



SANDRA
IRIS
COOK OALA, CSLA

Landscape
Architecture
Portfolio

2020

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LANDSCAPE ARCHITECTURE PORTFOLIO

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	24	OF THE NORTH	A PARK DESIGN for a northern-inspired park made from recycled sidewalks.

ABOUT SANDRA IRIS COOK



I am interested in landscape processes and how, through an integrated systems approach, the environmental, social and economic processes of a site can be designed for maximum mutual benefit. I am particularly interested in projects that deal with remediation, storm water management, productive landscapes and planting design. I am addicted to rooibos tea and my favorite plant is Anise hyssop.

RESUME

PROFESSIONAL MEMBERSHIPS

FULL MEMBER WITH SEAL

Ontario Association of Landscape Architects
Ontario, Canada, 2019-Present

LEED GREEN ASSOCIATE

Canadian Green Building Council
Ontario, Canada, 2015-Present

EDUCATION

CERTIFICATE OF HORTICULTURE

University of Guelph, 2018-Present

MASTERS OF LANDSCAPE ARCHITECTURE

Daniels Faculty of Architecture, Landscape and Design
University of Toronto, 2014-2017
• with Honours

BACHELOR OF ARTS IN HONOURS BUSINESS ADMINISTRATION

Ivey School of Business

Western University, London, Ontario, 2010
• Certificate in Entrepreneurship
• Dean's Honor Roll 2007, 2008, 2009, 2010

AWARDS

- Canadian Society of Landscape Architects Student Award of Merit
- Ontario Graduate Scholarship for Academic Excellence
- Ontario Association of Landscape Architects Scholarship
- Faculty of Architecture, Landscape, and Design Scholarship

SOFTWARE

Auto-Cad, Revit, Adobe Suite, Rhino, Grasshopper
Sketch-Up, ArcGIS

EXPERIENCE

LANDSCAPE DESIGNER, 2017-PRESENT

FORREC/Scott Torrance Landscape Architects, Toronto

- Collaborated on designs with interdisciplinary teams, infusing the design with ecological and social sensitivity.
- Produced complete SD, DD and CD drawing sets for all city and client submissions, ensuring designs met municipal, environmental and accessibility standards.
- Coordinated with a range of consultants, clients, developers, manufacturers and artists.

LANDSCAPE DESIGNER, 2016

Gillespies Landscape Architects LLP, London, UK

- Produced 3D models, renders and CAD drawings for a variety of public realm projects across the UK and Middle East.

TEACHING ASSISTANT, 2015-16

History + Theory of Landscape Architecture, University of Toronto

NURSERY AND GREENHOUSE SERVICE, 2015

Garden Gallery, Stevensville, Ontario

- Expanded my plant knowledge through the design of residential planting plans, assisting customers with plant selection and caring for nursery stock.

MANAGER OF SALES + MARKETING, 2010-14

Barbican Architectural Products Ltd, Fort Erie, Ontario

- Provided product training to 300+ company representatives.
- Gave sales presentation to designers across North America.
- Managed the development of the company website and marketing.

PARTICIPATION

OPTIONS STUDIO REVIEWER, 2019

Daniels Faculty of Architecture, Landscape and Design

FRESH WATER, 2018

Symposium Presenter

INTERNATIONAL ASSOCIATION FOR GREAT LAKES RESEARCH, 2018

Conference Session Co-Chair + Presenter

COASTAL AND ESTUARINE RESEARCH FEDERATION, 2017

Poster Presenter

ST. JOSEPH'S HEALING GARDEN, 2016

Competition Winner

PUBLICATIONS

"WET LANDS", FRESH WATER, 2019

Essay co-authored with Justine Holzman

Edited by Mary Pat McGuire + Jessica M. Henson

Published by AR+D Publishing

"FLOODING FIELDS", LANDSCAPE PAYSAGES, 2018

Article co-authored with Justine Holzman

SERVICE

DESIGN CLIMATE ACTION, 2019 - Present

- A founding member of the collective
- Facilitator of the "Embodied Energy and Material Life Cycle" working group

GALDSU, Student Union, 2016-2017

- Class representative
- Library and Archive Committee

HISTORY OF AGRICULTURAL DRAINAGE IN ESSEX COUNTY

Frontier



Subsistence



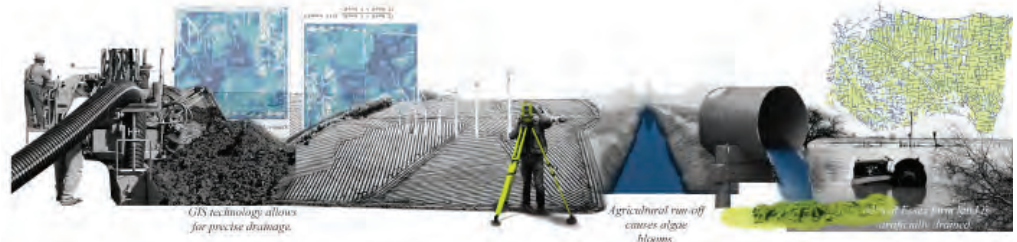
Extensive



Intensification



Industrial Subsistence



WET LANDS

Spatializing agroecological design and policy to reduce phosphorus run-off at the watershed scale.

Wet Lands, is a speculative design research project aimed at reducing non-point source phosphorus and increasing the sustainability of agriculture in the Lake Erie basin through agroecological design and policy recommendations. Essex County, in southern Ontario, was used as the case study site to develop and test these strategies across increasing scales. The project uses parametric spatial scenario modeling to quantify and visualize the regional scale impacts of the recommended policies and landscape interventions.

Wet Lands began as my Master's thesis project with advisor Justine Holzman. The project grew into a research project, which Justine and myself have presented at both scientific and design conferences. Meetings and site visits with the Essex Regional Conservation Authority and the Harrow Institute for Agricultural Research has enabled us to develop a proposal for a landscape scale experiment. "Wet Lands", an essay about the project, is featured in a new AR+D book entitled "FRESH WATER", published in 2019.

COMPILED GIS MAP OF SITE



SITE VISITS

Typical Drainage Ditch in Essex



Water Sampler at the Harrow Institute

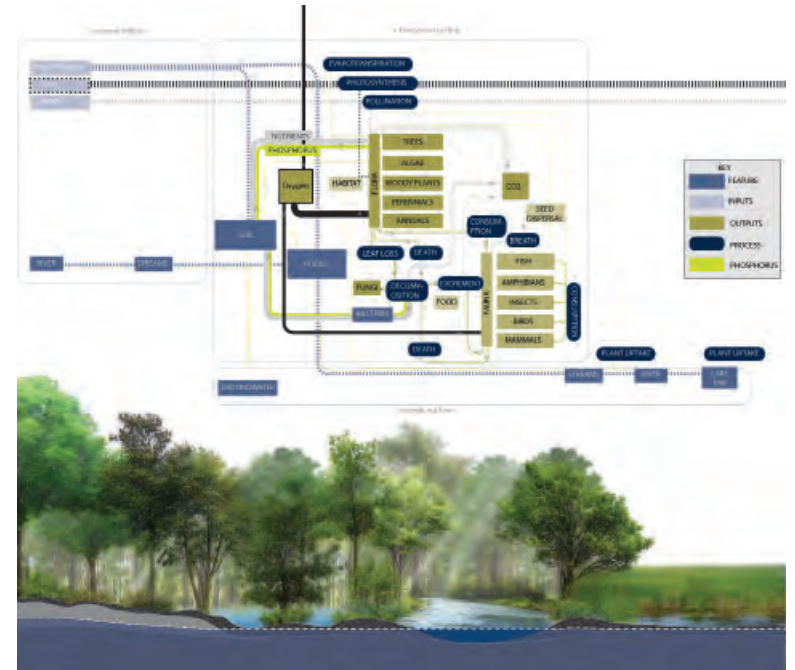


Preserved Wetlands at National Park

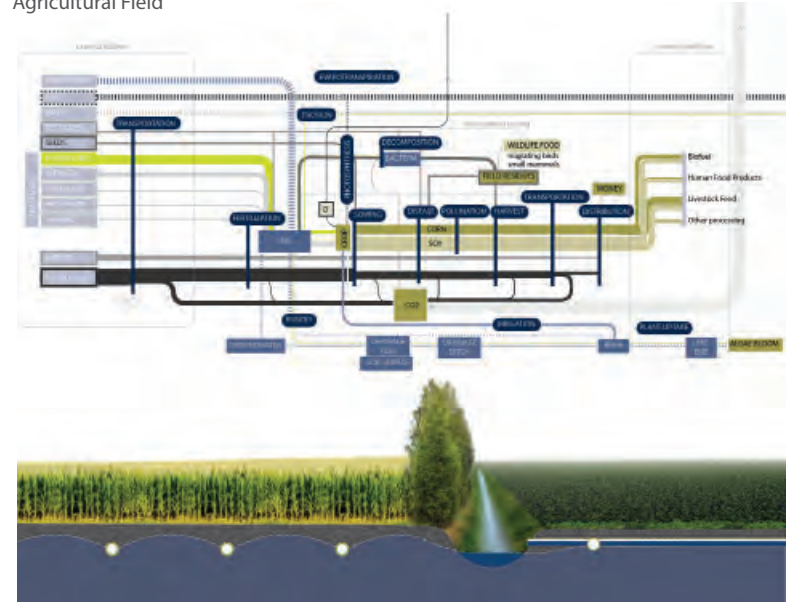


COMPARING PRODUCTIVE LANDSCAPES

Forested Wetland



Agricultural Field



FOUR LANDSCAPE INTERVENTIONS

Recycling Reservoirs



Flooding Fields



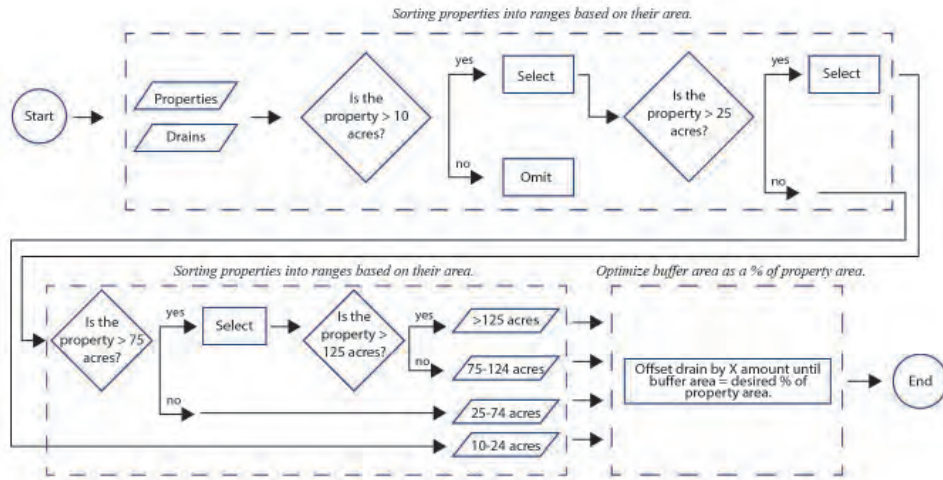
Better Buffers



Intensive Agriculture



PARAMETRIC MODEL LOGIC - Flooding Fields Intervention



MOVIE FRAMES OF MODEL DEMONSTRATING FLOWS



PARAMETRIC MAPS + METRICS - Flooding Fields Intervention

Watershed Scale
100% Adoption



County Scale
100% Adoption



Watershed Scale
10% Adoption



County Scale
10% Adoption



Metrics

Spring Rain Storage



Habitat Increase

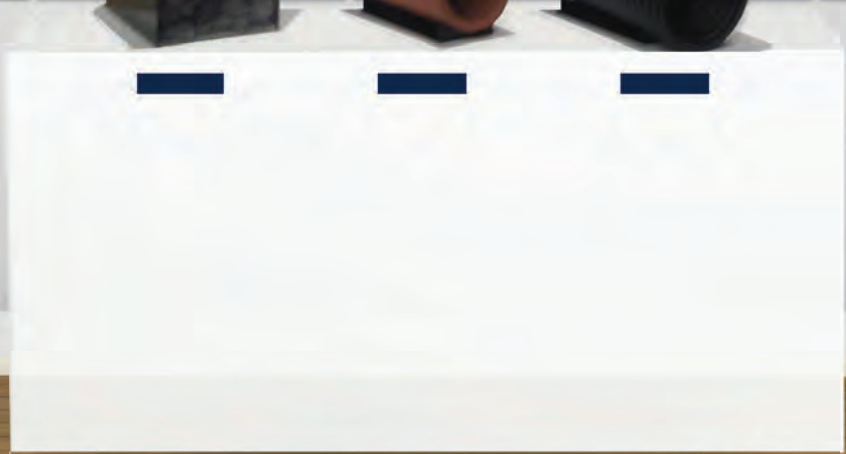


Spring Rain Storage



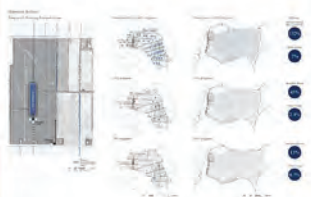
Habitat Increase



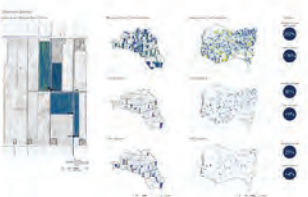




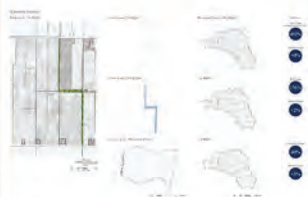
RECYCLING RESERVOIRS



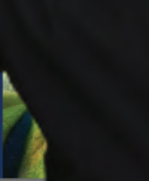
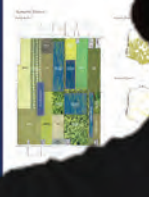
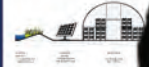
SEASONAL WETLANDS



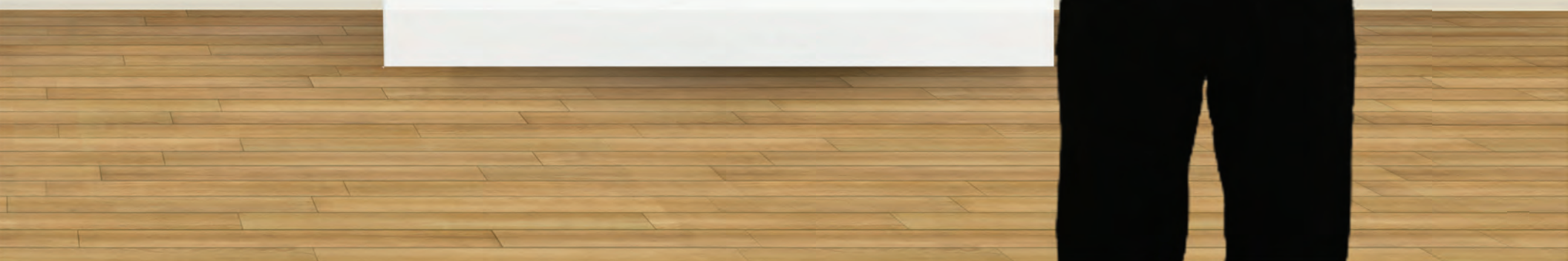
BETTER BUFFERS



INTENSIFIED FARMING

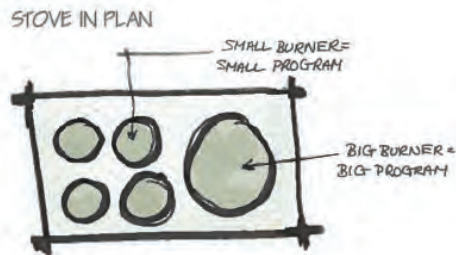


ALGAE & AGRICULTURE



FOUNDRY PARK

A playful urban park that emphasizes inclusivity and sustainability in a changing community.



Foundry Park is a built project located in the core of a gentrifying manufacturing town. The park design aims to provide a welcoming and flexible space for all local residence to gather. The design captures all stormwater and diverts it into circular groves, where it is cleaned and used by newly planted Carolinian trees. The park's playful circular geometry is a reference to the site's previous use as a foundry for manufacturing stoves. At the heart of the site, a splash pad/skating rink attracts users throughout the year and a variety of hard and soft open spaces provide event space for the area's rich art and festival scene.

I ran the day to day coordination for this project and produced all landscape drawings. Construction completed in November 2019.

PROJECT PHOTOS

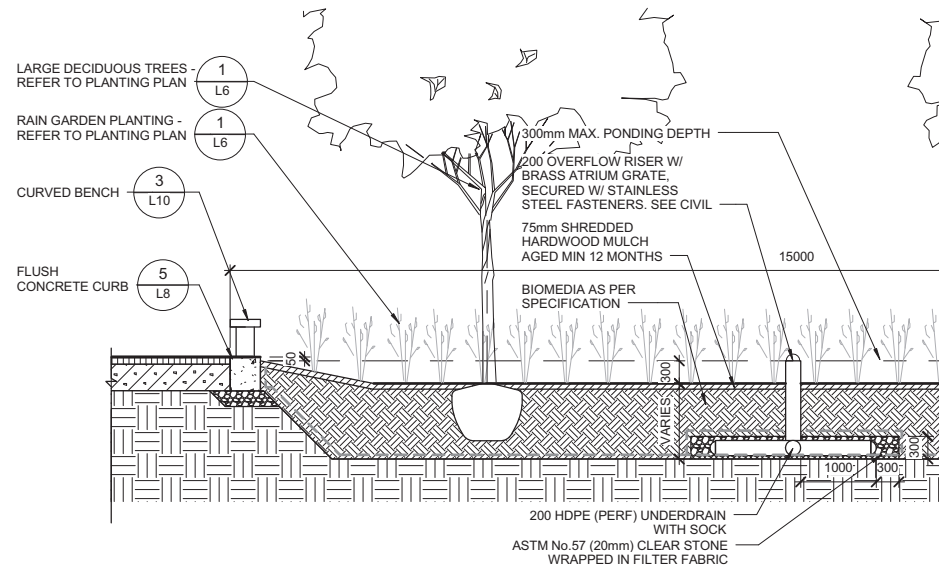


RENDERED SITE PLAN

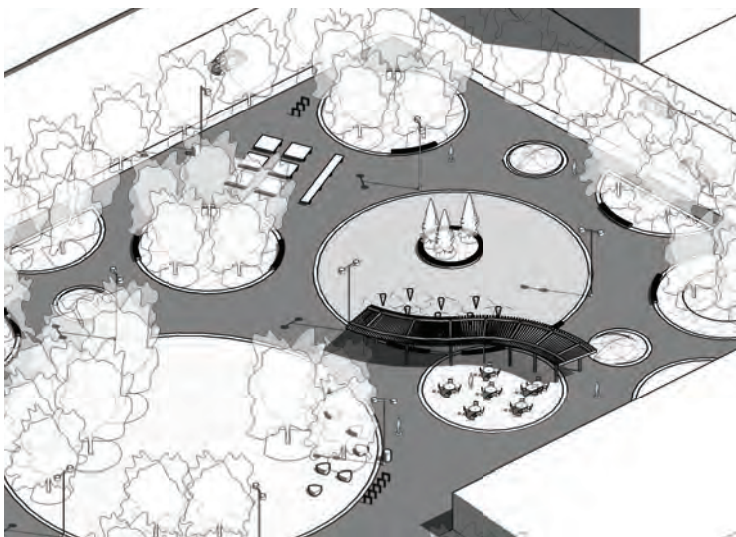


CONSTRUCTION DRAWINGS

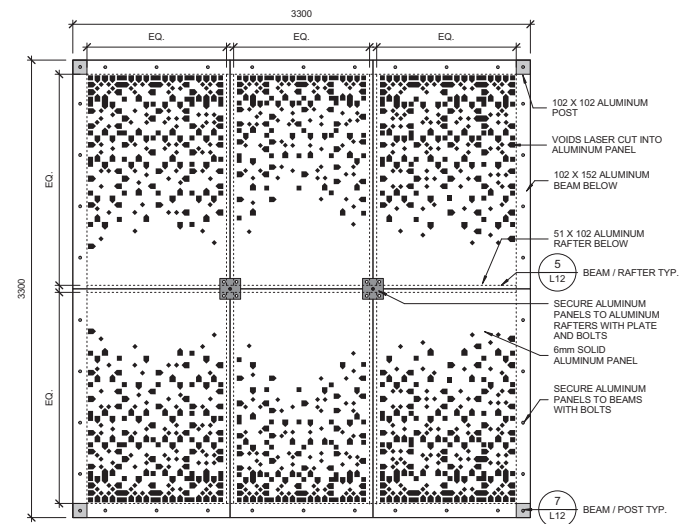
Section - Rain Garden



REVIT MODEL- DESIGN DEVELOPMENT



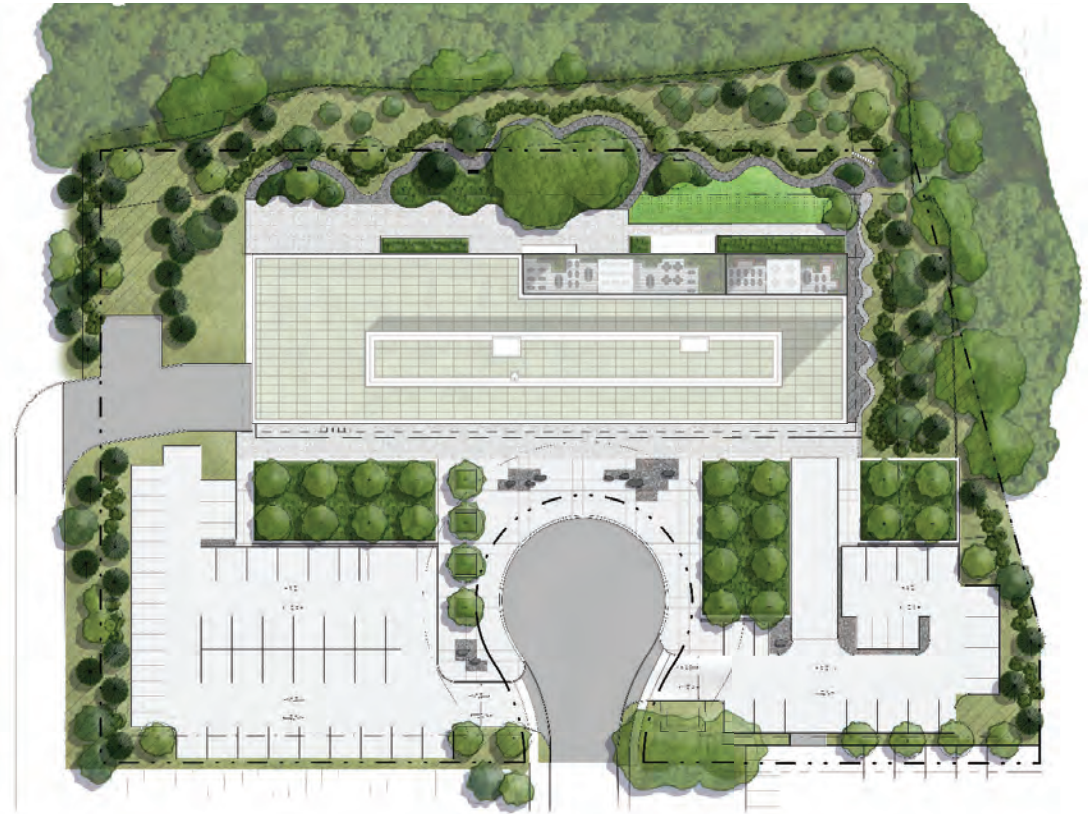
Pergola Unit Plan



RAVINE EDGE

A new corporate headquarters creates a symbiotic relationship with the adjacent ravine ecosystem.

This project is a new-build LEED Platinum building being built adjacent to a ravine in Toronto. The landscape scope includes a large permeable paving parking lot, rain gardens, entrance plaza, restoration planting, at grade and elevated terraces, greenroof and circulation routes. The landscape project will use LID strategies to capture, clean and infiltrate rainwater, restore the ravine edge and provide a healthy and educational space for employees to engage with nature. The project has recently completed design development and will continue to construction administration. Drawings by all consultants are being completed in Revit.



PLANTING PALETTE

Groundcover



Asarum canadense
Wild Ginger



Aster macrophyllus
Large-leaved Aster



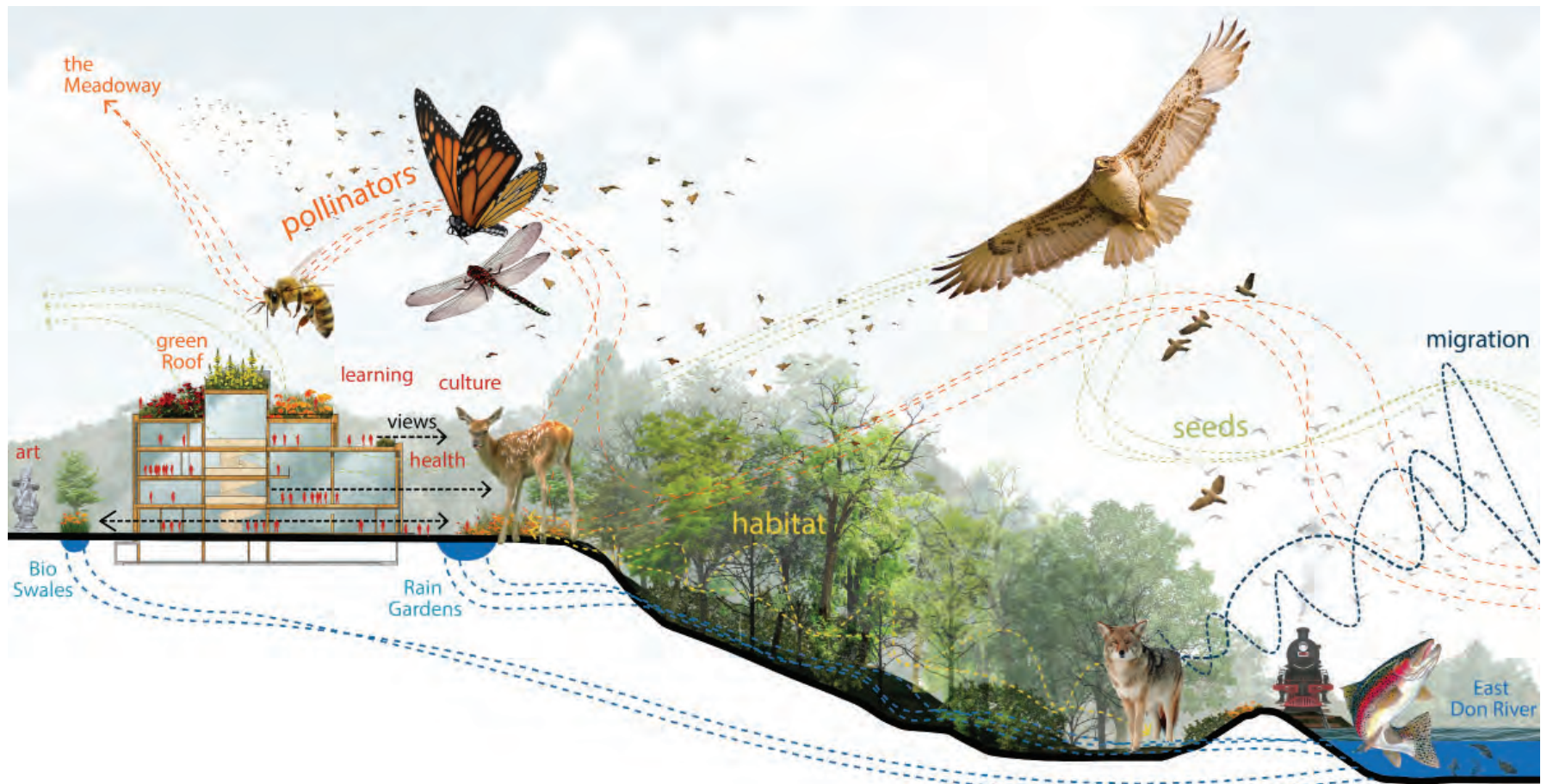
Christmas fern
Polystichum acrostichoides



Carex pensylvanica
Pennsylvania sedge



Tiarella cordifolia
Foamflower



PLANTING PALETTE
Understory



Amelanchier arborea
Downy Serviceberry



Viburnum lentago
Nannyberry



Cornus racemosa
Gray Dogwood



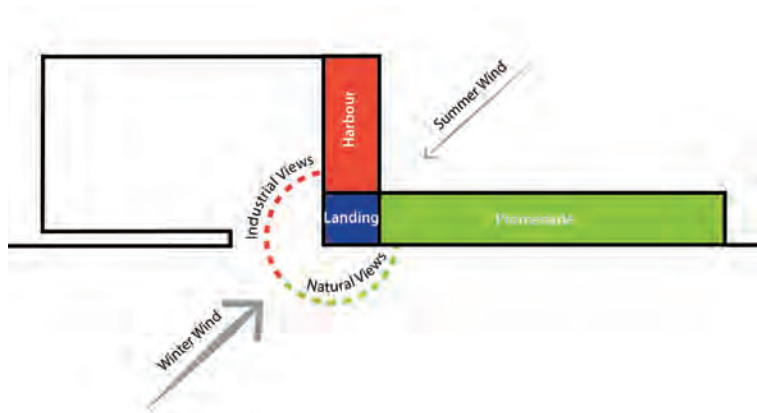
Sambucus canadensis
Common Elderberry



Diervilla lonicera
Bush Honeysuckle

PIER 8

A narrative-driven design celebrates the site's industrial history while creating a place which fosters social exchange and stimulates ecological remediation.



This project was the winning entry in a international competition for a waterfront park. The design of the site reflects how the original industrial pier was used, the climatic conditions of the site and site's expansive views of the harbour. The site incorporates art by local artists and mural-sized engravings designed in collaboration with the local public school. The site program includes a amphitheatre/event space, urban beach, playground, basketball court, cafe seating, demonstration wetlands and a boardwalk which extends the existing Harbourfront Trail.

I was project manager for the winning competition entry and was part of the design/production team for the SD/DD/CD drawing sets. Construction expected to begin 2020.

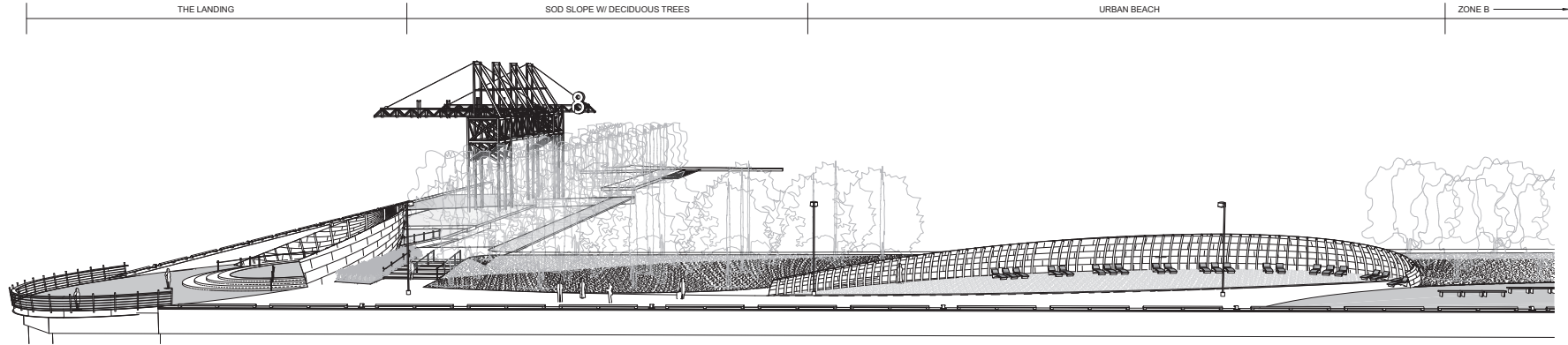
BIRDSEYE OF PIER 8 PARK DESIGN



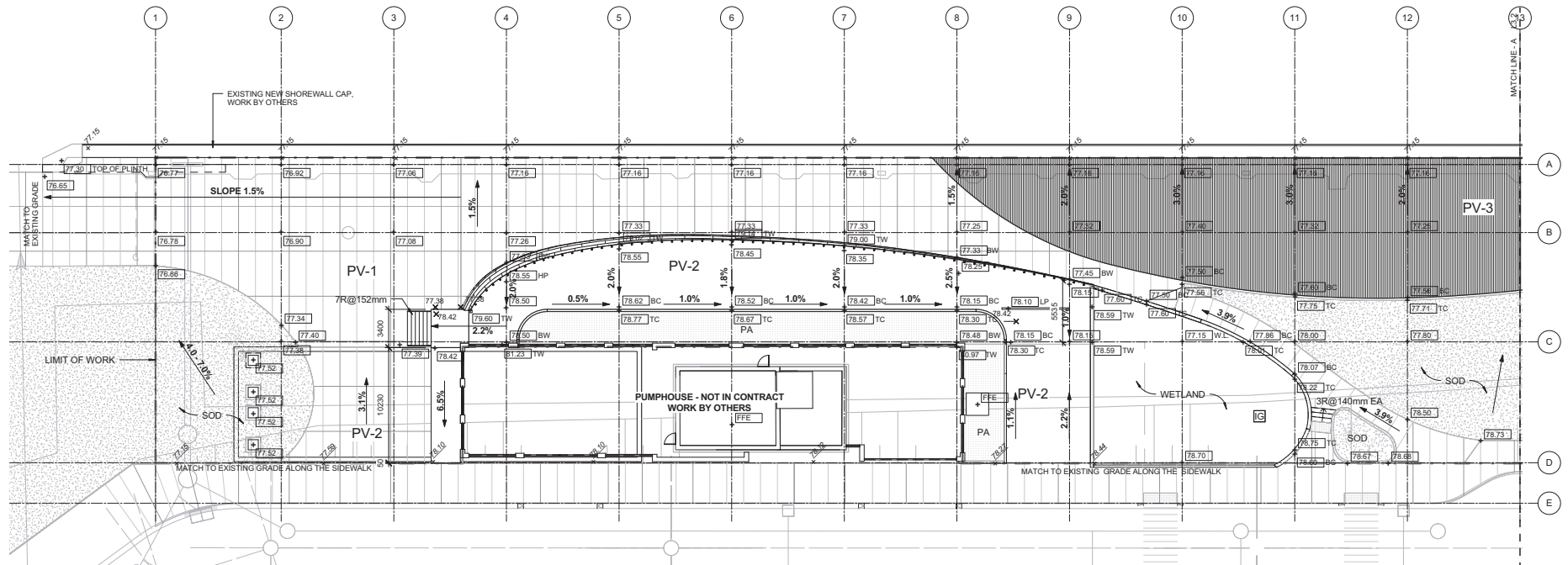
PERSPECTIVE ALONG THE PROMENADE



REVIT LINE PERSPECTIVE



GRADING PLAN



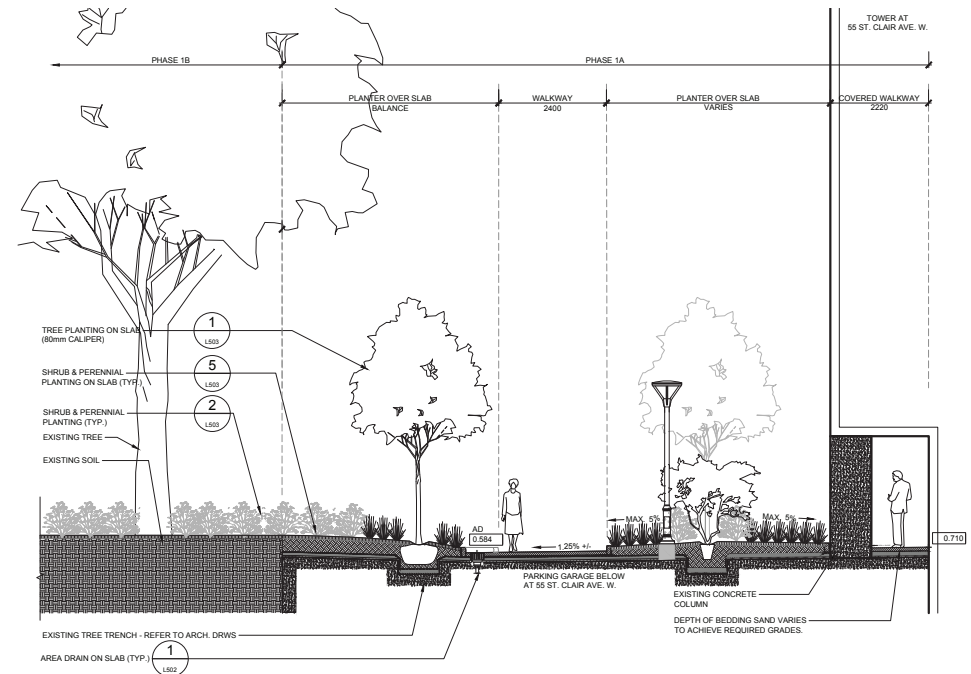
GRANITE PLACE

A much loved landscape is enhanced to improve resident's safety and increase biodiversity.

Renovations to an underground parking garage required the removal and redesign of the at-grade landscape at a retirement home in downtown Toronto. Through collaboration with a resident task-force, the new design focused on improving safety, using high-quality materials and enriching the planting. Circulation was simplified and pathways were widened. New LED lighting was added and more seating opportunities were provided. Planting, which was previously limited to hostas and hydrangeas, was supplemented with hardy native species.

I was responsible for the design and production of all landscape drawings. Construction completed in October 2019.

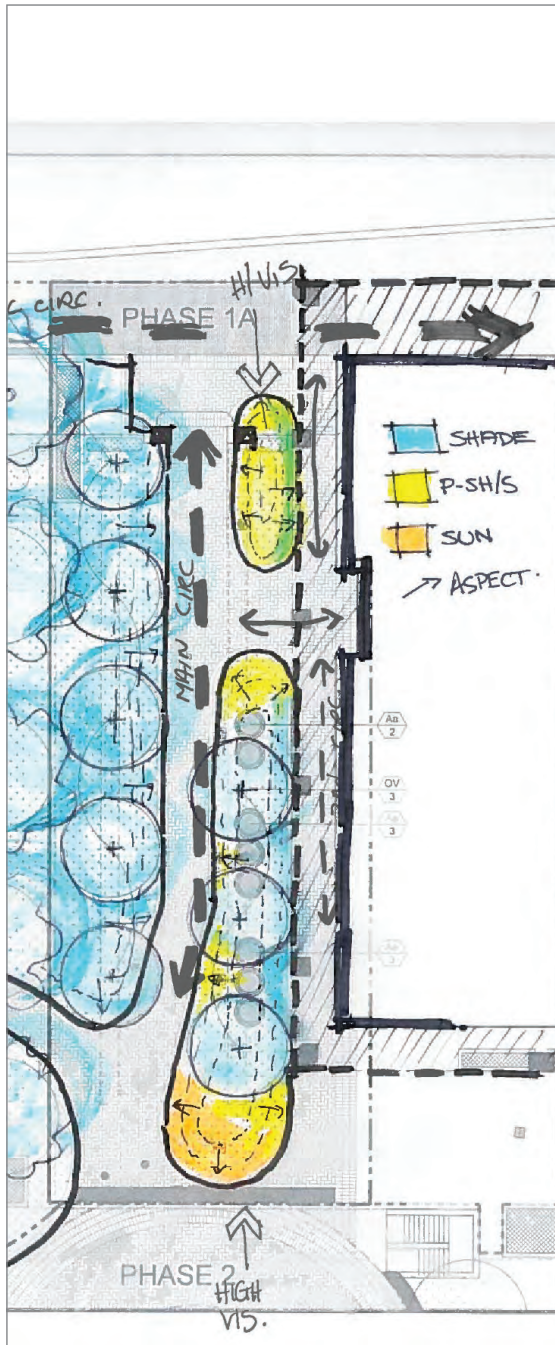
SITE SECTION - 100% CD DRAWING



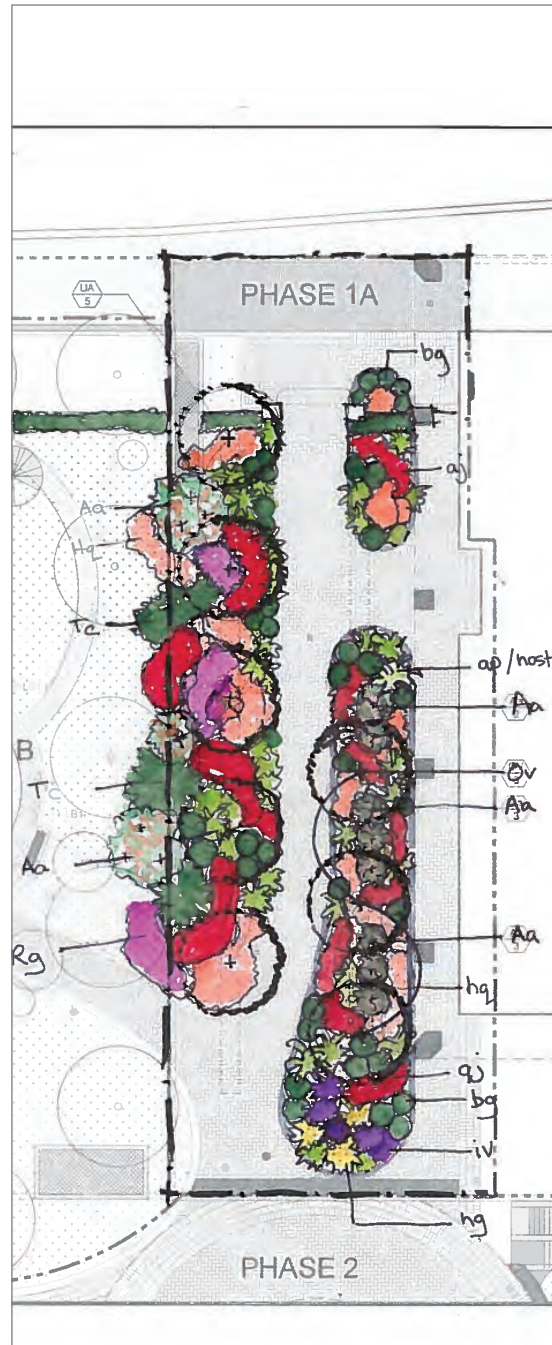
SITE PHOTO - ASTILBE IN BLOOM



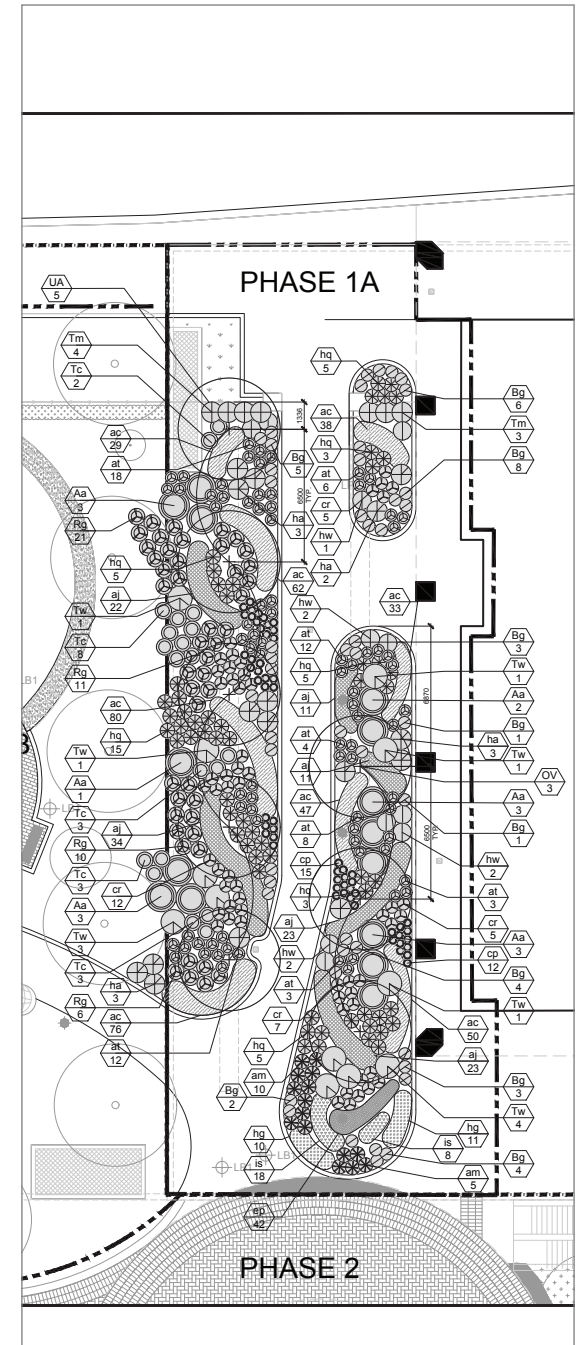
PLANTING DESIGN - ANALYSIS



PLANTING DESIGN - SKETCH

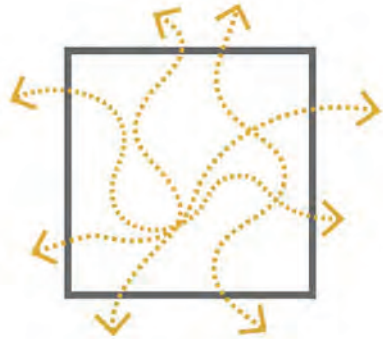


PLANTING PLAN - 100% CD DRAWING



HEALING THROUGH THE LAND

Using the idea of “journey”, this collaborative project weaves together built-form and landscape, creating an Aboriginal Wellness Centre that is in harmony with a tradition of migration.



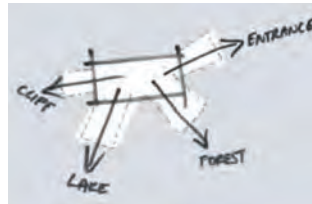
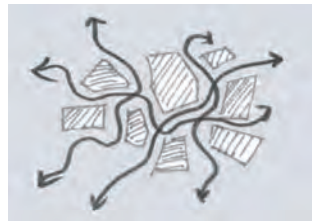
1. Movement and the static.

How can a static building feel like home to a traditionally migratory peoples? Four pathways to key landscape features, became the axis of the building. Internal circulation converged and diverged around key moments of the land. A gradient of natural materials blur the boundaries of interior and exterior spaces. Together the architecture and landscape allow visitors to experience the unique features of the surrounding landscape. These experiences, when paired with cultural program will allow visitors to heal through the land.

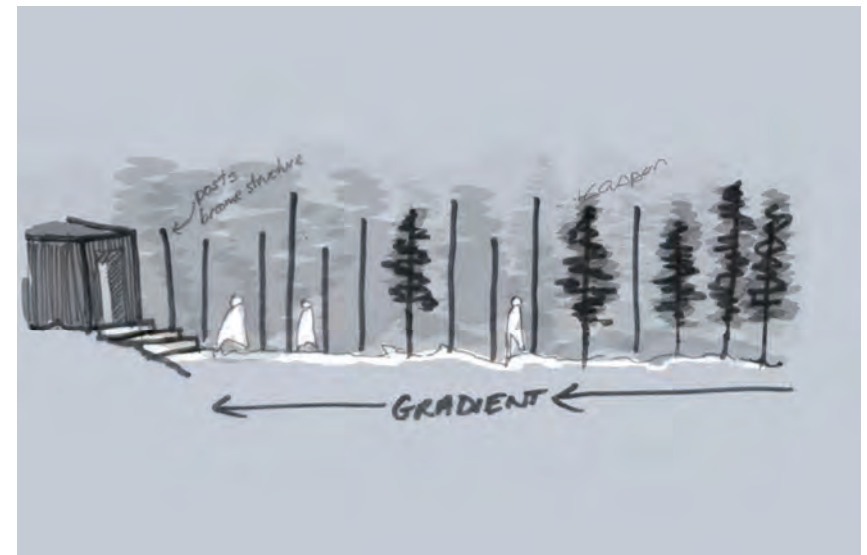


SECTION A
(left to right) Story-Rock, Entrance Gallery, Classroom, Emergency Residence, Platform

CONCEPT: Circulation + form.



MATERIAL GRADIENT: Beam structure + trees.

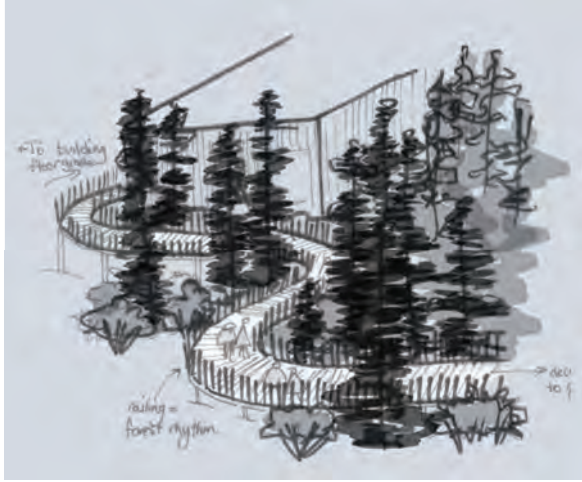




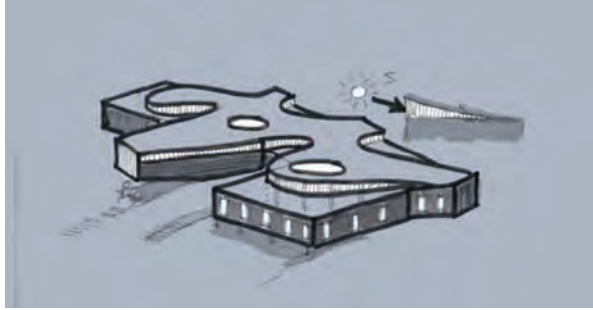
MATERIAL GRADIENT: Stairs + topography.



MATERIAL GRADIENT: Railing + forest.



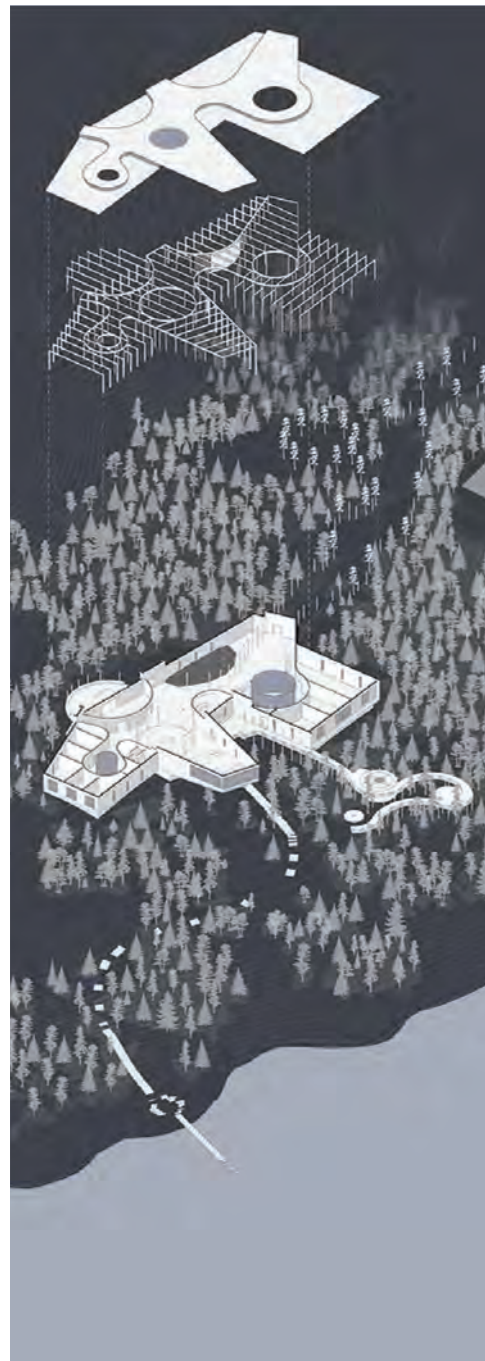
DESIGN: Roof + light.



SITE PLAN



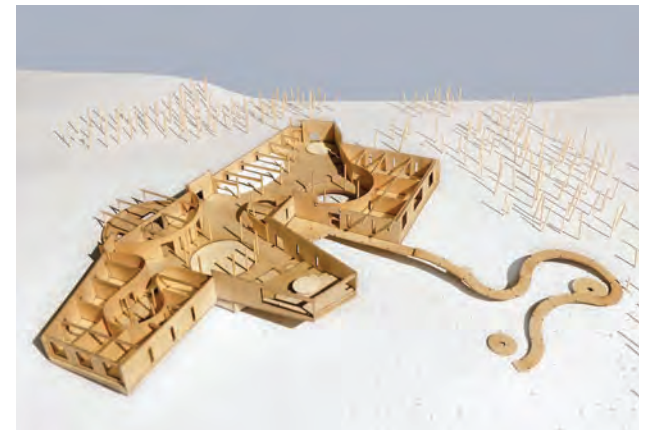
EXPLODED AXO



BUILDING MODEL: EXTERIOR



BUILDING MODEL: INTERIOR



SECTIONAL MODEL



PERSPECTIVES



OF THE NORTH

An urban park which seeks to bring the Ontario North to downtown Toronto using recycled concrete.

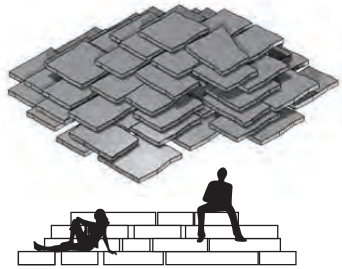


Torontonians have a deep connection to Northern Ontario. The North, or “cottage country”, represents weekends spent amongst pine trees and escape from the noise of the city. But the connection between the North and Toronto is more than emotional. It is deeply physical; an extensive supply chain that uses aggregates from Ontario’s Northern landscape to build Toronto’s urban landscape of skyscrapers and roads.

This project poses the question: if we can build cities out of the North, can we build the North out of our cities? The result is a park which is representational in aesthetics of the North but which is made from waste materials, like old sidewalks, from the city of Toronto- thereby preserving the North landscape and improving our urban one.



STACKING TYPOLOGIES



FLAT

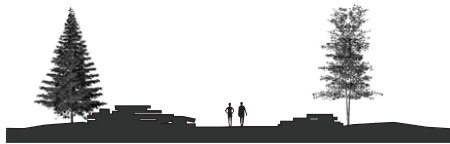


RANDOM

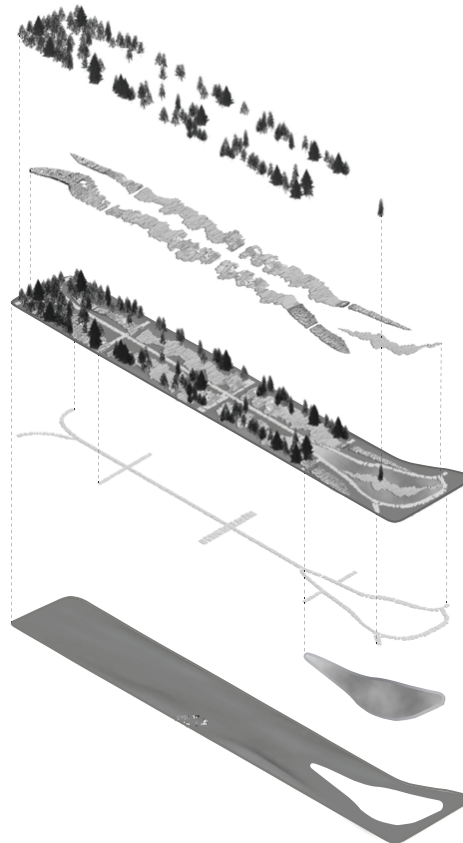


VERTICAL

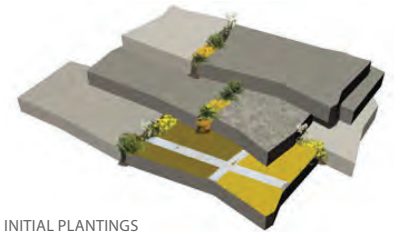
SECTIONS



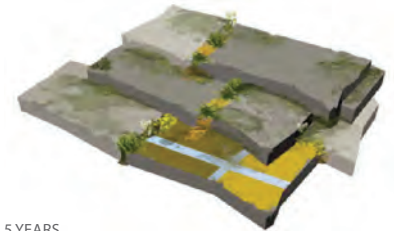
PARK ELEMENTS



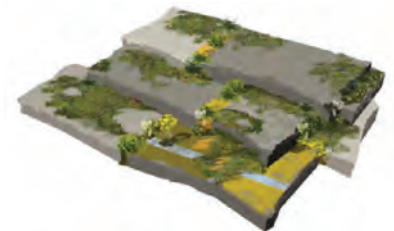
STACKS OVER TIME



INITIAL PLANTINGS OF MOSS, LICHEN + SEDGES



5 YEARS



10 YEARS