Ultimately allowing OMA to explore relationships between spaces and the overall layout of the project.

Influence:

Michel Foucault - critiques the medical institutions saying that power and medical knowledge shaped the hospital as an institution. OMA engaged this idea and aimed to create an environment that exudes freedom allowing for the architecture to mediate care.

Systems thinking & Complexity Theory - OMA views the hospital project as a complex ecosystem rather than a static building.

- This mentality is driven by influences such as cybernetics and network theory.

Influence 2:

Contemporary patient-centered approaches - drives part of the mentality in some design decisions, creating a focus on how patients will interact with the spaces and prioritizing their preferences in certain areas.

Modernist Functionalist Legacies in Hospital Design - focuses on zoning programs and creating flow between programs. This allows for easier understanding and a systematic approach.

Experiments:

Body Study:

Method:

Understand and experiment with the concept of different vantage points.

Understand how different bodies interact with the space, (athlete, spectator, people on exterior, etc.)

Outcome:

Be able to determine the effect different vantage points have for people.

Be able to determine how much the exterior effects attraction and engagement, allowing for a better understanding of the overall picture.

How it helps:

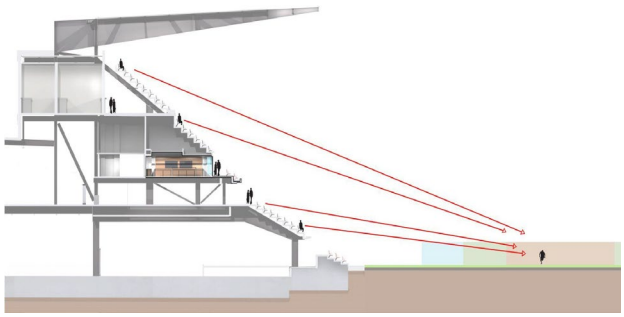
It will allow me to better understand how different users interact with the space depending on their location and involvement in the space. Allowing to create a space that promotes cohesion and reduce dead spaces, further promoting likability and attraction



AT&T Lofts at Mercedes Benz Stadium, Atlanta



TQL Stadium



On field:

- Red represents high active area during sports and an area that receives the most attention from fans throughout the duration of a sport
- yellow/green area represents an area the still receives noticeable amounts of attention from fan and is still a relatively active area during the sport.
- Blue is an area the receives little attention from fans and is also an area that can sometime be visually blocked out depending on seating location. It is also an area that has low activity and play is not frequent in this area

Offset & Scale:

Method:

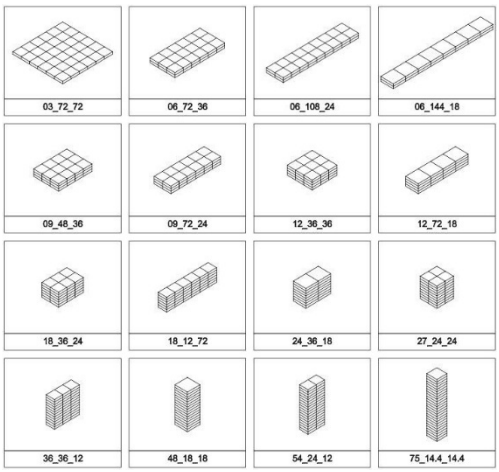
Use shapes varying in size and shape and experiment with creating different forms. Create shapes with shapes and layer components to create different final structures

Outcome:

Develop a method and ideology that allows for a manipulation of scale and creating forms within forms.

How it helps:

It will allow me to understand the concept of spaces within spaces ultimately allowing me to develop an idea on how to explore and create a stadium within a stadium. Additionally, it will allow me to explore the idea of a 'kit of parts' that can allow for the creation of multiple different forms



Changing overall shape and size without changing individual components



Space within a space

Biomimicry:

Method:

Observe nature through the scope of understanding an entity within an entity (cocoon and insect).

Observe how a natural subject address change in scale.



Insect cocoon

Outcome:

Understand how an already existing natural entity addresses the challenge and subject I am addressing in a theoretical scope, (change in scale, a thing within a thing).



redwood and giant sequoia trees

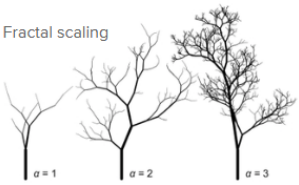
How it helps:

I hope that it will give me an understanding of scale relationship and better understand the concept of how a large thing can relate and compliment a small thing and vise versa.

Biomimicry: findings & connections

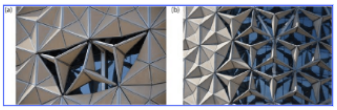
- **Fractal Scaling (Trees, Blood Vessels, Lungs)**
  - Natural systems use repeating branching patterns to distribute resources efficiently.

Fractal scaling



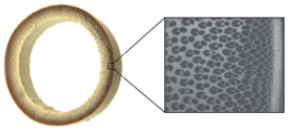
  - **Architectural application**: urban circulation networks, façade shading patterns, cooling/heating systems (e.g., termite mound-inspired ventilation).

Shading patterns



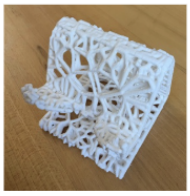
- **Hierarchical Structure (Bone, Bamboo, Coral)**
  - Nature layers material density according to stress and function.

Bamboo structure



  - **Architectural application**: lightweight but strong structures → latticed 3D-printed beams, porous facades, adaptive load-bearing walls.

Lattice Structure:



- **Modularity (Honeycombs, Shells, Cells)**
  - Repetition of small units allows expansion while retaining integrity.
  - **Architectural application**: prefabricated modular housing, parametric cladding systems, deployable pavilions.



Honeycomb structure

Modular construction



- **Responsive Scaling (Pinecones, Seed Pods, Skin)**
  - Living structures shift form depending on scale of environment (humidity, light, growth).
  - **Architectural application**: climate-responsive facades, dynamic shading, smart materials.

Seasonal Coat change:



Dynamic shading:



Roof Topographic

Method:

View the roof as a living aspect, that interacts and adapts to the needs and requirements of the program.

Outcome:

Devise a solution for an adaptive roof that adds to the atmosphere of the stadium and complete/meets the necessary needs.

How it helps:

It will allow me to understand the relationship between the roof and the stadium as a whole. Ultimately understanding how they complement each other but also fulfill their individual requirements.



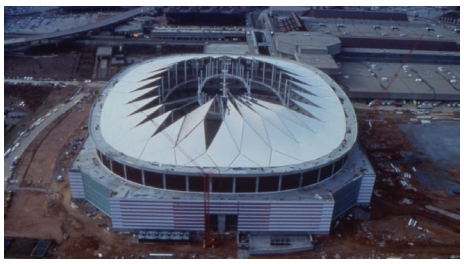


Tensegrity:

- Lightweight but strong structure



Georgia Dome:





Time Study:

Method:

Compare and analyses the Retractable Pitch at the Santiago and State Farm Sliding stadium

As a reference it takes Santiago stadium roughly 6 hours to complete a rotation (remove and store 1 type of field underneath the stadium) so 12 hours for a full cycle (remove - store - put back into play).

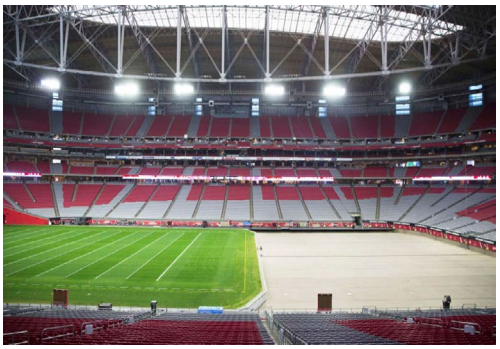
- The pitch is divided into six massive trays, each approximately 352 ft × 38ft and weighing around 1,500 tonnes



Santiago stadium

As a reference it takes the State Farm stadium roughly 70 minutes to slide the field out of the stadium.

- 740 feet along 13 railroad-style tracks on 546 steel wheels



State Farm stadium

Outcome:

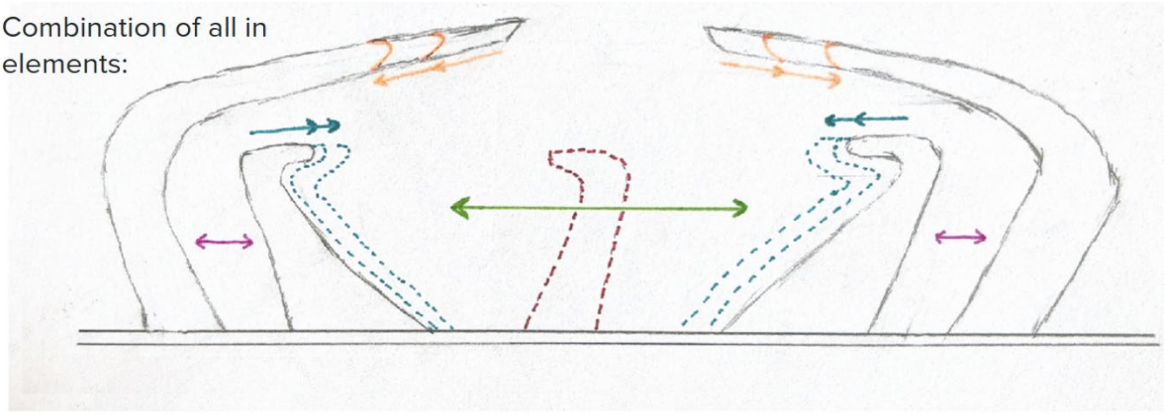
Establish a baseline and understanding of how long it might take to change program/sport in the stadium.

Allowing for adjustments and perhaps a more efficient method

How it Helps:

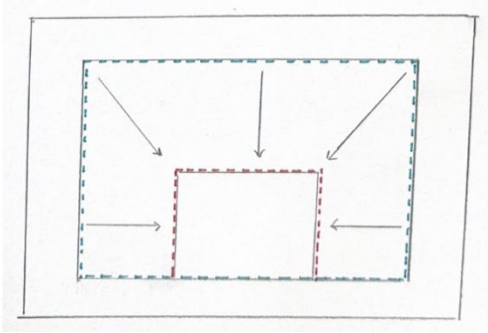
It will allow me to gain a better understanding of a system that will help solve the problem of how I change sports/program in a timely manner.

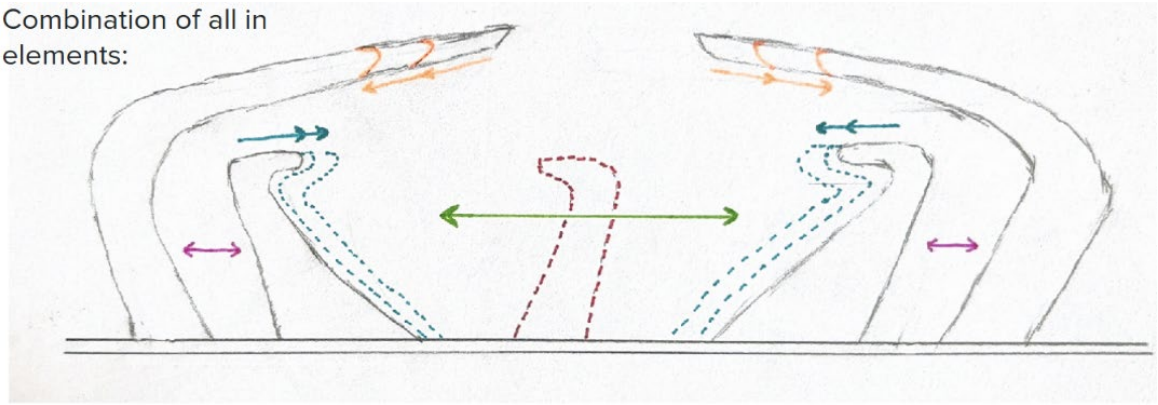
Possible types of movement of elements of stadiums:



Scenario 1:

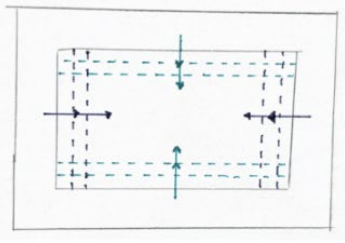
- Orange moves in accordance with sports requirement and base stands (Blue) stay stationary.
- Pink distance is fixed.
- For smaller program sports new construction (red) is installed to change distance and break up of green.





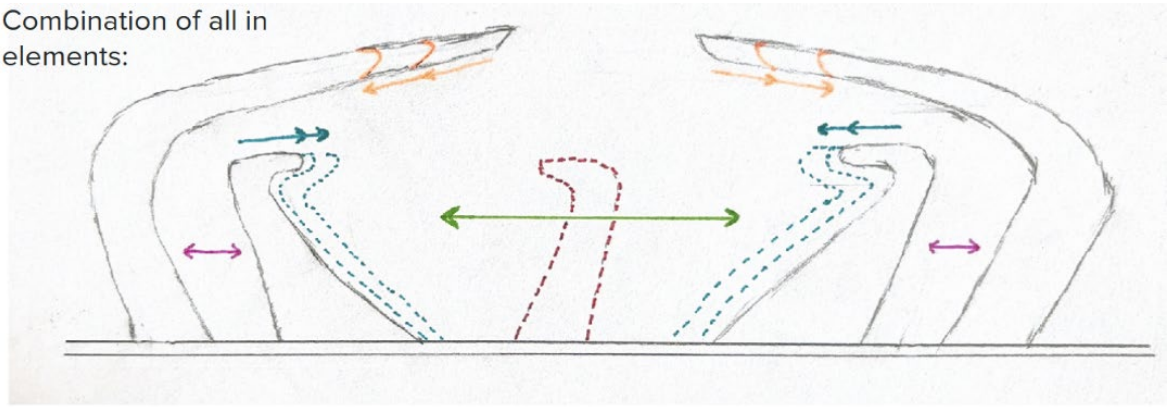
Scenario 2:

- Orange moves in accordance with sports requirement.
- Base stands (blue) are moveable and adjust based on sporting requirements.
- Pink is a variable distance.
- Center point of the stadium is the center point for all sports.
- For shorter sides they are modular and overlap to shorten field.



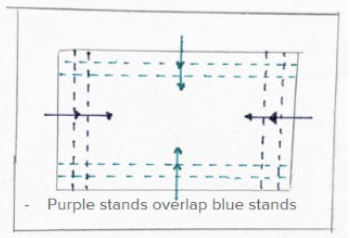
- Purple stands overlap blue stands

Combination of all in elements:



Scenario 2: Variant

- Orange moves in accordance with sports requirement.
- One side of base stands (blue) are moveable and adjust based on sporting requirements.
- Pink is a variable distance on one side.
- Center point of the stadium moves depending of sport program.
- For shorter sides they are modular and overlap to shorten field.



Real World Issue:

Tokyo Olympics aquatic center entrance:

- Here's an unused spectator entrance to the Tokyo Olympics Aquatic Centre on August 6, 2021.
    - Facility is completely inactive



The Astrodome in Houston:

- This historic, yet currently inactive, stadium that was the first fully-enclosed and air-conditioned sports venue.
    - Now only used as a storage facility

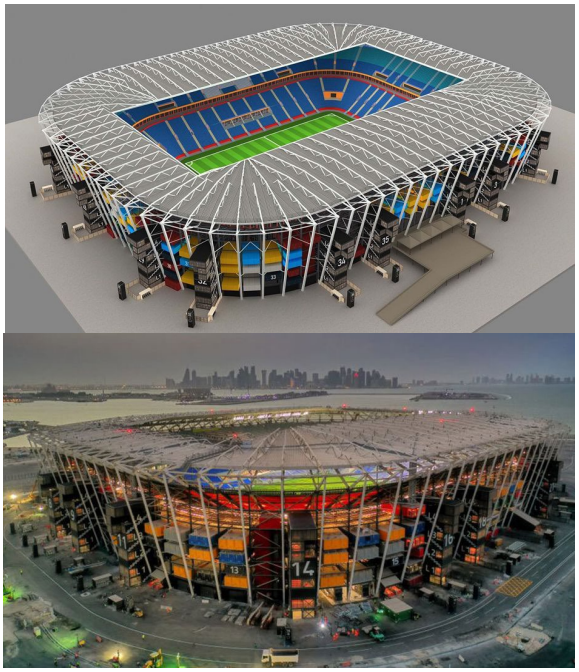


Case Study:

It's a large-scale venue that intentionally uses modular, reusable components (shipping containers) rather than one-off bespoke construction.

It addresses both structural reuse and lifecycle flexibility, which aligns with your interest in sustainable, modular stadium design.

Designed to be fully demountable, with a legacy plan to dismantle and relocate modules after the World Cup



Existing Proposal:

Re-do Paycor stadium to make it modular and adaptive, allowing for it to host multiple sports and used more throughout the year.

Develop a community sports center, open to the public with a privatized training portion allocated to professional athletes.

Improve waterfront area to increase community involvement and inclusion.





Results:

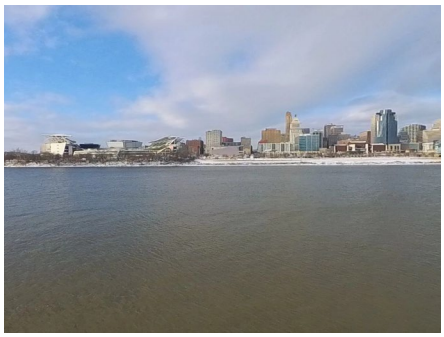
Stadium becomes adaptive, meaning it is used more throughout the year.

- Making it become sustainable and not a waste of materials

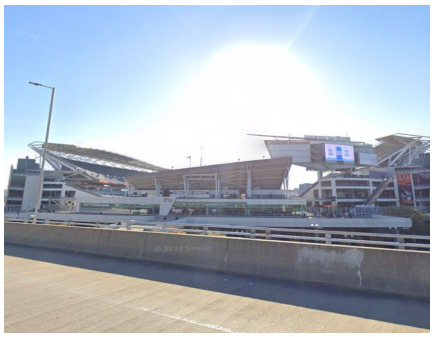
Area becomes more community inclusion.

Location views:

View from across the lake on Kentucky side:
Here we understand that even from across the lake the exterior/facade impacts people and ultimately a relationship is created.



View from divers traveling along highway behind stadium
While a portion of the facade is cut off due to elevation the exterior and part of the interior impacts the drivers and a relationship is created. The interior relationship aspect is dependent on the style of stadium (closed or open)



View of Pedestrian walking along the waterfront.
Here the facade heavily impacts the pedestrians walking around this area, there is a strong relationship between the two elements.



Stakeholders:

People driving by: Highway & local roads:
The stadium is located right next to the highway, as such drivers driving by, pass very closely to the exterior of the stadium, resulting in them being impacted by the stadiums presence. This is a similar concept to local roads that directly next the stadium. Because of this the façade of the stadium plays a role and impacts this group, further emphasizing that the stadium interacts with more than just the sport and fans located in the stadium.

People attending an event:
Fans attending an event in the stadium experience all aspects of the stadium as they pass through all zones. The exterior, where they experience and interact with the façade of the stadium, the interior/middle ground, where food stalls and circulation take place, and the interior viewing space, where they enjoy the sport taking space and view the structures interior.

People walking by:
Similar to people driving by people walking by, either along the waterfront or along neighboring streets, will interact and be impacted by the façade of the structure. For a structure of this mass is must be a positive impact given its location and lands mass. People my argue there is better real estate possibilities then a stadium, further emphasizing the exterior needs to be pleasing to look at and just as import to focus on as the interior sports adapting concept.

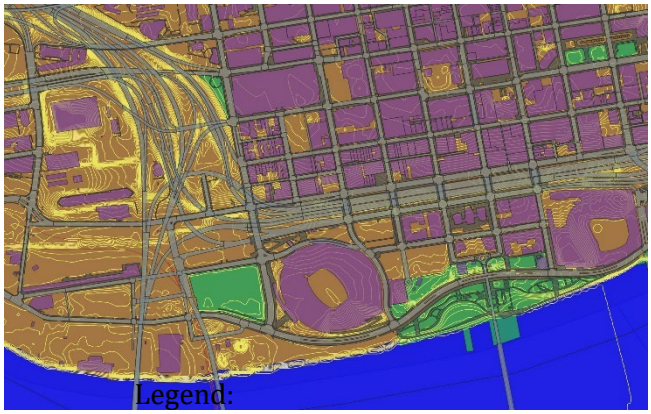





Analysis:

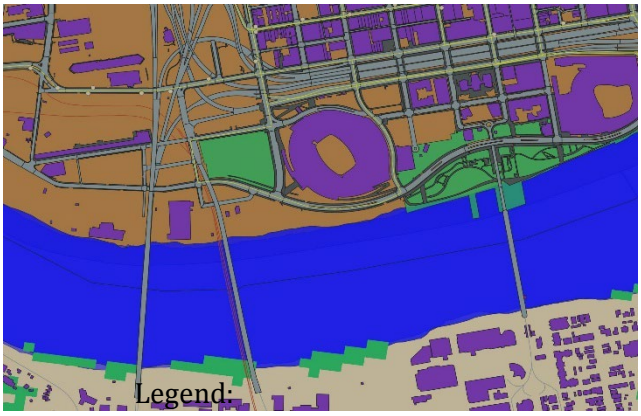
Mapping:

Scale: 1-5000



Legend:

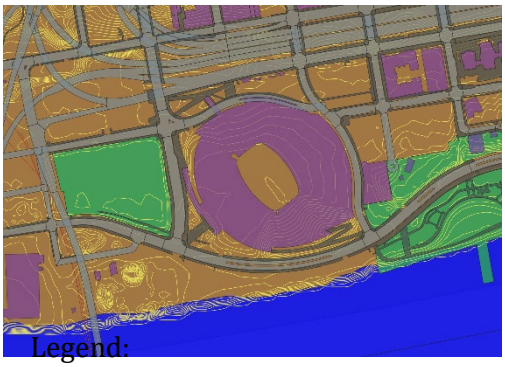
- Yellow - 2ft Contours
- Green - Green spaces
- Light grey - Roads
- Dark grey - Side walks
- Red line - Railroads
- Purple - Buildings



Legend:

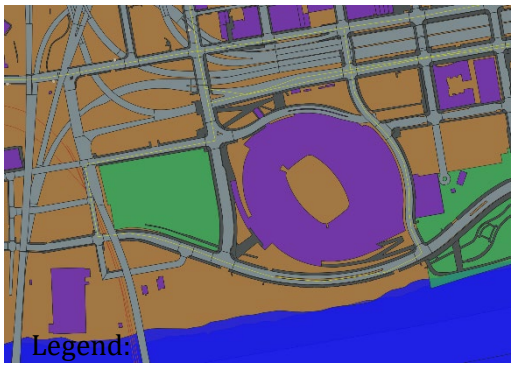
- Yellow line - Bus routes
- Yellow dots - Bus stops
- Green - Green spaces
- Light grey - Roads
- Dark grey - Side walks
- Red line - Railroads
- Purple - Buildings

Scale: 1-2500



Legend:

- Yellow - 2ft Contours
- Green - Green spaces
- Light grey - Roads
- Dark grey - Side walks
- Red line - Railroads
- Purple - Buildings



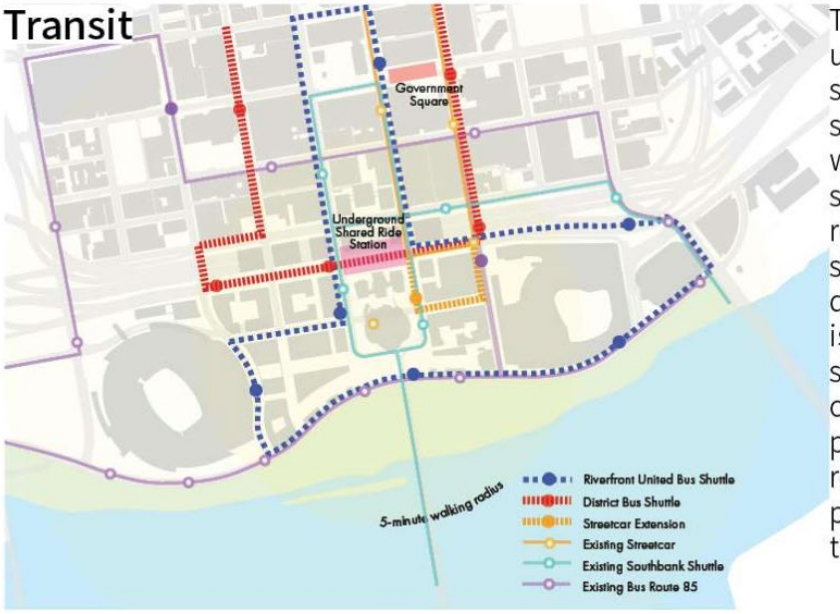
Legend:

- Yellow line - Bus routes
- Yellow dots - Bus stops
- Green - Green spaces
- Light grey - Roads
- Dark grey - Side walks
- Red line - Railroads
- Purple - Buildings



The pedestrian corridors along the east-west direction integrate two stadiums with the site, and the north-south corridor connects the downtown with the site. These corridors loops tightly tie the site with surrounding, introducing human flow to involved in the site. Also, there are designed shared bike stations near bus stations to form a seamless, convenient, and safe walking and cycling network.

Source: https://landscape.coac.net/en/node/5139



The design proposes the underground shared-ride station with a shared-parking strategy collaborating with downtown parking structures. The streetcar route extends further into the site. Also, the high-frequency district bus shuttle route is designed to connect the site with downtown more conveniently. Third, the proposed riverfront shuttle route connects the riverfront park with the downtown transit center.

Source: https://landscape.coac.net/en/node/5139

Project site

Cincinnati Bengals - Paycor Stadium

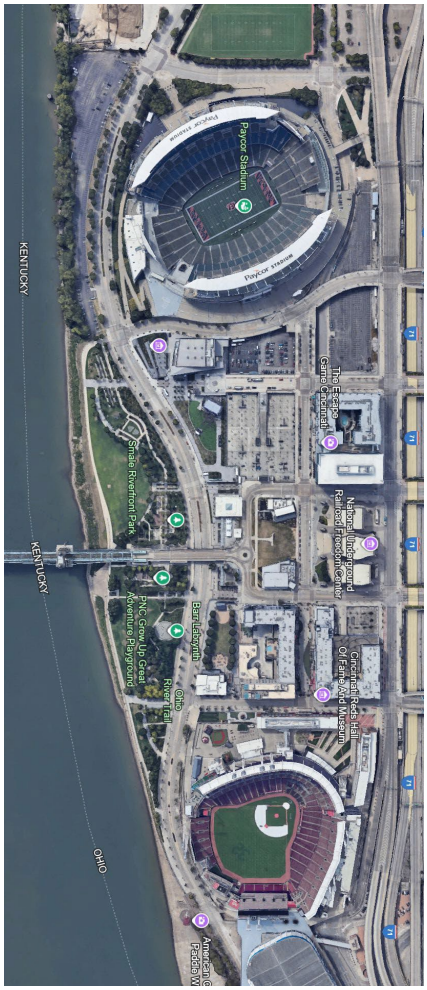
Last year NFL season (2024-2025) - used around 8 times in the whole year.
No sense of community involved/inclusion by the river next to the stadium
Banks develop stops short of the stadium line.
Practice field gated off and rarely in use.



Site situation:

Cincinnati Reds stadium:
More sense of community involvement:

- Bars located right across from the stadium.
- Banks development much close to the stadium
- More inviting atmosphere upon approaching the stadium



Paycor:

- Lacks community inclusion.
- Lacks inviting atmosphere when approaching the stadium.

Schematic Design:

STRUCTURAL MODULARITY
(tangible)

Re-do a portion of Paycor stadium to make it modular and adaptive, allowing for it to host multiple sports and be used more throughout the year.

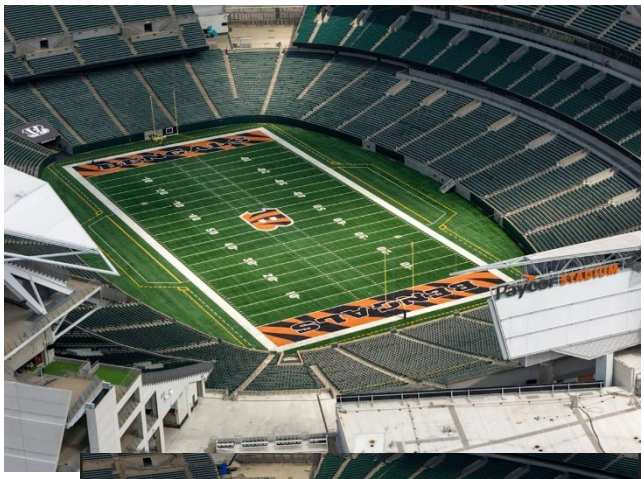
Results:

Stadium becomes adaptive, meaning it is used more throughout the year.

- Making it become sustainable and not a waste of materials

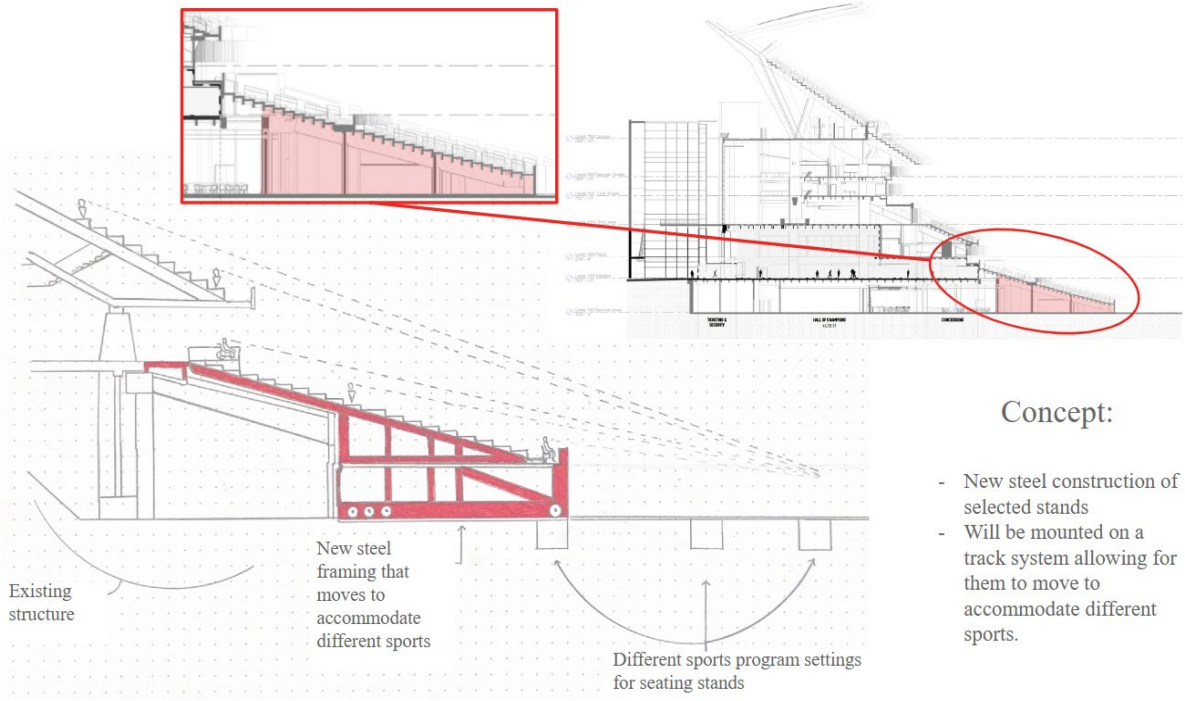








Schematic Design and Program

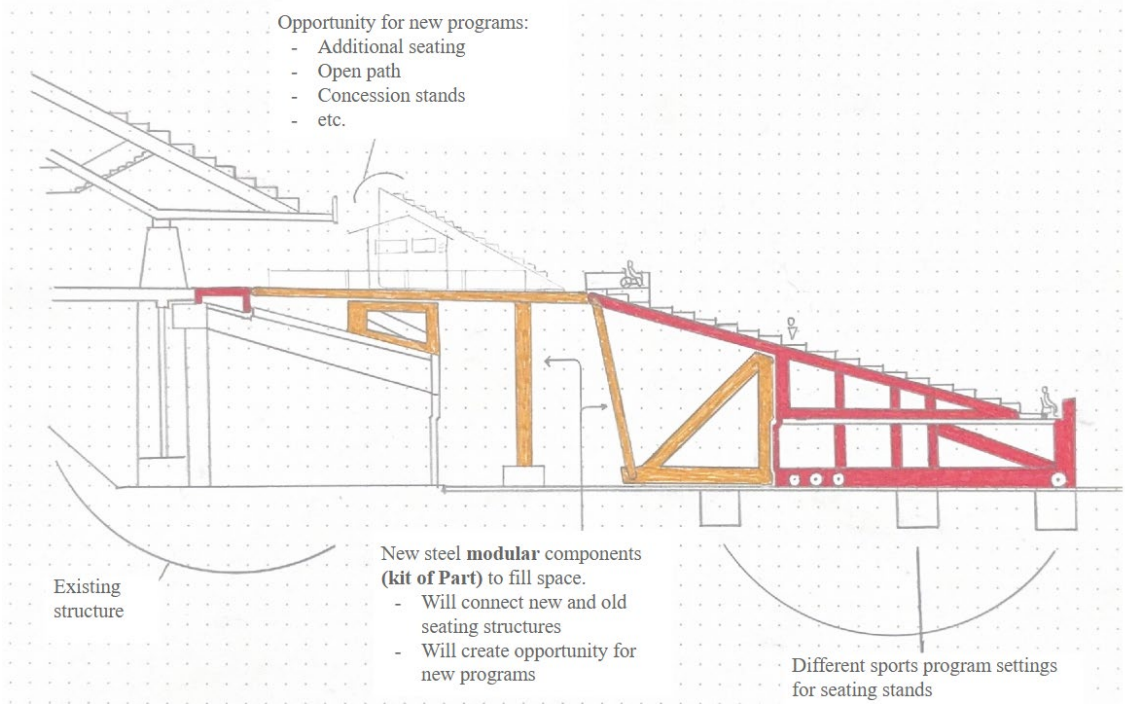


Concept:

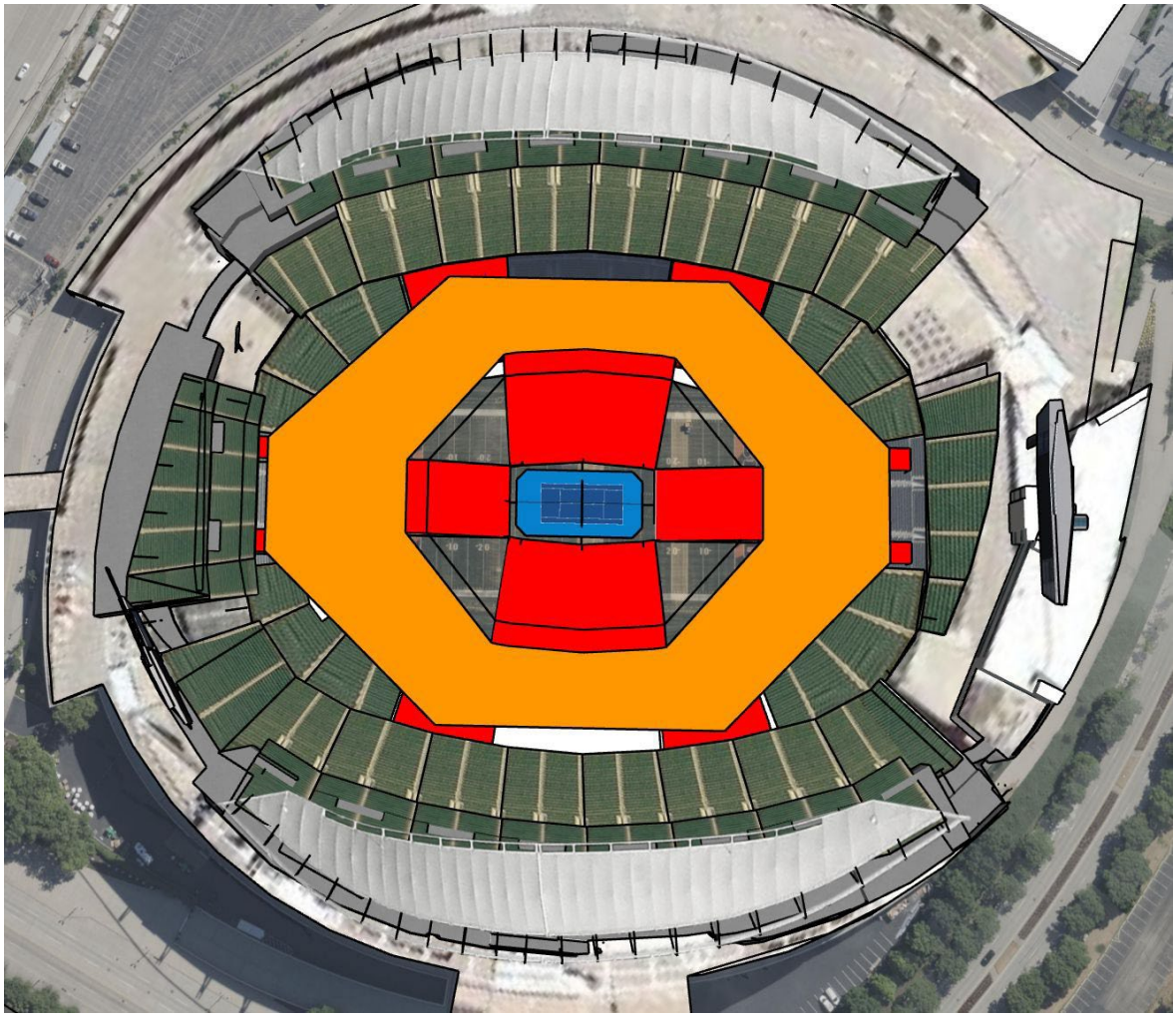
- New steel construction of selected stands
- Will be mounted on a track system allowing for them to move to accommodate different sports.

Schematic Design and Program

Modular Movement and Kit of Parts



Rough Overview of movement:



PROGRAMMATIC MODULARITY

(non-tangible)

Develop a community sports center, open to the public with a privatized training portion allocated to professional athletes.

Improve waterfront area to increase community involvement and inclusion.

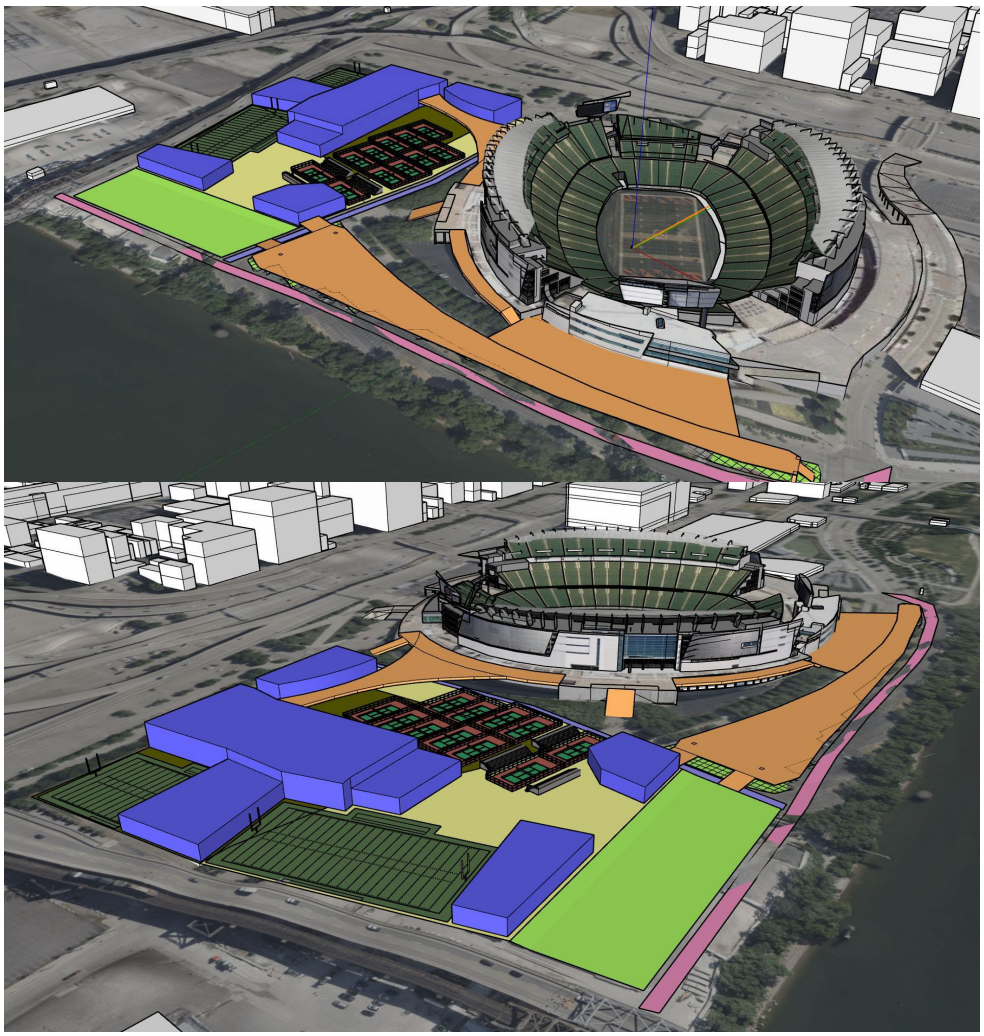
Results:

Spaces and/or programs that accommodate multiple different groups.

A subtle bridge between private and public spaces.

Accommodating various needs above is design intent:

- Bring the community together around a central focus – sport
- Brings different sports together – ultimately merging fan bases and grown attention for each sport.



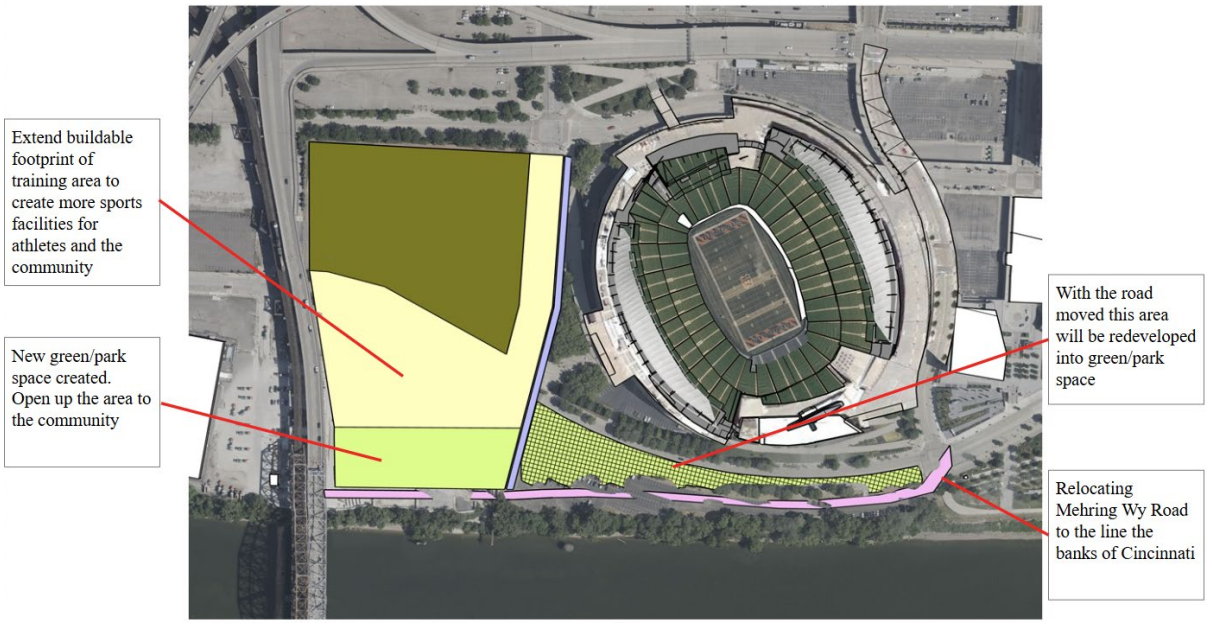
Site Change:

Existing:



Site Change

Re-claiming & Re-arranging site land



Re-claiming & Re-arranging site land

New Infrastructure:

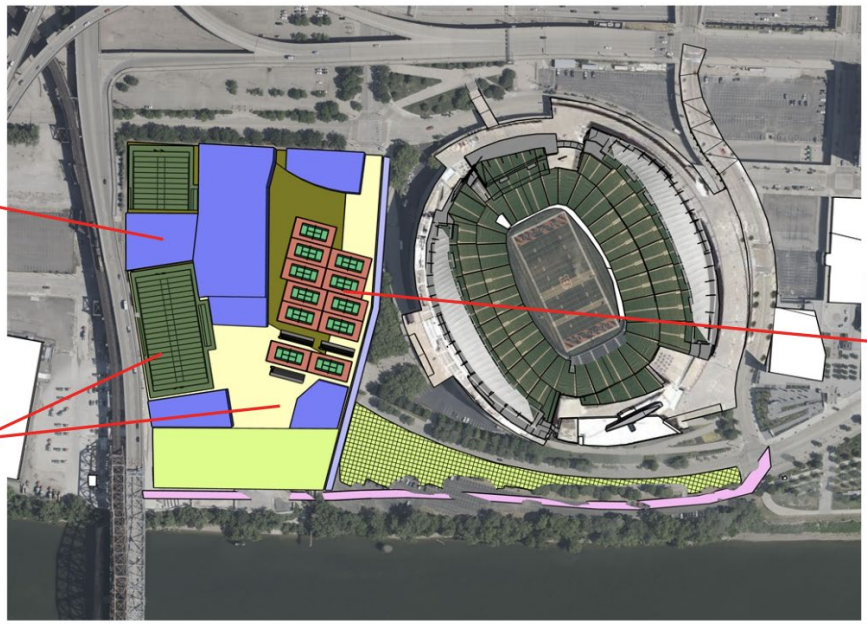
New training facility and sports community centre.

Additional sports can be programed here

A portion of it will be private for professional athletes

&

A portion of it will be open to the public



Various sports can be included in the space

Re-claiming & Re-arranging site land

New Connection and Open Space

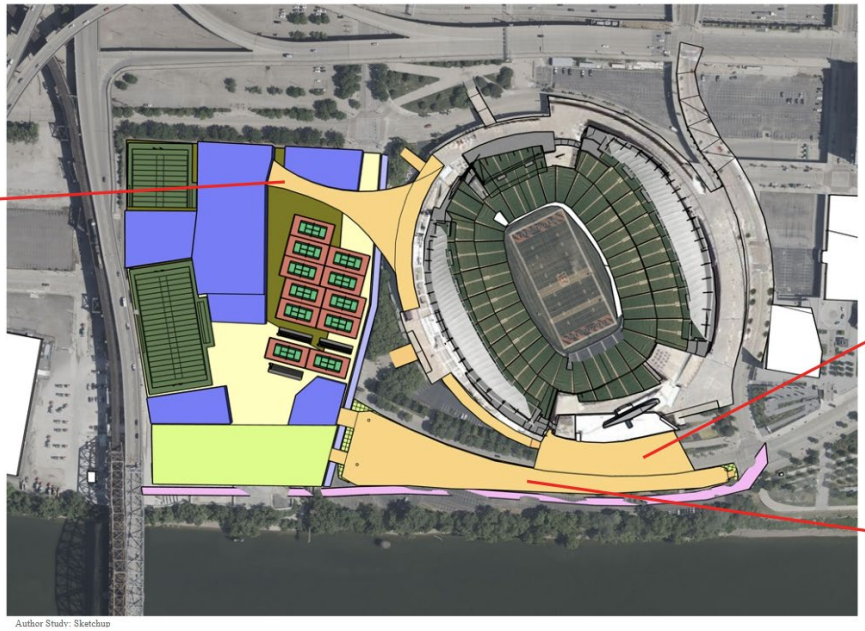
Bridge from sports centre to same level as stadium entry

- Will have a view over other sports

New stairs to help get to the same level as the entry into the stadium

- Provide more options and allow for connects to the new green spaces

4/5 in total:



Author Study: Sketchup

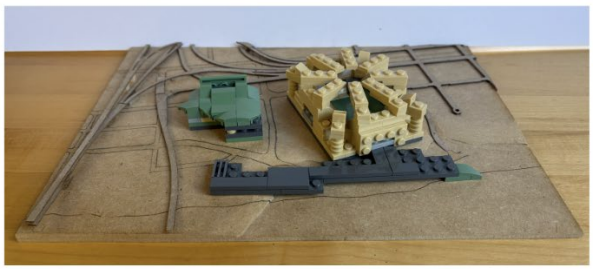
New elevated green/park/transit space.

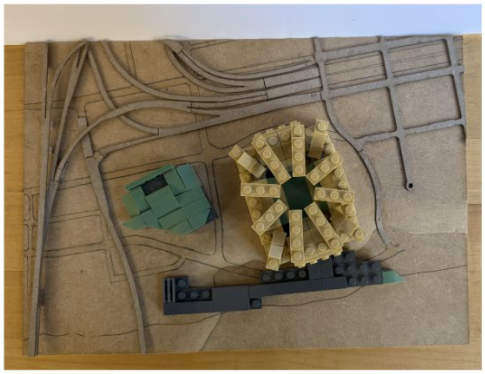
New community area that is similar and continues atmosphere of the banks

Models:

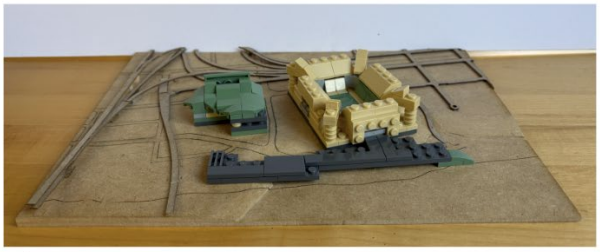
Master Conceptual Plans:

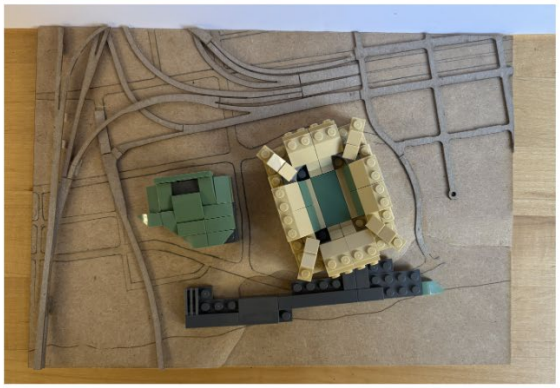
With roof



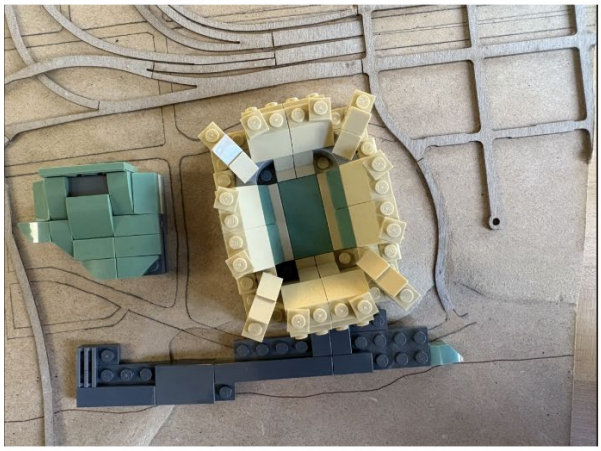


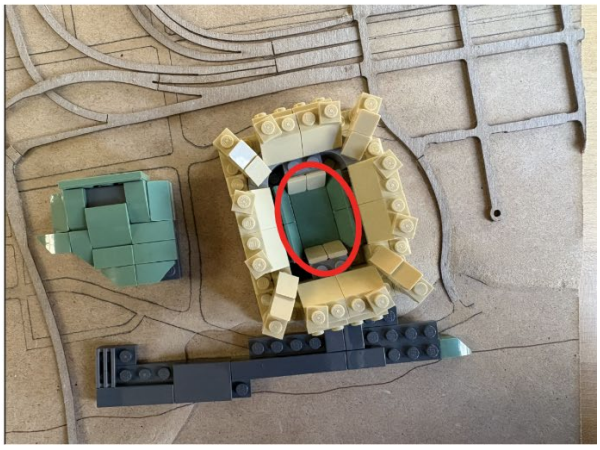
Without roof





Modular Movement:





Lower level of seating move forward and backwards to shrink and expand field area to accommodate for different sports:
Gap created is filled it a modular kit of parts consisting of either:

- Additional setting
- Walk way

Conceptual Renderings





Addendum 2:

Thesis Question

How can the Cincinnati riverfront area be reinvigorated in a way that strengthens community inclusion through sport, ultimately feeding into the river's rich sporting culture that is already present?

Thesis statement:

Through inclusive, community-centered sports infrastructure, we can strengthen social belonging and expand upon Cincinnati's longstanding sporting culture to reinvigorate the Cincinnati Riverfront.

Abstract:

The Cincinnati riverfront area circulating West of Paycor stadium is underdeveloped and lacks community inclusion. Additionally, the current sports program is privatized and gated off, resulting in a divide between public and private. As time has progressed this area has seen various development proposals, illustrating the need to reinvigorate the area and turn unappealing parking lots into community green spaces. One such project even proposed to enlarge privatization by expanding the gated practice field area, further reducing the community's access to the riverfront. Consequently, these projects do not provide a substantial solution that reinvigorates the area and blends the public and private. Thus, it fails to strengthen social belonging and expand upon Cincinnati's longstanding sporting culture, ultimately losing the focus on community. Community-centered sports infrastructure, accompanied by new community spaces, offers that solution. This design direction intends to provide the community with the opportunity to get involved and immerse themselves in the rich sporting atmosphere that Cincinnati exudes, while enjoying the green space development that follows on from the Banks Development, and creates a beautiful environment that flows across the entirety of the riverfront.

Analysis:

Towards the end of the semester (Fall 2025) my thesis underwent a major change which changed the scope question and direction of my thesis project. Upon the completion of the symposium and after various reviews a common critic was presented to me “what you are doing is a various or irritation of what has been done before and hasn’t succeed, why does yours have the potential to succeed where other similar projects have failed”. Additionally, I came to understand that a football stadium is built for football for its own reason revolving around fans and programming, this concept applies to all stadiums of respected sports. Ultimately, this led me to believe I was fighting a losing battle and targeting something that doesn’t work for a reason. I decided to abandon the sports stadium and modularity aspect of my thesis and shift gears to reinvigoration the area around Cincinnati Paycor stadium with the goal of bringing the community together, creating more of a community inclusive space with the catalyst for this movement being sports.

From this I started to look at existing proposals that focused on reinvigorating the area and found that there were a few that focused on developing the area, creating some community green spaces and/or residential housing, but all of them lacked one key aspect, there was no aspect of sports. The Cincinnati riverfront and Cincinnati have rich sporting atmosphere which is why I want to feed into that and continue that theme.

This lead me down the path of focusing on all the underdeveloped areas and new areas being created by changes in the highway and trying to reinvigorate the area for the community though sports related infrastructure and programming. Ultimately with the goal of reducing private space and opening the area up with green/park spaces which play into the sports stadium and sports in general atmosphere, developing a community centered sports facility allowing for community involvement and connectivity through sport and the potential for a sports-oriented museum to feed into the rich culture and history Cincinnati exudes.

While it is unfortunate that the aspect of modularity was abandoned, I have become more connected to my thesis and the idea of bringing the community together and reinvigorating and underdeveloped areas through sports excites me. I feel like this Thesis has developed into a more impactful project which benefits more groups than the previous thesis focused did. A key selling point or focus aspect of this project is it doesn’t reinvigorate the area through a simple housing solution but rather it feeds into an existing atmosphere and

culture already present and strong in the area, ultimately furthering it but in a way that is more community illusive ultimately cohesion and unity in Cincinnati

New Direction:

This info came from a conversation between Diane (Thesis Chair) and I:

sports center area and additional green space circulating the stadium

- Ultimately not changing or doing anything to the stadium itself.
- Exploring how it interacts with the bridge/s
- How it interacts and connects with the city/s - new gateway to connecting programs

Sports facility:

Important to keep in mind regarding community sports programming in the area:

- It is important to know that there is a rough recreation of sports programming (tennis courts, pickle ball courts, ice rink) East, past the Reds Stadium and past the Banks development, but there is no such programming on the west side of the banks and west of Paycor stadium.

What is the sports center?

- An additional aspect to the waterfront area that furthers the rich sporting atmosphere already present in the area. It's an opportunity to bring communities and people together and get involved in sports related activities whilst being around the sports superstars they support/follow. Additionally, it piggy backs off the infrastructure fans admire and associate rich sporting memories with, (big wins, tough losses), ultimately furthering the rich sports atmosphere and expertise in that area.

For whom is it for?

- Sports fans
- People looking to or already involved in sports related activities
- Cincinnati locals (people who live in the west end, downtown Cincinnati)
- People in Covington and Newport Kentucky
    - People involved in sports
    - People who transit on the bridge loop

- Tourists who are visiting Cincinnati
    - Interstates, intercontinental (for sports or general visitation).
- People are interested in better health and wellbeing from an activity standpoint.
- Wanna be's who want a taste of what their Favorite sports stars to go through and experience.

Why does a sports center matter?

- The riverfront and Cincinnati is already rich in sports atmosphere, but in the way of teams (professional representation) and not in a community/local perspective. The people who want to explore and engage in physical activity or partake in sports-related activities would have this opportunity and additionally catch a glimpse of the life their favorite sports stars live (these are the wanna be's).
- The sports center extends the sports atmosphere that is already along the riverfront making it more accessible to those further west in Cincinnati. Essentially it can be seen as completing the development and creating equal programming to both sides of Cincinnati.

What could it do to make an important contribution to life in the city as well as the region and beyond?

- It further promotes the sports atmosphere in the area and further develops the waterfront area, essentially completing and furthering the front door image/selling front of Cincinnati.
- It provides an opportunity for people on the west side to get involved in sports related activities as well immerse themselves in the sports atmosphere by the water, whilst also interacting with green spaces closer to their side of Cincinnati.

Community aspect:

connections of the community or communities:

Who are they?

- People who have an interest in sports or physical activity/wellbeing.

- People interested in the history of sports.
- People follow a Cincinnati sports team

Where do they come from?

- Kentucky side of the river.
- Residents of Cincinnati (west end, downtown etc.).
- Cincinnati visitors.

How could they access the sports center?

- by car, public transport, by foot:
- By all three:
    - There is a bus route and stop that runs next to the facility.
    - The facility and new green space will be an extension of the banks and will continue the green space walkable area to the facility.
    - There is a large parking lot across the street from where the facility will be located.

Cincinnati analysis:

Tourism/travelers:

- the highways feed from the airport.
- Cincinnati is a destination city.
    - with a lot of untaped land.
    - Feed into the excitement and buzz of Cincinnati
- People visiting Cincinnati for sports events form different states, towns, cities and countries. (tennis, soccer, football, ice hockey, baseball, basketball).

Rich sport culture:

- Multiple sports stadiums.
- Feed into the sporting culture present in Cincinnati.

Community development:

- There have been multiple community development projects:
- Avondale redevelopment:
    - Through the port and local Avondale development corporation, the neighbourhood has undergone infill and restored residential housing.
        - Industrial/commercial sites, clean-up of old gas stations – make way for new development.
- NEST – Northside community development:
    - Since 2006 Nest has worked to revitalize the built environment in the Northside Cincinnati.
        - Development of the first affordable senior housing project with social and medical services.
- West end Choice Neighbourhoods initiative:
    - Aimed at redeveloping the housing stock and community infrastructure in the west end.

Personas:

Omar Mohamed:

Age: 24

Occupation: Young architect

Location: Downtown Cincinnati

Additional info: big fan of sports, played sports during high school and missed it.

Omar Mohamed works in an architecture firm located in downtown Cincinnati and spends all day at a desk; he parks his car in a parking lot across from Paycor stadium every day before work. Omar has expressed interest in more physical related activities but is unable to find any facility that is nearby.

Project impact:

With a community focused sports center located right next to where he parks his car every day, he would have the opportunity to explore improvements in health and wellbeing through sports-related activities after work, which would save commuting time. Additionally, he would have the opportunity to walk along the water's edge on nice afternoon and not have to walk through unappealing parking lots, ultimately resulting in the experience being more pleasing and enticing.

Tobby White:

Age: 40

Occupation: real-estate agent

Location: live in Cincinnati but works also extend to Kentucky

Additional info: father of 2, given he is one the move a lot for work he enjoyed walking and being outdoors.

Jake enjoys being on the move and having nice walks with his family, he is constantly on the move for work so views physical health highly. Jake has 2 kinds about to start high school and have expressed interest in doing after school sports related activities but struggles to find a suitable location to explore these desires.

Project Impact:

This project would offer Jack the opportunity to potentially let his 2 kids explore their interests in sports-related activities. Additional he could partake as well and grow the father child and family relationship bond. Given Jake also enjoys family walks, the green space

development would allow for a nice long uninterrupted community friendly green space walk along the waterfront which would also lead to the Banks development.

Liz Fry:

Age: 25

Occupation: virtual fitness and well-being instructor.

Location: West end Cincinnati

Additional info: had to find a new solution to provide physical and general well-being guidance during Covid – turned virtual and continues this profession and method.

Liz is very big on the outdoors and fitness/physical well-being. When Covid hit it forced her to find new way of helping clients and providing physical well-being guidance. Prior to moving virtually, she provided guidance in person at local recreational centers or client homes but found space to be restricted in a space element. Now that covid restrictions have lifted Liz wants to start doing in person guidance again but still has space concerns.

Project Impact:

The new large and modern sports facility would provide Liz with a location to potentially work with clients and explore new methods of physical sports well-being for herself. Additionally, the new green space creation will feed into her love of the outdoors and allow her to experience the waterfront without having to explore unappealing parking lots. The new parks also offer space to work with clients outdoors and with a nice scenic view of the river and large stadiums.

Jake Thomas:

Age: 19

Occupation: UC student

Location: Cincinnati

Additional info: sports fanatic, played sports during high school but wasn't good enough to continue passion during college.

Jake loves sports related activities but was unfortunately unable to continue his passion during college due to a lack of ability. Jake was interested in still partaking in sports in his own time but found that the UC sports facilities are reserved for players and usually closed, resulting in jack having to take a step back from getting involved in sports.

Project Impact:

The new sports facility would allow jack to pick up his passion of sports again during his free time without the constraints of having to be on an official team. It would provide him with the opportunity to improve his skills and potentially make desired teams in future years at university. Additionally, being close to the large scale could feed into his desires and act as form of motivation as a hope to one day play in them or reach a level to play on that stage in his chosen sport.

Terisa barns:

Age: 35

Occupation: remote graphic designer, passion painting

Location: Kentucky

Additional info: not too big on sports but enjoys being outdoors for her passion.

While Terisa isn't too concerned with sports, she loves to be outside and participate in landscape painting during her free time. Additionally, with her job being remote it gives her the flexibility to be able to work outdoors, which takes advantage of from time to time.

Project Impact:

This project would provide Terisa with a new green space which could open the door to new visuals and scenery to pain. Additionally, the new space and more to date green space would provide her with another location to conduct her work whilst being immersed in the outdoors.

Steve Weber:

Age: 50

Occupation: coal miner Forman

Location: Kentucky but born in Cincinnati

Additional info: Huge Bangles fan and season ticket holder

Steve is huge Bangles fan and flows sport with passion. With his job resulting in him always outside he is rather fond of the outdoors. Not too concerned with parting in sport himself but also wouldn't completely disregard the idea.

Project Impact:

This project could provide Steve with the opportunity to around the Bangles stadium more feeding into his love for them. This would be the case because the Banks development stops short of Paycor stadium resulting in a lack of view of the stadium. As such, if Steve was in the area he would have the opportunity to walk by his beloved stadium and admire it, resulting in him feeling more connected with his beloved Bangles. Additionally, Steve would come close to the sports facility and could become interested in getting involved due to his passion of following sports and being active during the day at work.

Project Analysis:

Existing project Proposal

MSA Sport proposal:

Goals:

- Modernize, expand and update the stadium and practices grounds
- Enhance and vary fan experience
- A sustainable home for the Bengals

Changes:

- Reclaim land and develop a large and more refined practice facility for the Bangles.
- Turn existing parking pace into an extension of the banks, essentially developing more green space.
- Move the existing road right up against the water's edge to allow for new green space to not be impacted by the road
- Create a plaza and activation program around the perimeter of the stadium
- Enhance aspect of the stadium:
    - More seating
    - More visitor amenities: Club & dinning

Critic:

While this proposal feeds into development the sports atmosphere in the area it does it in a way the excludes community and local involvement. The additions to the stadium work well as they priorities fan engagement and experience. But the aside transforming the existing parking lots into green spaces for the community the new practice facility extends the existing gated off environment, ultimately not being community/local focused

Central Riverfront Urban Design Master Plan:

Primary objective: create a mixed-use district and two new major sports (Reds and Bangles) directly connected to the CBD

Secondary objective: generate maximum economic benefit for the downtown and to revitalize the central Ohio River Riverfront

What is created:

- New riverfront park
- National underground railroad museum
- Mixed used district
- Transit centre
- Restructured interstate urban highway – remove downtown's separation from the river
- Riverfront restoration.
- Parks and open space

Critic:

This master plan doesn't feed into the rich sports atmosphere that is present along the river front and in Cincinnati. While this solution provides new housing and retail attraction it doesn't reinvigorate the river front as a community attraction rather it proposes a solution to grow and accommodate a larger population in Cincinnati. They achieved their primary goal of creating major sports centers that ultimately created a rich sporting atmosphere in Cincinnati and atmosphere which unfortunately is not built upon further as this master plan continues.

The Banks area, the area around Paycor and area around the bridges is prime waterfront real estate which currently lack the extension of the sports atmosphere and community inclusion.

Cincinnati is a destination city and one that is rich in sports, the city has devoted large expenses to sports teams and their infrastructure (the Reds Stadium, Paycor Stadium, TQL stadium the new tennis facility, UC sports infrastructure) but lacks the community/local sporting engagement.

Development around Paycor and in between Paycor and Reds stadium.

Plan: develop 9 acers of empty lots

What's being created:

Highrise towers with circulate Paycor stadium

- Hotel
- Residential housing (2)
- Office building (2)
- Retail aspect

Critic:

The master plan highlights the large scope of this area whereas this scope targets a more refined area, but similarly to the master plan this proposal doesn't build upon the sports atmosphere or the community/local engagement in the area.

The river front can be viewed as the front door to Cincinnati or the marketing site of the city (the selling point). Ultimately a prime location to highlight and build upon Cincinnati's rich sporting culture. Sport is one of those elements that brings all sorts of demographics to a location, people travel cross states and cross nations for sports. As such with this influx of attraction for sport why not feed into that and continue the sports atmosphere along the riverfront whilst also complimenting it with community/local integration (parks and green space).

Bridge development:

- Reconfiguration of Downtown Cincinnati ramps:

Downtown Cincinnati ramps will be reconfigured and a new local bridge with roads will be built. This will result in the footprint of the highway roads being reduced and creating the potential for redevelopment next to the city on the right side of the highway roads (next to central avenue).

Proposal:

With the bridge being remodeled to accommodate a highway and a local road portion resulting in a small footprint of all the roads there is an opportunity to program something in between the highway and city. Feeding into the community involvement idea, a community space or park could fit this need.

Case Studies:

Wrigley field – Gallagher way - Chicago:

This space is where family, friends, neighbors and tourists gather to experience the Friendly Confines and neighborhood beyond the ballpark.

- Community center

It features:

- Open space
- Multiple chefs driven restaurants
- Global insurance
- Consulting company - with Chicago roots and a passion for giving back to the community
- A game day community inclusive experience.
- Opportunity for private event booking: weddings, concerts etc.
- Year-round attractions:
    - Movie nights
    - Outdoor fitness series
    - Live music
    - Open air markets
    - Etc.

This project highlights the potential for community space that stay lively and proved the community it various opportunities to get involved with a variety of activities and event. Cincinnati area and riverfront area does not have a space like this, considering their rich sporting culture/atmosphere. A game day community experience could attract more people to become involved in sports and bring the community closer together. Additionally having a space similar to this that also partakes in other various programs and activities could keep this space constantly alive and in use, preventing it from fading away.







Institute of Contemporary Art - Diller Scofidio + Renfro: Boston Massachusetts

The first museum to be built in Boston in a century

- Contemporary art museum.

In order to end the museum beyond its footprint, the gallery level was elevated to the buildings top floor, where it could benefit from the natural daylight, whilst also maximizing gallery space with the gallery level being larger than ground space occupied.
Program:

- Large single level gallery.
- A theatre
- A bookstore
- Education and workshop facility
- A restaurant
- Administration office

Programming a facility like this in Cincinnati could go along ways. At the moment it is clear Cincinnati is in the mind frame of maximising space and footprint, give the desires to reduce the highway footprint and redevelop lacking areas (unused parking lots) into community green spaces.
Additionally, a museum that highlights Cincinnati's rich sporting culture, history and atmosphere could help prompt the area and entice the community to get more involved in sports and explore sports more.
The idea of having a cantilever level over a portion of the water or unbuildable space could help maximise buildable space and allow for more outside programming/buildable space (like parks and green spaces).





KlydeWarrenPark theTown Squareof Dallas

Nonprofit organization focused on bring the community together.
Goal: to provide free programming and educational opportunities for the enrichment of the lives of our visitors, to showcase the multitude of cultures and talents Dallas has to offer.
Program:
5.4-acre park - built directly over sunken Woodall Rodgers freeway.
The project was designed as a town square that features great lawn, a children's park, a dock park, reading rooms, botanical gardens, food trucks, a restaurant, a performance pavilion, and open programming (uses: fitness classes, concerts, community events).

- A signature example of freeway-cap urbanism.

Given a Cincinnati is creating more programmable space between the highway and Central Avenue with the redevelopment of the highway and reduced footprint that results in this redevelopment, a program like this could feed into the space very well. It would:

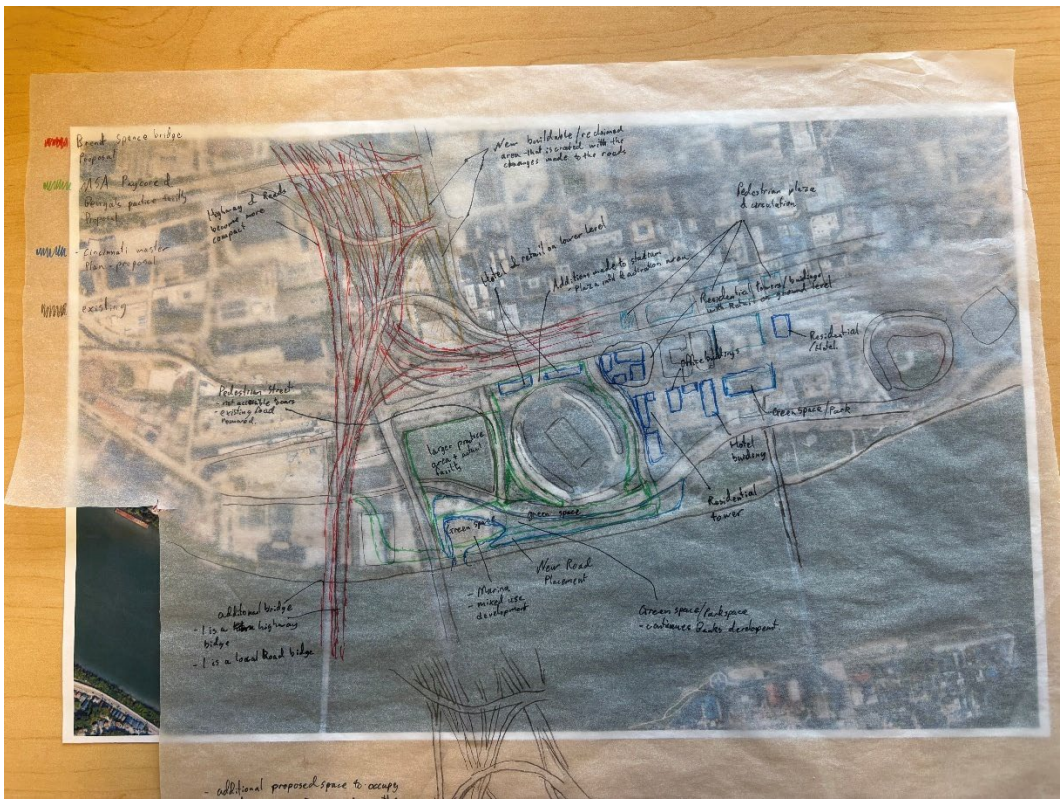
- Liven up the space between the highway and city
- Provide after activities for the conclusion of a sporting event.
- Bing the community closer with more community cantered events and programming.
- Create more excitement around the sports stadiums and riverfront, ultimately reinvigorating the area, whilst also making it community focused.



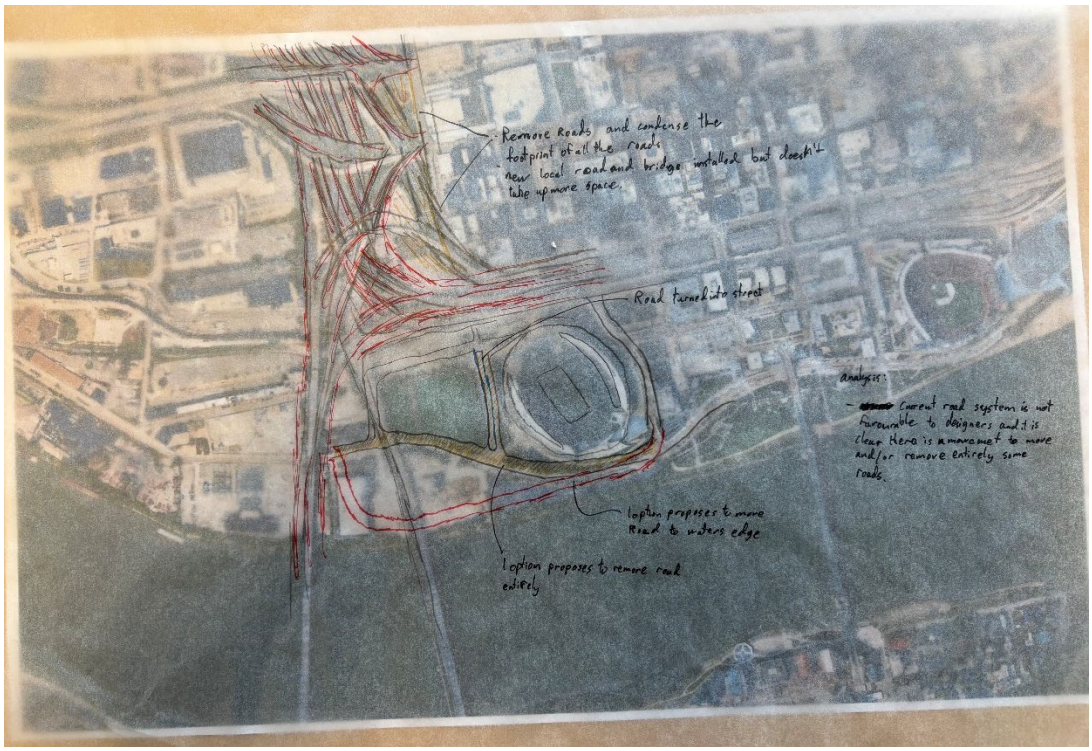


Mapping:

All proposals overlay map sketch:



Road change overlay map sketch:



Waterfront related development proposals overlay map sketch:

- favours green space over for community over practice field for Bangalo
- Favours practice field for Bangalo over community green/park space.
Common movements
- get rid of the 2 parking lots
- re-program them as green spaces
- 1 option removes the road completely creating new roads + water
- 1 option move the road to water edge
- removing it from the picture and not impacting much green space
Comments:
- common theme is they want to extend the green space from the Banks along the waterfront.
Labeling:
- all development/programming mostly stopped first bridge(train). and all propels stop at the second bridge.

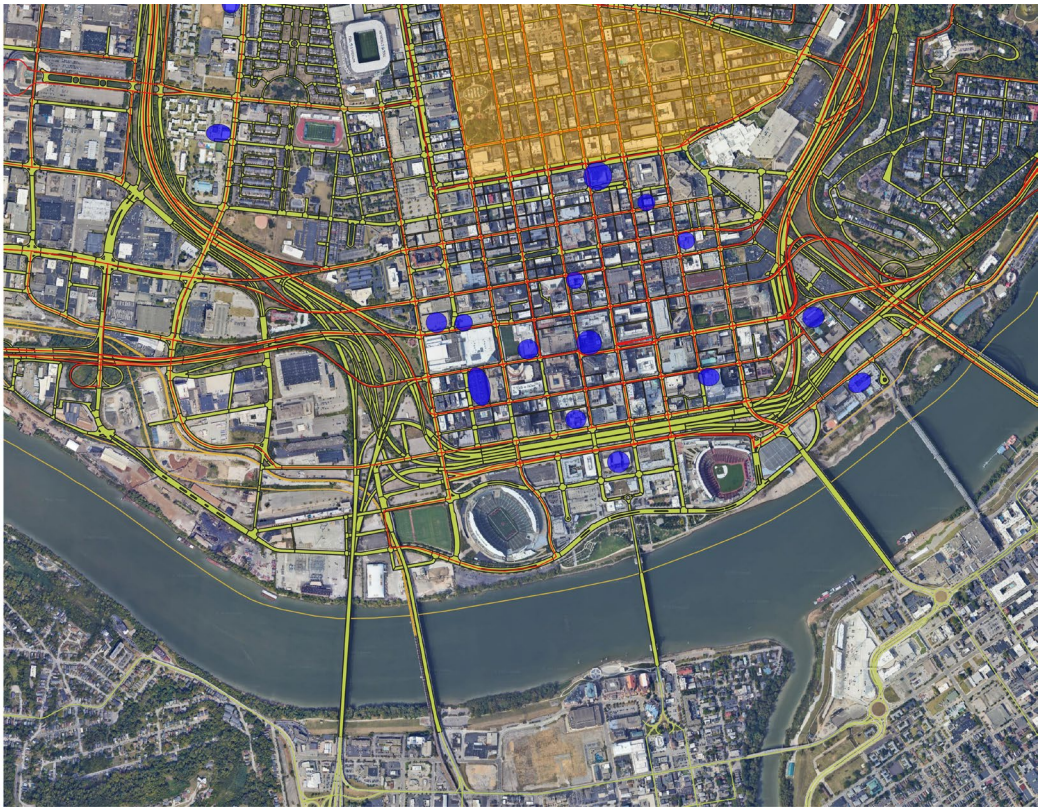
Community development proposals:

Red line
= bus routes

Community
Development projects:

Orange bubble:
= Over the Rhine
development.

Blue Bubble:
= Various community
development projects
- Restoration
- Mixed use
- Affordable housing



Infrastructure analysis and site:

red line
= bus routes

Red bubbles
= private / large sports

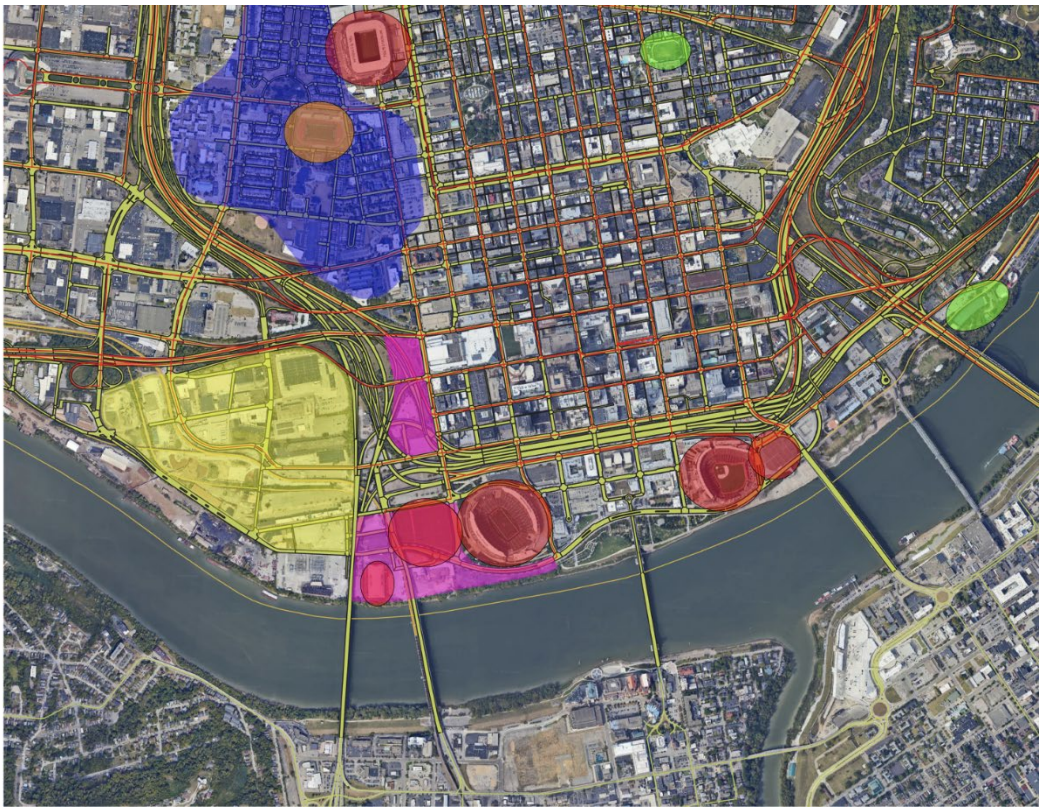
Green bubbles
= public sport space

Orange bubble:
= reserved for schools - not
always open

Pink Bubble:
= focus site

Blue Bubble:
= West End residents

Yellow Bubble:
= Industrial Programs



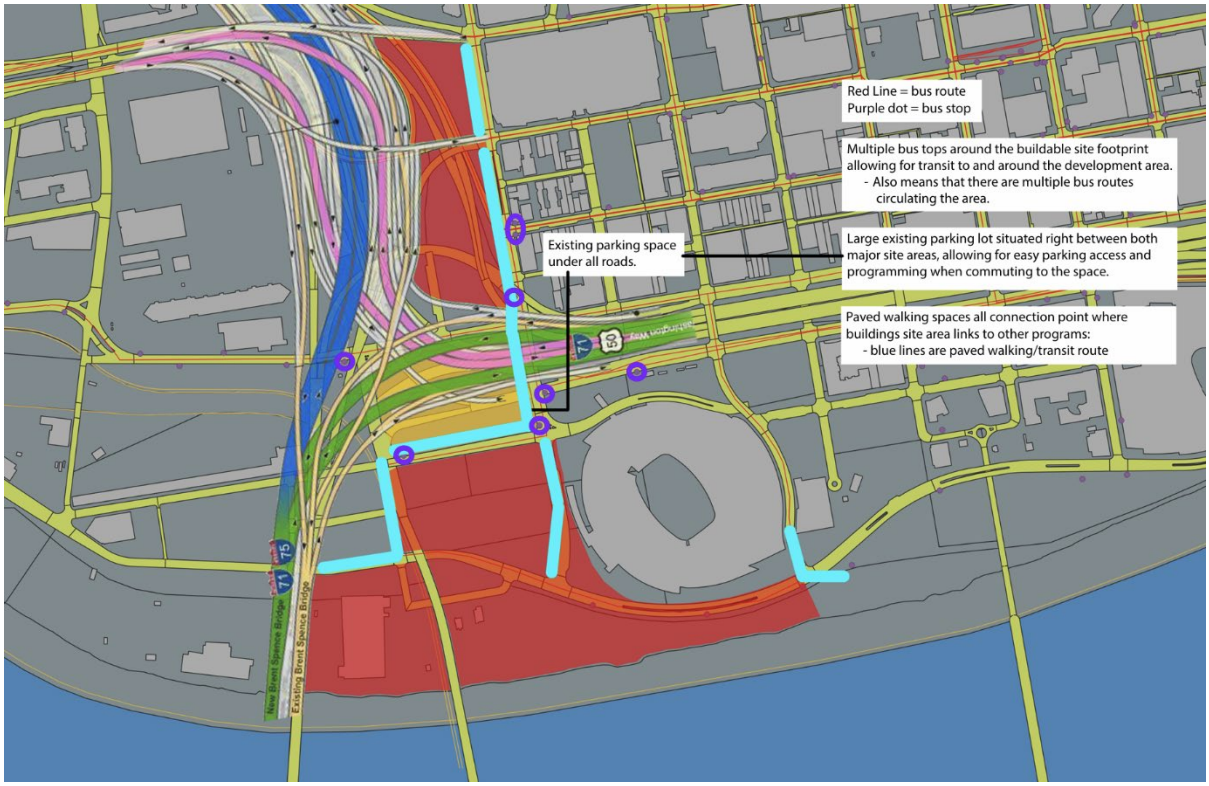
New Road layout:



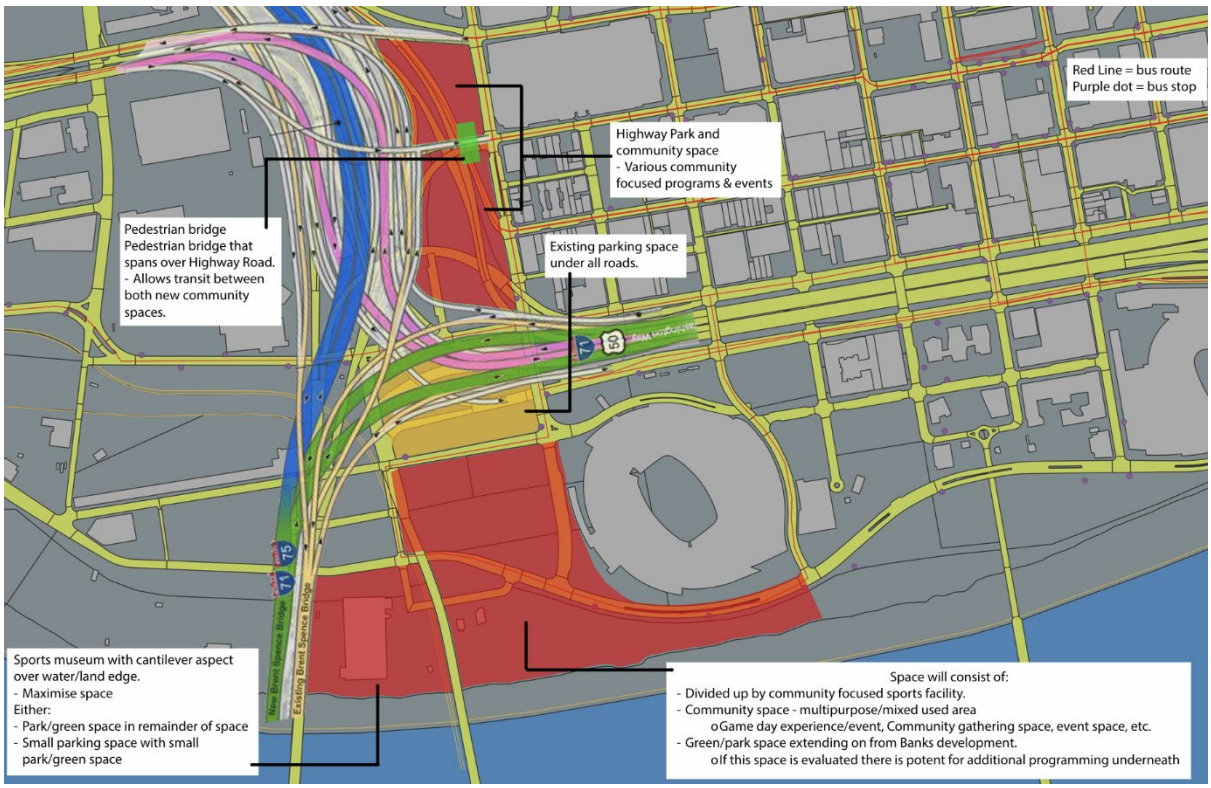
New Road with site:



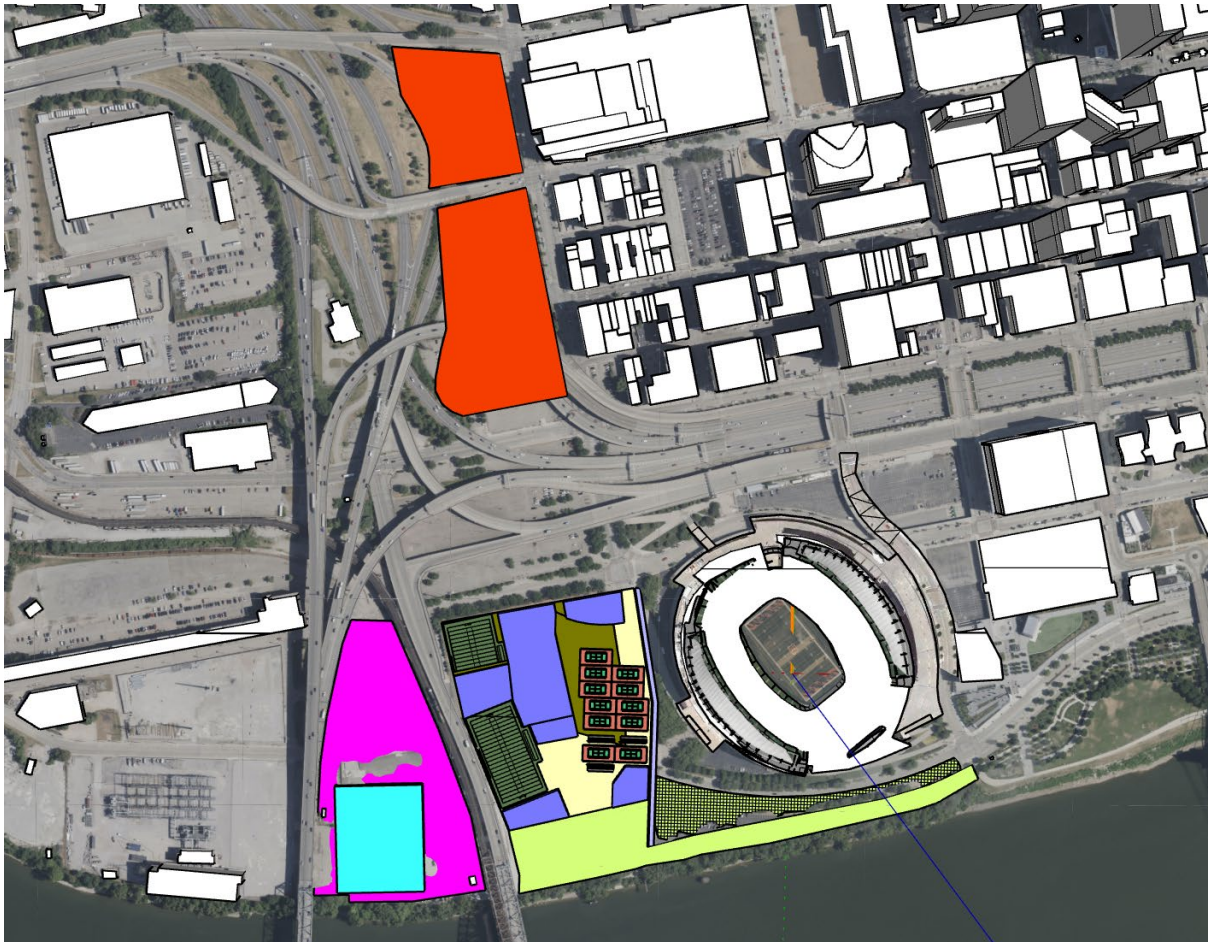
Site area transit analysis:



Site and programming:



Schematic Proposal/Programming:

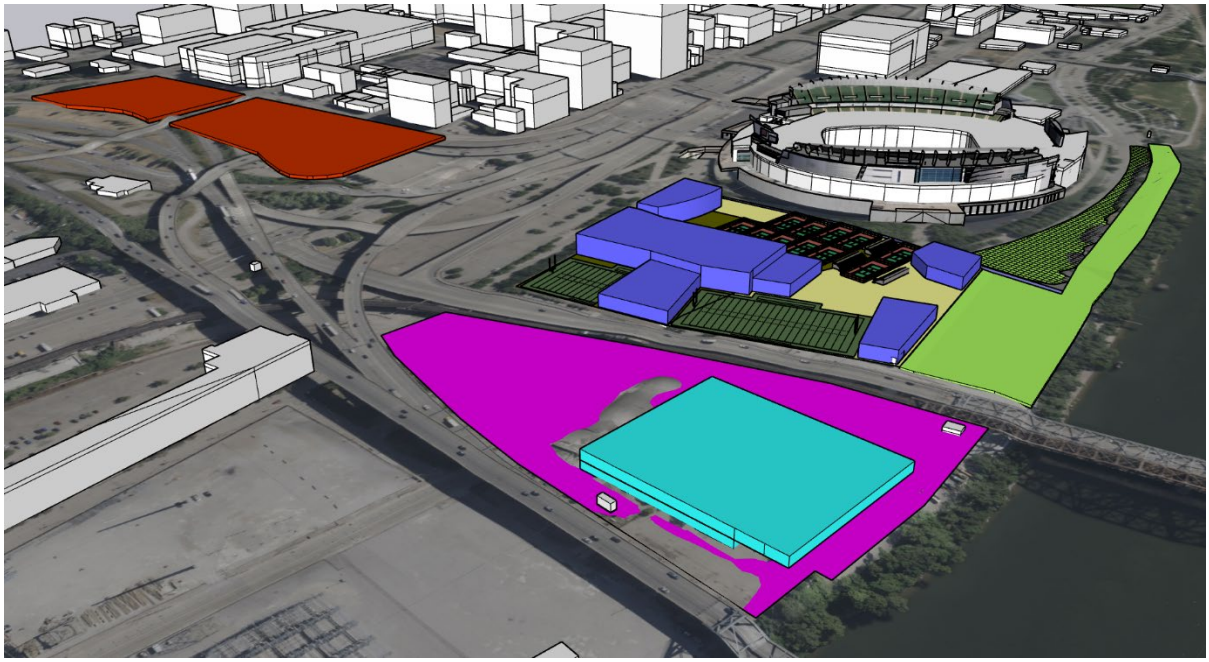


Above is an overview of the direction of development I am currently taking. The goal here is to work with existing underdeveloped areas around Paycor stadium and new areas created by new highway developments (Red areas) and reinvigorate them with the focus of sport and community inclusion.

The light blue area will accommodate a sports museum centered in encapsulating the history and atmosphere Cincinnati exudes in relation to sport.

The red area will act as community green/park space which will be mixed use/multipurpose in the sense it can be adapted and accommodate various programs and activities related to sports and other community activities.

The yellow, green and dark blue area serves as a combination of community sports infrastructure green/park space and Paycor stadium game day related activity/inclusion.

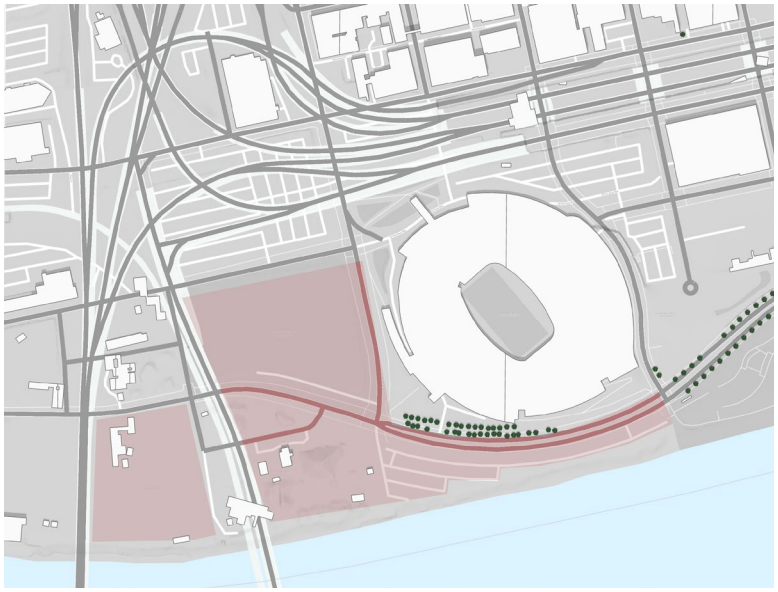


Spring 2026 – Refining & Focusing Thesis:

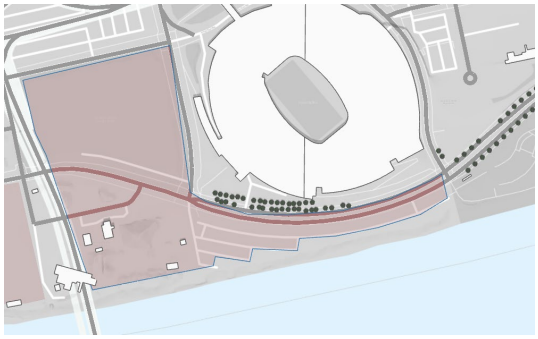
Define site:

to better focus and create a clear design intent that addresses and proposes a solution to the “dead spot” around Paycor Stadium and space between the 2 highway bridges I adjusted my site scope.

Large View of adjusted site:



Focus area 1: 850,000 sq. ft.



Focus area 2: 250,000 sq. ft.



Starting Point:

How can we reinvigorate the area creating more connections, ultimately bridging the area to the city/s and surroundings. Additionally, extend the community footprint and involvement along the water whilst also promoting the rich atmosphere of sport the runs along the river?

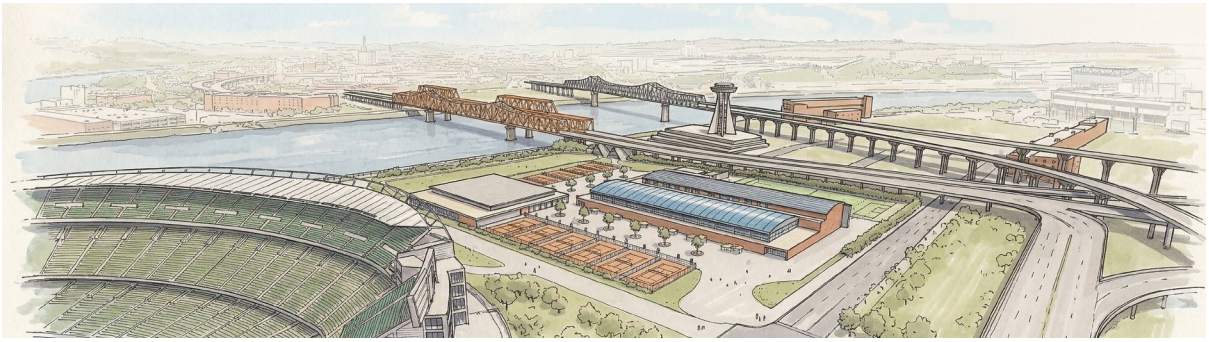
Whilst also creating cohesion with existing infrastructure like the bridge/s, ultimately intertwining with them.

Thesis Question

"How can the Cincinnati riverfront area be reinvigorated in a way that strengthens community inclusion through sport, ultimately feeding into the river's rich sporting culture that is already present?"

Adjusted & Final Thesis Statement:

"Through inclusive, community-centered sports infrastructure, we can strengthen social belonging and expand upon Cincinnati's longstanding sporting culture to reinvigorate the Cincinnati Riverfront."



Existing Site images:







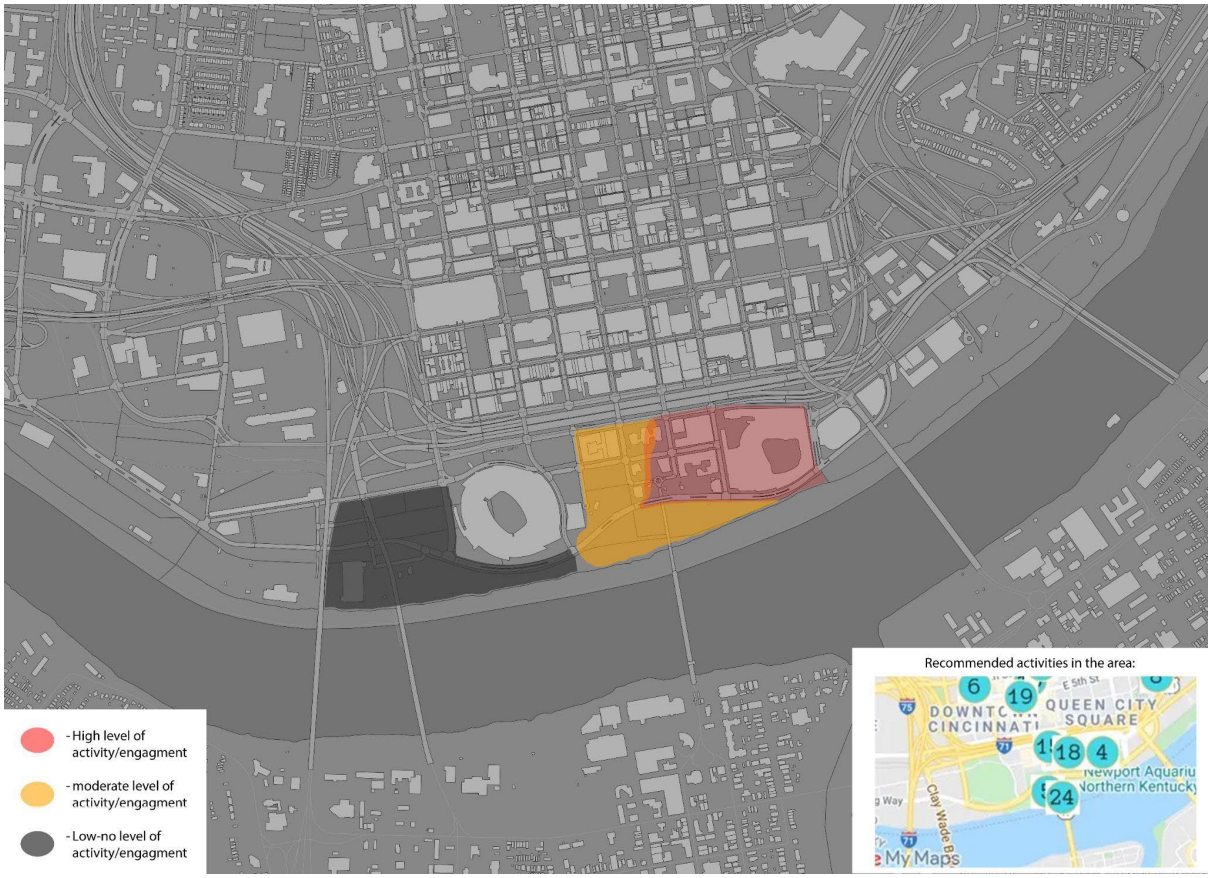






Activity Map:

This map highlights the levels of activity along the Cincinnati Riverfront area which is mostly dominated by Paycor and Reds stadium.



Case Studies That Still Apply:

Wrigley Field Gallagher way: Chicago

This space is where family, friends, neighbours and tourists gather to experience the Friendly Confines and neighbourhood beyond the ballpark.

features:

Open space, Multiple chefs driven restaurants, Global insurance, Consulting company (with Chicago's roots and a passion for giving back to the community), A game day community inclusive experience, Opportunity for private event booking: weddings, concerts etc.

Year-round attractions: Movie nights, Outdoor fitness series, Live music, markets, Etc.

This project highlights the potential for community spaces that stay lively and provide the community with various opportunities to get involved with a variety of activities and event.

Cincinnati area and riverfront do not have a space like this, considering their rich sporting culture/atmosphere. A game day community experience could attract more people to become involved in sports and bring the community closer together. Additionally having a space like this that also partakes in other various programs and activities could keep this space constantly alive and in use, preventing it from fading away.





Cincinnati & Hamilton – Bank Project:

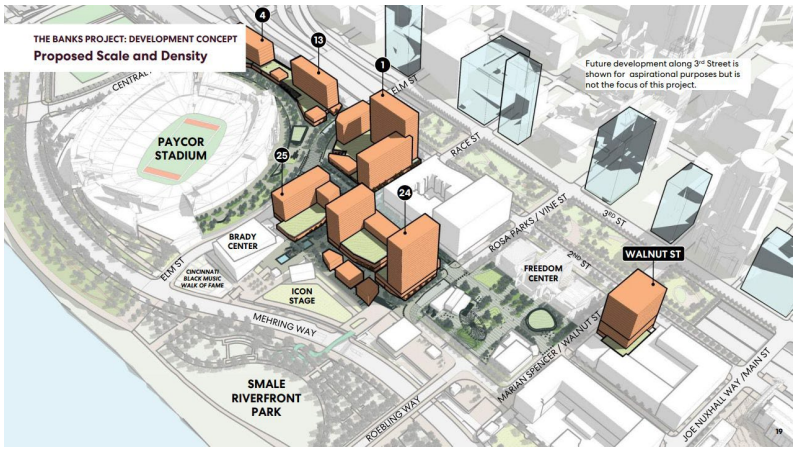
Core Objective: To transform a massive, underutilized, flood-prone "sea of parking lots" into a vibrant, 24/7 "Live, Work, Play" urban neighbourhood that reconnects downtown Cincinnati to the Ohio River.

Analysis: While is project doesn't take place directly on my site it is in a close enough proximity to be a consideration into the scheme of things. It is clear that with this project they are trying to reinvigorate the area and grown the community with the goal of developing living and recreational facilities. My project goes hand in hand with this one, feeding into the 'play' aspect of the 'live, life, play' idea they are trying to create.

Additionally, with this project the city is trying to reinvigorate areas of the city that are taken up by underused parking lots, like what I am doing on my site.

Because of this it is safe to say that my project aligns with the goals and desires of the city of Cincinnati.





MSA – Bengals Practice Area Proposal:

MSA design and Hamilton County collaborated on a proposal for re-doing the area and turning the practice fields into an actual facility, but one that I still privatised for the Bengals. This is a good starting point. But their proposal addresses the area through contrasting lens. Their project addresses the element of making the unused parking lot areas more usable, but a majority of the space is privatised and not community focused.





Climate Comparisons/Consideration:

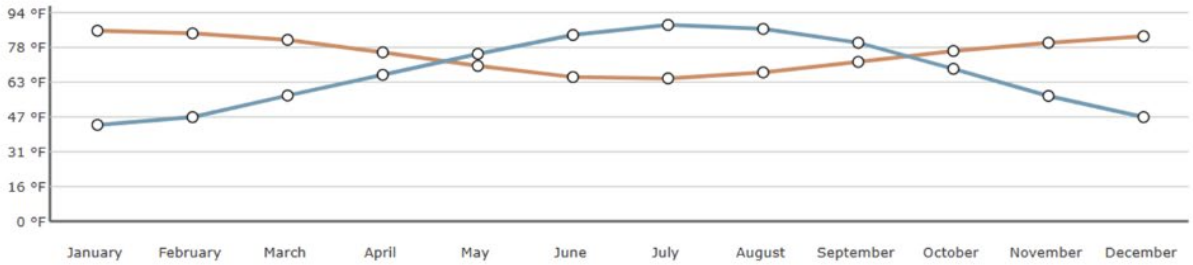




Australia United States

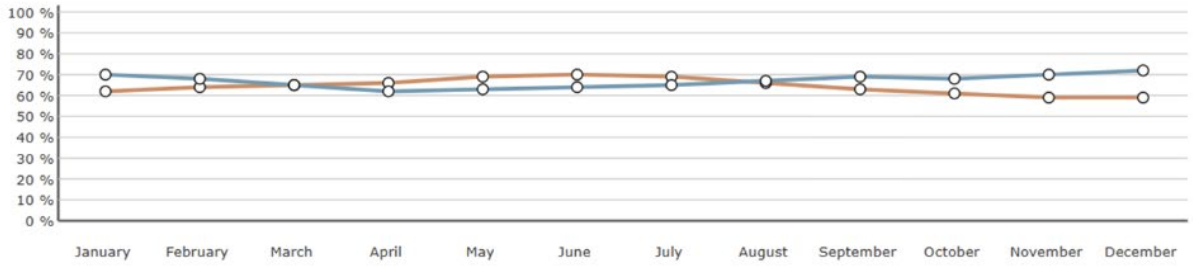
Daily maximum temperatures

The highest daytime temperatures in Australia are reached in January with an average of 85.6 °F. The coldest month, on the other hand, is July, with an average of just 64.2 °F. In the United States, July is the warmest month, with 88.2 °F. There, it is coolest in January with an average of 43.3 °F.



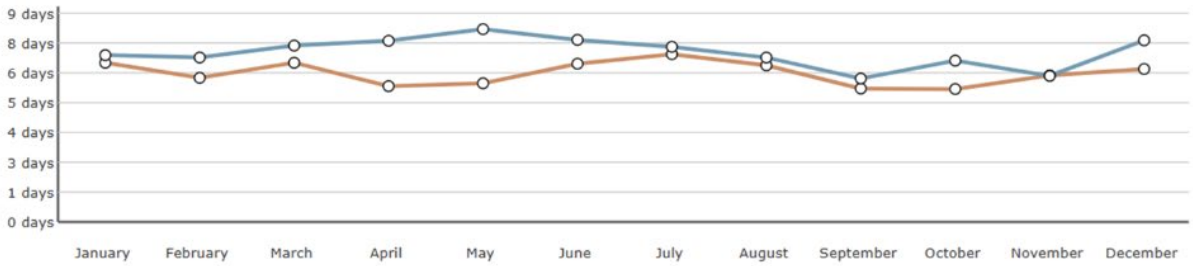
Humidity

Humidity depends largely on the air temperature. The warmer the air is, the more water it can absorb. At a temperature of 77°F it is 23 grams per cubic meter, at 86 degrees it is already 26 grams. This is why humidity is given as a relative value to the temperature-dependent maximum quantity. It becomes unpleasant when high humidity is combined with high temperatures.



Rain days per month

According to the WMO definition, a rainy day is a day on which at least 1 liter of precipitation falls per m². This corresponds to a 1 square meter puddle in which the water is 1 mm high - provided that the water does not seep away or evaporate. So it doesn't have to rain all day long. July brings the most rainy days (7.0) in Australia. With an average of only 5.6 days, October is the friendliest. In the United States, it rains most often in May with 8.1 days.



Defining The Communities That Share A Relationship With Project Site:

Downtown Cincinnati:

Population: 5600 – 5800

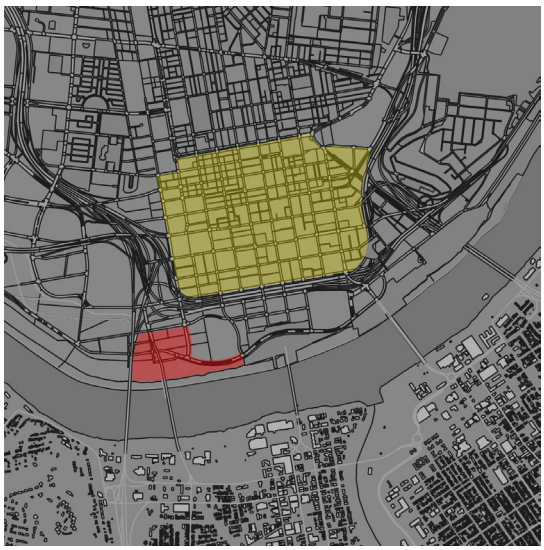
Median household income High:

$90,000 - $105,500

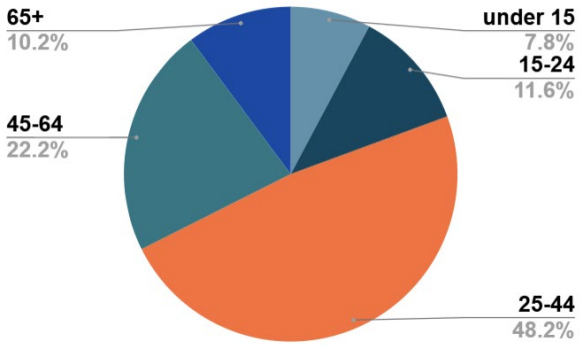
High pedestrian activity:

Low amount of green space (7.5% tree canopy)

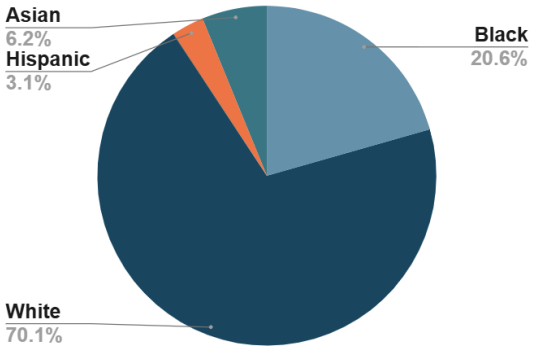
Highest percentage of residents are sports fans.



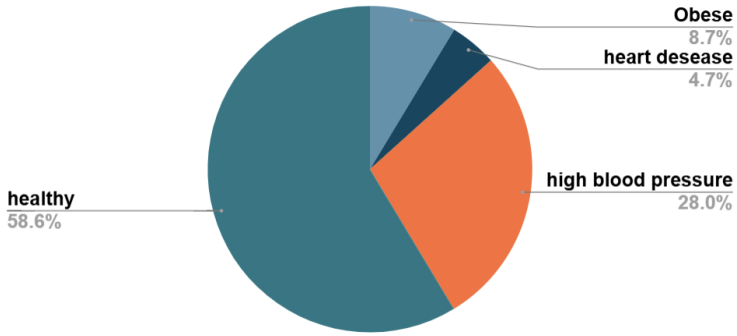
Age Breakdown:



Race Breakdown:



Health Breakdown:



West End:

High levels of poverty: 50% live below the poverty line

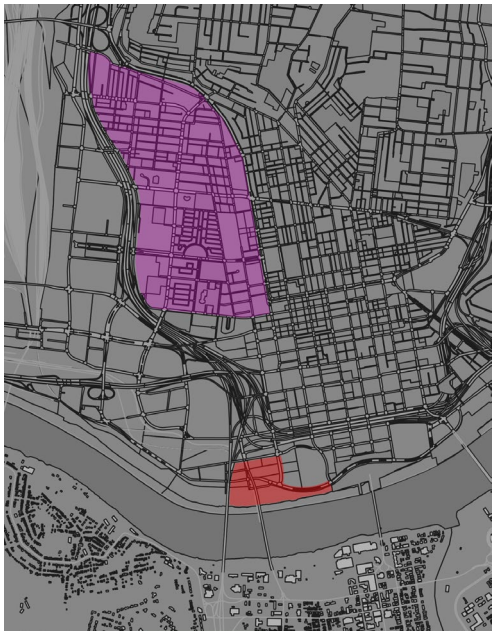
Low median household income: $19,500

High pedestrian activity:

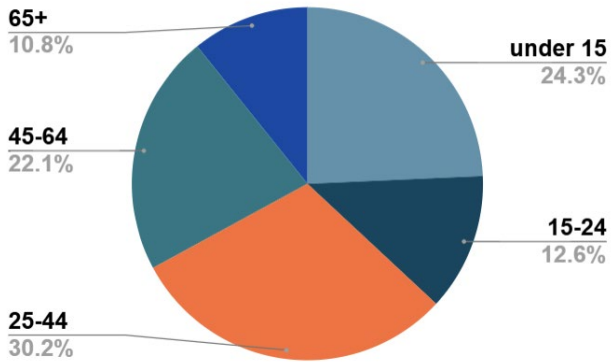
Low amount of green space (0.7% tree canopy)

7.6% of the land is dedicated to parks/green space

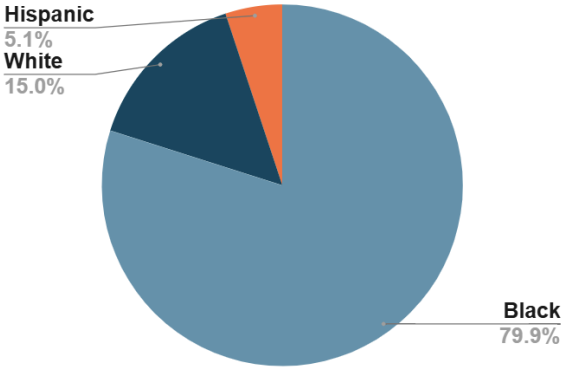
High percentage of residents are sports fans



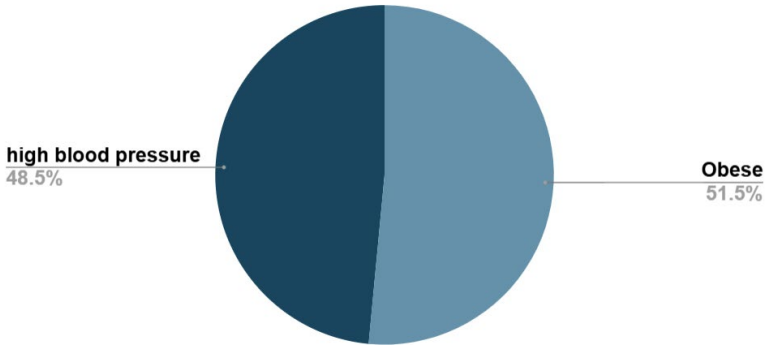
Age Breakdown:



Race Breakdown:



Health Breakdown:



Over the Rhine:

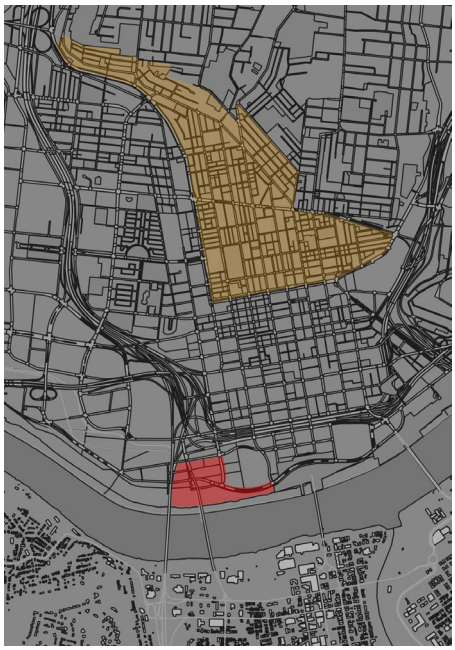
Median household income: $25,860 - $46,214

High pedestrian activity:

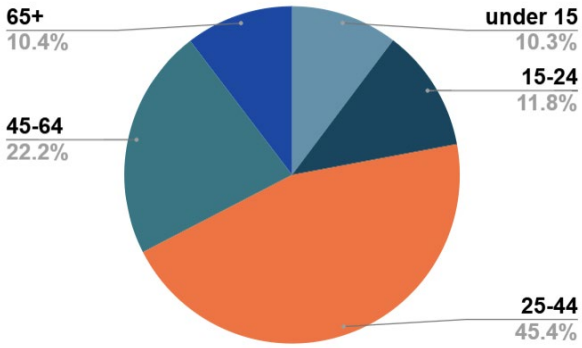
High poverty levels

Low amount of green space (0.8% tree canopy)

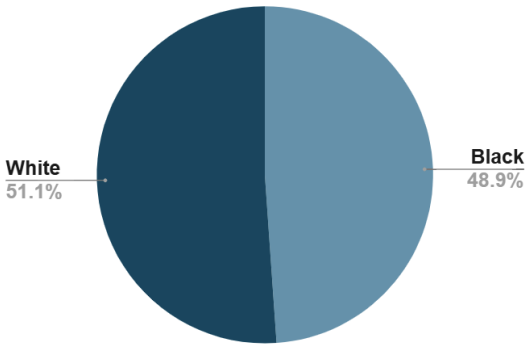
Approximately 57% residents are sports fans



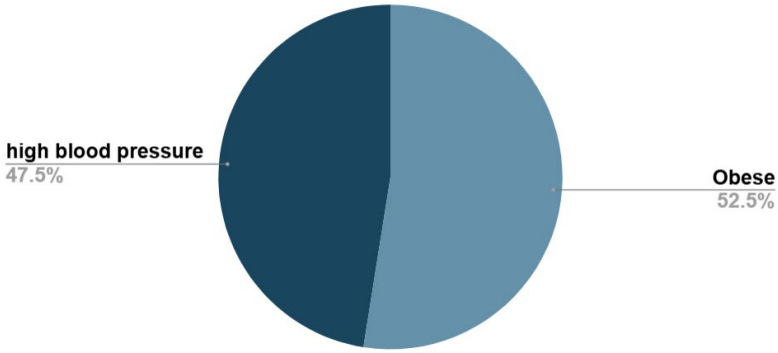
Age Breakdown:



Race Breakdown:



Health Breakdown:



Covington – Kentucky:

Median household income: $55,000

High poverty levels: 14.5%

High pedestrian activity:

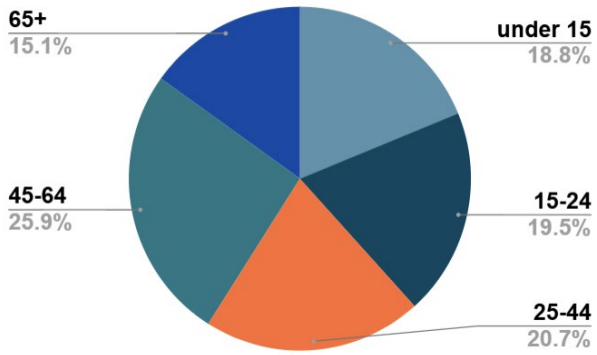
Medium amounts of green space

(23% tree canopy)

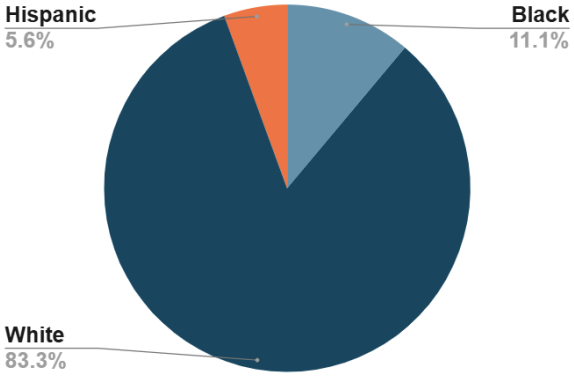
Medium level residents are sports fans



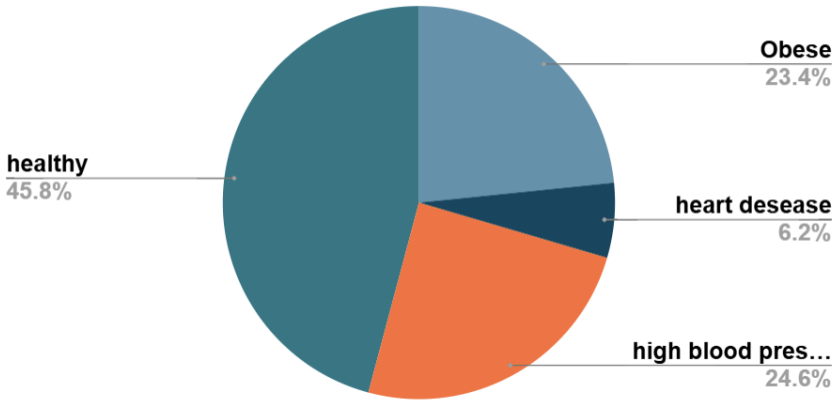
Age Breakdown:



Race Breakdown:



Health Breakdown:



Newport – Kentucky:

Median household income:

$35,000 - $58,500

High pedestrian activity:

Poverty: 18% live below the poverty line

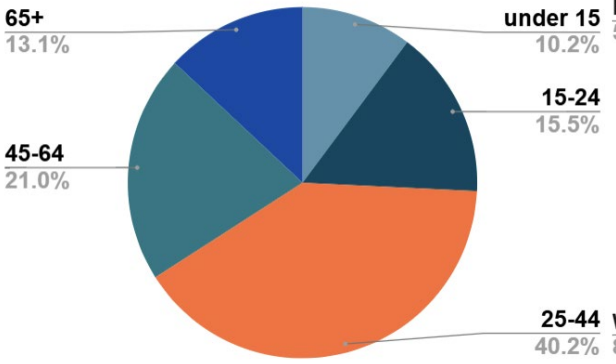
Low amount of green space:

(0.8% tree canopy)

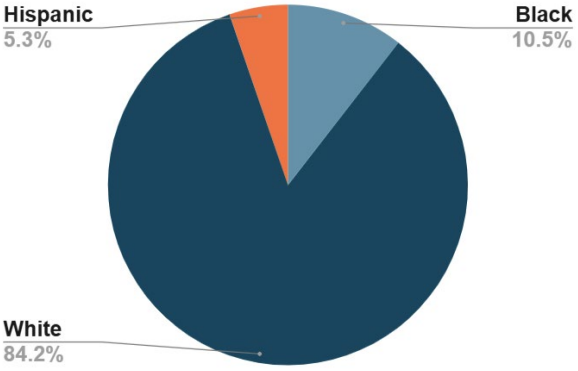
Medium level residents are sports fans



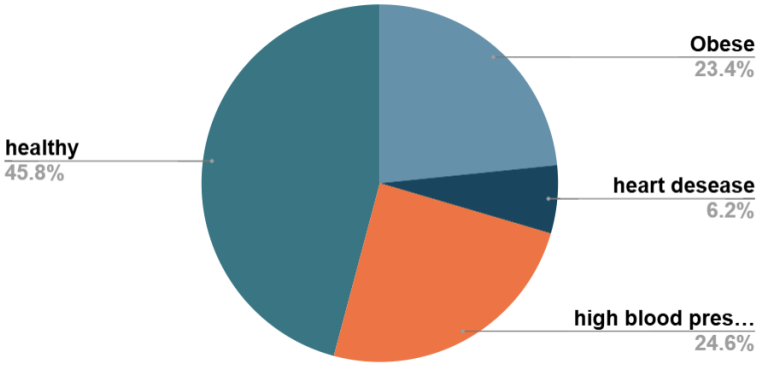
Age Breakdown:



Race Breakdown:

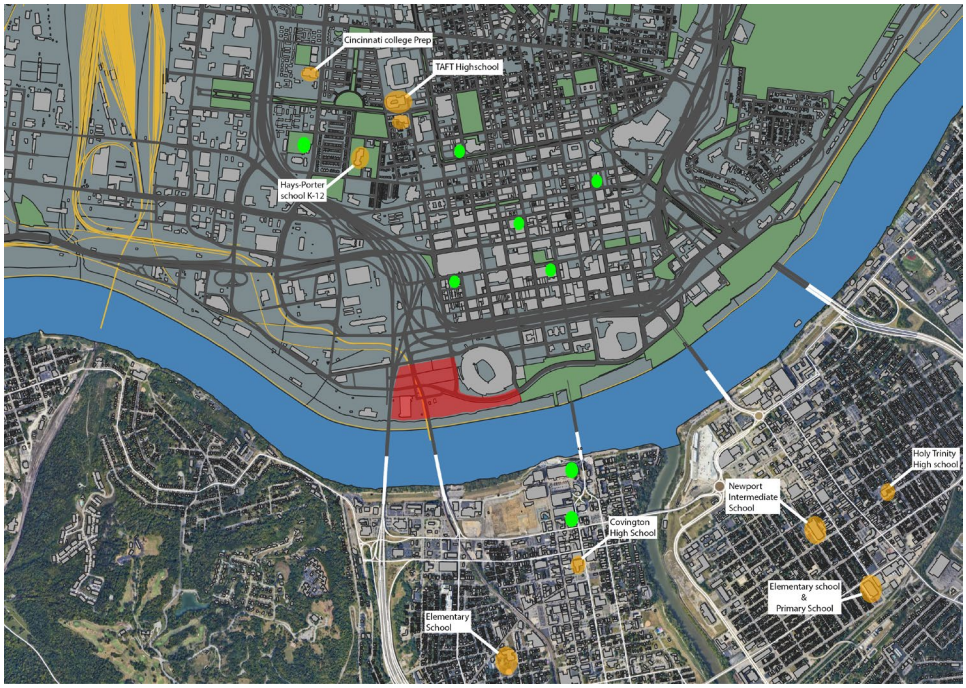


Health Breakdown:



Key Maps:

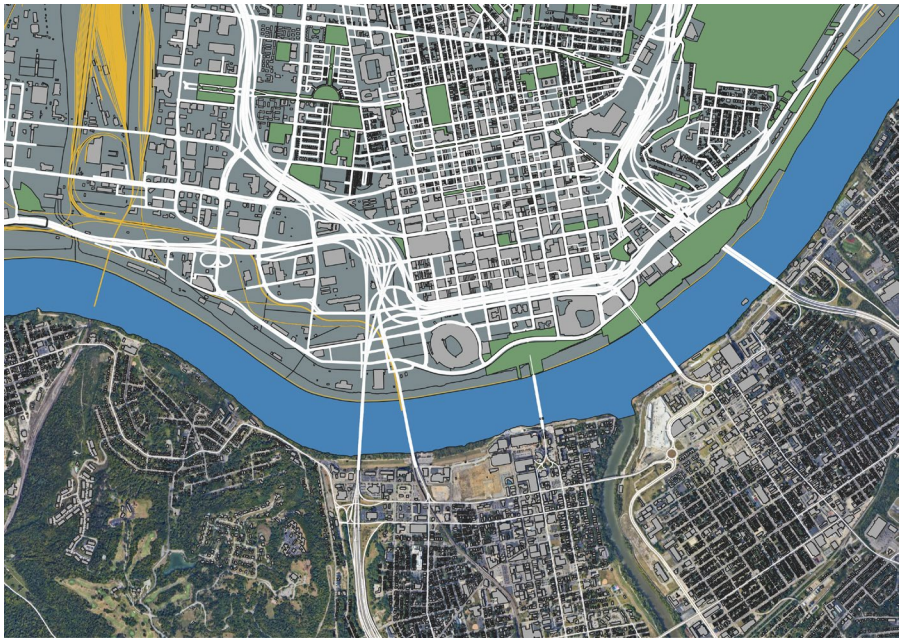
Education Centres & Sports Facilities:



Existing Gyms & Small sports facilities

Education Centres

Green Space Map:

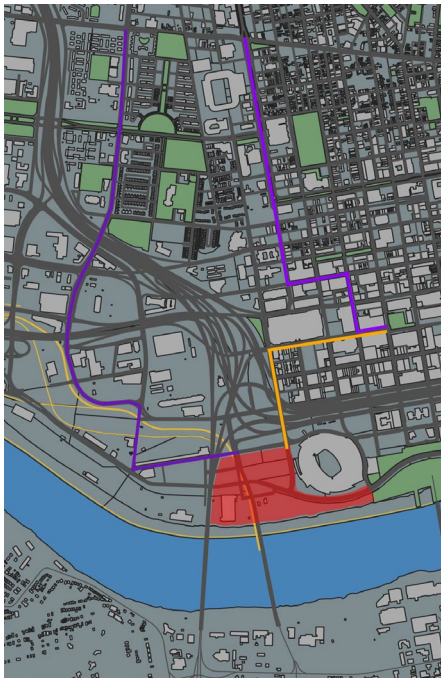


Illustrates how all the identified communities have very little green space.

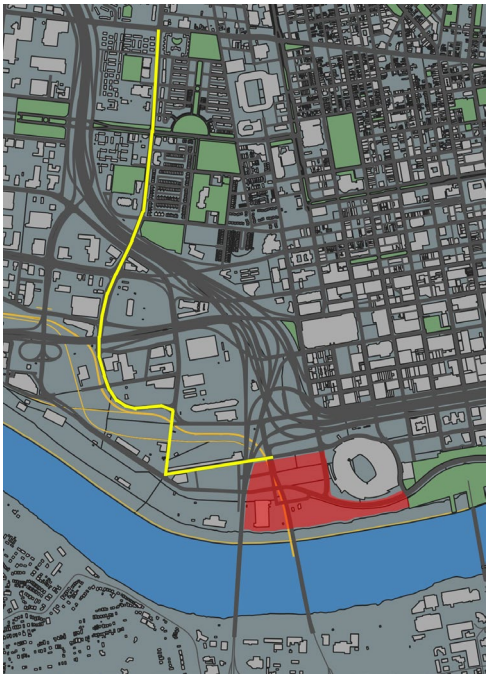
Transit Mapping:

West End:

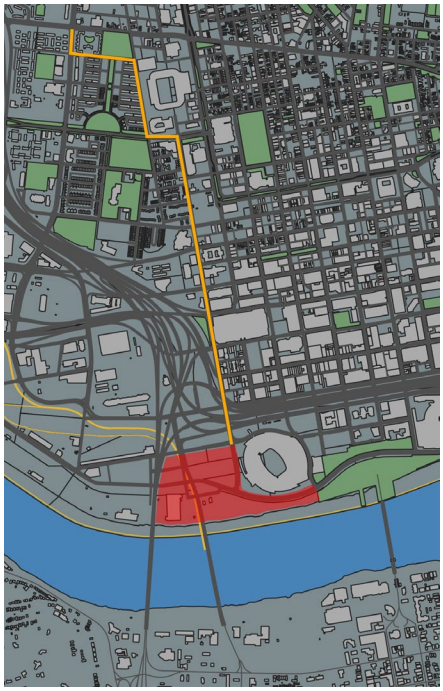
Public Transport:
20 – 30 Minutes



Car:
7 – 12 Minutes

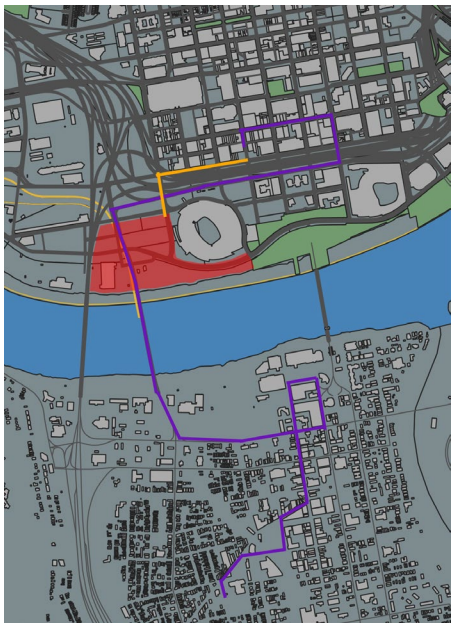


Walking:
30 – 40 Minutes

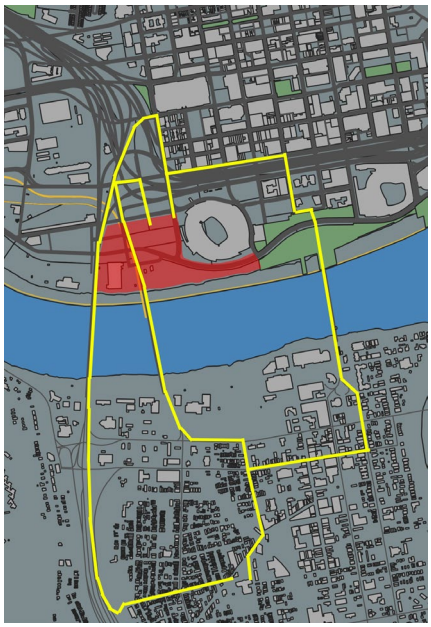


Covington:

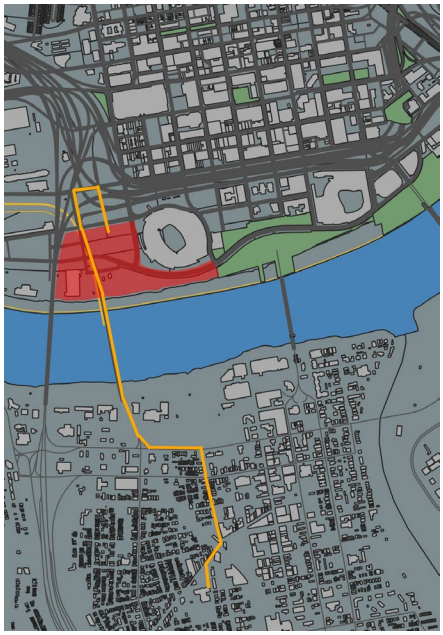
Public Transport:
20 – 30 Minutes



Car:
5 – 12 Minutes

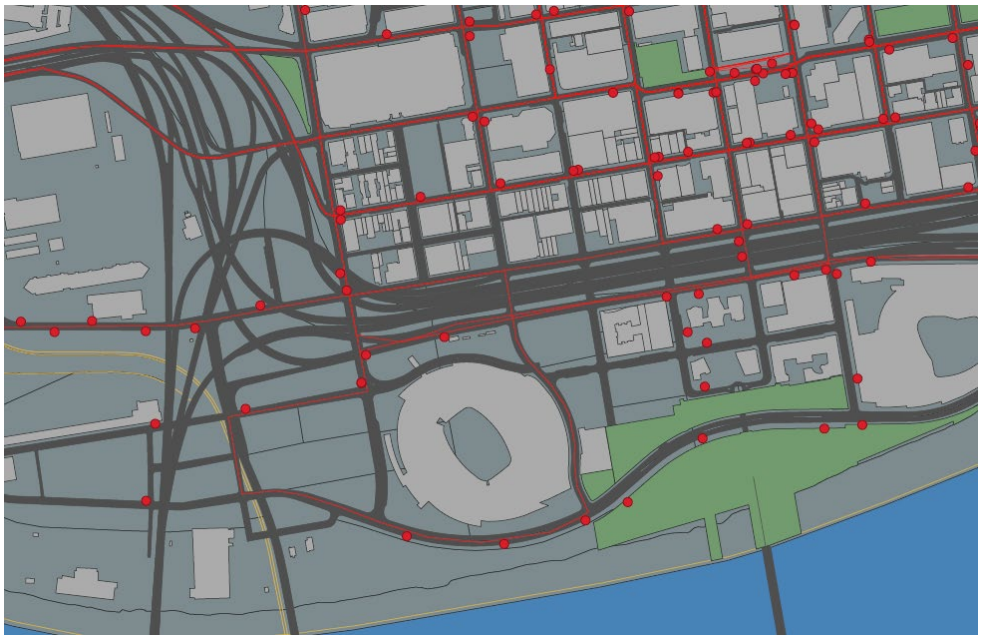


Walking:
25 – 35 Minutes

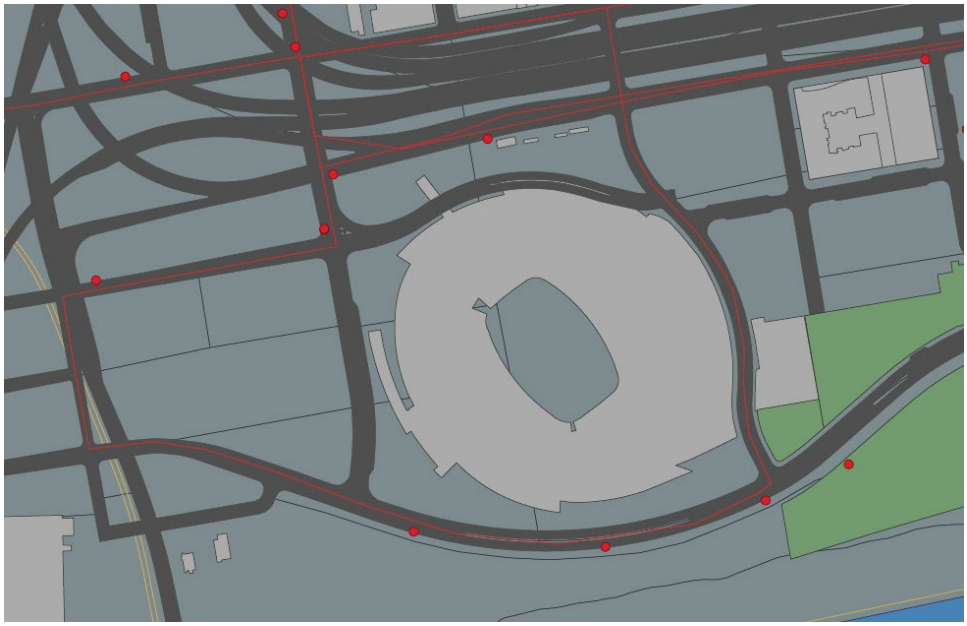


Bus Stops – Connection to Project Site:

Existing bus routes & stops: Large view



Existing bus routes & stops - zoomed in view



Why is the Project important:

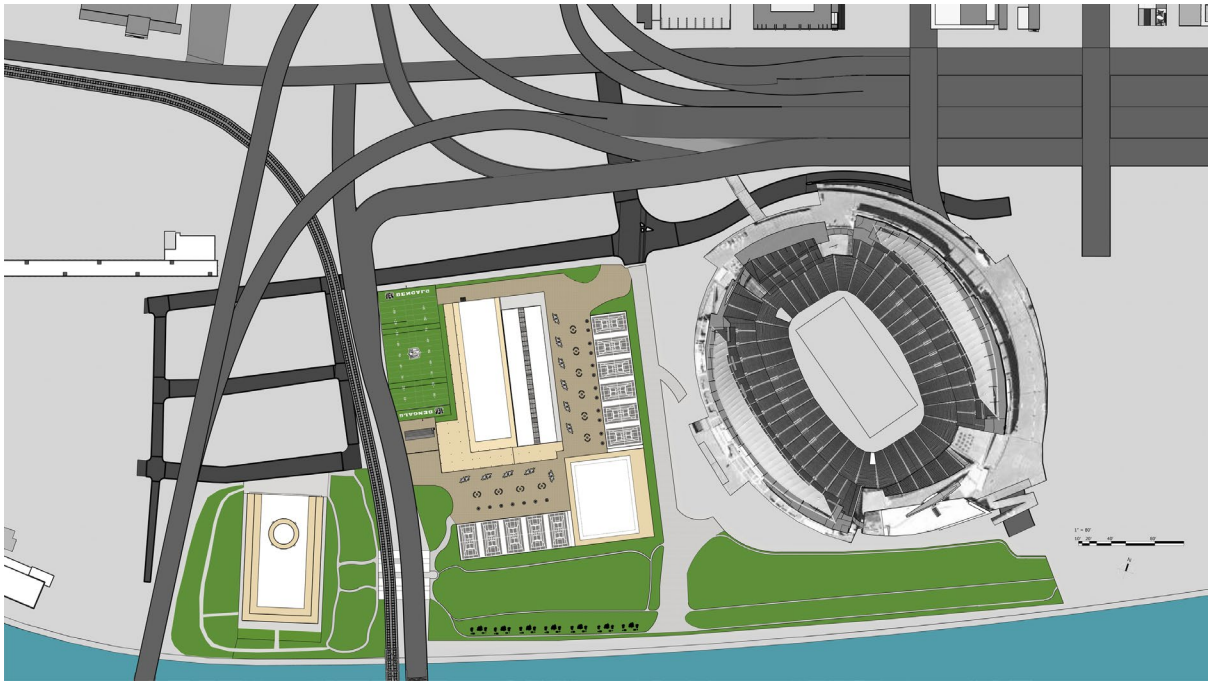
1. It will prove nearby communities (Covington, West end) with river front community green space – a form of programming these areas are lacking in.

2. It will provide these communities (consisting of a range of demographics -young and old) with the opportunity to explore sports in a pedestrian safe environment, regardless of prior sports abilities – providing them with a unique experience they otherwise wouldn't be able to experience.

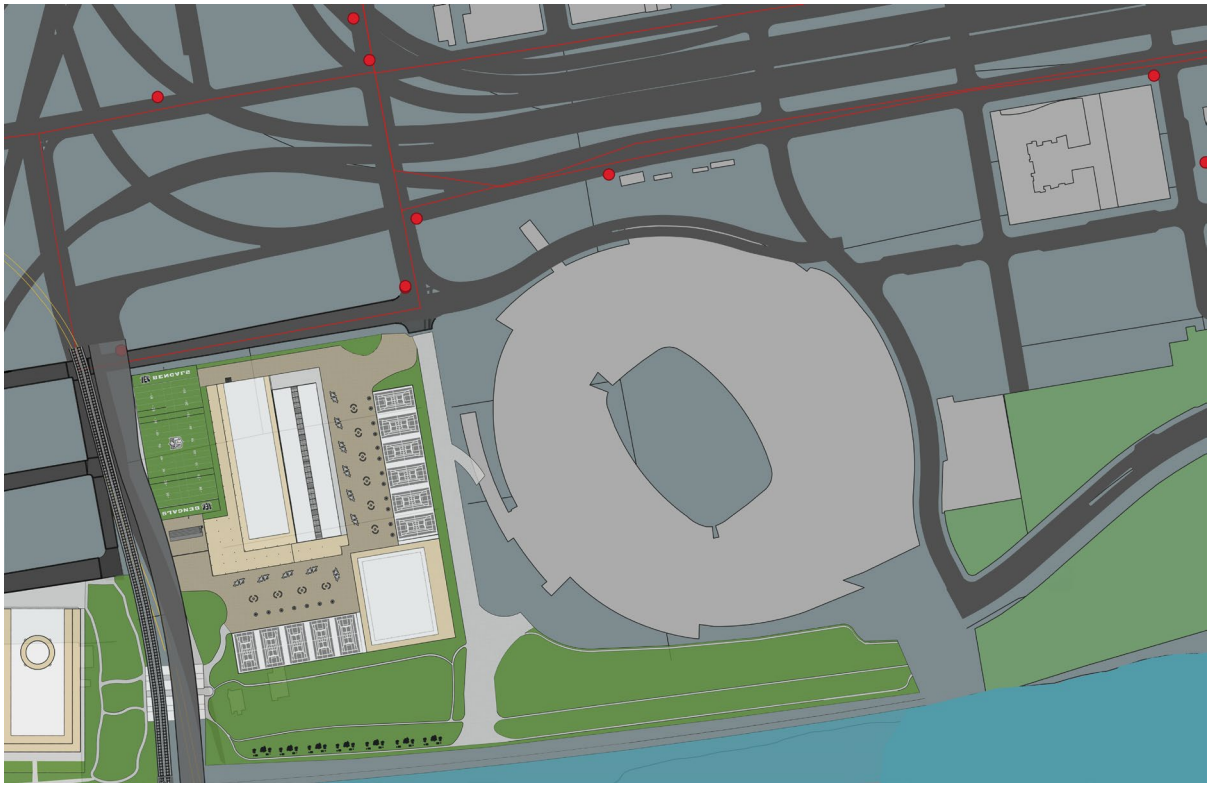
3. Bring economic benefits to the city of Cincinnati through a programming that provides a unique sporting opportunity and experience, boosting tourism and attraction in the area.

4. Reinvigorates a dead zone or low activity zone that is close to the city and is in a prime location to maximize riverfront views. Ultimately, it activates an area that saw meaningful use only eight times last year.

Project and Development Layout:



Project and Development Layout: With adjusted Bus Routes and Stops



Project Program Space Breakdown:

Sports Museum/Experience Centre – featuring observation tower:

Level 1: Length: 370’ Width: 230’: 85100 Sq ft

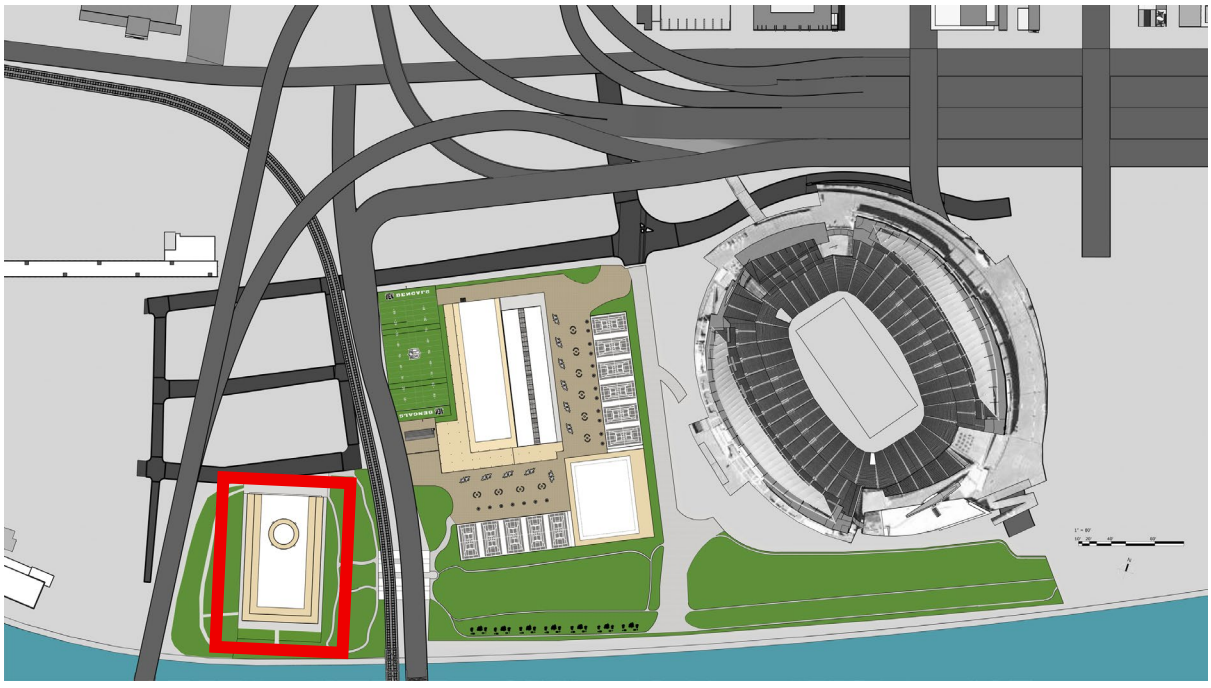
Level 2: Length: 350’ Width: 210’: 73500 Sq ft

Level 3: Length: 330’ Width: 170’: 56100 Sq ft

20’ Balcony Space offset on each level

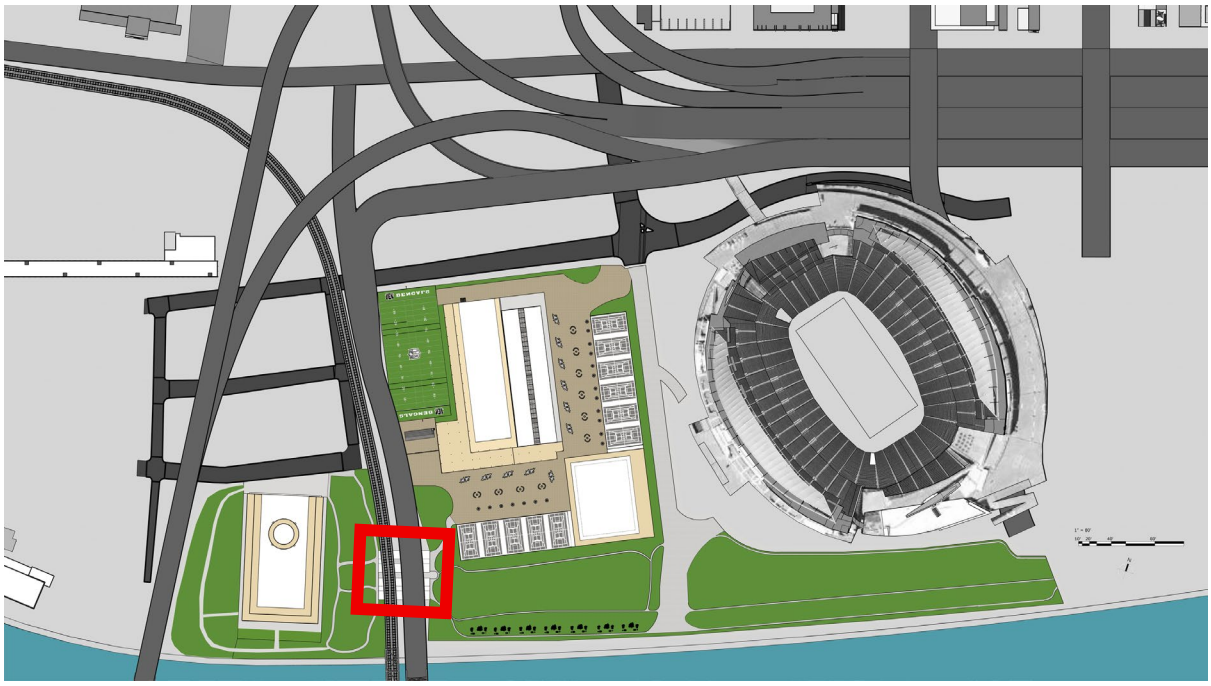
Tower:

- ground to first viewing deck: 180’
- ground to second viewing deck: 190’



Under Highway & Railway Bridge Transit Tunnel:

Inspired by Airport Terminal transit tunnels these 140’ transit tunnels bridge the 2 district site areas.



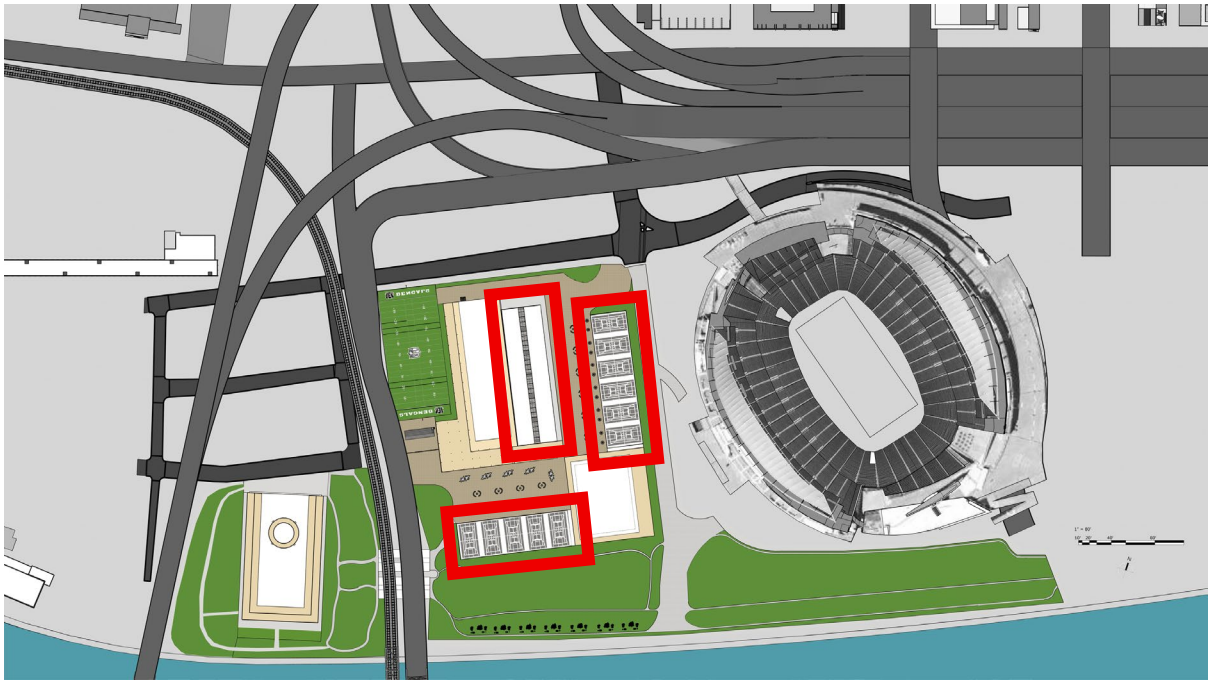
Sports Courts:

6 outdoor courts: footprint: Length: 370’ Width: 100’: 37000 Sq. Ft.

5 outdoor courts: footprint: Length: 308’ Width: 100’: 30800 Sq. Ft.

6 Indoor courts: footprint: Length: 375’ Width: 120’: 45000 Sq. Ft.

- 31’ ceiling height

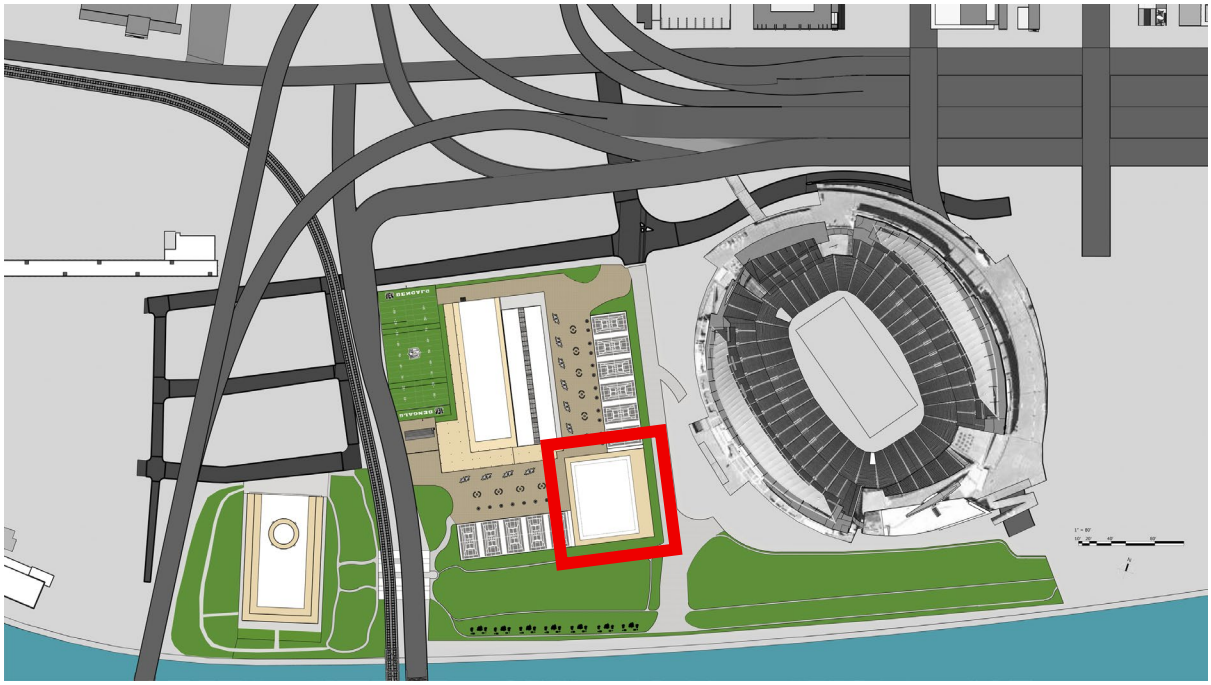


Small Sports and Commercial Facility:

Level 1: Length: 245’ Width: 220’: 53900 Sq ft

Level 2: Length: 195’ Width: 145’: 28275 Sq ft

- Balcony space: 25625 Sq ft



Main sports facility:

Level 1: Length: 370’ Width: 230’: 85100 Sq ft

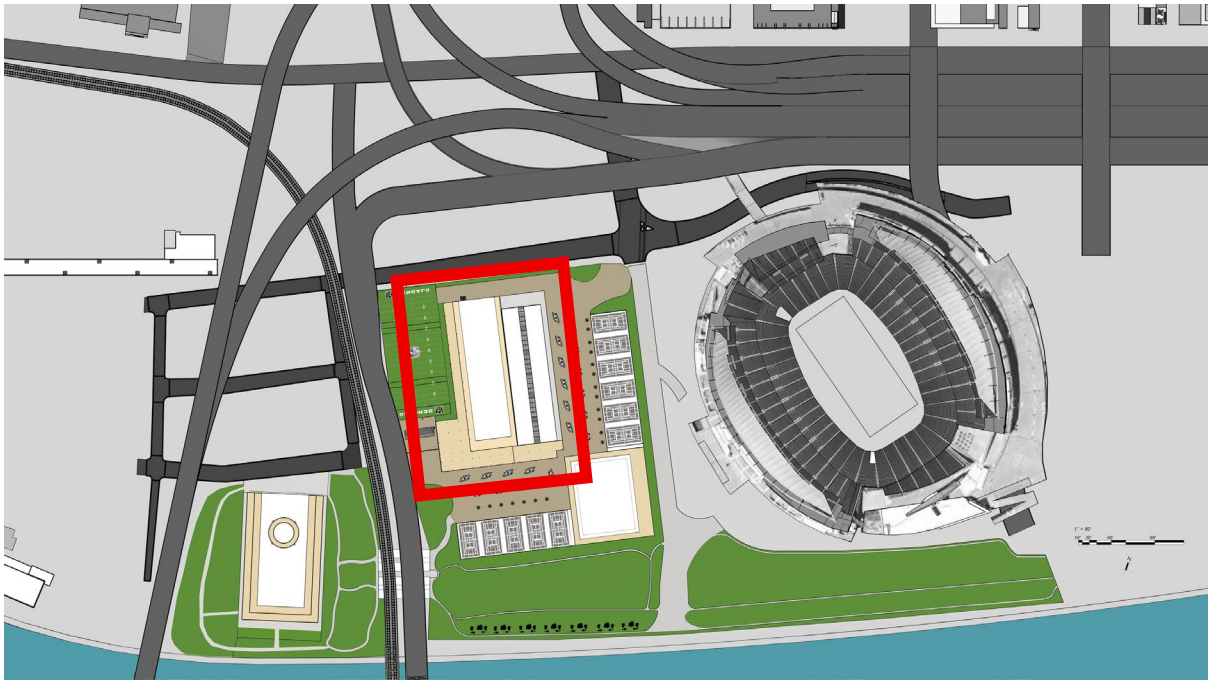
- Bengals gym: 13150 Sq ft
- Community gym: 13150 Sq ft
- Locker room: 3000 Sq ft
- Community space 23400 Sq ft

Level 2: Length: 350’ Width: 210’: 73500 Sq ft

- Community space: 20450 Sq ft
- Balcony space: 25800 Sq ft
- Viewing space: 10620 Sq ft
- Kitchen & bar: 8120 Sq ft

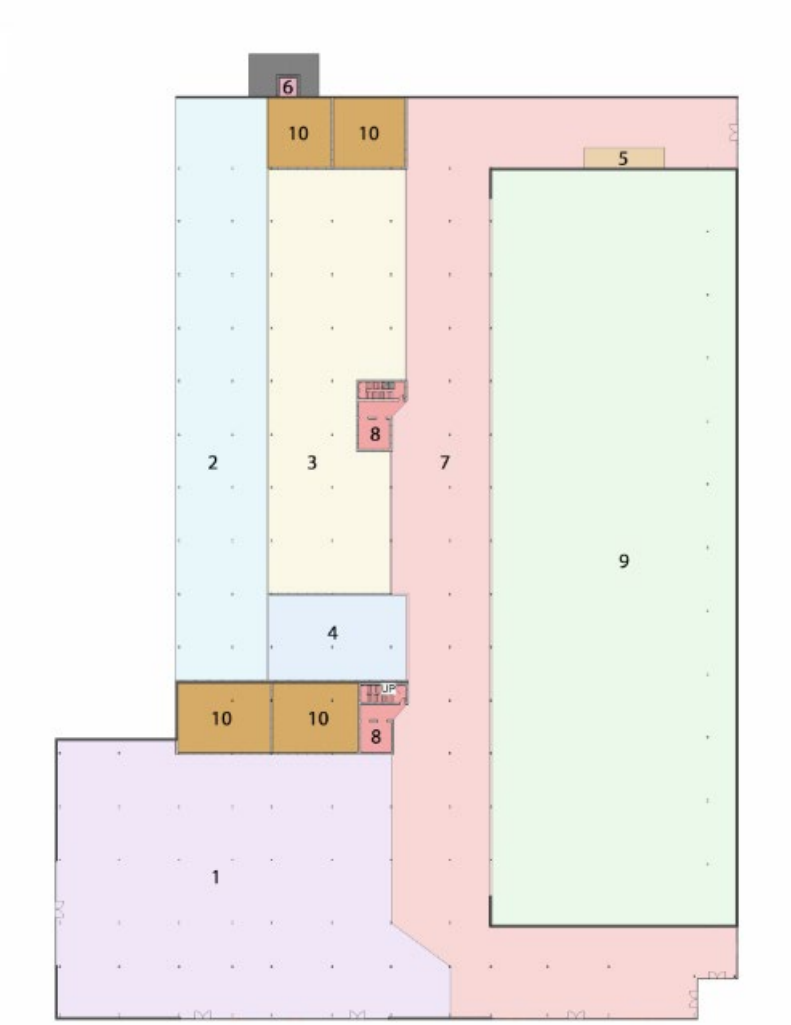
Level 3: Length: 330’ Width: 170’: 56100 Sq ft

- Restaurant space: 23760 Sq ft
- Balcony space: 18170 Sq ft
- Kitchen: 6490 Sq ft



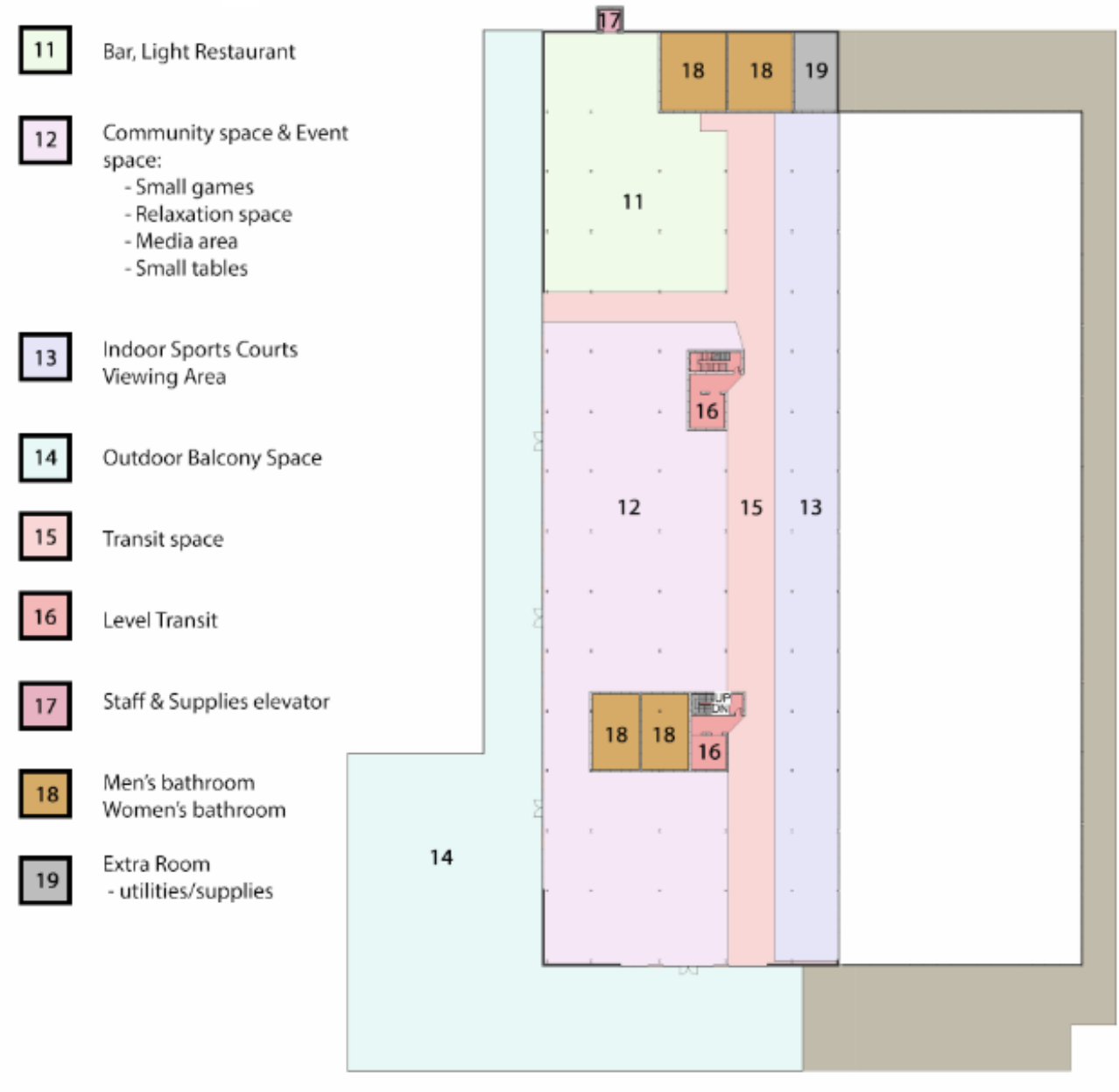
Main facility Space Plans:

Ground level:

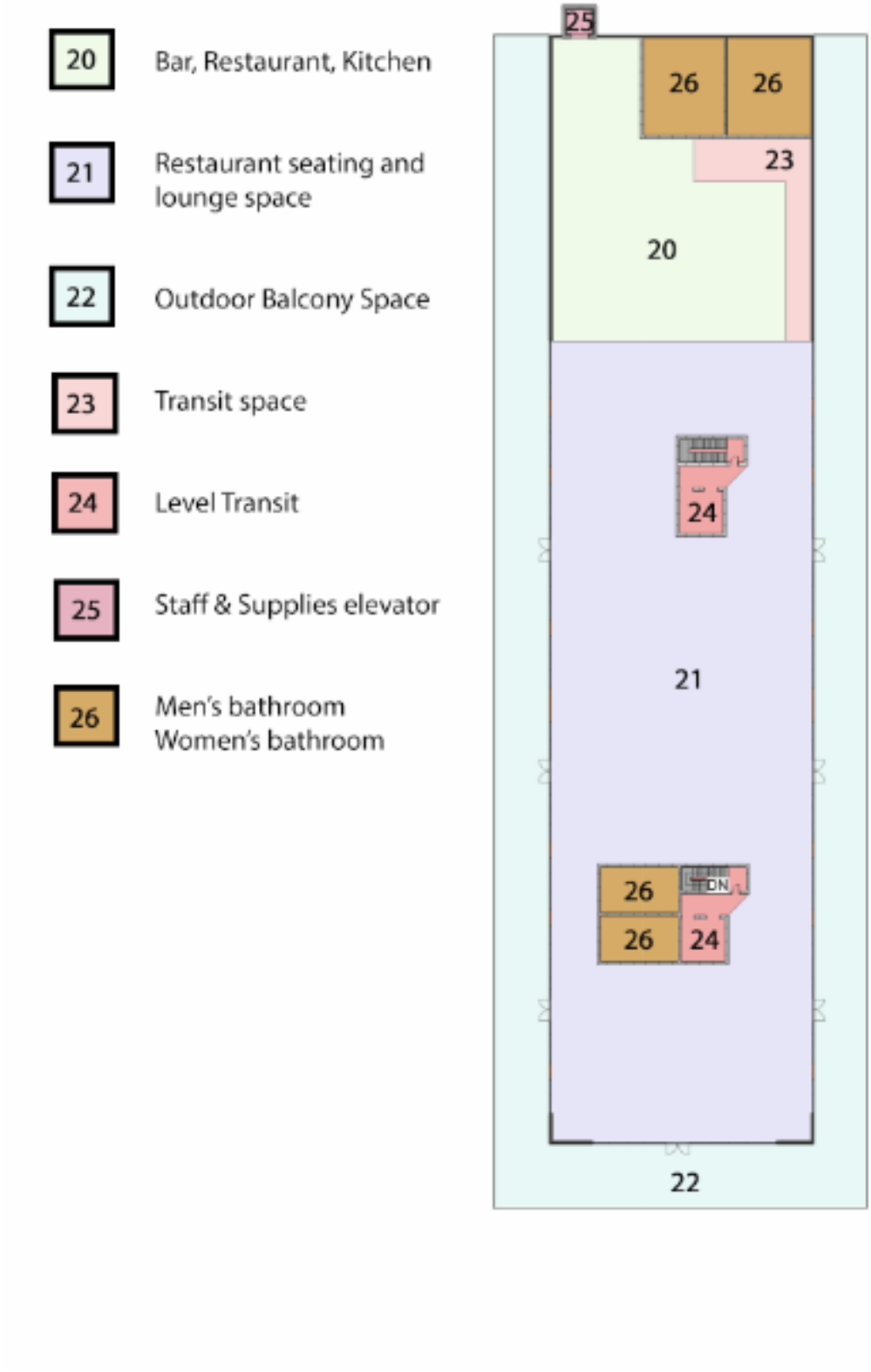


1	Community Space & admin Space: - Relaxation area, - Check-in/Admin Desk - Small Food/Juice Stands - Eating Tables
2	Bengals Training Gym
3	Community Gym Space
4	M & W Locker rooms
5	Admin Desk/Space
6	Staff & Supplies elevator
7	Transit space
8	Level Transit
9	Indoor Sports courts
10	Men's bathroom Women's bathroom

Level 1:


11 Bar, Light Restaurant
12 Community space & Event space:
- Small games
- Relaxation space
- Media area
- Small tables
13 Indoor Sports Courts Viewing Area
14 Outdoor Balcony Space
15 Transit space
16 Level Transit
17 Staff & Supplies elevator
18 Men's bathroom Women's bathroom
19 Extra Room
- utilities/supplies
17
18
18
19
11
16
12
15
13
18
18
16
14

Level 2:


20
Bar, Restaurant, Kitchen
21
Restaurant seating and lounge space
22
Outdoor Balcony Space
23
Transit space
24
Level Transit
25
Staff & Supplies elevator
26
Men's bathroom
Women's bathroom
25
26
26
23
20
24
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26
26
DN
24
22

Key Construction details:

Terracotta Rainscreen Siding

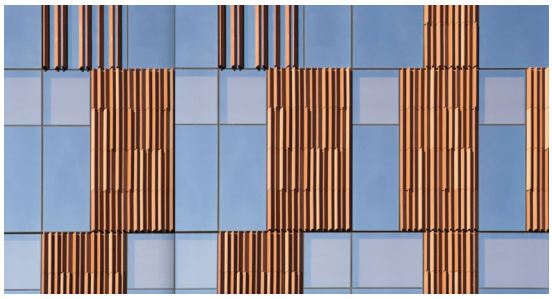
terracotta rainscreen system is a layered exterior wall where panels (terracotta siding) are mounted slightly off the building, creating a ventilated air gap behind them.

- The outer terracotta panels act as the weather shield
- A cavity (air gap) allows drainage + airflow
- The inner wall stays dry because pressure is equalized and moisture escapes

Modern terracotta panels are extruded hollow or double-skin units, making them much lighter than traditional masonry.

Key advantages (why architects use it)

- Lightweight vs. stone or brick
- Durable (decades to centuries lifespan)
- Ventilated → reduces moisture problems
- Fire-resistant and UV-stable
- Modular + replaceable panels





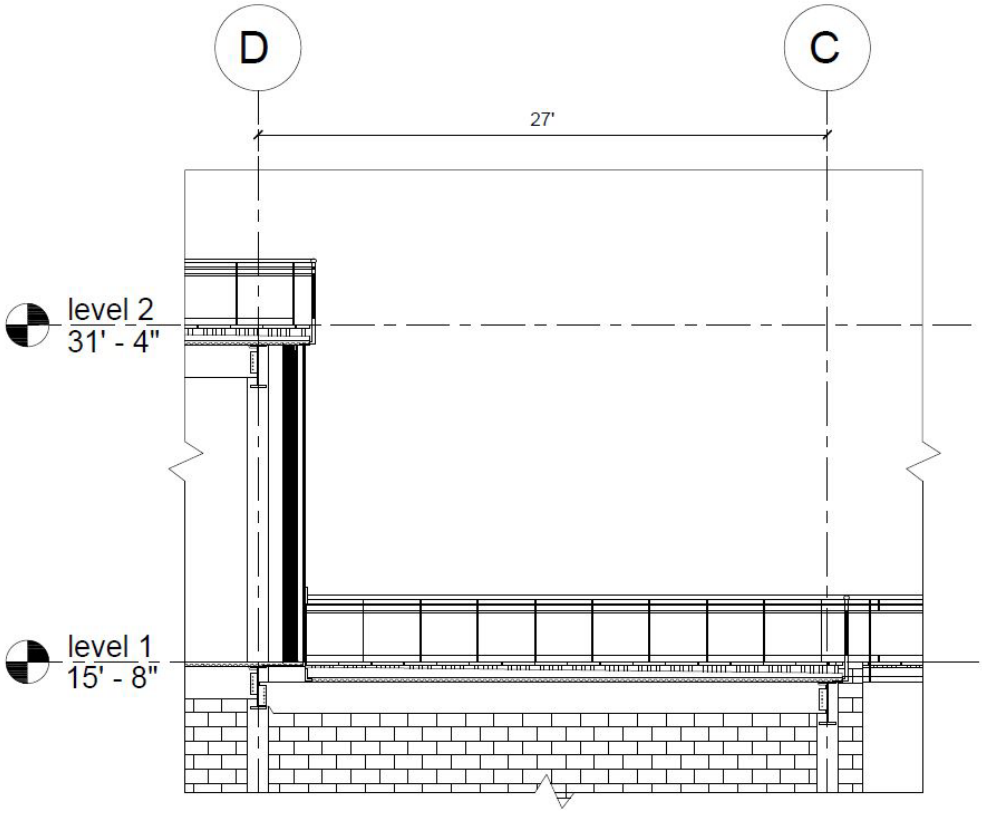
Indoor Sports Courts Perimeter Window System:

The glazing follows a 4-panel system where the 2-end window will have the ability of be toggled open and side across to the fixed adjacent window, creating an opening allowing exterior ventilation and thermal control depending on the time of year.

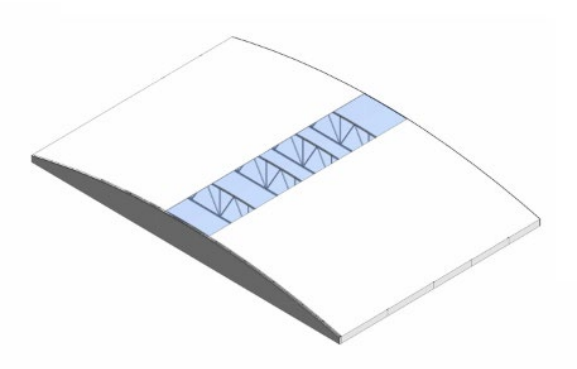
The system will be staggered, which follows the rhythm of the terracotta façade around the rest of the structure.



Zoomed in Section Detail:



Indoor Sports Courts Roofing:



Low-iron laminated, double-glazed, fritted glass with low-e coating

Full Specification:



- Outer pane: Heat-strengthened or tempered glass
- Inner pane: Laminated (for safety + acoustic dampening)
- Low-iron content: Reduces green tint -> better colour clarity for ball tracking
- Low-E coating (solar control):
    - Target SHGC: 0.25–0.35
    - Keeps heat out while maintaining daylight
- Ceramic frit pattern (VERY important):
    - Dot or gradient frit (30–60% coverage depending on orientation)
    - Diffuses sunlight, eliminates harsh shadows and glares

PTFE Fiberglass Membrane

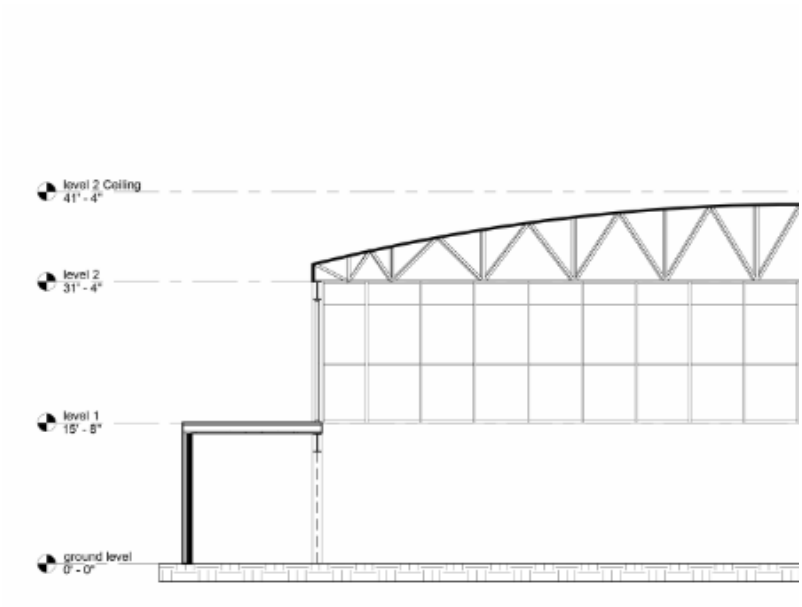
Specifications:

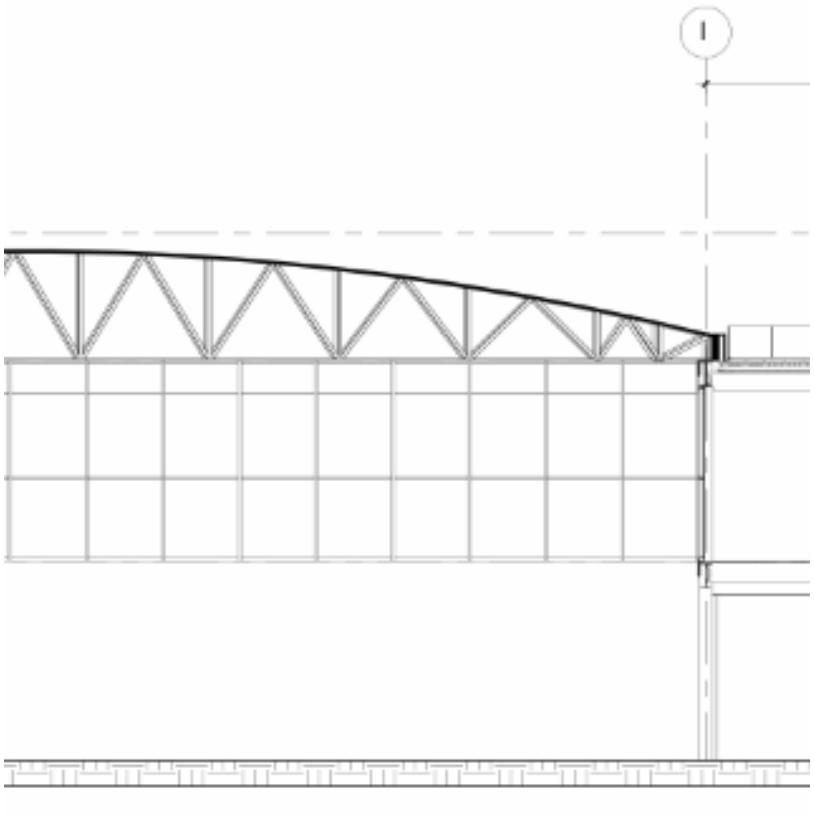


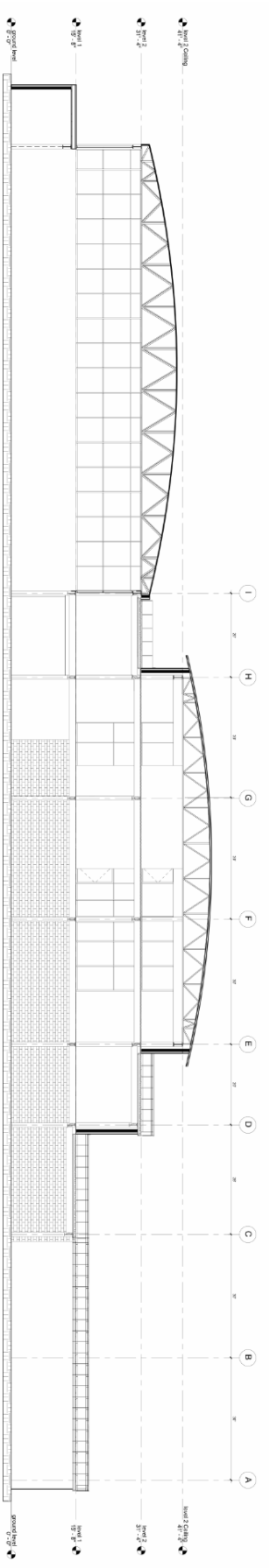
- Material: PTFE-coated fiberglass
- Light transmission: 10–20% (diffuse)
- Solar reflectance: high (~70–80%)
- Lifespan: 25–40 years

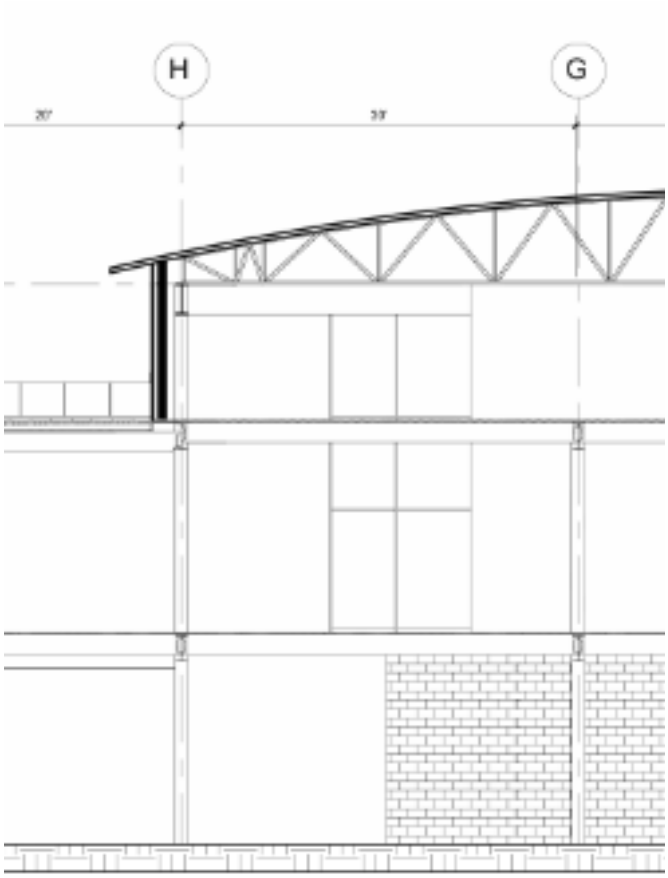
Large Scale Section

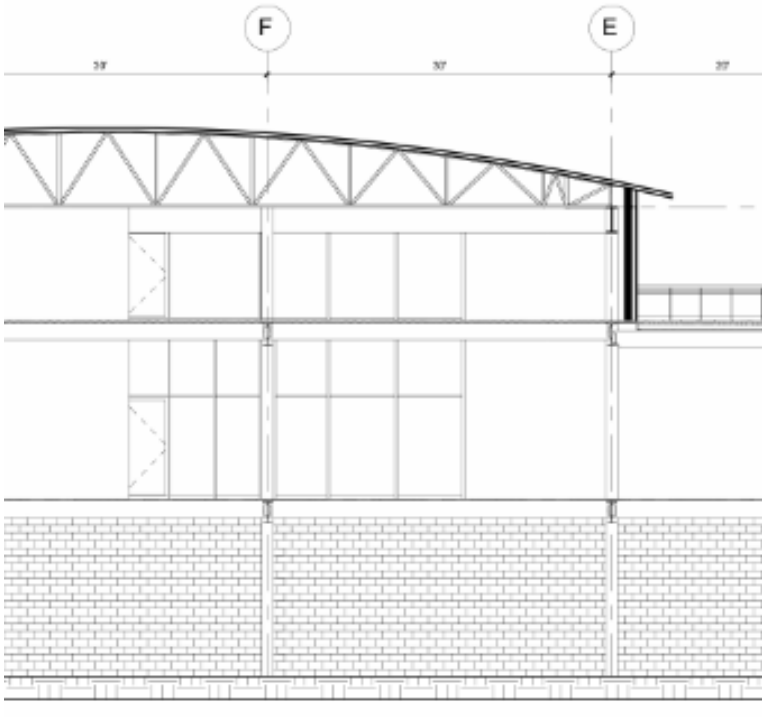
View of Main Sports Facility:

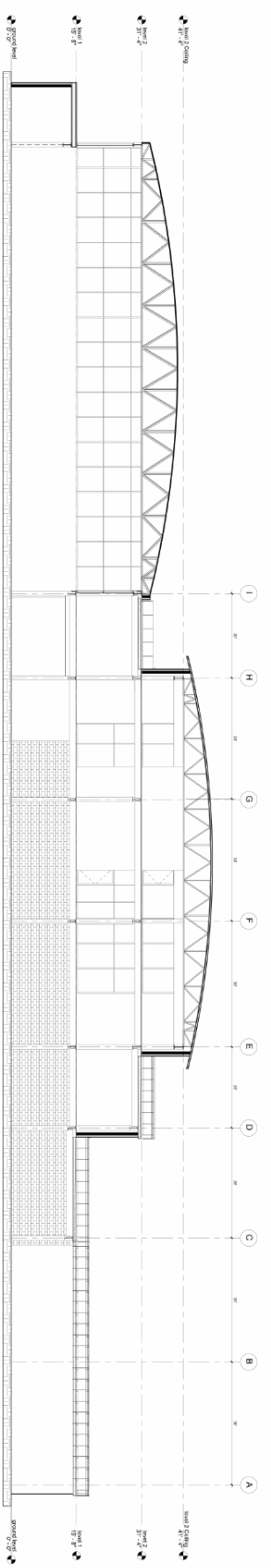


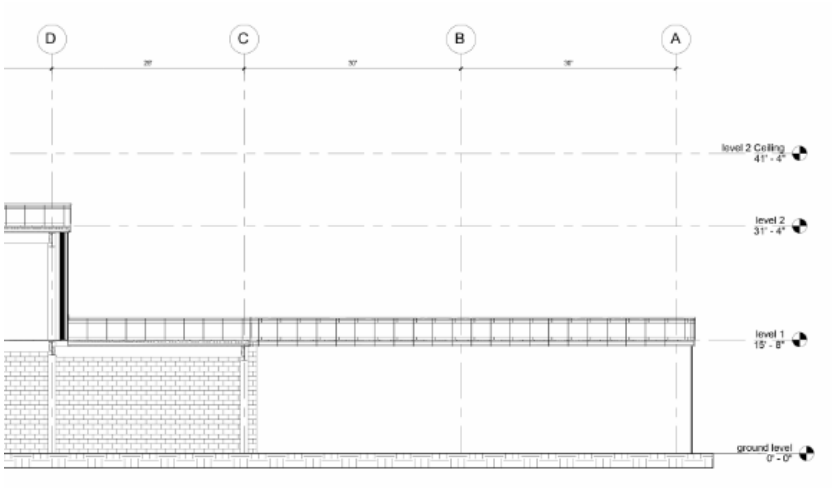


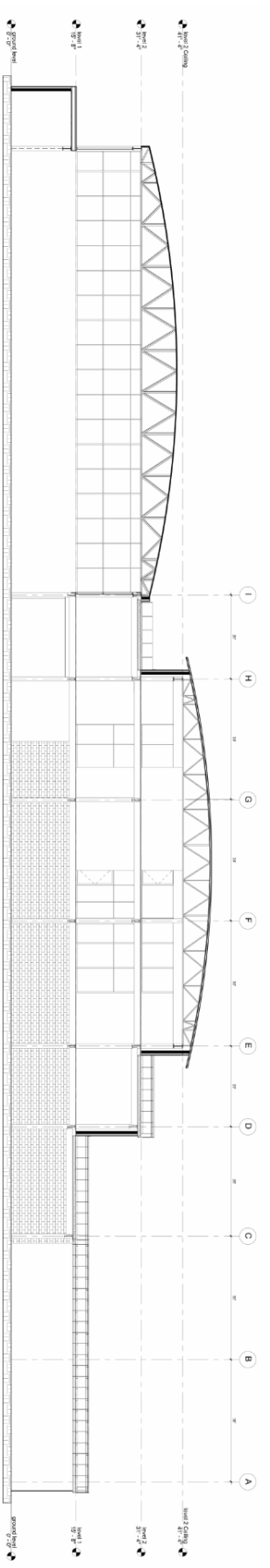



H
G

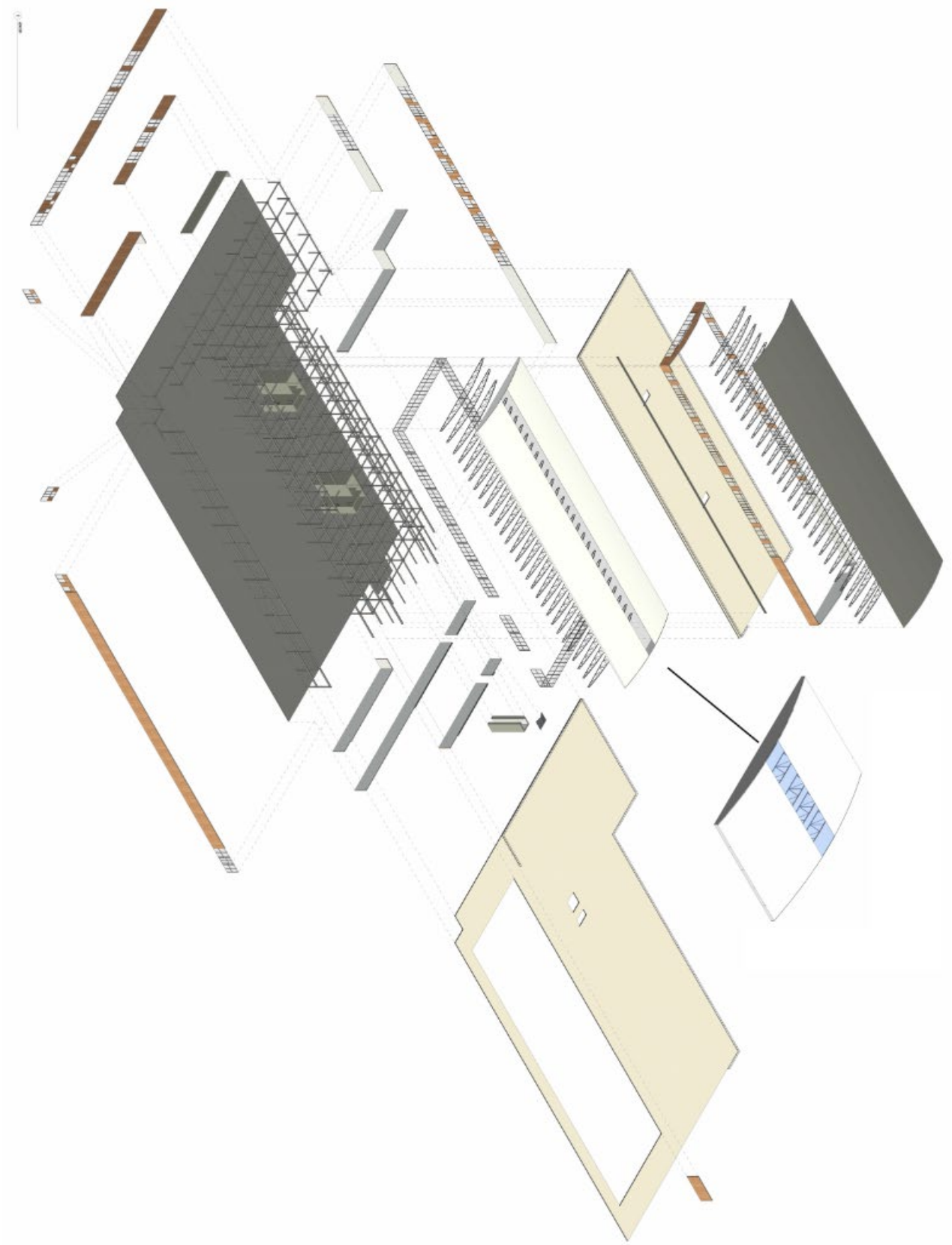

F
E




D
C
B
A
level 2 Ceiling
41' - 4"
level 2
31' - 4"
level 1
15' - 8"
ground level
0' - 0"

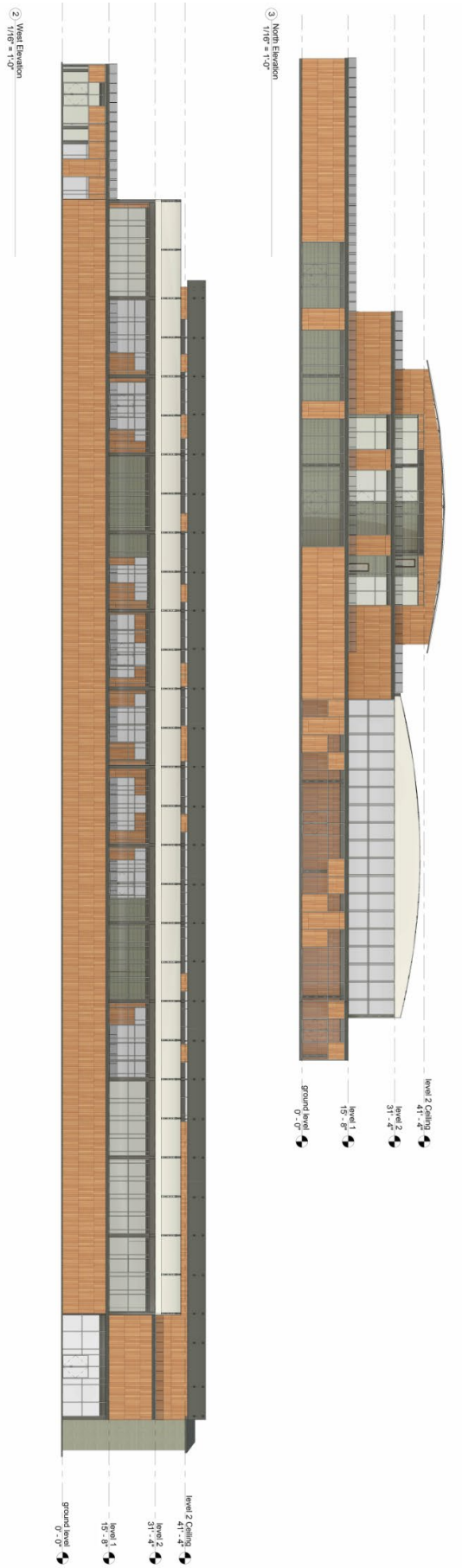

I
H
G
F
E
D
C
B
A

Main Sports Facility Exploded Axon:

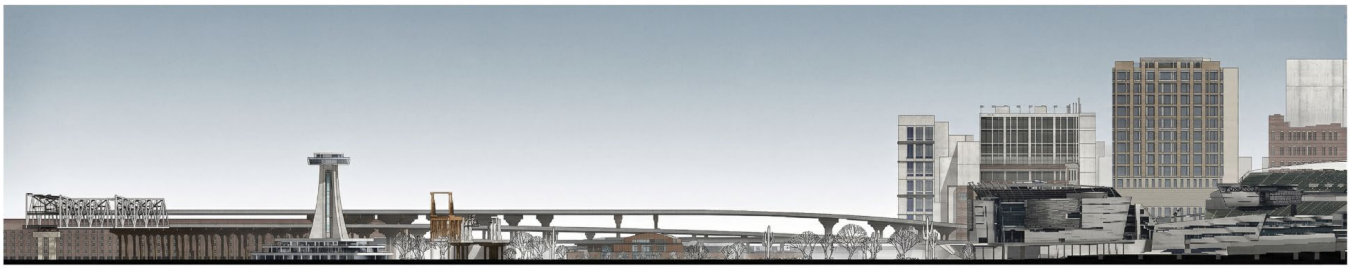


Main Sports

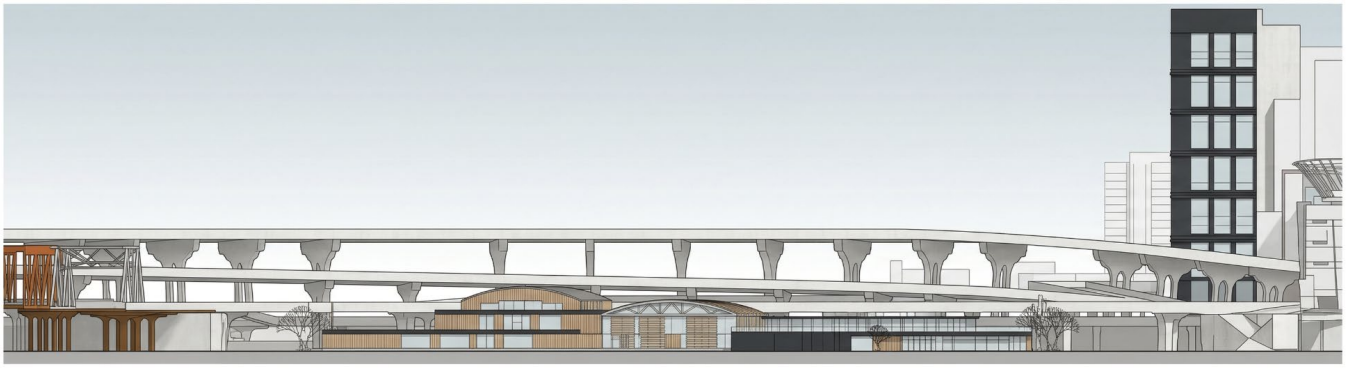
Facility Elevations:



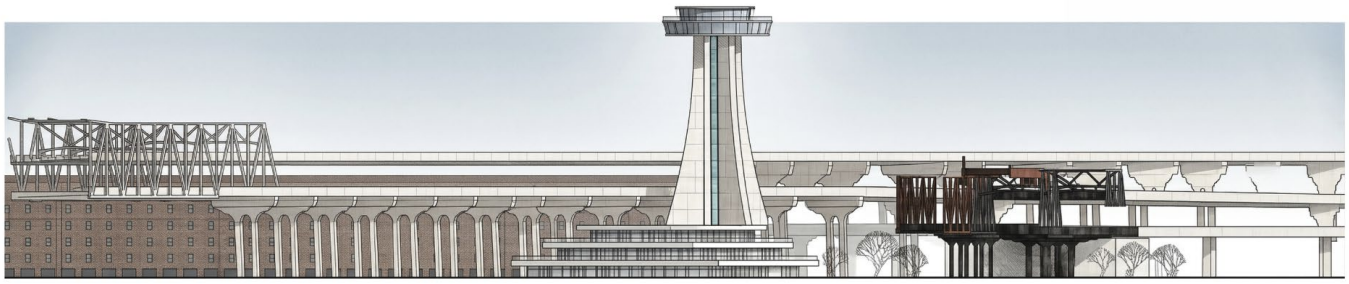
Full Space Views & Illustrations:



Elevational view facing North which aims to give a more accurate view of what can be seen from the Kentucky side of the river when viewing across to Cincinnati.



Another Elevational view facing North that provides a more view of what can be seen from the Kentucky side of the river when viewing across to Cincinnati, but this one focuses on the sports facility and its location between the highway and Paycor Stadium.

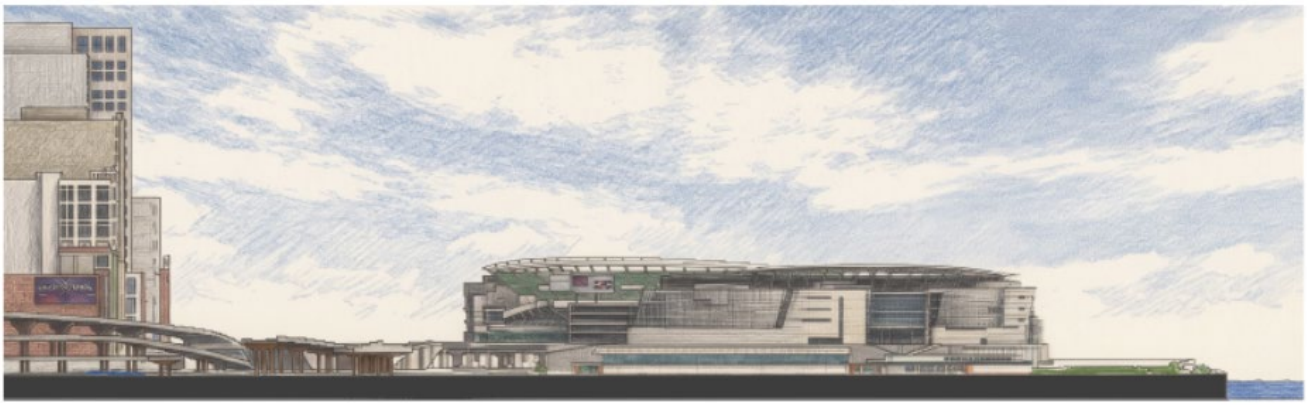


Another Elevational view facing North that provides a more view of what can be seen from the Kentucky side of the river when viewing across to Cincinnati, but this one focuses on the sports museum/experience center and its location between the two highways, highlighting

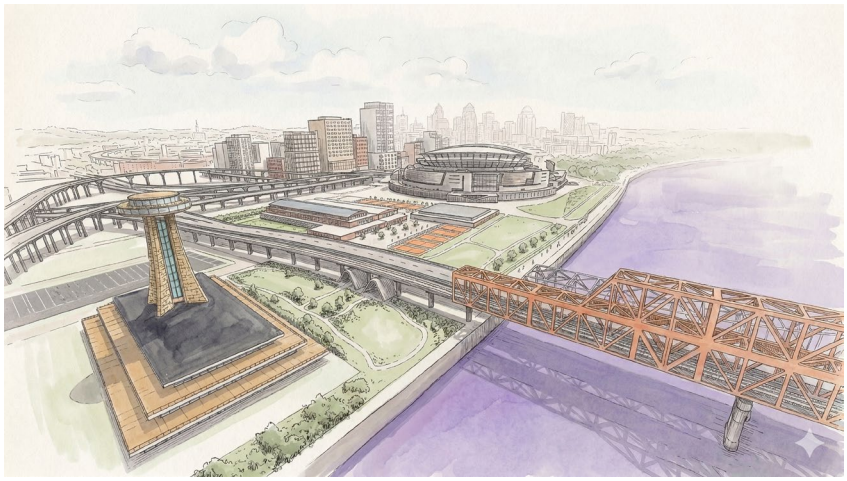
the immersion of the tower braking through the confines the box feeling the dual highways create.



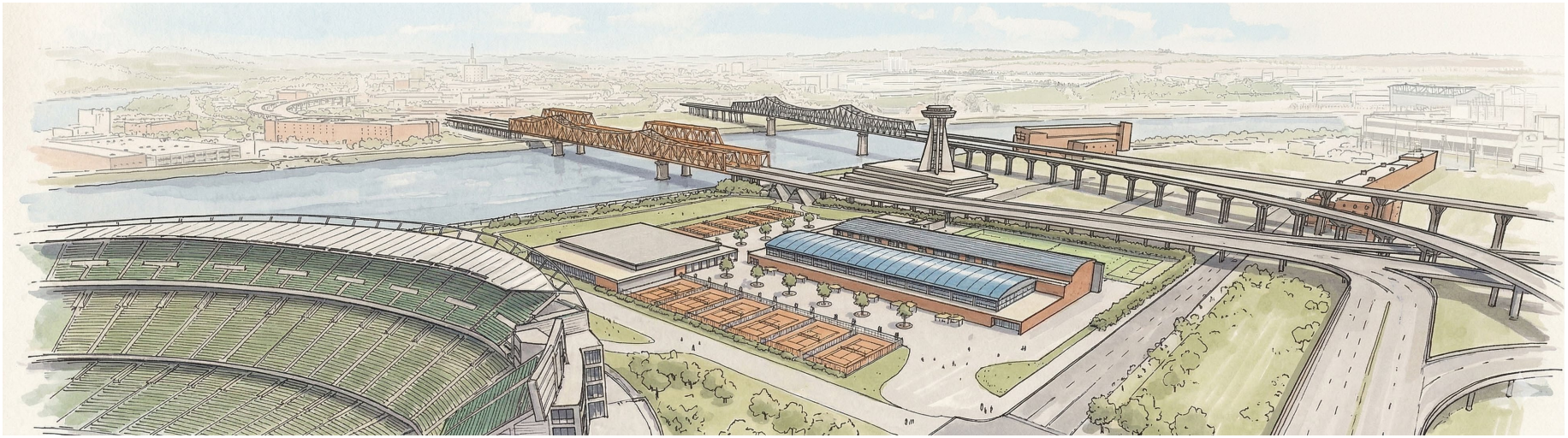
Section view facing North cutting through the middle of full sight to highlight elevational scale between the project and the highways, Paycor Stadium and the city of Cincinnati, whilst also providing a glimpse of what view you would see look towards Cincinnati from the Kentucky side of the river.



Section view facing East cutting through Indoor sports courts to highlight the relationship and scale between the sports facility, Paycor Stadium and outer edge of Cincinnati City.



Aerial view facing Northeast, focusing on the sports museum/experience center as well as the layout of the project and its relationship with Cincinnati city.



Aerial view facing Northeast, focusing on the sports museum/experience center as well as the layout of the project and its relationship with Cincinnati city.

Theoretical Grounding: - Phenomenology

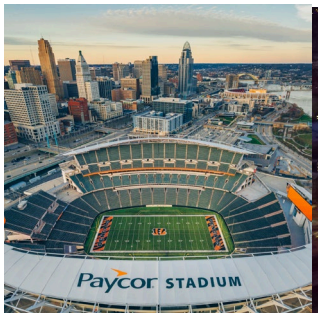
Prioritize atmosphere over simply visuals.

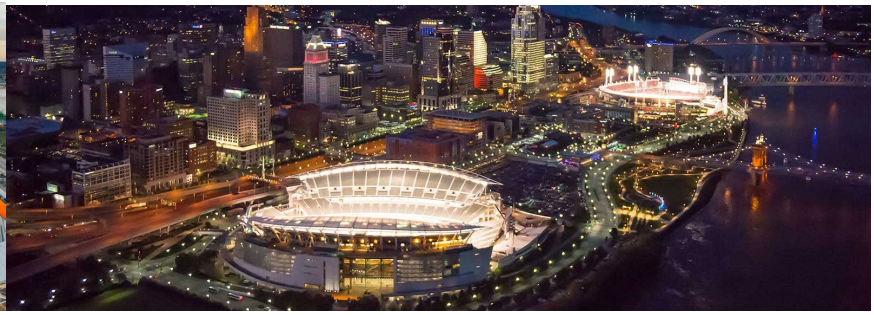
- Creates a more personal level of engagement with sport.

Not everyone understands the exact feelings that come with being involved in the biggest sporting events, but everyone can understand presence and being in an environment that has a center focus - sports.

Atmosphere is routed in sports given the proximity to a central and prominent sports venue - Paycor Stadium.

- The sports facility and sports experience center feeds into this sports presence and atmosphere, ultimately increasing it and strengthening it, allowing for the opportunity to bring communities together around a common interest.



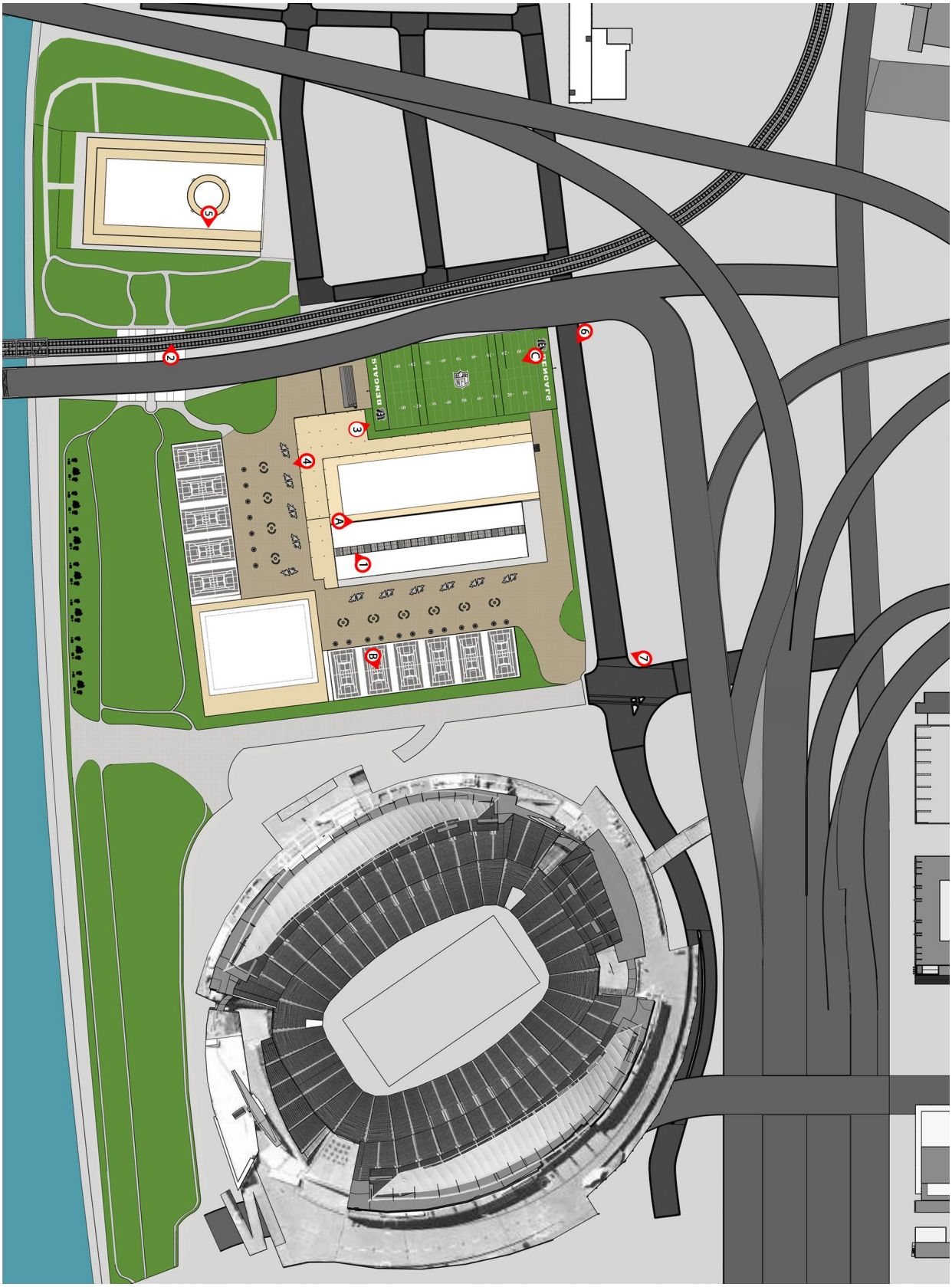


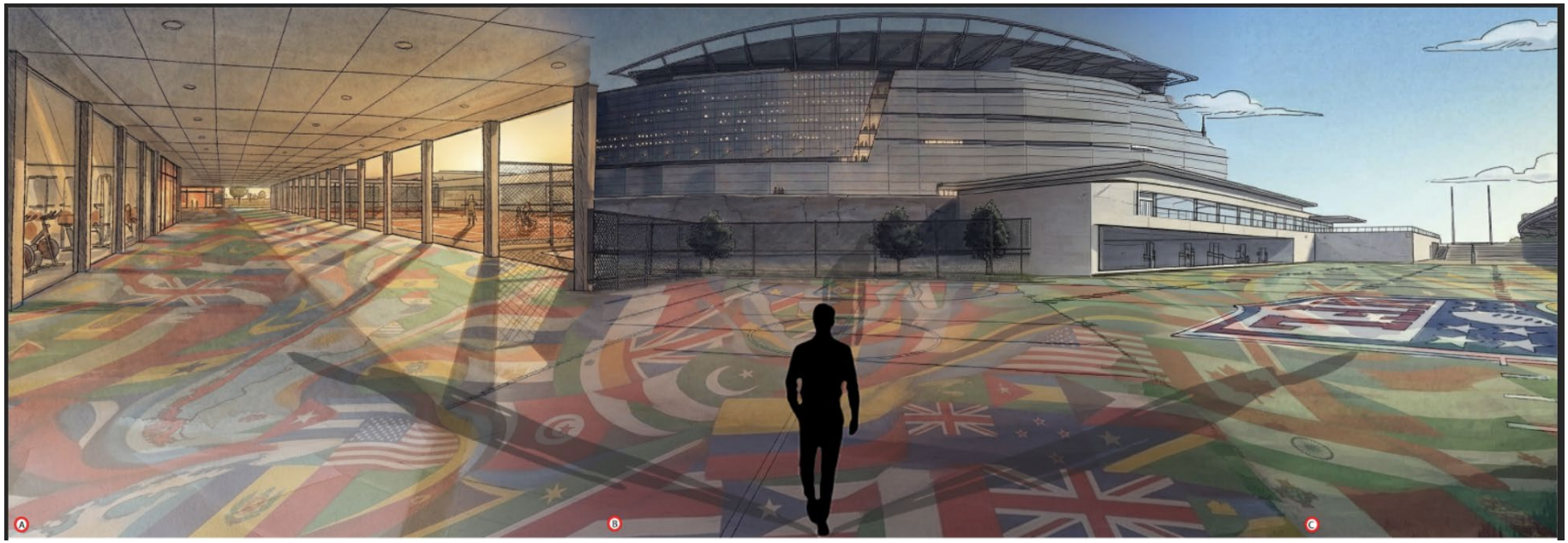
Side note:

All images of Paycor stadium never depict my site are they always face away from it.

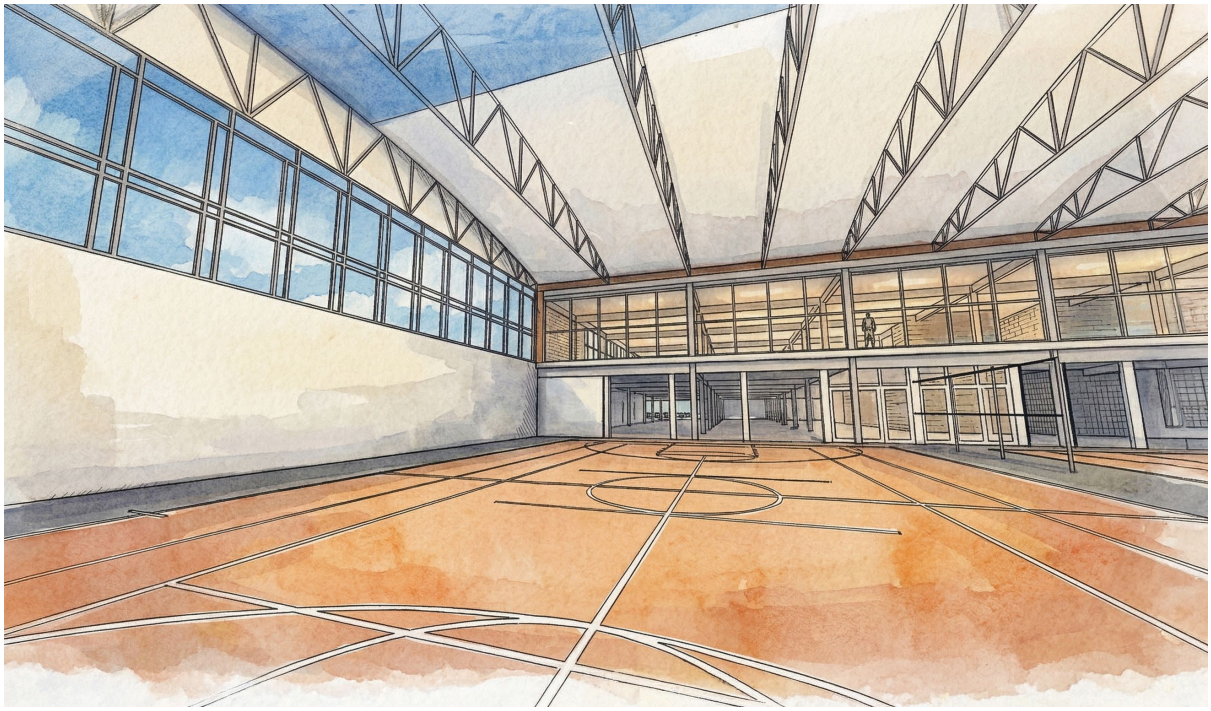
Vignette & Experience of Thesis:

Location and Orientation Map of Vignettes:





Collage:
conveys the atmosphere athletes feel whether it be on the practice field in the hallways of facilities or the grand stage. Additionally, it represents the desire many aspiring athletes have to hopefully one day play in the iconic big stage venues with the gaze thousands on them. The flags represent place in the world of sports people come from places and a flag represents those places. They also highlight the beauty in sports and how no mater your background you can partake in it. The scale of the structures creates a link to the pressure profession and aspiring athletes feel when trying to preform or achieve goals in the context of sports. The collage represents the idea of experience and participation in sports.



Indoor Courts: (1)

The weather is an uncontrollable factor which can prevent the continuation of routine practices or commitments. It can also prevent planned community gatherings centered around a sport. Indoor facilities counter unforeseen, uncontrollable weather situations that would otherwise cause disruption and cancellation.



Space Transition: (2)

Inspired by long transit tunnels between terminals in airports, these tunnels act as a bridge between the Sports museum/experience center and the sports facility, community green space and Cincinnati city. Like the walls of the tunnels in airports these walls will feature forms of art that don't necessarily have a connection to sports, but as if now I have depicted them showing a connection to sports and Ohio's history in sports. This space provides the city with the opportunity to display and celebrate forms of artwork that would otherwise never have been seen by the public.

Additionally, the goal of these tunnels was to simulate the experience and feel a professional athlete undergoes when entering and exiting the tunnel onto the court or field of a big stage event, something the average jo may never get to experience.



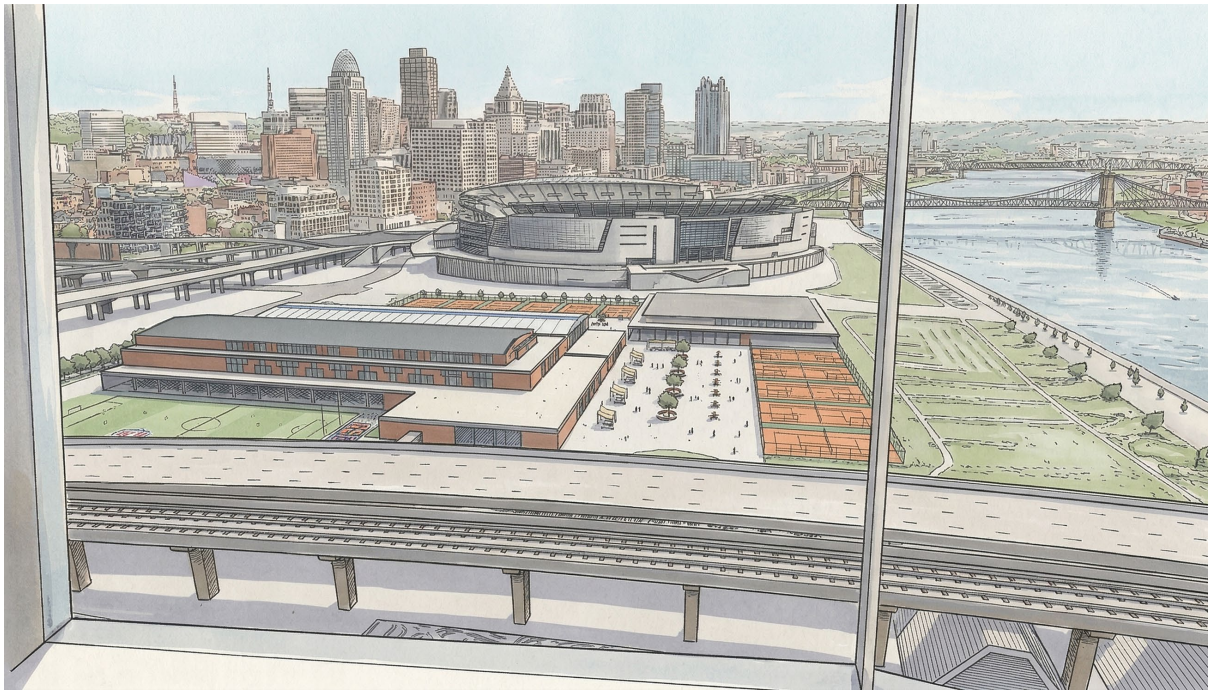
Aspiring: (3)

Most people only ever see the final result when it comes to observing professional sports, the don’t observe the long days and countless hours that go into preparing for the big stage. The space allows of a connection between fans and professionals outside of game day situation and allows of aspiring athletes to get a glimpse into what it takes. It brings the community together and allows them to connect with the idols through support and admiration



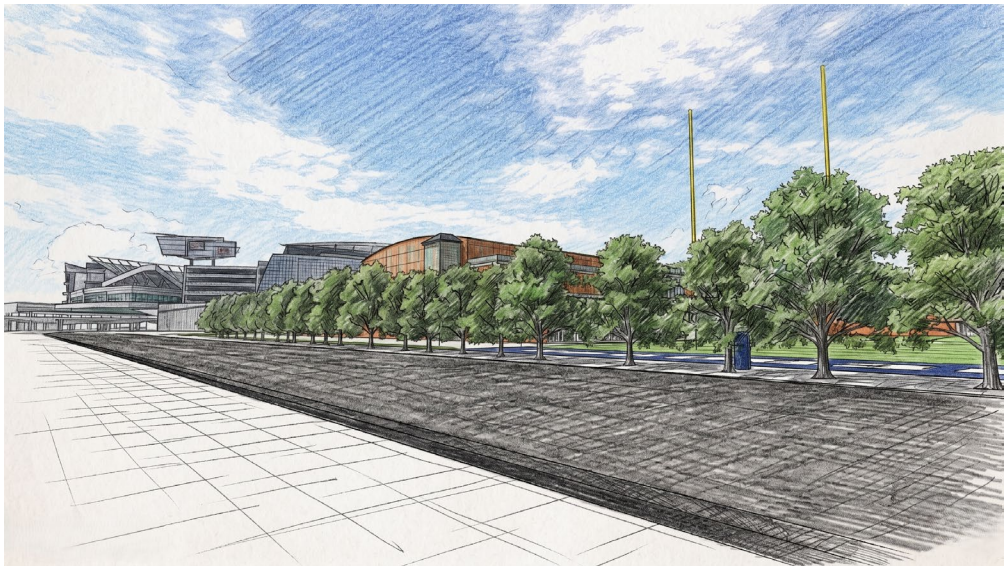
Reclaiming: (4)

From underused, rundown and uninviting parking lots to a community focused space that is pedestrian safe and promotes active and cohesion in the area the space is reclaimed for the benefit of the community. Additionally, the river front view is maximized and allows for a more inviting and visual connection with Kentucky, promoting the idea of bringing communities and people together.



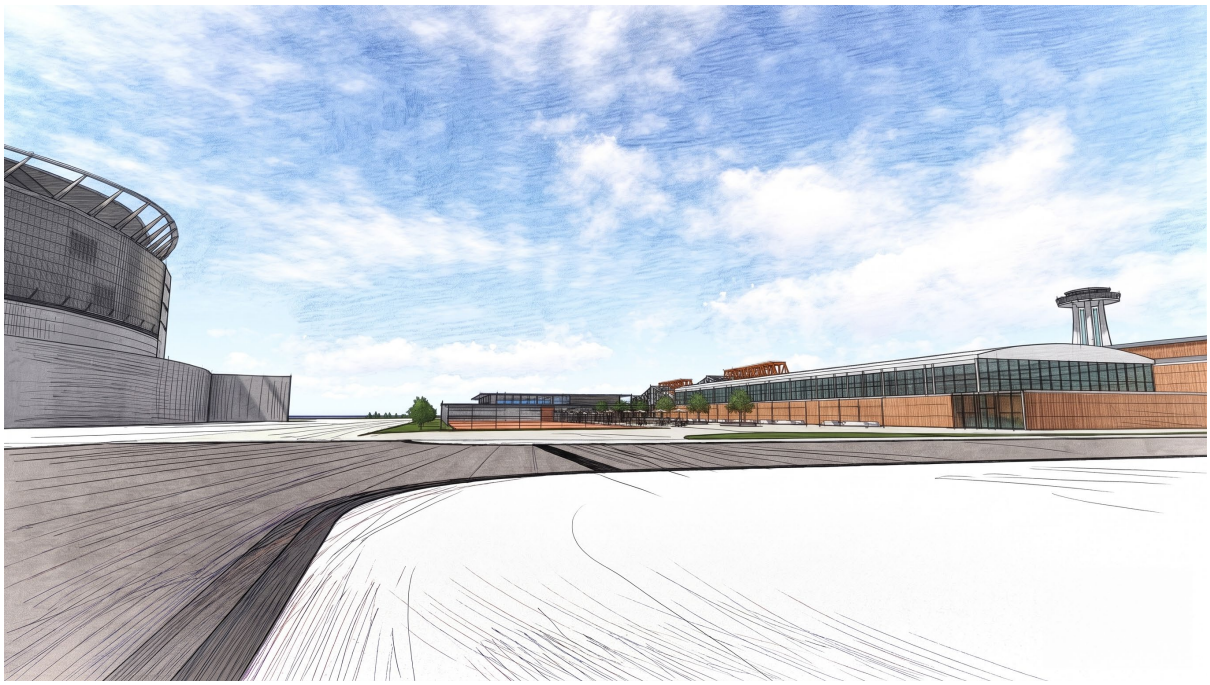
Perspective: (5)

Very rarely does one get the opportunity to step back and gaze upon an environment, upon their community, upon their home. This tower view creates a moment of pause, an opportunity to take in the atmosphere of a place, whether it feels like home, a destination, or simply somewhere along the way. With life always on the move and being busy the opportunity creates a moment of one to step away from it all, even only if it's a short moment.



Foreshadowing Experience: (6)

After getting off the bus at a stop that is a little further away from the main entrance but adjacent to the Bengals practice area, people are presented with a glimpse into what is to come if they are to continue down the path and involve themselves in the new environment.



A New Experience: (7)

After getting off the bus at the stop directly in front of the new sports facility (My design) people are presented with a more inviting and active environment that offers community involvement and sporting opportunities.

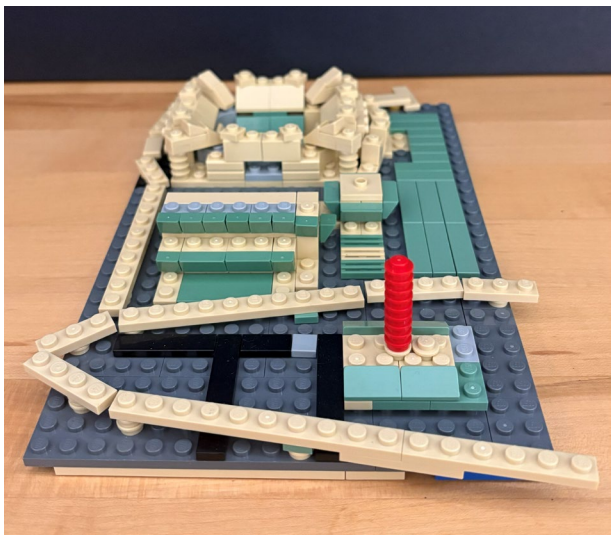
Models:

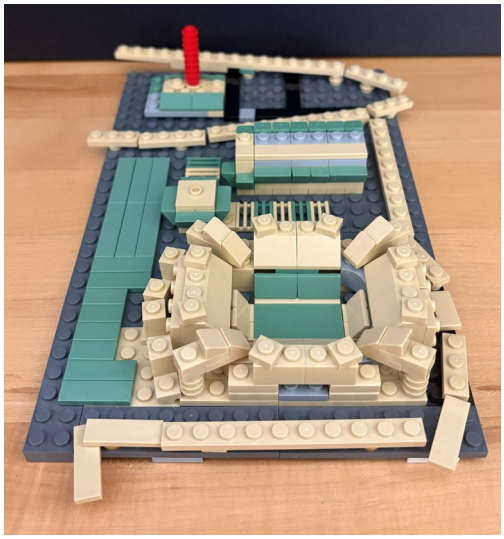
First Iteration Model:

Exploring Layouts and relationships between structure:



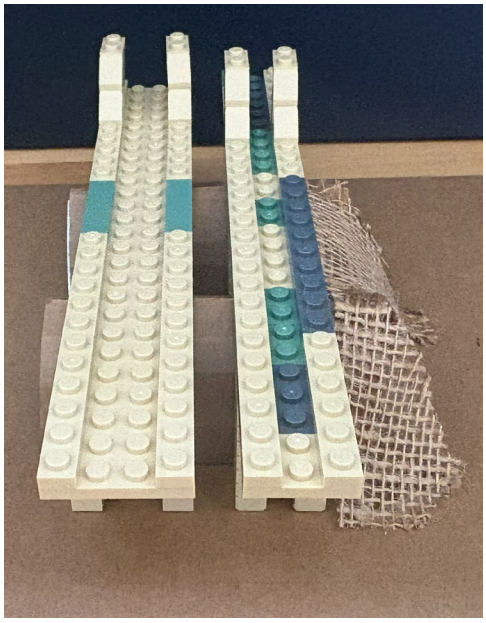


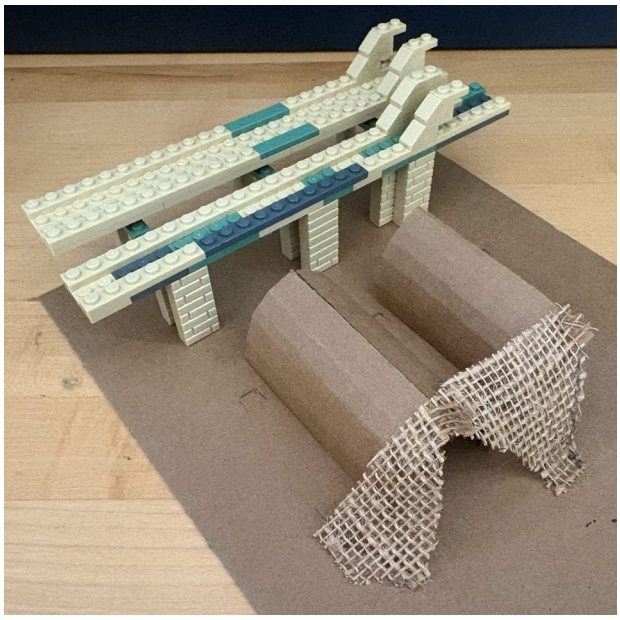




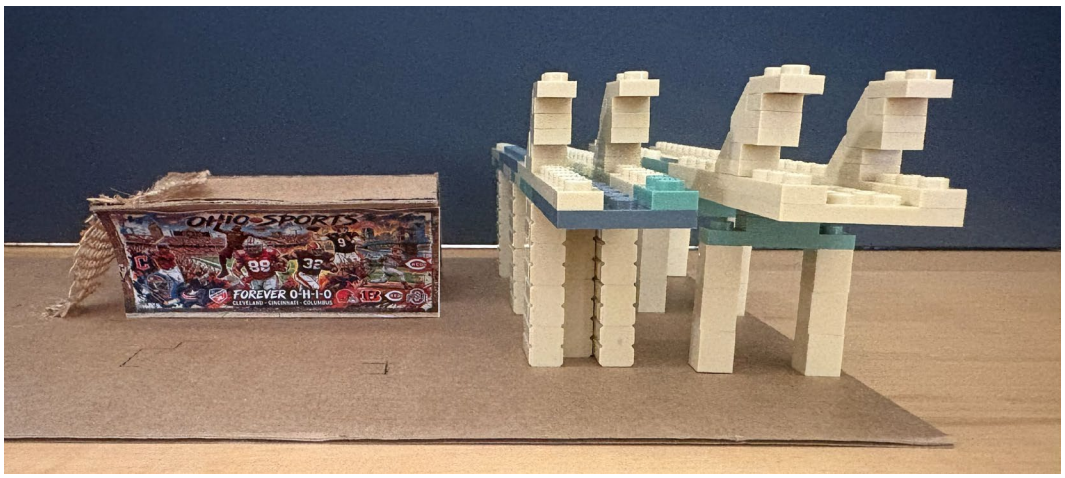
Highway & Railway Bridge Transit Tunnels:

Illustrating transit tunnels between programs, that offer the opportunity to display artworks along the walls.



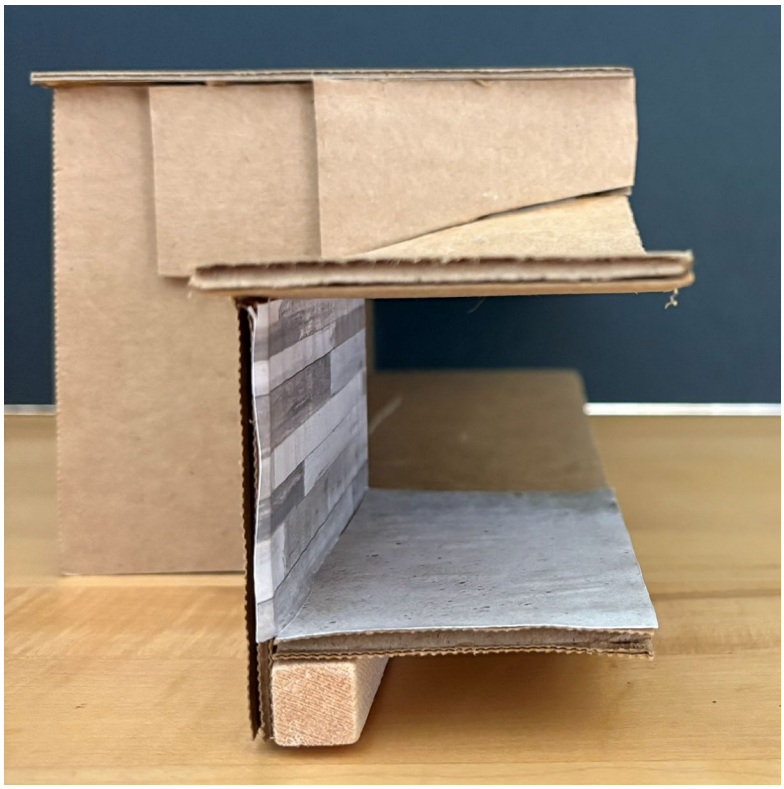






Sports Museum/Experience Center Rooted in Phenomenology:

The concept is that the exhibit relies on users to experience moments in sports rather than just observing them:

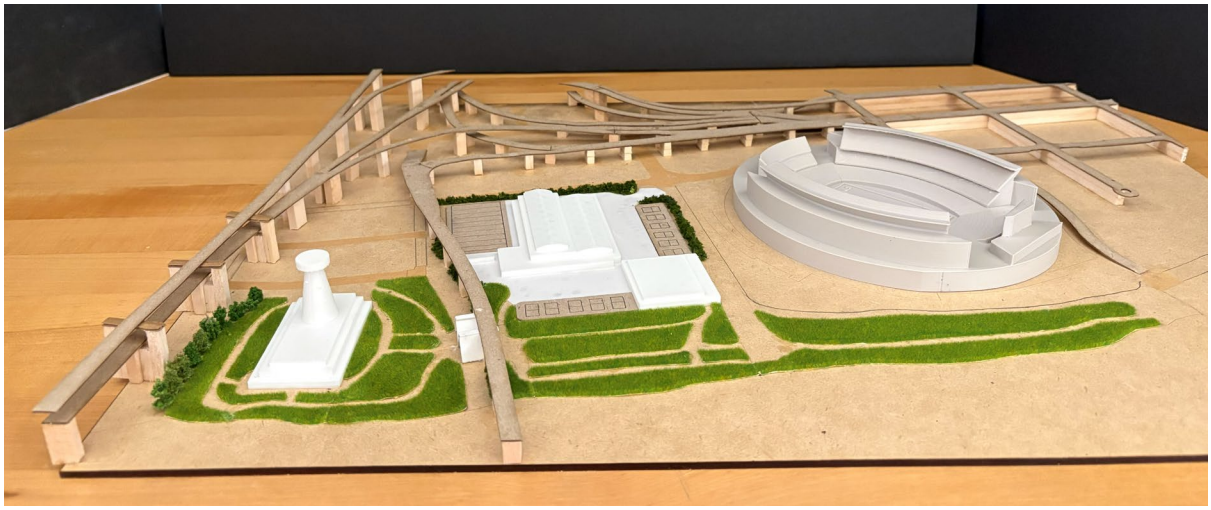


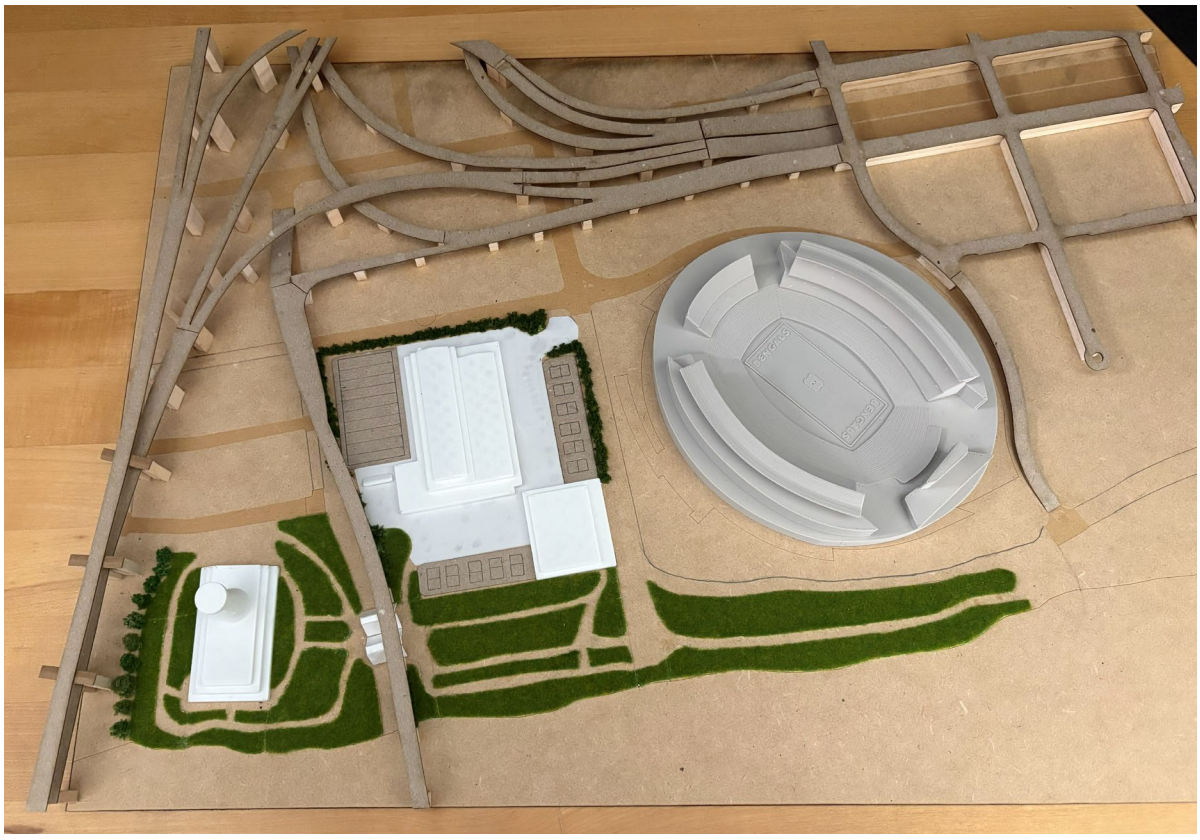


Final Design Model:

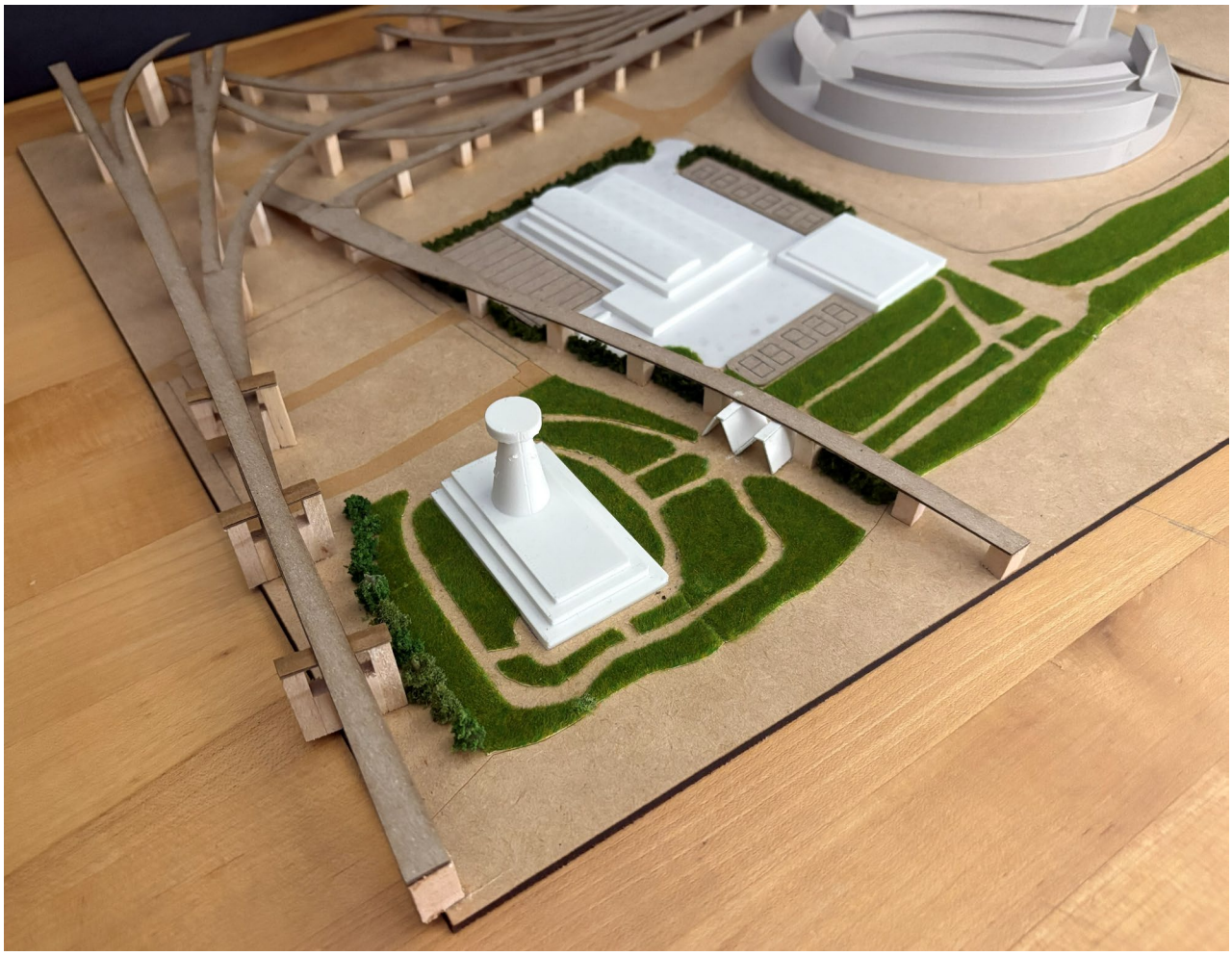
Illustrating final structures and their location on the site. Showcasing new community green space and allowing for an understating between existing and new.

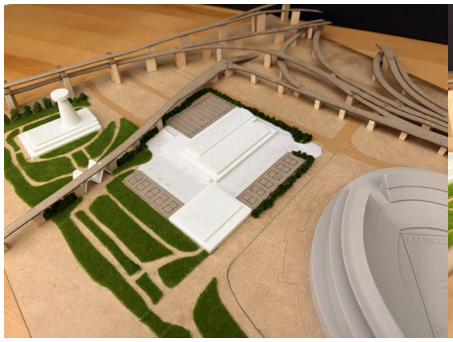
- Relationships between highways, bridges, the stadiums and new developments.

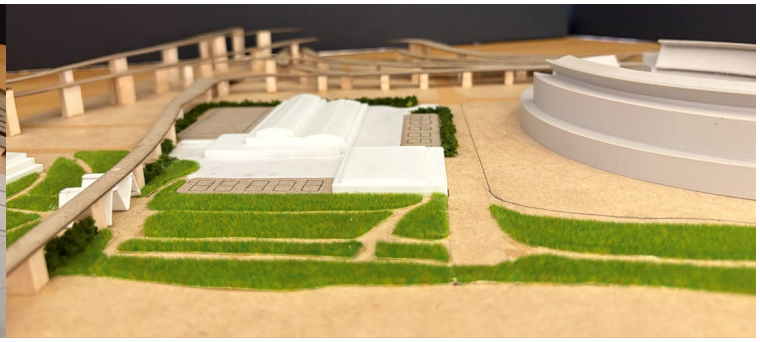




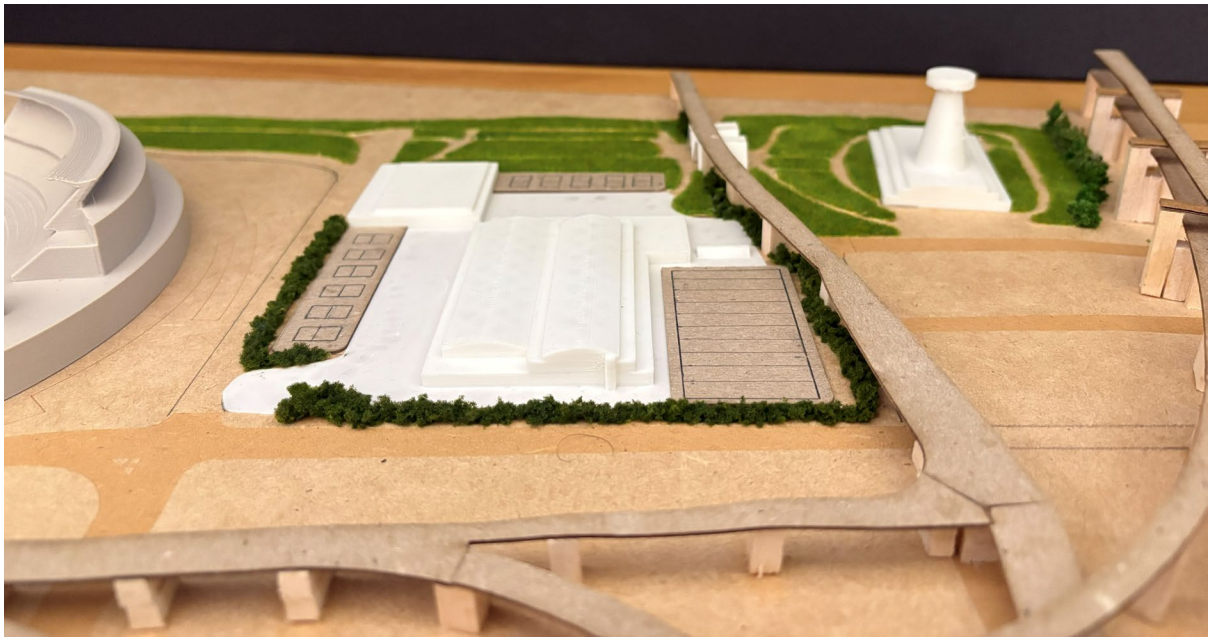












Concluding Poem

The Universal Field

The stadium breathes, a living, beating heart,
Where every day divides are torn apart.
You hear the squeak of shoes on hardwood floors,
The crack of ash, the crowd that stands and roars,
The muddy cleats upon a rain-swept pitch,
The winding curveball's unpredictable twitch.
From silent tracks to ponds beneath the sun,
A thousand different battles merge as one.
For fleeting hours, the local fields ignite,
To grant a glimpse of titans in the light.
We feel the ache of champions in our chest,
The agonizing drive to be the best.
It shows the quiet sacrifice behind the fame,
The pure, relentless passion for the game.
It matters not the language that you speak,
The wealth you hold, or what beliefs you seek.
Within these chalk-white lines, upon this grass,
The boundaries of our different backgrounds pass.
The banker and the builder share a cheer,
As sudden strangers wipe away a tear.
For sports are more than scoreboards and the play,
They are the bridges built along the way
A universal tongue of heart and hands,
Uniting all who gather in the stands.