

CAMPUS VISION 2050: MANAGING GROWTH

Policies, plans and technical strategies

February 2023

The emerging draft 30-Year Vision supports the academic mission, values and priorities of the university by providing a long term, aspirational framework for physical growth and change. Strategies to reduce carbon emissions, protect and enrich campus ecology and biodiversity, and support a resilient and inspiring place for the community to thrive are integrated into the Vision.

The following is a summary of current and new UBC policies, plans and programs as well as technical work that underpins the Vision – both its development and implementation – to ensure alignment with the university’s climate, biodiversity and community building commitments. This work is underway now and will continue over the next 12-18-months through the 10-Year Campus Plan and Neighbourhood Plan planning processes to support a coordinated, holistic and integrated approach to campus growth.

TRANSPORTATION

Purpose:

Achieve reductions in GHG’s from commuting and commercial activity with better access to active and sustainable forms of transportation and more walking, rolling, cycling and transit infrastructure.

Considerations for campus growth:

- increase in GHGs from additional commuters
- costs + time associated with commuting for a growing population
- increase in traffic congestion

Addressing the impact:

- minimize GHG emissions from commuting by promoting and providing sustainable modes of transportation
- improve access to convenient, sustainable transportation for getting to, from and around UBC
- reduce need for car travel by providing access to daily needs close to where people live

What’s being done now:

- prioritize sustainable modes of transportation to/from/within campus
- advocate for SkyTrain to campus
- UPass for students
- pilot transit pass discounts for faculty/staff pilot
- expand secure bike parking + end of tip facilities
- safe and convenient bike, walk and roll network
- accessibility shuttle, accessible parking
- bike share program including e-bikes
- create complete communities

What’s planned:

- explore financial contribution to bring SkyTrain to campus
- improvements to active transportation network
- land use optimization to support reduction in vehicle trips
- congestion mitigation strategies for Wesbrook and 16th Ave
- expand transit pass discounts for faculty/staff
- pursue inter-municipal bike share with e-bikes
- coordination with TransLink and MOTI on future improvements
- update to UBCV Transportation Plan

Policies, plans, guidelines behind this work:

- UBCV Transportation Plan *(to be updated)*
- CAP2030
- Community Energy Emissions Plan *(to be updated through Neighbourhood CAP)*
- Energy + Emissions Targets

CLIMATE MITIGATION

Purpose:

Implement actions across academic and neighbourhood operations, building construction and transportation to reduce GHG emissions that cause climate change.

Considerations for campus growth:

- mitigating impacts of campus growth on GHG emissions from additional buildings, energy consumption and commuting
- reducing GHG emissions from existing campus infrastructure and buildings

Addressing the impact:

- minimize GHGs from commuting by promoting and providing sustainable modes of transportation and reducing single occupant vehicle travel
- minimize operational GHGs by switching to low carbon energy sources and reducing energy consumption
- decrease construction-related embodied carbon

What’s being done now:

- transition to low carbon energy sources in academic core and neighbourhoods
- high performance building requirements – with emphasis on deep carbon reductions for new academic and residential buildings
- expand EV charging infrastructure
- transition to low carbon construction and materials
- waste reduction program
- prioritize sustainable modes of transportation to/from/within campus

What’s planned:

- update Neighbourhood Climate Action Plan with expanded scope to include new & existing buildings, transportation, waste & materials, community infrastructure, local ecosystems, climate emergency preparedness
- reduce embodied carbon by prioritizing wood frame & mass timber construction
- explore financial contribution to bring SkyTrain to campus
- expand transit pass discounts for faculty/staff
- pursue inter-municipal bike share with e-bikes
- update to Zero Waste Action Plan supporting circularity and reuse

Policies, plans, guidelines behind this work:

- CAP2030
- Green Building Action Plan
 - REAP (Residential Environmental Assessment Program)
 - UBC LEED Implementation Guide
 - Energy + Emissions Reduction Targets
- Community Energy Emissions Plan *(to be updated through Neighbourhood CAP)*
- Zero Waste Action Plan
- UBCV Transportation Plan *(to be updated)*

CLIMATE ADAPTATION

Purpose:

Plan, design and build campus infrastructure, natural systems and buildings to address the impacts of climate change and provide healthy, accessible and comfortable environments for learning, living and play.

Considerations for campus growth:

- adapting to the intensifying impacts of the climate crisis including preparing for extreme heat, polar vortices, living with forest fire smoke, more intense and frequent rainfall and flooding events, mitigating the effects of sea level rise on cliff erosion)

Addressing the impact:

- site and building design strategies to reduce temperatures and provide comfort
- maintain and enhance biodiversity and soft landscapes to reduce urban heat islands
- manage intense rainwater events
- reduce exposure to forest fire smoke
- help mitigate cliff erosion processes by introducing more aggressive green infrastructure strategies on campus

What’s being done now:

- climate adaptation requirements integrated into building guidelines
- use water efficiency best practices in academic and residential buildings and for landscapes
- reduce surface water run-off through building, road and landscape design
- controlling overland flow of water toward cliffs and infiltration near the cliffs
- climate adaptive plantings

What’s planned:

- enhance tree canopy for passive cooling, rainwater absorption, improved air quality, carbon sequestration and human health benefits
- use Musqueam planting list to create resilient landscapes
- update Integrated Rainwater Management Plan
- explore passive design measures for new construction
- vulnerability and risk study
- building retrofit study
- minimize new potable water features
- continued coordination with Metro Vancouver on services to campus

Policies, plans, guidelines behind this work:

- Climate Emergency Task Force Recommendations
- Green Building Action Plan
 - REAP (Residential Environmental Assessment Program)
 - UBC LEED Implementation Guide
 - Climate Ready Building Requirements
- Water Action Plan
- Integrated Stormwater Management Plan *(to be updated with new Integrated Rainwater Management Plan)*

BIODIVERSITY

Purpose:

Reflect Musqueam values, knowledge and connection to the land to create a sense of welcome to Musqueam territory and enhance campus ecology and biodiversity.

Considerations for campus growth:

- impacts of more people, university activity, and construction on the hydrological cycle, natural habitats, high-value ecological areas, wildlife wellbeing, and urban biodiversity
- human wellbeing benefits of access to open space and nature
- deepening relationship with host nation by embracing Musqueam value of caring for the land

Addressing the impact:

- keep contaminants out of rainwater system
- avoid development in areas with at risk species and ecosystems
- minimize impacts to high-value ecological areas and loss of tree canopy
- reduce harm to wildlife and enhance habitat for flora and fauna
- access to connected green spaces with healthy habitats for wildlife
- enhance Musqueam presence

What's being done now:

- control construction sediment
- identify, protect and enhance higher-value ecological areas
- reduce bird strikes through design guidelines
- co-create with Musqueam a local plant list and introducing indigenous plants traditionally harvested by Musqueam
- naturalize campus landscapes with Indigenous planting

What's planned:

- baseline and monitor campus biodiversity
- Indigenous plant list; climate resilient plant/tree list, remove invasive species
- create ecological corridors to support species habitat, movement and increase biodiversity
- Implement nature-based solutions (green infrastructure strategies, i.e. bioswales, raingardens, green roofs, rainwater capture for landscapes, etc.) as part of an updated rainwater management plan
- introduce blue and green corridors that absorb, reuse, clean and transfer water and provide habitat
- use natural conditions to shape where new development occurs
- enhance low and medium value ecological areas adjacent to high-value ones
- create new protected green areas
- create biodiversity strategy as part of the new Campus Plan and Neighbourhood Plans
- integrate bat habitat and pollinator meadows, foodscapes into landscapes

Policies, plans, guidelines behind this work:

- CAP 2030
- Community Energy Emissions Plan (*to be updated through Neighbourhood CAP*)
- Green Building Action Plan
- REAP (Residential Environmental Assessment Program)
- Integrated Stormwater Management Plan (*to be updated with new Integrated Rainwater Management Plan*)
- Bird Friendly Design Guidelines

OPEN SPACE

Purpose:

Support wellbeing and social connection with spaces for gathering and community-building.

Considerations for campus growth:

- significant historic and cultural importance of land, sites of significance and open space to Musqueam
- campus community benefits from access to open space and connection to nature
- growing population will require more and different types of open space
- ecosystem services provided by open spaces brings benefits to humans

Addressing the impact:

- increase Musqueam presence in the landscape by expressing Musqueam values in campus open spaces
- develop opportunities for outdoor recreation that support a range of uses and users and optimize vertical space opportunities
- use greenways, green corridors and mews to create informal recreational spaces
- support ecosystem and human health/wellbeing, species
- increase access to nature for people on campus

What's being done now:

- increase Musqueam presence by expressing Musqueam values in campus landscapes and open spaces
- enhanced access to UBC recreational facilities for neighbourhood residents
- range of 0.5-1.1 ha of open space for every 1000 residents
- ~25% of UBC's campus lands designated as green academic and kept primarily as open areas

What's planned:

- landscapes at UBoulevard, north and central green connectors to emphasize expressions of Musqueam values
- development of a Facility Strategy and sustainable funding approach for outdoor recreational uses
- update to Public Realm Plan
- coordination with Metro Vancouver, Musqueam to minimize Pacific Spirit Park impacts

Policies, plans, guidelines behind this work:

- UBC Land Use Plan
- Campus Plan
- Public Realm Plan
- Green Building Action Plan
- REAP (Residential Environmental Assessment Program)
- Integrated Stormwater Management Plan (*to be updated with new Integrated Rainwater Management Plan*)
- Wellbeing Strategic Framework

COMMUNITY AMENITIES

Purpose:

Deliver community amenities to keep pace with population growth and support local needs, create a vibrant and accessible campus, and reinforce neighbourhood vitality.

Considerations for campus growth:

- amount and type of community amenities need to keep pace with population growth to support local needs and reinforce neighbourhood vitality
- coordinate with external infrastructure and service providers to plan for campus growth and deliver amenities in step with development

Addressing the impact:

- introduce additional commercial amenities in commercial centres and mixed-use hubs
- develop a range of new community spaces such as multi-purpose rooms, interfaith spaces, libraries
- additional childcare spaces
- identify and retain sites for elementary and secondary schools
- develop new community partnership space such as co-working and incubator spaces
- continue to coordinate and work with service providers

What's being done now:

- plan for a street-oriented ground floor commercial spaces and range of commercial unit to support diverse business types
- community space target set at 0.15/m² per resident
- athletic and cultural facility access for residents through Neighbours Agreement
- information sharing with VSB for future school planning
- continue delivery of childcare spaces
- encourage industry, community-run and community partnerships across the campus

What's planned:

- new grocery store in Stadium Neighbourhood
- site for new elementary school in Wesbrook Place Neighbourhood
- continued coordination with Vancouver School Board to plan for growth
- child care facilities as part of upcoming capital projects
- update to Child Care Expansion Plan
- detailed amenities and community facilities planning through 10-Year Campus Plan and Neighbourhood Plans

Policies, plans, guidelines behind this work:

- UBC Land Use Plan
- Campus Plan
- Public Realm Plan
- Neighbourhood Plans
- Neighbours Agreement
- Child Care Expansion Plan
- Wellbeing Strategic Framework