University of Calgary

Master of Architecture

Application Package

Trevor Devlin

2023

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**Master of Architecture
Admission Portfolio**

2023

Table of Contents

01 - Sports Complex

Objective

To redevelop a vacant piece of land in the heart of Edmonton by creating a community sports complex.

Mediums

- InDesign
- SketchUp
- Photoshop
- Google Maps
- Coloured Markers
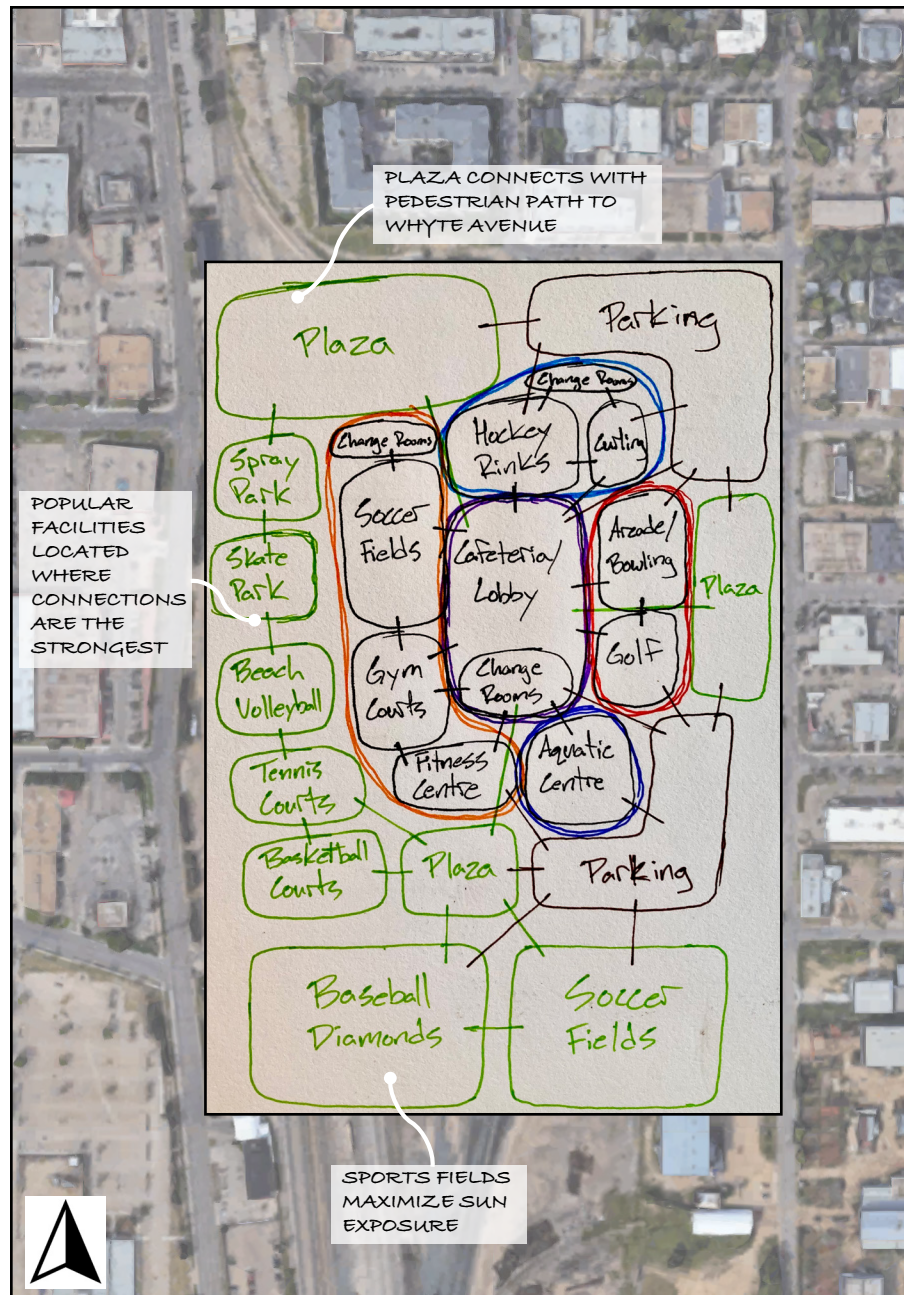- Pigment Liner
- Chipboard
- Glue

Description

As a sports enthusiast with an education in urban planning, I designed a project that connects both of these passions and also benefits the community. I conducted a site analysis and used it to inform the layout and massing of the sports complex. I created a physical model out of chipboard to visually study how the building components relate to each other.
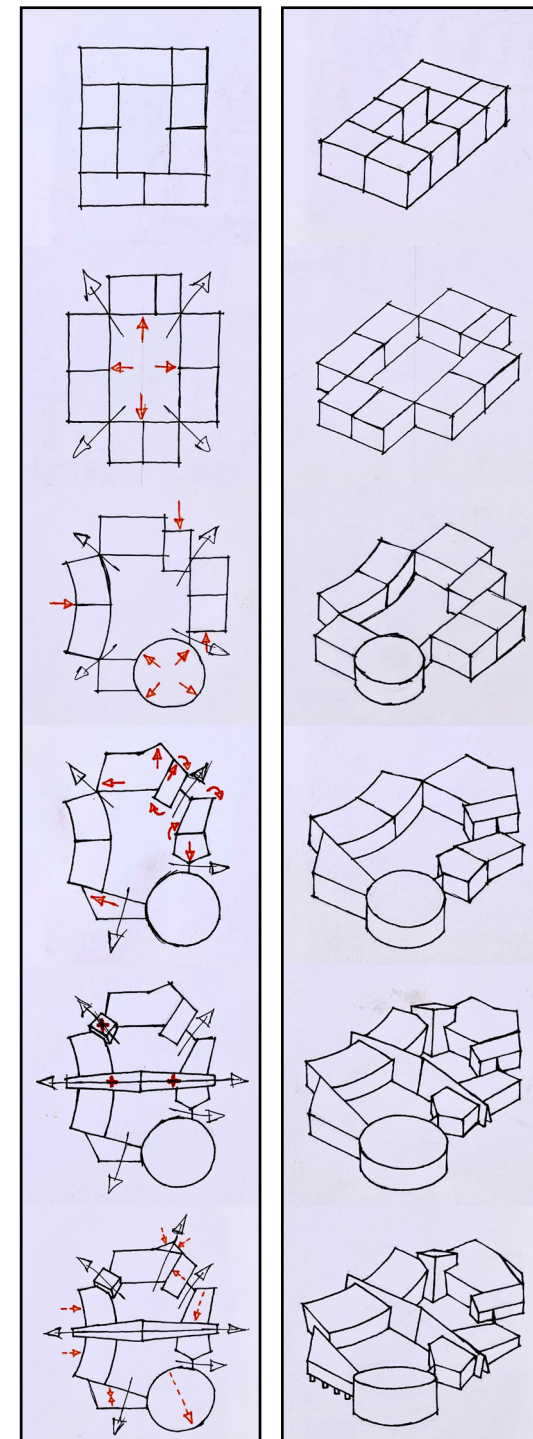
Site Analysis

First, I wanted to get an understanding of the surrounding context. This map displays how the site relates to surrounding transportation connections, land uses and environmental conditions.
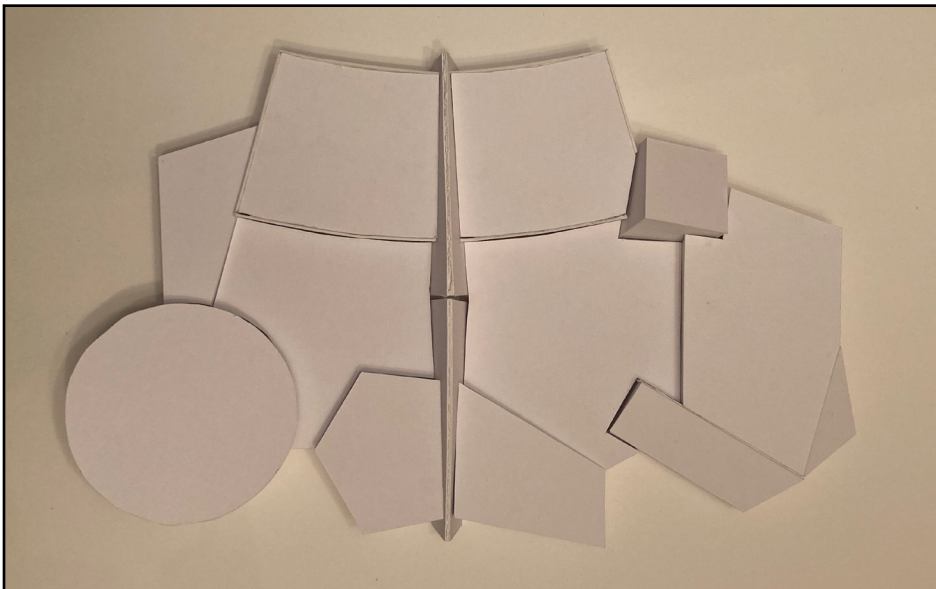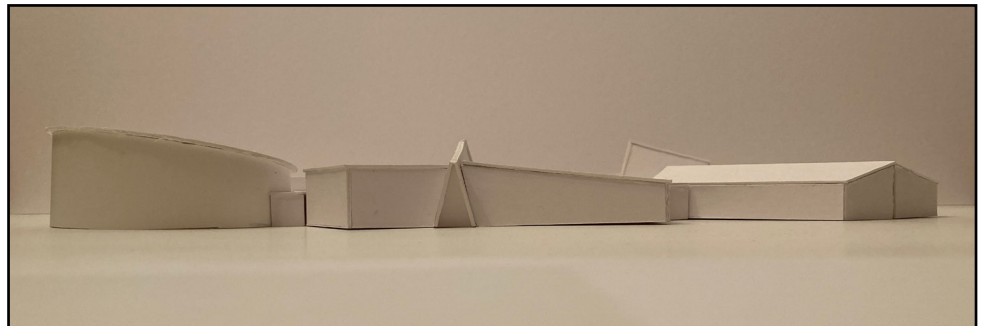
Bubble Diagram

PLAZA CONNECTS WITH PEDESTRIAN PATH TO WHYTE AVENUE

POPULAR FACILITIES LOCATED WHERE CONNECTIONS ARE THE STRONGEST

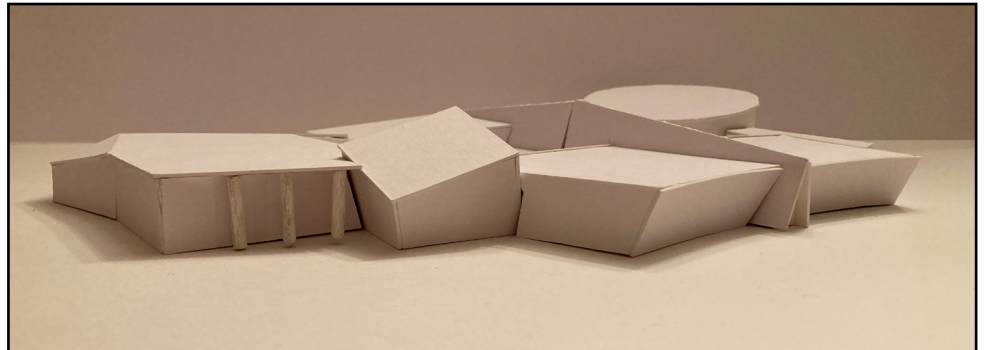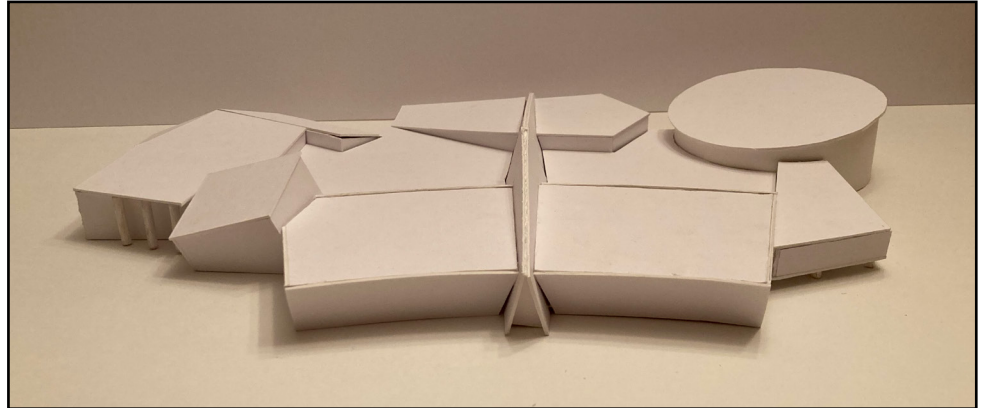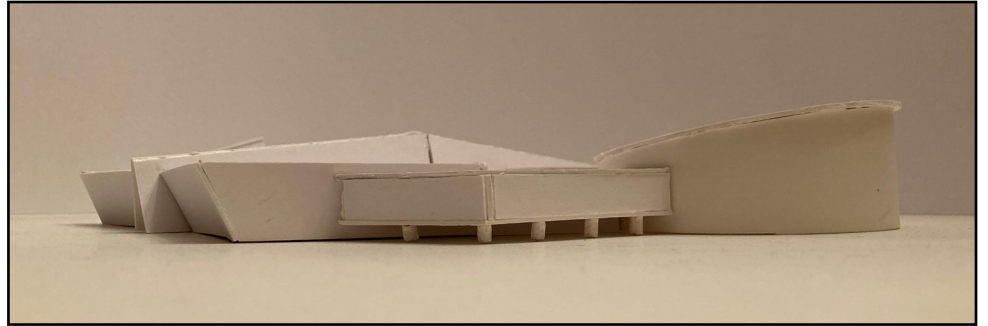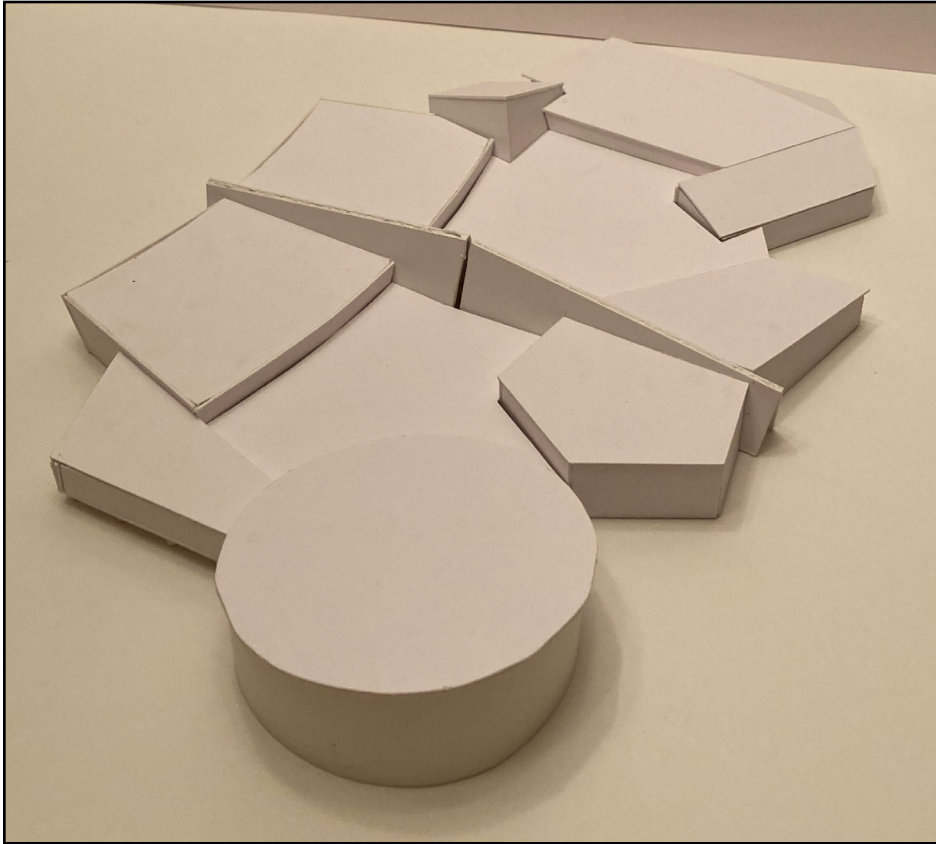SPORTS FIELDS MAXIMIZE SUN EXPOSURE

After conducting the site analysis, I identified the sports programming that should be included. I then sketched out this bubble diagram to get a sense for how the various facilities would interact with the site context and with each other in terms of massing and circulation.
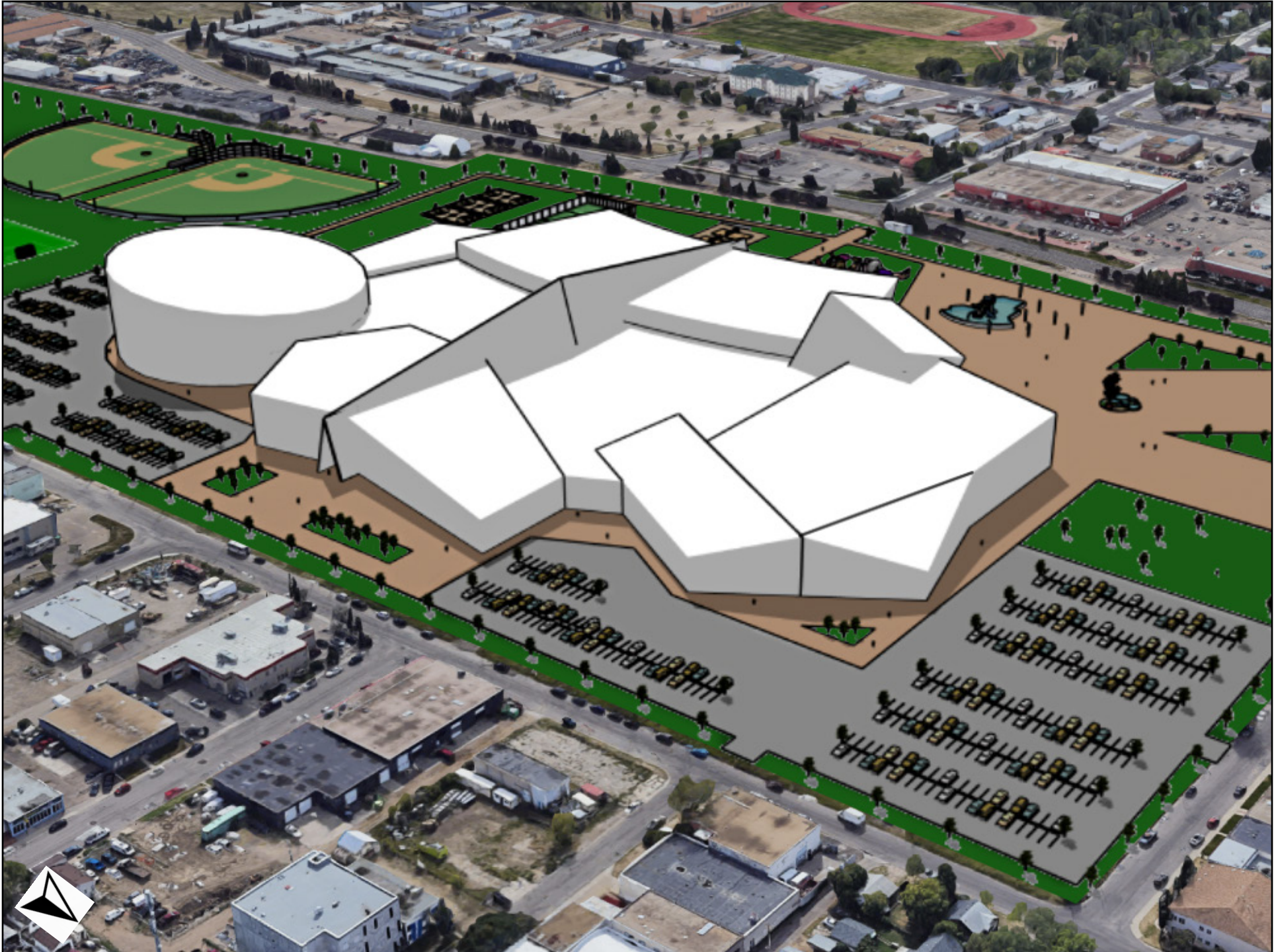
Massing Model Progressions

Taking the general structure from the bubble diagram, I made a series of progressions to refine the massing model and further integrate the site analysis. I chose a circular design for the aquatic centre to represent the organic and free-flowing properties of water. The central spine was added to provide an east-west connection and to anchor the building. I located the entrances to maximize indoor/outdoor circulation.

Physical Model

Model in Site Context

02 - Basement Renovation
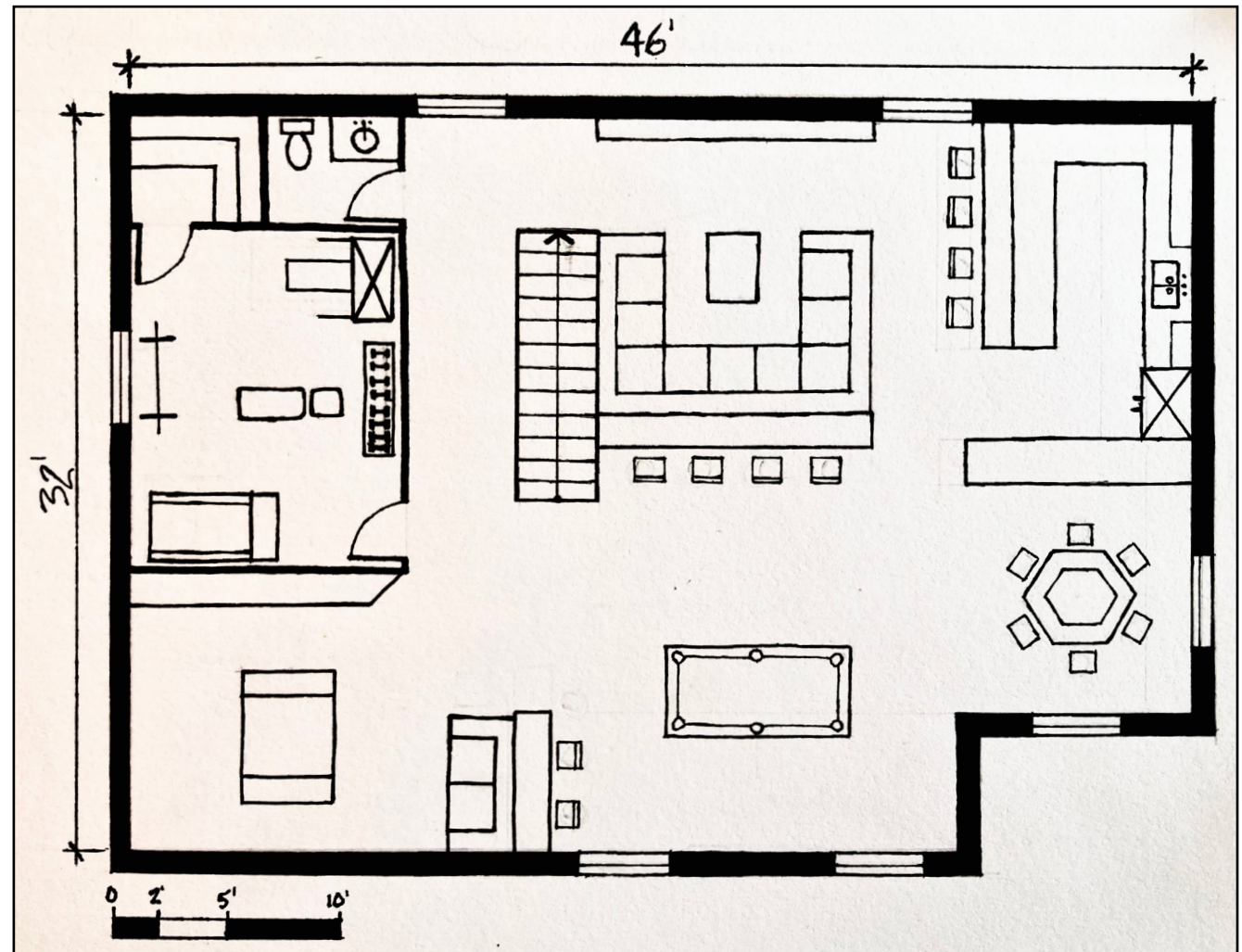
Objective

To redesign my basement.

Mediums

- Pencil
- Pigment Liner
- Copic Markers

Description

This project pays respect to what initially inspired me to want to become an architect: designing houses. Given the existing building footprint of my current house, I redesigned the basement to include my favourite hobbies and basement features, including a golf simulator, pool table, poker table, gym, theatre area, bar and fish tank wall.

Floor Plan

Perspectives

This image shows the pool table, golf simulator and gym. The glass walls and floating stairs were designed to facilitate transparency and create the perception of an open floor plan.

This image shows the theatre area, bar and fish tank wall. The yellow chairs add a pop of colour and the fish tank wall separates the bar from the poker area.

03 - Campus Proposal

Objective

To redevelop a surface parking lot on the University of Alberta campus with respect to the surrounding context.
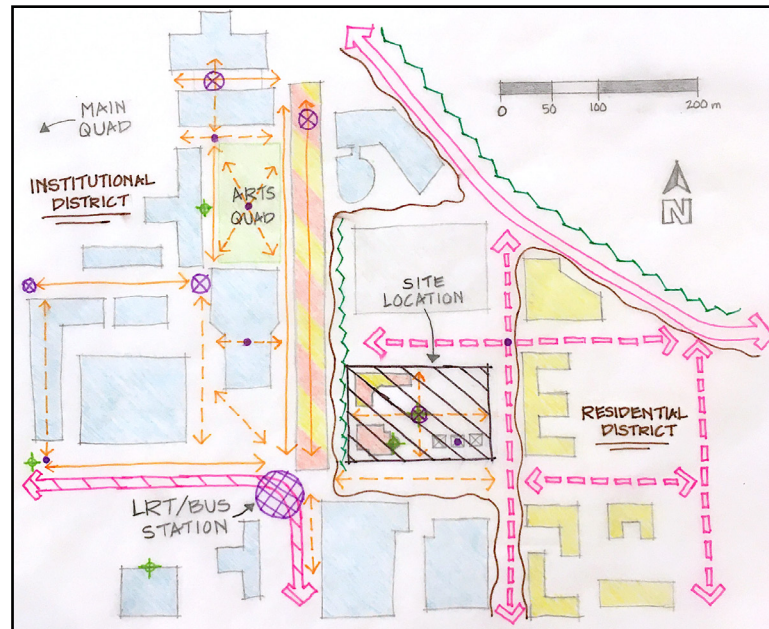
Mediums

- Coloured Markers
- Pencil
- Pencil Crayons
- SketchUp
- Photoshop

Description

This was a school assignment for my Intro to Design class. Our task was to conduct an urban design analysis on a parking lot on the university campus and create a design concept that responds to the surrounding context and adds value to the university. I expressed my design concept through sketches and a SketchUp model.
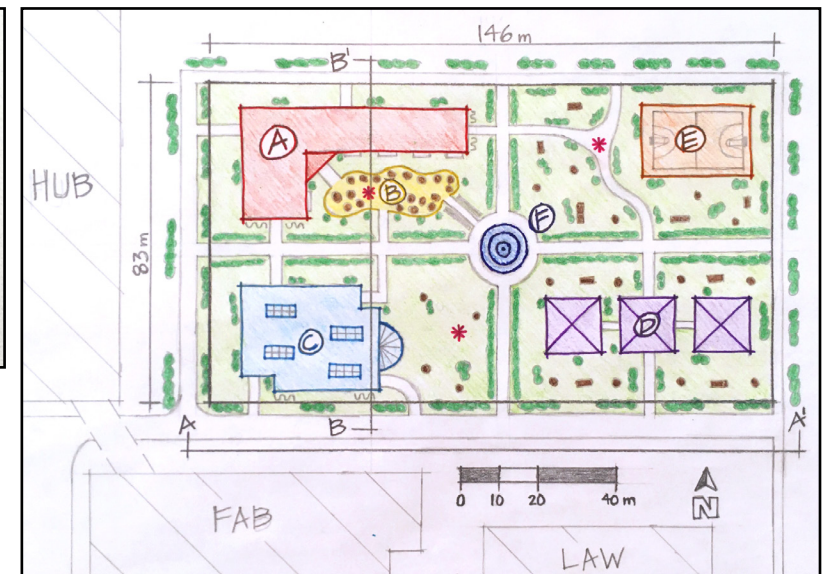
Lynch Analysis

A preliminary Lynch analysis was conducted to identify surrounding pathways, nodes, districts, edges and landmarks.

A. 4 storey residential/commercial building with restaurant
B. Outdoor public patio
C. 2 storey social building with food court and atrium
D. Glass gazebos with tables and heaters
E. Basketball court/Ice rink
F. Light up fountain

My proposed design emphasizes outdoor and social space while also providing additional student residences and recreational and commercial amenities.

Site Plan

South Elevation

Left: Two storey social building with glass dome atrium and mural in foreground and four storey student residence in background.

Right: Glass gazebos with colourful pillars and patio tables.

East Section

Left: Interior view of the two storey social building with a food court on the main floor and a study space on the upper floor.

Right: Interior view of the four storey student residence with ground-floor commercial and an outdoor patio.

Perspectives

Winter Design Principles

- Protection from wind
- Maximize Sun exposure
- Bright and lively colours
- Visual interest with lighting
- Winter infrastructure

🎓 Academic   👤 Individual   🕐 6 Weeks   📅 2022

Objective

To conduct an urban design analysis on an Edmonton neighbourhood and propose improvements to revitalize the neighbourhood.
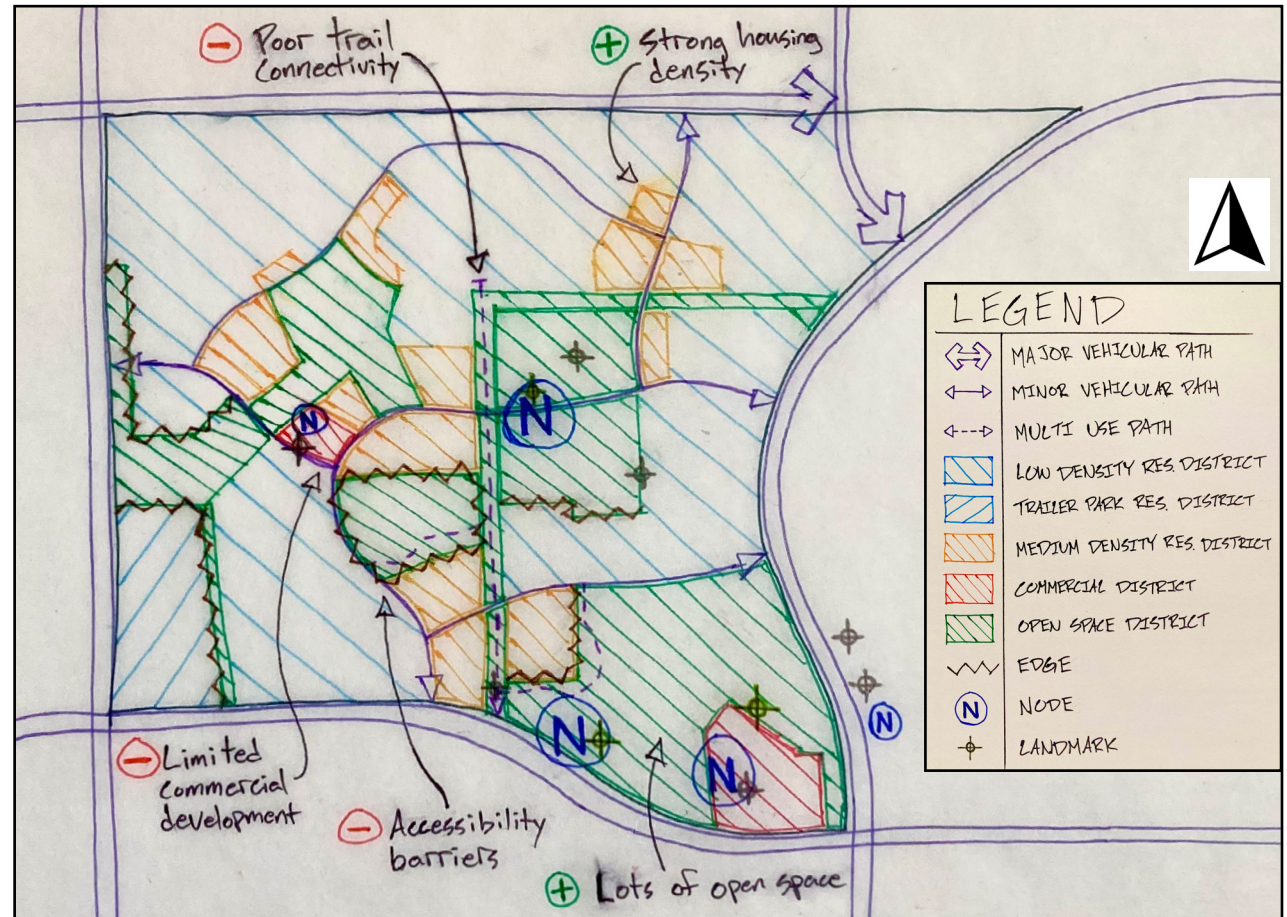
Mediums

- Google Maps
- Coloured Markers
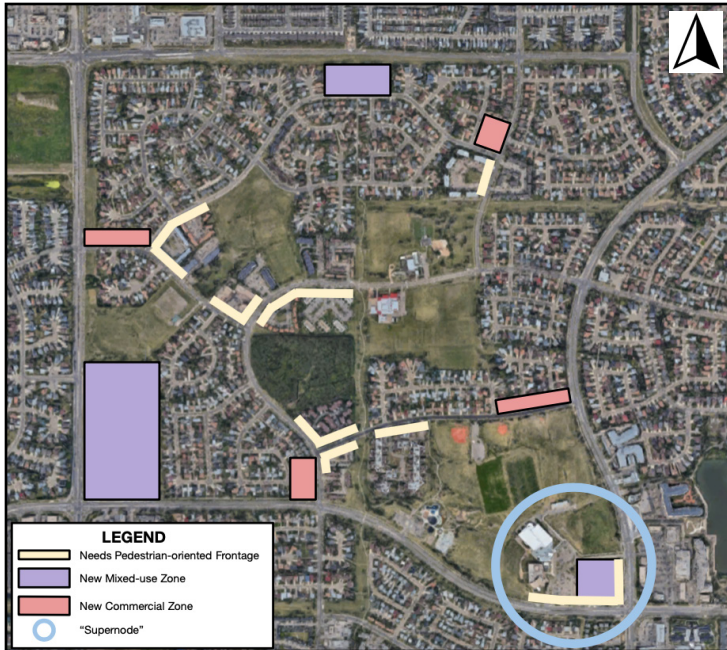- Pigment Liner
- SketchUp

Description

This was a school assignment for my Urban Design class. We conducted an urban design analysis by walking around the neighbourhood and taking pictures. The three projects that I proposed to improve the neighbourhood are all in relation to built form. I expressed my design proposals through sketches, maps and a SketchUp model.
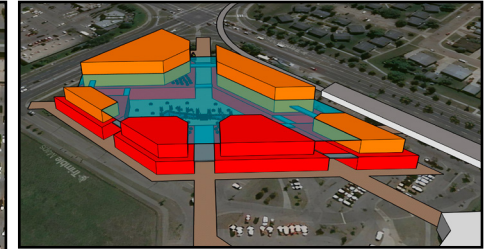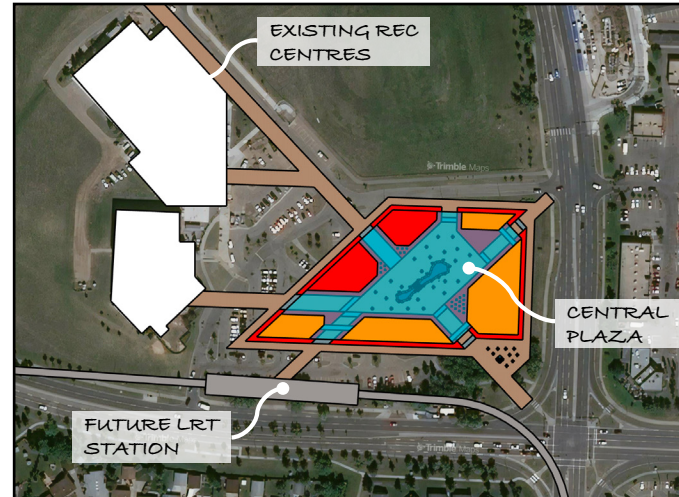
Lynch Analysis

This Lynch analysis identified the strengths, weaknesses and opportunities of the neighbourhood. These photos were taken during our site visit and represent some areas for improvement.
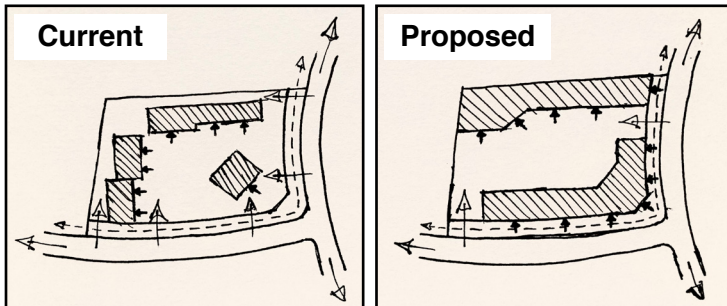
Map of Proposed Project Locations

LEGEND
- Needs Pedestrian-oriented Frontage
- New Mixed-use Zone
- New Commercial Zone
- ◯ "Supernode"

Create a "Supernode"

EXISTING REC CENTRES

CENTRAL PLAZA

FUTURE LRT STATION

Issue: The southeast corner of the neighbourhood is underdeveloped and not designed to capitalize on the benefits that the future LRT station will bring.

Proposed Solution: Redesign the site to create a transit-oriented development that better connects to the surrounding context and acts as a major hub for the region.
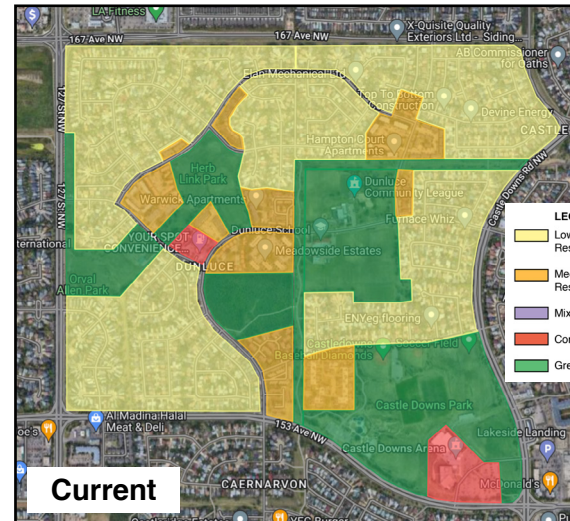
Create Pedestrian-Oriented Frontages

Current

Proposed

Issue: Many buildings in the neighbourhood are inward facing and car-oriented.

Proposed Solution: Reorient these buildings so that they face the street. Doing so improves pedestrian access and creates a more defined street edge.

Update the Land Use Map

LEGEND
- Low Density Residential Zone
- Medium Density Residential Zone
- Mixed-Use Zone
- Commercial Zone
- Green Space Zone

Current

Proposed

Issue: There is very limited commercial and mixed-use development in the neighbourhood, making it challenging for residents to meet their daily needs.

Proposed Solution: Rezone the neighbourhood to increase the opportunities for commercial and mixed-use development. Providing these opportunities enables densification and creates a 15 minute community.

05 - Hockey Team

Objective

To create a new hockey team concept based on my favourite animal: the lion.
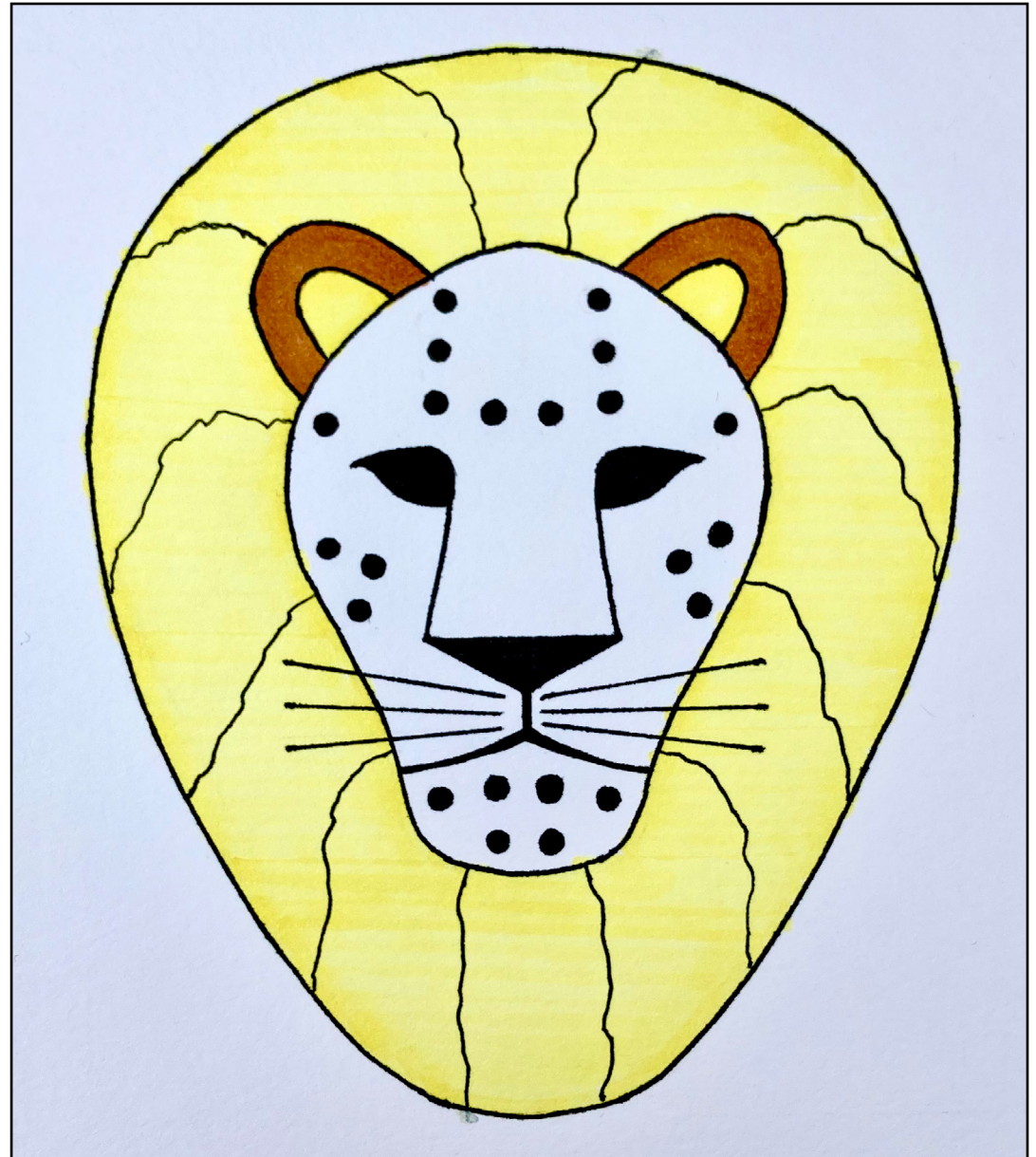
Mediums

- Pencil
- Pencil Crayons
- Pigment Liner
- Copic Markers

Description

As someone who is intrigued by sports teams' logos, I took on the exercise of designing my own team concept. The inspiration for the logo is based on the fusion of a lion's head with a vintage goalie mask. After a series of iterations, I produced a full jersey and goalie equipment design concept.
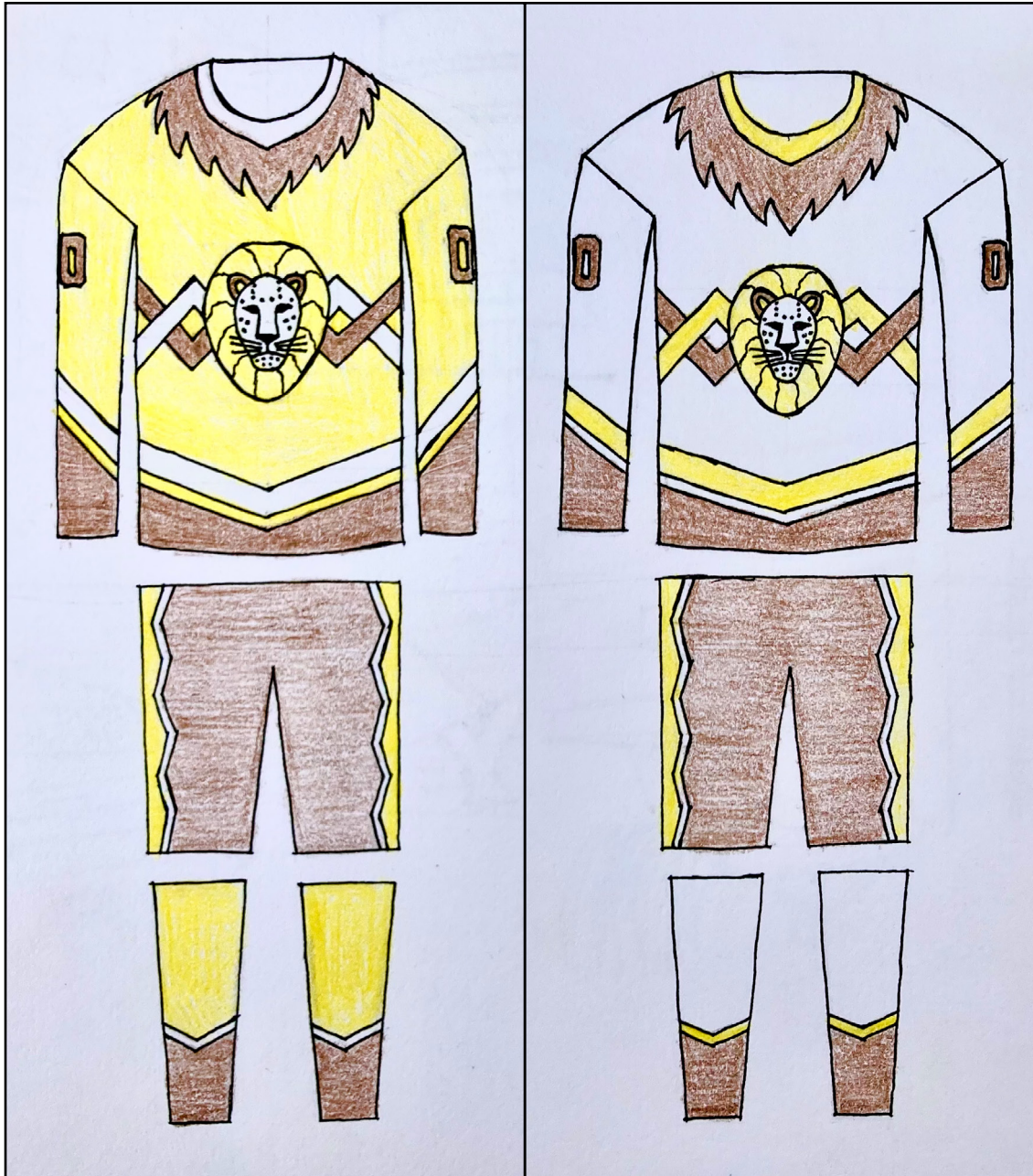
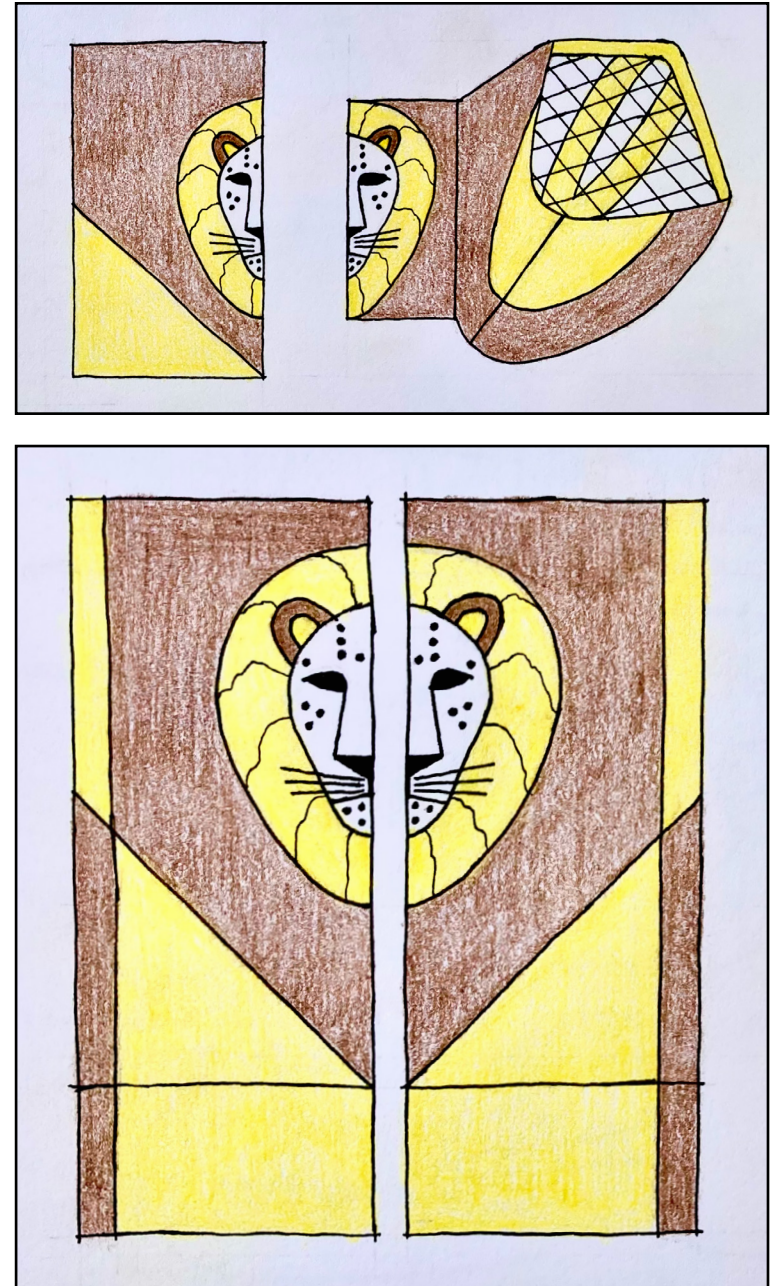## Team Logo

Jersey Concept Iterations

I first looked at current NHL jersey concepts as a starting point before testing out my own creative iterations. The sharp, interwoven lines represent the characteristics that lions and hockey players have in common: agility, strength, teamwork and vision.

Final Jersey Concept

Goalie Equipment Concept

06 - Table Design

Objective

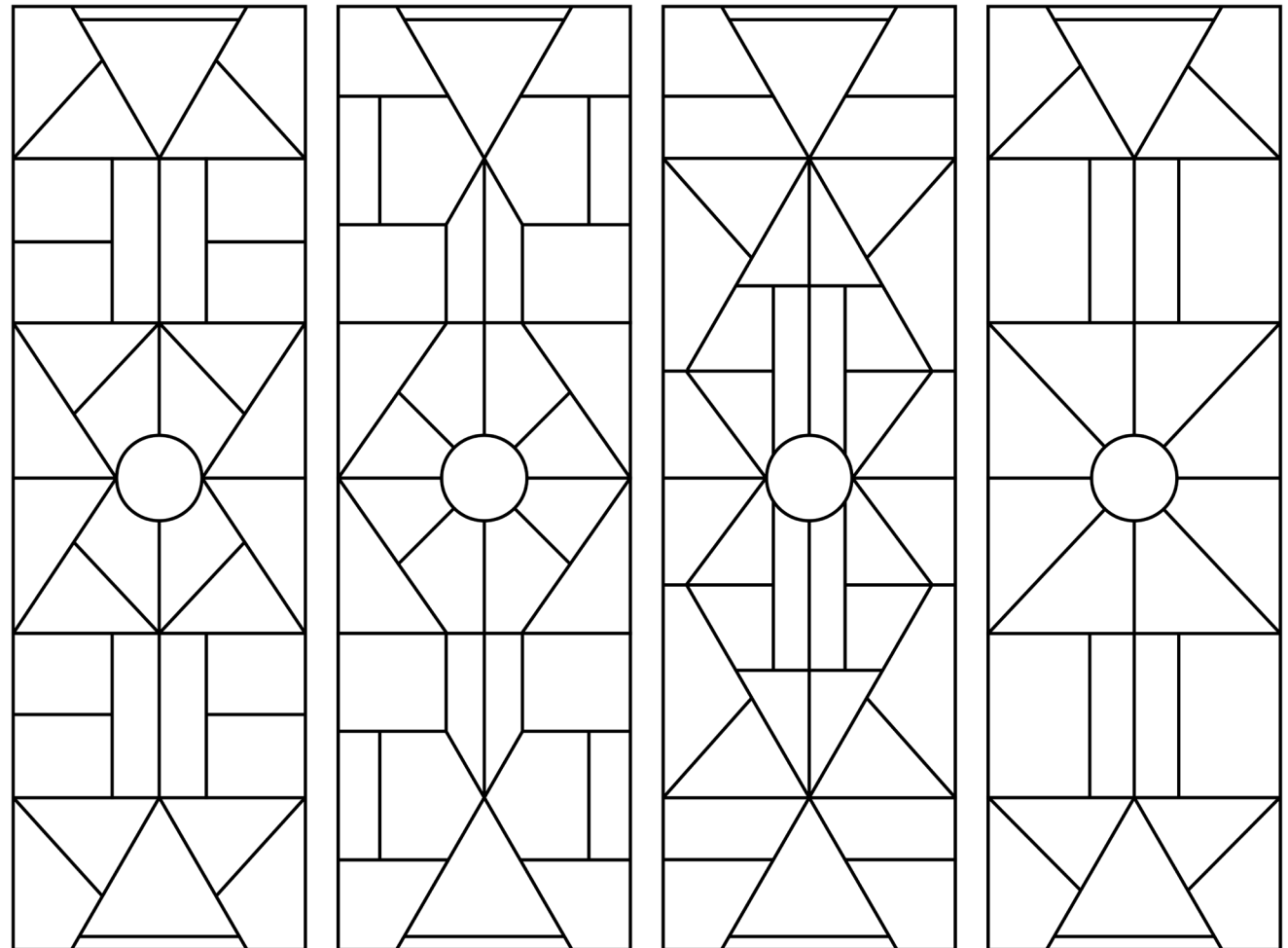To create a customized 8 foot long beer pong table.

Mediums

- InDesign
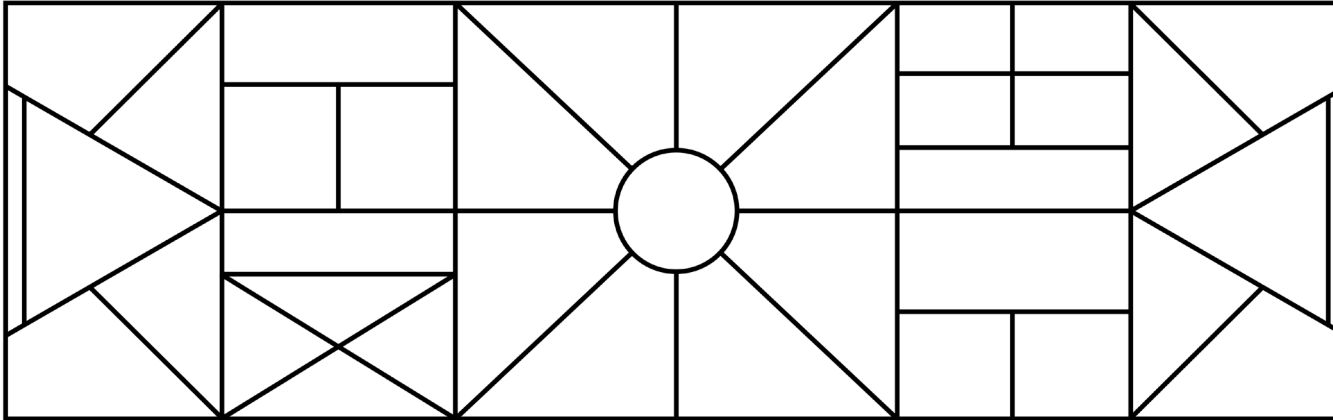- Pencil Crayons
- Acrylic Paint

Description

I wanted to create my own customized beer pong table given that beer pong is a popular social game. I started by designing different iterations for the spatial pattern of the table. I then created a concept sketch by inserting various images that represent my personality, interests and values. Finally, my girlfriend and I teamed up to paint the design onto a store-bought table using acrylic paint. We each painted about half of the table.
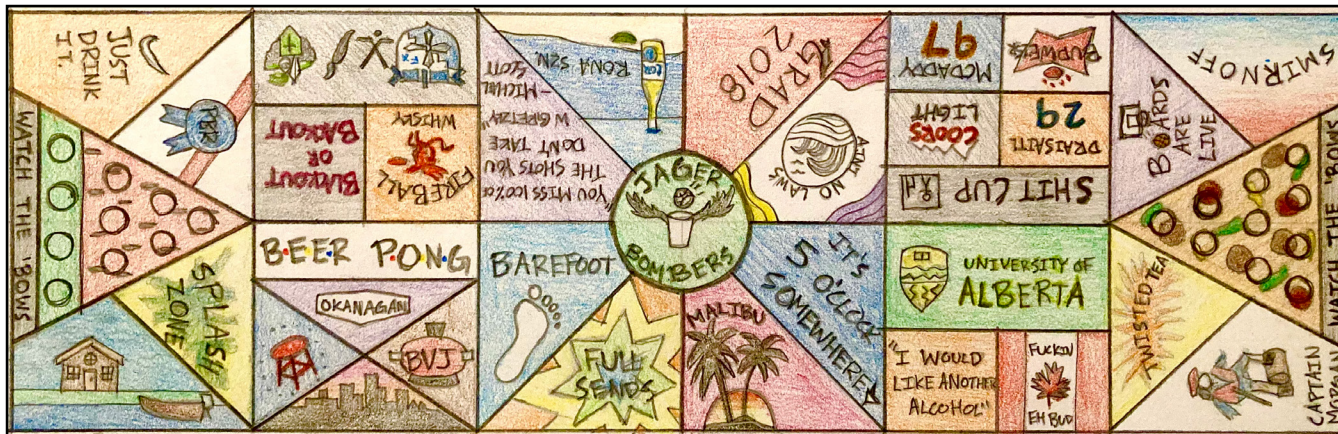
Pattern Iterations

Selected Pattern

Concept Sketch

Finished Table

07 - Urban Paintings

Objective

To represent urban settings through paint.

Mediums

- Oil Paint
- Watercolour Paint

Description

With these paintings, I wanted to portray urban settings that represent my interests, but with a focus on different artistic elements.
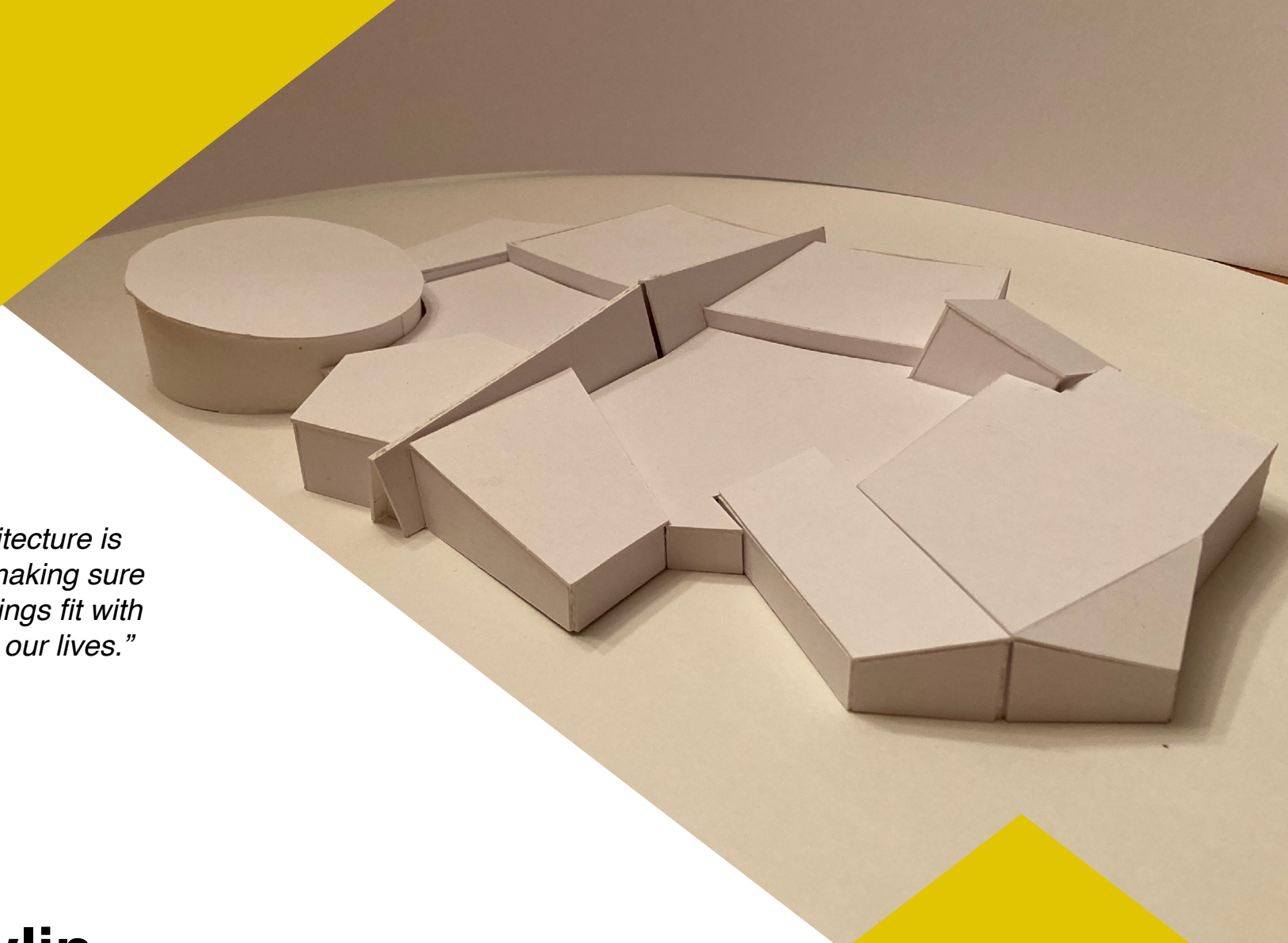
Oil on Canvas, 9" x 12"

The purpose of this oil painting was to explore more traditional artistic media and experiment with light, shadow and texture. This painting represents my interest in public transportation and urban design.

Watercolour on Paper, 5" x 7"

The purpose of this watercolour painting was to experiment with colour, proportions and contrast. The setting of this painting is the Cinque Terre coast in Italy, a destination that I aspire to travel to in the near future.

"In the big picture, architecture is the art and science of making sure that our cities and buildings fit with the way we want to live our lives."

- Bjarke Ingels

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