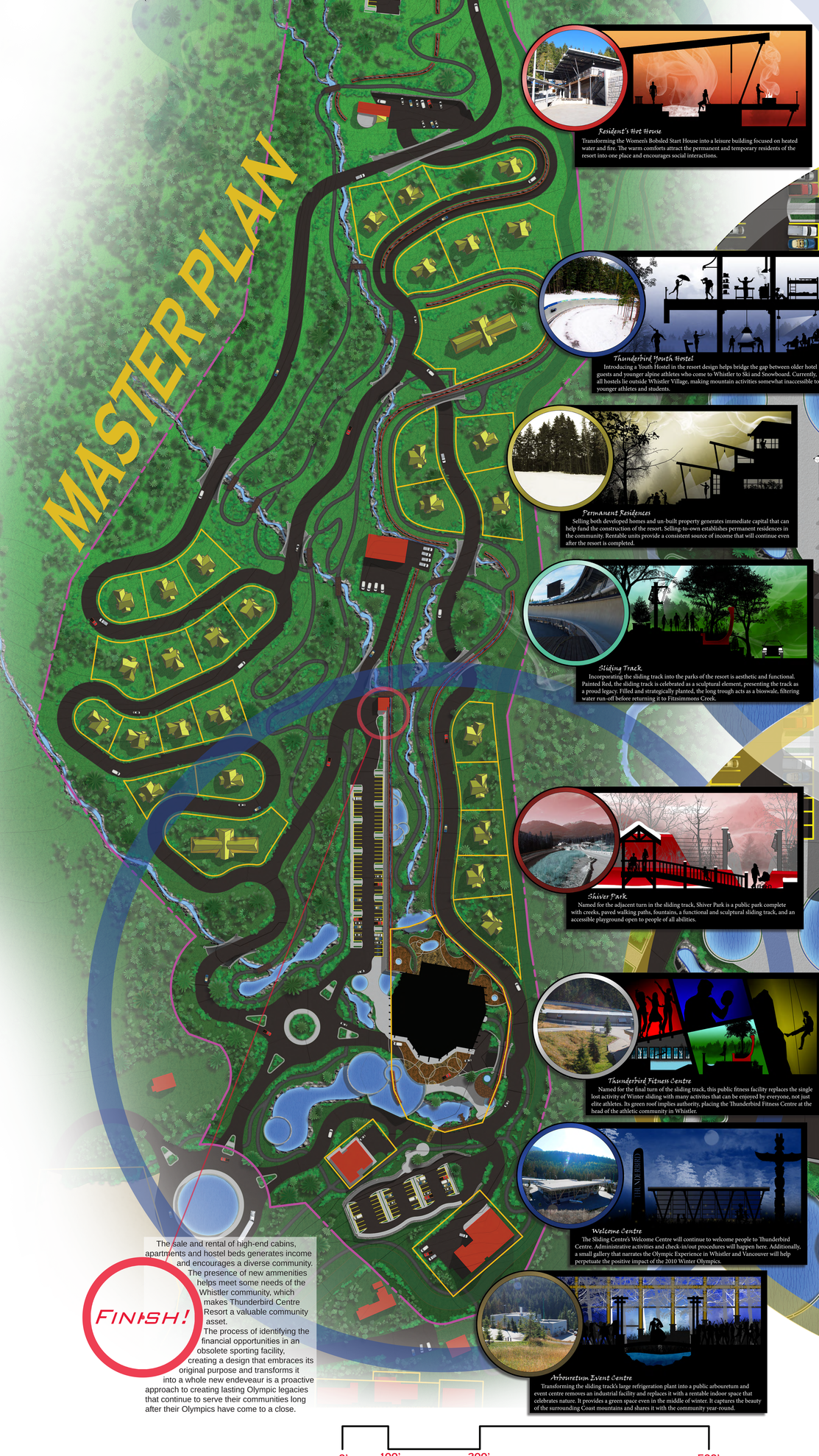
THUNDERBIRD CENTRE RESORT

Transforming the Whistler Bobsled Track into a Resort Development

"How can architecture transform obsolete sporting facilities into community assets in a post Olympic environment?"

START!

The 2010 Winter Olympics brought athletic competition, infrastructure and fierce nationalism to Western Canada. But, after the closing ceremonies, the local communities were left to clean up the mess and pay the bill. One lasting remnant is the Whistler Sliding Centre which is the bobsled, luge and skeleton track used for the Olympic sliding events. Currently, the community must support the rarely-used facility at a cost of over two million dollars annually. With the Olympic legacy fund running dry in 2015, the full burden will fall onto the Whistler Community. Thunderbird Centre Resort responds to this imminent burden by proposing a financially viable transformation that can reverse the financial deficit, add value to the community in the form of amenities and preserve the spirit of the Olympics.



Backcountry Adventure Centre
Transforming the Men's Bobsled Start House into a Backcountry Adventure centre that outfits and guides the experienced or beginner adventure seeker into the under-utilized Whistler Backcountry.

Resident's Hot House
Transforming the Women's Bobsled Start House into a leisure building focused on heated water and fire. The warm comforts attract the permanent and temporary residents of the resort into one place and encourages social interactions.

Thunderbird Youth Hostel
Introducing a Youth Hostel in the resort design helps bridge the gap between older hotel guests and younger alpine athletes who come to Whistler to Ski and Snowboard. Currently, all hostels lie outside Whistler Village, making mountain activities somewhat inaccessible to younger athletes and students.

Permanent Residences
Selling both developed homes and un-built property generates immediate capital that can help fund the construction of the resort. Selling-to-own establishes permanent residences in the community. Rentable units provide a consistent source of income that will continue even after the resort is completed.

Sliding Track
Incorporating the sliding track into the parks of the resort is aesthetic and functional. Painted Red, the sliding track is celebrated as a sculptural element, presenting the track as a proud legacy. Filled and strategically planted, the long trough acts as a bioswale, filtering water run-off before returning it to Fitzsimmons Creek.

Shiver Park
Named for the adjacent turn in the sliding track, Shiver Park is a public park complete with creeks, paved walking paths, fountains, a functional and sculptural sliding track, and an accessible playground open to people of all abilities.

Thunderbird Fitness Centre
Named for the final turn of the sliding track, this public fitness facility replaces the single lost activity of Winter sliding with many activites that can be enjoyed by everyone, not just elite athletes. Its green roof implies authority, placing the Thunderbird Fitness Centre at the head of the athletic community in Whistler.

Welcome Centre
The Sliding Centre's Welcome Centre will continue to welcome people to Thunderbird Centre. Administrative activities and check-in/out procedures will happen here. Additionally, a small gallery that narrates the Olympic Experience in Whistler and Vancouver will help perpetuate the positive impact of the 2010 Winter Olympics.

Arbouretum Event Centre
Transforming the sliding track's large refrigeration plant into a public arbouretum and event centre removes an industrial facility and replaces it with a rentable indoor space that celebrates nature. It provides a green space even in the middle of winter. It captures the beauty of the surrounding Coast mountains and shares it with the community year-round.

FINISH!

The sale and rental of high-end cabins, apartments and hostel beds generates income and encourages a diverse community. The presence of new ammenities helps meet some needs of the Whistler community, which makes Thunderbird Centre Resort a valuable community asset.

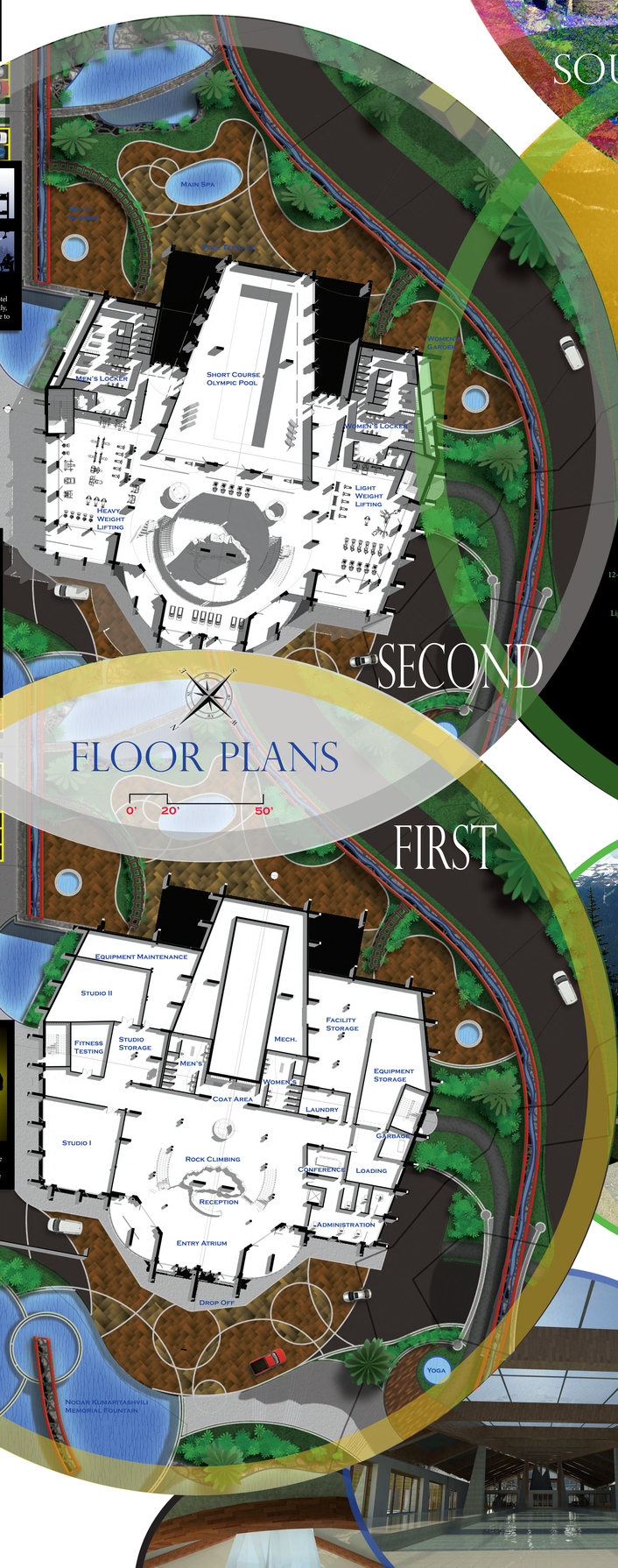
The process of identifying the financial opportunities in an obsolete sporting facility, creating a design that embraces its original purpose and transforms it into a whole new endeveaur is a proactive approach to creating lasting Olympic legacies that continue to serve their communities long after their Olympics have come to a close.

0' 100' 200' 500'

GEOGRAPHIC LOCATION

Thunderbird is a spirit of First Nation's Mythology. He is nature incarnate. It is said that when he beats his wings, the thunder roars, and when he blinks his eyes, lighting flashes! Thunderbird's connection with the natural environment is a guiding inspiration for the design of Thunderbird Centre Resort. With such an incredibly beautiful environment, preserving the integrity of nature and celebrating its beauty is a high priority.

SOUTH PERSPECTIVE



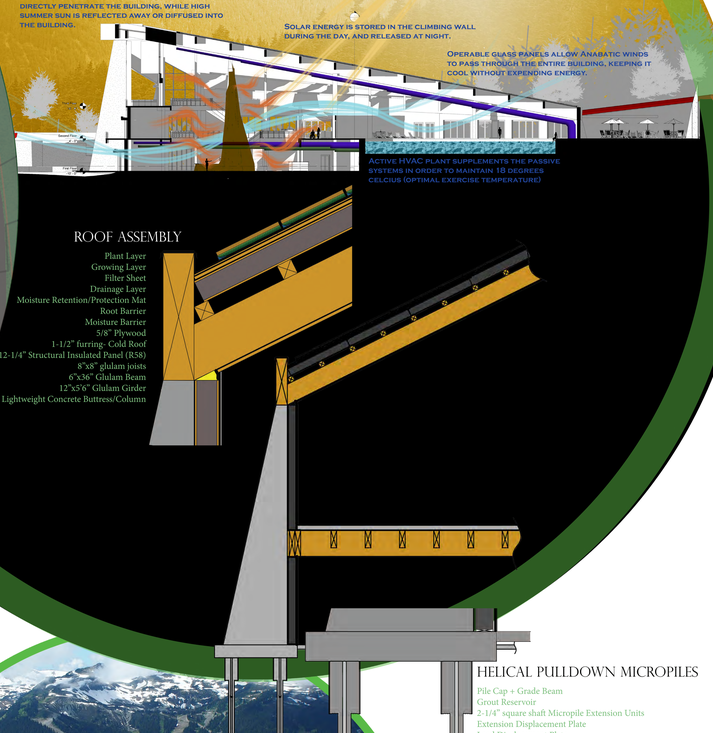
FLOOR PLANS

0' 20' 50'

SECOND

FIRST

SECTION

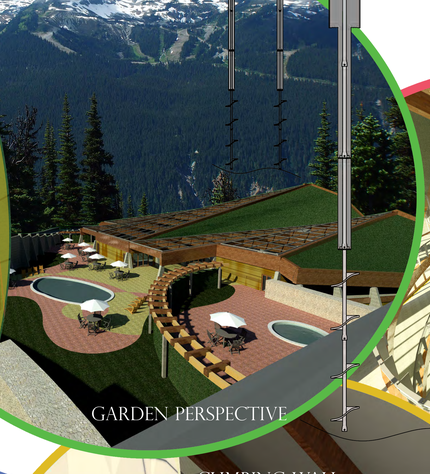


ROOF ASSEMBLY

Plant Layer
Growing Layer
Filter Sheet
Drainage Layer
Moisture Retention/Protection Mat
Root Barrier
Moisture Barrier
5/8" Plywood
1-1/2" furring- Cold Roof
12-1/4" Structural Insulated Panel (R58)
8"x8" glulam joists
6"x36" Glulam Beam
12"x5'6" Glulam Girder
Lightweight Concrete Buttress/Column

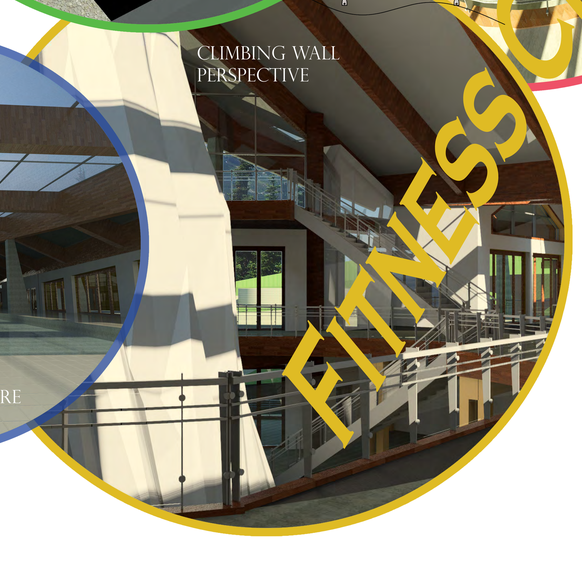
HELICAL PULLDOWN MICROPILES

Pile Cap + Grade Beam
Grout Reservoir
2-1/4" square shaft Micropile Extension Units
Extension Displacement Plate
Lead Displacement Plate
Helical Bearing Plates



GARDEN PERSPECTIVE

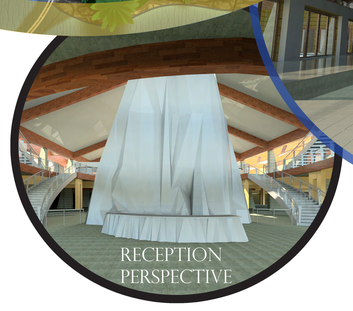
ATRIUM PERSPECTIVE



CLIMBING WALL PERSPECTIVE

FITNESS CENTRE

AQUATIC CENTRE PERSPECTIVE



RECEPTION PERSPECTIVE

Department of Architecture and Landscape Architecture
ARCH 772, Design Thesis, Summer 2013
Thunderbird Centre Resort, Resort Development and Fitness Facility, 61,000 sq.ft.
Dustin Peter Froese
Thesis Advisors: Joan Vorderbruggen and Bakr Aly ahmed
Software: AutoCAD 2013; Revit 2013: Photoshop; Indesign