



20-year Vision Site Development

Anne Louise Aboud

COO/Deputy Director, Operations

August 18, 2021

Vision for Site Development

“Build it and they will come...”

Quote from *“Field of Dreams”*

“Recognizing the need is the primary condition for design.”

- Charles Eames

“As an architect you design for the present, with an awareness of the past, for a future which is essentially unknown.”

- Norman Foster

20-year Vision Site Development Team Members

Adrian Lee, Director, Facilities

Annika Lennarz, Research Physicist

Dawn-Marie Barreira, Industrial Energy Manager

Esther Schirmacher, Director, IAMI Operations

Grant Miller – Director of Planning, Development Services (UBC)

Gavin Blackstock – Executive Director, Facilities Management (PHSA)

Jens Dilling – Associate Lab Director, Physical Sciences

Sean Lee, Interim Head, Communications and Head, External Relations

Violeta Toma – Manager, Accelerator Operations

20-year Vision Site Development – Key Words

- Accelerator
- Accessibility
- Accommodation
- Carbon Neutral
- Circulation
- Climate Change
- Collaboration
- Commercialization
- Community
- Configuration
- Connections
- Context
- Creativity
- Culture
- Curiosity
- Customization
- Design
- Discovery
- Diversity
- Education
- Energy Management
- Engineering
- Flexibility
- Green
- History
- Inclusivity
- Innovation
- Incubation
- Infrastructure
- Inspiration
- Institutional
- Integration
- International
- Landscape
- Landmark
- Land Use
- Legacy
- Maker Space
- Multi-disciplinary
- Multi-use
- Nuclear
- Orientation
- Outreach
- Partnerships
- Physics
- Pragmatic
- Potential
- Remote Work
- Risk
- Science
- Security
- Sustainability
- Technology
- Topography
- Transportation
- User Requirements
- Utility
- Vision
- Weather
- Welcoming

20-year Vision Site Development – Potential Themes

- ❁ Collaboration/Commercialization/Hub/Integration/ Incubation/Partnerships/
Curiosity/Discovery/ Education/ Inspiration/ Learning/Wonder/Creativity/Innovation/
Maker Space/ Technology/ Flexibility/ Multi-Use/Potential/Pragmatic/Remote
Work/Utility/Vision/Visionary (**Innovation Hub**)
- ❁ Design/Circulation/ Configuration/Context/ Customization / Institutional/Infrastructure
/Landscape/Land-Use/ Mixed Use/ Risk/Security/Site/Topography/Transportation/User
Requirements/ Placemaking/Landmark/Accessibility/Accommodation /Community/
Connections/Diversity/Inclusivity/Orientation/Outreach/Welcoming/Character/Quality
(**Design Considerations, Placemaking, Programmatic Requirements**)
- ❁ Culture/History/Legacy/Organizational Identity/Brand/International/
Accelerators/Physics /Nuclear/Multi-Disciplinary/Science/Equity/Reconciliation
(**Organizational Identity**)
- ❁ Carbon Neutral/Climate Change/Energy Management/Green/LEED/Sustainability/Zero
Emissions/Resiliency/Adaptation/Redundancy/Environment/Wellness (**Resiliency &
Sustainability**)
- ❁ Engineering/Robotics/ Remote Operation/ Asset Management/Maintenance
/Automation /Technology/ AI/Machine Learning/ Data/ Health/Safety/ Radioactive Waste
(**Operational Efficiency**)

Current State → Action → 2042

| ATTRACT | <ul style="list-style-type: none"> • TRIUMF’s diverse scientific portfolio is enabled by the world’s largest cyclotron at Canada’s multi-disciplinary particle accelerator centre • Secluded on the southwestern corner of the UBC campus | <ul style="list-style-type: none"> • Conceive a landmark building on the site that engages the broader community’s curiosity about activity behind the radiation fence • Showcase the cultural heritage and site significance through an outreach/visitor center • Establish a ‘front door’ for the campus and enhance the edges • Modernize and expand the breadth staff amenities and facilities | <p>The TRIUMF campus can be reimagined and reinvented via effective placemaking by its community as a public space incorporating its historical legacy, unique culture and organizational identity.</p> |
|---------|--|--|--|
| CONNECT | <ul style="list-style-type: none"> • TRIUMF is a collaborative hub, known and recognized internationally for its research and innovation | <ul style="list-style-type: none"> • Design multi-purpose collaboration spaces both indoors and outdoors • Equip a maker and incubation spaces for the research community, to encourage commercialization of intellectual property developed at TRIUMF and to engage the general public in our activities on site • Improve and expand working partnerships with other local Vancouver universities and post-secondary institutions. | <p>TRIUMF is a multi-faceted hub that inspires and promotes collaboration, innovation, and discovery.</p> |
| DESIGN | <ul style="list-style-type: none"> • A utilitarian design, with facilities designed primarily for function – not form or aesthetics • The majority of the campus plan has evolved organically, lacking a clear direction or cohesion in the current layout of buildings • Some green building standards applied to for new buildings • Outdated equipment and technology on site | <ul style="list-style-type: none"> • Construct bold landmarks • Invest in high quality workspaces • Incorporate sustainability practices into site development • Improve space utilization and site flow | <p>TRIUMF is a showcase for research, science and innovation that is attractive, cohesive and sustainable.</p> |

Our Vision for Site Development

The TRIUMF campus can be reimagined and reinvented via effective **placemaking** by its community as a public space incorporating its historical legacy, unique culture and organizational identity.

Establish a site that is welcoming and inspirational attracting employees, drawing visitors from all over the world and inspiring future generations of scientists.

TRIUMF is a multi-faceted **hub** that inspires and promotes collaboration, innovation, and discovery.

Develop a site that fosters innovation and collaboration in research, education, and industry, and that engages, integrates, and nurtures relationships with our community.

TRIUMF is a **showcase** for research, science and innovation that is attractive, cohesive and sustainable.

Design a site that is thoughtfully planned and designed to be sustainable, resilient and adaptable to future needs while always heightening awareness and visibility of the research and science being conducted within.

The TRIUMF campus can be reimagined and reinvented via effective **placemaking** by its community as a public space incorporating its historical legacy, unique culture and organizational identity.

Establish a site that is welcoming and inspirational attracting employees, drawing visitors from all over the world and inspiring future generations of scientists.

- Design a **welcoming approach** to the site ensuring it is both open and accessible
- Build a **visitors' centre** with a focus on outreach and education through interactive displays to attract visitors, translate the work conducted at TRIUMF to the public, and galvanize interest in STEM
- Increase use of **transparency, visual displays, art and technology** to help the public comprehend the work that we do, including inaccessible areas such as the cyclotron, beamlines and counting rooms, building on the virtual tour that has been recently developed by the communications team.
- Commission **publicly accessible space** for visitors, site tours and demonstrations to deepen the connection with our neighbours, UBC and Greater Vancouver communities as well as a café, meeting rooms, lecture halls, auditorium, incubation and maker spaces
- Showcase the **cultural heritage and significance** of the site using art installations incorporating old, decommissioned equipment and historical documents and photos
- Improve **staff amenities and facilities** to attract and retain top talent such as a fitness centre or daycare promoting a healthy work-life balance and employee wellness
- Invest in **collaborative, high quality work environment** that supports work-life balance to attract and retain staff and welcome users
- Redevelop the **control room**, the nerve centre of TRIUMF at the heart of all operations, as a modern, focal point of the campus as a showcase building that increases our visibility with staff, visitors, and the general public
- Reimagine the **perimeter fencing** and increase public awareness and trust in our operations and activities through education, outreach, and knowledge sharing

TRIUMF is a multi-faceted **hub** that inspires and promotes collaboration, innovation, and discovery.

Develop a site that fosters innovation and collaboration in research, education, and industry, and that engages, integrates, and nurtures relationships with our community.

- Design multi-purpose **collaboration spaces** indoors and outdoors designed to stimulate partnerships and dialogue between staff, researchers and visitors on site, including: a cafeteria, coffee shop, plaza, outdoor meeting space, lecture halls and networking spaces to host colloquia and conferences
- Equip a **maker space** and invite researchers, industry and the general public interested in STEM to use our spaces, tools and workshops exposing students, postdocs, technicians and engineers to new technologies
- Create an **incubation space** to support start-ups in commercialization of TRIUMF's intellectual property
- TRIUMF's physical site is designed will an explicit focus on inspiring and nurturing **young scientists, future leaders and innovators**
- Improve the **working partnership** with UBC, collaborating and developing the 30-year plan for the UBC's south campus
- Reimagine **accommodations for visiting researchers** and what this could look like in the future with UBC's south campus
- Plan the site with clear consideration for building the **relationship with the Musqueam Nation** through thoughtful engagement, incorporating and respecting their interests and areas of cultural significance

TRIUMF is a **showcase** for research, science and innovation that is attractive, cohesive and sustainable.

Design a site that is thoughtfully planned and designed to be sustainable, resilient and adaptable to future needs while always heightening awareness and visibility of the science/research being conducted within.

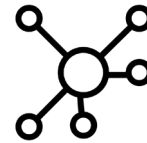
- Construct **bold landmark** buildings that are architecturally distinctive, interesting, inviting, and inspirational utilizing building height to optimize land-use space and increase the visibility and functionality of the site
- Establish a new entrance that is **inviting and welcoming** to the community
- **Consolidate** new modern structures with the older buildings on site
- Reimagine an environment with **high quality workspaces** such as offices, counting rooms and meeting rooms that encourage collaboration, are a source of pride for employees, and support and inspire innovation
- Integrate with the site's **natural** surroundings, through interior landscaping with green walls and outdoor landscaping with drought resistant plants, native plants, and bioswales for storm water management
- Incorporate **sustainability practices** into site planning, create showcase buildings that are highly efficient with retrofits to the highest standards, reducing the environmental impact of energy, water, and waste
- Partner with UBC to **utilize waste heat** as an energy source in the campus district energy system
- Advocate for increased site **accessibility**, linking TRIUMF to UBC transportation infrastructure including future Skytrain station
- Elevate **occupational health and safety** using technology and innovation, such as automation, controls and robotics in areas that present radiation hazards and are inaccessible during operations
- Optimize flow of the site and improve **space utilization** by creating a logical and coherent hierarchy of spaces, including multi-purpose, flexible spaces between buildings and on rooftops

Our Vision for Site Development

Recognize and celebrate the historically significant structures on site



Establish stronger connections to context



Highlight brand/organizational identity  TRIUMF

Enhance visibility into the site



Bring the inside out, outside in



Promote 'greening' of the site



Eliminate all trailers on site!

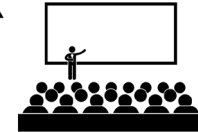


Our Vision for Site Development *continued*

❁ Build new landmark buildings including a new control center building



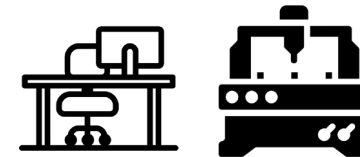
❁ Build an education/outreach visitor facility bridging the external community



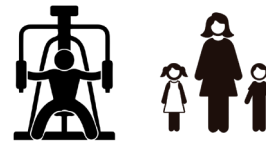
❁ Devise a materials management strategy with onsite and offsite dedicated storage



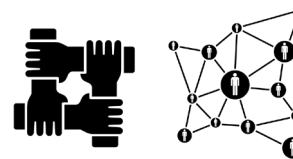
❁ Construct high quality office and technical workspaces



❁ Invest in staff and community amenities

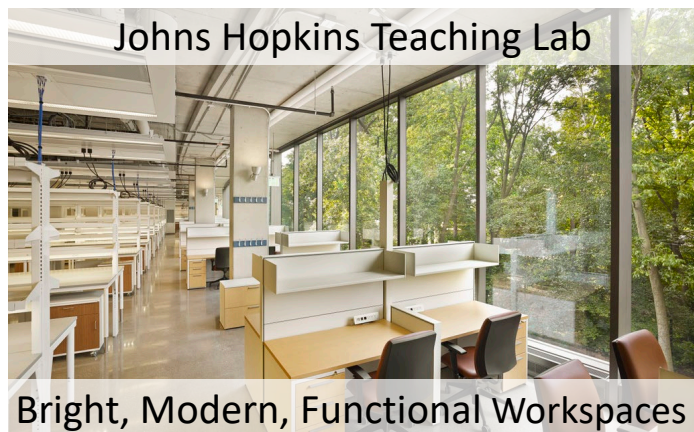
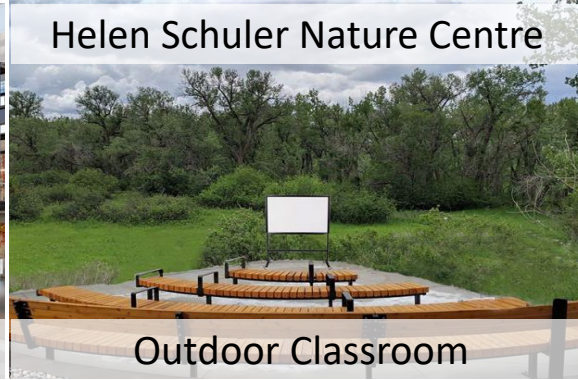


❁ Design collaboration and networking spaces



❁ Equip maker and incubation spaces







Thank You!
Merci!



Discovery,
accelerated