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The University of Alberta is a global leader in teaching and research excellence, ranking among the world’s top 100 research-intensive post-secondary institutions. Our colleges, faculties and units support diverse student learning, real-world research activities and exceptional student and community experiences. Our facilities exist to support the university’s mission of excellence in academics, research and student experience; this is the lens that we apply to capital projects and space decisions across all five of our campuses.

The University of Alberta is one of the world’s great public universities. Working as One University, we harness collective, deep and varied expertise to work together collaboratively to solve the world’s most pressing problems.

Our Capital Plan plays an instrumental role in moving our vision of One University forward — it aligns with the current needs and initiatives of the University of Alberta while ensuring we are positioned for continued excellence as we grow our full-time student body towards 50,000 students by 2026. In order to attract the brightest students and top researchers in areas like health, STEM, humanities and social innovation, we need exceptional facilities where interdisciplinary research and collaboration can flourish.

Our Capital Plan enables this growth and charts a bold path forward. It is a strategic right-sizing of our physical footprint and the renewal of existing space that enables continued excellence in research, teaching and student success. Our plan advances the institution’s core mission of research and education; reflects the university’s commitment to equity, diversity, inclusivity, accessibility, Indigenous initiatives and climate resilience; and increases shared use opportunities.

This Capital Plan sets a strong foundation of financial and environmental sustainability and is guided by emergent themes in the Integrated Asset Management Strategy (IAMS), the Government of Alberta’s strategic directions and Braiding Past, Present and Future, the University of Alberta’s Indigenous Strategic Plan. Future Capital Plans will also be informed by the new University of Alberta Strategic Plan in development. Decisions on buildings and space will be guided by the principles established in the IAMS. We will always ensure those decisions allow us to best discover, disseminate and apply new knowledge for the benefit of society through teaching and learning, research and creative activity, community involvement and partnerships.

Bill Flanagan
President and Vice-chancellor
Message from the Vice-President, Facilities & Operations

The University of Alberta 2023-26 Capital Plan sets the foundation for our institution as we move forward with evidence-driven and strategic decisions that enhance student experience, teaching and researching opportunities. Our plan ensures we are set up to achieve our goals of growth in areas of student and workforce demand, while advancing our reputation around the world.

We are committed to meet the province's growing demand for professionals in multiple areas. We are ready to modernize and renew our buildings to create positive learning and research environments. That's why two of our priority projects — focused on STEM and Health Sciences — are vital to the university's alignment of labour market demand and needs of the province. The STEM project focuses on the Biological Sciences building to ensure students and faculty from across all three colleges have access to world-class lab space, classrooms and interdisciplinary learning opportunities so that they can continue to solve some of the world’s most pressing problems. The health project is part of a broader, multi-partner possibility focused on a new Pediatric Care and Health Sciences Innovation Complex; we will create vital learning and teaching spaces, as well as a much needed health-care facility for the community.

The 2023-26 Capital Plan identifies how we can build a stronger foundation by managing, maintaining and right-sizing our considerable inventory of assets to improve the experiences of both students and faculty. Spaces that foster interdisciplinarity are seeing an increase in collaborative teaching and research, while classroom renewals are ensuring students are in optimal learning environments. There are opportunities to modernize existing buildings that bring the right occupants into shared spaces, best optimize our lab and classroom environments, and improve the quality of student-focused spaces.

This plan will position the university to respond to the growing needs of students, faculty, staff and the community, while achieving greater environmental and fiscal sustainability — now and into the future. Moving forward, we must continue to implement strategic space strategies that support our mission while reducing our ecological and physical footprint. Through the continued use of analytics to make evidence-informed decisions and injections of sparse funds in targeted ways, we can continue to right-size the infrastructure of the institution for the betterment of students, staff and the community.

Andrew Sharman
Vice-president, Facilities & Operations
Shaping world-class infrastructure as One University

With the development of a new One University Strategic Plan underway, we are intently focusing on our shared vision for infrastructure, innovation, enrolment growth, meaningful engagement and partnership with Indigenous communities, while enacting the university’s commitment to equity, diversity and inclusion.

Envisioning our infrastructure through the One University lens opens up ample opportunities for enhanced sustainability, collaboration and efficiency.

To realize the full potential within the One University model, we must invest in infrastructure renewal and redevelopment by space type, in consolidated locations.
The benefits of the One University approach are vast, including:

01. Increased accessibility to state-of-the-art spaces where students, faculty, staff and researchers can do their best learning, teaching and discoveries.

02. Encouraging the creation of equitable and sustainable environments by reducing barriers.

03. Laying the foundation for shared stewardship of our assets, resources and environments across our university community.
Considerations to inform our path forward

2022 economic impacts

Alberta was affected by considerable economic turmoil in 2022:

- Ongoing effects of the global pandemic
- Supply chain issues
- Inflationary impacts
- Increasing carbon tax and climate change legislation
- Changing non-renewable resource policies in the United States

These have impacted:

- Employment rates
- Operating revenues for public institutions
- Demands and expectations on both students and their families
True to its resilient roots, the University of Alberta (U of A) continues to adapt to these challenges, knowing even in times of great restraint, we must invest in maintaining our vital spaces to uphold our world-leading teaching, research and student experiences.
Current state of infrastructure and finance

The U of A is home to an incredibly diverse community of staff, faculty, researchers and more than 50,000 students.

With three colleges, eighteen faculties and dozens of research institutes and centres, the university operates its own district energy system, maintenance and sanitation programs and security and operational requirements. The U of A relies on grants from the Government of Alberta, with support from the Campus Alberta grant, to offset general operational and maintenance costs.
The U of A is the oldest and largest post-secondary institution in Alberta, managing nearly 1.7 million square metres of complex facilities across five campuses.

Infrastructure snapshot

- Some predates World War I, and more than 50 per cent was built in post-war (1951-1975) or modern (1976-1990) periods (both of which are known for lower standard construction practices).

- This majority infrastructure has a projected 50-60 year lifespan, meaning their critical mechanical and electrical systems are at or nearing end of life.

- Building system failures have the potential to interrupt and impact teaching and research are therefore a strong likelihood without positive action.

- Our focus must be on infrastructure reductions and space optimization, increased maintenance funding, targeted capital funding investment and sustained deferred maintenance funding.

Financial snapshot

- Historically, the U of A has received a variable grant under the Capital Maintenance Renewal (CMR) program, intended to help manage elements of the deferred maintenance liability.

- Given the size and complexity of the university’s infrastructure assets, these allocations alone are unable to meet critical needs.

- Reducing our overall space footprint, while also diversifying the revenue stream for deferred maintenance of our infrastructure, is an increasing priority.
Creating space for change-makers: The University of Alberta Capital Plan

Working together as One University, the U of A harnesses its deep and wide-ranging interdisciplinary expertise to solve the world’s most pressing problems.

Over the next 10 years, the U of A has a unique opportunity to invest in its spaces to attract top talent, researchers and students from around the world, making a bigger and bolder global impact.

It is a revolutionary time for partnerships, growth and research excellence at the U of A. With a dedication to evidence-informed decision-making using analytics and modeling, and a spirit of collaboration across the university, the Capital Plan provides a roadmap for a more sustainable, resilient and supportive infrastructure portfolio.

Outcomes include:

- Improved learning, working, teaching and research conditions
- Capacity for increased enrolment
- Expanded research potential
- Reduced operational costs associated with the large infrastructure portfolio
Strengthening our global impact and legacy

As a top globally ranking institution, the U of A must invest in the modern, up-to-date facilities required to uphold excellence in academic learning and research and continue to attract incredible students, researchers, faculty and staff.

Key components of continued success:

- **Modern, updated facilities**: High-quality infrastructure and equipment, ensuring it meets the needs of today and the future.

- **Accessible, collaborative spaces**: Buildings and grounds that allow for and foster valued partnerships with other post-secondary institutions, industry partners and public sector organizations.

- **A vibrant university community and ecosystem**: Nurture mutually beneficial partnerships to explore, create and innovate on our campuses, while contributing to Alberta’s economy, social fabric and culture.
The Capital Plan overview

Leading with purpose means realizing our true potential. In that pursuit, the Capital Plan will bring new life to U of A’s aging spaces, forever altering the course of what is possible on campus, while positively impacting the countless lives who will benefit from the research, innovations, skills and solutions that U of A’s great minds bring to the world.

01  Proactive and future-focused infrastructure solutions: Includes a variety of construction, renewal and renovation projects that directly tie to the pursuit of excellence in teaching, learning and research.

02  Adapt to evolving learning and research methods: Allows the university to adopt highly functional and innovative solutions that can house present day workstyles and needs in optimal and progressive ways.

03  Enhance accessibility, capacity and collaboration: Improves access to more users, optimizes space with increased usage, and enables interdisciplinary collegiality and innovation.

04  Financial and ecological sustainability: As existing assets are invested in, less promising aging assets can be retired with little impact to the academic and research mission. Retired assets help the institution save operating and maintenance expenses, while improving our financial and ecological sustainability.
A roadmap for rejuvenation

The U of A’s rolling three-year Capital Plan aligns with the institution’s Integrated Asset Management Strategy (IAMS). This strategy sets the strategic direction for the U of A’s infrastructure assets, while defining a long-term roadmap.

IAMS:

- **Captures** current state and the conditions that create ongoing challenges.
- **Identifies** future direction and action.
- **Outlines** how the institution intends to be an effective and efficient steward of its physical assets (buildings, roads, grounds and utility infrastructure) through risk-based maintenance, triaging critical deferred maintenance, strategic investments and appropriate partnerships.

Embracing and ushering in change

In the past four years, while facing increasing fiscal constraint and reductions to base operating grants, the university shaped a new approach to many aspects of the institution’s operations.

The U of A must work within a smaller physical footprint, as many of our U15 peers do.

Between 2020 and 2022, under the University of Alberta for Tomorrow (UAT) initiative, academic restructuring and the Service Excellence Transformation (SET) set the foundation for making sustainable organizational changes.

IAMS, coupled with UAT, situates all students, staff, faculty, visitors and community members as stewards of the university’s buildings and grounds.
Capital Plan strategic direction and evidence-based initiatives

The following key foundational initiatives have been informed by a critical review of our infrastructure’s current state, use of space and through assessing emergent areas of opportunity across the University.
1. Integrated Asset Management Strategy (IAMS)

**Purpose:**
A plan to guide how we can care for our campuses as a university community.

**Recommendations:**
- Strategic actions to leverage buildings and assets, reduce overall physical and carbon footprint and save significant operational costs.

**Outcomes:**
- Redirect saved costs toward maintaining and renewing other spaces.
- Demonstrate institutional leadership in decarbonization and reduce utility costs.

2. Space Optimization Strategy (SOS)

**Purpose:**
Identify outcomes, goals and actions to best right-size buildings and space, while understanding our physical footprint and usage in comparison to other U15 institutions.

**Recommendations:**
- Physical footprint reduction to bring U of A more in line with other U15 institutions.
- An aspirational reduction in the institution's footprint by 15 per cent and become more financially and ecologically sustainable.
- Develop a new space governance structure and update space policies, standards and usage guidelines.

**Outcomes:**
- Two governance committees were formed in Fall 2021 to drive change.
- To-date, a 1 per cent physical footprint reduction (over 59,000 sq.m and 75 buildings and structures).
- $1M in savings from lease terminations and approx. $500,000 in annual cost avoidance from supported buildings.
3. Deferred maintenance dashboard and analyses

**Purpose:**
Facilities & Operations (F&O) provides dashboard data to decision makers to consider when prioritizing investment and developing strategy.

**Data reports/use cases:**
- Deferred Maintenance (DM) Data: Building condition reports, prioritization of DM requirements based on risk and severity of impact.
- Operational Cost Data: Annual cost reporting of facility operations including maintenance, custodial and utilities.
- People Counter Data: Anonymous trends in space occupancy and usage.

**Outcomes:**
- Useful, data-based insights are leveraged to support objectivity in infrastructure decision making.

4. Classroom schedule optimization

**Purpose:**
Improvements to classroom scheduling to support a positive student experience.

**Goals:**
- Create a schedule that supports enrolment growth.
- Improve access to classes for students.
- Provide flexibility to assign preferred rooms.
- Optimize our use of teaching spaces.
- Assign the most effective classrooms that meet learning and pedagogical needs.

**Outcomes:**
- Optimized class schedule to support space inventory management and efficient usage.
- Focus investments in capital improvements to the quality, functionality and technical capabilities of core learning spaces.
5. Review of external party space use

**Purpose:**
Ensure the U of A is providing high-value real estate to the most appropriate external parties.

**Goals:**
- Maximize agreements with vendors (e.g., Starbucks), event producers (e.g., concerts/celebrations) and with large organizations (e.g., Students’ Union and Alberta Health Services).
- Increase partnerships with industry, external organizations and individual researchers that are incorporated and work largely outside the university’s priorities.

**Outcomes:**
- Opportunities for further consolidation, appropriate costing and/or stronger alignment to key research or innovation priorities.

6. Enhancing Accessibility, Safety, Equity, Diversity and Inclusion and Indigenous Initiatives

**Purpose:**
As the university renews its physical infrastructure, best practices in accessibility, safety and inclusive design are being integrated to all upcoming capital project work.

**Strategic plans:**
- **Equity, Diversity and Inclusivity**
- **Braiding Past, Present and Future**, U of A’s Indigenous Strategic Plan: The plan calls for the removal of barriers and the creation of safe and welcoming spaces.
- Crime Prevention Through Environmental Design (CPTED): Suggestions for personal safety while in the design stage of a project, may include emergency lock-down situations, evacuation and access controls, as well as ensuring personal safety for staff and students with open sight lines.

**Outcomes:**
- These visionary plans, together with a deep commitment to enhance accessibility and safety, position the university’s culture as one that values, supports and promotes equity, human rights and accountability among faculty, staff and students.
Appendix 1:

University of Alberta capital requests

The U of A eagerly explores opportunities to leverage funding and build creative partnerships and project delivery models. This has been an inherently delicate endeavor considering its five distinct campuses, each of which serves unique and separate constituencies in Alberta.
The Capital Plan highlights:

✓ Existing priority projects (under construction)
✓ Ways to elevate the profile of several priority projects in different phases of ideation, planning and funding
✓ The alignment of the U of A’s priorities and the consistency of its approach and values

Key project lenses:

• Current evidence of the state of the infrastructure
• Emergent needs and growth of colleges and departments for teaching and research
• Support for innovation and commercialization activities
• Foundational need for EDI, accessibility, safety and Indigenous initiatives

The majority of these projects have been submitted to the Government of Alberta’s Building and Land Information Management System (BLIMS).

Key project lenses:

• Biological Sciences Complex - redevelopment ($500 million)
• Integrated Health Sciences Innovation Complex (ECHA 2.0) ($420 million for the university’s portion)
• Animal Research Labs - renewals (Phase 1: $11 million)
• Athabasca Hall - redevelopment ($14 million)
• Cameron Library - building envelope ($29 million)
• Central Academic Building - renewal ($14 million)
• Chemistry East Instruction Labs - renewals ($27 million)
• Education Complex - redevelopment ($316 million)
• South Academic Building - renewal ($19 million)

Priority project for provincial support:

• Universiade Pavilion (Butterdome) - building envelope ($27 million)
Capital Project overviews and priorities
Redevelopment

Biological Sciences Complex

Total Project Cost: $500 million (phased over 10 - 15 years)

The redeveloped STEM Building will be Canada's preeminent home for world-leading, life sciences education, research, discovery and experiential learning.

True to its trailblazing roots, the University of Alberta has bold plans to transform its Biological Sciences Building into a revolutionary STEM centre, attracting the brightest academic minds and educating the next generation of change-makers.

Complete with cutting-edge technologies, facilities, labs and equipment, the STEM Building will be a catalyst for far-reaching innovation. By transforming the building into a high-performance laboratory facility, the U of A would increase its high-service laboratory space through a modular, efficient layout with core lab services.

The world's grand challenges will be solved through inter and transdisciplinary approaches with systems thinking and STEM expertise at the core. This approach will require team based research and education buoyed within social innovation. This building will facilitate these approaches to problem solving and will offer incredible opportunities for students, faculty and researchers to collaborate and combine resources and expertise.

Through shared high service core laboratory facilities that bring together scientists and innovators from across disciplines that may include Psychology, Biological Sciences, and Earth and Atmospheric Sciences ideas and approaches will collide and inspire. Imagine core genomic, transcriptomic and metabolomic high service laboratory facilities that bring together those interested in DNA form through function to inform everything from crop and food security to synthetic biology and bioengineering to human health and disease understanding to energy resilience and climate adaptation in Alberta, Canada and the world.

Here, STEM students, faculty and researchers will be working in open and innovative shared discovery spaces and research labs, together, to understand life and everything that supports it, grow our knowledge about how life works, take that knowledge and apply it to solve our grandest challenges, and in the process improve lives and sustain the earth. From energy transition technologies and artificial intelligence, to health innovations and space exploration, the possibilities are endless.

In a 2022 draft of the Facility Master Plan, the Biological Sciences Complex could increase high service laboratory space and capacity, while being transformed into a high performance laboratory facility. The vision includes adopting a modular, efficient layout with core lab services as much as possible.

Considering the priority of this project and the fact that the Biological Sciences Complex is the institution's largest source of deferred maintenance, the university has set aside $10 million for this project.
Deferred maintenance savings potential:

- **$82 million** (five-year maintenance projection)
- **$98.6 million** (20-year maintenance projection)

All affected and potential stakeholders will be engaged in the forthcoming planning phases.

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New Development

Integrated Health Sciences Innovation Complex (ECHA 2.0)

**Total Project Cost:** $420 million (University of Alberta portion)

The Alberta Health Services’ (AHS) vision is to develop an active treatment hospital for pediatric care, focused on accelerating advances in health-care provision, training and innovation.

The University of Alberta is proposing a potential new Pediatric Care and Health Sciences Innovation Complex that would be a shared and integrated space for active care, clinicians, students, faculty and staff. It would create care capacity, interdisciplinary innovation and health-care training in a state-of-the-art facility with specialized medical systems and technologies.

While in early ideation discussions, it could be a new health sciences complex, with a goal to consolidate high service laboratory space in one location and enable the consolidation of academic office space into a repurposed Medical Sciences Building (MSB), which has aging infrastructure that is too costly and challenging to refurbish in its current state. In time, and with focused investment, the long-term benefit would allow the university to further work towards vacating aging assets.

Deferred maintenance savings potential:

- **$10.5 million** (five-year maintenance projection)
- **$15 million** (20-year maintenance projection)

A Health Sciences Master Plan will proceed in 2023 to test and progress this concept. All affected potential stakeholders will be engaged in the forthcoming programming and planning phases.
Renewal

Animal Research Labs

**Total Project Cost:** $11 million

The Animal Research Labs renewal project will improve animal lab provisions to meet compliance needs.

Spaces require modernization and renewal to maintain CCAC compliance, improve infrastructure and prevent any detrimental impacts to research integrity at the university.

Animal research areas are highly sensitive in nature and require special conditions. Consolidating and renewing them where possible creates operational and infrastructure efficiencies, while improving the reliability of research activities.

All affected and potential stakeholders will be engaged in the forthcoming planning phases.

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Redevelopment

Athabasca Hall

**Total Project Cost:** $14 million

The Athabasca Hall redevelopment project will potentially house a department from the Faculty of Arts, as part of the effort to vacate the Humanities Building.

Discussions with the Faculty of Arts are underway and domino planning is integral for all their needs and resultant spaces. With Athabasca Hall becoming available in 2024, consultation and programming work will proceed in 2023, starting with a Faculty Master Plan.

Athabasca Hall is one of the key hallmark buildings that flank the open green space called the Quad. The hall served as a student residence in the early 1900s and was built using wood frame construction with a lighter structural capacity, which best serves an academic office environment. This renewal would modernize the building’s infrastructure systems and allow for a more optimized footprint with improved functionality in the heart of North Campus.

All affected and potential stakeholders will be engaged in the forthcoming planning phases.
Building Envelope

Cameron Library

Total Project Cost: $29 million

The replacement of the aging and failing building envelope for Cameron Library will reduce the deferred maintenance liability and utility costs.

Building envelopes for aging assets must be replaced to extend the life and functionality of the asset.

All affected and potential stakeholders will be engaged in the forthcoming planning phases.

Renewal

Central Academic Building

Total Project Cost: $14 million

The Central Academic Building renewal project vision is to revitalize levels four to six of the Central Academic Building (CAB), in order to house an academic department that would come out of the Biological Sciences Building. From a strategic planning perspective, the renewal of levels four to six would allow for work in the Biological Sciences Complex (listed above) to progress.

The space in CAB will become available for renewal in 2024, when the existing occupants relocate to University Commons. Engagement, planning and design will proceed in 2023.

All affected and potential stakeholders will be engaged in the forthcoming planning phases.
Renewal

Chemistry East Instruction Labs

Total Project Cost: $27 million

The Chemistry East Instruction Labs renewal project will renew the remaining labs in the Chemistry East Building.

The building and research labs in Chemistry West have been fully renewed. This renewal project ensures the rest of the labs are updated, significantly optimizing laboratory space. The project includes the redevelopment of the floor plates to allow for more densified lab spaces, resulting in an overall increase in available teaching labs to support additional student population growth.

All affected and potential stakeholders will be engaged in the forthcoming planning phases.

Redevelopment

Education Complex

Total Project Cost: $316 million

The Education Complex redevelopment project will modernize and redevelop the Education Complex, allowing the university to gain efficiencies in space, while improving the student, faculty and staff experience.

Potentially, the Faculty of Education would be consolidated in one of the towers, which would free up the other tower for the needs of the College of Social Sciences and Humanities. The Education Complex would house replacement classrooms from the Humanities Centre. A spatial master plan for the Education Complex was completed in Spring 2022 to allow Facilities & Operations to understand options for space type and capacity, together with a corresponding high-level estimate. Upcoming engagement with the Faculty of Arts will work toward the development of a master plan.

The redevelopment scope would include the complete building infrastructure renewal of architectural, electrical and mechanical infrastructure systems and the aging building envelope.

Deferred maintenance savings potential:

- $50.1 million (five-year maintenance projection)
- $60.7 million (20-year maintenance projection)

All affected and potential stakeholders will be engaged in the forthcoming planning phases.
Renewal

South Academic Building

Total Project Cost: $19 million

The South Academic Building renewal project is focused on the renovations of levels one, two and three, which would be as student-focused as possible, in collaboration with the Office of the Dean of Students.

With the opening of University Commons in 2024, some executive units will be relocated. This project would consolidate the remaining executive units and renew the vacated space for student success functions such as the Exam Centre, Learning Assessment Centre and other academic student service priorities from the Office of the Dean of Students that could benefit from a direct adjacency to University Commons. This creates a better student experience, operational efficiencies, while optimizing vacated space.

All affected and potential stakeholders will be engaged in the forthcoming planning phases.

Provincial Support Priority

Building Envelope

Universiade Pavilion (Butterdome)

Total Project Cost: $27 million

This project would replace the aging and failing building envelope of Universiade Pavilion (Butterdome).

As an iconic community landmark at the University of Alberta, the Butterdome is used to host many sports events, training and community events like craft sales. This building has supported many large-scale initiatives driven by the province, including pandemic preparations, back-up emergency evacuation plans for City of Edmonton events, and post-flooding services. A renewal of the Butterdome is as advantageous to the province and the City of Edmonton as it is to the U of A.

It has a significant deferred maintenance challenge as a result of the failed building envelope.

This is our Provincial Priority Project, as the Butterdome is a significant part of emergency response situations for the Government of Alberta.

All affected and potential stakeholders will be engaged in the forthcoming planning phases.
Leading with purpose.