THE CAMPUS FARM MASTER PLAN

University of Toronto Scarborough
April 2024

INSPIRING INCLUSIVE EXCELLENCE

UNIVERSITY OF TORONTO SCARBOROUGH

SHIFT landscape architecture

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The Campus Farm Master Plan, 2024
University of Toronto Scarborough

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The work that has led to this plan and the work that will come of it are firmly grounded in the land. Without acknowledging and learning from the historic and ongoing colonial impacts that have led to the present, we cannot move forward.

We wish to acknowledge this land on which the University of Toronto operates. For thousands of years it has been the traditional land of the Huron-Wendat, the Seneca, and the Mississaugas of the Credit. Today, this meeting place is still the home to many Indigenous people from across Turtle Island and we are grateful to have the opportunity to work on this land.

This project was built upon the contributions of steering committees, project partners, advisors, the University community, and members of the local community throughout Scarborough and beyond.

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ADDITIONAL CONTRIBUTORS (LOCAL COMMUNITY GROUPS)

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

INTENT

The Campus Farm is a core facility for research, teaching, and community partnerships that are centered around food and farm related activities on campus, and a core facility for the University. The site can provide an inclusive space for everyone, and support land-based learning within the University and extending to the broader Scarborough community.

The intent of this plan is to provide a vision for the UTSC Campus Farm and outline a pathway to implementing that vision over time. Responding to the existing landscape, the Master Plan proposes an organization of space (the site plan) and specific strategies and directions to achieve the overall vision. Through this approach, the Campus Farm can continue to evolve and support current and future needs, and flourish as a unique place within the UTSC campus.

VISION

Through land-based programming, the Campus Farm provides opportunities for experiential learning, research, and relationship development within UTSC, and connected to the broader Scarborough community. The site is a space that prioritizes the land and the histories embedded within it, recognizing the need for reconciliation and healing as an important part of its function and use.

HOW TO USE THE PLAN

The Campus Farm currently exists as a pragmatic space, hosting teaching, research, and a variety of programming, services and other land-based activities. This plan is constructed to guide the future development of the site into a cohesive space and an integrated but unique part of the greater UTSC campus.

The Master Plan provides a path forward for the Campus Farm, ensuring that it can meet the demands of growth in programming and outreach over time, and aligning with other University plans, including the University of Toronto Scarborough Secondary Plan, the UTSC Urban Design Guidelines, and the Landscape and Public Realm Master Plan, among others.

The Plan should be used to determine when and how the Campus Farm will be developed, and as a starting point to allocate resources for its implementation. As part of the Master Plan, the Campus Farm Site Plan provides a design for the site and should be used to determine the specific projects required to achieve the overall vision. A preliminary phasing plan is also included, which proposes short-, medium-, and long-term phases for the Campus Farm implementation

DOCUMENT STRUCTURE

The document is made up of four sections: Introduction; Space & Context; The Plan; and Implementation. Each section speaks to a different part of the project process and together, answer the following questions:

- *What is the Campus Farm space?*
- *What will the Campus Farm become?*
- *How does the Campus Farm evolve?*

The **Introduction** provides a background to the project and the process that unfolded to realize the Master Plan. As a foundation to the rest of the document, this section outlines the vision for the Farm as well as the core principles and values established for its implementation over time.

Section 2, **Space & Context**, investigates the Campus Farm space, detailing characteristics of the land and the history of the site in context. The information presented in this section establishes the existing conditions that the Master Plan responds to.

The Plan, section 3, presents the site plan for the Campus Farm, detailing the spaces, elements and features proposed for the site.

The final section, **Implementation**, outlines the overall strategy for implementing the plan and details specific approaches and directions to achieve it. This section also addresses potential phasing for the work, governance considerations, community engagement through site programming, and outlines next steps.

FEEDBACK LOOPS

This plan provides long-term guidance for the Campus Farm but it is not intended to be static. As the site develops and as the university continues to grow and change, this plan should be revisited and must adapt.

UTSC is undergoing growth that will continue to shape the entire campus, including the UTSC Secondary Plan, new building construction, future light-rail transit, and others. Each of these pieces provide opportunities to inform the next stage of the Campus Farm development over time, adding feedback into the process.

Given the very nature of the site as a living landscape, conditions will change over time and require adaptive responses. While this document outlines strategies and directions for implementation, these may need to be revisited as opportunities arise and as conditions change. Each change is a moment of reflection, where feedback loops can gauge progress and reassess the next steps forward. The principles and values established for the Campus Farm should remain as core tenants, helping frame future change.

The Indigenous Garden at the Campus Farm.

1. INTRODUCTION

Above: Aerial view of the Campus Farm, taken above the city pond, looking south over the site teaching areas.

Previous: The teaching area in winter.

1.1 BACKGROUND & INTENT

The Campus Farm Master Plan responds to a need for a unifying vision and clear guidance for the development of the UTSC Campus Farm. While the site is in use today, through an intentional process, this plan outlines new potential for the site to support land-based learning, research, and knowledge-sharing for the University and local community. The plan follows guidance from other key University plans, including the UTSC Secondary Plan and the Landscape & Public Realm Master Plan, among others.

1.1.1 THE CAMPUS FARM IN 2023

The Campus Farm is a 4-hectare, rectangular site in the north campus of UTSC. Since 2018, it has provided opportunities for learning on the land, supporting many courses, research projects, community events, and summer camp programs. While the space is unique within the overall campus, it is not a well-known space at UTSC.

The site is unique in its ecology and natural character, especially given its proximity to the more urbanized campus and adjacent residential areas. This condition also makes the Farm attractive as a teaching and research space, and a place that provides mental health benefits to visitors. The site is generally divided down its centre to facilitate a teaching stream (west half) and a research stream (east half), although both occur throughout the site (see map, page 24/25).

At the Campus Farm teaching area, edible plants are grown in raised beds; however, food grown on site cannot be sold but is donated, given to student union food banks, or taken home by those who work/volunteer at the Farm. As a part of the teaching area, the Indigenous Garden has its own raised plant beds and a circle garden which host medicines and culturally important plants. The Indigenous Garden is an important space for the Indigenous community at UTSC and beyond, providing a unique outlet of support and access to land.

The research portion of the site is an open meadow space that accommodates short- and medium-term research projects. Projects are often related to the site's unique character and setting, addressing a variety of research areas.

Access to the Campus Farm is primarily via vehicle, with limited connectivity for pedestrians from the main campus areas. There are pedestrian gates to the west end, however the connection to the rest of the north campus is informal. The small staff at the farm permit access through scheduled tours and planned visits. The site is open between May and October, and not used through the winter months.

1.1.2 INTENT OF THE MASTER PLAN PROJECT

Since it was established, the growth of the Campus Farm has been organic, changing ad hoc to accommodate the demands from those who use the space. Through this growth, the Campus Farm has supported the UTSC community, becoming a unique place on campus that supports land-based learning. Increased demand on the site (e.g., for new uses, new programming) has highlighted a need for a long-term vision for the Campus Farm, to provide both guidance and improved resources moving forward. Building on current successes, this vision can ensure an integrated and adaptable site that supports new opportunities and anticipates future needs.

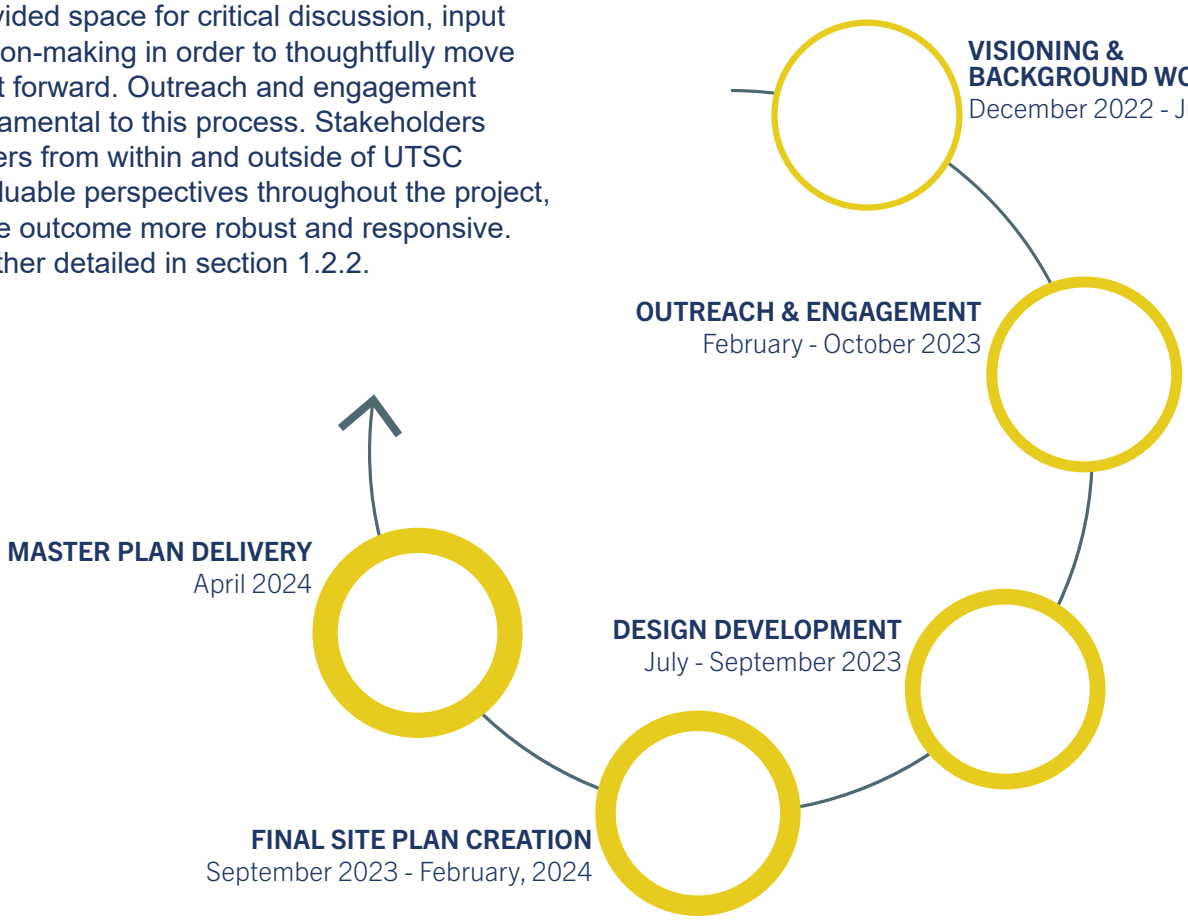
The Campus Farm Master Plan presents a progressive vision for the site, building on its strengths and offering new possibilities. Following and building upon existing UTSC planning policy and guidance (refer to section 2.1.3), the Plan provides a new design for the Campus Farm and an implementation strategy to guide the site's development over time.

1.2 PROCESS

1.2.1 DEVELOPING THE PLAN

This Master Plan is a product of many ideas, conversations, and shared knowledge. The process that led to its creation was sown in UTSC's commitment to create a land-based learning space, and from that seed, many contributing voices have helped grow the plan into a meaningful and responsive way forward.

Led by the Office of Business, Operations, and Strategic Affairs (BOSA), the process began in the winter of 2022, and generally included four parts: project visioning; background work; design development; and creation of the final plan. Each stage provided space for critical discussion, input and decision-making in order to thoughtfully move the project forward. Outreach and engagement were fundamental to this process. Stakeholders and partners from within and outside of UTSC offered valuable perspectives throughout the project, making the outcome more robust and responsive. This is further detailed in section 1.2.2.



The project timeline is not intended to be finite, but a process to feed back into itself as the land evolves.

THE SEVEN GRANDFATHER TEACHINGS

Early in the project process, Elder Josh Eshkawkogan of the Thunderbird Clan, Anishinabek Nation, introduced the Seven Grandfather Teachings to the project committee. The purpose of this gathering was to embed the importance of the Seven Grandfather Teachings in the work ahead, and to start this project in a Good Way.

The insights and understanding borne from this teaching have helped guide the Campus Farm project, and will continue to inform its implementation. The Seven Grandfather Teachings, as shared by Elder Josh, are included below.

The Seven Grandfather Teachings, as introduced by Elder Josh.

1.2.2 PERMACULTURE AS A GUIDE

Definitions:

Permaculture (permanent culture) is the conscious design of systems that develop and contribute to the diversity, stability, and resilience of natural ecosystems that are highly generative and thus provide high yields.[1]

The definition of **yield** is key to understanding and continuing to improve a system. High food production may be a sought after yield, for example, but a wide range of social and ecological outcomes may also be held as yields that merit design work.[2]

PERMACULTURE-INFORMED APPROACH

The Master Plan is supported by permaculture, which is informed and inspired by both Indigenous knowledge systems and Western knowledge systems. It has traditionally focused on food production systems and farm sites, but is regularly applied to other systems as well (e.g., social and ecological). Recently, permaculture was an important visioning principle in the UTSC Landscape and Public Realm Master Plan.

In recent years, permaculture design teams have been working alongside Indigenous elders and Knowledge Keepers, landscape architects, and other urban developers to inform urban and social projects. Ethics of People Care, Earth Care and Fair Share/Future Care[3] ground the design work. Collaborative goals typically include coming to a design that reflects a wide range of perspectives and information on ecological and social concerns, needs, opportunities and creative design approaches. Designs should be flexible and integrated within broader landscape, watershed, historic, and community contexts. Moreover, a good permaculture-informed design should bring integration and a healthy diversity to the "systems" being designed, and should begin to help, or to accelerate, the resolution of complex ecological and social problems.

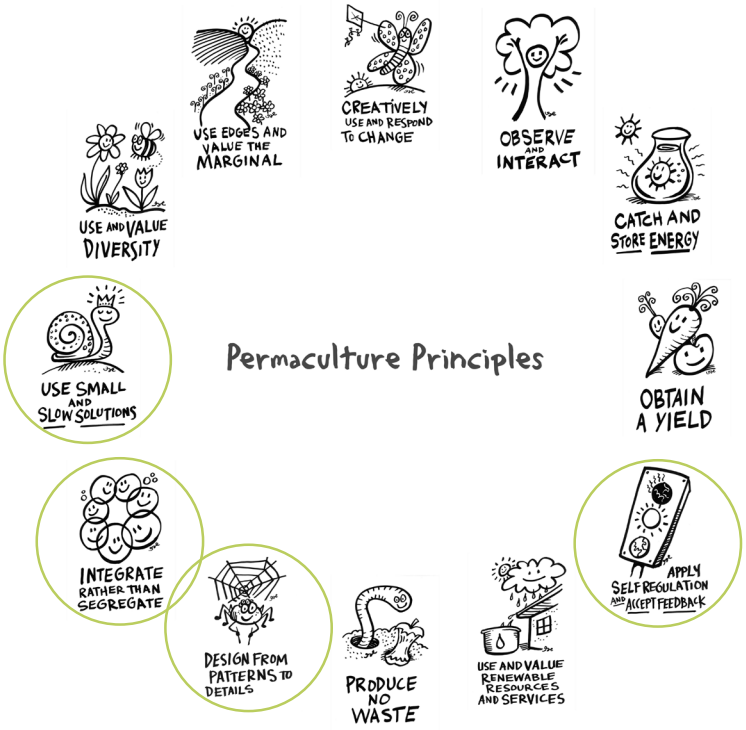
Permaculture design principles and approaches have informed the development of the Campus Farm Master Plan at multiple points. Principles that were and remain important touch points are noted below and in the diagram on page 12:

Design from Patterns to Details: by reviewing and understanding the soils, foodshed, and watershed contexts, as well as ways available to connect with and involve university researchers, teachers, students, Indigenous community interests, campus community gardeners, local community food security and growing projects.

Integrate Rather than Segregate: by encouraging the site to be open for cross-disciplinary research, wide ranging teaching use, community garden event opportunities, university daycare access, tours, composting, etc.

Apply Self Regulation and Accept Feedback: by treating challenges as design parameters to be understood and worked with, instead of problems to be avoided.

Small and Slow Solutions: by working at the natural pace of the university's community as it understands what can happen, and is happening on the land.



The permaculture principles with the four principles important to the Master Plan highlighted.

FEEDBACK LOOPS

The permaculture ethics of People Care, Earth Care and Fair Share/Future Care provide an obvious feedback loop for reviewing the quality of the design and, ultimately, the Campus Farm system as it develops. Questions that can be asked over time include:

- Does the site improve how people are cared for?
- How well is the earth and the life and water that passes through the site cared for?
- Do people experience reasonable access to the site and its yields?
- Are processes transparent and fair?
- What future care is being developed on site?
- Are future care opportunities being developed in a transparent and fair manner?

Each of these questions provides an opportunity to be accountable to the intent of the work, as well as how it is implemented and sustained.

Evaluating whether the University's mission and Strategic Plan priorities are being served, both directly and indirectly, provides another feedback loop and an opportunity to check on the design and the system that unfolds on the land. A direct example may be to evaluate how the priority of Innovative and High Quality Student Experiences is being achieved at the site. An example of an indirect impact is to determine if projects attract funding that help solidify the priority of Enduring Partnerships.

Another feedback loop to consider is whether a permaculture approach to the Campus Farm brings any direct or indirect value as a faculty, staff, student, or community engagement approach, and as a place to develop skills. Permaculture projects of this scale and complexity are rare enough that there are opportunities to learn from it, to improve, and to share learning and knowledge with others. Working with a living systems/permaculture system frame could be an excellent learning opportunity for the campus community, but a key measure will be how engaged people are with the Campus Farm.

HARNESSING NEW ENERGY

The Campus Farm is not a static site; it is a landscape that will change over time and new inputs, interests and opportunities will emerge. The idea of new energies was a recurring theme throughout the Master Plan process and this reflects both the living site but also the dynamic University setting. New energy will come to the project in the form of unanticipated needs, new challenges, and new resources, including people who can add their expertise to the site. As an example, new faculty may bring specialized expertise and ideas that can also bring new opportunities - potentially strengthening the overall Master Plan. This is an asset to the process and the continued evolution of the site.

[1] Permaculture is a design process that was born in response to an understanding of a growing ecological crisis in the 1970s. Permaculture began with a focus on "permanent agriculture" and has evolved to a focus on the development of a more "permanent culture".

[2] Permaculture was also defined in the UTSC Landscape & Public Realm Master Plan as "a design process that uses an understanding of Living Systems to develop and contribute to the diversity, stability, and resilience of natural ecosystems resulting in complex regenerative landscapes that provide high yields. Typically applied to productive landscapes."

[3] Permaculture's named ethics.

1.2.3 OUTREACH & ENGAGEMENT

The project was overseen by the UTSC Core Project Team, who met regularly with the consultant team to review progress and provide direction. A larger, Full Project Committee offered additional input through meetings and workshops during the development of the Plan. Overall, the engagement on this project was comprehensive, and UTSC staff, faculty, students, representatives of the campus Indigenous community, local community organizations, and other voices contributed to the Master Plan.

While the project sought to engage many voices, the right to decline to participate was respected throughout. This approach should continue for any further engagement that comes from this plan.

ENGAGEMENT ACTIVITIES

Outreach and engagement activities included a variety of methods to access information about the project and provide input. Working sessions, site walks, workshops, a project website, surveys, an open house, individual interviews, as well as informal conversations were all tools used to encourage and receive input. Alternative event formats (e.g., virtual and hybrid sessions) were provided whenever possible to support participation due to the COVID-19 pandemic.

A broader outreach was conducted online through a website and survey. Over 239 responses were received, representing many students, as well as faculty, staff, and alumni.

RELATIONSHIP-BUILDING

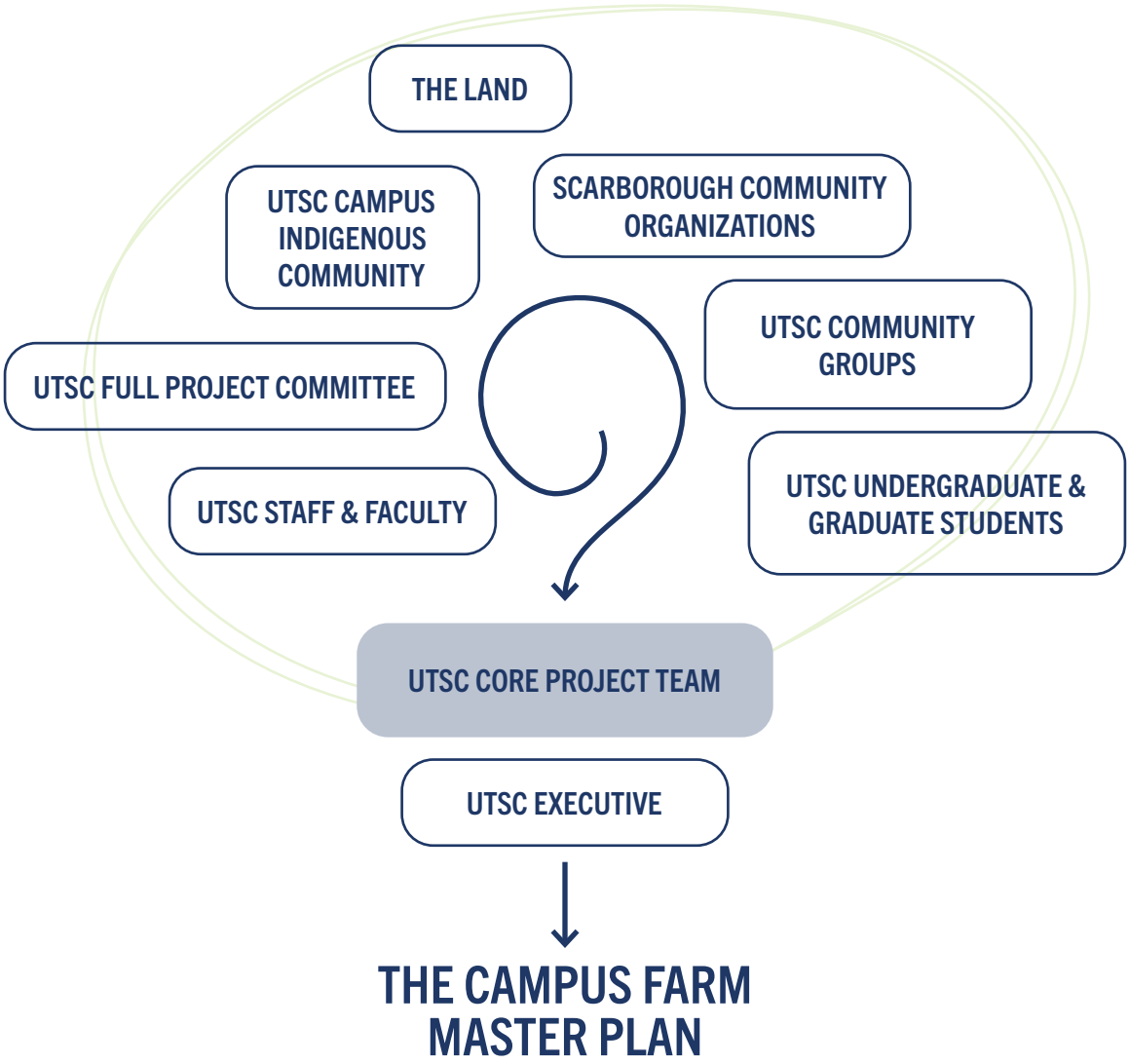
Beyond the input received through outreach and engagement work, an important yield of the project comes from the relationship-building that took place. As individuals, groups and communities have now been engaged in the process, they may continue to be valuable partners in the future development of the Campus Farm. As implementation of the Master Plan progresses, these potential partners should be kept informed with updates and future engagement opportunities.

ENGAGEMENT WITH THE CAMPUS INDIGENOUS COMMUNITY

Working closely with UTSC's Indigenous Initiatives office, the project team sought to engage with the campus Indigenous community throughout the project. Engagement activities introduced the project to Indigenous Elders, Knowledge Keepers, faculty, staff, students, and other community members, providing an overview of background work and potential directions for the project. This process welcomed open discussion around how the Campus Farm could support various considerations, needs, and potential connections to ongoing Indigenous initiatives on campus.

Engagement with the campus Indigenous community beyond the initial meetings was limited to participation by Indigenous representatives on the Full Project Committee; however, one intent of this plan is to identify future engagement and co-creation opportunities where the campus Indigenous community can meaningfully contribute to the planning, design, and implementation of future projects identified for the Campus Farm.

ENGAGEMENT PATHWAY



Those who engaged with the Master Plan process represented a variety of perspectives, voices, and diverse needs, which ultimately helped define the potential of the site. Input was used to inform decisions and is realized in many forms, from specific features on site , to broader principles and policy directions. Throughout the process, all input received was synthesized by the consultant team and reviewed with the Core Project Team, helping to contextualize it within the University.

1.3 VISION, PRINCIPLES & VALUES

1.3.1 VISION

The Campus Farm is a space that prioritizes connections to the land and its embedded histories, and offers a place for reconciliation, renewal and regeneration to be explored. The site supports connections between the multitude of UTSC and Scarborough communities, fostering new perspectives through experiential learning, research opportunities, and knowledge sharing throughout the year. In all aspects, it is a restorative landscape, demonstrating responsible land management practices to ensure the regeneration of healthy soils and a vital ecology over time. As a living landscape, often defined by its contingent and transitory qualities, the Campus Farm provides new ways of understanding peoples' relationship with our unbounded environment.

The Campus Farm integrates teaching space within the natural landscape.

1.3.2 PRINCIPLES & VALUES

The Principles and Values are intended to create a meaningful connection between the Vision of the Master Plan and its measurable strategies. They are a guide for future decision-makers to ensure projects and programming remain consistent with the intended spirit of the Campus Farm, acting as an opportunity to verify planning direction.

There are four over-arching guiding principles, highlighted below each supported with a more detailed set of values. Every principle and value has been informed by the master planning process, through stakeholder engagement, or existing influencing policies.

1. IMPROVE LAND AND LIFE

- support the health and well-being of the land and the UTSC community.
- be an inclusive, safe, and accessible environment, with opportunities for all who seek participation.
- exemplify environmentally sustainable and low-impact development.
- support ecological communities and enhance biodiversity.
- uphold the fundamentals of food sovereignty, supporting research and teaching on food security, access to nutrition, culturally appropriate food, and regenerative agriculture.

2. DEVELOP AND NURTURE CONNECTIONS

- be a model of respect, responsibility, and reciprocity within UTSC and the broader Scarborough community.
- be a hub that provides access to knowledge and supports collaboration, co-creation and community building within and outside of UTSC.
- seek to engage students through volunteering and employment opportunities.

3. EXPAND KNOWLEDGE SYSTEMS

- support connections to the land through experiential teaching and learning.
- provide opportunities to validate and celebrate decolonial perspectives through teaching, learning, and research.
- create spaces for Indigenous Knowledge sharing and to reinforce Indigenous Ways of Knowing.
- be a place of research in the broadest sense, both as a space that facilitates research and as a topic of interest itself.

4. BE RESPONSIVE AND ACCOUNTABLE TO EVOLVING NEEDS

- support a flexible and adaptive program, responding to the demands of diverse pedagogies and knowledge systems.
- allow for year-round programming on the land for the purposes of teaching, learning, research, and community engagement.

Opportunities to re-engage throughout in the future

RELATED UTSC PLANNING & POLICY WORKS
(Landscape & Public Realm Master Plan, Secondary Plan, Urban Design Guidelines, Campus Master Plan)

ENGAGEMENT INPUT

UTSC STRATEGIC PLAN PRIORITIES

Innovative, high-quality undergraduate and graduate experience & success.

Scholarly prominence in established & emerging areas.

Intentional inclusion and relational accountability.

Deep and enduring local, national, and global partnerships & networks.

Participatory decision-making and supportive administrative capacity.

THE CAMPUS FARM GUIDING PRINCIPLES

1. IMPROVE LAND & LIFE
2. DEVELOP & NURTURE CONNECTIONS
3. EXPAND KNOWLEDGE SYSTEMS
4. BE RESPONSIVE & ACCOUNTABLE TO EVOLVING NEEDS

KEY PERMACULTURE PRINCIPLES

Apply self regulation & accept feedback

Design from patterns to details

Integrate rather than segregate

Use small & slow solutions

CAMPUS FARM MASTER PLAN

IMPLEMENTATION WORK

As implementation happens, ensure any new opportunities align with the Campus Farm principles & values

The principles and values reflect guidance from the UTSC Strategic Plan and other University planning policy, as well as information generated throughout the project (permaculture principles, engagement, and the process itself).

1.4 ASSUMPTIONS & LIMITATIONS

In building this Master Plan, a number of assumptions and limitations were identified and are acknowledged below. While each of these play a part in the decision-making throughout the project, they do not impact the overall outcomes of this work. As this is a Master Plan, some of these assumptions and limitations are anticipated to be specifically addressed through the planning, design and implementation of specific projects as the plan is implemented over time.

1. While the outreach and engagement process for this plan was comprehensive, there will be new students, faculty and community who become involved in the Campus Farm, bringing new ideas, energies, and demands that can further inform the plan going forward.
2. Throughout the development of the Master Plan, preliminary engagement with the campus Indigenous community took place. This does not represent formal consultation, and instead, was an introduction to the project. As the project continues toward implementation, this group should be reengaged and consulted on with specific projects, including phasing priorities and outcomes.
3. Inherent Rights Holders were engaged as part of the Master Plan work but as the project moves forward, consultation should continue with this group to review the intent of the plan and the potential implementation process.
4. This plan is built upon the information available at the time of publication. Additional studies and investigations may bring new information to light that can be integrated into the plan over time, forging a stronger direction moving forward.
5. In developing this plan, the draft *University of Toronto Scarborough Secondary Plan* (November 27, 2019 revision) was used as one framework for municipal-level planning and policy. It was assumed that this document will be adopted, as drafted.
6. As a living landscape, the site will continue to change and evolve. What is true today, may be different tomorrow. To respond to this, the plan should be reviewed regularly, re-engaging key contributing voices and site users.

Informal entry lane into the Campus Farm teaching area, 2023.

2. SPACE & CONTEXT

2.1 SITE CONTEXT

2.1.1 GEOGRAPHICAL CONTEXT

The Campus Farm is located at the northeast edge of the UTSC Campus, within Scarborough, and part of the larger, eastern GTA. Its location continues to determine the social and ecological influences on the campus and the Campus Farm. Further to this, the Campus Farm is positionally liminal, a place where urban and rural, developed and in-development, static and negotiable meet. As UTSC continues to be the university of the eastern GTA, responding to a demographically diverse population, forecasted growth, and ever-greater connections to wider world, there is an opportunity for the Campus Farm to continue to reflect that through programming and intrinsic connection to the surrounding community.

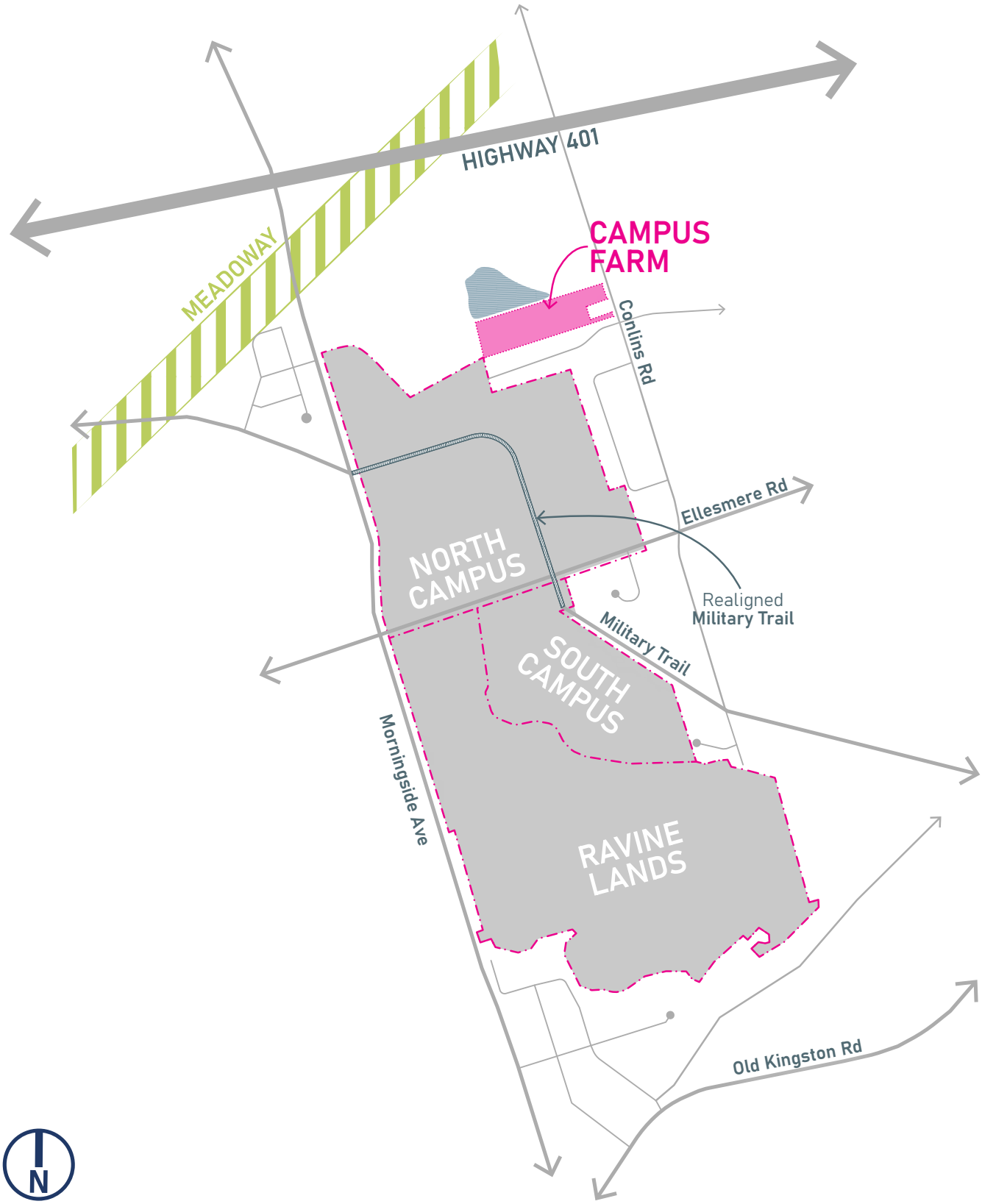
2.1.2 SITE HISTORY

The area hosting the Campus Farm has a historical legacy that continues to require resolution and maintenance today. Geologically, the shoreline of glacial Lake Iroquois ran approximately through the Campus Farm, leaving deposits of beach sand and gravel. After colonization, the area was farmed and as it became a suburb of Toronto the glacial deposits were quarried at this particular parcel and the adjacent (now City of Toronto) property. The extractive process of sand and gravel pit creation was damaging, leaving a void in the landscape. The groundwater and runoff-fed pond at the north edge of the Campus Farm (the majority of which is located on City of Toronto property) occupies part of this void. The pond was later used for snow dumping, collected from removal operations throughout the city.

After the area was quarried, part of the adjacent lands were used as a municipal waste dump, known as the Morningside Landfill, which closed in 1968. The legacy of this use has led to soil impacts and contamination for much of North Campus, including the Campus Farm.

CONTAMINATION

As a result of the historical pit operations, a consequent landfill, and ongoing uses at the adjacent property owned by the City of Toronto, the Campus Farm site soils have levels of contamination. UTSC has completed soil studies which have indicated that remediation and/or avoidance measures are needed, especially considering potential for food production. Additional detail about site soils is provided in section 4.2.



Context map of the UTSC campus and character areas defined in the draft University of Toronto Scarborough Secondary Plan.

2.1.3 PLANNING & POLICY CONTEXT

Multiple layers of planning policy influence the Campus Farm site, its use and how it contributes as an important place on campus, the Scarborough community, and within the larger City. Planning initiatives by UTSC as well as municipal policy will inform the development of the site over time. As campus planning is realized, concurrent developments offer critical connections to the Campus Farm site, including new adjacent facilities and the planned realignment of Military Trail and potential expansion of the Eglinton East LRT. Existing planning considerations are outlined in this section. Guidance for potential planning strategies moving forward are detailed in section 4.4.

UTSC PLANNING GUIDANCE

The University of Toronto Scarborough is a diverse campus undergoing a transformation. Within recent years, new academic facilities, student housing, and ambitious campus development have begun to fulfil the vision for the campus as a diverse, walkable, and transit-accessible place that has respect for and takes action towards the conservation of the natural environment, and provides a lively, dynamic learning environment for students from diverse backgrounds. This campus vision began with the 2011 Campus Master Plan and was further embedded in the University of Toronto Secondary Plan and Urban Design Guidelines.

The 2011 Campus Master Plan (CMP) provided a new direction for UTSC, outlining a path forward for the campus to evolve and grow, with a strong focus toward development of the North Campus lands. The CMP provided both guidance on future development as well as how that development should integrate with surrounding land uses to appropriately embed the campus within the Scarborough community.

Major projects, including the Toronto Pan Am Sports Centre have anchored the north campus over time, and new planning initiatives, led by UTSC, are continuing to guide the campus forward, as a cohesive and integrated place.

The University of Toronto Scarborough Secondary Plan builds on the vision of the 2011 CMP, responding to the University's anticipated growth and future resource needs; it creates a structure in which the University and the City can thrive in an integrated campus setting. While still in draft form, the Secondary Plan (UTSC SP) represents a campus-specific guide for future development of university land, divided into three campus character areas: the Ravine Lands, South Campus, and North Campus.

In conjunction with the UTSC SP, the University of Toronto Scarborough Urban Design Guidelines (2020) were developed to implement the vision of the Secondary Plan. Further to these guidelines, the 2022 UTSC Landscape and Public Realm Master Plan (LPRMP) was developed to establish direction for future development of the landscape and public realm features of the University. Collectively, these levels of University guidance and direction work to ensure that development on campus supports and provides a cohesive, high-quality, durable, and memorable experience for everyone, reflecting the institution itself.

The LPRMP identified the Campus Farm as a key character-defining space and, importantly, an opportunity to exemplify permaculture and regenerative landscape management on campus. The principles, “demonstration plan”, and design guidelines for the Campus Farm, included in the LPRMP have informed this Master Plan.

The development of the Campus Farm responds to all levels of University planning guidance and is informed by the work done to-date. As a specific site within the broader campus, this Master Plan presents a space that is unique, with potential to be well-integrated and supportive of the University’s vision, mission and values outlined in Inspiring Inclusive Excellence, UTSC’s strategic plan.

MUNICIPAL PLANNING POLICY

The City of Toronto Official Plan and City Zoning By-Law (569-2013) provide guidance and regulation for lands throughout the City, ensuring development supports broader environmental, social, and economic goals at the municipal and provincial levels. The lands of the Campus Farm must be in conformity with these policy documents and are also guided by additional, detailed levels of local policy as part of the Highland Creek Community Secondary Plan (HCCSP).

The Highland Creek Community Secondary Plan provides detailed policies and principles specific to a defined secondary plan area. Within the HCCSP, the Campus Farm lands are currently zoned as Residential Detached (RD) and this designation limits the potential use of the site in the university context. Additional planning policy has previously been initiated by UTSC, working with the City, to change this residential designation, allowing use more conducive to UTSC needs.

Through the course of developing this Master Plan, another layer of secondary plan policy was used as the baseline for the future of the site. The University of Toronto Scarborough Secondary Plan (UTSC SP) builds on the 2011 University of Toronto Campus Master Plan and, along with the University of Toronto Urban Design Guidelines and City Zoning By-Law, implements policy to guide future campus development. The secondary plan is the most detailed planning policy for UTSC lands.

> *In the event of a conflict between the University of Toronto Scarborough Secondary Plan and any policy contained with the Official Plan, or any other Secondary Plan or Site and Area Specific Policy or Plan, the University of Toronto Scarborough Secondary Plan shall prevail.* (UTSSP, 2019)

Within the draft UTSSP, the lands occupied by the Campus Farm are intended to be re-designated as *Institutional Areas*. This Master Plan has been developed around the assumption that this new Institutional designation will be in place as implementation work is underway. The proposed Campus Farm work aligns with the University of Toronto Scarborough Secondary Plan.

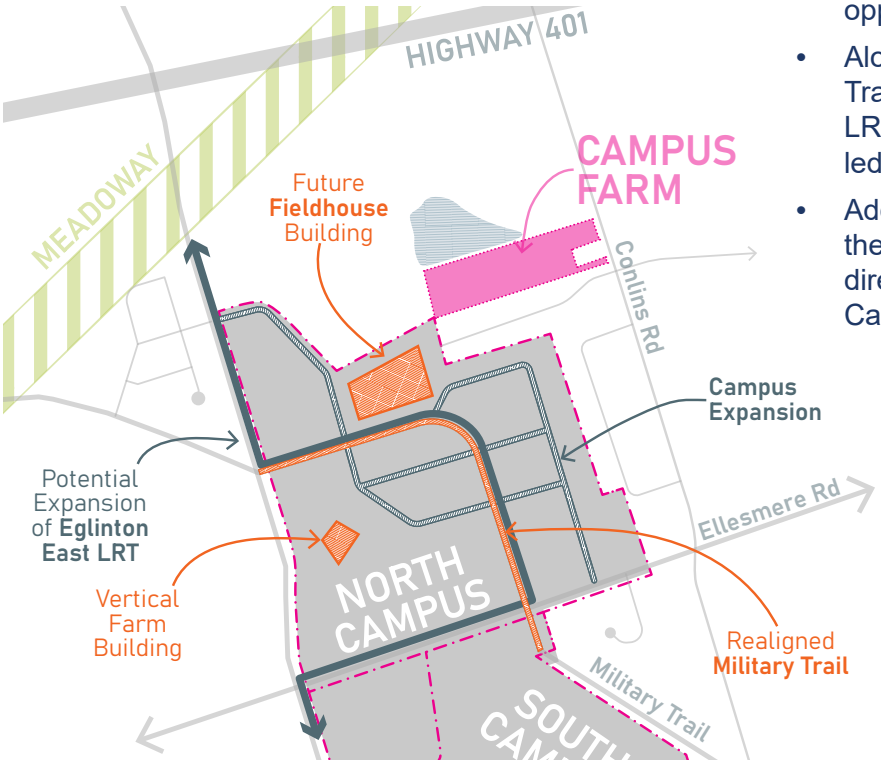
For all campus development, the overall intent and policies of the UTSSP will be implemented through the application of the University of Toronto Urban Design Guidelines, the Zoning By-law, and the site plan control process.

Two easements abut the west edge of the Campus Farm land. In order to make appropriate connections to the site, access agreements will be needed to establish rights-of-way and associated conditions. These easements are identified on the existing conditions plan on page 24/25.

ADDITIONAL REGULATION

The Campus Farm Master Plan has been developed in line with municipal policy focused on protecting and enhancing natural heritage and environmental resilience. As the implementation of the Master Plan is underway, opportunities to highlight how the work supports long-term visions, plans and strategies led by the City, including the Biodiversity Strategy, Pollinator Protection Strategy, Resilience Strategy, among others, should be used to demonstrate the benefits of the Campus Farm within the campus and City. The site can become an embodiment of these policies, aligning with the University's use of the landscape.

Additional levels of policy may apply to areas within the Campus Farm, including areas regulated by the Toronto Region Conservation Authority (TRCA) and the TRCA Living City Policies. As implementation of the Master Plan begins, the specific influence of these policies can be explored through the development approval process.



Key planned projects in the North Campus and related to the Campus Farm

RELATED PLANNING & ANTICIPATED PROJECTS

Implementation of the Campus Farm is one of many projects anticipated within the North Campus. Understanding how future projects will work together was a key component of the 2011 Campus Master Plan, as well as subsequent planning policy. The approach to the Campus Farm Master Plan is built to work with these potential projects, and understand how they may influence and be influenced by the proposed Campus Farm condition.

- Directly between the Toronto Pan Am Sports Centre (TPASC) and the Campus Farm site, a large indoor turf fieldhouse structure is proposed, with connections to TPASC and the future realignment of Military Trail.
- The University of Toronto Scarborough Secondary Plan identifies the realignment of Military Trail as a key organizing element of north campus, supporting campus growth and a future LRT (light rail transit) route. This realignment brings Military Trail closer to the Campus Farm, providing improved access opportunities.
- Along the path of New (realigned) Military Trail and extending through campus, a future LRT route is planned with the project being led by the City.
- Additional University projects, including the Vertical Farm Building, will also provide direct and indirect connections for the Campus Farm.

Raised beds in the teaching area at the Campus Farm, 2023.

2.2 SITE CONDITIONS

2.2.1 MAPPING SECTORS

The UTSC Campus Farm has various external forces that have acted upon and continue to act upon the character of the site. Through a permaculture lens, these are called “sectors” and defining them and their affect on the site helps guide design and implementation decisions. Sectors provide a method to understand the energies affecting the landscape. For this study, microclimate, topography, soils, groundwater, vegetation and wildlife, and access and circulation were investigated through site investigation, review of background studies, and interviews with a variety of people involved with the site. The map on page 24/25 highlights some of the sectors discussed.

MICROCLIMATE

Winds at the Campus Farm are predominantly out of the west and north-west. Visitor comfort and food growing capabilities can be improved by planning for seasonal winds, especially considering potential Campus Farm use during winter. Available sun hours has been proven to be sufficient for growing food, however the relatively exposed site can be improved for visitor comfort with the introduction of more shade.

TOPOGRAPHY

The Campus Farm site gently slopes from west to east. The southern edge of the site is marked by a roughly two-metre slope, falling away from the larger site. This condition places the adjacent residences on Chartway Boulevard, well below the Campus Farm site. This provides some buffer between, however more solutions may be desired. There are two pockets of relatively flat areas that retain some runoff on site. These could be taken advantage of for stormwater catchment. Existing topography can be generally maintained with minimal intervention needed for accessibility and facility construction. The TRCA’s 100-year flood limit encroaches slightly at the north east end of the site, highlighting an area between the pond and Conlins Road.

SOILS

The soil has been an object of interest for Campus Farm users either as a topic of research or concerning conversations around food growing and consumption. Generally the contamination found in the soil is what would be expected at any post-industrial site with pockets of heavy metal contamination. As in many similar sites, the history of dumping on site is concerning enough that the University has decided that food grown for consumption must be grown in raised planters, as per current best practices. Additional information about soils and the Master Plan approach to soils is included in section 4.2.1.

GROUNDWATER

The groundwater flows east at the western third of the site and roughly south the remainder of the site. It is monitored through a series a bored wells. The groundwater flow direction suggests any continuing or historical contamination of adjacent City property (to the north and west) may continue to be conveyed into the Campus Farm property, although this requires ongoing monitoring. Section 4.2.2 offers additional information about groundwater on site.

Information about soils and groundwater at the Campus Farm, outlined above and throughout the Plan, was developed in reference to the following studies, retained by UTSC:

- Due Diligence Phase II Environmental Site Assessment report for the University of Toronto – Scarborough Campus Farm in Scarborough, Ontario by Dillon Consulting Ltd. Completed January, 2023.
- Technical Memo: Document Review and Evaluation - Environmental Site Assessment and Risk Analysis of the University of Toronto Scarborough Campus (UTSC) Farm by Dillon Consulting Ltd. Dated April 4, 2022.
- Baseline Study on the Soil Conditions of the UTSC Campus Farm, by A. Leogo and F. Mahmud. Completed December 21, 2020.

VEGETATION & WILDLIFE

The Campus Farm's existing vegetation character should be understood in the context of a post-industrial and/or urban edge condition. A successional meadow makes up most of the site with pockets of woody shrubs and trees, mostly located at the site edge. Noted woody species include aspen, willow, Manitoba maple, and staghorn sumac. There is also a large remnant red oak tree at the north-east end of the site. Noted invasive species include purple loosestrife, dog strangling vine, buckthorn, and phragmites. Management of these species is required. There are deer, rabbits, and other urban species found at the Campus Farm and will need to be managed within the context of food growing and site development. An approach to vegetation and wildlife is detailed in section 4.2.3.

ACCESS & CIRCULATION

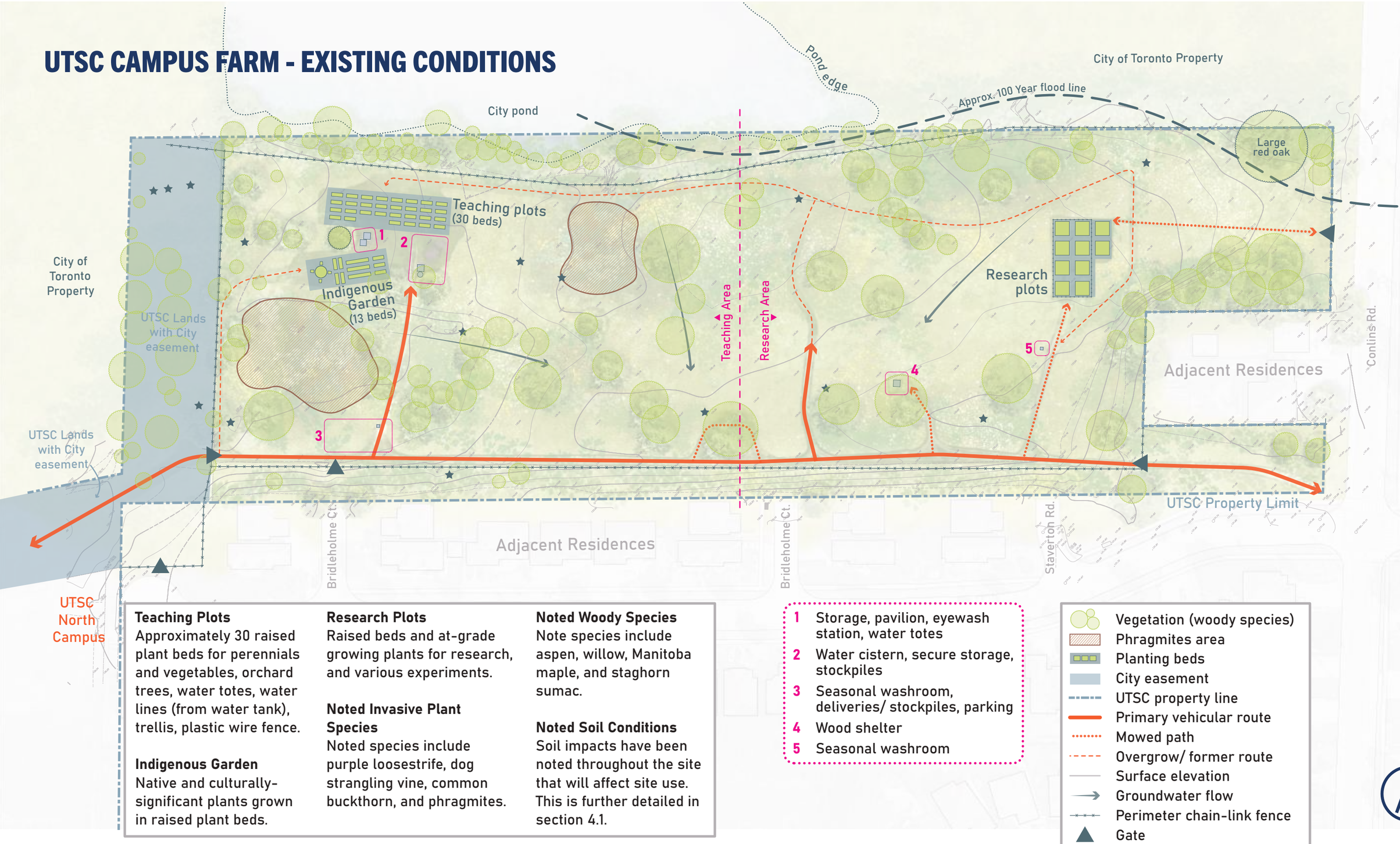
The Campus Farm is relatively disconnected from the rest of the campus. Vehicular access needs to be formalized and is currently through a gate at the corner of Conlins Road and Chartway Boulevard. Due to a lack of pedestrian connections with the rest of UTSC, most visitors arrive by car. There are two pedestrian gates located at Chartway Boulevard and a double gate at Conlins Road. Within the site, a dirt lane along the southern fence line acts as the main access road for deliveries and visitors. Mowed paths make up the majority of pedestrian routes to garden beds, the Indigenous Garden, and research-focused areas.

Students working the raised teaching beds at the Campus Farm.

White-tailed deer in the meadow near the Indigenous Garden.

Rabbit nesting in a raised growing bed.

UTSC CAMPUS FARM - EXISTING CONDITIONS



Teaching Plots
Approximately 30 raised plant beds for perennials and vegetables, orchard trees, water totes, water lines (from water tank), trellis, plastic wire fence.

Indigenous Garden
Native and culturally-significant plants grown in raised plant beds.

Research Plots
Raised beds and at-grade growing plants for research, and various experiments.

Noted Invasive Plant Species
Noted species include purple loosestrife, dog strangling vine, common buckthorn, and phragmites.

Noted Woody Species
Note species include aspen, willow, Manitoba maple, and staghorn sumac.

Noted Soil Conditions
Soil impacts have been noted throughout the site that will affect site use. This is further detailed in section 4.1.

1. Storage, pavilion, eyewash station, water totes
2. Water cistern, secure storage, stockpiles
3. Seasonal washroom, deliveries/ stockpiles, parking
4. Wood shelter
5. Seasonal washroom

- Vegetation (woody species)
- Phragmites area
- Planting beds
- City easement
- UTSC property line
- Primary vehicular route
- Mowed path
- Overgrow/ former route
- Surface elevation
- Groundwater flow
- Perimeter chain-link fence
- Gate
- Monitoring well

Teaching beds at the Campus Farm in the summer of 2023.

3. THE PLAN

The research side of the Campus Farm in winter, 2022.

3.1 THE SITE PLAN

The existing Campus Farm is a special space within the UTSC campus and greater local area. This character should not be compromised through the design of the site but preserved and enhanced over time. The site plan builds on the elements that make the space special and aims to establish it as a gateway to the land and a hub of land-based learning. Critical to achieving this is the notion of being light on the land and responding to the existing conditions of the site. The plan prioritizes existing assets where possible, while providing for the pragmatic needs of improved accessibility, provision of key services, and new facilities that enable greater function throughout the site. Careful consideration of materials and finishes will also support the creation of a sustainable and low impact site.

The general arrangement of the concept plan responds to the site conditions outlined in section 2.2, and is structured around a series of activity spaces and a defined circulation system. Development of facilities and infrastructure is concentrated at key areas, with a majority of the site remaining untouched. The site plan is presented in this section with information about each area of the site and proposed features. Detailed information about specific elements and **design directions** are provided in section 4 - Implementation.

3.1.1 USING THE SITE PLAN

The site plan represents the full implementation of the Campus Farm and is intended as a guide to develop the site over time. It lays out the facilities, spaces, and connections described in this Master Plan document, arranging them in the landscape. This site plan is a product of the entire Master Plan undertaking, fundamentally responding to the land itself and reflective of the many voices who have shared and contributed throughout the process.

This site plan is one stage of many in the development of the Campus Farm. It will be used to select and plan for the development of specific projects, working to implement the Campus Farm Master Plan over time. These individual projects may be buildings, infrastructure, site features, or a combination of all, and will be prioritized and selected to undergo specific planning, engagement, and detailed design. Through the added layers of engagement and design, the direction of the Master Plan will be further refined to reflect specific needs and involving more participation in the process.

This section provides a “tour” of the proposed Campus Farm site, describes the overall site plan, and provides detail about several key areas of the landscape. It represents the grand vision for the space at full implementation. Building on this, section 4.8 provides an overview of a potential phasing plan to achieve that vision.

UTSC CAMPUS FARM - SITE PLAN

1. CAMPUS PATHWAY ENTRY
2. ENTRY PAVILION & GATHERING SPACE
3. OPERATIONS FACILITY & PARKING
4. DROP-OFF LOOP & PARKING
5. CENTRAL WALKWAY & TEACHING HUB
6. WASHROOM & STORAGE BUILDING
7. TEACHING & RESEARCH GREENHOUSES
8. CLASSROOM PAVILION
9. INDIGENOUS GARDEN & GATHERING
10. TEACHING GARDEN
11. COMPOST BUNKERS
12. BOARDWALK & POND LOOKOUT
13. PERIMETER PATH
14. STORMWATER & IRRIGATION POND
15. REST SPACES
16. FIELD GATHERING SPACES
17. RESEARCH KIOSKS
18. EXAMPLE OF RESEARCH PLOTS
19. RESEARCH MEADOW
20. MOWED FIELD PATHS
21. FIELD CLASSROOMS
22. VEHICLE LANEWAY
23. MAIN VEHICLE ENTRY
24. MEADOW & BUFFER PLANTING
25. UTSC COMMUNITY GARDEN
26. BUFFER PLANTING ALONG RESIDENCES

3.2 KEY SPACES & AREAS

3.2.1 CAMPUS PATH & DROP-OFF LOOP

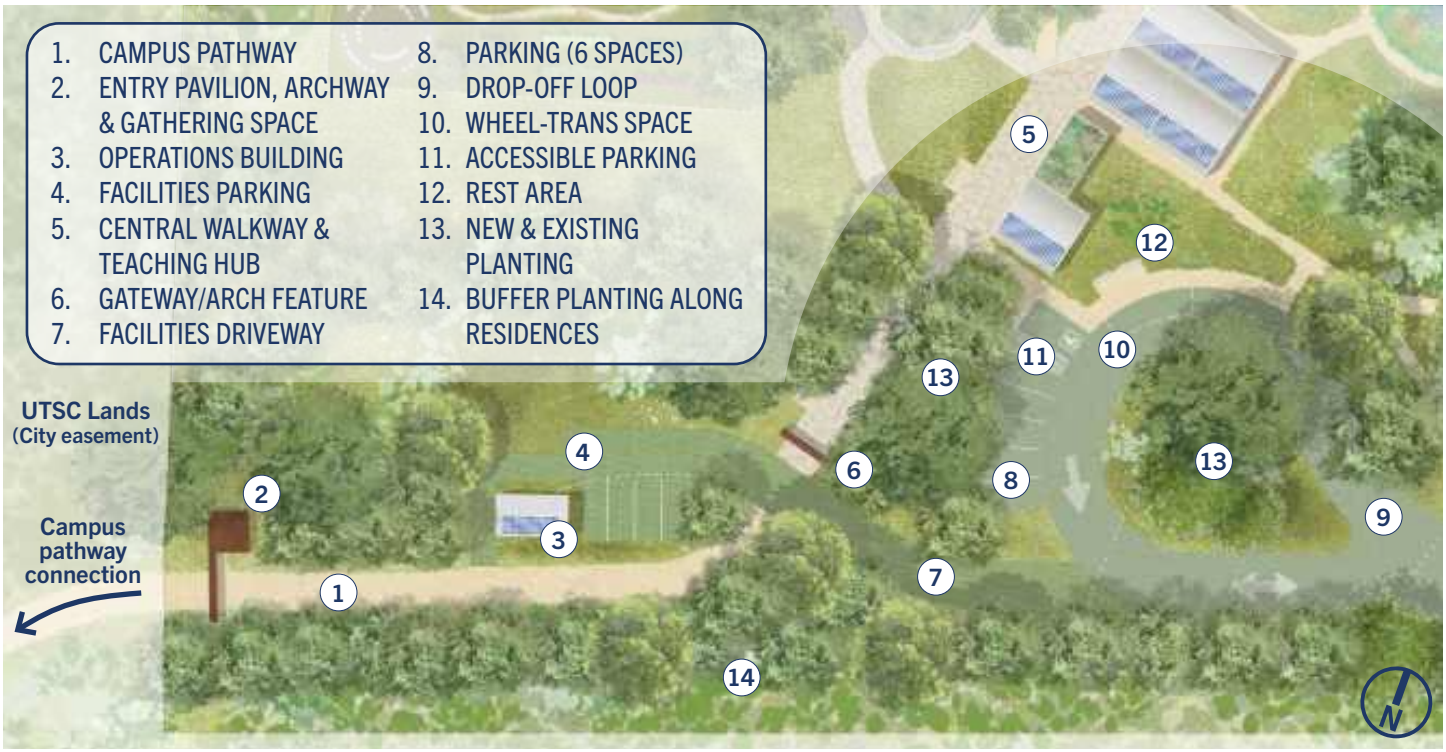
There are two main access points to the site: in the southwest corner, through a pedestrian pathway to north campus; and in the southeast corner, with a pathway and vehicle access to Chartway Boulevard.

The campus path is intended to connect to the future Fieldhouse development, providing a defined access point to the Campus Farm from the main campus for pedestrians, and offering an access for Facilities staff vehicles.

Entering the site along the path, clear gateway signage and placemaking features, including a small pavilion with seating and archway over the path, would welcome visitors to the Campus Farm and provide information about the site. From this entry, there are direct connections to the central walkways and vehicle drop-off loop. The operations building and associated parking is also located near this entry, providing dedicated space on site for facilities equipment and staff.

The vehicle drop-off loop provides access for visitors entering the site from Chartway Boulevard, supporting drop-offs (including Wheel-Trans) and emergency access. Some parking is provided (2 accessible and 4 standard spaces) but it is not intended to be a full-service parking area. Within and around the drop-off loop, planting can help screen vehicles and provide a buffer to the adjacent residential properties.

The space between the site fencing and the existing residential properties on the south edge of the site is UTSC owned. Given the challenges of this area, with a significant slope, the plan proposes to maintain it in its current condition, while introducing buffer planting and ensuring regular maintenance to monitor and control encroachment.



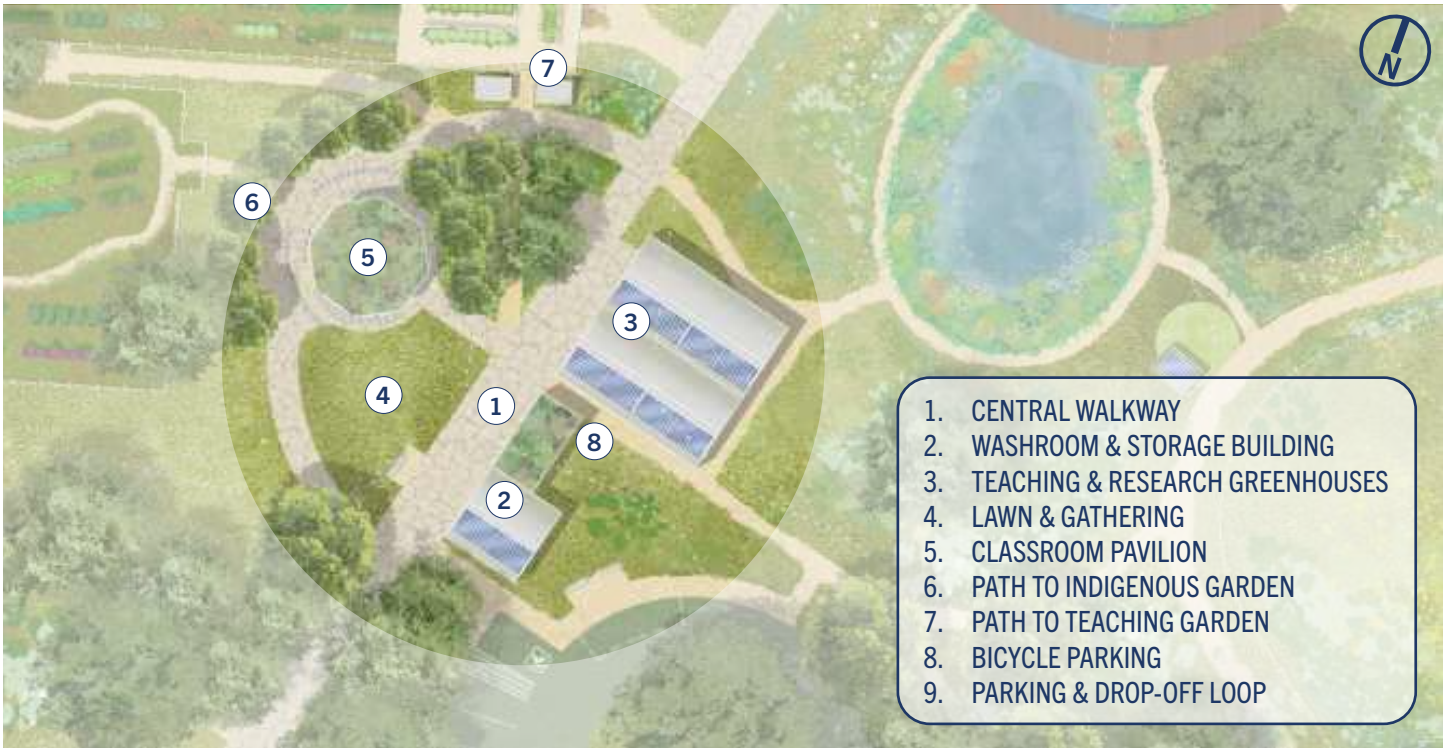
3.2.2 TEACHING HUB

The Teaching Hub is the main activity area of the site. The space has direct access from the campus path entry and drop-off loop, and is located close to the garden spaces, facilities, and other site features. The Hub is anchored around the central walkway, with an adjacent gathering lawn and seating areas which support teaching activities as well as passive use of the Campus Farm. Main site facilities are also concentrated within the Teaching Hub area, clustering buildings and key amenities together.

The structures in the Teaching Hub are the Washroom & Storage Building, the Teaching & Research Greenhouses, and the Classroom Pavilion. Each of these are described in more detail in section 4.3.3. The Washroom & Storage Building serves functional site needs, while the greenhouses provide flexible enclosed space for both teaching and research. The Classroom Pavilion acts as a site landmark and offers the opportunity for more formal teaching experiences, as well as gathering, ceremony, and covered event space.

Main site pathways connect through the Teaching Hub and provide links between each space and supporting access for all users. The central walkway also serves as a route for occasional grounds and facilities vehicles, as well as small delivery vehicle access to the gardens spaces.

Throughout the entire site, and especially within the Hub area, clear wayfinding and signage should help visitors easily navigate the site while also providing educational opportunities related to the Campus Farm (events, site information, ongoing work, etc.).



Running directly through the Teaching Hub, the central walkway provides access to important areas of the site and offers a unique gathering space. The Washroom & Storage Building and greenhouses frame the walkway, creating an agrarian aesthetic and establishing the character of the site's public realm. The Classroom Pavilion is separated from the central walkway but easily accessible.

The Classroom Pavilion is a landmark for the Campus Farm, providing accessible opportunities for teaching, gathering, ceremony, and events. It is intended to be embedded in the site landscape, framed by meadow, lawn, trees and, natural space. The design shown is provided to illustrate intent only - the ultimate form of this pavilion should be the result of a comprehensive process, built on consultation and co-design with the campus Indigenous community and other voices.

3.2.3 INDIGENOUS GARDEN & TEACHING GARDEN

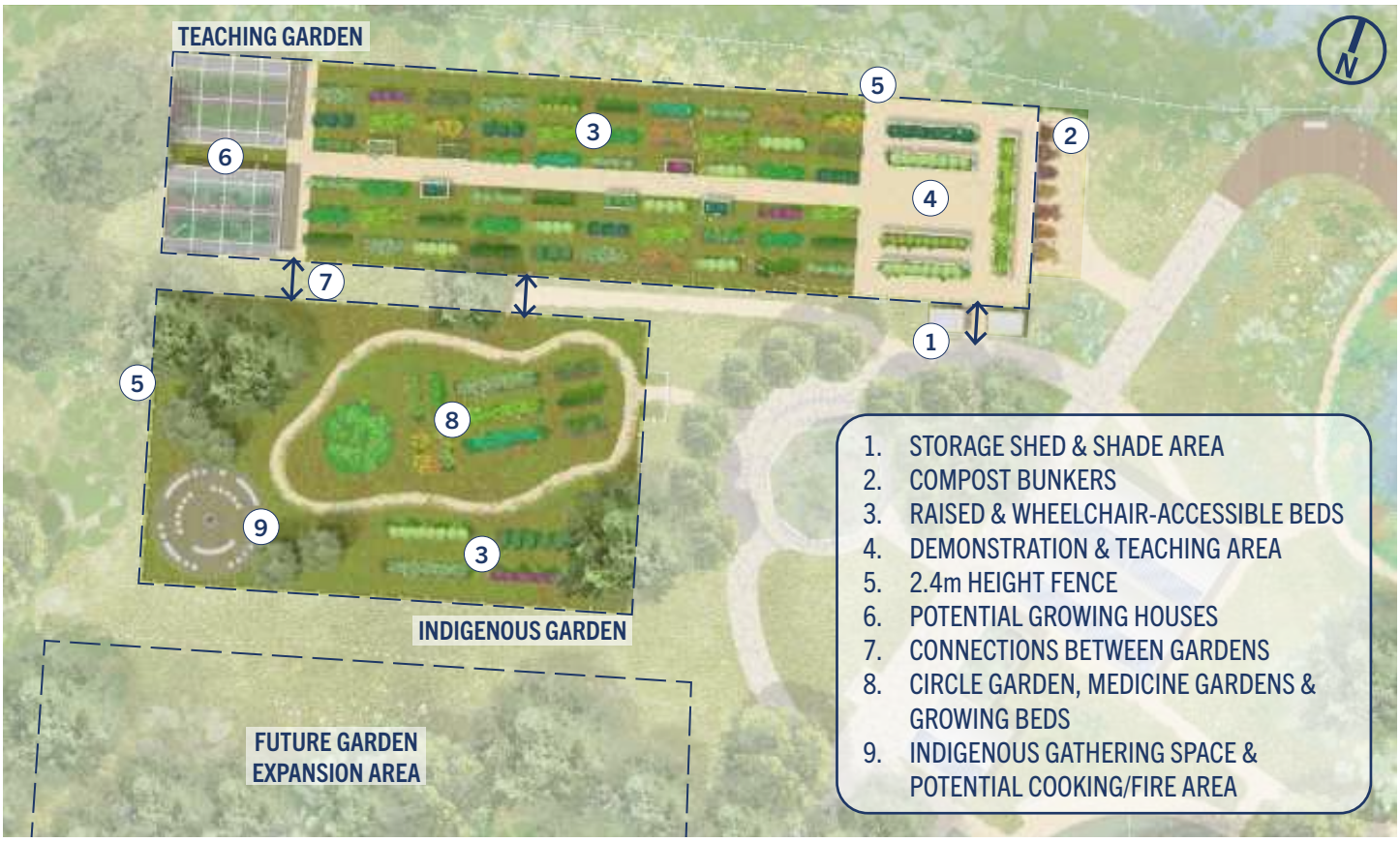
As dedicated growing areas, the teaching and Indigenous gardens are two important spaces at the existing Campus Farm. The Master Plan looks to expand these spaces, providing additional capacity and a formalized, enclosed fenced area. The proposed layout of all planting beds meets or exceeds accessibility standards to ensure the spaces can be used by anyone seeking participation. This layout is also something that can be adapted to different needs and uses as the garden spaces change over time. A more detailed garden layout is provided in section 4.3.5.

The Indigenous Garden area is formed around the existing circle garden and medicine growing beds. While the plan below indicates locations of features in the garden, these are illustrative only, and final locations and selection of features will be determined based on need, and guided by an Indigenous Knowledge Keeper. Space is also provided for a gathering circle, with the potential for cooking/fire facilities in the future.

The teaching garden expands on the existing space, allowing for additional raised planting beds and incorporating space for wheelchair-accessible beds with accessible surfacing and wide aisles throughout the garden. At the west end of the teaching garden, there is space to accommodate potential growing houses (hoop houses) or additional growing beds.

To support distinct access and operation, the two garden spaces are proposed to be fenced separately, with gate connections between them. This connection can supports a small gathering area around an existing, mature aspen tree located between the two spaces. At the east end of the teaching garden, compost bunkers are provided, with a connection for delivery vehicle access via the central walkway and drop-off loop.

As the Campus Farms grows over time, the area south of the Indigenous Garden will allow for future expansion of the gardens or provide space for new teaching areas.

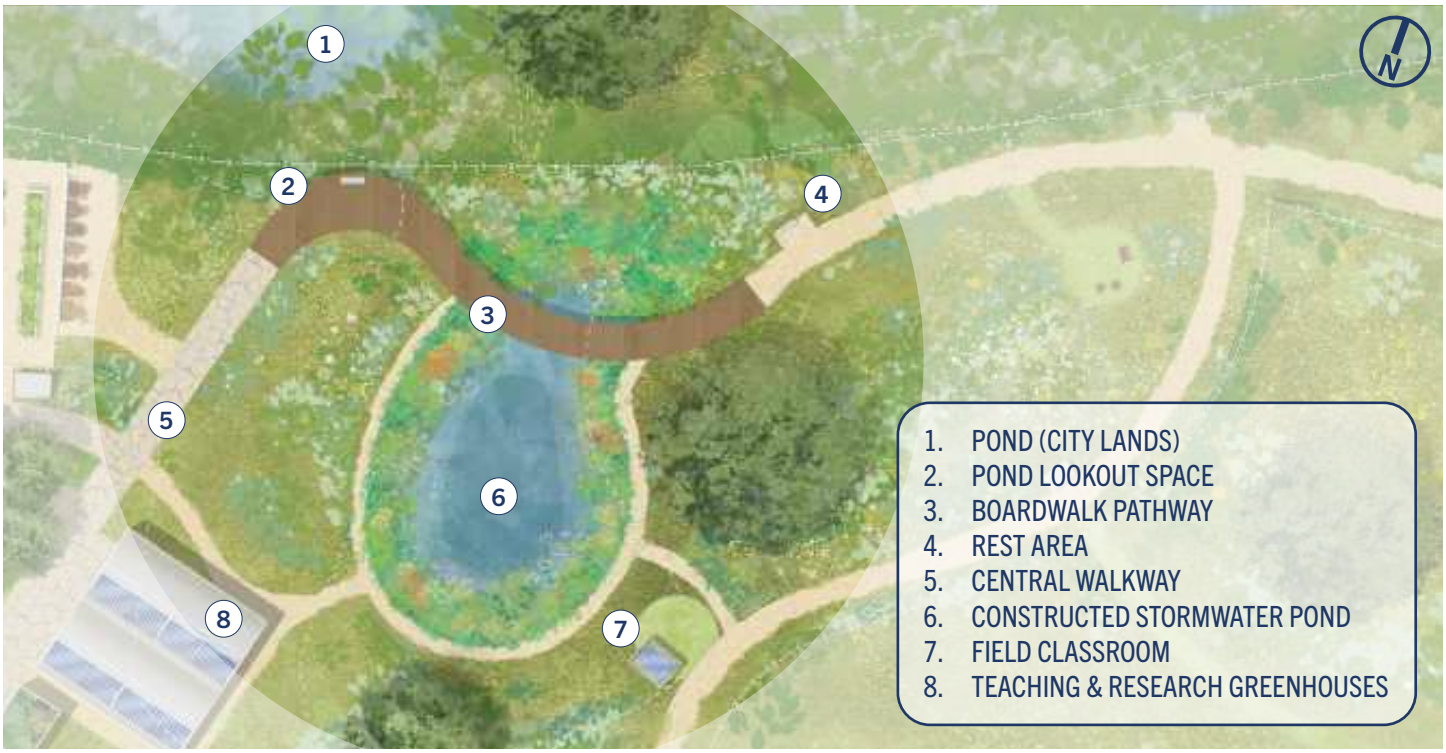


3.2.4 BOARDWALK & POND LOOKOUT

North of the site, the large pond is a remnant of the past industrial use of the area and represents one part of the human impact on the landscape. While the water present is not a natural pond, it supports a number of different species and is a significant feature that partially falls within the Campus Farm land, making it a potential asset to the site.

The boardwalk and lookout create an experiential space that addresses the pond north of the site while floating over the existing site topography. The lookout can be an informal classroom and gathering point, and an interpretive space for site visitors, allowing observation of the pond area (birding, ecology, etc.). Beyond this, the boardwalk and lookout could provide future opportunities to connect with the pond for teaching and research uses.

Adjacent to the proposed boardwalk, there is an existing low-lying area currently overtaken by invasive phragmites grass. In this area, a constructed stormwater retention pond is proposed to provide a possible offline water source and water feature on-site. A potential process for creating the stormwater pond is outlined in section 4.2.2.



3.2.5 RESEARCH MEADOW & PERIMETER PATH

The site is a place of research and a topic of interest itself and research activities can happen throughout the landscape, taking advantage of a variety of natural spaces, features, and areas. The research meadow does not intend to limit work to a defined area but creates a large, unprogrammed and semi-secured zone to host research activities.

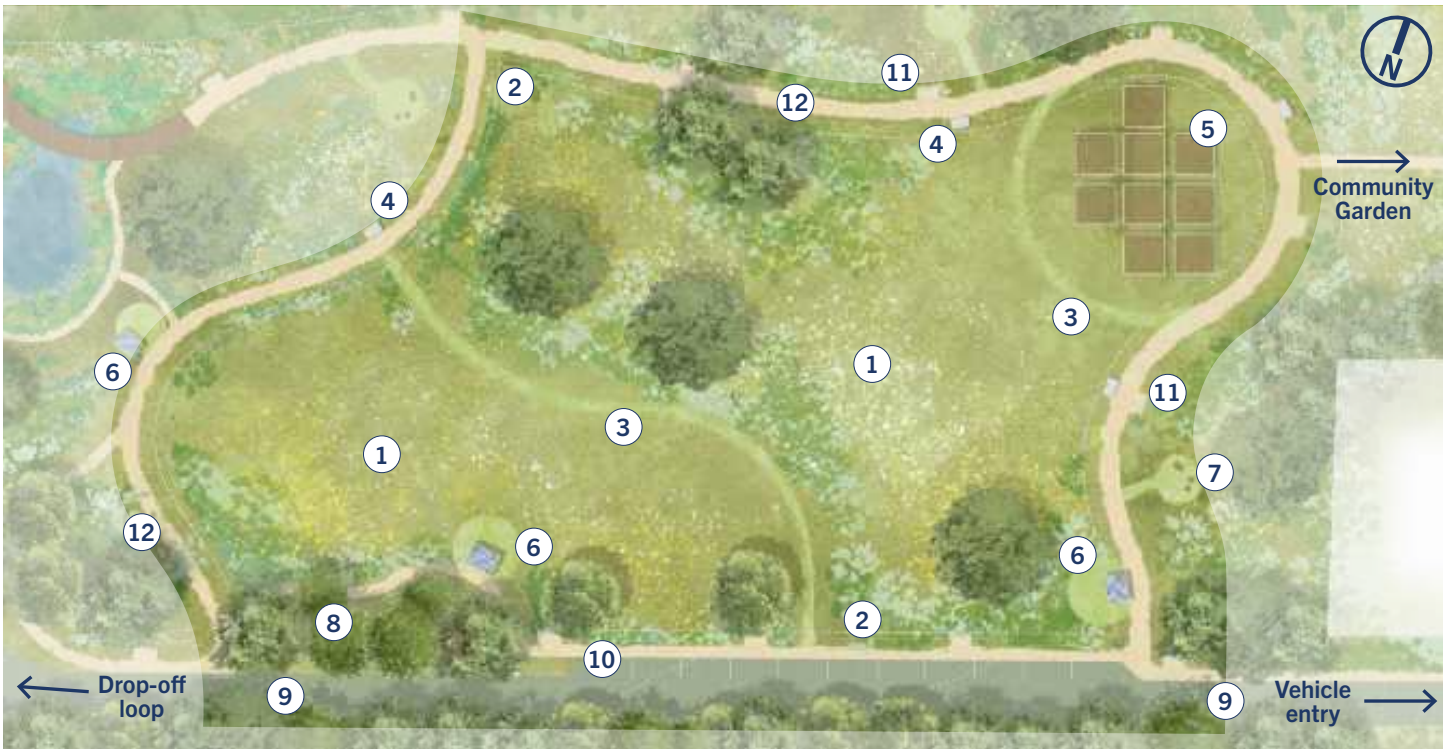
The meadow is defined by a fence that is not intended to restrict wildlife but to separate site visitors from the research space. Within and around the research meadow, experiments and learning opportunities are supported by a series of research kiosks, detailed on page 70-71. These small installations provide storage and workspaces for ongoing and short-term work. More formal outdoor field classrooms are also located adjacent to the research meadow. These spaces offer shelter and resources for classes or events at the Farm.

Circulation within the meadow is intended to be ephemeral, with locations and needs changing depending on the work being done. Mowed pathways with accessible matting can provide access throughout the meadow without the installation of permanent surfaces.

Surrounding the research meadow and connecting the site is the perimeter path. The pathway meets accessibility requirements, providing frequent rest spaces and access around the site. This path also defines the border of the research meadow. At the southern edge of the site, the perimeter pathway becomes a shared laneway, with both accessible pedestrian and vehicle space. Vehicles are limited to research area access and emergency vehicle use, with lay-by parking spaces along the lane.

Through the winter, the perimeter path (and the entire site) presents opportunities for snowshoeing, cross-country skiing, ecology studies, and other cold-season programming.

1. RESEARCH MEADOW
2. 1.5m HEIGHT FENCE
3. MOWED PATHWAYS
4. RESEARCH KIOSK
5. EXAMPLE OF RESEARCH PLOT LAYOUT
6. FIELD CLASSROOM
7. FIELD GATHERING SPACE
8. FOREST GATHERING SPACE
9. VEHICLE LANEWAY
10. LAY-BY PARKING (11)
11. REST AREA
12. PERIMETER PATH



Walking along the perimeter pathway, site visitors can learn about the ongoing work in the research meadow through interpretive signage, while fencing separates them from the work itself. Within and around the research areas, small kiosks are located to best support students and faculty with storage, equipment and workspace directly in the field.

Offering opportunities for learning in the landscape is an important part of the Campus Farm. The field classrooms provide spaces embedded in the site that can support an informal classroom setup with movable desks and chairs, and provide shelter for small events and gatherings.

The Campus Farm provides a variety of spaces to connect people with the landscape, and this is an important part of the site plan. The forest gathering space provides a series of accessible platforms within a successional aspen forest that can grow around the space over time. Surrounded by nature, the area might be used for classes, passive recreation, meditation, and emergent activities of interest such as forest bathing.

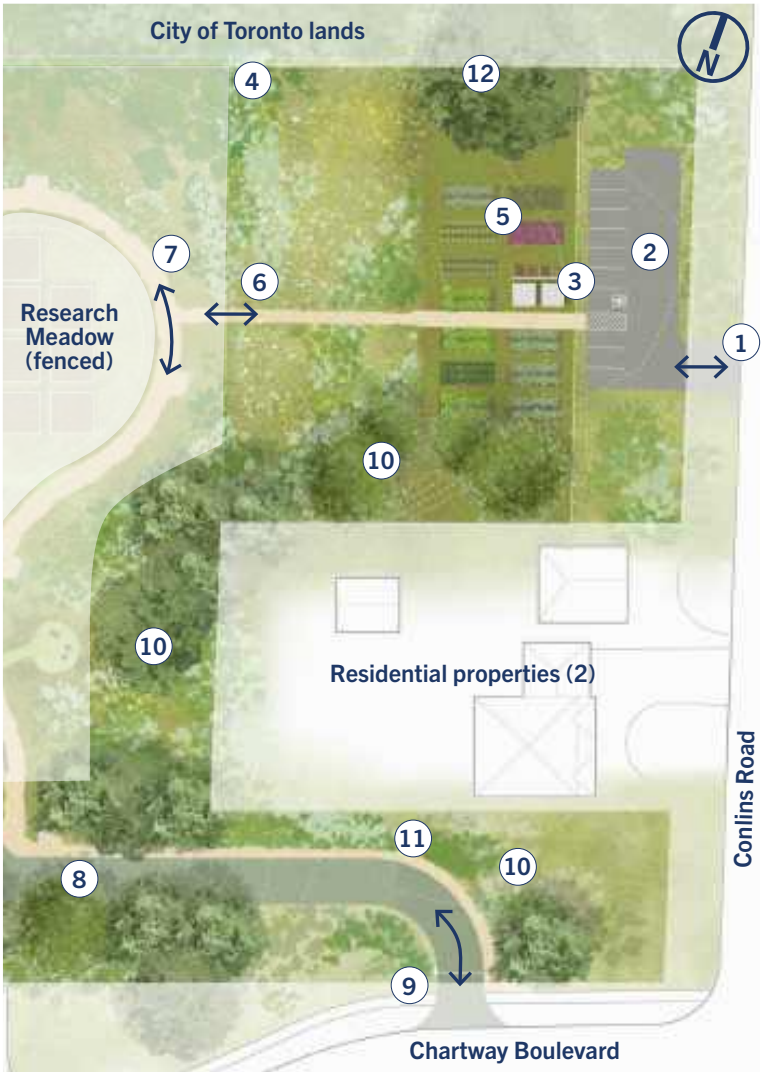
3.2.6 UTSC COMMUNITY GARDEN & VEHICLE ENTRY

The eastern edge of the site, along Conlins Road, is a community-facing space, providing access and amenities both connected to and distinct from the rest of the Campus Farm. The north and south areas on this edge are also divided by two existing residential properties.

The southeast corner of the site, at the intersection of Conlins Road and Chartway Boulevard provides the main vehicle driveway to the site. This area also includes a pedestrian pathway linked to the sidewalk along Chartway. This entry would curve through an area of regenerative native meadow planting, with interpretive elements that provide information about the Campus Farm, local ecology and history of the area (refer to section 4.3.9). The driveway would be sized to allow emergency egress, with a turnaround at the site drop-off loop. Access to the site from this entry can be controlled with a gate and potential, parking control gates.

In the northeast corner of the Campus Farm lands, a new UTSC Community Garden space is proposed. This gently sloping square of land is 0.4-hectares in area and can accommodate a large number of beds (dependant on size and configuration). The garden will be fully fenced with gateway access to the perimeter pathway and is served by a 10-car parking area, including two accessible spaces. A municipal water service is also proposed for the garden.

The garden space is anchored by a mature red oak tree, creating a focal point and gathering area on-site. The land in this area will require remediation, including the removal of invasive species and tree management work. Overall, this space offers an opportunity for a community-focused garden that can be physically connected to the Campus Farm space and activities.



1. COMMUNITY GARDEN ACCESS FROM CONLINS ROAD
2. COMMUNITY GARDEN PARKING AREA
3. STORAGE SHEDS & COMPOST BUNKERS
4. 2.4m HIGH FENCE
5. RAISED & ACCESSIBLE GARDEN BEDS
6. GATEWAY ACCESS TO PERIMETER PATH
7. PERIMETER PATH
8. VEHICLE LANEWAY
9. MAIN VEHICLE ENTRY GATE
10. MEADOW & BUFFER PLANTING ADJACENT TO RESIDENCES
11. PATHWAY CONNECTION TO CHARTWAY BLVD.
12. EXISTING RED OAK TREE

The fall landscape of the Campus Farm with a mature red oak tree on site.

View looking north to the city pond from the Campus Farm site.

4. IMPLEMENTATION

4.1 STRATEGY

The plan for the Campus Farm is intended to be achieved over time, and, along with the overall organization of the site, it identifies the specific projects and works needed, as well as a potential phasing sequence to see the space fully realized.

As resources are available to begin work, specific projects will require additional engagement and outreach, as well as detailed design to prepare for the construction of each piece of the overall Campus Farm Master Plan.

4.1.1 IMPLEMENTATION CONSIDERATIONS

The overall implementation of the Campus Farm will be guided by a series of approaches, directions, and considerations, as included in sections 4.2 through 4.9. Each of these sections provide guidance on how to achieve the overall site plan and the intended function of the space.

Critical to site development, environmental approaches are discussed to establish a stronger, regenerative perspective to working with and on the land (section 4.2). These approaches are a foundation for the overall site development. At a more detailed level, design directions add a specific level of guidance to features and spaces throughout the site (section 4.3).

Planning considerations, maintenance, governance, and community connections are also included (sections 4.4 through 4.7), and outline the potential actions and outcomes needed to implement the Master Plan.

The final sections discuss a potential phasing plan for the site, with short-, medium-, and long-term time horizons, as well as a series of next steps to begin overall implementation (sections 4.8 - 4.9).

4.2 ENVIRONMENTAL APPROACHES

As a living landscape, the site is influenced by a number of environmental factors that impact how it is used today and how it may be used in the future. These factors are both constraints and opportunities for the site, providing conditions that can support knowledge building and sharing on the land. Additional site sectors and influences are described in section 2.0, but this section focuses on three key factors that are critical to how the site will evolve into the future: soils, water and vegetation/ wildlife. Each of these are discussed in terms of how they will be approached, actions that can be taken, and potential indicators too see how they may change over time.

4.2.1 SOILS

The site soils provide some of the most significant challenges and opportunities for the Campus Farm, and are foundational to both the Master Plan and the success of the site's development over time.

A critical challenge presents from the historic use of the site for dumping. Soil studies have found pockets of heavy metal contamination that is similar to what is found at many peri-urban and urban post-industrial sites in the Greater Toronto Area. Risk levels are considered generally low for environmental and human health, under the assumption that food is not produced for consumption. With what is known and advised, and following precautionary principles around what may not be known, the University has concluded that any food grown for consumption must be grown in raised planters, as per current best practices.

The state of the soils presents opportunities for research, education, regenerative soil health activities, and healthy community engagement activities. As in similar projects around the world, research, practices and strategies that regenerate soil health at the site can be interwoven with learning and community engagement for an enriched experience at a Campus Farm - including but not limited to social, ecological, and personal. Moreover, UTSC has an opportunity to cultivate a culture of stewardship and connection to the land as a vital part of the overall campus experience, and especially within study programs. This should be reinforced through ongoing academic and community engagement.

APPROACH

Regenerative soil health should be a primary basis for organizing farm lands design and development. Given what is currently known and assumed about the site, limitations and requirements for the immediate future are that:

- nothing can be grown for consumption directly in the site soil anywhere on site;
- any 'edible' plants grown directly in site soil may be used for research purposes, but not for consumption;
- food grown for consumption must be grown in raised planters;
- raised bed planters must have a protective barrier to block food plant roots from the soils below;
- signage around the site should clearly inform people of the state of the soils and what is safe to harvest and eat; and
- all site work must follow the guidance of Ontario Regulation 406/19, under the Environmental Protection Act: On-Site and Excess Soil Management.

Beyond the baseline restrictions, opportunities exist for the development, care for and use of the land through soil regeneration and remediation. At minimum:

- When needing or choosing to disturb or improve soil (e.g., for making permanent pathways, to regenerate soil in areas) and where the goal is to keep the land in grass meadow, wildflowers, and/or ground covers:
  - use cover crops to cover and build bare soil, using a minimum of three species of cover crop and two rounds of cover cropping per year; or
  - seed a native perennial permanent ground cover mix.
- Mow on a 1-5 year cycle to remove woody and unwanted plant material.
- Design and implement a soil test regime to monitor the baseline and evolution of soil contamination, soil health and soil regeneration data and indicators over time.
- Implement an invasive species management and implementation plan to support soil diversity and health.

Additionally, consider:

- adding insectary or pollinator strips along the edges to increase habitat for insects and bees;
- restoring wetland patches by removing invasive vegetation; consider planting rain gardens and / or replanting with native plants to boost ecosystem services to the site;
- mycoremediation or phytoremediation in contaminated areas to break down and neutralize contaminants (this can occur as a long term remediation to counter ongoing influences from the adjacent pond and landfill or as part of research activities); and
- developing and supporting community engagement programs around soil regeneration and remediation.

POTENTIAL PROJECTS & ACTIONS

Simple patch projects (from bare soil condition, research, hands-on teaching/community engagement):

- Identify the location of bare soil patches before or as they are created through path building or through the removal of invasive species.
- Plant with a mix of cover crop seed to build soil; replant, up to twice a year.

Patch seed ball experiments (bare soil, hands-on teaching / community engagement):

- Use seed balls (a mix of clay, compost and seed) with cover crops or native perennials in areas where watering is difficult or unlikely.
- Identify which seed balls are more effective than direct seeding and proceed to use for larger areas.

Phytoremediation/mycoremediation trials:

- Select and grow plants with bioaccumulative properties. Consider that plant material with toxins taken up into plants will likely need to be removed from the site in order to remove the toxins.
- Select and grow mycelia with detoxifying properties where conditions allow.
- Consider implementing companion planting strategies; introducing microbial amendments and bioaugmentation; and including community educational initiatives.

Design for research, teaching and learning

Research opportunities are plentiful and can both help regenerate soil, as well as increase the University's ability to contribute to land regeneration conversations in academia and publicly. At minimum, the University can encourage the ongoing development of a coordinated research approach to the land with some attention to:

- ecosystem regeneration[1] in urban ecosystems with soil and water;
- in situ soil remediation studies and strategies for urban sites;
- crop uptake of contaminants - both as part of phytoremediation and food production;
- carbon sequestering; and
- small- to medium-scale composting for use on site and or for community use.

Community education initiatives

Invite community to participate in activities including:

- invasive species removal, seeding cover crops and perennial seeds;
- seed ball making and distribution;
- soil biodiversity counts and mapping; and
- sheet mulching; planting into garden beds and along edges of paths.

INDICATORS

Indicators related to soil biodiversity and health should build on existing baseline data and evaluate how changes to soil health happen over time. This should include impacts of the Master Plan implementation, and address soil biodiversity (e.g., earthworms, insects, fungi, microbes, etc.) and ecological carrying capacity indicated by plant species spread and diversity on-site. Pond and groundwater ingress to the site from the adjacent closed landfill should also be considered as these water sources could be potential contributors to ongoing contamination.

From these baselines, ongoing monitoring, project research, and scientific investigation can track changes, seek improvements to soil conditions, and provide opportunities for community outreach. Ideally, improvements are made over time to support the future potential for use of site soil without the need for raised beds to produce consumable food.

Potential measurable outcomes:

- Increased soil carbon and other nutrients to healthy ecosystem or agriculture levels, depending on the soil use.
- Reduced contamination in affected areas.
- Ecologically sound and holistic contaminant removal (i.e., the contaminant end-point should not result in contamination of another site).
- Increased ecological carrying capacity in areas planted with native species, along with a reduced presence of invasive species.

[1] Supporting the development and regeneration of a "living, evolving and naturally functioning environment where abundance and resilience are recurring outcomes of its underlying health" or a living system as defined in UTSC Landscape and Public Realm Master Plan, 2022.

4.2.2 WATER

Understanding how water moves through the site will be an important consideration as the Master Plan is implemented. This section outlines what may happen in order to respond to and address water on-site, including surface water, adjacent water bodies, and groundwater. This section does not discuss connections to municipal water services (see section 4.3.7).

APPROACH

There is a desire to better understand the water on site, and to seek opportunities to investigate the potential of using site-sourced water for teaching and research at the Campus Farm. The City-owned pond north of the site (which partially falls within the site boundary), surface water and run-off, as well as groundwater each offer resources for potential study and use.

Several previous background studies have informed the approach to site water (listed on page 22). This approach is not intended to be a permanent direction, but is the current course of action based on available information. Ongoing monitoring and specific studies will be needed as the Master Plan is implemented and should be used to champion research initiatives and potential grant opportunities.

The water is inherently connected to many factors, with one of the most important being soil conditions. As discussed in section 4.2.1, the approach to soil on site is precautionary, and this also informs the approach to site water. Generally, the approach to site water should align with the following:

- There is limited understanding of the pond, which is primarily located on City lands north of the site. There is anecdotal evidence that this water may be a source of contaminants from dumping of road snow and its meltwater, as well as soil contamination. Based on current understanding, the pond water must not be used on-site. Opportunities to test, monitor and evaluate potential future uses of this water can be explored through UTSC-led research activities and professional, third-party investigations.
- Site stormwater runoff is limited as a result of the heavily vegetated condition of the landscape. As the site is developed, there may be potential for collection of stormwater from site features. Based on the approach to soils, any surface runoff should not be used for irrigation of any food for human ingestion. Rainwater for irrigation of food may be collected from building roofs and other pathways that do not come into contact with site soils.
- The Master Plan includes the potential for a stormwater retention pond. This feature would be located in an existing low area and be part of a sequential project that would remove existing phragmites and establish a new, lined pond with the opportunity to isolate the pond water from the site soils. Use of the pond would require constant monitoring to evaluate how the water can be used and new information at the time of implementation may further determine feasibility of this approach.
- Previous scientific investigations have provided a preliminary understanding of groundwater movement and condition at the Campus Farm site. While these studies did not reveal significant concerns, continued monitoring and regular evaluation should be conducted at the site.

A series of potential projects and actions related to site water are outlined on the following page.

POTENTIAL PROJECTS & ACTIONS

As a leading academic institution with specialized programs in environmental sciences, chemistry, and biology, among others, UTSC is positioned to view the Campus Farm as space with opportunity for 'real world' research and the potential to enrich and better understand the environmental conditions of the site.

The projects and actions noted below are important pieces in the evolution of the site over time. These are intended to be realistic steps that can be taken to address water impacts on the site as well as to develop and share knowledge learned from ongoing and future work.

- Seek opportunities for research focused on the Campus Farm site to better understand subsurface water conditions.
- Establish a baseline for groundwater monitoring at the onset of the Master Plan and integrate this monitoring and data collection to understand changes to groundwater over time, in parallel with implementation of the Plan.
- Partner with the City to collect water quality data about the pond north of the site and determine its potential impacts on the Campus Farm. Establish monitoring of the pond water and integrate research opportunities to explore if and how this water could be used.
- After current phragmites research work concludes, and in tandem with its removal and control, establish a stormwater pond to collect water for potential irrigation uses.

INDICATORS

Following the approaches and actions listed for water, indicators for improvement should be established from baseline data for the pond water, groundwater and site runoff (future stormwater pond). From these baselines, ongoing monitoring, project research and scientific investigation can track changes and seek improvements to water conditions. This monitoring should also coordinate with the implementation of the Master Plan. Ideally, improvements are made over time to support the potential for future use of site water.

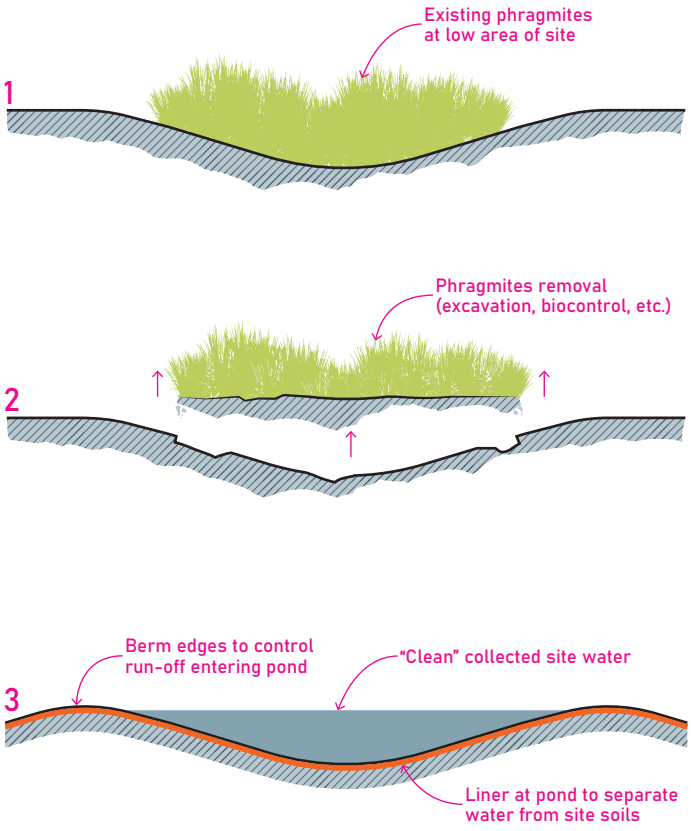


Diagram of potential sequence to establish the site stormwater pond with phragmites removal. Removal may be through various methods, not necessarily excavation.

4.2.2 VEGETATION & WILDLIFE

The landscape of the Campus Farm supports a diverse ecosystem of plants, animals, and other living things. This diversity includes both native and adapted species as well as invasive organisms that influence the site and how it will function and grow over time.

APPROACH

Through the implementation of the Master Plan, the biodiversity and ecological communities on-site will be enhanced. All work must consider whether this is being fulfilled.

Almost the entirety of the site is layered in vegetation characteristic of early successional growth, with fast growing tree species and a large areas of mixed meadow. Several invasive terrestrial plant species (as listed by the Ontario Invasive Plant Council) are also present on the site, inhabiting large areas and continuing to spread. Phragmites, dog-strangling vine, common buckthorn, and purple loosestrife are all established. Management of these species is critical to improve biodiversity and support full use of the site. There are a number of native or desirable species present on site as well, along with native toxic plants, including poison ivy.

Wildlife that live within and move through the site are essential members of the site community. As implementation of the Master Plan unfolds, opportunities to better understand the wildlife that interacts with the site as well as how, where, and when they use it should be explored. A variety of bird species (e.g., songbirds, raptors), mammals (e.g., white-tailed deer, rabbits), and other soil life (e.g., arthropods, nematodes) are found within the landscape, and this diversity should ultimately be enhanced through any work taking place on site.

As implementation occurs, the following approaches related to vegetation and wildlife should be addressed:

- Invasive species are a concern, and the site acts as a nursery for the proliferation of aggressive invasive species including phragmites, dog-strangling vine and purple loosestrife. This condition as a seed source impacts the site itself as well as the surrounding landscape. Management measures are needed, which may include mechanical and chemical treatment, following best practices.
- Ongoing research projects on site are exploring mitigation measures for invasive species (phragmites biocontrols, for example). These research projects should continue, with additional exploration into management techniques to improve site biodiversity. To support this, invasive species may exist on site; however, where research is not occurring, the spread of these invasive species should be actively controlled.
- The site is an example of an urban/peri-urban ecosystem, a typology that exists throughout the GTA. This site condition is an opportunity for teaching and research work to understand how these landscapes function and their role in the greater landscape.
- Many of the existing trees on site are fast-growing, short-lived early succession species, including willow, aspen, and sumac. Strategies for tree succession planting should be explored in order to plan for and establish the future condition of the site.
- Given the known history of the site and data on soil contaminants showing reasonable cause for concern in some site locations, the precautionary principle invokes a strong cautionary edict: plants that are grown directly in site soil should not be ingested by people for the foreseeable future. Monitoring and investigative work should be conducted to evaluate whether this restriction may change over time, with studies focused on understanding plant bioaccumulation of contaminants and the influence of impacted site soils on edible vegetation.

- While animals are welcomed on-site, some spaces will need protected from terrestrial mammals. Growing area (teaching, Indigenous, and community gardens) will include deer fencing and barriers to prevent damage to growing beds.
- In establishing new planting areas and vegetation communities, wildlife should be considered, ensuring opportunities for habitat creation, protection and enhancement are explored. This approach may support partnerships with UTSC faculty for teaching and learning across the site.

POTENTIAL PROJECTS & ACTIONS

Various scales of intervention can support vegetation and wildlife, with opportunities to involve students, faculty, staff, and the greater community. While the management of invasive species is a challenge, it is also an opportunity for knowledge sharing and education about the land. Any project can be directly supported by the land and work to ensure its wellbeing. The list below represents examples of potential projects and actions that could help to implement a thriving Campus Farm site.

- Complete baseline vegetation surveys of the site and all existing plant communities.
- Continue to monitor wildlife that use the landscape to feed, breed, nest and rest. Develop baseline data to monitor and evaluate change over time. This work should build on previous research.
- Plant of a variety of native woody and herbaceous species to evaluate how they are impacted by site soils. This should be tied to academic research and be supported with resources as a long-term project.
- Provide interpretive education about site vegetation and wildlife through signage and outreach. Highlight site ecology as well as the realities of invasive and noxious species. The site is an opportunity for people to connect with the land and learn about the a site in this context and condition.
- Evaluate how various edible plants grow in site soils (bioaccumulation). This work should be done in isolation from teaching areas where the edibles produced are for research testing only, not for consumption.
- All existing edible plants grown in site soils (orchard trees, etc.) are for research only (see page 92/93), and must be signed as “not for consumption,” protected by fence, or removed.

INDICATORS

Indicators related to vegetation and wildlife on site should build on baseline data, and evaluate how changes to ecosystem health happen over time. This should include evaluating the impacts of the Master Plan implementation, specifically addressing biodiversity, control of invasive species, site use by wildlife, and habitat availability on-site. These indicators provide opportunities for evaluation through class-specific work, research projects, and community outreach.

Dense patch of existing phragmites.

White-tailed deer are active on-site (B. Lego).

4.3 DESIGN DIRECTIONS

The design directions are intended to inform the implementation of site elements, the overall site character, materials, features, and services at the Campus Farm, providing consistent guidance to the overall site and landscape. Detailed design decisions should respond to these directions while allowing for additional input, engagement and consultation as pieces of the Master Plan are implemented over time.

The categories of design directions included in this section are:

4.3.1 SITE CIRCULATION

4.3.2 SITE ACCESS

4.3.3 BUILDINGS & STRUCTURES

4.3.4 GATHERING & REST SPACES

4.3.5 GARDENS & GROWING AREAS

4.3.6 HEALTH & SAFETY

4.3.7 SITE SERVICES

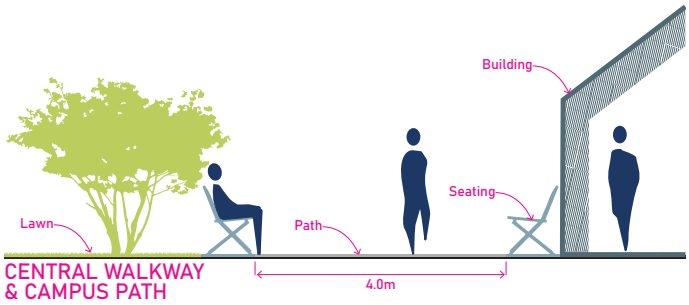
4.3.8 PLANTING

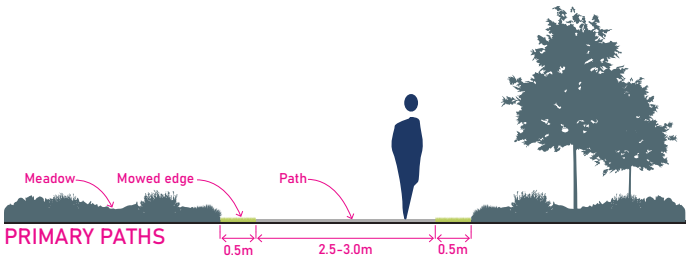
4.3.9 PLACEMAKING & LEGIBILITY

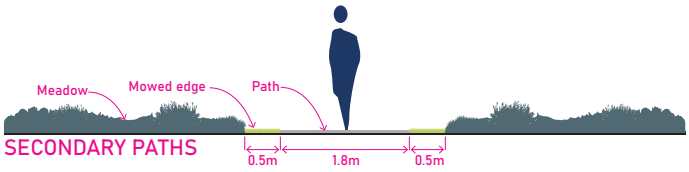
4.3.1 SITE CIRCULATION

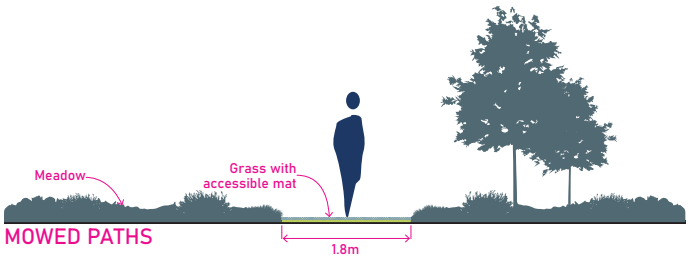
PATHWAYS

The addition of pathways and circulation to and through the Campus Farm is the most significant change to the site, allowing improved accessibility throughout the entire landscape and helping to organize various uses and zones. The pathways should respond to the directions below and follow a hierarchy of width, materials, and structure. The pathway system at the Campus Farm reflects the unique quality of the space while presenting a clear identity and experience on site. A map of site circulation is presented on page 58/59.









Design Directions

- All paths to meet University of Toronto Facility Accessibility Design Standards (UTFADS), with attention to slope and drainage. These standards may exceed AODA requirements.
- Pathways will use permeable surfaces throughout the site. Typical site pathways to use stabilized aggregate surfaces or resin-bound aggregate.
- Central walkway and primary pathways to support winter maintenance. Secondary pathways may be winter maintained as required, depending on seasonal needs for access.
- Materials must provide smooth surfaces, free of catch points, tripping hazards.
- Pathways should accommodate vehicular access for maintenance vehicles.
- At the north edge of the site, a section of boardwalk is proposed over a low area and future stormwater pond. The boardwalk should achieve the same performance standards as other pathways, with necessary edge protection and railings.
- Mowed pathways may be used to provide seasonal and temporary access to areas within the research meadow or other spaces. Accessible matting should be installed on these paths to maximize accessibility.
- Where pathways and shared spaces are not winter maintained, consider using the circulation system for winter recreation, including skiing and snowshoeing.

VEHICULAR SPACE, VEHICLE PARKING & BICYCLE PARKING

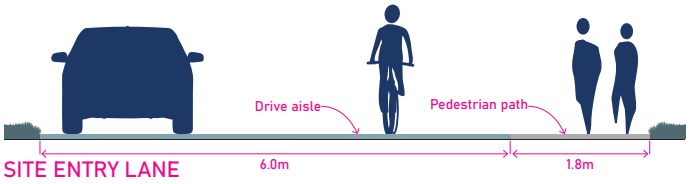
While the Campus Farm is intended to minimize vehicular routes through the site, providing access is critical in order to support site use and to allow for drop-offs, deliveries, and facilities maintenance. It is expected that vehicle access will be controlled and limited, with the main Campus Farm entry drive coming into the site from Chartway Boulevard.

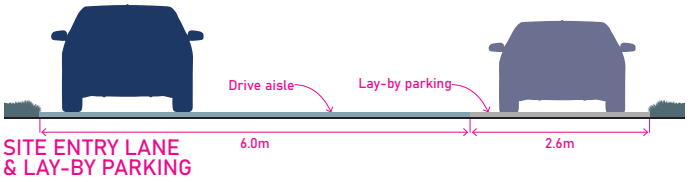
Vehicular parking is limited, with a minimal number of spaces provided while ensuring accessible parking is available. One parking area is located at the drop-off loop, with another supporting the Operations Building. A separate parking area is designated for the community garden in the northeast corner of the site along Conlins Road. Lay-by/parallel parking is provided along the entry lane, allowing parking near the research meadow.

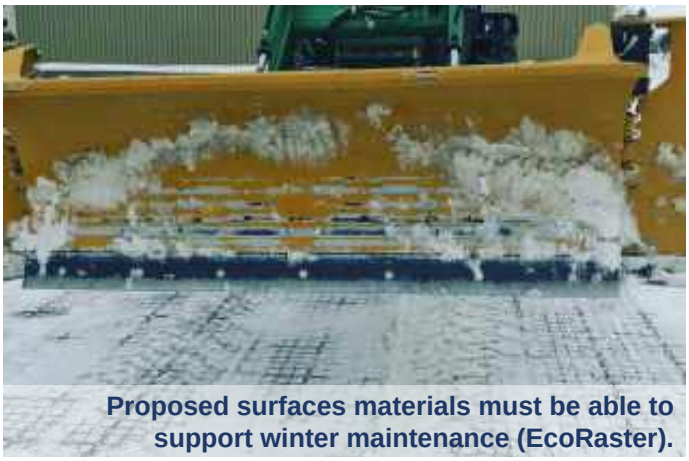
Bicycle parking and shared driving lanes will support improvements to active transportation connections, and bicycle access/storage.

Design Directions

- Provide parking throughout the site as noted in the map on page 58/59, including the drop-off loop, lay-by parking, Operations Building, and Community Garden.
- Driving access should accommodate emergency vehicles accessing the site, including proper weight capacities, turning radii and lane widths.
- Vehicular surfaces should be made of stable, permeable materials, avoiding concrete and asphalt. Options may include crushed aggregates, stabilized aggregates, and cellular paving systems. Where impermeable surface are unavoidable, runoff should be directed to infiltration areas (rain gardens, bioswales) on-site.
- Parking spaces to meet UTFADS.
- All driving areas will be winter maintained.
- Bicycle parking should be provided along the central walkway and throughout the site, along pathways, at classrooms, and at all gathering spaces.







Proposed surfaces materials must be able to support winter maintenance (EcoRaster).

Bicycle parking should extend throughout the site with 'hitching posts' along the paths (Streetlife).

CAMPUS FARM PATHWAY CHARACTER

Accessible matting can be placed on mowed pathways to improve mobility short-term (GrassMat).

Stabilized aggregate pathways winding through an extensive meadow space (OJB Landscape).

Resin-bound aggregate surfaces provide a firm and stable, permeable surface (ProPave).

Resin-bound aggregate allowing water to move through the surface and into the soil (Romex).

Stabilized aggregate walkways support multiple uses and accommodate the potential for vehicle access.

Accessible low boardwalk with observation areas (University of Guelph).

SITE CIRCULATION MAP

- CENTRAL WALKWAY AREA (4.0 - 4.5m)
- CAMPUS PATH (4.0m)
- PRIMARY PEDESTRIAN PATH (2.5 - 3.0m)
- SECONDARY PEDESTRIAN PATH (1.8 - 2.5m)
- MOWED PATH (1.8m)
- GARDEN PATH (2.1m)
- PRIMARY VEHICULAR ACCESS
- OPERATIONS BUILDING/FACILITIES LANEWAY
- 4 VEHICLE PARKING (WITH NUMBER OF SPACES)

4.3.2 SITE ACCESS

SITE ENTRANCES & VEHICLE ACCESS

The Master Plan proposes two primary site entries as well as secondary and tertiary access points. All accesses are intended to be secured, supporting the ability to fully close the Campus Farm. Information related to site security is provided in section 4.3.6.

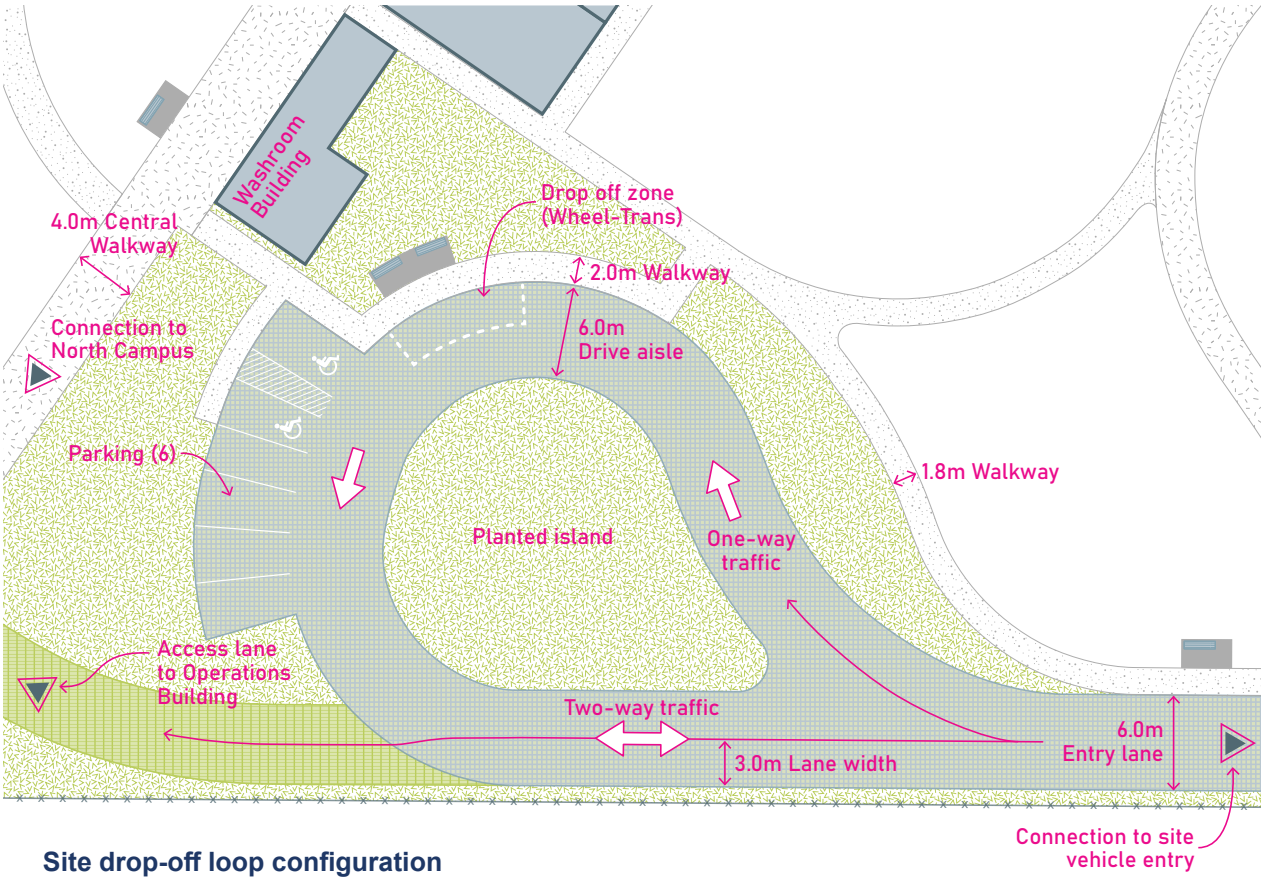
The first primary access is connected to Chartway Boulevard in the southeast corner of the site, and supports vehicle and pedestrian traffic (see map, page 62/63). This access also connects to the drop-off loop and site parking, highlighted below. Another primary access is in the southwest corner of the site, and provides a pedestrian connection to the North Campus precinct and future campus development (i.e., Fieldhouse, New Military Trail). This access also supports service vehicles and equipment.

A secondary gated access point is designated at the Community Garden Space, allowing a connection from this area to the greater Campus Farm.

Tertiary gated access points are designated around the perimeter of the site and are intended to support maintenance and operational access only.

Design Directions

- Main and secondary entrances should be clearly marked with a designated entry name/ number and wayfinding signage.
- Tertiary entries may be subtle and numbered for use by Grounds and Facilities staff.



Site drop-off loop configuration

FENCING CONTROLS

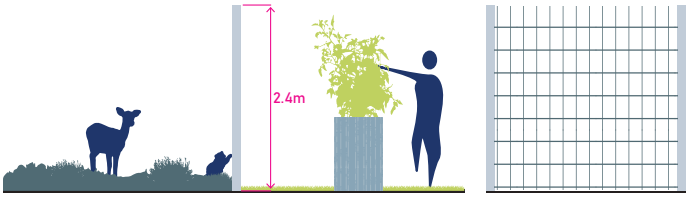
The Campus Farm site is intended to provide an open experience, similar to the rest of campus, where visitors can access the site and move through as a semi-public space. A hierarchy or fencing is used to designate areas of open access (semi-public) and limited access. Limited access areas may support sensitive activities on-site, including research and growing, and may also protect visitors from on-site hazards.

Three levels of fencing are provided: site perimeter fence, garden area fence, and research fence. Locations of fencing are shown on page 62/63.

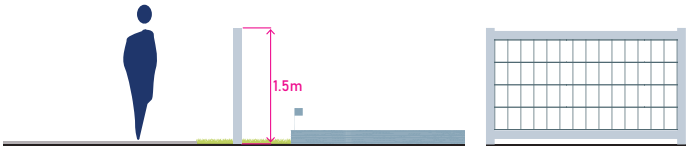
Design Directions

- As of publication of this plan, a perimeter fence exists around the site. The 1.5-1.8 m high galvanized chain link will be maintained in most locations but relocated in others to accommodate site features. Proposed changes also includes the addition of new gates and access points.
- Internal to the site, garden spaces require higher fencing to protect growing spaces from wildlife. At garden areas, 2.4 m height non-climb galvanized fence is proposed on cedar post and frame. The Teaching Garden, Indigenous Garden, and Community Garden would each be enclosed with this fencing type. Gate access would be controlled and locked to provide designated access to specific site users.
- The Research Meadow is surrounded by a 1.5 m height non-climb galvanized fence on cedar post and frame, matching the finishes at the garden spaces. This fencing is not intended to prevent wildlife access but to define a distinct research area, prevent people from wandering into the space, and provide a layer of protection for ongoing work. Additional fencing may be required for specialized research projects and can be added in the future. Gate access will be locked with access granted to those conducting or visiting research.

SITE PERIMETER FENCE



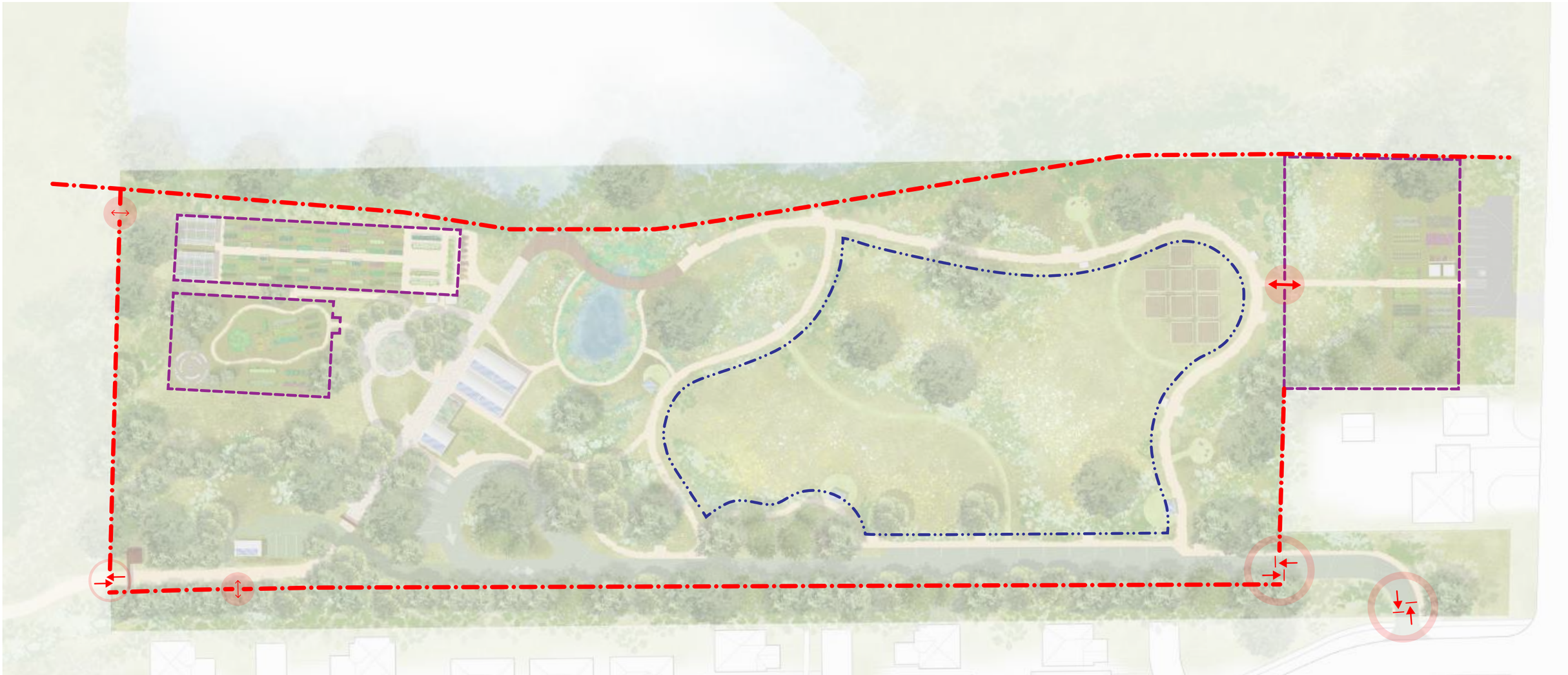
GARDEN AREA FENCE



RESEARCH AREA FENCE


Simple agricultural fencing materials support ease of maintenance and tested durability.

SITE ACCESS & SECURITY MAP



SITE PERIMETER FENCE (EXISTING)

RESEARCH AREA FENCE

GARDEN AREA FENCE

PRIMARY SITE ENTRANCE (POTENTIAL GATE, PARKING ARM)

PRIMARY SITE ENTRANCE & CAMPUS CONNECTION (GATE)

SECONDARY SITE ENTRANCE (GATE)

TERTIARY SITE ENTRANCE (GATE)

4.3.3 BUILDINGS & STRUCTURES

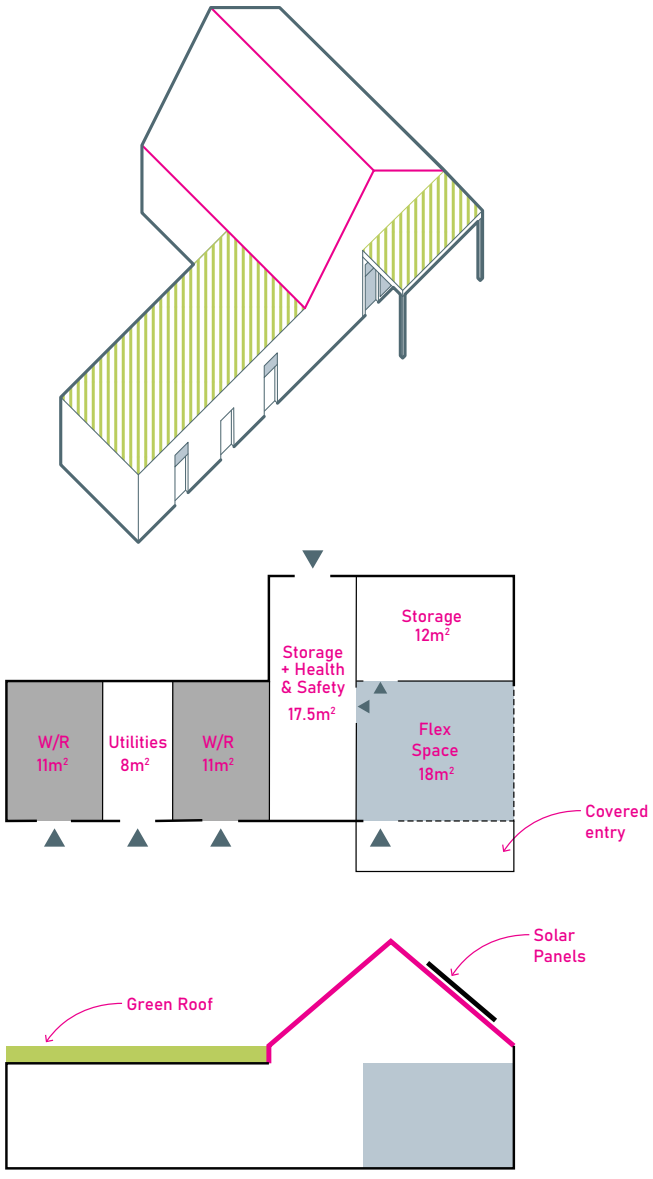
A number of buildings and structures are located throughout the Campus Farm, all intended to support site programming and to provide core resources to staff and site users. A map showing the locations of the buildings and structures is provided on page 72/73. While general typology and building uses are outlined below, further investigation, consultation, planning and detail work will be needed to determine the building design. Overall, the character of buildings should be consistent across the site, using a repetition of materials and forms.

WASHROOM & STORAGE BUILDING

As the main site structure in the Teaching Hub, the intent of this building is to provide key amenities and services to the Campus Farm, including universal washrooms, utilities space, health and safety equipment, and general storage/flex space. The building is schematically shown with a one-storey, 78 m^2 footprint.

Design Directions

- A minimum of two barrier-free washrooms are required, with a shared utility room.
- Storage spaces in the building would be used for health and safety equipment, technology infrastructure, lockers for site staff, and additional storage needs.
- At the front of the building a flex space is shown that could take on a number of uses, including staff touch-down space, temporary workstation for staff and visitors, and a display of information about the Campus Farm itself.
- Future needs may require food processing and refrigeration areas, which, depending on requirements, could be accommodated with expansion to the building footprint.
- The building should demonstrate high-performance, sustainable technologies, including solar and wind power, a green roof, and water capture/reuse, wherever possible.
- To respond to the character of the site, building finishes should use natural materials and textures that will weather and change with the site over time, including wood cladding and weathering steel.



Schematic layout and plan of the Washroom & Storage Building.

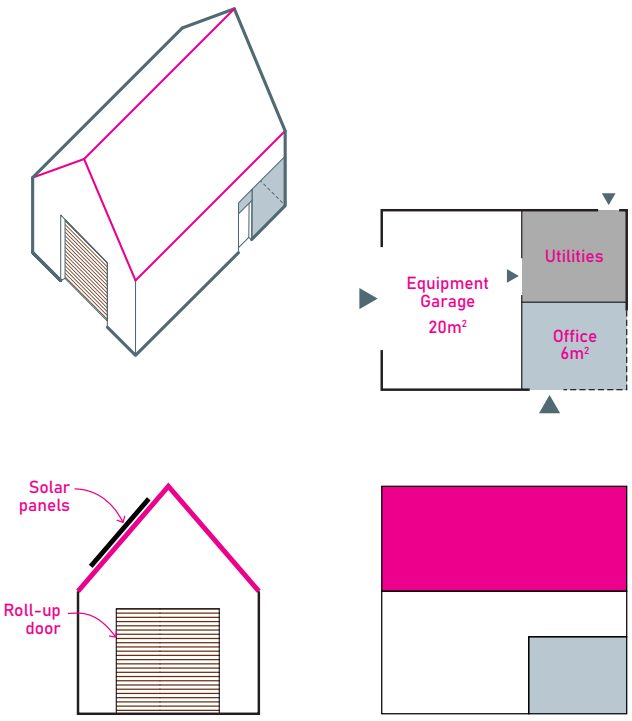
OPERATIONS BUILDING

Given the naturalized site conditions and the proposed changes to the site, a dedicated space to support Grounds and Facilities staff is a critical part of the Master Plan. This building would function as a satellite facility, not a full-service operations hub.

The Operations Building is located at the main entry to the site and would provide space for equipment, storage, and utilities, as well as temporary workspaces. The proposed building is 1-storey, with a footprint of approximately 35 m^2.

Design Directions

- To accommodate maintenance equipment on-site, the building should provide space for mowers and other machines, easily accessible with roll-up doors.
- A small area of space is provided for staff needs, including touch-down space and equipment storage.
- To support grounds and facilities staff, a small office/workspace is provided as an enclosed landing area and administrative space.
- With new utilities being brought to the site, the Operations Building also provides space for potential utility infrastructure, which may include booster pumps, electrical panels, and other services. Some of these may also be located adjacent to the building itself.
- As appropriate, the building should use high-performance and sustainable technologies, including solar/wind power, and water capture/reuse.
- Building finishes should use natural materials and textures that will weather and change with the site over time, including wood cladding and weathering steel.



Schematic layout of the Operations Building.

TEACHING & RESEARCH GREENHOUSES

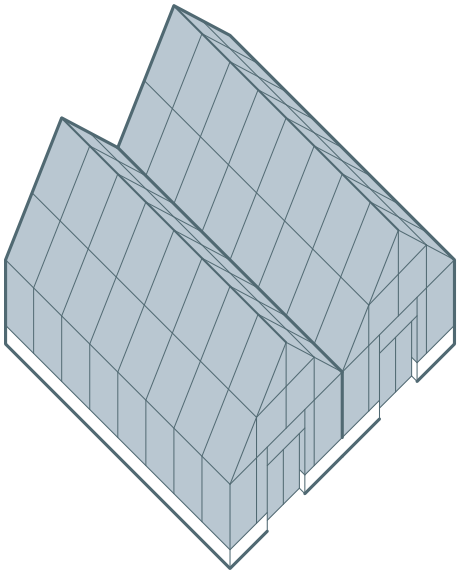
Two greenhouse structures are located at the Teaching Hub and provide enclosed space for a variety of activities throughout the year. One greenhouse is dedicated to teaching activities and the other, to research, with opportunities for crossover and shared programming.

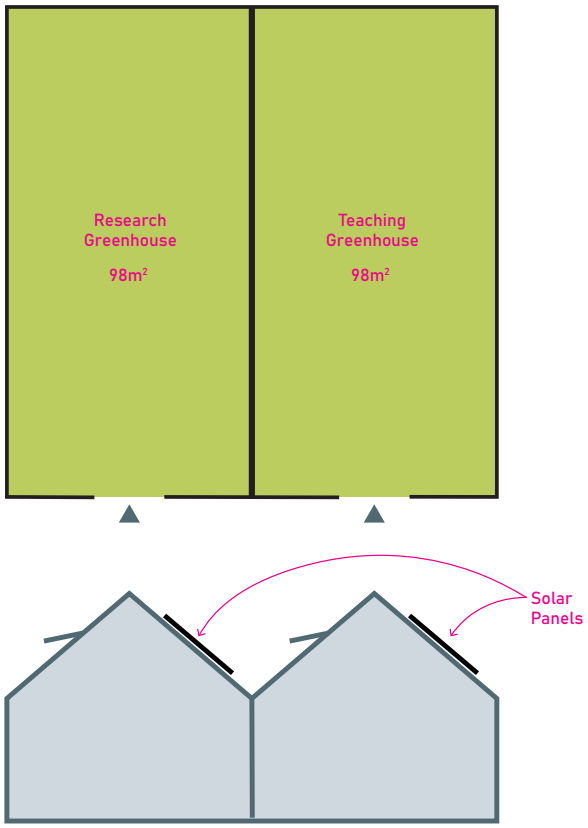
The greenhouses are positioned as an adjacent pair, and are intended to be permanent structures. These act as a shell that can support plant growing, classroom space, and lab space. The proposed size of each greenhouse is 98 m^2 but it is anticipated this size may be larger, depending on needs and program determined through design.

Design Directions

- Floor space in the greenhouses should remain open, with necessary servicing to support a range of potential use.
- A capacity of 50+ people should be considered for each greenhouse, allowing for classes to be held in the space.
- Greenhouses should demonstrate high-performance and sustainable technologies, including solar/wind power, as appropriate.
- The greenhouse buildings are anticipated to be polycarbonate or glass and steel frame, using refined materials that support durability and ease of maintenance.
- Options for extending the greenhouses should be considered through detailed design to allow for future growth and increased capacity.

Greenhouses provide flexible interior space that can adapt to changing needs (Edible Academy).





Schematic layout of the greenhouses.

CLASSROOM PAVILION

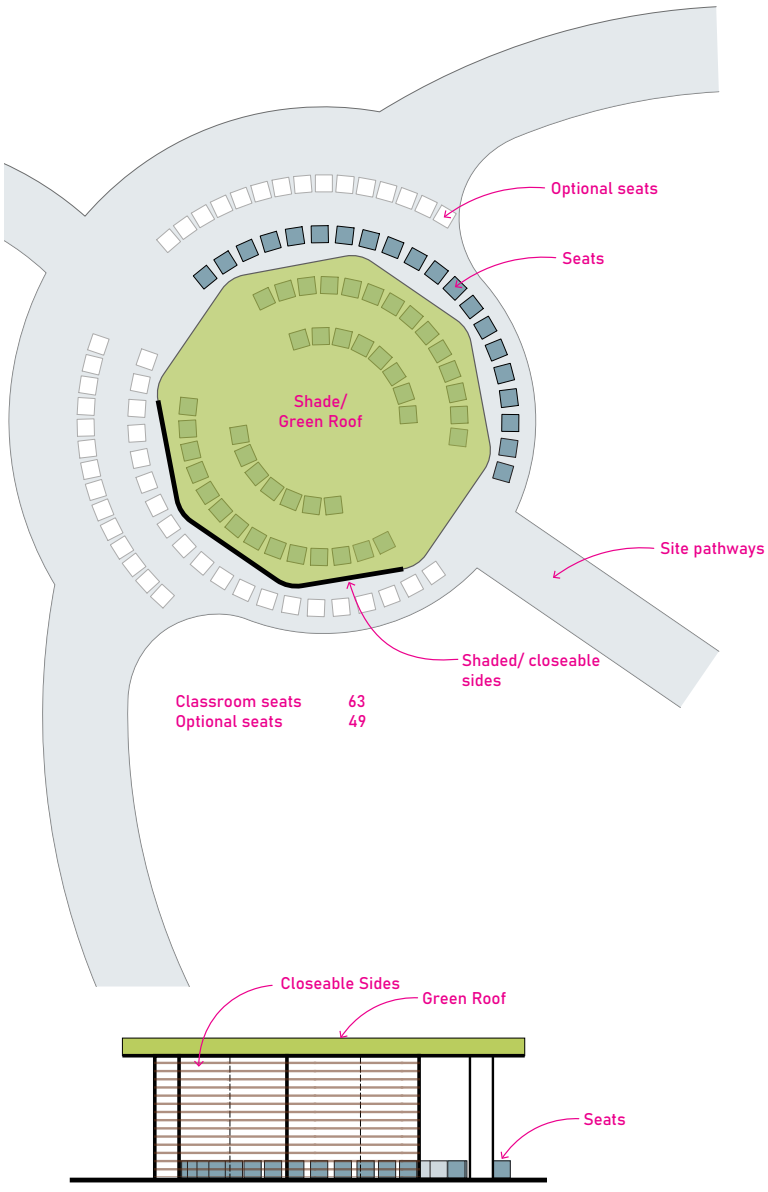
The Classroom Pavilion is located at the heart of the Teaching Hub, providing a focal point and central gathering space for the Campus Farm. The pavilion is intended to be an open-air classroom, with an overhead canopy and permeable walls, offering seasonal protection from the weather.

The pavilion is envisioned as a structure, rooted in the land, that provides space for teaching, gathering, ceremony, and passive use. While a vision for the structure is presented in this plan, specific consultation and co-creation with the campus Indigenous community must guide detailed design. Through that process, it is expected that additional uses and opportunities will be revealed.

The following page provides a series of character images to capture the general intent of the pavilion; these are not intended to direct any design decisions but provide a sense what the pavilion could become.

Design Directions

- The classroom pavilion provides an important opportunity to involve a variety of voices in the detailed design process. The space should be seen as a place of knowledge sharing and connection to the land. With that, it should prioritize collaborative placemaking with the campus Indigenous community.
- The building should accommodate small to medium sized gatherings (community events, classes, etc.), and offer flexible, accessible seating options for different uses.
- Final design will determine capacity, but the space configuration should allow between 50-100 movable/flexible seats. When used by a larger group, both covered and uncovered space should be considered when reviewing design capacity.
- To support classroom use, adequate telecommunications (WiFi, A/V, etc.) should be integrated into the space.
- Building finishes should be determined through consultation and detailed design.



Schematic layout of the Classroom Pavilion.

CLASSROOM PAVILION CHARACTER IMAGES

The pavilion can define a central gathering area for the site and act as a focal point (Yamashita Sekkei).

Form should be a product of consultation and closely linked to setting of the Campus Farm (Brook McIlroy).

Potential for retractable walls and open, flexible areas for teaching and gathering (Gray Organschi).

Natural materials, open sides, and covered roof with spaces for teaching and gathering (Studio MB).

Walls can have multiple uses, remaining open while providing space for teaching and learning (AP+E)

Forms and materials that respond to the surrounding landscape and site (Lokko and Morton).

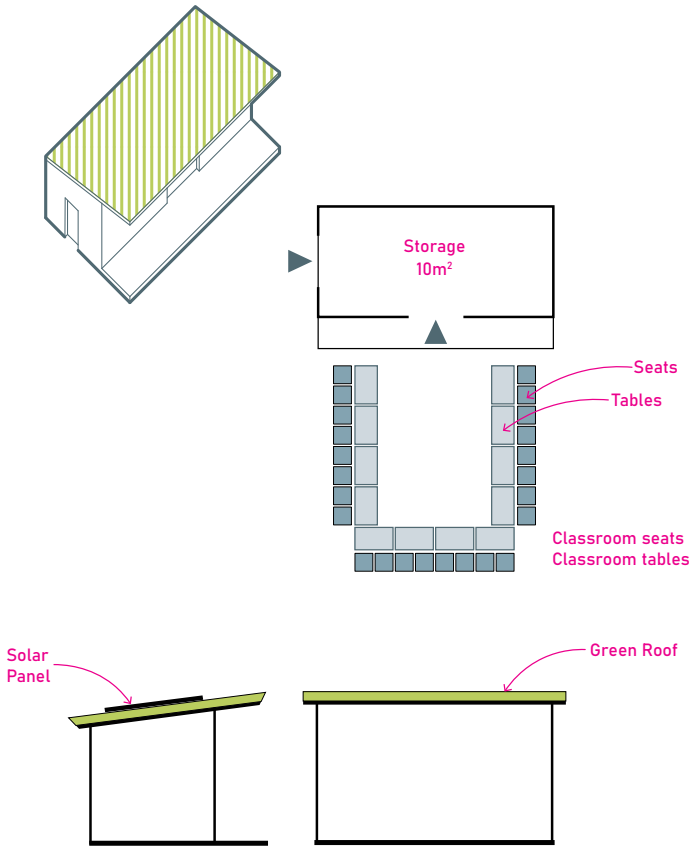
FIELD CLASSROOMS

The Campus Farm presents opportunities for land-based and experiential learning across the entire site. These opportunities allow for flexible use of the space while connecting people with the land. The field classrooms are an extension of this, offering spaces nestled into the landscape, providing basic resources for classes, gathering spaces, and events.

Field classrooms generally consist of a small structure (<10 m^2) and an open area (±50 m^2). The structures provide basic resources including a canopy, storage, and surfaces for chalkboards/ whiteboards. The open area would provide a space for movable desks and seating on an accessible surface.

Design Directions

- The field classroom structures should provide secured storage for desks/seating that can be brought out seasonally or as required.
- Canopies are not intended to protect large groups from weather but provide small areas of shade/protection adjacent to the building.
- Open areas should accommodate small classes and may offer movable seating or more permanent seating (e.g., seating circles, benches, etc.).
- Structures should incorporate technologies including solar/wind power for off-grid lighting and charging/power points.
- Roofs should be considered opportunities to increase ecosystem and site functionality (e.g., catching rainwater, blue-green roofs).
- Finishes must reflect the character of other site structures and be simple and durable, natural materials that will weather over time (e.g., wood cladding).
- Provide bicycle parking at the field classroom spaces.



Schematic example of a field classroom.

Outdoor classroom structure, placed within the surrounding landscape (W&L University).

Outdoor classroom space in winter (W&L University).

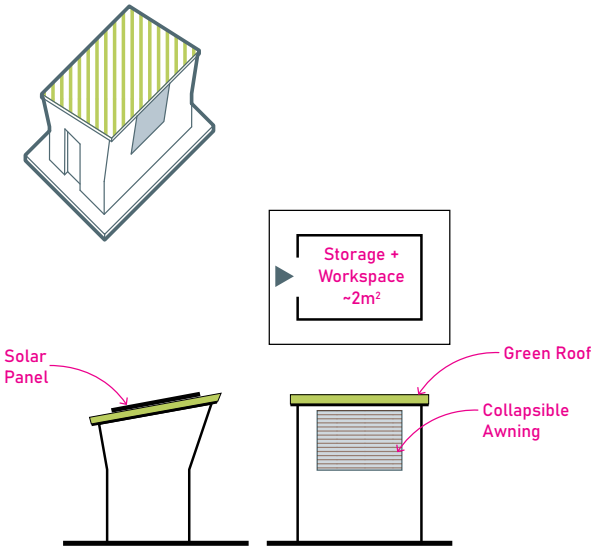
RESEARCH KIOSKS

The entire Campus Farm landscape supports a variety of land-based research, with experiments and data collection happening in the field. The research kiosks offer an option to provide small-scale lab/workstation spaces that can support specific research projects with basic resources, including secure storage, desk space, and basic equipment. The kiosks would be portable, and could be located where needed, within the Research Meadow or elsewhere on-site. A demonstration of how the kiosks may function is shown on the following page.

While serving the needs of field work, the kiosks themselves offer a potential project. A partnership with the Daniels Faculty could be an opportunity for the kiosks to be designed/built as part of a student competition or coursework, responding to changing research needs, year to year.

Design Directions

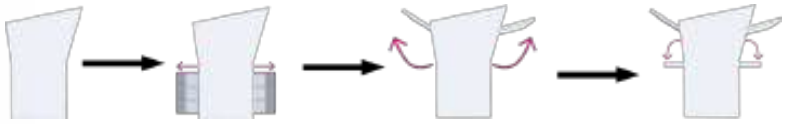
- Secure and weather-proof storage is a priority for the kiosks as various equipment, samples, and other materials could be kept on-site.
- The kiosks should provide standing desk space as well as accessible options. They are not intended to be enclosed spaces.
- Off-grid solar or wind power should be explored as part of the kiosks, providing charging and lighting options. Serviced kiosks (power, water) may be appropriate in key locations. Passive lighting should be used where possible.
- Health and safety equipment should be provided at each kiosk, including first aid kits and portable eye washes.
- Materials should be readily available, low-cost, and supportive of research needs (clean surfaces, for example).



Schematic layout of the research kiosks, further detailed on page 71.

RESEARCH KIOSK DEMONSTRATION

When closed, the kiosks can contain equipment and materials needed for field work.



Kiosks provide storage space and can be 'opened' as needed for work.

These illustrations provides a high-level example of how the research kiosks may function at the Campus Farm. The kiosks support changing research needs, and are intended to be portable, with the ability to place them close to active projects.

SITE BUILDINGS & STRUCTURES MAP

- ENCLOSED BUILDING
- CLASSROOM PAVILION
- FIELD CLASSROOM SPACE (OPEN AIR)
- TEACHING/RESEARCH GREENHOUSE
- RESEARCH KIOSK
- SMALL SHADE STRUCTURE/STORAGE SHED

4.3.4 GATHERING & REST SPACES

The Campus Farm is envisioned as an integrated part of campus that provides opportunities to experience the site's unique landscape. Within this landscape, several gathering spaces provide areas to relax, study, meet and meditate, bringing focus to the story of the land. The inclusion of gathering spaces is part of this plan, but it is expected that specific consultation and co-creation with the campus Indigenous community and other equity-deserving voices will guide detailed design. The gathering space types described below are demonstrations only, capturing potential options and ideas.

REST SPACES

At minimum 30-metre intervals along the perimeter path, rest spaces are intended to support all site users. Each space includes a bench with an adjacent clear area to accommodate a mobility device, in line with UTFADS.

Design Directions

- Bench surfaces should use sustainably sourced or reclaimed hardwood with backrests and armrests.
- Surfacing of rest spaces should match the adjacent path condition.
- Maintain clear sightlines to and from rest spaces from adjacent pathways.

FIELD GATHERING SPACES

These spaces are intended as areas of seating and rest embedded within the site landscape. They can be seasonally mowed into open field spaces, where appropriate, and completed with movable and temporary site furnishings.

Design Directions

- Locations should have gradual slopes and smooth ground surface.
- To support accessibility, accessible mats should be installed on the ground.
- Spaces will require regular maintenance, seeding and mowing to retain open character.
- Furnishings may include benches, chairs, platforms and other features and should use sustainably sourced or reclaimed hardwood.
- Provide bicycle parking options along pathways adjacent to all gathering spaces.

Rest spaces can be embedded in the landscape with appropriate access (Urbicus).

Example of a field gathering space to accommodate passive uses (ESKIS paysage).

FOREST GATHERING SPACE

The forest gathering space presents a cluster of low platforms nestled into existing and proposed trees, offering another site opportunity for passive use or teaching and learning space. This space is proposed on the southern edge of the site, near a cluster of existing trees (see pages 38, 41), but it may be relocated as the implementation of the Master Plan progresses over time.

Design Directions

- Platforms are < 0.6 m height, and an accessible platform option must be provided.
- Area surrounding platforms to be a stabilized aggregate, connected to adjacent pathways, and allow clear space per UTFADS.
- Provide bicycle parking options along pathways adjacent to all gathering spaces.

THE POND LOOKOUT

The pond north of the site is an important part of the land's story and has direct influences on the Campus Farm. The lookout is proposed as part of the larger boardwalk space and provides an accessible area to connect with the pond and the overall context of the Campus Farm site.

Design Directions

- Boardwalk and deck should use sustainably sourced or reclaimed hardwood and must meet UTFADS.
- Provide space to allow for small classes and groups to gather, including seating options and space for mobility devices.
- Ensure proper edge protection is provided, including guardrails and detectable edges.
- Provide bicycle parking options at or adjacent to the pond lookout.

Large, accessible deck spaces can support various passive recreation (RIOS).

The lookout provides an opportunity to reveal the adjacent pond (Z+T Studio).

Spaces can provide a diversity of informal learning environments throughout the site (MVVA Inc.).

The lookout can be a destination and unique space within the overall Campus Farm (DJ Architecture).

SITE GATHERING & REST SPACES MAP

REST SPACES

GATHERING SPACES

4.3.5 GARDENS & GROWING AREAS

Three garden areas are defined in the plan. These areas support raised bed planting and growing edible food growing outside of site soils. Each of these areas require a standard layout that allows for accessibility and provides ease of movement through the space. The Teaching Garden and Indigenous Garden areas both build on existing spaces, and a new UTSC Community Garden is proposed on site. The Research Meadow, although not a specific "growing area," can also support growing for research purposes.

TEACHING GARDEN

The teaching garden is a contained area with both raised and wheelchair-accessible garden beds, and the entire space will meet UTFADS or higher. A potential layout of the Teaching Garden is provided on the following page.

Design Directions

- A 2.4 m high perimeter fence is required for the space (refer to section 4.3.2).
- Individual raised beds are constructed of rot-resistant timbers and a standard size of 3.7 m length x 1.2 m width and 460 mm height. Beds may support trellises, as required.
- A root barrier is required at the base of all beds. Non-woven geotextile fabric should be placed on the ground and anchored with landscape staples, extending a minimum of 75mm beyond the edge of the bed frame.
- Wheelchair-accessible beds to meet UTSC standards for wheelchair-accessible raised gardens, with a standard size of 2.4 m length x 1.2 m width and 800 mm height.
- The space allows for a minimum of 76 growing beds, which can be any required combination of standard raised beds and wheelchair-accessible beds. Space is also available for future growing houses.
- The ground must provide a firm a stable surface. Turf with accessible matting, compacted mulch or stabilized aggregate should be considered.
- Compost/storage bunker areas should be located adjacent to the teaching garden.

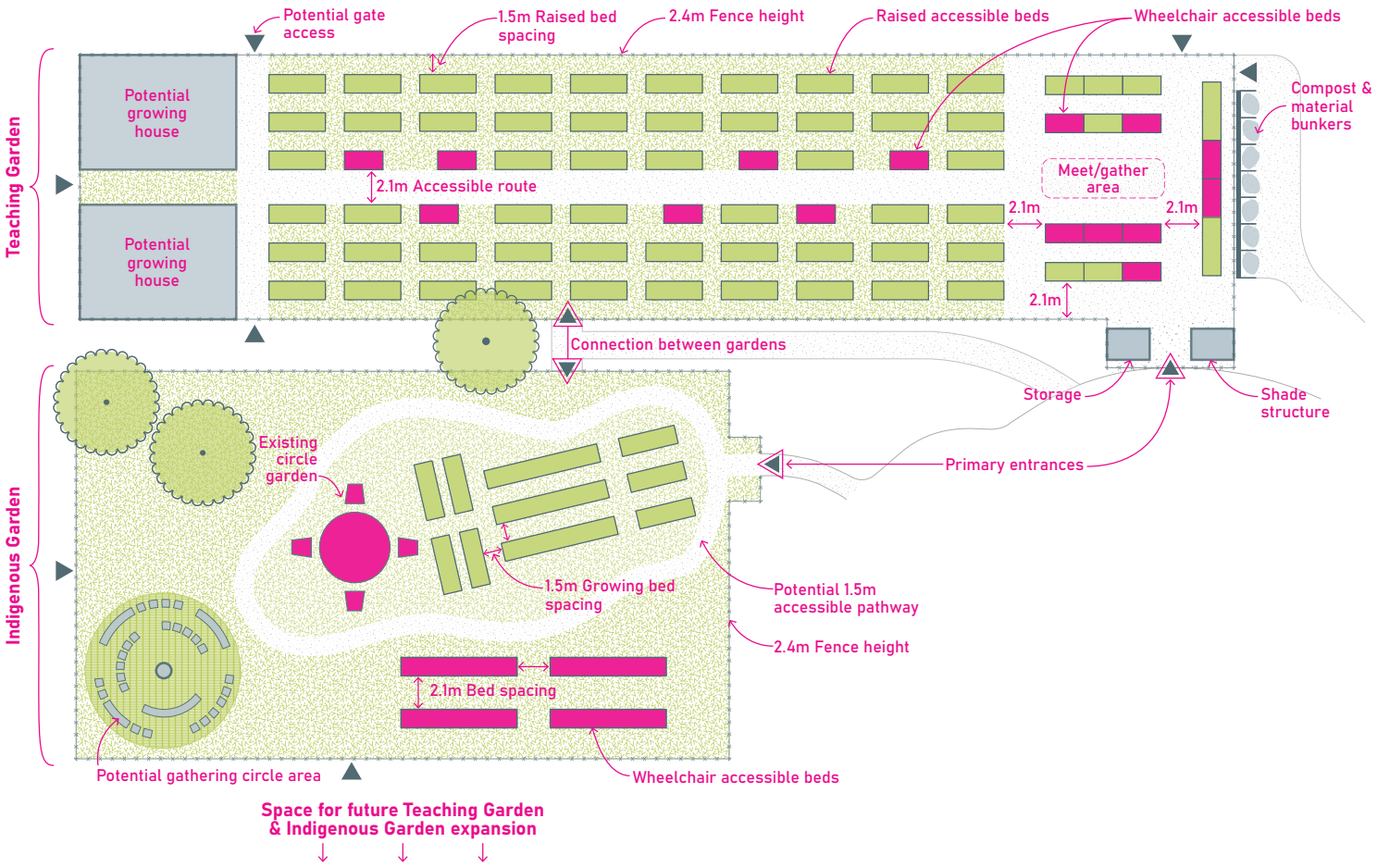
INDIGENOUS GARDEN

Adjacent to the Teaching Garden, the proposed Indigenous Garden area builds on the existing site condition to better define the space, while providing room to grow over time. As the garden is developed, opportunities to meet UTFADS and AODA standards should be incorporated. A potential layout of the Indigenous Garden is shown on the following page.

Design Directions

- A 2.4 m high perimeter fence is required for the space, with gate connection to the Teaching Garden (refer to section 4.3.2).
- Individual raised beds are constructed of rot-resistant timbers and a standard size of 3.7 m length x 1.2 m width and 460 mm height. Beds may support trellises, as required.
- A root barrier is required at the base of all beds. Non-woven geotextile fabric should be placed on the ground and anchored with landscape staples, extending a minimum of 75mm beyond the edge of the bed frame.
- Traditional mound planting may be used if a geotextile root barrier has been placed beneath the entirety of the mounds, separating them from the site soil. The mounds must be regularly maintained to prevent 'spillage' over root barriers.
- Wheelchair-accessible beds to meet UTSC standards, with a standard size of 2.4 m length x 1.2 m width and 800 mm height.
- A firm, stable surface must be provided, and may be turf with accessible matting, compacted mulch or stabilized aggregate.

POTENTIAL TEACHING & INDIGENOUS GARDEN AREA LAYOUT



The layout above demonstrates an example of how the Teaching and Indigenous Garden spaces can be laid out to support additional garden beds and improved accessibility. As needs shift and the Campus Farm grows, this layout should be revisited to ensure it best supports the use of each space. The overall site plan also allows for future expansion of the garden spaces to the south, into an open area of the site (see enlargement plan on page 36).

Within the Indigenous Garden area, space is proposed for a potential gathering circle and cooking/fire space. This area should be co-designed with the Indigenous community who will use the space and UTSC, and be well-integrated into the overall garden area, meeting safety requirements related to fire and access.

Along with growing areas, the Indigenous Garden can provide gathering and ceremony space (UDLA).

UTSC COMMUNITY GARDEN

The Community Garden is located at the northeast corner of the site, and is accessed from a dedicated entrance and parking area. This space supports gardeners affiliated with the University and provides all services required for the garden to operate, including water and storage. A potential layout of the Community Garden is provided on page 81.

The UTSC Community Garden is intended to be defined as its own distinct space, while remaining connected to and the overall Campus Farm site.

Design Directions

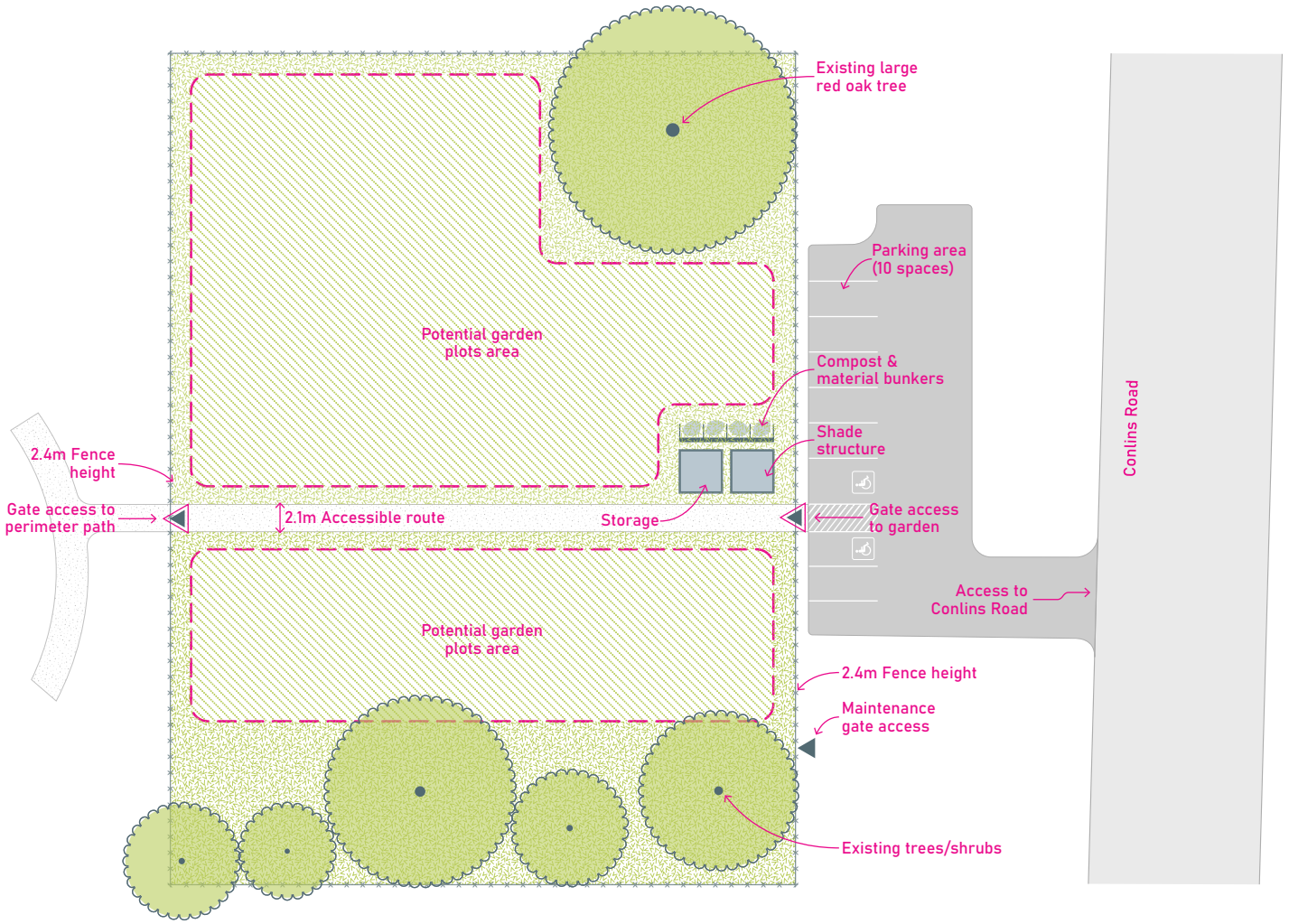
- A 2.4 m high perimeter fence is required for the space (refer to section 4.3.2).
- Individual raised garden beds are constructed of rot-resistant timbers and a typical size of 4 m length x 1.2 m width and 460 mm height. Consider providing ledges on the beds for seating and ease of use. Beds may accommodate trellises or other vertical growing features.
- All wheelchair-accessible beds to meet UTSC standards for wheelchair-accessible raised gardens, with a standard size of 2.4 m length x 1.2 m width x 800 mm height.
- A root barrier is required at the base of all garden beds. Non-woven geotextile fabric should be placed on the ground and anchored with landscape staples, extending a minimum of 75 mm beyond the edge of the bed frame.
- The site is gently sloping and a firm, stable path surface should be provided with accessible turf matting or stabilized aggregate.
- Compost bunker or storage spaces (shed) should be located within the garden area, accessible for delivery vehicles.
- Include multiple water and power access points within the garden space.
- A dedicated access from Conlins Boulevard with parking is recommended for the garden to allow direct access to gardeners. Parking should accommodate up to 10 vehicles, including accessible spaces.

Garden plots at the existing UTSC community garden in the valley.

Malvern Urban Farm garden plots (Toronto Life).

Garden ledges and movable seats support access and use of beds (Nottaway, Fine Gardening).

POTENTIAL UTSC COMMUNITY GARDEN LAYOUT



The proposed layout for the UTSC Community Garden is a demonstration of how the space can be organized. It provides for a suggested layout of garden beds and allows for expansion of the garden over time. Garden bed standards are built on UTFADS and support access throughout the entire space. The detailed layout and arrangement of the garden will require consultation between the Garden Club and UTSC to ensure it meets all requirements.

The layout includes a parking area with driveway access to Conlins Road, allowing gardeners vehicle access to the space, separated from the greater Campus Farm. This is an important feature that would allow gardeners to use the space outside of Campus Farm opening hours.

4.3.6 HEALTH & SAFETY

SECURITY MEASURES

The Master Plan establishes an improved pedestrian connection to the Campus Farm from North Campus via a campus pathway, as well as a formalized vehicular access from Chartway Boulevard. While the site will remain somewhat disconnected from campus in the short-term, these improved connections, along with new facilities such as the Fieldhouse, will support safer access.

It is critical to establish measures that make the Campus Farm a safe space early in the implementation process, aligning with all UTSC safety standards. Safety and security measures will include access controls, physical safety features, and site monitoring (see maps on pages 62, 86).

Design Directions

- Barrier parking gates are proposed to regulate site use and access at the main vehicle entry. At all other entry points, electronic key or padlocked gates can be used to close the site as required. Gate access methods should align with standards throughout campus.
- Site lighting approaches and studies should be coordinated with safety and security plans.
- Throughout the site, CCTV cameras are required at key locations, including entries and main building areas.
- Emergency poles are required throughout the site to meet Campus Safety standards.
- The Washroom and Storage building should provide space for Campus Health & Safety equipment and staff staging.
- Hours of operation should be established for the Campus Farm space. Multiple egress points should be available at all times on the site to ensure users can exit, as required (i.e., after-hours work, passive uses).
- Consider Crime Prevention Through Environmental Design (CPTED) approaches, with attention to sight lines and egress.

ENVIRONMENTAL HEALTH

Providing space that supports mental health and wellbeing is an important benefit of the Campus Farm and will bring people to the site. As they use and visit the Farm, resources are needed to ensure their experiences are safe and comfortable. Further to this, with the site being removed from the campus core, providing health and safety equipment directly on-site is critical.

Health and safety considerations will include ensuring availability and access to equipment and provision of healthy spaces and resources.

Design Directions

- Provide shaded/covered spaces throughout the site with seating and rest options.
- Provide access to drinking water on-site.
- Provide eye-wash and hand-wash stations at structures and buildings throughout the site.
- Provide designated space for emergency equipment, including First Aid stations and Automated External Defibrillators (AEDs) at buildings and structures around the site.
- Provide temperature-controlled storage space for Allergy Emergency Kits (EpiPen) in the washroom and storage building.
- Include Campus Safety & Security bulletin boards in washroom and storage building.

Standard campus emergency pole.

4.3.7 SITE SERVICES

The addition of site services will support the needs of site users and provide a more functional and accessible space overall. Washrooms, water supply, telecommunications, and power will support the full range of proposed activities, while maintaining flexibility and change in the space over time.

All servicing is brought to the site from the southwest corner of the property, connecting with the future development of the North Campus, including the realignment of Military Trail, Fieldhouse construction, and other planned work. A schematic layout of all servicing is shown on page 86/87. Servicing design must be completed to determine final layout, needs, capacities and locations.

WATER

Municipal water services are needed to support irrigation of growing areas as well as the function of proposed washroom and other facilities. In addition, opportunities for water capture and storage of rain and site runoff may be explored over time.

Design Directions

- Provide water service to the site, sized to accommodate proposed conditions and capacity for the potential for future demands.
- Locate water access points in all garden areas and at key points through the site to support teaching and research activities.
- Knowing exact locations of water access needs may change over time, hoses should be used to extend water access through the site as needed (100-ft long standard hose).
- Site structures should integrate opportunities for water capture and reuse.
- The proposed site stormwater pond provides additional, off-grid opportunities to collect water for use on site. This water would require constant monitoring and testing to confirm quality and supply will be determined based on rainfall and groundwater supply.
- The adjacent City-owned pond is not currently suitable for irrigation use. The opportunities for this should be explored in the future through research projects and investigations.

TELECOMMUNICATIONS

Getting the site online with internet access and a reliable radio signal are important to support programming, function and safety. Infrastructure will connect to various site structures and also provide access at key locations.

Design Directions

- Provide internet connection at site buildings, teaching hub, and local WiFi access at classroom spaces and research areas.
- Ensure radio signal across the site is sufficient to allow response and communication for Campus Safety staff.
- One of the aspects that makes the space special is its sense of place and the feeling like visitors are immersed in a natural setting. While providing connection through the site, ‘quiet spaces’ or WiFi-free zones should be explored.
- Telecommunications services will extend to site emergency and security requirements, including campus emergency poles and CCTV security cameras throughout the site.

SANITARY

With the addition of a permanent washroom facility at the Campus Farm, a sanitary connection will be brought to the site.

Design Directions

- Provide a sanitary connection to the site to service the washroom facility. As detailed design progresses for buildings and site servicing, capacity for other configurations/ connections should be explored and allowed for as needed.
- Explore opportunities to divert water from sanitary connections, including greywater reuse systems at buildings.

POWER

Bringing power to the Campus Farm will be necessary to support new structures, site lighting, security measures, and operations activities on-site. Opportunities for alternative energy production (wind, solar) should be explored.

Design Directions

- Provide electrical service to and throughout the site, sized to accommodate proposed conditions and capacity for the potential for future demands.
- Locate pedestals at locations to support site activities, recognizing that flexibility may be achieved with short-term use of extension cords to reach spaces on site.
- Solar and wind power generation should be integrated into buildings as primary or supportive energy sources. Space should be considered for battery energy storage.
- Throughout the site, small-scale, off-grid power generation (solar, wind) should be used. Applications may include passive lighting and charging stations for site users.
- Locate power infrastructure (transformers, pedestals) strategically to be accessible but integrated into the site and landscape. Graphic wraps on service cabinets should be used where appropriate.

INTERIM SITE SERVICES

It is expected that there will be phased implementation of site services to the Campus Farm. Some considerations of this may include:

- Continue to use existing cistern and pump with generator, as well as 1000-litre water totes for site water supply until municipal water connections can be made.
- Explore options for short- and long-term solar lighting at key areas while site power infrastructure is implemented and brought online.
- In the short-term, ensure communications are sufficient to meet site safety requirements while telecommunication infrastructure is implemented.

1000-litre water tote in the existing research area of the Campus Farm.

Emergency pole and mobility device charging station at another area of the UTSC campus.

LIGHTING

The introduction of lighting at the Campus Farm is intended to extend hours of use and support safe movement while being respectful of the unique landscape and ecology of the site (see conceptual lighting plan on page 88/89).

Design Directions

- Lighting should respond to Campus Standard guidelines and City of Toronto Best Practices for Effective Lighting but be adapted to preserve the experiential quality of the Campus Farm.
- Ecologically-sensitive lighting strategies must be prioritized, optimizing useful light, minimizing glare, and mitigating light trespass.
- All fixtures must be dark sky compliant.
- Fixtures should be LED, full cut-off, CRI 90 or better. Colour temperature to be between 2700-3000K.
- Fixtures should allow for easy integration into a future campus control/automation system.
- Straight wood poles should be used throughout the site. Coordinate other fixtures with poles (bollards, etc.).
- Multiple fixture heads on poles should be considered to reduce number of poles.
- Access road lighting should coordinate with site lighting, not necessarily following campus standard approaches.
- Site lighting will be concentrated in central areas (around the Teaching Hub) to ensure the space is well lit during times of use. Throughout the site, low-level lighting is required along the perimeter path, focused on providing safe navigation.
- Lighting design should be responsive to teaching and research requirements.
- Light and power locations should be coordinated with telecommunications to locate services together and limiting the number of fixtures throughout the site.
- Photometric studies and site lighting plans should be prepared early in the implementation process to inform site servicing needs.

Lighting can be blended within the landscape, respectful of the natural setting (Structura).

Pole lighting illuminates spaces and gathering areas that may be used late in the day (we-ef).

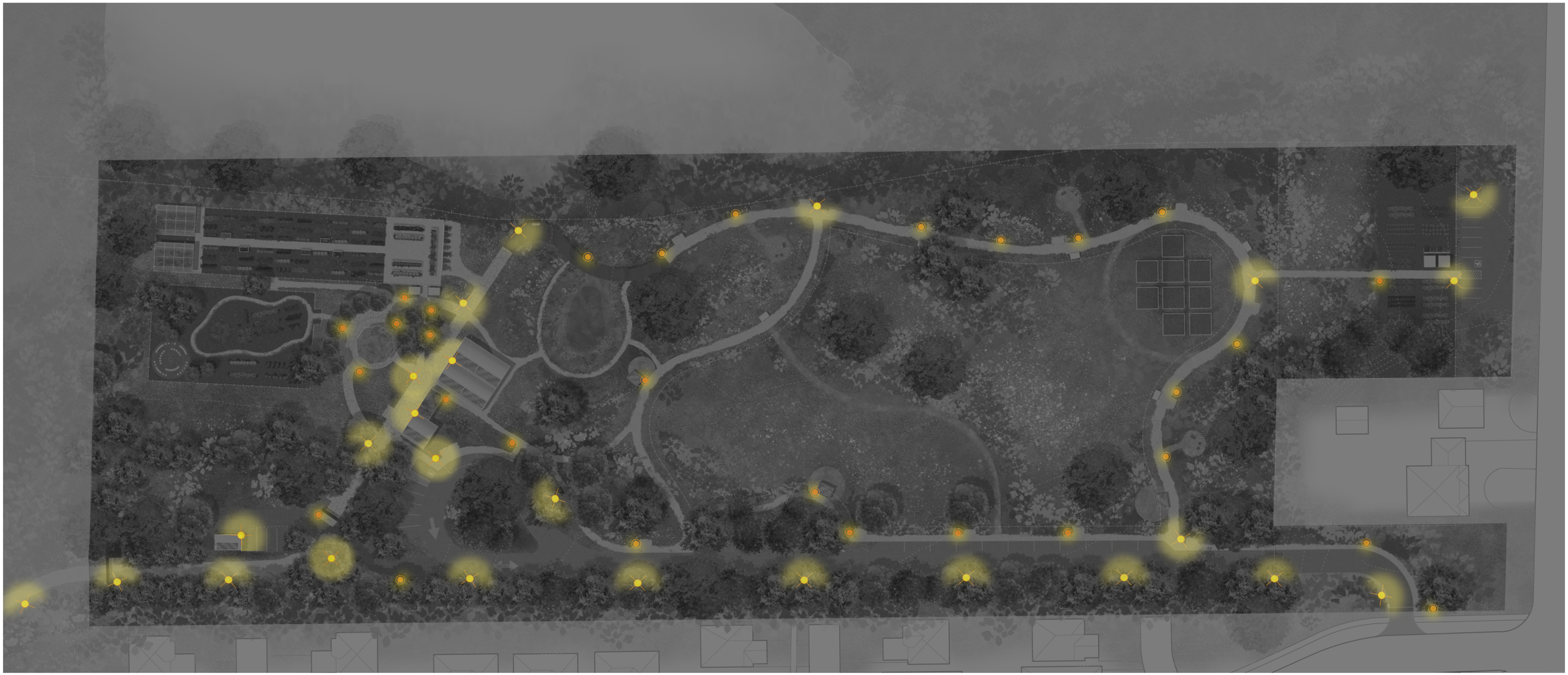
Low level lighting supports site circulation and limits light pollution (we-ef).

SCHEMATIC SITE SERVICES MAP

MAIN WATER SUPPLY LINE
MAIN ELECTRICAL SUPPLY
SANITARY MAIN
TELECOMMUNICATIONS

POTENTIAL EMERGENCY POLE
POTENTIAL SECURITY CAMERA

CONCEPTUAL SITE LIGHTING MAP



POLE/BUILDING LIGHTING

BOLLARD/GROUND LIGHTING

4.3.8 PLANTING

The Campus Farm exists as a vegetated space with trees, meadow areas and succession growth throughout, as well as managed planting beds and growing areas. Through the Master Plan, the intent is to work with existing vegetation while providing opportunities to manage invasive species and establish new plant communities that restore soil and provide quality habitat. Building on the guidance of the LPRMP, planting should contribute to existing and future natural living systems through succession and ecological integrity, supporting people and wildlife.

SITE PLANTING

As the site develops, new planting areas should be introduced that reinforce the unique, wild character of the landscape, establishing the space distinct from the rest of campus. Planting favouring naturally occurring/native species. Examples of the proposed planting character are shown on the following page.

Design Directions

- Plant selection should prioritize species found in naturally occurring plant communities and/or those that improve the ecological function and integrity of the landscape (soil regeneration, habitat, research).
- Planting projects must engage Indigenous Knowledge Keepers to co-create or lead initiatives on-site.
- Plant communities that support and attract desired wildlife should be used to enhance the overall site ecology.
- Explore planting of species that can be used to make natural dyes.
- With any planting work, opportunities for research and knowledge development should be explored, along with potential connections to courses and campus initiatives.
- Existing trees on-site are preserved wherever possible. Many of these trees are fast-growing, short-lived species and succession planting should be implemented early to anticipate the decline of these trees.
- Explore use of living, planted windbreaks to mitigate or influence winds on-site.
- The site should be seen as a place to experiment with and evaluate novel planting approaches, such as seed balls and strategic competition with invasive species.
- In order to reduce maintenance requirements, new planting areas should be allowed to naturalize, with maintenance focused on the edges, framing spaces (mow strips, etc.).
- As new planting spaces are introduced, invasive species should be actively removed and controlled. Refer to section 4.2.3.
- Create 0.5 m wide maintenance (mowed) buffers along pathways through mixed meadow areas.
- Sight lines of major pathways and connections should be kept clear, respecting natural surveillance and other CPTED principles. The site is not a typical campus space, with the wild landscape being an important part of the overall character. The space warrants a unique planting approach that work with qualities of the space.
- A dense band of planting should be established on the south edge of the site to provide a buffer to residential properties.

CAMPUS FARM PLANTING CHARACTER

Native species can help out-compete invasives on-site and add multi-season interest.

Planting to support habitat creation and ecosystem services, including pollination (Arnold Arboretum).

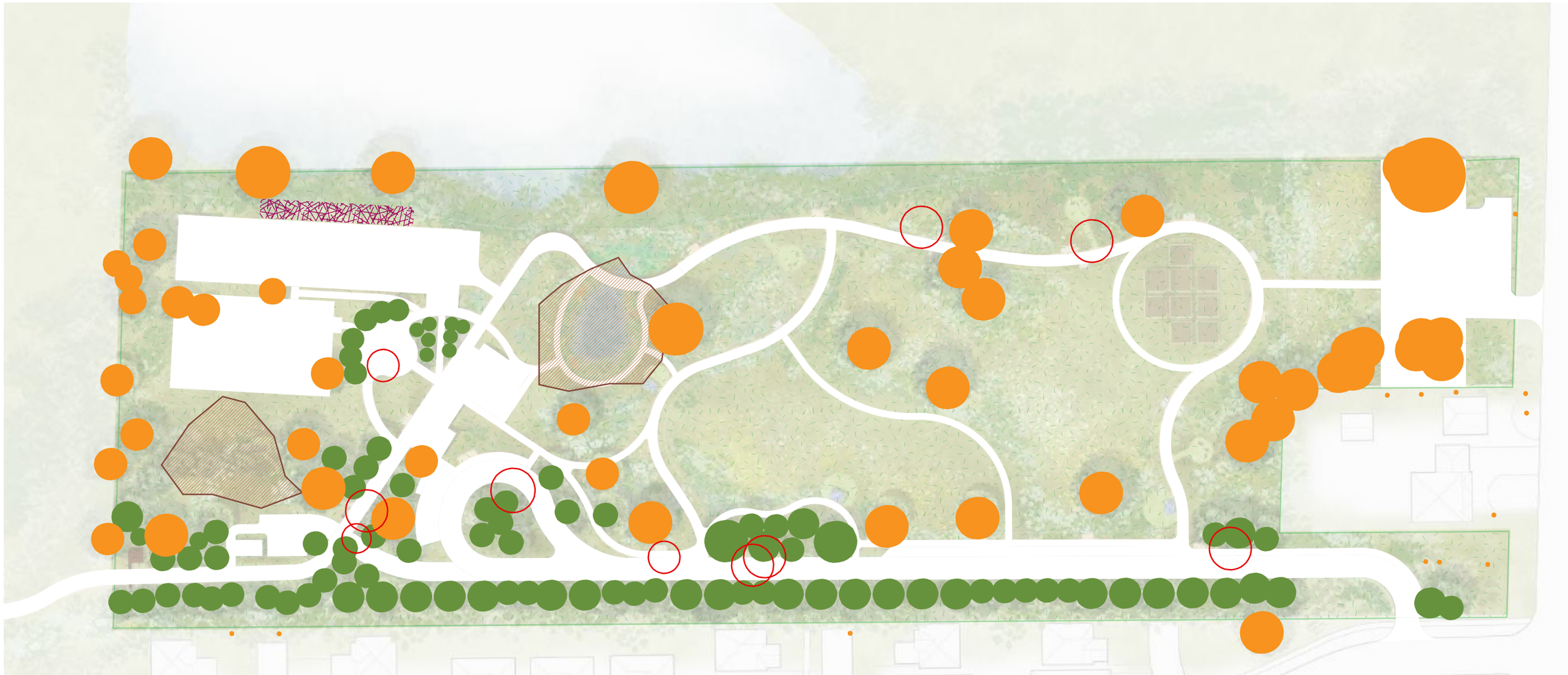
Spaces can take on a naturalized appearance while still being managed (BASE Landscape Architecture).

Woody species can frame large, open areas, creating layers and depth in the landscape (Hollander Design).

Existing site meadow and successional vegetation.

Informal pathways through open meadow spaces can support classes and circulation.

SITE VEGETATION MAP



- EXISTING TREES
- PROPOSED TREES
- TREES TO REMOVE
- PHRAGMITES PATCH AREA
- EXISTING MEADOW AREA
- ORCHARD TREES (PRESERVED FOR RESEARCH)

Vegetation and meadow areas in the research side of the Campus Farm, 2023.

4.3.9 PLACEMAKING & LEGIBILITY

A placemaking approach for the Campus Farm should support navigation to and through the space and also work to establish an overall identity and support a unique *genius loci*. Wayfinding, interpretation, and the thoughtful design of space should contribute to an intuitive, functional and engaging experience for site users and visitors.

Wayfinding and interpretive signs should respect and build-upon the land-based focus of the site. During implementation opportunities to welcome and prioritize Indigenous placemaking initiatives to name and visually mark the Campus Farm and spaces within it. Site wayfinding should build on the overall campus wayfinding system (UTSC signage standards) and coordinate with the UTFADS requirements. The map on page 96/97 provides a conceptual layout of signs on site.

IDENTITY

A clear identity for the Campus Farm should be apparent to anyone on site, highlighting it as a unique and distinct part of campus. Through placemaking and consistent spatial design the site experience will be legible and engaging both to those familiar with or new to the space.

Design Directions

- Prioritize opportunities for naming space(s), following UTSC Indigenous placemaking initiatives.
- Use materials, furnishings, and signage to establish a consistent identity for spaces and connections throughout the site.
- Through the detailed design of the site, a hierarchy of space should be evident, from significant gathering areas (Teaching Hub) to more intimate spaces (e.g., field classrooms).
- Incorporate multi-sensory placemaking, connecting site users to the landscape. Bring focus to the many natural assets of the site (wildlife, vegetation, smells, textures, views and sounds).
- Materials should convey a natural aesthetic and be durable. Sustainably-sourced or reclaimed hardwoods, natural stone, and naturally-weathering steels should be used.

SIGNAGE

To support wayfinding, directional and location signage will allow efficient, safe and clear circulation through the site. First time visitors should be able to navigate with ease and understand where spaces are and how to access them.

Design Directions

- All wayfinding signage must meet UTFADS and be located at entries and intersections throughout the site. Visitors should be directed to main facilities (washrooms, safety equipment, etc.) throughout the site.
- Signage should support braille, wherever possible and appropriate.
- At main entrances, ‘gateway’ signage should name the Campus Farm and clearly define where people enter and exit the site, and providing a site address.
- The broader campus wayfinding system should clearly identify the Campus Farm and how to access it from main campus areas.
- Interpretive signs unique to the site should be used to tell the story of the land, highlighting site history, site conditions, ongoing research and teaching activities, and promoting the work and knowledge coming from the land.
- Use clear signage to identify on-site hazards, including food grown for research only or poisonous plants (e.g., poison ivy).

SITE SIGNAGE & WAYFINDING MAP

GATEWAY SIGN
WAYFINDING SIGN
LOCATION SIGN

4.4 PLANNING DIRECTION

Established planning policy regulates the lands of the Campus Farm. The University has already begun to adapt and enhance these policies through the University of Toronto Scarborough Secondary Plan, but through this Master Plan effort, there is an opportunity to ensure that the site responds to broader planning efforts and that this vision for the farm and use of this land is upheld long-term.

Additional planning background is provided in section 2.1.3.

4.4.1 SITE ZONING

The Campus Farm lands are currently zoned as *Residential Detached* (RD) as part of the City Zoning By-Law (ZBL). This designation is not appropriate for the uses planned for the site as part of this Master Plan. Through the University of Toronto Scarborough Secondary Plan (UTSSP), the site is re-designated as an *Institutional* zone. The Master Plan has been developed anticipating this rezoning approach.

This new Institutional designation supports the planned academic and community uses of the site, and provides a less restrictive use as related to requirements of a Record of Site Condition (RSC), as regulated by the Ontario Ministry of the Environment, Conservation, and Parks.

The impacted site soils create limitations to what can happen on site. Any land use change to a more restrictive use requires an RSC to be filed. Given the understanding of the site soils, as outlined in this Master Plan and additional analyses, the site use can in itself mitigate exposure to soil impacts. Along with the new Institutional zoning, an RSC would not be required to implement the Master Plan.

4.4.2 LONG-TERM PROTECTIONS

In existing planning documents, the Campus Farm lands have been noted as a potential site for future University housing (UTSC Urban Design Guidelines). The importance of maintaining the Campus Farm as a long-term, land-based asset for the University is evident, and this reality has been a key outcome of the Master Plan process. Ensuring that long-term protections can be placed on the site is an important consideration as the plan is implemented.

To protect the site long-term, a number of planning tools may be used. Key to any of these is that the vision for the Campus Farm is maintained and that the site remains a landscape of land-based education and community access. Some potential protection tools may include:

- Creation of an Area Specific Policy to provide specific direction on land use, additional to the UTSSP, and specific to the site.
- Modification of the UTSSP to designate the lands as an *Academic Open Space* zone, similar to land use approaches at the University of British Columbia. This approach could support the land remaining open to facilitate land-based teaching, research and community engagement activities.

Exploring these tools will require additional work to understand the broader impacts and implications within the campus and any associated municipal planning requirements.

4.5 MAINTENANCE

The growth and evolution of the Campus Farm provides diverse new opportunities throughout the site, leading to greater use and an increased demand for ongoing maintenance. It is expected that as the Master Plan is implemented, a maintenance plan will be developed to define specific staff and resource requirements.

4.5.1 AN EVOLVING MAINTENANCE APPROACH

The current site is largely left wild, with maintenance focused on the main teaching areas (garden beds), and at specific spaces that support research throughout the site. Grounds staff are involved with construction work (raised beds, small structures), provision of water (1000-litre totes, generator-powered cistern), path maintenance, and mowing work, among other activities to support use and access. A majority of the landscape is successional growth, with meadow-like vegetation, trees, and other species growing freely. This vegetation includes a number of invasive species, and there are no active mitigation measures in place.

As the site is developed, a new maintenance approach will be needed that can be phased in with implementation over time. The intent of the Master Plan is to focus development in key areas, and leave the landscape undisturbed, wherever possible. Main areas of the site will require maintenance similar to other public-facing areas of campus while secondary spaces can continue to be left more naturalized.

The Master Plan proposes new buildings, pathways, fences, and spaces throughout the site, each requiring a level of maintenance that is not required at the site in its current condition. Through the specific planning and design of individual projects identified in the Master Plan, maintenance will need to be considered at a detailed level. This plan highlights the overall considerations and anticipates where potential needs may emerge based on the proposed site plan.

Overall, the space will become more accessible to the public over time, ranging from planned events to passive movement through the site. Maintenance requirements should consider how to ensure a safe and comfortable experience for all visitors, throughout the year.

SITE MAINTENANCE ACTIVITIES

The Campus Farm will incorporate a variety of uses and programming that differentiates it from the rest of campus. To ensure effective maintenance approaches, Facilities staff should be involved through the implementation process to ensure work aligns with UTSC operating capacities and levels of service. This being said, the site is unique, and will require unique approaches not necessarily in use elsewhere on campus. While the detailed design must respect maintenance considerations, it is expected that the implementation of the Campus Farm will drive progressive and innovative methods.

To serve the proposed Master Plan, Facilities Management will be responsible for a range of activities, some of which will include:

- operation of buildings and structures, including washrooms, greenhouses and storage spaces, and fencing;
- Upkeep of site services and access points;
- maintenance of site circulation, including mowing, path upkeep, and winter access;
- horticultural maintenance of plantings, trees, and invasive species management; and
- regular maintenance and construction at growing areas, including raised beds (weed management, repair) and fencing.

4.5.2 ANTICIPATED RESOURCES

RESOURCES: OPERATIONS BUILDING

To support Facilities Management directly on-site, a dedicated operations building is proposed at the southwest corner of the Campus Farm. This structure is detailed further in section 4.3.3, and the intent is to provide storage space to hold equipment (mowers, vehicles) as well as short-term staff space. The building would serve as a Facilities “outpost”, allowing for all regularly-required equipment to be located on-site and easily accessible.

RESOURCES: STAFF

To support the proposed spaces and connections throughout the site, full-time site staff will be required for grounds maintenance, especially during the growing season when the site will be most active. This would support maintenance of growing areas, including the community garden, as well as overall management of vegetation on-site.

Buildings proposed for the Campus Farm are small but include washroom facilities, which will demand regular maintenance. In the shorter-term, the isolation of the space may require dedicated staff on-site, but as other facilities in the North Campus are developed, there may be opportunities to share staff with adjacent buildings.

Wherever possible, the Campus Farm should pursue sustainable technologies and practices in maintenance. Lower impact approaches should be prioritized and the space should be seen as a place to launch and test new methodologies and operating practices. To this end, speciality training and experience will be required of staff to serve potential site features including greywater systems and greenhouse technologies.

RESOURCES: EQUIPMENT

The site includes a diverse range of landscape conditions as well as facilities which will require dedicated on-site maintenance equipment. Access to equipment would both support overall site maintenance and be a resource to growing areas and programming on-site.

While the maintenance of many proposed site features would be familiar to other areas of campus, potential specialized materials and features may require new tools and equipment. Specialized mowers (tractor flails), speciality snow blades/ sweepers, and other equipment may need to be identified through detailed design work, along with any staff training and education required.

Programming on the Campus Farm is anticipated to provide opportunities for every season. Although demand will likely be decreased in colder months, winter maintenance and snow-clearing on main pathways will be required. Opportunities to adapt winter maintenance should be considered, including allowance for other uses, such as snowshoeing and cross-country skiing.

Waste management will need to consider both organic and non-organic waste and recycling. Compost facilities can be integrated with the garden areas and connected with larger University initiatives (vermicompost, for example). Management of the compost may require specialized equipment and potentially be a shared exercise between site staff and facilities (exploring teaching opportunities connected to compost management). Other waste streams will need to be serviced by facilities staff (garbage bins, recycling, etc.) and proper equipment will be required to support this.

4.6 GOVERNANCE

By its nature, the Campus Farm is a unique space that has supported many activities to-date, and will continue to support a more diverse portfolio as it is developed over time. These demands on the space will require a clear governance structure that defines a transparent decision-making process and accountability for all aspects of the space. As the Master Plan is expected to be implemented over time, establishing this structure early will be an important milestone.

This Plan details the proposed vision and overall development considerations for the Campus Farm. From here, a secondary exercise will be required to organize a clear governance structure, building on the University's core facility guidelines. This process will begin after the Master Plan work.

4.6.1 CORE FACILITY

The Campus Farm is a designated core facility that aligns with the *Guidelines for UTSC Core Facilities* (2023). This designation establishes a defined structure of governance for the site and identifies a level of performance expected in its operation. As a core facility, the Campus Farm upholds the core mission of the university, providing access to space, infrastructure, services, expertise, and training, all supported by staff. Critically, the Campus Farm is a shared resource that supports a wide community of users and will be broadly accessible and available to researchers and educators across UTSC and U of T, as well as potential community partnerships.

Specifically, the Campus Farm is a category 1, single-sited core facility. This sets the site as a hybrid space connected to multiple domains of UTSC's academic mission (research and creative activity, teaching and learning, and community engagement).

Differentiating the space from other core facilities, the site is landscape-focused, with smaller ancillary buildings supporting an experiential, land-based academic environment. These characteristics, which make the site a vibrant, unique part of campus, also demand a clear, intentional and responsive governance structure.

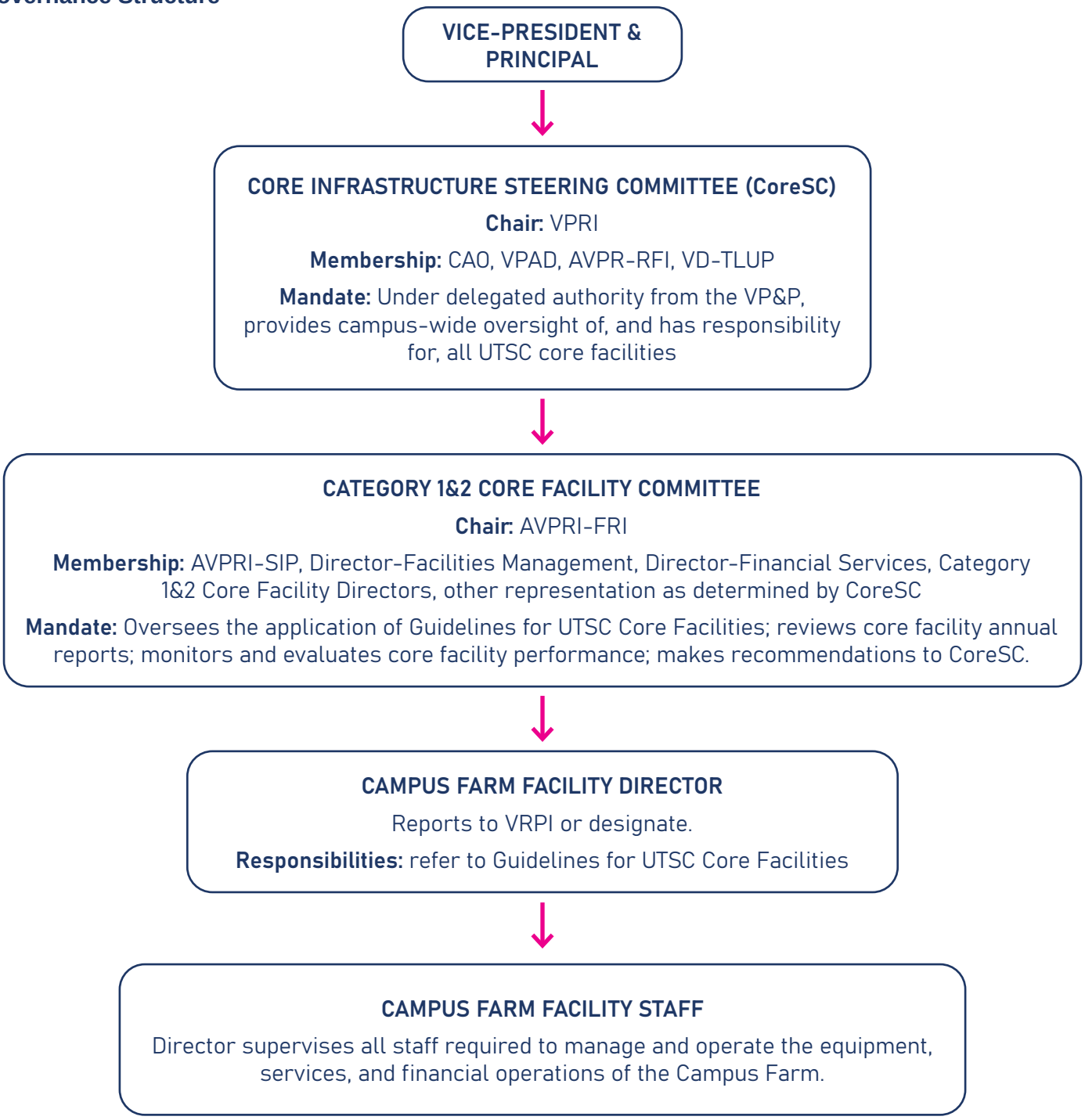
4.6.2 ANTICIPATED STRUCTURE

The governance structure for the Campus Farm will help to guide decision-making, management, programming, implementation, and operations. This structure will follow a standardized approach for core facilities on campus, but must also build in recognition of the Campus Farm as a living, changing landscape, with evolving site activities and needs, distinct from a building facility. These considerations can be built into the governing structure, outlined below and on page 102.

All core facilities fall under delegated authority of the Vice-President and Principal (VP&P) and are overseen by the Core Infrastructure Steering Committee (CoreSC). Reporting to the CoreSC, and chaired by the Vice-Principal Research & Innovation (VPRI), a Category 1&2 Facility Committee has responsibility for all category 1 & 2 core facilities on campus. These levels of governance guide the operations of hybrid (category 1) core facilities.

The AVPRI-RFI or AVPRI-SIP will supervise and be accountable for the Campus Farm core facility and the operation of the Farm would be under the guidance and authority of a Campus Farm Core Facility Director. This director would be responsible for all operations on the site, including determination and allocation of resources, staff, and programming/ use of the site. Further responsibilities are outlined in the *Guidelines for UTSC Core Facilities* (2023).

Potential Campus Farm Governance Structure



The structure above is based on the *Guidelines for UTSC Core Facilities* (2023). As the Master Plan is completed, a separate process will be initiated to determine the proposed governance structure, adapted to real needs and operational capacities.

4.7 COMMUNITY CONNECTION

The very nature of the Campus Farm positions the site as a gateway to connect the campus to the greater community and invite meaningful partnerships grounded in the land. The site is envisioned as a community hub that supports the campus community, but more broadly, is open to the Scarborough and Eastern GTA community, becoming a space for events, knowledge sharing, and opportunities to connect with the land and land-based knowledge. Along with being more open through programming, the Campus Farm will also be more accessible day-to-day, with the site becoming a semi-public space, reflective of the rest of campus. This will invite people to move through the site to gain an understanding of the work that is happening there. Interpretive elements (signage, art, landscape) will further provide an opportunity for story-telling and clearly acknowledging the realities of the site (colonized land, resource extraction, historic dumping, and soil contamination).

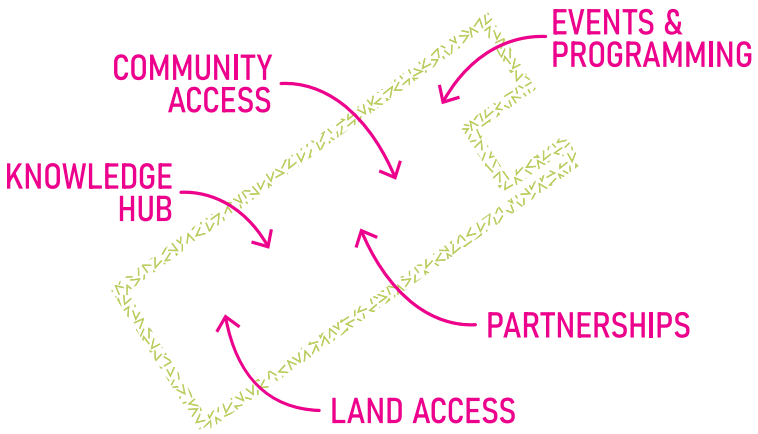
Foremost, the Campus Farm will become an access point to land for the campus and within the broader community. It will become a hub that invites participation from both within and outside of the University, promoting the wellbeing of land and life, exploring pathways toward food sovereignty, and ensuring it remains a safe, welcoming, and accessible space for all who seek participation.

4.7.1 ONGOING RELATIONSHIPS

Community organizers and growers from Scarborough community groups, and the UTSC Garden Club were engaged in the development of this Master Plan. These initial discussions have informed the design decisions made to date but the process has only begun. As this Master Plan is implemented, each project should continue the dialogue with community members and stakeholders to ensure that their needs are recognized and addressed, as well as to explore potential partnerships for activation and programming of the Campus Farm.

There is a clear desire within the community outside of UTSC to engage with this land. Providing access and making space for these relationships will be a critical consideration as the plan unfolds over time. While the site functions as an important facility for the campus, only through relationship-building and engagement can the full potential of the space be realized. To support this, it is suggested that an appointed community stakeholder is part of the governance structure.

The process of regenerating the land also opens pathways to community-building. The Campus Farm can open opportunities to for community volunteering, education, and knowledge sharing around environmental considerations, including soils, water, and ecology.



The Campus Farm provide links to the community through a variety of pathways.

Sunflowers and amaranth at the Campus Farm, 2023.

4.8 POTENTIAL PHASING

The Campus Farm Master Plan provides guidance for a 4-hectare landscape, with multiple structures, a variety of elements and spaces, and infrastructure making up the ultimate plan for the site. The full implementation of the plan represents a significant undertaking. To allow for the site to be realized over time, potential phasing has been developed to identify a series of cumulative projects that may be undertaken over the short-, medium-, and long-term.

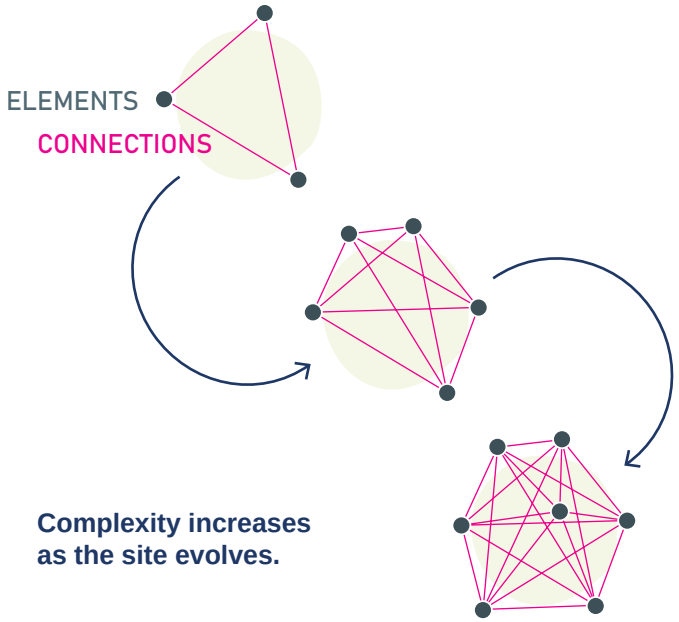
The phasing strategy is also important in allowing the site to function during implementation, ensuring that some level of teaching, research, and community activities can continue during future construction work. As a living landscape, the site will also change over time and get more complex. Opportunities to review both the plan and phasing should be regular to ensure new needs, pressures and constraints can be addressed. This ongoing review is part of a feedback loop in the process.

This section outlines a potential phasing strategy for the site, highlighting a sequence of projects that could be implemented to achieve the site vision. It is based on the current Master Plan, and does not address the planning, detailed design, consultation, and other technical inputs that will be required with each phase. Further, this phasing recognizes that other work is ongoing and will continue to be happening adjacent to and around the Campus Farm. These projects (e.g., the Fieldhouse and realignment of Military Trail) will impact access and infrastructure connections to the site, and their timing will inform the implementation sequence. New funding sources may also become available that prioritize projects and impact phasing (e.g., grants, etc.). Ultimately, the implementation phases for the Campus Farm will likely require more interim steps to the process and will adjust over time. The following pages outline the potential approach to phasing the work.

INCREASING COMPLEXITY

As the Campus Farm grows and evolves, it will become more complex, with individual elements becoming increasingly interconnected. Phasing the Master Plan implementation offers opportunities to build on this complexity, ensuring elements continue to support the function of the site.

In a permaculture site or system design, an element is a component, feature, person/role, or essential part in the system that helps it work. The health and strength of the relationships between elements is critical to a well designed permaculture system and is an important part of the permaculture work. Each function, identified as necessary for the system to work well, is supported by two or more elements in a permaculture system.



Complexity increases as the site evolves.

4.8.1 THE SHORT-TERM

The first phase of development focuses on the short-term. For the purposes of this Master Plan, this can be considered the next two years (2024-2026). Projects and activities for this time horizon include changes to ongoing site programming and use based on the Master Plan, as well as early implementation of infrastructure and site vegetation management.

PROJECTS & ACTIONS FOR THE SHORT-TERM

1. Complete the University of Toronto Scarborough Secondary Plan process, incorporating the City's Official Plan through amendment.
2. Continue to support short term research in areas throughout the site, concentrating long-term research proposals to the future "research meadow" area. Allow ongoing research to continue, including the phragmites project and established plots.
3. Permanent fencing should be installed to delineate both the teaching and Indigenous garden spaces. Arrangement of beds in the teaching garden should be configured to meet the proposed layout.
4. Pilot the wheelchair accessible garden beds in both the teaching and Indigenous garden spaces. Install accessible matting on turf surfaces for short-term accessibility improvements.
5. Continue to use the site access from the east side of the site but realign to connect to Chartway Boulevard. Explore potential access requirements with the City.
6. Given the current understanding of the soil, no plants for human consumption are permitted to be grown in site soils. Future research, monitoring and testing is needed to explore how this restriction can evolve. Any plants currently grown in site soils cannot be harvested for consumption.
7. Implement invasive species management throughout the site, preparing for development of future site features.

8. Develop the UTSC Community Garden area, including additional engagement, detailed design, and potential requirements of parking, access and future site-integrated servicing.
9. Introduce wayfinding to help locate the site and also support internal access and use of the site.
10. Planting initiatives can begin to introduce longer-lived, native species communities and tree management of the existing canopy. Efforts should coordinate with invasive species management.
11. Continue site investigation to collect baseline data, focusing on soils, water, and vegetation and wildlife.

4.8.2 THE MEDIUM-TERM

Medium-term projects are considered those that can potentially be initiated between two and eight years from the adoption of the Master Plan (2026-2032). These projects require additional allocation of resources and dedicated consultation, planning, and design to facilitate their implementation. Larger infrastructure, including site services and building structures, as well as site access may all fall within this time horizon, likely aligning with other campus development work.

PROJECTS & ACTIONS FOR THE MEDIUM-TERM

1. Establish the main site entry from Chartway Boulevard, along with the vehicle laneway, drop-off loop, and connection to the Operations Building.
2. Implement all site servicing requirements, including water, power, telecommunications, sanitary and lighting. Connect to services on campus to the southwest of the site, providing capacity for all anticipated connections.
3. In tandem with site servicing, establish the overall site circulation system, including the perimeter pathway. Note that the boardwalk is part of the long-term phase.
4. Develop select site structures, including the Operations Building, Washroom & Storage Building, Classroom Pavilion, and other structures. Potential for phasing of buildings may be considered, with outstanding elements left to the long-term implementation. Additional engagement, planning and detailed design is anticipated for each project.
5. Develop all gathering spaces and rest areas identified throughout the site.
6. Fence the research meadow and begin to introduce research kiosks through design exercises and implementation.

7. Site planting work should continue, with focus on establishing larger meadow areas, along with ongoing soil investigation and monitoring. Evaluate the potential for growing edible plants in site soils through research, exploring regenerative uses of the site.

4.8.3 THE LONG-TERM

At this time horizon, the full implementation of the Master Plan will be realized. This includes implementing the complete vision outlined in the document, but may also integrate additional projects as new needs will likely emerge from the site as it evolves over the next ten years. The timeline for full implementation is 8-15 years from adoption of the Master Plan.

PROJECTS & ACTIONS FOR THE LONG-TERM

1. Complete removal of all invasive species on site, including phragmites at research areas.
2. In tandem with phragmites removal at north edge of site, develop the site stormwater pond and associated path connections, boardwalk, and pond lookout.
3. Develop the Teaching and Research Greenhouses. Additional engagement, planning, and detailed design is anticipated to meet future needs.
4. Complete any outstanding phases of building development if buildings were phased with previous projects.
5. Complete any remaining path connections, gathering spaces and site infrastructure, as required or as identified through the previous phases of work.
6. Site planting should continue, with focus on establishing larger meadow areas along with ongoing soil investigation and monitoring.
7. Explore new opportunities for regenerative research on-site, continuing to investigate impacts of site soils on food; water conditions and potential for use of the adjacent pond; and habitat development over time.
8. Explore the potential for acquiring properties along Conlins Road to expand the Campus Farm.

4.9 NEXT STEPS

Development of the Campus Farm is expected to be a multi-phased process that will respond to and integrate with other work on campus. Along with this, academic priorities and shifting energies may also inform what can be done on site, with new voices, expertise and interests helping shape the implementation over time.

The potential implementation phasing outlined in section 4.8 provides a site-focused look at specific projects and priorities. Beyond this, additional work is anticipated to make this project successful. This work involves coordinating the Campus Farm implementation with other University initiatives to ensure the site remains a unique an special place while growing into an integrated and important part of campus. The following are a series of key actions and next steps in toward the implementation of the Campus Farm Master Plan.

KEY ACTIONS & NEXT STEPS

1. **Establish a clear core facility governance structure for the Campus Farm**
   The Campus Farm is a *category 1 core facility*. Governance of the site should clearly delineate responsibilities, accountability, communication channels, and connection from the on-the-ground operation of the site to the larger University structure. A committee that includes representatives from the University and the community should be established to develop the governance structure of the Campus Farm, responding to the UTSC Core Facility Guidelines as well as the unique needs of the Campus Farm.

2. **Establish a name for the space**
   Through the development of the Master Plan, it was highlighted that the site should be given a new name that reflects the range of land-based activities that happen there, beyond growing food. Given its focus on land and life, the site may be an appropriate space to be named following the UTSC Indigenous placemaking initiative process. This should be explored with the UTSC Sub-Committee for Indigenous Placemaking.

3. **Develop cost estimates for potential plan elements and phases**
   Building on the potential phases provided, UTSC should initiate a costing exercise for the work, including detailed design of features (buildings, site work) and high-level construction costs.

4. **Identify and plan priority projects**
   Based on the Master Plan, identify specific projects at the Campus Farm to move to planning, design, and implementation. Each project may require further engagement work and this should be accommodated in the process and timelines. Fundraising needs and opportunities should also be considered as part of project planning to explore funding options, as well as the potential of grants, partnerships, and donations that can support the development of the Campus Farm.

5. **Identify required resources**
   Following the establishment of a governance structure, begin to identify resources (e.g., funding for staff, infrastructure, programming, teaching, and research) to support implementation of the Campus Farm in the short-, medium-, and long-term.

6. **Consultation with the City of Toronto**
   The Campus Farm Master Plan will need to be presented to City of Toronto to determine and coordinate any necessary approvals, and identify where future reviews may be needed, related to site servicing, access, and permitting.

7. **Continue to investigate and determine an approach for site servicing**
   This Master Plan provides a schematic plan for site services at the Campus Farm, including power, water, sanitary, and telecommunications connections. Detailed planning is needed to determine how Campus Farm services connect to the broader systems, and this should be coordinated with existing utility infrastructure as well as related development work, including the realignment of Military Trail.

8. **Determine an approach for the new UTSC Community Garden space**
   Given that the UTSC Garden Club currently operates at another location in the Valley Lands, the University should continue to coordinate with the group to determine how the new community garden space should be initiated. This Master Plan provides a high-level approach but detailed decisions will be needed, along with further engagement.

9. **Encourage ongoing research**
   Ensure future research applications align with the Master Plan, and allow for the potential of multi-year research projects that will not impede implementation of the Plan. Projects that explore regenerative and remediation focused work (e.g., for site soils, water, ecology) should be promoted to highlight the research opportunities that the site presents.

10. **Build on permaculture approaches through implementation, future design work, and other Campus Farm activities**
    Permaculture has been an important thread through the Master Plan development and can continue to inform the implementation, design and evaluation of projects and programs on-site. As new projects and opportunities for work arise, continue to explore how permaculture-informed approaches might increase a wide range of yields; accelerate various types of succession; regenerate land; and enrich teaching, research and community engagement activities. This recommendation builds on UTSC's 2022 Landscape & Public Realm Master Plan.

Sweetgrass growing in the Indigenous Garden at the current Campus Farm.

UNIVERSITY OF TORONTO SCARBOROUGH

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