UNIVERSITY OF ALBERTA
UNIVERSITY GOVERNANCE

BOARD FINANCE AND PROPERTY COMMITTEE
MOTION AND FINAL DOCUMENT SUMMARY

The following Motions and Documents were considered by the Board Finance and Property Committee at its Tuesday, November 26, 2013 meeting:

Agenda Title: **University of Alberta 2014-15 Tuition Fee Proposal**

APPROVED MOTION:
THAT the Board Finance and Property Committee, on the recommendation of the GFC Academic Planning Committee acting under delegated authority from General Faculties Council, recommend that the Board of Governors approve a proposal from the University Administration for a general tuition fee increase of 1.0%, effective September 1, 2014 and as illustrated in the table below.

Undergraduate (Arts and Science) [a, b]	**2013-14**	**2014-15**	**Change [c]**	
			($)	**(%)**
Domestic (Arts and Science)	$5,269.20	$5,320.80	$ 51.60	0.98%
Domestic Graduate Fees [a, b]	**2013-14**	**2014-15**	**Change [c]**	
			$	**%**
Course Based Masters	$3,708.00	$3,744.72	$36.72	0.99%
Thesis 919 [d]	$2,312.80	$2,335.92	$ 23.12	1.0%
Thesis Based (Masters and PhD) [b, e]	$2,778.00	$2,805.72	$ 27.72	1.0%

(a) Values are based on a full-time per term and full-time per year.
(b) Excludes applicable market modifier and/or program specific differential fees.
(c) Tuition increases are applied to the fee index. As such, the effective year over year percentage change on the overall full-time program may be below 1.0 percent.
(d) Tuition applies to thesis students who were admitted to the program of study prior to Fall 2011 and are assessed the reduced thesis rate.
(e) Tuition applies to thesis students who were admitted to the program of study beginning in Fall 2011 or later; this is based on an annual fee assessment (including spring/summer).

Final recommended item: 5.

Agenda Title: **University of Alberta 2014-2015 Program/Course Differential Fee and Market Modifier Fee Proposal**

APPROVED MOTION:
THAT the Board Finance and Property Committee, on the recommendation of the GFC Academic Planning Committee acting under delegated authority from General Faculties Council, recommend that the Board of Governors approve a proposal from the University Administration for a fee increase to program differentials, course differentials, and market modifiers of 1.0%, effective September 1, 2014, for:

a) Faculty of Law, Juris Doctor (JD) program;
b) Faculty of Business, Master of Business Administration (MBA) program;
c) Faculty of Medicine and Dentistry, Doctor of Medicine (MD) program;
d) Faculty of Business, Undergraduate Business courses;
e) Faculty of Engineering, Undergraduate Engineering courses;
f) Faculty of Pharmaceutical Sciences, Pharmacy program; and

g) Graduate Studies, Thesis Based

as set out in the table below.

Program Differential [c]	**2013-14**	**2014-15**	**Change** [a]	
			$	**%**
Juris Doctor (JD) Program [b]	$4,500.60	$4,545.60	$45.00	1.0%
Master of Business Administration (MBA) Program	$591.96	$597.84	$5.88	0.99%
Doctor of Medicine (MD) Program [b]	$4,500.60	$4,545.60	$45.00	1.0%
Market Modifier [c, d]	**2013-14**	**2014-15**	**Change** [a]	
			$	**%**
Undergraduate Business	$207.72	$209.78	$2.06	0.99%
Undergraduate Engineering	$175.64	$177.36	$1.72	0.98%
Undergraduate Pharmacy	$400.20	$404.16	$3.96	0.99%
Graduate, Thesis Based [e]	$848.28	$856.68	$8.40	0.99%

(a) Tuition increases are applied to the fee index. As such, the effective year over year percentage change on the overall full-time program may be below 1.0 percent.
(b) Program Fees - values are based on a full-time per term and full-time per year.
(c) Values listed are per course, unless otherwise stated (assumes 3 units course weight)
(d) A grand-parenting structure applies in each case to allow for the exemption of these fees, under specific conditions, for students registered prior to September 2011.
(e) Graduate market modifier applies only to thesis students beginning their program of study in Fall 2011 or later, and is based on an annual fee assessment (including spring/summer).

Final recommended item: 6.

Agenda Title: **University of Alberta 2014-2015 International Tuition Fee Proposal**

APPROVED MOTION 1:
THAT the Board Finance and Property Committee recommend that the Board of Governors approve a proposal from the University Administration for an effective increase of 5% on undergraduate international tuition fees and an increase of 5% for the MBA international program differential fee, effective September 1, 2014, as illustrated in the tables below.

APPROVED MOTION 2:
THAT the Board Finance and Property Committee recommend that the Board of Governors approve a proposal from the University Administration for an effective 1% increase on graduate international tuition fees, effective September 1, 2014 as illustrated in the tables below.

General Tuition Fees:

			Change [c]	
Undergraduate (Arts and Science) [a, b]	**2013-14**	**2014-15**	**($)**	**(%)**
International, Base	$5,269.20	$5,320.80	$51.60	0.98%
International, Differential	$13,441.20	$14,324.40	$883.20	6.57%
Total, International	**$18,710.40**	**$19,645.20**	**$934.80**	**5.00%**

			Change [c]	
Course Based Masters [a]	**2013-14**	**2014-15**	**($)**	**(%)**
International, Base Tuition	$3,708.00	$3,744.72	$36.72	0.99%
International, Differential	$3,866.40	$3,904.56	$38.16	0.99%
Total, International	**$7,574.40**	**$7,649.28**	**$74.88**	**0.99%**

			Change [c]	
Thesis 919 [a, e]	**2013-14**	**2014-15**	**($)**	**(%)**
International, Base Tuition	$2,312.80	$2,335.92	$23.12	1.00%
International, Differential	$2,412.24	$2,436.36	$24.12	1.00%
Total, International	**$4,725.04**	**$4,772.28**	**$47.24**	**1.00%**

			Change [c]	
Thesis Based Masters/PhD [a, b, d]	**2013-14**	**2014-15**	**($)**	**(%)**
International, Base Tuition	$2,778.00	$2,805.72	$27.72	1.00%
Graduate Thesis Market Modifier	$848.28	$856.68	$8.40	0.99%
International, Differential	$2,906.76	$2,935.80	$29.04	1.00%
Total, International	**$6,533.04**	**$6,598.20**	**$65.16**	**1.00%**

(a) Values are based on a full-time per term and full-time per year.
(b) Excludes applicable market modifier and/or program specific differential fees, except for the graduate thesis market modifier, which is included above.
(c) Tuition increases are applied to the fee index. As such, the effective year over year percentage change on the overall full-time program may be below 1.0/5.0 percent.
(d) Tuition applies to thesis students who were admitted to the program of study prior to Fall 2011 and are assessed the reduced thesis rate.
(e) Tuition applies to thesis students who were admitted to the program of study beginning in Fall 2011 or later; this is based on an annual fee assessment (including spring/summer).

Program Differential and Market Modifier fees

			Change	
Program Differential [a]	**2013-14**	**2014-15**	**$**	**%**
Juris Doctor (JD), base [b]	$4,500.60	$4,545.60	$45.00	1.00%
Juris Doctor (JD), IDF on base [b]	$4,694.12	$5,108.84	$414.72	8.83%
Total International JD Program Fee [b]	**$9,194.72**	**$9,654.44**	**$459.72**	**5.00%**
Master of Business Administration, Base	$591.96	$597.84	$5.88	0.99%
MBA, IDF on Base	$617.40	$671.88	$54.48	8.82%
Total International MBA Program Fee	**$1,209.36**	**$1,269.72**	**$60.36**	**5.00%**

			Change	
Market Modifier [a]	**2013-14**	**2014-15**	**($)**	**(%)**
Business, Base Market Modifier	$207.72	$209.78	$2.06	0.99%
Business, IDF on Market Modifier	$529.84	$564.64	$34.80	6.57%
Total, International	**$737.56**	**$774.42**	**$36.86**	**5.00%**
Engineering, Base Market Modifier	$175.64	$177.36	$1.72	0.98%
Engineering, IDF on Market Modifier	$448.04	$477.48	$29.44	6.57%
Total, International	**$623.68**	**$654.84**	**$31.16**	**5.00%**
Pharmacy, Base Market Modifier	$400.20	$404.16	$3.96	0.99%
Pharmacy, IDF Market Modifier	$1,020.84	$1,087.92	$67.08	6.57%
Total, International	**$1,421.04**	**$1,492.08**	**$71.04**	**5.00%**

(a) Values listed are per course, unless otherwise stated (assumes 3 units course weight).
(b) Program Fees - values are based on a full-time per term and full-time per year.

Final recommended item: 7.

Agenda Title: **2014-15 Residence Rate Proposal**

APPROVED MOTION:
THAT the Board Finance and Property Committee recommend that the Board of Governors approve the 2014-2015 Residence Rate Proposal, as set forth in Attachment 1, effective May 1, 2014.

Final recommended item: 8.

Agenda Title: **Proposed Rescinding of UAPPOL Indirect Costs of Research Policy and Creation of New UAPPOL Indirect Costs of Research Procedure**

APPROVED MOTION:
THAT the Board Finance and Property Committee recommend that the Board of Governors rescind the UAPPOL Indirect Costs of Research Policy and replace it with the Indirect Costs of Research Procedure.

Final recommended item: 9.

Agenda Title: **East Campus Village Infill Housing Capital Expenditure Authorization Request (CEAR)**

APPROVED MOTION:
THAT the Board Finance and Property Committee, acting with delegated authority of the Board of Governors, approve a capital expenditure authorization request of five million, five hundred thousand ($5,500,000) in Canadian funds for the total project cost for the construction of the East Campus Village (ECV) – Infill Housing projects (Buildings A and B).

Final approved item: 10.

Agenda Title: **Disposition of Land –Utility Corridor, 63 Avenue and 122 Street: Resolution and Order in Council**

APPROVED MOTION:
THAT the Board Finance and Property Committee recommend that the Board of Governors:

a) approve the disposition, via right of way, to the City of Edmonton for road widening of approximately ¾ of an acre of land which is surplus to the needs of The University of Alberta and which is contained within the parcel legally described as the SW ¼ 19 – 52 – 24 W4M, and
b) make an application to the Minister of Infrastructure for the required approval of the Lieutenant Governor in Council for the granting of the disposition as set forth in Attachment 3.

Final recommended item: 11.

Agenda Title: **Envision Year 2 Capital Expense Authorization Request (CEAR)**

APPROVED MOTION:
THAT the Board Finance and Property Committee, acting with delegated authority of the Board of Governors, approve that the University proceed with the second year of the seven-year *Envision* energy management program, and approve a capital expenditure of not more than Five Million Dollars ($5,000,000.00) in Canadian funds to implement the second year of the program.

Final approved item: 12.

Agenda Title: **Envision Year 2 Management Borrowing Resolution - Order in Council Required**

APPROVED MOTION:
THAT the Board Finance and Property Committee recommend that the Board of Governors:

1. execute a Borrowing Resolution requesting approval of financing the second year of the seven-year *Envision* energy management program in an amount not to exceed Five Million Dollars ($5,000,000.00) in Canadian funds for a term not to exceed fifteen (15) years at an interest rate not to exceed seven percent (7.0%); and
2. make application to the Minister of Enterprise and Advanced Education for the required approval of the Lieutenant Governor in Council.

Final recommended item: 13.

OUTLINE OF ISSUE

Agenda Title: **University of Alberta 2014-2015 General Tuition Fee Proposal**

Motion: THAT the Board Finance and Property Committee, on the recommendation of the GFC Academic Planning Committee acting under delegated authority from General Faculties Council, recommend that the Board of Governors approve a proposal from the University Administration for a general tuition fee increase of 1.0%, effective September 1, 2014 and as illustrated in the table below.

Undergraduate (Arts and Science) [a, b]	**2013-14**	**2014-15**	**Change** [c]	
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Course Based Masters	$3,708.00	$3,744.72	$36.72	0.99%
Thesis 919 [d]	$2,312.80	$2,335.92	$ 23.12	1.0%
Thesis Based (Masters and PhD) [b, e]	$2,778.00	$2,805.72	$ 27.72	1.0%

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(d) Tuition applies to thesis students who were admitted to the program of study prior to Fall 2011 and are assessed the reduced thesis rate.
(e) Tuition applies to thesis students who were admitted to the program of study beginning in Fall 2011 or later; this is based on an annual fee assessment (including spring/summer).

Item

Action Requested	☐Approval ☒Recommendation ☐Discussion/Advice ☐Information
Proposed by	Provost and Vice-President (Academic)
Presenters	Provost and Vice-President (Academic) and Vice-President (Finance and Administration)
Subject	Tuition for 2014-2015

Details

Responsibility	Provost and Vice-President (Academic).
The Purpose of the Proposal is (please be specific)	To set tuition fees for the 2014-2015 academic year.
The Impact of the Proposal is	See ‘Purpose’.
Replaces/Revises (eg, policies, resolutions)	Tuition proposal set by the Board of Governors on December 14, 2012 for September, 2013.
Timeline/Implementation Date	September, 2014.
Estimated Cost	N/A
Sources of Funding	N/A
Notes	N/A

Alignment/Compliance

Alignment with Guiding Documents	Comprehensive Institutional Plan; *Dare to Discover*; *Dare to Deliver*
Compliance with Legislation, Policy and/or Procedure	1. **Ministerial Letter Regarding the New Tuition Fees Regulation**: A letter to the President, University of Alberta, dated September 17,

Relevant to the Proposal (please quote legislation and include identifying section numbers)	2013, from the Ministry of Enterprise and Advanced Education (EAE) states that: “As per the Public Post-secondary Institutions’ Tuition Fee Regulation, the maximum allowable weighted average tuition fee increase across the entire institution shall not exceed 1.0 per cent.” 2. ***Post-Secondary Learning Act* (*PSLA*), Sections 61(1) and 61(2)(a)**: “**61(1)** The board of a public post-secondary institution shall set the tuition fees to be paid by students of the public post-secondary institution. **61(2)** The tuition fees under subsection (1) for all public post-secondary institutions other than Banff Centre (a) must be set in accordance with the regulations[.] […]” 3. ***PSLA* Section 26(1)(o)** states: “Powers of general faculties council 26(1) Subject to the authority of the board, a general faculties council is responsible for the academic affairs of the university and, without restricting the generality of the foregoing, has the authority to (o) make recommendations to the board with respect to affiliation with other institutions, academic planning, campus planning, a building program, the budget, the regulation of residences and dining halls, procedures in respect of appointments, promotions, salaries, tenure and dismissals, and any other matters considered by the general faculties council to be of interest to the university […].” On the line-by-line budget, including consideration of matters related to tuition, GFC has delegated this responsibility to its senior standing committee, the GFC Academic Planning Committee (APC), as noted in the following. 4. **GFC Academic Planning Committee (APC) Terms of Reference (*Mandate* - Section 3.4(b))**: “APC is responsible for making recommendations to GFC and/or to the Board of Governors concerning policy matters and action matters with respect to the following: [. . .] 4. **Budget Matters** To recommend to the Board of Governors on the annual budget, excluding budgets for ancillary units. […]. ” 5. **Board Finance and Property (BFPC) Terms of Reference (Section 3(d))**: “3. Without limiting the generality of the foregoing, the Committee shall: […] d) review and recommend to the Board tuition and other like fees[.]”

Routing (Include meeting dates)

Consultative Route (parties who have seen the proposal and in what capacity)	President's Executive Committee (Operations) – October 31, 2013 (for endorsement)
Approval Route (Governance) (including meeting dates)	GFC Academic Planning Committee – November 13, 2013 (for recommendation); Board Finance and Property Committee – November 26, 2013 (for recommendation); Board of Governors – December 13, 2013 (for final approval)
Final Approver	Board of Governors

Attachments:

1. Attachment 1 (pages 1 – 4) - University of Alberta Tuition Proposal, 2014-2015
2. Attachment 2 (page 1) - Letter from the Ministry of Enterprise and Advanced Education (EAE) to the President, University of Alberta

Prepared by: Ray Wong, Director, Resource Planning, ray.wong@ualberta.ca, with assistance from University Governance

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Additional documents:

3. Attachment 3 – PowerPoint presentation prepared by Administration.

University of Alberta
Tuition Proposal, 2014-15

(Revised Nov. 25, 2013)

TUITION POLICY

Under the provincial *Public Post-Secondary Institutions' Tuition Fees Regulation*, annual tuition increases are tied to the Alberta Consumer Price Index (CPI) based on average monthly increases from July to June. For 2014-15, Alberta Ministry of Enterprise and Advanced Education calculated the maximum allowable tuition increase to be 1.0 percent. The regulation does not apply to international differential fees or surcharges assessed to individuals who are not Canadian citizens or permanent residents of Canada.

THE BUDGET CONTEXT

Tuition fee revenue is integral to the University's continued vitality and success. It is the second largest source of unrestricted operating funds and represents approximately 30 percent of total operating revenues.

With limited improvements in the fiscal environment the university continues to face significant budget pressures. In 2013-14, the province suspended the allowable tuition increase (2.15 percent) and reduced the University of Alberta's campus Alberta grant by 7.2 percent. Similarly, the university is anticipating a 0 percent grant increase in 2014-15.

Despite consecutive years of budget re-allocations the university continues to face challenges in balancing limited growth in operating revenue against rising investment costs for teaching and research (faculty, staff and facilities). With limited grant funding and a stagnant investment climate, the university must continue to maximize all revenue opportunities.

TUITION PROPOSAL

It is recommended that the following tuition fees be increased effective September 1, 2014.

- Instructional tuition fees increase by 1.0 percent.
- Market modifiers and program differential fees increase by 1.0 percent.
- Undergraduate international student tuition fees increase by an effective rate of 5.0 percent.
- Graduate international student tuition fees increase by 1.0 percent.
- MBA international program differential tuition fee increase by 5.0%

For illustrative purposes, the details of the proposal are outlined below.

1) General Tuition Fee Proposal

			Change [c]	
Undergraduate (Arts and Science) [a, b]	**2013-14**	**2014-15**	**$**	**%**
Domestic (Arts and Science)	$5,269.20	$5,320.80	$ 51.60	0.98%
			Change [c]	
Domestic Graduate Fees [a, b]	**2013-14**	**2014-15**	**$**	**%**
Course Based Masters	$3,708.00	$3,744.72	$36.72	0.99%
Thesis 919 [d]	$2,312.80	$2,335.92	$ 23.12	1.0%
Thesis Based (Masters and PhD) [b, e]	$2,778.00	$2,805.72	$ 27.72	1.0%

(a) Values are based on a full-time per term and full-time per year.
(b) Excludes applicable market modifier and/or program specific differential fees.
(c) Tuition increases are applied to the fee index. As such, the effective year over year percentage change on the overall full-time program may be below 1.0 percent.
(d) Tuition applies to thesis students who were admitted to the program of study prior to Fall 2011 and are assessed the reduced thesis rate.
(e) Tuition applies to thesis students who were admitted to the program of study beginning in Fall 2011 or later; this is based on an annual fee assessment (including spring/summer).

2) Program Differential and Market Modifier Fee Proposal

Program Differential [c]	**2013-14**	**2014-15**	**Change** [a]	
			$	**%**
Juris Doctor (JD) Program [b]	$4,500.60	$4,545.60	$45.00	1.0%
Master of Business Administration (MBA) Program	$591.96	$597.84	$5.88	0.99%
Doctor of Medicine (MD) Program [b]	$4,500.60	$4,545.60	$45.00	1.0%
Market Modifier [c, d]	**2013-14**	**2014-15**	**Change** [a]	
			$	**%**
Undergraduate Business	$207.72	$209.78	$2.06	0.99%
Undergraduate Engineering	$175.64	$177.36	$1.72	0.98%
Undergraduate Pharmacy	$400.20	$404.16	$3.96	0.99%
Graduate, Thesis Based [e]	$848.28	$856.68	$8.40	0.99%

(a) Tuition increases are applied to the fee index. As such, the effective year over year percentage change on the overall full-time program may be below 1.0 percent.
(b) Program Fees - values are based on a full-time per term and full-time per year.
(c) Values listed are per course, unless otherwise stated (assumes 3 units course weight)
(d) A grand-parenting structure applies in each case to allow for the exemption of these fees, under specific conditions, for students registered prior to September 2011.
(e) Graduate market modifier applies only to thesis students beginning their program of study in Fall 2011 or later, and is based on an annual fee assessment (including spring/summer).

3) International Fees

a. International Fees: General Tuition Fee Proposal

Undergraduate (Arts and Science) [a, b]	**2013-14**	**2014-15**	**Change c**	
			($)	**(%)**
International, Base	$5,269.20	$5,320.80	$51.60	0.98%
International, Differential	$13,441.20	$14,324.40	$883.20	6.57%
Total, International	**$18,710.40**	**$19,645.20**	**$934.80**	**5.00%**
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Total, International	**$6,533.04**	**$6,598.20**	**$65.16**	**1.00%**

(a) Values are based on a full-time per term and full-time per year.

(b) Excludes applicable market modifier and/or program specific differential fees, except for the graduate thesis market modifier, which is included above.
(c) Tuition increases are applied to the fee index. As such, the effective year over year percentage change on the overall full-time program may be below 1.0/5.0 percent.
(d) Tuition applies to thesis students who were admitted to the program of study prior to Fall 2011 and are assessed the reduced thesis rate.
(e) Tuition applies to thesis students who were admitted to the program of study beginning in Fall 2011 or later; this is based on an annual fee assessment (including spring/summer).

b. International Fees: Program Differential and Market Modifier Fee Proposal

			Change	
Program Differential [a]	**2013-14**	**2014-15**	**$**	**%**
Juris Doctor (JD), base [b]	$4,500.60	$4,545.60	$45.00	1.00%
Juris Doctor (JD), IDF on base [b]	$4,694.12	$5,108.84	$414.72	8.83%
Total International JD Program Fee [b]	**$9,194.72**	**$9,654.44**	**$459.72**	**5.00%**
Master of Business Administration, Base	$591.96	$597.84	$5.88	0.99%
MBA, IDF on Base	$617.40	$671.88	$54.48	8.82%
Total International MBA Program Fee	**$1,209.36**	**$1,269.72**	**$60.36**	**5.00%**
			Change	
Market Modifier [a]	**2013-14**	**2014-15**	**$**	**%**
Business, Base Market Modifier	$207.72	$209.78	$2.06	0.99%
Business, IDF on Market Modifier	$529.84	$564.64	$34.80	6.57%
Total, International	**$737.56**	**$774.42**	**$36.86**	**5.00%**
Engineering, Base Market Modifier	$175.64	$177.36	$1.72	0.98%
Engineering, IDF on Market Modifier	$448.04	$477.48	$29.44	6.57%
Total, International	**$623.68**	**$654.84**	**$31.16**	**5.00%**
Pharmacy, Base Market Modifier	$400.20	$404.16	$3.96	0.99%
Pharmacy, IDF Market Modifier	$1,020.84	$1,087.92	$67.08	6.57%
Total, International	**$1,421.04**	**$1,492.08**	**$71.04**	**5.00%**

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(b) Program Fees - values are based on a full-time per term and full-time per year.

Attachment 2

Alberta Enterprise and Advanced Education

Commerce Place
10155 - 102 Street
Edmonton, Alberta T5J 4L5
Canada

UNIVERSITY OF ALBERTA
52072
SEP 19 2013
AD01001-13
OFFICE OF THE PRESIDENT

AR 41178

September 17, 2013

Dr. Indira V. Samarasekera, O.C.
President and Vice-Chancellor
University of Alberta
2-24 South Academic Building
Edmonton, AB T6G 2G7

Dear Dr. ~~Samarasekera~~: INDIRA

I am writing to advise on tuition fees for the 2014/2015 academic year. As per the Public Post-secondary Institutions' Tuition Fee Regulation, the maximum allowable weighted average tuition fee increase across the entire institution shall not exceed 1.0 per cent. This allowable increase is based on the change of the average monthly Alberta Consumer Price Index for the 12-month period ending June 30, 2013.

It is anticipated that the draft 2014/2015 Tuition Fee Compliance template will be sent out for processing by the end of September 2013. I am requesting that you complete these templates and submit your initial draft for review by December 2, 2013. Once the review is complete and all issues are addressed, your board's formal approval of the 2014/2015 tuition fees and your Vice-President's final sign off of the template is to be submitted by March 15, 2014.

If you have questions with regard to the above, please contact Mr. Tom Roach, Director, Accountability/Outcomes Reporting by telephone at 780-638-3810 or by email at Tom.Roach@gov.ab.ca.

Thank you for your assistance in this matter.

Sincerely,

Gord Johnston
Assistant Deputy Minister
Advanced Learning and Community Partnerships

cc: Ms. Phyllis Clark, Vice-President, Finance and Administration and Chief Financial Officer
Dr. Martin Ferguson-Pell, Acting Provost and Vice-President (Academic)

BOARD FINANCE AND PROPERTY COMMITTEE

2014-15 TUITION

NOVEMBER 26, 2013

UNIVERSITY OF ALBERTA

"uplifting the whole people"

— HENRY MARSHALL TORY, FOUNDING PRESIDENT, 1908

HISTORICAL CONTEXT

2006	Tuition regulation amended • tuition capped at 2004 rates • increases limited to Alberta's Consumer Price Index
2009-10	Development of, and consultation on, market modifier proposals with student, faculties and government.
March 2010	Board approval of market modifier proposals
April 2010	Province approves select market modifiers
September 2011	Phased Implementation of market modifiers (full implementation approx. 2014-15)

UNIVERSITY OF ALBERTA

PROVINCIAL TUITION REGULATION

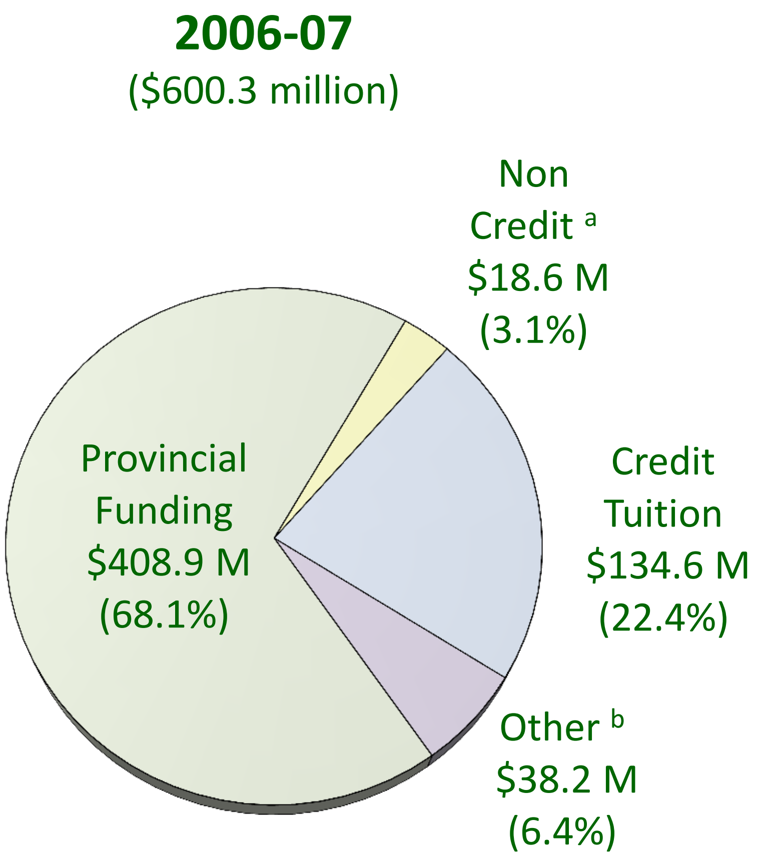
(Public Post-Secondary Institutions' Tuition Fees Regulation)

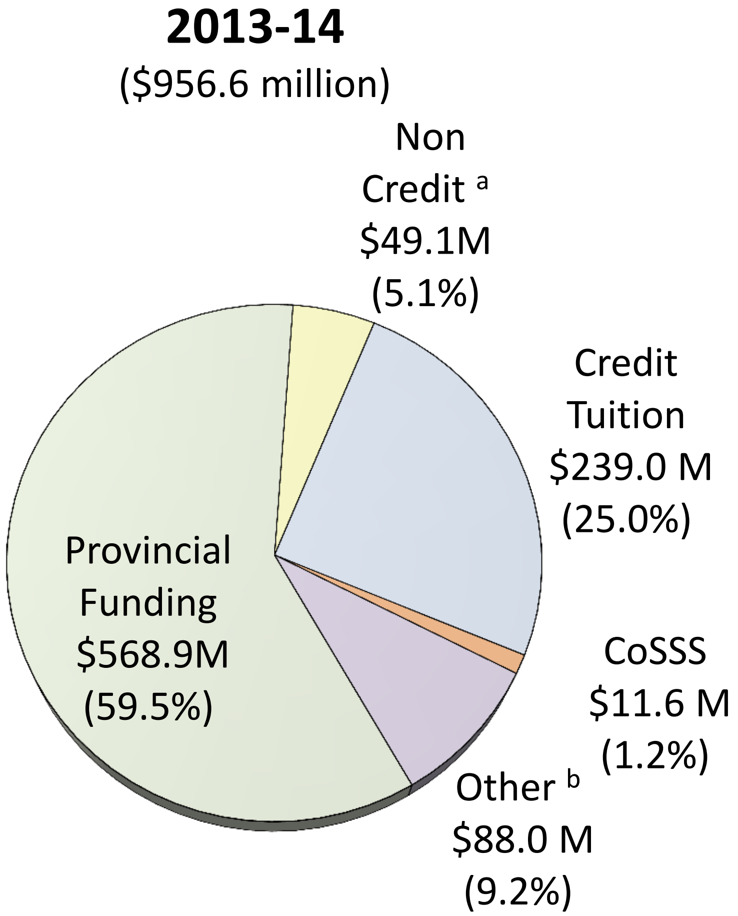
- Allowable increase based on an average year over year increase in the Alberta Consumer Price Index (July 1 to June 30).
- Applies to tuition fees for instruction, and mandatory fees for materials and services that facilitate instruction.
- The regulation excludes any differential fee or surcharge that an institution may set for individuals who are not Canadian citizens or permanent residents of Canada.

2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15** (proposed)
4.1%	1.5%	0.35%	1.45%	0% [a] (2.15% [b])	**1.00%**

a. As per Ministry direction, tuition fees were frozen at 2012-13 rates. CPI was 2.15%.
b. A 2.15% was applied to international tuition, which is not subject to the regulation.

PAST AND PRESENT
(OPERATING BUDGET REVENUE)





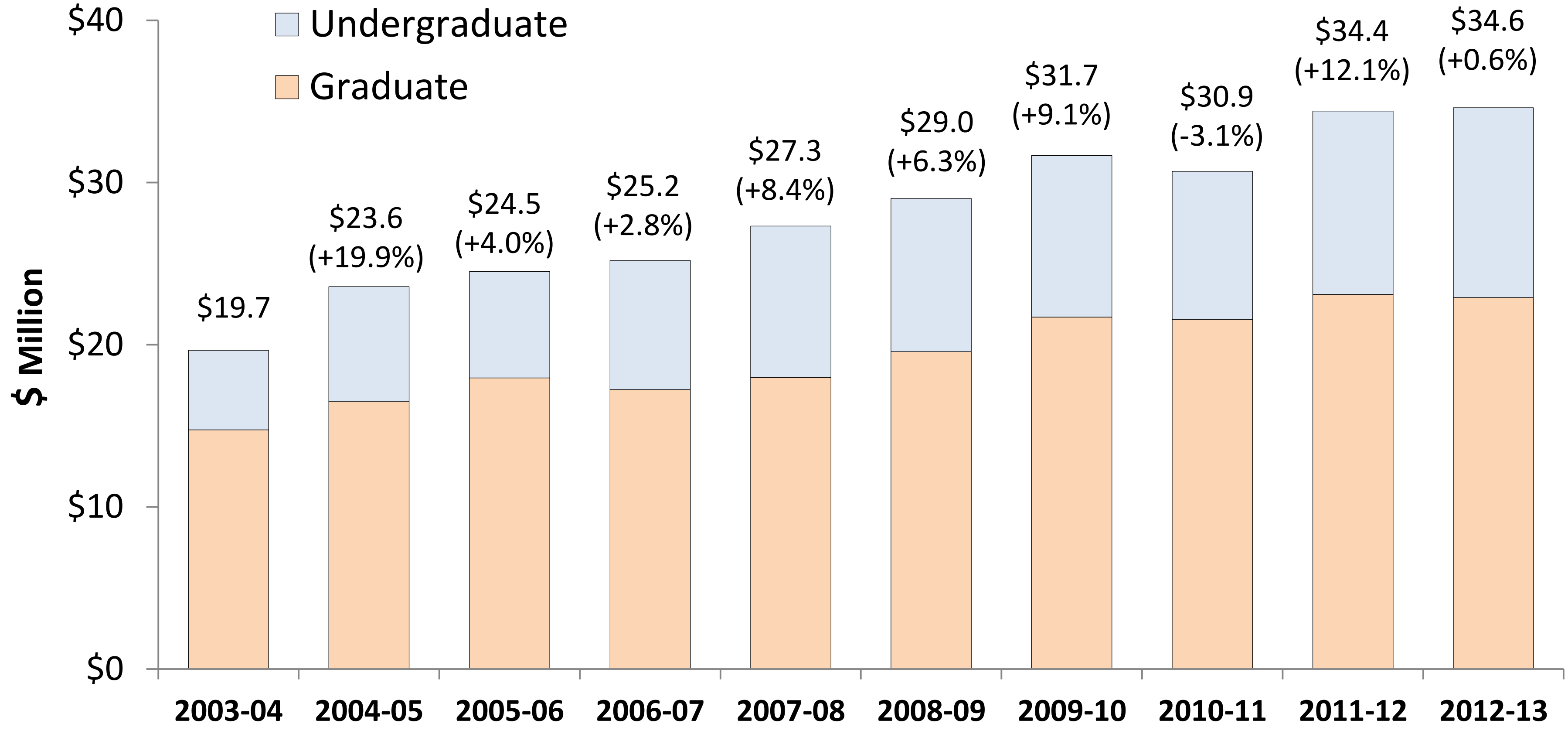
(a) student service fees, registration, cost recovery courses.
(b) includes investment income and sales of services/products

TUITION MOTIONS

That the Board of Governors approve a proposal from the University Administration effective September 1, 2014 for a:

1. general tuition fee increase of 1.0%;
2. fee increase to program differentials, course differentials, and market modifiers of 1.0%;
3. effective increase to international tuition fees of 5.0%; and,
4. effective increase to international program differentials, course differentials, and market modifiers of 5.0%.

U OF A BURSARY & AWARD EXPENDITURES
(operating)



TUITION ANNUAL TUITION COSTS FOR FULL-TIME INTERNATIONAL STUDENTS AT SELECTED CANADIAN UNIVERSITIES FOR 2012-13 ($)

	U of C	U of A	McGill	U of T	UBC	Waterloo
International Undergraduate (4 years)	72,632	73,272	59,564	113,636	90,488	76,856
International Masters (2 years)	16,227	12,792	16,859	33,772	15,282	34,356
International Doctoral (6 years)	39,768	38,376	34,665	101,316	45,846	103,068

Source: U15 data exchange, Tuition and individual institutions’ websites

Notes:

McGill domestic amounts are for Canadian, out-of-province students

Above figures do not include mandatory non-instructional fees.

Tuition is for an Arts program.

Graduate tuition at some institutions is reduced as a student progresses through her program. These reductions are reflected in the above table. Undergraduate tuition is calculated as year one multiplied by four.

OUTLINE OF ISSUE

Agenda Title: **University of Alberta 2014-2015 Program/Course Differential Fee and Market Modifier Fee Proposal**

Motion: THAT the Board Finance and Property Committee, on the recommendation of the GFC Academic Planning Committee acting under delegated authority from General Faculties Council, recommend that the Board of Governors approve a proposal from the University Administration for a fee increase to program differentials, course differentials, and market modifiers of 1.0%, effective September 1, 2014, for:

a) Faculty of Law, Juris Doctor (JD) program;
b) Faculty of Business, Master of Business Administration (MBA) program;
c) Faculty of Medicine and Dentistry, Doctor of Medicine (MD) program;
d) Faculty of Business, Undergraduate Business courses;
e) Faculty of Engineering, Undergraduate Engineering courses;
f) Faculty of Pharmaceutical Sciences, Pharmacy program; and,
g) Graduate Studies, Thesis Based.

as set out in the table below.

Program Differential [c]	2013-14	2014-15	Change [a]	
			$	%
Juris Doctor (JD) Program [b]	$4,500.60	$4,545.60	$45.00	1.0%
Master of Business Administration (MBA) Program	$591.96	$597.84	$5.88	0.99%
Doctor of Medicine (MD) Program [b]	$4,500.60	$4,545.60	$45.00	1.0%
Market Modifier [c, d]	**2013-14**	**2014-15**	**Change [a]**	
			$	**%**
Undergraduate Business	$207.72	$209.78	$2.06	0.99%
Undergraduate Engineering	$175.64	$177.36	$1.72	0.98%
Undergraduate Pharmacy	$400.20	$404.16	$3.96	0.99%
Graduate, Thesis Based [e]	$848.28	$856.68	$8.40	0.99%

(a) Tuition increases are applied to the fee index. As such, the effective year over year percentage change on the overall full-time program may be below 1.0 percent.
(b) Program Fees - values are based on a full-time per term and full-time per year.
(c) Values listed are per course, unless otherwise stated (assumes 3 units course weight)
(d) A grand-parenting structure applies in each case to allow for the exemption of these fees, under specific conditions, for students registered prior to September 2011.
(e) Graduate market modifier applies only to thesis students beginning their program of study in Fall 2011 or later, and is based on an annual fee assessment (including spring/summer).

Item

Action Requested	☐Approval ☒Recommendation ☐Discussion/Advice ☐Information
Proposed by	Provost and Vice-President (Academic)
Presenters	Provost and Vice-President (Academic) and Vice-President (Finance and Administration)
Subject	Program Differential and Market Modifier Fees for 2014-2015

Details

Responsibility	Provost and Vice-President (Academic).
The Purpose of the Proposal is (please be specific)	To set differential/market modifier fees for the 2014-2015 academic year.
The Impact of the Proposal is	See ‘Purpose’.
Replaces/Revises (eg, policies, resolutions)	Program differential fees set by the Board of Governors on December 14, 2012 for September, 2013.
Timeline/Implementation Date	September, 2014.
Estimated Cost	N/A
Sources of Funding	N/A
Notes	N/A

Alignment/Compliance

Alignment with Guiding Documents	Comprehensive Institutional Plan; *Dare to Discover*; *Dare to Deliver*
Compliance with Legislation, Policy and/or Procedure Relevant to the Proposal (please quote legislation and include identifying section numbers)	1. **Ministerial Letter Regarding the New Tuition Fees Regulation**: A letter to the President, University of Alberta, dated September 17, 2013, from the Ministry of Enterprise and Advanced Education (EAE) states that: “As per the Public Post-secondary Institutions’ Tuition Fee Regulation, the maximum allowable weighted average tuition fee increase across the entire institution shall not exceed 1.0 per cent.” 2. ***Post-Secondary Learning Act*** **(*PSLA*), Sections 61(1) and 61(2)(a)**: “**61(1)** The board of a public post-secondary institution shall set the tuition fees to be paid by students of the public post-secondary institution. **61(2)** The tuition fees under subsection (1) for all public post-secondary institutions other than Banff Centre (a) must be set in accordance with the regulations[.] […]” 3. ***PSLA*** **Section 26(1)(o)** states: “Powers of general faculties council 26(1) Subject to the authority of the board, a general faculties council is responsible for the academic affairs of the university and, without restricting the generality of the foregoing, has the authority to (o) make recommendations to the board with respect to affiliation with other institutions, academic planning, campus planning, a building program, the budget, the regulation of residences and dining halls, procedures in respect of appointments, promotions, salaries, tenure and dismissals, and any other matters considered by the general faculties council to be of interest to the university […].” On the line-by-line budget, including consideration of matters related to tuition, GFC has delegated this responsibility to its senior standing committee, the GFC Academic Planning Committee (APC), as noted in the following.

	4. **GFC Academic Planning Committee (APC) Terms of Reference (*Mandate* - Section 3.4(b))**: “APC is responsible for making recommendations to GFC and/or to the Board of Governors concerning policy matters and action matters with respect to the following: [. . .] 4. **Budget Matters** To recommend to the Board of Governors on the annual budget, excluding budgets for ancillary units. […]. ” 5. **Board Finance and Property (BFPC) Terms of Reference (Section 3(d))**: “3. Without limiting the generality of the foregoing, the Committee shall: […] d) review and recommend to the Board tuition and other like fees[.]”

Routing (Include meeting dates)

Consultative Route (parties who have seen the proposal and in what capacity)	President’s Executive Committee (Operations) – October 31, 2013 (for endorsement)
Approval Route (Governance) (including meeting dates)	GFC Academic Planning Committee (APC) – November 13, 2013 (for recommendation); Board Finance and Property Committee (BFPC) – November 26, 2013 (for recommendation); Board of Governors – December 13, 2013 (for final approval)
Final Approver	Board of Governors

Attachments: *The Attachments for this item are exactly the same as those included with Agenda Item #5.*

1. Attachment 1 (pages 1 – 4) - University of Alberta Tuition Proposal, 2014-2015
2. Attachment 2 (page 1) - Letter from the Ministry of Enterprise and Advanced Education (EAE) to the President, University of Alberta

Prepared by: Ray Wong, Director, Resource Planning, ray.wong@ualberta.ca, with assistance from University Governance

University of Alberta
Tuition Proposal, 2014-15

(Revised Nov. 25, 2013)

TUITION POLICY

Under the provincial *Public Post-Secondary Institutions' Tuition Fees Regulation*, annual tuition increases are tied to the Alberta Consumer Price Index (CPI) based on average monthly increases from July to June. For 2014-15, Alberta Ministry of Enterprise and Advanced Education calculated the maximum allowable tuition increase to be 1.0 percent. The regulation does not apply to international differential fees or surcharges assessed to individuals who are not Canadian citizens or permanent residents of Canada.

THE BUDGET CONTEXT

Tuition fee revenue is integral to the University's continued vitality and success. It is the second largest source of unrestricted operating funds and represents approximately 30 percent of total operating revenues.

With limited improvements in the fiscal environment the university continues to face significant budget pressures. In 2013-14, the province suspended the allowable tuition increase (2.15 percent) and reduced the University of Alberta's campus Alberta grant by 7.2 percent. Similarly, the university is anticipating a 0 percent grant increase in 2014-15.

Despite consecutive years of budget re-allocations the university continues to face challenges in balancing limited growth in operating revenue against rising investment costs for teaching and research (faculty, staff and facilities). With limited grant funding and a stagnant investment climate, the university must continue to maximize all revenue opportunities.

TUITION PROPOSAL

It is recommended that the following tuition fees be increased effective September 1, 2014.

- Instructional tuition fees increase by 1.0 percent.
- Market modifiers and program differential fees increase by 1.0 percent.
- Undergraduate international student tuition fees increase by an effective rate of 5.0 percent.
- Graduate international student tuition fees increase by 1.0 percent.
- MBA international program differential tuition fee increase by 5.0%

For illustrative purposes, the details of the proposal are outlined below.

1) General Tuition Fee Proposal

			Change [c]	
Undergraduate (Arts and Science) [a, b]	**2013-14**	**2014-15**	**$**	**%**
Domestic (Arts and Science)	$5,269.20	$5,320.80	$ 51.60	0.98%
			Change [c]	
Domestic Graduate Fees [a, b]	**2013-14**	**2014-15**	**$**	**%**
Course Based Masters	$3,708.00	$3,744.72	$36.72	0.99%
Thesis 919 [d]	$2,312.80	$2,335.92	$ 23.12	1.0%
Thesis Based (Masters and PhD) [b, e]	$2,778.00	$2,805.72	$ 27.72	1.0%

(a) Values are based on a full-time per term and full-time per year.
(b) Excludes applicable market modifier and/or program specific differential fees.
(c) Tuition increases are applied to the fee index. As such, the effective year over year percentage change on the overall full-time program may be below 1.0 percent.
(d) Tuition applies to thesis students who were admitted to the program of study prior to Fall 2011 and are assessed the reduced thesis rate.
(e) Tuition applies to thesis students who were admitted to the program of study beginning in Fall 2011 or later; this is based on an annual fee assessment (including spring/summer).

2) Program Differential and Market Modifier Fee Proposal

			Change [a]	
Program Differential [c]	**2013-14**	**2014-15**	**$**	**%**
Juris Doctor (JD) Program [b]	$4,500.60	$4,545.60	$45.00	1.0%
Master of Business Administration (MBA) Program	$591.96	$597.84	$5.88	0.99%
Doctor of Medicine (MD) Program [b]	$4,500.60	$4,545.60	$45.00	1.0%
			Change [a]	
Market Modifier [c, d]	**2013-14**	**2014-15**	**$**	**%**
Undergraduate Business	$207.72	$209.78	$2.06	0.99%
Undergraduate Engineering	$175.64	$177.36	$1.72	0.98%
Undergraduate Pharmacy	$400.20	$404.16	$3.96	0.99%
Graduate, Thesis Based [e]	$848.28	$856.68	$8.40	0.99%

(a) Tuition increases are applied to the fee index. As such, the effective year over year percentage change on the overall full-time program may be below 1.0 percent.

(b) Program Fees - values are based on a full-time per term and full-time per year.

(c) Values listed are per course, unless otherwise stated (assumes 3 units course weight)

(d) A grand-parenting structure applies in each case to allow for the exemption of these fees, under specific conditions, for students registered prior to September 2011.

(e) Graduate market modifier applies only to thesis students beginning their program of study in Fall 2011 or later, and is based on an annual fee assessment (including spring/summer).

3) International Fees

a. International Fees: General Tuition Fee Proposal

			Change c	
Undergraduate (Arts and Science) [a, b]	**2013-14**	**2014-15**	**($)**	**(%)**
International, Base	$5,269.20	$5,320.80	$51.60	0.98%
International, Differential	$13,441.20	$14,324.40	$883.20	6.57%
Total, International	**$18,710.40**	**$19,645.20**	**$934.80**	**5.00%**
			Change [c]	
Course Based Masters [a]	**2013-14**	**2014-15**	**($)**	**(%)**
International, Base Tuition	$3,708.00	$3,744.72	$36.72	0.99%
International, Differential	$3,866.40	$3,904.56	$38.16	0.99%
Total, International	**$7,574.40**	**$7,649.28**	**$74.88**	**0.99%**
			Change [c]	
Thesis 919 [a, e]	**2013-14**	**2014-15**	**($)**	**(%)**
International, Base Tuition	$2,312.80	$2,335.92	$23.12	1.00%
International, Differential	$2,412.24	$2,436.36	$24.12	1.00%
Total, International	**$4,725.04**	**$4,772.28**	**$47.24**	**1.00%**
			Change [c]	
Thesis Based Masters/PhD [a, b, d]	**2013-14**	**2014-15**	**($)**	**(%)**
International, Base Tuition	$2,778.00	$2,805.72	$27.72	1.00%
Graduate Thesis Market Modifier	$848.28	$856.68	$8.40	0.99%
International, Differential	$2,906.76	$2,935.80	$29.04	1.00%
Total, International	**$6,533.04**	**$6,598.20**	**$65.16**	**1.00%**

(a) Values are based on a full-time per term and full-time per year.

(b) Excludes applicable market modifier and/or program specific differential fees, except for the graduate thesis market modifier, which is included above.
(c) Tuition increases are applied to the fee index. As such, the effective year over year percentage change on the overall full-time program may be below 1.0/5.0 percent.
(d) Tuition applies to thesis students who were admitted to the program of study prior to Fall 2011 and are assessed the reduced thesis rate.
(e) Tuition applies to thesis students who were admitted to the program of study beginning in Fall 2011 or later; this is based on an annual fee assessment (including spring/summer).

b. International Fees: Program Differential and Market Modifier Fee Proposal

			Change	
Program Differential [a]	**2013-14**	**2014-15**	**$**	**%**
Juris Doctor (JD), base [b]	$4,500.60	$4,545.60	$45.00	1.00%
Juris Doctor (JD), IDF on base [b]	$4,694.12	$5,108.84	$414.72	8.83%
Total International JD Program Fee [b]	**$9,194.72**	**$9,654.44**	**$459.72**	**5.00%**
Master of Business Administration, Base	$591.96	$597.84	$5.88	0.99%
MBA, IDF on Base	$617.40	$671.88	$54.48	8.82%
Total International MBA Program Fee	**$1,209.36**	**$1,269.72**	**$60.36**	**5.00%**
			Change	
Market Modifier [a]	**2013-14**	**2014-15**	**$**	**%**
Business, Base Market Modifier	$207.72	$209.78	$2.06	0.99%
Business, IDF on Market Modifier	$529.84	$564.64	$34.80	6.57%
Total, International	**$737.56**	**$774.42**	**$36.86**	**5.00%**
Engineering, Base Market Modifier	$175.64	$177.36	$1.72	0.98%
Engineering, IDF on Market Modifier	$448.04	$477.48	$29.44	6.57%
Total, International	**$623.68**	**$654.84**	**$31.16**	**5.00%**
Pharmacy, Base Market Modifier	$400.20	$404.16	$3.96	0.99%
Pharmacy, IDF Market Modifier	$1,020.84	$1,087.92	$67.08	6.57%
Total, International	**$1,421.04**	**$1,492.08**	**$71.04**	**5.00%**

(a) Values listed are per course, unless otherwise stated (assumes 3 units course weight)
(b) Program Fees - values are based on a full-time per term and full-time per year.

Attachment 2

Alberta Enterprise and Advanced Education

Commerce Place
10155 - 102 Street
Edmonton, Alberta T5J 4L5
Canada

UNIVERSITY OF ALBERTA
OFFICE OF THE PRESIDENT
52072
SEP 19 2013
AD01001-13

AR 41178

September 17, 2013

Dr. Indira V. Samarasekera, O.C.
President and Vice-Chancellor
University of Alberta
2-24 South Academic Building
Edmonton, AB T6G 2G7

Dear Dr. ~~Samarasekera~~: INDIRA

I am writing to advise on tuition fees for the 2014/2015 academic year. As per the Public Post-secondary Institutions' Tuition Fee Regulation, the maximum allowable weighted average tuition fee increase across the entire institution shall not exceed 1.0 per cent. This allowable increase is based on the change of the average monthly Alberta Consumer Price Index for the 12-month period ending June 30, 2013.

It is anticipated that the draft 2014/2015 Tuition Fee Compliance template will be sent out for processing by the end of September 2013. I am requesting that you complete these templates and submit your initial draft for review by December 2, 2013. Once the review is complete and all issues are addressed, your board's formal approval of the 2014/2015 tuition fees and your Vice-President's final sign off of the template is to be submitted by March 15, 2014.

If you have questions with regard to the above, please contact Mr. Tom Roach, Director, Accountability/Outcomes Reporting by telephone at 780-638-3810 or by email at Tom.Roach@gov.ab.ca.

Thank you for your assistance in this matter.

Sincerely,

Gord Johnston
Assistant Deputy Minister
Advanced Learning and Community Partnerships

cc: Ms. Phyllis Clark, Vice-President, Finance and Administration and Chief Financial Officer
Dr. Martin Ferguson-Pell, Acting Provost and Vice-President (Academic)

BOARD FINANCE AND PROPERTY COMMITTEE

2014-15 TUITION

NOVEMBER 26, 2013

UNIVERSITY OF ALBERTA

"uplifting the whole people"

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HISTORICAL CONTEXT

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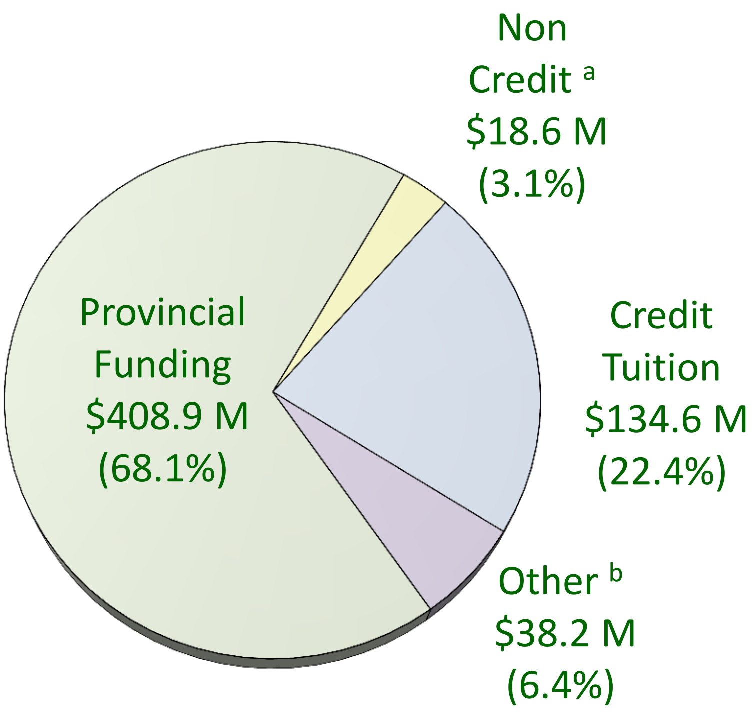
a. As per Ministry direction, tuition fees were frozen at 2012-13 rates. CPI was 2.15%.

b. A 2.15% was applied to international tuition, which is not subject to the regulation.

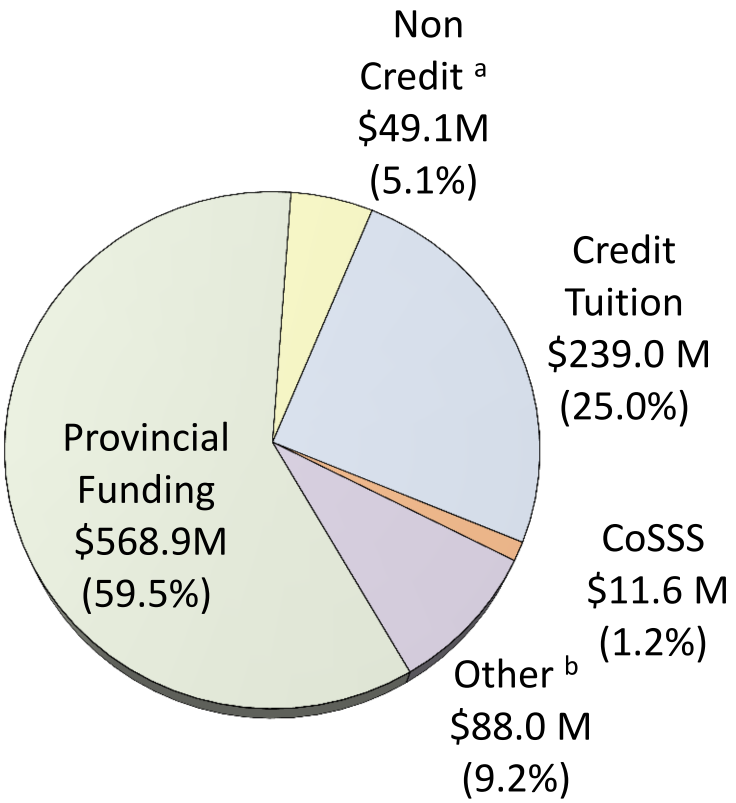
UNIVERSITY OF ALBERTA

PAST AND PRESENT
(OPERATING BUDGET REVENUE)

2006-07
($600.3 million)



2013-14
($956.6 million)



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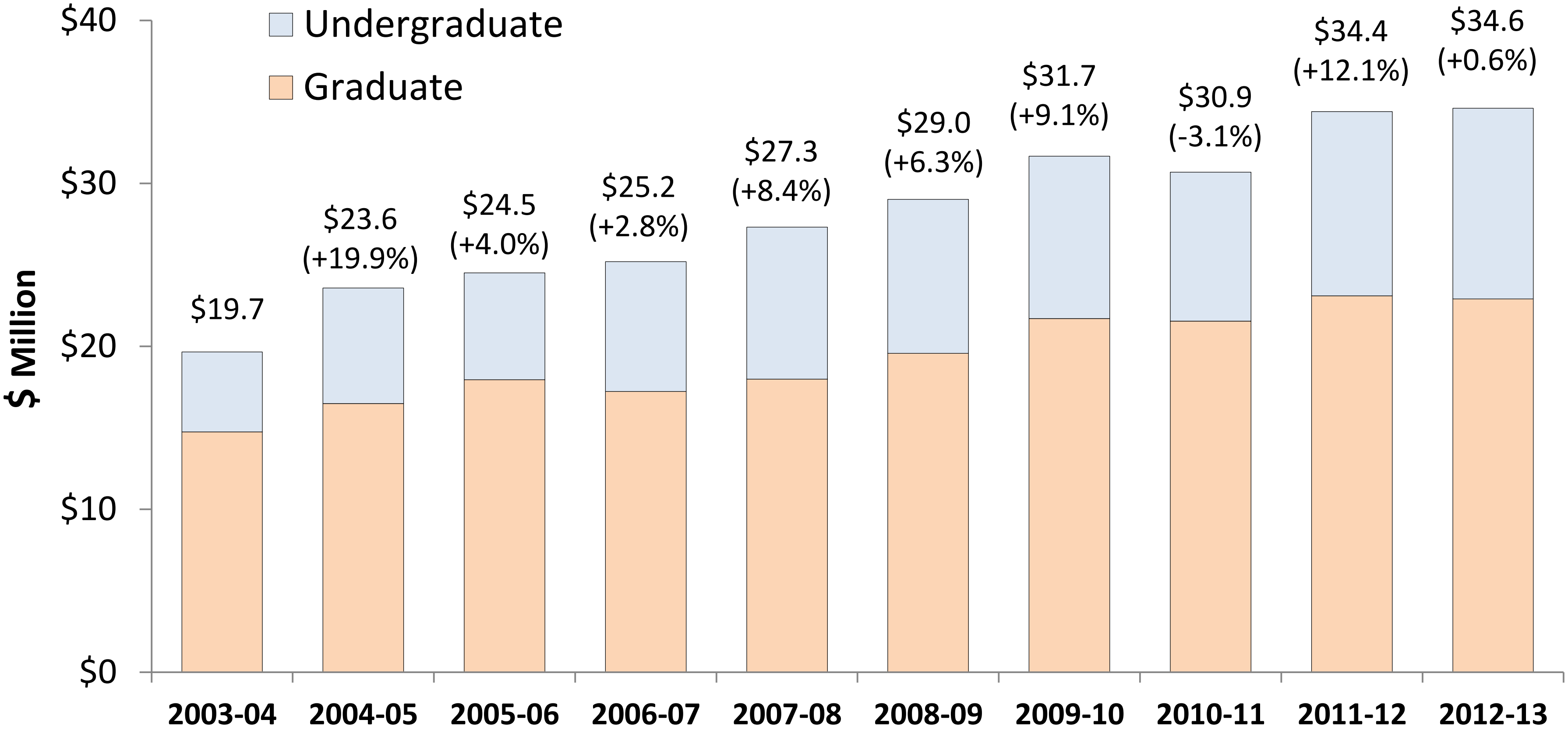
TUITION MOTIONS

That the Board of Governors approve a proposal from the University Administration effective September 1, 2014 for a:

1. general tuition fee increase of 1.0%;
2. fee increase to program differentials, course differentials, and market modifiers of 1.0%;
3. effective increase to international tuition fees of 5.0%; and,
4. effective increase to international program differentials, course differentials, and market modifiers of 5.0%.

U OF A BURSARY & AWARD EXPENDITURES
(operating)



TUITION ANNUAL TUITION COSTS FOR FULL-TIME INTERNATIONAL STUDENTS AT SELECTED CANADIAN UNIVERSITIES FOR 2012-13 ($)

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Notes:

McGill domestic amounts are for Canadian, out-of-province students

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Tuition is for an Arts program.

Graduate tuition at some institutions is reduced as a student progresses through her program. These reductions are reflected in the above table. Undergraduate tuition is calculated as year one multiplied by four.

UNIVERSITY OF ALBERTA

Board Finance and Property Committee
For the Meeting of November 26, 2013
Item No. 7

OUTLINE OF ISSUE

Agenda Title: **University of Alberta 2014-2015 International Tuition Fee Proposal**

Motion:

THAT the Board Finance and Property Committee recommend that the Board of Governors approve a proposal from the University Administration for an effective increase of 5% on undergraduate international tuition fees and the MBA international program differential fee, and 1% on graduate international tuition fees, effective September 1, 2014 and as illustrated in the tables below.

General Tuition Fees:

Undergraduate (Arts and Science) [a, b]	**2013-14**	**2014-15**	**Change** [c]	
			($)	**(%)**
International, Base	$5,269.20	$5,320.80	$51.60	0.98%
International, Differential	$13,441.20	$14,324.40	$883.20	6.57%
Total, International	**$18,710.40**	**$19,645.20**	**$934.80**	**5.00%**

Course Based Masters [a]	**2013-14**	**2014-15**	**Change** [c]	
			($)	**(%)**
International, Base Tuition	$3,708.00	$3,744.72	$36.72	0.99%
International, Differential	$3,866.40	$3,904.56	$38.16	0.99%
Total, International	**$7,574.40**	**$7,649.28**	**$74.88**	**0.99%**

Thesis 919 [a, e]	**2013-14**	**2014-15**	**Change** [c]	
			($)	**(%)**
International, Base Tuition	$2,312.80	$2,335.92	$23.12	1.00%
International, Differential	$2,412.24	$2,436.36	$24.12	1.00%
Total, International	**$4,725.04**	**$4,772.28**	**$47.24**	**1.00%**

Thesis Based Masters/PhD [a, b, d]	**2013-14**	**2014-15**	**Change** [c]	
			($)	**(%)**
International, Base Tuition	$2,778.00	$2,805.72	$27.72	1.00%
Graduate Thesis Market Modifier	$848.28	$856.68	$8.40	0.99%
International, Differential	$2,906.76	$2,935.80	$29.04	1.00%
Total, International	**$6,533.04**	**$6,598.20**	**$65.16**	**1.00%**

(a) Values are based on a full-time per term and full-time per year.
(b) Excludes applicable market modifier and/or program specific differential fees, except for the graduate thesis market modifier, which is included above.
(c) Tuition increases are applied to the fee index. As such, the effective year over year percentage change on the overall full-time program may be below 1.0/5.0 percent.
(d) Tuition applies to thesis students who were admitted to the program of study prior to Fall 2011 and are assessed the reduced thesis rate.
(e) Tuition applies to thesis students who were admitted to the program of study beginning in Fall 2011 or later; this is based on an annual fee assessment (including spring/summer).

Program Differential and Market Modifier fees

			Change	
Program Differential [a]	**2013-14**	**2014-15**	**$**	**%**
Juris Doctor (JD), base [b]	$4,500.60	$4,545.60	$45.00	1.00%
Juris Doctor (JD), IDF on base [b]	$4,694.12	$5,108.84	$414.72	8.83%
Total International JD Program Fee [b]	**$9,194.72**	**$9,654.44**	**$459.72**	**5.00%**
Master of Business Administration, Base	$591.96	$597.84	$5.88	0.99%
MBA, IDF on Base	$617.40	$671.88	$54.48	8.82%
Total International MBA Program Fee	**$1,209.36**	**$1,269.72**	**$60.36**	**5.00%**
			Change	
Market Modifier [a]	**2013-14**	**2014-15**	**($)**	**(%)**
Business, Base Market Modifier	$207.72	$209.78	$2.06	0.99%
Business, IDF on Market Modifier	$529.84	$564.64	$34.80	6.57%
Total, International	**$737.56**	**$774.42**	**$36.86**	**5.00%**
Engineering, Base Market Modifier	$175.64	$177.36	$1.72	0.98%
Engineering, IDF on Market Modifier	$448.04	$477.48	$29.44	6.57%
Total, International	**$623.68**	**$654.84**	**$31.16**	**5.00%**
Pharmacy, Base Market Modifier	$400.20	$404.16	$3.96	0.99%
Pharmacy, IDF Market Modifier	$1,020.84	$1,087.92	$67.08	6.57%
Total, International	**$1,421.04**	**$1,492.08**	**$71.04**	**5.00%**

(a) Values listed are per course, unless otherwise stated (assumes 3 units course weight).

(b) Program Fees - values are based on a full-time per term and full-time per year.

Item

Action Requested	☐Approval ☒Recommendation ☐Discussion/Advice ☐Information
Proposed by	Provost and Vice-President (Academic)
Presenters	Provost and Vice-President (Academic) and Vice-President (Finance and Administration)
Subject	Tuition for 2014-2015

Details

Responsibility	Provost and Vice-President (Academic)
The Purpose of the Proposal is (please be specific)	To set tuition fees for the 2014-2015 academic year.
The Impact of the Proposal is	See 'Purpose'.
Replaces/Revises (eg, policies, resolutions)	Tuition proposal set by the Board of Governors on December 14, 2013 for September, 2013.
Timeline/Implementation Date	September, 2014.
Estimated Cost	N/A
Sources of Funding	N/A
Notes	N/A

Alignment/Compliance

Alignment with Guiding Documents	Comprehensive Institutional Plan; *Dare to Discover*; *Dare to Deliver*
Compliance with Legislation, Policy and/or Procedure Relevant to the Proposal (please quote legislation and include identifying section numbers)	1. **Ministerial Letter Regarding the New Tuition Fees Regulation**: A letter to the President, University of Alberta, dated September 17, 2013, from the Ministry of Enterprise and Advanced Education (EAE) states that: "As per the Public Post-secondary Institutions' Tuition Fee Regulation, the maximum allowable weighted average tuition fee increase across the entire institution shall not exceed 1.0 per cent." 2. ***Post-Secondary Learning Act* (*PSLA*), Sections 61(1) and 61(2)(a)**: "**61(1)** The board of a public post-secondary institution shall set the tuition fees to be paid by students of the public post-secondary institution. **61(2)** The tuition fees under subsection (1) for all public post-secondary institutions other than Banff Centre (a) must be set in accordance with the regulations[.] […]" 3. **Public Post-Secondary Institution's Tuition Fees Regulation, Alberta Regulation 273/2006):** *Definition of tuition fees for Act purposes, etc.* *2 For the purposes of the Act and this Regulation, "tuition fees" in respect of an institution means the following:* *(a) fees identified in the institution's calendar or in a supplement to its calendar as tuition fees or fees for instruction for courses that are part of programs approved by the Minister under the Programs of Study Regulation (AR 91/2009) or for the purposes of the Student Financial Assistance Act, excluding the following:* […] *(v) any differential or surcharge in fees that the board of the institution may set for courses taken by individuals who are not Canadian citizens or permanent residents of Canada*

4. ***PSLA* - (Section 26(1)(o))** states:

“Powers of general faculties council

26(1) Subject to the authority of the board, a general faculties council is responsible for the academic affairs of the university and, without restricting the generality of the foregoing, has the authority to

(o) make recommendations to the board with respect to affiliation with other institutions, academic planning, campus planning, a building program, the budget, the regulation of residences and dining halls, procedures in respect of appointments, promotions, salaries, tenure and dismissals, and any other matters considered by the general faculties council to be of interest to the university […].”

On the line-by-line budget, including consideration of matters related to tuition, GFC has delegated this responsibility to its senior standing committee, the GFC Academic Planning Committee (APC), as noted in the following.

5. **GFC Academic Planning Committee (APC) Terms of Reference (*Mandate*-Section 3.4(b))**:

“APC is responsible for making recommendations to GFC and/or to the Board of Governors concerning policy matters and action matters with respect to the following: [. . .]

4. **Budget Matters**
   To recommend to the Board of Governors on the annual budget, excluding budgets for ancillary units. […]. ”

6. **Board Finance and Property (BFPC) Terms of Reference (Section 3(d))**:

“3. Without limiting the generality of the foregoing, the Committee shall: […]
d) review and recommend to the Board tuition and other like fees[.]”

Routing (Include meeting dates)

Consultative Route (parties who have seen the proposal and in what capacity)	
Approval Route (Governance) (including meeting dates)	Board Finance and Property Committee – November 26, 2013 (for recommendation); Board of Governors – December 13, 2013 (final approval)
Final Approver	Board of Governors

Attachments:

1. Attachment 1 (pages 1 – 3): University of Alberta Tuition Proposal, 2014-2015
2. Attachment 2 (page 1): Letter from the Ministry of Enterprise and Advanced Education (EAE) to the President, University of Alberta

Prepared by: Ray Wong, Director, Resource Planning, with assistance from University Governance

University of Alberta
Tuition Proposal, 2014-15

(Revised Nov. 25, 2013)

TUITION POLICY

Under the provincial *Public Post-Secondary Institutions' Tuition Fees Regulation*, annual tuition increases are tied to the Alberta Consumer Price Index (CPI) based on average monthly increases from July to June. For 2014-15, Alberta Ministry of Enterprise and Advanced Education calculated the maximum allowable tuition increase to be 1.0 percent. The regulation does not apply to international differential fees or surcharges assessed to individuals who are not Canadian citizens or permanent residents of Canada.

THE BUDGET CONTEXT

Tuition fee revenue is integral to the University's continued vitality and success. It is the second largest source of unrestricted operating funds and represents approximately 30 percent of total operating revenues.

With limited improvements in the fiscal environment the university continues to face significant budget pressures. In 2013-14, the province suspended the allowable tuition increase (2.15 percent) and reduced the University of Alberta's campus Alberta grant by 7.2 percent. Similarly, the university is anticipating a 0 percent grant increase in 2014-15.

Despite consecutive years of budget re-allocations the university continues to face challenges in balancing limited growth in operating revenue against rising investment costs for teaching and research (faculty, staff and facilities). With limited grant funding and a stagnant investment climate, the university must continue to maximize all revenue opportunities.

TUITION PROPOSAL

It is recommended that the following tuition fees be increased effective September 1, 2014.

- Instructional tuition fees increase by 1.0 percent.
- Market modifiers and program differential fees increase by 1.0 percent.
- Undergraduate international student tuition fees increase by an effective rate of 5.0 percent.
- Graduate international student tuition fees increase by 1.0 percent.
- MBA international program differential tuition fee increase by 5.0%

For illustrative purposes, the details of the proposal are outlined below.

1) General Tuition Fee Proposal

			Change [c]	
Undergraduate (Arts and Science) [a, b]	**2013-14**	**2014-15**	**$**	**%**
Domestic (Arts and Science)	$5,269.20	$5,320.80	$ 51.60	0.98%
			Change [c]	
Domestic Graduate Fees [a, b]	**2013-14**	**2014-15**	**$**	**%**
Course Based Masters	$3,708.00	$3,744.72	$36.72	0.99%
Thesis 919 [d]	$2,312.80	$2,335.92	$ 23.12	1.0%
Thesis Based (Masters and PhD) [b, e]	$2,778.00	$2,805.72	$ 27.72	1.0%

(a) Values are based on a full-time per term and full-time per year.
(b) Excludes applicable market modifier and/or program specific differential fees.
(c) Tuition increases are applied to the fee index. As such, the effective year over year percentage change on the overall full-time program may be below 1.0 percent.
(d) Tuition applies to thesis students who were admitted to the program of study prior to Fall 2011 and are assessed the reduced thesis rate.
(e) Tuition applies to thesis students who were admitted to the program of study beginning in Fall 2011 or later; this is based on an annual fee assessment (including spring/summer).

2) Program Differential and Market Modifier Fee Proposal

			Change [a]	
Program Differential [c]	**2013-14**	**2014-15**	**$**	**%**
Juris Doctor (JD) Program [b]	$4,500.60	$4,545.60	$45.00	1.0%
Master of Business Administration (MBA) Program	$591.96	$597.84	$5.88	0.99%
Doctor of Medicine (MD) Program [b]	$4,500.60	$4,545.60	$45.00	1.0%
			Change [a]	
Market Modifier [c, d]	**2013-14**	**2014-15**	**$**	**%**
Undergraduate Business	$207.72	$209.78	$2.06	0.99%
Undergraduate Engineering	$175.64	$177.36	$1.72	0.98%
Undergraduate Pharmacy	$400.20	$404.16	$3.96	0.99%
Graduate, Thesis Based [e]	$848.28	$856.68	$8.40	0.99%

(a) Tuition increases are applied to the fee index. As such, the effective year over year percentage change on the overall full-time program may be below 1.0 percent.
(b) Program Fees - values are based on a full-time per term and full-time per year.
(c) Values listed are per course, unless otherwise stated (assumes 3 units course weight)
(d) A grand-parenting structure applies in each case to allow for the exemption of these fees, under specific conditions, for students registered prior to September 2011.
(e) Graduate market modifier applies only to thesis students beginning their program of study in Fall 2011 or later, and is based on an annual fee assessment (including spring/summer).

3) International Fees

a. International Fees: General Tuition Fee Proposal

			Change c	
Undergraduate (Arts and Science) [a, b]	**2013-14**	**2014-15**	**($)**	**(%)**
International, Base	$5,269.20	$5,320.80	$51.60	0.98%
International, Differential	$13,441.20	$14,324.40	$883.20	6.57%
Total, International	**$18,710.40**	**$19,645.20**	**$934.80**	**5.00%**
			Change [c]	
Course Based Masters [a]	**2013-14**	**2014-15**	**($)**	**(%)**
International, Base Tuition	$3,708.00	$3,744.72	$36.72	0.99%
International, Differential	$3,866.40	$3,904.56	$38.16	0.99%
Total, International	**$7,574.40**	**$7,649.28**	**$74.88**	**0.99%**
			Change [c]	
Thesis 919 [a, e]	**2013-14**	**2014-15**	**($)**	**(%)**
International, Base Tuition	$2,312.80	$2,335.92	$23.12	1.00%
International, Differential	$2,412.24	$2,436.36	$24.12	1.00%
Total, International	**$4,725.04**	**$4,772.28**	**$47.24**	**1.00%**
			Change [c]	
Thesis Based Masters/PhD [a, b, d]	**2013-14**	**2014-15**	**($)**	**(%)**
International, Base Tuition	$2,778.00	$2,805.72	$27.72	1.00%
Graduate Thesis Market Modifier	$848.28	$856.68	$8.40	0.99%
International, Differential	$2,906.76	$2,935.80	$29.04	1.00%
Total, International	**$6,533.04**	**$6,598.20**	**$65.16**	**1.00%**

(a) Values are based on a full-time per term and full-time per year.

(b) Excludes applicable market modifier and/or program specific differential fees, except for the graduate thesis market modifier, which is included above.
(c) Tuition increases are applied to the fee index. As such, the effective year over year percentage change on the overall full-time program may be below 1.0/5.0 percent.
(d) Tuition applies to thesis students who were admitted to the program of study prior to Fall 2011 and are assessed the reduced thesis rate.
(e) Tuition applies to thesis students who were admitted to the program of study beginning in Fall 2011 or later; this is based on an annual fee assessment (including spring/summer).

b. International Fees: Program Differential and Market Modifier Fee Proposal

Program Differential [a]	**2013-14**	**2014-15**	**Change**	
			$	**%**
Juris Doctor (JD), base [b]	$4,500.60	$4,545.60	$45.00	1.00%
Juris Doctor (JD), IDF on base [b]	$4,694.12	$5,108.84	$414.72	8.83%
Total International JD Program Fee [b]	**$9,194.72**	**$9,654.44**	**$459.72**	**5.00%**
Master of Business Administration, Base	$591.96	$597.84	$5.88	0.99%
MBA, IDF on Base	$617.40	$671.88	$54.48	8.82%
Total International MBA Program Fee	**$1,209.36**	**$1,269.72**	**$60.36**	**5.00%**
Market Modifier [a]	**2013-14**	**2014-15**	**Change**	
			$	**%**
Business, Base Market Modifier	$207.72	$209.78	$2.06	0.99%
Business, IDF on Market Modifier	$529.84	$564.64	$34.80	6.57%
Total, International	**$737.56**	**$774.42**	**$36.86**	**5.00%**
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Total, International	**$623.68**	**$654.84**	**$31.16**	**5.00%**
Pharmacy, Base Market Modifier	$400.20	$404.16	$3.96	0.99%
Pharmacy, IDF Market Modifier	$1,020.84	$1,087.92	$67.08	6.57%
Total, International	**$1,421.04**	**$1,492.08**	**$71.04**	**5.00%**

(a) Values listed are per course, unless otherwise stated (assumes 3 units course weight)
(b) Program Fees - values are based on a full-time per term and full-time per year.

Attachment 2

Alberta Enterprise and Advanced Education

Commerce Place
10155 - 102 Street
Edmonton, Alberta T5J 4L5
Canada

UNIVERSITY OF ALBERTA
OFFICE OF THE PRESIDENT
52072
SEP 19 2013
A01001-13

AR 41178

September 17, 2013

Dr. Indira V. Samarasekera, O.C.
President and Vice-Chancellor
University of Alberta
2-24 South Academic Building
Edmonton, AB T6G 2G7

Dear Dr. ~~Samarasekera~~: INDIRA

I am writing to advise on tuition fees for the 2014/2015 academic year. As per the Public Post-secondary Institutions' Tuition Fee Regulation, the maximum allowable weighted average tuition fee increase across the entire institution shall not exceed 1.0 per cent. This allowable increase is based on the change of the average monthly Alberta Consumer Price Index for the 12-month period ending June 30, 2013.

It is anticipated that the draft 2014/2015 Tuition Fee Compliance template will be sent out for processing by the end of September 2013. I am requesting that you complete these templates and submit your initial draft for review by December 2, 2013. Once the review is complete and all issues are addressed, your board's formal approval of the 2014/2015 tuition fees and your Vice-President's final sign off of the template is to be submitted by March 15, 2014.

If you have questions with regard to the above, please contact Mr. Tom Roach, Director, Accountability/Outcomes Reporting by telephone at 780-638-3810 or by email at Tom.Roach@gov.ab.ca.

Thank you for your assistance in this matter.

Sincerely,

Gord Johnston
Assistant Deputy Minister
Advanced Learning and Community Partnerships

cc: Ms. Phyllis Clark, Vice-President, Finance and Administration and Chief Financial Officer
Dr. Martin Ferguson-Pell, Acting Provost and Vice-President (Academic)

BOARD FINANCE AND PROPERTY COMMITTEE

2014-15 TUITION

NOVEMBER 26, 2013

UNIVERSITY OF ALBERTA

"uplifting the whole people"

— HENRY MARSHALL TORY, FOUNDING PRESIDENT, 1908

HISTORICAL CONTEXT

2006	Tuition regulation amended • tuition capped at 2004 rates • increases limited to Alberta’s Consumer Price Index
2009-10	Development of, and consultation on, market modifier proposals with student, faculties and government.
March 2010	Board approval of market modifier proposals
April 2010	Province approves select market modifiers
September 2011	Phased Implementation of market modifiers (full implementation approx. 2014-15)

PROVINCIAL TUITION REGULATION

(Public Post-Secondary Institutions' Tuition Fees Regulation)

- Allowable increase based on an average year over year increase in the Alberta Consumer Price Index (July 1 to June 30).
- Applies to tuition fees for instruction, and mandatory fees for materials and services that facilitate instruction.
- The regulation excludes any differential fee or surcharge that an institution may set for individuals who are not Canadian citizens or permanent residents of Canada.

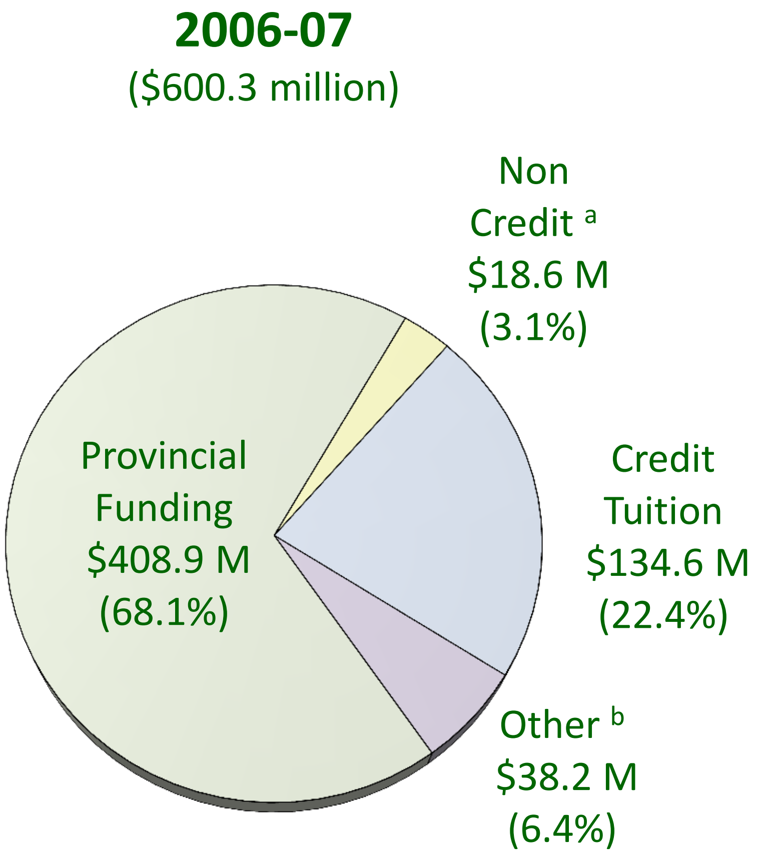
2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15** (proposed)
4.1%	1.5%	0.35%	1.45%	0% [a] (2.15% [b])	**1.00%**

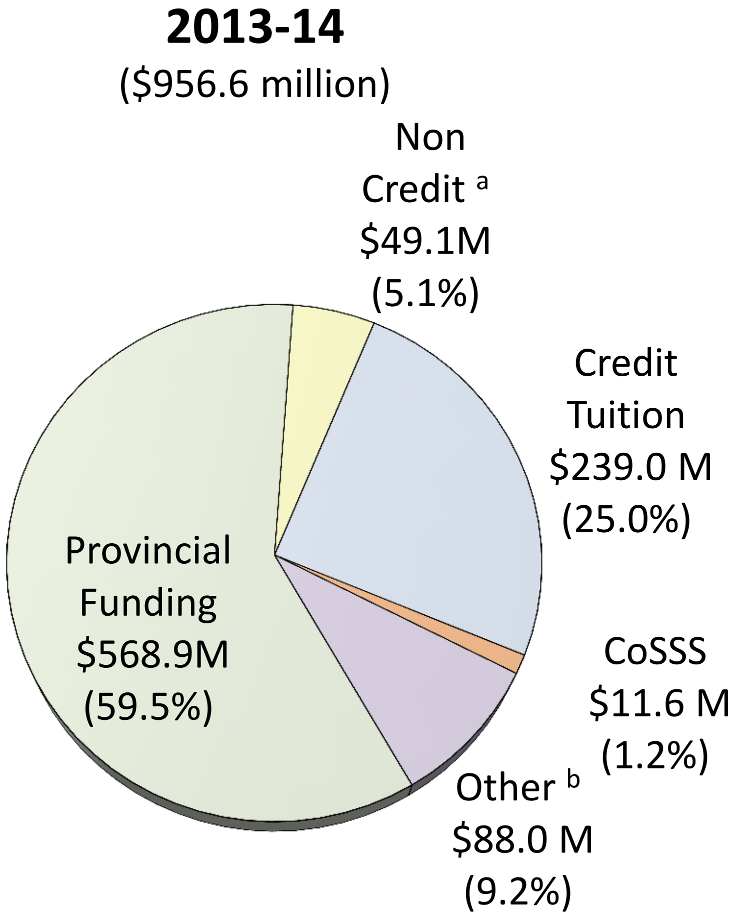
a. As per Ministry direction, tuition fees were frozen at 2012-13 rates. CPI was 2.15%.

b. A 2.15% was applied to international tuition, which is not subject to the regulation.

PAST AND PRESENT

(OPERATING BUDGET REVENUE)





(a) student service fees, registration, cost recovery courses.

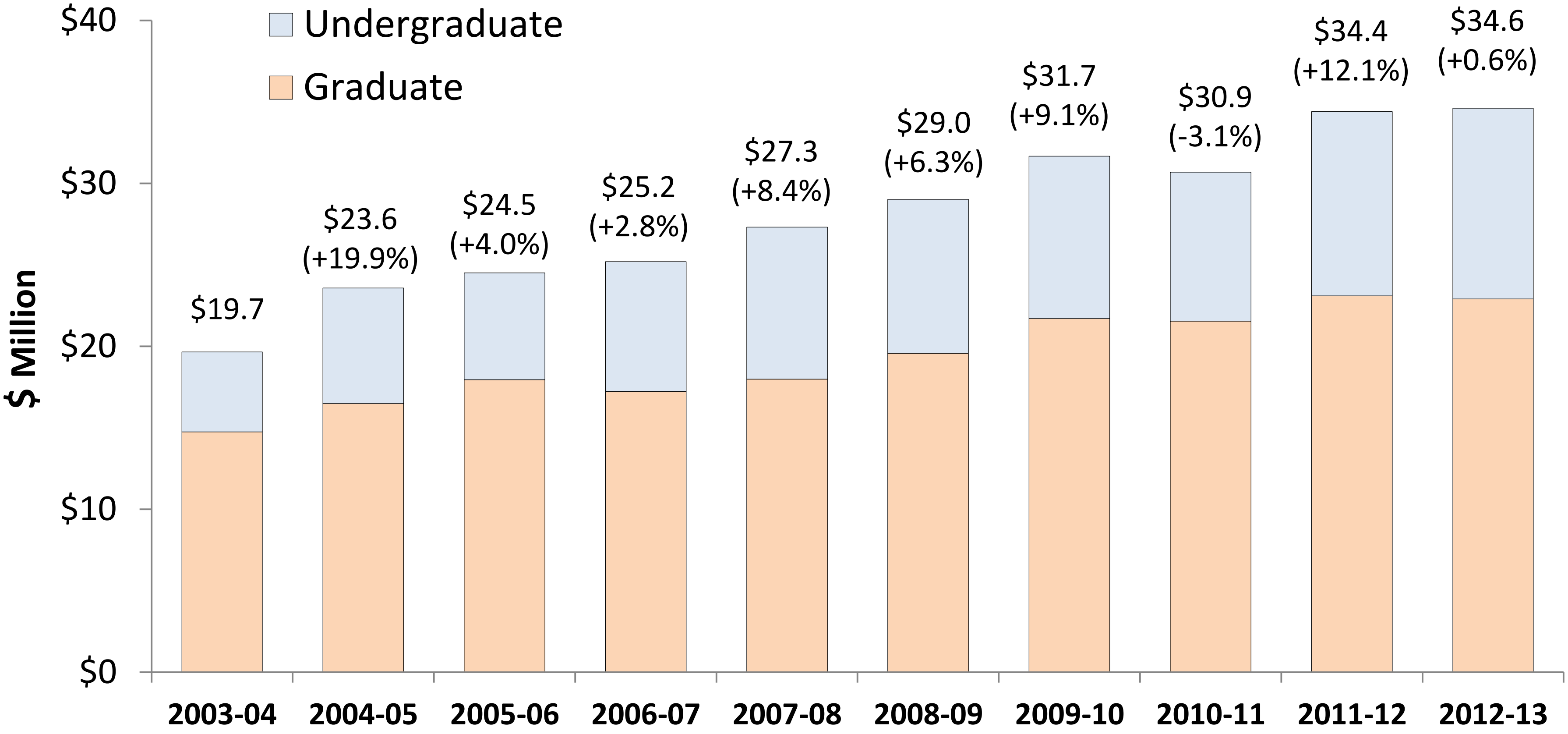
(b) includes investment income and sales of services/products

TUITION MOTIONS

That the Board of Governors approve a proposal from the University Administration effective September 1, 2014 for a:

1. general tuition fee increase of 1.0%;
2. fee increase to program differentials, course differentials, and market modifiers of 1.0%;
3. effective increase to international tuition fees of 5.0%; and,
4. effective increase to international program differentials, course differentials, and market modifiers of 5.0%.

U OF A BURSARY & AWARD EXPENDITURES
(operating)



TUITION ANNUAL TUITION COSTS FOR FULL-TIME INTERNATIONAL STUDENTS AT SELECTED CANADIAN UNIVERSITIES FOR 2012-13 ($)

	U of C	U of A	McGill	U of T	UBC	Waterloo
International Undergraduate (4 years)	72,632	73,272	59,564	113,636	90,488	76,856
International Masters (2 years)	16,227	12,792	16,859	33,772	15,282	34,356
International Doctoral (6 years)	39,768	38,376	34,665	101,316	45,846	103,068

Source: U15 data exchange, Tuition and individual institutions' websites

Notes:

McGill domestic amounts are for Canadian, out-of-province students

Above figures do not include mandatory non-instructional fees.

Tuition is for an Arts program.

Graduate tuition at some institutions is reduced as a student progresses through her program. These reductions are reflected in the above table. Undergraduate tuition is calculated as year one multiplied by four.

The University of Alberta Students' Union Response to the International Student Tuition Fee Proposal

The University of Alberta Administration has put forward a proposal to increase international student tuition by 5%. The combined base tuition and international differential fee increases for international students will be between $934.80 and $1,645.20 depending on a student's program of study. For many international students this is an unaffordable increase in fees that is not supported by the University of Alberta Students' Union. Outlined below are responses to some of the arguments that have been presented to justify the tuition increase, along with additional concerns that the Students' Union has with the proposal as presented.

Arguments for Increasing International Students' Tuition

From the Administration's proposal, comments within committees and previous statements, the Students' Union has identified two overarching reasons that have been given for this proposal:

1) Addressing Budgetary Shortfalls

Within the tuition proposal the Administration makes it clear that—facing a potential zero percent increase in funding from the Provincial government—they are exploring all possible mechanisms to increase revenue. International tuition, as unregulated by the government, is the option that they are pursuing with this proposal. The Students' Union is worried that with plans like this, international students are starting to be viewed more as an avenue to increase revenues than as valued members of the university community.

It has been argued that the 5% increase for international students' tuition is meant to cover the growth of costs to educating a student. Within this argument domestic student tuition would also increase, limited only by Provincial regulation. There are two major problems with this line of argument.

First, there has been little done to demonstrate how the cost to educate an individual student increases by 5% each year. A proposal that will see costs increase for some students by between approximately $900 and $1645 should provide details into the items that the increase will fund. Second, any discussion of cost increases should detail how the funds raised will maintain or improve the experience for students.

2) Existing Underpayment

In lieu of greater details around how this increase is going to fund cost pressure related to educating students, there has been an argument that students and particularly international students are not fully funding the cost of their education. This claim, however, is problematic for a number of reasons. First, similarly to the above, the cost to educate a student is not included in the proposal. It is hard to argue if international students are fully funding their education without an understanding of how much it costs to educate them.

The U of A should rationalize what proportion of operating expenditures are used for educating undergraduate students, and delineate how these expenditures are predicted to increase by 5%. The Administration should further explain how expenditure increases within their control are the responsibility of international students to fund.

Students' Union Concerns with Administration's Proposal

Beyond the concerns with the proposal's rationale discussed above, the Students' Union has some serious overall concerns with the proposal.

1) Lack of Details

For a proposal that will have serious impacts on students at the University of Alberta, proponents have provided few details. We believe a proposal for a fee of this size should include a deeper understanding of how the increased funding will be allocated, how the increase will maintain or improve services to students and what measures will be taken to assist students struggling to afford the increase on their tuition.

2) Lack of Consultation

While the President's Executive Committee (operations) endorsed this proposal on October 31, students did not see the proposal or any drafts of the proposal until November 7. This is the day that the proposal was sent out with the November 13 Academic Planning Committee materials and the administration called student representatives to inform them. The proposal was then briefly discussed at the Tuition Budget Advisory Committee on November 12.

Students have requested greater clarity and involvement in the discussions concerning international students' tuition, as this proposal appears to have been an option under consideration for quite some time. However, no indication that this proposal would be coming forward was provided to students at the two budget consultations with Students' Council or at the numerous Budget Advisory Committee meetings this year. One has to question the validity and purpose of these meetings if a proposal of this magnitude or its previous iterations did not come forward for discussion. It appears to the Students' Union that either student feedback was not wanted, or this proposal was rushed into existence.

3) Impact on Affordability

International students leave their homes to join our community at great financial and emotional expense. Many international students can barely rely on financial assistance and work during their studies to fund the cost of their education – due to them, for instance, not qualifying for government financial aid and part-time international students being barred from working off-campus.

For many students, their scholarships and funding will not increase to meet the new costs. This means that major, unplanned increases to a student's costs can be difficult or impossible to fully fund. This unexpected cost increase for international students will have major implications for some students, including reducing or eliminating their ability to visit home, increasing their debt load, forcing them to work longer hours instead of focusing on their studies and—for some—causing them to leave their programs before completing their degrees.

4) Impact on Student Success

From consulting with a wide-array of students, it is clear that the international students' tuition increase will have a negative impact on many students' academic success. For instance, some students may take on longer employment hours, reducing their ability to study. Others may refrain from purchasing mandatory course reading materials, making academic success difficult. Mental health will suffer as they worry about funding their education and maintaining needed scholarships. As well, students taking on work, seeking added sources of funding and having difficulty with their clasess may take longer to complete the credits necessary to graduate.

5) Lasting Impact on Student Impressions

An important component of student recruitment is the image of the institution that students bring back to their home communities. This proposal lacks input from students, an understanding of how the new money will be spent, and an explanation of how students struggling to afford the increase will be assisted. Clearly, it will have an impact on the impression that international students have of their institution.

One message that the Students' Union has heard consistently from international students since this proposal has become public is that they do not feel respected as members of their university community, but instead think that they are simply seen as a monetary solution to budgetary shortfalls. Furthermore, a fair number of international students have stated that they are contacting not only family and friends abroad about their negative experience with this tuition increase, but also diplomatic offices and high schools. The increase in international students' tuition represents an institutional reputational risk from abroad, which is something that is difficult to repair once the damage is done—especially as the institution expands its international recruitment efforts.

The University of Alberta Graduate Students' Association (GSA) Response to the International Student Tuition Fee Proposal

The GSA released a position statement on tuition and fee increases last week. In brief: **the University of Alberta Graduate Students' Association (GSA) opposes across-the-board graduate student tuition increases beyond the Consumer Price Index (CPI), international student tuition differential increases beyond CPI, the introduction of new market modifiers that are not part of a clear regulatory framework to define professional masters programs, and the introduction of new mandatory non-instructional fees (MNIFs) that do not result from a new regulatory framework negotiated between the University of Alberta administration and the GSA.** In the university's current proposal, our primary concern is the across-the-board increase to international differential fees. International graduate students already pay higher tuition fees, have access to fewer awards and grants, and are restricted in the types of employment they can hold. Further, international students often live at or below the low-income cut-off. Significantly raising the international student tuition differential beyond CPI will make the University of Alberta unaffordable for more potential international applicants and force more of our current international graduate students—especially the most vulnerable from developing countries—below the poverty line, threatening their academic progress. At GSA Council this week and in both e-mails and face-to-face meetings, graduate students have made it abundantly clear that they oppose the IDF increase and expect the GSA to oppose it. The GSA is holding a forum on the matter with departmental GSA presidents and GSA Councillors later today. Some departmental graduate coordinators (faculty members) have also indicated that their departments will no longer be able to cover the international differential increase for current or incoming graduate students as a result of this increase, which could negatively impact recruitment. I will speak to this matter further during BFPC next week.

Item 8

OUTLINE OF ISSUE

Agenda Title: **2014-2015 Residence Rental Rate Proposal**

Motion: THAT the Board Finance and Property Committee recommend that the Board of Governors approve the 2014-2015 Residence Rate Proposal, as set forth in Attachment 1, effective May 1, 2014.

Item

Action Requested	☐Approval ☒Recommendation ☐Discussion/Advice ☐Information
Proposed by	Don Hickey, Vice-President (Facilities and Operations)
Presenter	Don Hickey, Vice-President (Facilities and Operations); Doug Dawson, Executive Director, Ancillary Services (Facilities and Operations)
Subject	2014-2015 Residence Rental Rate Proposal

Details

Responsibility	Facilities and Operations
The Purpose of the Proposal is (please be specific)	To present the proposal for the 2014-2015 residence rate increases. A base increase of 1.75% and a weighted average increase of 3.76% to select units, as set forth in Attachment 1.
The Impact of the Proposal is	Ancillary Services do not receive base operating or capital dollars to build and maintain the student residences. As per Board of Governors direction, Ancillaries must operate the student residences as self-sustaining operations. As such, the financial pro forma must reflect the full and true cost of replacement and renewal of their capital assets through operations and reserves, including the repayment of debt and related interest. In addition, the residences are subject to municipal property taxation.
Replaces/Revises	N/A
Timeline/Implementation Date	Effective May 1, 2014
Estimated Cost	N/A
Sources of Funding	N/A
Notes	A proposal that President's Executive Committee-Operations recommend to the Board Finance Property Committee a base rent increase of 1.75% with a total weighted average increase of 3.76% at Edmonton and Camrose campuses for 2014 – 2015. The difference between the base and weighted increase (2.01%) is due to: • Part 2 of increases proposed for 2013-2014 in select residences will be taken over 2 years at the request of student associations at Residence Budget Advisory Committee (RBAC). • The installation and ongoing operation of University Wireless Services (UWS) in Lister Centre, International House and Residence Saint-Jean. It is proposed that the $19.95 monthly fee (reduced from $24.95) be included in the rent for 100% of students in those communities. The current program (Residence Internet Services) is an "opt-in" program with a subscription rate of about 89%. Base increases are required in order to address operating costs and ongoing deferred maintenance.

Item 8

Alignment/Compliance

Alignment with Guiding Documents	Facilities and Operations, Ancillary Services' Business Plan and Budget, Residence Services Capital Reserve Strategy, University Academic Plan (Dare to Deliver)
Compliance with Legislation, Policy and/or Procedure Relevant to the Proposal (please quote legislation and include identifying section numbers)	**Board Finance and Property Committee (BFPC) Terms of Reference** Sections 3 (d) and 4 (e) state: *3. MANDATE OF THE COMMITTEE* *Without limiting the generality of the foregoing, the Committee shall:* *d) review and recommend to the Board tuition and other like fees;* *4. LIMITATIONS ON DELEGATION BY THE BOARD* *The general delegation of authority by the Board to the Committee shall be limited as set out in this paragraph. Notwithstanding the general delegation of authority to the Committee set out in paragraph 3, the Board shall:* *(e) approve tuition and other like fees;*

Routing (Include meeting dates)

Consultative Route (parties who have seen the proposal and in what capacity)	Residence Budget Advisory Committee (RBAC) – May 9, June 25, September 4, September 18 and October 2, 2013 President's Executive Committee – Operations (PEC-O) – October 24, 2013
Approval Route (Governance) (including meeting dates)	Board Finance and Property Committee (BFPC) – November 26, 2013 (for recommendation to Board of Governors) Board of Governors (BG) – December 13, 2013 (for approval)
Final Approver	Board of Governors

Attachment:

1. Attachment 1 - Ancillary Services 2014-2015 Proposed Residence Rates (1 Page)

Prepared by:

Doug Dawson
Executive Director
Ancillary Services
1-050 Lister Centre
Phone: 780.492.1421
Email: doug.dawson@ualberta.ca

ATTACHMENT 1

Ancillary Services 2014-2015 Proposed Residence Rates (revised Oct 2) 1.75% base, 3.76% weighted average

		2013-2014 Rent	Proposed Rent 2014-2015	% Rent Incr	% UWS Incr	Tot Incr
Campus Saint-Jean						
Single	8 mos	$600	$631	1.75%	3.35%	5.10%*
Single	4 mos	$616	$667	5.00%	3.25%	8.25%*
East Campus Village Apartments						
1 Bedroom		$954	$971	1.75%		1.75%
2 Bedroom		$636	$647	1.75%		1.75%
4 Bedroom		$492	$501	1.75%		1.75%
International House						
Single/bath	8 mos	$690	$722	1.75%	2.90%	4.65%*
Single/bath	4 mos	$709	$764	5.00%	2.75%	7.75%*
HUB						
Bachelor		$725	$738	1.75%		1.75%
Furnished Bach		$788	$802	1.75%		1.75%
1 Bedroom		$954	$971	1.75%		1.75%
2 Bedroom/person		$593	$603	1.75%		1.75%
4 Bedroom/person		$430	$438	1.75%		1.75%
Lister Centre						
Single	8 mos	$562	$592	1.75%	3.50%	5.25%*
Single	4 mos	$625	$676	5.00%	3.20%	8.20%*
Double	8 mos	$358	$384	1.75%	5.50%	7.25%*
Double	4 mos	$383	$422	5.00%	5.25%	10.25%*
Single/bath	8 mos	$672	$704	1.75%	3.00%	4.75%*
Single/bath	4 mos	$691	$746	5.00%	3.00%	8.00%*
Michener Park						
Row House 2 Bedrm		$823-$893	$837-$909	1.75%		1.75%
Row House 3 Bedrm		$1030-$1086	$1048-$1105	1.75%		1.75%
2 Bedrm Walk-up		$790-$825	$804-$839	1.75%		1.75%
Vanier House		$838-$889	$853-$905	1.75%		1.75%
Newton Place						
Bachelor		$805-$871	$825-$893	2.50%		2.50%
1 Bedroom		$993-$1070	$1028-$1107	3.50%		3.50%
2 Bedroom		$1301-$1396	$1324-$1420	1.75%		1.75%
East Campus Village Houses						
Houses		$424-$1041	$431-$1059	1.75%		1.75%
Graduate Student Residence						
Studio Suites		$947	$980	3.50%		3.50%
2 Bedroom		$778	$792	3.00%		3.00%
Pinecrest and Tamarack Houses						
2 Bedroom/person		$856	$877	2.50%		2.50%
4 Bedroom/person		$764	$783	2.50%		2.50%
Augustana (Room & Board)		Rm & Board				
Single Rm 8 month		$921	$937	1.75%		1.75%
Double Rm 8 month		$780	$794	1.75%		1.75%
Single Room 4 month		$966	$983	1.75%		1.75%
Double Rm 4 month		$820	$834	1.75%		1.75%
WEIGHTED % INCR.						3.76%

*Increase includes monthly charge for in-room wireless service.

Item No. 9

OUTLINE OF ISSUE

Agenda Title: Proposed Rescinding of UAPPOL Indirect Costs of Research Policy and Creation of New UAPPOL Indirect Costs of Research Procedure

Motion: THAT the Board Finance and Property Committee recommend that the Board of Governors rescind the UAPPOL Indirect Costs of Research Policy and replace it with the Indirect Costs of Research Procedure.

Item

Action Requested	☐Approval ☒Recommendation ☐Discussion/Advice ☐Information
Proposed by	Offices of the Vice-President (Finance & Administration) and Vice-President (Research)
Presenter	Ms Phyllis Clark, Vice-President (Finance & Administration)
Subject	Rescinding of the current UAPPOL Indirect Costs of Research Policy and replacing it with a new UAPPOL Indirect Costs of Research Procedure which reflects a new distribution formula for indirect costs

Details

Responsibility	Offices of the Vice-President (Finance & Administration) and Vice-President (Research)
The Purpose of the Proposal is (please be specific)	To rescind current Policy and replace it with a new Procedure which contains changes to the distribution of indirect costs on all non Tri-Council funding
Replaces/Revises (eg, policies, resolutions)	UAPPOL Indirect Costs of Research Policy
Timeline/Implementation Date	To take effect on 1 January 2014
Estimated Cost	N/A
Sources of Funding	N/A
Notes	Indirect costs are expenditures incurred in the conduct of research that are not readily or effectively traceable to specific expense activities, yet are real costs that must form part of the budget for a research project. If these costs are not included in applications for research grants and/or contracts when they are not expressly prohibited by the granting organization, the University is absorbing the cost of the research activity and losing the opportunity to recover some of these costs. The current UAPPOL Indirect Costs of Research Policy has been in place for twelve years. In the last revisions to the Policy (April 2001), the allocation of indirect costs was expanded to include a 20% portion to the Principal Investigator (PI). This was done as an incentive, with the expectation that researchers would be more inclined to ask funding agencies for indirect costs if they were receiving a portion themselves. Unfortunately, the current distribution has not resulted in an increase in indirect costs; in fact, the total indirect costs earned since 2001 has gone down or stayed static each year, while overall research funding has increased from \$304M (2001-02) to \$423M (2012-13). In 2012-13, \$5.4M in indirect costs was earned when \$33.6M could have potentially been earned - a shortfall of \$28M. Every percent increase in capturing indirect costs represents \$3M in revenue to the University. As soon as the current Policy is rescinded and the new Procedure approved, all new research funding projects granted to the University on or after 1 January 2014 will be subject to the new allocation of indirect

	costs - 85% to the Faculty (managed by the Dean) and 15% to the Institution (managed by the Vice-President (Finance and Administration)). The Deans are strongly supportive of this new allocation formula. The proposed revisions to the allocation formula, along with its strict enforcement related to including indirect costs in the budgets submitted to funding agencies (ie, applications will not be signed off by the institution unless indirect costs are included, except where expressly prohibited by the agency), is expected to result in an increase in the amount of indirect costs earned. When the current Indirect Costs of Research Policy was approved in 2001, UAPPOL was in its formative stages and there were very few approved "parent" policies (for example, neither the Research Policy nor the Financial Management and Practices Policy had yet been drafted or approved). With the ongoing development of UAPPOL, the Indirect Costs of Research Policy could appropriately now become the Indirect Costs of Research Procedure under the Financial Management and Practices Policy. This new UAPPOL Procedure would reflect the new allocation formula for indirect costs described above.

Alignment/Compliance

Alignment with Guiding Documents	Dare to Discover; Dare to Deliver; Comprehensive Institutional Plan
Compliance with Legislation, Policy and/or Procedure Relevant to the Proposal (please <u>quote</u> legislation and include identifying section numbers)	1. ***Post-Secondary Learning Act* (*PSLA*)**: The *PSLA* gives the Board of Governors the authority to "develop, manage and operate, alone or in co-operation with any person or organization, programs, services and facilities for the educational or cultural advancement of the people of Alberta" (Section 60(1)). Subject to the authority of the Board of Governors, the General Faculties Council has responsibility over "academic affairs" (Section 26(1)) and can "make recommendations to the board with 1. respect to affiliation with other institutions" (Section 26(1)(o)). […]" 2. ***Mandate of the Committee***: Except as provided in paragraph 4 and in the Board's General Committee Terms of Reference, the Committee shall monitor, evaluate, advise and make decisions on behalf of the Board with respect to all strategic and significant financial and property matters and policies of the University. The Committee shall also consider any other matter delegated to the Committee by the Board.

Routing (Include meeting dates)

Consultative Route (parties who have seen the proposal and in what capacity)	The University Research Policy Committee (URPC), comprised of Associate Deans (Research), has discussed proposed changes to the UAPPOL Indirect Costs of Research Policy on several occasions, most recently on 21 March and 31 May, and is supportive of changing the allocation of indirect costs and increasing vigilance in including indirect costs in all eligible funding applications. The Vice-President (Research) and the Acting Provost and Vice-President (Academic) met with Chairs' Council on 21 May, and there was strong endorsement of the need to be more vigilant in requiring

	indirect costs be included in all eligible funding applications. The Chairs are signatories on funding applications, and they have a key role to play in ensuring indirect costs have been included in research budgets. The Vice-President (Research) had several discussions with Deans' Council on this topic, most recently on 15 May and 19 June, and there was strong support for simplifying the formula for allocating indirect costs, as well as for increased vigilance in reviewing the budgets of funding applications. PEC-S endorsed the proposed changes to the allocation formula for indirect costs on 21 August. At the PEC-S/Deans' Retreat on 22 August, the proposed changes to the allocation of indirect costs were endorsed. A memo from the Acting Provost and Vice-President (Academic), Vice-President (Research) and Vice-President (Finance & Administration) was sent to Deans on 30 August confirming that the new indirect costs of research revenue sharing agreement would take effect following governance approval. The proposed changes to the UAPPOL Indirect Costs of Research Policy were sent to the AASUA on 4 September for review and comment. The AASUA advised on 25 September that it had no comments on the proposed changes.
Approval Route (Governance) (including meeting dates)	Board Finance and Property Committee on 26 November
Final Approver	Board of Governors on 13 December 2013

Attachments:

1. Current UAPPOL Indirect Costs of Research Policy https://policiesonline.ualberta.ca/PoliciesProcedures/Policies/Indirect-Costs-of-Research-Policy.pdf

2. Proposed revisions to current UAPPOL Indirect Costs of Research Policy to create the new Indirect Costs of Research Procedure (with "tracked" changes indicating proposed revisions)

3. Proposed new UAPPOL Indirect Costs of Research Procedure ("clean" version incorporating proposed changes)

4. "New Revenue Sharing Models - Confirmation and Next Steps", memo to Deans from Martin Ferguson-Pell, Lorne A Babiuk and Phyllis Clark, dated 30 August 2013. The memo is posted on the University website at: http://change.ualberta.ca/-/media/change/financials/revenue-sharing-models.pdf.

5. UAPPOL Financial Management and Practices Policy https://policiesonline.ualberta.ca/PoliciesProcedures/Pages/DispPol.aspx?PID=41

Prepared by: Sandra Kereliuk, Office of the Vice-President (Finance & Administration) sandra.kereliuk@ualberta.ca
Katharine Moore, Office of the Vice-President (Research); katharine.moore@ualberta.ca

UNIVERSITY OF ALBERTA

U of A Policies and Procedures On-Line (UAPPOL)

Approval Date: March 2, 2001 Effective Date: April 1, 2001

Indirect Costs of Research Policy

Office of Accountability:	Vice-President (Research) and Vice-President (Finance and Administration)
Office of Administrative Responsibility:	Research Services Office
Approver:	Board of Governors
Scope:	Compliance with this University-wide policy is extended to all members of the University community.

Overview

Research is expensive. Maintenance of and improvements to research infrastructure require ongoing reinvestment on a significant scale. For this reason, research project funding should cover the full costs of the research allowable under University policy. The **indirect costs** of research at the University of Alberta average 51% of the direct costs and must be recovered through a percentage assessment on the direct costs. A research project budget must include both indirect and direct costs where possible.

If indirect costs are not recovered in research project funding, the University recovers these costs from other revenue sources that can negatively affect other University operations. This is not acceptable, since the intent is to recover close to the true costs of research undertaken.

Purpose

To state the University of Alberta's position with respect to the recovery of indirect costs for research activity, and

Identify the distribution of indirect research costs.

POLICY

Prior to any commitment of University resources to a research project, the Vice-President (Research) requires indirect cost recoveries in all research contracts, research grants, technical services agreements, flow through contracts and clinical trials, except where expressly prohibited by the granting organization.

Indirect costs will be deducted from research funds received, except in those instances where a sponsor's formally established research policy expressly prohibits or limits their recovery.

Indirect costs shall be allocated in the following manner:

Central	37% [7% allocated to the **Research Initiatives Fund** of the Vice-President (Research)]
Non-Departmentalized Faculty	32%
or	
Departmentalized Faculty	9%
Department	23%
Principal Investigator	20%
Library	11%

While the University does not wish to disadvantage its researchers by refusing to sanction applications to granting organizations with formal regulations against paying indirect costs, the University may decline to accept funding from such sources if indirect costs are not recoverable. The University's capacity to absorb the indirect costs associated with these funding sources is extremely limited.

Where capital expenditures promote long-term benefits to the University, the University may elect to contribute its own resources to offset a portion of the actual indirect costs. In all cases, the prior written approval of the Department Chair, Dean and Vice-President (Research) is required.

The University recognizes special circumstances may arise in individual grant or contract negotiations. The Vice-President (Research) will consider written appeals for exceptions or variations to the indirect cost recovery policy.

DEFINITIONS

Any definitions listed in the following table apply to this document only with no implied or intended institution-wide use. [▲ Top]	
Indirect costs	Expenditures incurred in the conduct of research that are not readily or effectively traceable to specific expense activities, yet are real costs that must form part of the budget for a research project. The distribution of indirect costs occurs as per the attached Schedule A.
Research Initiatives Fund	Funds provided for those projects and new initiatives not normally funded by other sources of support. Such initiatives include joint seed-funding support of research projects involving University units and/or non-University bodies; technology transfer activities and support for intra-institutional initiatives.

RELATED LINKS

Should a link fail, please contact uappol@ualberta.ca. [▲ Top]

Research Glossary of Terms (University of Alberta)

PUBLISHED PROCEDURES OF THIS POLICY

Application for Indirect Cost Recovery Rates Procedure

UNIVERSITY OF ALBERTA

U of A Policies and Procedures On-Line (UAPPOL)

Approval Date: March 2, 2001 Effective Date: April 1, 2001 **DRAFT 08/11/13**

Parent Policy: Financial Management and Practices Policy

Indirect Costs of Research ~~Policy~~Procedure

~~**Office of Accountability:**~~	~~Vice-President (Research) and Vice-President (Finance and Administration)~~
Office of Administrative Responsibility:	Research Services Office
Approver:	~~Board of Governors~~ Vice-President (Finance & Administration) and Vice-President (Research)
Scope:	Compliance with this University-wide ~~policy~~ procedure is extended to all members of the University community.

Overview

Research is expensive. Maintenance of and improvements to research infrastructure require ongoing reinvestment on a significant scale. For this reason, research project funding should cover the full costs of the research allowable under University policy. ~~The indirect costs of research at the University of Alberta average 51% of the direct costs and must be recovered through a percentage assessment on the direct costs.~~ A research project budget must include both indirect and direct costs wherever possible. This Procedure applies to all research funding except Tri-Council funds.

If indirect costs are not recovered in research project funding, the University ~~recovers~~absorbs these costs from other revenue sources that can negatively affect other University operations. This is not acceptable~~,~~ since the intent is to recover close to the true costs of research undertaken.

Purpose

To state the University of Alberta's position with respect to the recovery of indirect costs for all research ~~activity~~funding except Tri-Council funds, and

Identify the distribution of indirect research costs.

~~POLICY~~PROCEDURE

Prior to any commitment of University resources to a research project, the Vice-President (Research) requires indirect cost recoveries in all research contracts, research grants, technical services agreements, flow through contracts and clinical trials, except where expressly prohibited by the granting organization.

Indirect costs will be deducted from research funds received, except in those instances where a sponsor's formally established research policy expressly prohibits or limits their recovery.

Indirect costs shall be allocated in the following manner except where expressly prohibited by the granting organization:

~~Central~~	~~37% [7% allocated to the **Research Initiatives Fund** of the Vice-President (Research)]~~
~~Non-Departmentalized Faculty~~	~~32%~~
~~or~~	
~~Departmentalized Faculty~~	~~9%~~
~~Department~~	~~23%~~
~~Principal Investigator~~	~~20%~~
~~Library~~	~~11%~~

Faculty (ie, Dean)	85%
Central Administration	15%

Researchers must apply for 20% indirect costs relative to the total cost of the research agreement with the exception of Tri-Council grants.

While the University does not wish to disadvantage its researchers by refusing to sanction applications to granting organizations with formal regulations against paying indirect costs, the University may decline to accept funding from such sources if indirect costs are not recoverable. The University's capacity to absorb the indirect costs associated with these funding sources is extremely limited.

Where capital expenditures promote long-term benefits to the University, the University may elect to contribute its own resources to offset a portion of the actual indirect costs. In all cases, the prior written approval of the Department Chair, Dean and Vice-President (Research) is required.

~~The University recognizes special circumstances may arise in individual grant or contract negotiations. The Vice-President (Research) will consider written appeals for exceptions or variations to the indirect cost recovery policy.~~

DEFINITIONS

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~~**Research Initiatives Fund**~~	~~Funds provided for those projects and new initiatives not normally funded by other sources of support. Such initiatives include joint seed-funding support of research projects involving University units and/or non-University bodies; technology transfer activities and support for intra-institutional initiatives.~~

RELATED LINKS

Should a link fail, please contact uappol@ualberta.ca. [▲ Top]

~~Research Glossary of TermsResearch Glossary of Terms (University of Alberta)~~

There are no related links with this procedure.

~~PUBLISHED PROCEDURES OF THIS POLICY~~

~~Application for Indirect Cost Recovery Rates Procedure~~

Original Approval Date: March 2, 2001 (Effective Date: April 1, 2001)

Most Recent Approval Date: Effective Date: January 1, 2014

Parent Policy: Financial Management and Practices Policy

Indirect Costs of Research Procedure

Office of Administrative Responsibility:	Research Services Office
Approver:	Vice-President (Finance & Administration) and Vice-President (Research)
Scope:	Compliance with this University-wide procedure is extended to all members of the University community.

Overview

Research is expensive. Maintenance of and improvements to research infrastructure require ongoing reinvestment on a significant scale. For this reason, research project funding should cover the full costs of the research allowable under University policy. A research project budget must include both indirect and direct costs wherever possible. This Procedure applies to all research funding except Tri-Council funds.

If indirect costs are not recovered in research project funding, the University absorbs these costs from other revenue sources that can negatively affect other University operations. This is not acceptable since the intent is to recover close to the true costs of research undertaken.

Purpose

To state the University of Alberta's position with respect to the recovery of indirect costs for all research funding except Tri-Council funds, and

Identify the distribution of indirect research costs.

PROCEDURE

Prior to any commitment of University resources to a research project, the Vice-President (Research) requires indirect cost recoveries in all research contracts, research grants, technical services agreements, flow through contracts and clinical trials, except where expressly prohibited by the granting organization.

Indirect costs will be deducted from research funds received, except in those instances where a sponsor's formally established research policy expressly prohibits or limits their recovery.

Indirect costs shall be allocated in the following manner except where expressly prohibited by the granting organization:

Faculty (ie. Dean)	85%
Central Administration	15%

Researchers must apply for 20% indirect costs relative to the total cost of the research agreement with the exception of Tri-Council grants.

While the University does not wish to disadvantage its researchers by refusing to sanction applications to granting organizations with formal regulations against paying indirect costs, the University may decline to accept funding from such sources if indirect costs are not recoverable. The University's capacity to absorb the indirect costs associated with these funding sources is extremely limited.

Where capital expenditures promote long-term benefits to the University, the University may elect to contribute its own resources to offset a portion of the actual indirect costs. In all cases, the prior written approval of the Department Chair, Dean and Vice-President (Research) is required.

DEFINITIONS

Any definitions listed in the following table apply to this document only with no implied or intended institution-wide use. [▲Top]	
Indirect costs	Expenditures incurred in the conduct of research that are not readily or effectively traceable to specific expense activities, yet are real costs that must form part of the budget for a research project.

FORMS

Should a link fail, please contact uappol@ualberta.ca. [▲Top]

There are no forms for this Procedure.

RELATED LINKS

Should a link fail, please contact uappol@ualberta.ca. [▲Top]

There are no related links for this Procedure.

UNIVERSITY OF ALBERTA

Interdepartmental Correspondence

Office of the Provost and Vice-President (Academic)
2-36 South Academic Building (SAB)
Edmonton, Alberta, Canada T6G 2G7

Tel: 780.492.3443
Fax: 780.492.1438
www.provost.ualberta.ca

Date: August 30, 2013

To: Deans

From: Martin Ferguson-Pell, Acting Provost and Vice-President (Academic)
Lorne A. Babiuk, Vice-President (Research)
Phyllis Clark, Vice-President (Finance and Administration)

Re: New Revenue Sharing Models - Confirmation and Next Steps

We write to confirm the decision made concerning revenue sharing with Faculties at the August 22nd Deans Retreat on 2014-15 budget planning.

1. New Indirect Costs of Research revenue from all agreements (grants and contracts) with non-Tri-Council funders will be shared 85% to the Faculty, and 15% to the Institution. With this revision to revenue-sharing practices, ICR revenue will now be transferred directly and exclusively to the dean's office to be managed at the dean's discretion. This new ICR revenue sharing agreement requires a change to the current UAPPOL Indirect Costs of Research Policy (attached) and is therefore subject to the governance consultation and approval process which will commence early in September. This model will be implemented upon final governance approval.

2. The 85/15 model will be applied to other new revenue generated from external sources, such as tuition from revenue-generating or "cost-recovery" programs or new market modifiers. (New revenue from the Campus Alberta grant or regulated tuition is excluded from this agreement.) Transfers of this revenue will also be directly and exclusively to the dean's office. This model will be implemented September 1, 2013. Details on any grandparenting or specific exclusions that may need to be made because of past agreements will be conveyed within the next two weeks, that is, by September 13th.

3. The sharing of IDF revenue is under review and a new model will be proposed within the next two weeks, that is, by September 13th.

Martin Ferguson-Pell   Lorne Babiuk   Phyllis Clark

FI04-OPE-15

UNIVERSITY OF ALBERTA

U of A Policies and Procedures On-Line (UAPPOL)

Approval Date: December 9, 2008
Most Recent Editorial Date: July 24, 2013

Financial Management and Practices Policy

Office of Accountability:	Office of the Vice-President (Finance and Administration)
Office of Administrative Responsibility:	Financial Services
Approver:	Vice-President (Finance and Administration)
Scope:	Compliance with University policy extends to all members of the University community.

Overview

The Board of Governors of the University of Alberta is accountable for the effective and efficient stewardship of University funds. The University of Alberta is a registered charity.

As well as legislative related compliances, a large component of the funding received by the University is restricted in use by the terms and conditions attached by sponsors and donors. These and other requirements compel the University to have an effective system of financial internal controls.

A system of financial internal control consists of the policies and procedures established and maintained by administration to assist in achieving its objective of ensuring, as far as practical, the orderly and efficient conduct of the entity's business.

The University's system of financial internal controls consists of policies, procedures, and financial systems that provide for financial transaction processing as well as financial reporting for control, planning and decision making purposes. These policies, procedures and financial systems support many areas such as the determination and collection of revenues, control of expenditures, safeguarding of assets, and management of liabilities and risks. Financial controls provide guidance on the authorization of transactions and activities, appropriate segregation of duties, adequate documents and records and adequate safeguards over access to and use of assets and records.

Purpose

To ensure financial management activities and practices that promotes appropriate and effective stewardship of all University funds (all University funds includes both unrestricted and restricted funds)

POLICY

The University of Alberta will conduct its financial operations within the following guiding principles:

- complying with applicable legislation, University of Alberta policies and procedures, sponsor and donor terms and conditions

- reporting in accordance with Canadian generally accepted accounting principles (GAAP),

- maintaining appropriate and effective systems of internal controls with the emphasis on relevant institutional policy and procedures, data integrity and clearly defined roles and accountabilities,

- maximizing utilization of available resources,

- not paying interest, except in specific situations (refer to *Interest Procedure – Restricted Special Purpose and Restricted Research Accounts*),

- disallowing over expenditures, except in specific situations (refer to *Budget Variance Accountability Procedure*, *Research Over Expenditure (Authorized) Procedure*),

- using a best practices approach, and

- leveraging technology

DEFINITIONS

There are no definitions for this Policy. **[▲Top]**

RELATED LINKS

Should a link fail, please contact uappol@ualberta.ca. **[▲Top]**

There are no related links for this policy.

PUBLISHED PROCEDURES OF THIS POLICY

Cash Handling Procedure

Cash Register Float Procedure

Cash Sales Deposit Procedure

Cash Sales Procedure

Cash Sales Receipting Procedure

Electronic Funds Transfer (EFT) Incoming Payment Procedure

External Billing Procedure

Financial Controls Self-Assessment Procedure

Financial Controls Self-Assessment Procedure - Instructions (Appendix A)

Gift Expenditure Procedure

Hospitality, Working Sessions/Meetings and University Employee Functions Procedure

Interest Procedure - Restricted Special Purpose and Restricted Research Accounts

Payment by Electronic Banking/Direct Deposit Procedure

Petty Cash Procedure

Research – Over Expenditure (Authorized) Procedure

Research – Over Expenditure (Unauthorized) Procedure

Tender Types & Related Procedure

UNIVERSITY OF ALBERTA

U of A Policies and Procedures On-Line (UAPPOL)

University Contingency Procedure

Item No. 10

OUTLINE OF ISSUE

Agenda Title: **East Campus Village (ECV) – Infill Housing Projects (Buildings A and B): Capital Expenditure Authorization Request**

Motion: THAT the Board Finance and Property Committee, acting with delegated authority of the Board of Governors, approve a capital expenditure authorization request of five million, five hundred thousand ($5,500,000) in Canadian funds for the total project cost for the construction of the East Campus Village (ECV) – Infill Housing projects (Buildings A and B).

Item

Action Requested	☒Approval ☐Recommendation ☐Discussion/Advice ☐Information
Proposed by	Don Hickey, Vice-President, Facilities and Operations
Presenter	Bart Becker, Associate Vice-President, Facilities and Operations Doug Dawson, Executive Director, Ancillary Services, Facilities and Operations
Subject	East Campus Village (ECV) Infill Housing Projects (Buildings A and B) – Capital Expenditure Authorization Request (CEAR)

Details

Responsibility	Facilities and Operations
The Purpose of the Proposal is (please be specific)	The ECV Infill Housing projects will provide residence accommodation to approximately 74 students in two buildings located on 90th Avenue in the ECV precinct. These houses will present a unique housing opportunity for students who want to live in a smaller, more intimate setting.
The Impact of the Proposal is	This project supports the University's strategic goal, to offer on-campus housing with supportive programming to 25% of our full-time students.
Replaces/Revises (eg, policies, resolutions)	N/A
Timeline/Implementation Date	The project is anticipated to commence design upon approval of funding, with design completion in the early spring of 2014. These residences will be ready for the 2015/2016 academic year.
Estimated Cost	Total project cost is estimated at $5,500,000.
Sources of Funding	CEAR Funding Information (see table below)
Notes	Board Finance Property Committee will be notified of any substantive changes from details outlined in the motion.

CEAR Funding Information

Number	Funding Source	Amount
13-130	Equity funding from ECV 89 Avenue CEAR (11-109 (S2))	$1,300,000
	Ancillary Services Capital Reserves	4,200,000
	TOTAL	$5,500,000

Alignment/Compliance

Alignment with Guiding Documents	Dare to Discover, Academic Plan (Dare to Deliver), Long Range Development Plan
Compliance with Legislation, Policy and/or Procedure Relevant to the Proposal (please quote legislation and include identifying section	**PSLA Act, Section 60 (1) (b) refers:** *The Board of a public post-secondary institution shall develop, manage, and operate, alone or in co-operation with any person or organization, programs, services and facilities for the educational or cultural advancement of the people of Alberta.*

numbers)	**Board Finance and Property Committee Terms of Reference, Section 3) g states:** *3. MANDATE OF THE COMMITTEE* *Except as provided in paragraph 4 and in the Board's General Committee Terms of Reference, the Committee shall monitor, evaluate, advise and make decisions on behalf of the Board with respect to all strategic and significant financial and property matters and policies of the University. The Committee shall also consider any other matter delegated to the Committee by the Board.* *Without limiting the generality of the foregoing, the Committee shall:* *g) review and recommend to the Board original Capital Expenditure Authorization Requests or individual Supplemental CEARs greater than $7 million or aggregate total CEAR and Supplemental CEARs up to, but not exceeding $14 million.* **Board Finance and Property Committee Terms of Reference, Section 4) c states:** *4. LIMITATIONS ON DELEGATION BY THE BOARD* *The general delegation of authority by the Board to the Committee shall be limited as set out in this paragraph. Notwithstanding the general delegation of authority to the Committee set out in paragraph 3, the Board shall:* *(c) approve capital expenditures of more than $7 million or expenditures which, when combined with other expenditures for the same project, would equal more than $7 million;*

Routing (Include meeting dates)

Consultative Route (parties who have seen the proposal and in what capacity)	• Garneau Community Focus Group Meeting (September 16, 2013) as part of a review of the ECV potential 5 year development plan (for information) • Garneau Community Open House (September 25, 2013) North Campus Long Range Development Plan (for information) • Facilities Development Committee (October 24, 2013) as part of a review of ECV potential 5 year phasing plan (for information) • President's Executive Committee – Operations (November 7, 2013) (for approval)
Approval Route (Governance) (including meeting dates)	Board Finance Property Committee – November 26, 2013 – (approval)
Final Approver	Board Finance Property Committee

Attachments:

1. Attachment 1 (1 Page) - Briefing Note - East Campus Village Infill Housing Projects (Buildings A and B) Capital Expenditure Authorization Request (CEAR)
2. Attachment 2 (1 Page) - East Campus Village Development Plan (Buildings A and B)
3. Attachment 3 (1 Page) - Proforma

Prepared by:
Todd Werre, Director, Project Management Office, Planning and Project Delivery
Facilities and Operations
Telephone: 780-492-5525
Email: todd.werre@ualberta.ca

East Campus Village (ECV) Infill Housing Projects (Buildings A and B) Capital Expenditure Authorization Request (CEAR)

Background

Over the last ten years, the demand for on-campus housing accommodation has exceeded supply. In fact, between 2007 and 2013, the number of new applicants has exceeded 5,000, while the new vacant supply is in the range of 2,500.

Overall, student housing supports many areas of strategic importance to the University. These include:

1. **Academic Success**:
   Programs and procedures are structured such that academic success is a priority.
2. **Leadership Development**:
   Those who live in residence tend to demonstrate a higher sense of civic engagement and giving back to the community.
3. **Engagement**:
   Students living in on-campus housing are more actively involved in campus extracurricular activities. They also report a higher “sense of belonging”.
4. **Retention**:
   On-campus housing that offers structured programming is a good way to ensure that students who are at a high risk of leaving complete their studies.
5. **Recruitment**:
   The University plans to increase residence capacity to attract international and rural students with the goal of seeing 25% of the student population in purpose-built housing.

The creation of new resident beds is strategically aligned with the priorities of the University.

Project Scope / Objectives

The 2002 Long Range Development Plan has identified the area between 110 Street, 111 Street, 87 Avenue and Saskatchewan Drive as a “University Housing Development Site”. Now known as East Campus Village (ECV), the planning activity, completed in consultation with the Garneau community, resulted in a set of development guidelines (East Campus Village Design Guidelines for Infill Development). As part of Sector Plan development, the University proposes to develop the eastern portion of the 89 Avenue and the 90 Avenue block in a way that is mindful and reflects the architecture of the existing houses in ECV and elsewhere in the Garneau community.

The ECV Infill Housing project consists of two (2) residence buildings located on 90 Avenue in the ECV precinct (see attachment 2). Each building will provide accommodation, resident life services and amenities for approximately 37 students, for a total of 74 students. The recommendation put forward for the ECV Infill residences is a combination of single bed suites sharing common spaces, such as kitchens, dining and social spaces; and outdoor amenities, such as decks and landscaped areas. As well, these residences will be built to reflect the character and style of four (4) preselected homes within the area, as identified during our community engagement activities with the Garneau community.

The houses will present a unique housing opportunity for students who want to live in a smaller, more intimate setting with other students. Located in the high demand area of ECV, it is expected these buildings will be a highly sought after residence for students of the University of Alberta.

Issues

While the Community continues to raise concerns with the removal of homes in the area, this project is in accordance with the Long Range Development Plan, Sector Plan Development Guidelines and our preservation plan. Community engagement has and will continue to be undertaken, seeking valuable input into the architecture and scale of the buildings in keeping with the character of the area.

As with all infill projects, there will be challenges in design and construction and will require special attention. Adjacent issues for each site have been identified, and as the project proceeds into design and construction, every effort will be made to mitigate these through coordinated construction and effective communication.

Recommendation

That Board Finance and Property Committee approve the capital expenditure for the construction of the ECV Infill Housing projects (Buildings A and B).

UNIVERSITY OF ALBERTA
FACILITIES AND OPERATIONS

Attachment 2

East Campus Village Development Plan

October 29, 2013

ECV - infill Project 2013

Likely Scenario

🟨 Variables that can be changed for sensitivity analysis

ECV - Infill Project - 2013 - FINANCIAL PROFORMA 2015 - 2045

Version 3 - November 12, 2013

Assumptions

Units	**Total Beds**
1-Bed	**70**

Escalators per Annum From 2013	
Residential Rent & Other Revenue	2.50%
Property Tax	4%
Utilities	3%
All Other Expenses	3%

Rental rate/bed/annual

1-Bed	**$9,600**

Annual Vacancy	**2.50%**	
Construction total/hard only	**$5,500,000**	$4,400,000
Equity	**$1,300,000**	
Ancillary Reserves	**$4,200,000**	

	Construction	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**Year 11**	**year 12**	**Year 13**	**Year 14**
Revenue:															
Suite Rent	$0	$672,000	$688,800	$706,020	$723,671	$741,762	$760,306	$779,314	$798,797	$818,767	$839,236	$860,217	$881,722	$903,765	$926,359
Other Revenue		$27,939	$28,638	$29,354	$30,088	$30,840	$31,611	$32,401	$33,211	$34,042	$34,893	$35,765	$36,659	$37,575	$38,515
Less Residential Vacancy	$0	($16,800)	($17,220)	($17,651)	($18,092)	($18,544)	($19,008)	($19,483)	($19,970)	($20,469)	($20,981)	($21,505)	($22,043)	($22,594)	($23,159)
Total Revenue	**$0**	**$683,139**	**$700,218**	**$717,723**	**$735,666**	**$754,058**	**$772,910**	**$792,232**	**$812,038**	**$832,339**	**$853,148**	**$874,476**	**$896,338**	**$918,747**	**$941,715**
Expenses - Property Management:															
Salaries & Benefits	$0	$18,000	$18,540	$19,096	$19,669	$20,259	$20,867	$21,493	$22,138	$22,802	$23,486	$24,190	$24,916	$25,664	$26,434
Property Tax	$0	$41,479	$43,139	$44,864	$46,659	$48,525	$50,466	$52,485	$54,584	$56,767	$59,038	$61,400	$63,856	$66,410	$69,066
Insurance	$0	$6,693	$6,894	$7,101	$7,314	$7,533	$7,759	$7,992	$8,232	$8,479	$8,733	$8,995	$9,265	$9,543	$9,829
General & Administrative	$0	$8,130	$8,374	$8,625	$8,884	$9,151	$9,425	$9,708	$9,999	$10,299	$10,608	$10,927	$11,254	$11,592	$11,940
Equipment/Furniture <$5,000.00	$0	$477	$492	$506	$522	$537	$553	$570	$587	$605	$623	$642	$661	$681	$701
Utilities	$0	$38,658	$39,817	$41,012	$42,242	$43,510	$44,815	$46,159	$47,544	$48,970	$50,440	$51,953	$53,511	$55,117	$56,770
Maintenance	$0	$28,000	$28,840	$29,705	$30,596	$31,514	$32,460	$33,433	$34,436	$35,470	$36,534	$37,630	$38,759	$39,921	$41,119
Janitorial Service	$0	$23,802	$24,516	$25,252	$26,009	$26,790	$27,593	$28,421	$29,274	$30,152	$31,057	$31,988	$32,948	$33,936	$34,954
Rentals	$0	$362	$373	$384	$395	$407	$419	$432	$445	$458	$472	$486	$501	$516	$531
Overheads	$0	$14,853	$15,298	$15,757	$16,230	$16,717	$17,218	$17,735	$18,267	$18,815	$19,379	$19,961	$20,559	$21,176	$21,812
Capital Amortization	$0	$137,500	$137,500	$137,500	$137,500	$137,500	$137,500	$137,500	$137,500	$137,500	$137,500	$137,500	$137,500	$137,500	$137,500
Total Property Management Expenses	**$0**	**$317,955**	**$323,783**	**$329,803**	**$336,021**	**$342,443**	**$349,076**	**$355,928**	**$363,006**	**$370,317**	**$377,869**	**$385,671**	**$393,730**	**$402,055**	**$410,656**
Residence Life Expenses	$0	$16,000	$16,480	$16,974	$17,484	$18,008	$18,548	$19,105	$19,678	$20,268	$20,876	$21,503	$22,148	$22,812	$23,497
Total Expenses	**$0**	**$333,955**	**$340,263**	**$346,777**	**$353,504**	**$360,451**	**$367,625**	**$375,033**	**$382,684**	**$390,585**	**$398,746**	**$407,173**	**$415,878**	**$424,868**	**$434,153**
Net Income (Loss)	**$0**	**$349,185**	**$359,955**	**$370,946**	**$382,162**	**$393,607**	**$405,285**	**$417,199**	**$429,354**	**$441,754**	**$454,402**	**$467,303**	**$480,460**	**$493,879**	**$507,563**
Transfer to Reserves	$0	$0	$0	$0	$0	$0	$66,000	$66,000	$66,000	$66,000	$66,000	$66,000	$66,000	$66,000	$66,000
Net Contribution	**$0**	**$349,185**	**$359,955**	**$370,946**	**$382,162**	**$393,607**	**$339,285**	**$351,199**	**$363,354**	**$375,754**	**$388,402**	**$401,303**	**$414,460**	**$427,879**	**$441,563**
Cumulative Contribution from Operations	**$0**	**$349,185**	**$709,140**	**$1,080,086**	**$1,462,248**	**$1,855,855**	**$2,195,139**	**$2,546,339**	**$2,909,693**	**$3,285,446**	**$3,673,848**	**$4,075,151**	**$4,489,611**	**$4,917,490**	**$5,359,053**
Reconcilliation to Cash Flow															
Add back Amortization	$0	$137,500	$137,500	$137,500	$137,500	$137,500	$137,500	$137,500	$137,500	$137,500	$137,500	$137,500	$137,500	$137,500	$137,500
Net Cash Flow	**$0**	**$486,685**	**$497,455**	**$508,446**	**$519,662**	**$531,107**	**$476,785**	**$488,699**	**$500,854**	**$513,254**	**$525,902**	**$538,803**	**$551,960**	**$565,379**	**$579,063**
Cumulative Recapitalization of "Equity" Reserves	**$0**	**$486,685**	**$984,140**	**$1,492,586**	**$2,012,248**	**$2,543,355**	**$3,020,139**	**$3,508,839**	**$4,009,693**	**$4,522,946**	**$5,048,848**	**$5,587,651**	**$6,139,611**	**$6,704,990**	**$7,284,053**
Cumulative Cash Flow		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$322,946**	**$848,848**	**$1,387,651**	**$1,939,611**	**$2,504,990**	**$3,084,053**

NOTES/ASSUMPTIONS

1. Rental rates are annual per bed.
2. Property Management Salaries and Benefits based on per bed allocation for East Campus Village staffing.
3. Maintenance costs are calculated as an average of Grad Residence and I-House actuals FY 2013.
4. Janitorial is based on Grad Residence actuals 2013.
5. Overheads are University central admin charges.
6. Res Life expenses assume two embedded student staff.
7. Capital amortization is calculated at .25% of total construction costs.
8. All other expenses based on I-House actuals FY2013 prorated to bed count.

Item No. 11

OUTLINE OF ISSUE

Agenda Title: **Disposition of Land –Utility Corridor, 63 Avenue and 122 Street: Resolution and Order in Council**

Motion: THAT the Board Finance and Property Committee recommend that the Board of Governors:

a) approve the disposition, via right of way, to the City of Edmonton for road widening of approximately ¾ of an acre of land which is surplus to the needs of The University of Alberta and which is contained within the parcel legally described as the SW ¼ 19 – 52 – 24 W4M, and

b) make an application to the Minister of Infrastructure for the required approval of the Lieutenant Governor in Council for the granting of the disposition as set forth in Attachment 3.

Item

Action Requested	☐Approval ☒Recommendation ☐Discussion/Advice ☐Information
Proposed by	Facilities and Operations
Presenter	Don Hickey, Vice-President of Facilities and Operations
Subject	The disposition of university land, via right of way, to the City of Edmonton.

Details

Responsibility	Vice-President of Facilities and Operations
The Purpose of the Proposal is (please be specific)	The construction of a new intersection at 122 Street and 63 Avenue is required to provide access into south campus as per the Long Range Development Plan. The road design calls for 122 Street to be widened for about a block and a half to accommodate the entrance into south campus and will require about ¾ of an acre of university land, between the existing 122 Street curb and the existing south campus fence line, as shown on Attachment 1. The land disposition will be done via right of way to the City of Edmonton.
The Impact of the Proposal is	No impact – the disposition land area is located outside of the fenced area of south campus.
Replaces/Revises (eg, policies, resolutions)	N/A
Timeline/Implementation Date	Spring 2014
Estimated Cost	
Sources of Funding	N/A
Notes	The granting of a land right of way is considered a land disposition by the Minister of Infrastructure and, therefore, requires the approval of the Lieutenant Governor in Council.

Alignment/Compliance

Alignment with Guiding Documents	Dare to Discover, Academic Plan (Dare to Deliver), Long Range Development Plan
Compliance with Legislation, Policy and/or Procedure Relevant to the Proposal (please quote legislation and include identifying section	***Post-secondary Learning Act*** *Post-secondary Learning Act (PSLA), Section 67(1.1) A board shall not, without the prior approval of the Lieutenant Governor in Council,(a) sell or exchange any interest in land, other than donated land, that is held by and being used for the purposes of the board.*

numbers)	*BFPC Terms of Reference – Sections 3 and 4 state:* 3. *MANDATE OF THE COMMITTEE* *Except as provided in paragraph 4 and in the Board's General Committee Terms of Reference, the Committee shall monitor, evaluate, advise and make decisions on behalf of the Board with respect to all strategic and significant financial and property matters and policies of the University. The Committee shall also consider any other matter delegated to the Committee by the Board.* *Without limiting the generality of the foregoing, the Committee shall:* *h) approve the acquisition or disposal of real property, provided always that any such decision of the Committee shall be reported to the Board and shall only be effective or implemented a minimum of 24 hours following the conclusion of the Board meeting at which the decision of the Committee is reported, and provided the Board has not resolved otherwise* 4. *LIMITATIONS ON DELEGATION BY THE BOARD* *The general delegation of authority by the Board to the Committee shall be limited as set out in this paragraph. Notwithstanding the general delegation of authority to the Committee set out in paragraph 3, the Board shall:* *g) review all decisions of the Committee with respect to the acquisition or disposal of real property; after any such review the Board may resolve to overturn or vary any such decision.* ***UAPPOL**; Real Property Compliance Policy, Real Property Acquisition Procedure, Real Property Disposition Procedure:* https://policiesonline.ualberta.ca/PoliciesProcedures/Policies/Real-Property-Compliance-Policy.pdf

Routing (Include meeting dates)

Consultative Route (parties who have seen the proposal and in what capacity)	President's Executive Committee – Operations – November 7, 2013
Approval Route (Governance) (including meeting dates)	Board Finance and Property Committee – November 26, 2013 (for recommendation) Board of Governors – December 13, 2013 (for approval)
Final Approver	Board of Governors

Attachments

1. Attachment 1 (1 Page) - Site Plan (122 Street Widening – Road R.O.W. Requirement Plan)
2. Attachment 2 (69 Pages) - Opportunity Paper: Utility Right of Way to the City of Edmonton to expand 122 Street East
3. Attachment 3 (1 Page) - Land Disposition Board Resolution

Prepared by:
R. Craig Moore,
Director, Real Estate Services
University of Alberta
Telephone: 780-492-4164
Email: craig.moore@ualberta.ca

UNIVERSITY OF ALBERTA
UNIVERSITY GOVERNANCE

BOARD FINANCE AND PROPERTY COMMITTEE
For the Meeting of November 26, 2013

Item No. 11

Revised: 11/15/2013

NO.	REVISIONS	BY	DATE	APP'D
7				
6				
5				
4				
3				
2				
1	UPDATED REQUIRED PROPERTY LIMIT	P.B.C.	2013-09-24	A.D.D.

DATE

DATE

DATE 2013.-08-27

DESIGNED A.D.D.

SCALE 0m 5 10 20

CHECKED P.S.L.

UNIVERSITY OF ALBERTA

PROJECT

122 STREET
WIDENING

DRAWING

ROAD R.O.W. REQUIREMENT PLAN

Utility Right Of Way to the City of Edmonton to expand 122 Street East

Opportunity Paper

October 2013

Opportunity Paper

Submitted by: University of Alberta

Utility ROW to the City of Edmonton to expand 122 Street east to accommodate current and future access requirements to South Campus

Project Opportunity / Challenge

Currently there is only one primary public access point into the south campus off 61 Ave and 115 Street. The recent development of the Saville Community Sports Center has placed a significant strain on the residents of Lendrum. While the university acknowledges and agrees that a second access point is necessary, significant consultations with the community of Grandview on the second entrance needed to be completed. The university, in partnership with the City of Edmonton, has completed a joint Traffic Impact Assessment (TIA), see Attachment 1, which recommended that a single intersection at 122 Street and 63 Avenue could accommodate the projected future traffic patterns associated with our South Campus build-out as outlined in our Long Range Development Plan (LRDP).

After considerable consultation with the community, affected South Campus stakeholders, and the City of Edmonton, it has been decided that the intersection should be fully built-out to accommodate future traffic patterns and eliminate the need for future construction disruption when the South Campus is further developed. The final design has resulted in the need to widen the road slightly to the east to accommodate turning lanes into the campus from both the north and south. As 122 Street is a main city arterial, the University would not want to have jurisdiction or responsibility for snow removal and future maintenance of this arterial, and is proposing to provide the City a utility Right-Of-Way (ROW) that accommodates the new east road curb line, and a standard 4m setback for street lighting, sidewalk and access. As with other ROW agreements between the University of Alberta and the City of Edmonton, there is a nominal $1.00 fee for the ROW.

This access and road improvement is in accordance with the recent Board approved LRDP amendment for the South Campus (LRDP Appendix 19). The limits of the ROW are such that they fall outside the existing property fence and within the open space zone identified within the LRDP. To this end, this ROW places no restrictions on current operations and research, nor does it restrict or limit future development plans identified in our LRDP. The legal description and map of the ROW limits (included as Attachment 2 to this report) represent approximately 3000 sqm (0.74 ac) of land, and there are no restriction, registrations, or caveats associated with this land.

Design work, community consultation and City of Edmonton coordination have been ongoing for 6 months with construction documents and tendering to be complete in early 2014. While some site prep work (tree removals/relocations, grubbing) will begin in November, it is anticipated full construction will start in April 2014 and be completed by late October that same year. The anticipated cost of this project is $3.6 million, and is funded in part by a grant for infrastructure upgrades required for the South Campus as a result of the recent developments.

If the Order in Council (OC) is not approved, significant financial, reputational, and operational risk will be transferred to the university. The university is not equipped nor funded to accommodate snow removal, repairs and maintenance of a City arterial. Retaining an interest in this land opens the university up to potential legal action should the City, for whatever reason, be found to not be providing reasonable care and attention to their infrastructure. As well, this is a partial addition to the arterial and there is no clear and distinct boundary between the two properties. This disposition provides for a clear line to the parties responsible and liable for the proper care and maintenance of the road, sidewalk and street lighting. A failure to approve the OC would result in the university and City redesigning and re-examining alternatives that provide a separate access in to the South Campus.

Recommendation

A number of alternatives were examined within the Traffic Impact Assessment (TIA), all of which have a negative impact on city traffic operations, university operations, and campus planning principles. Four years of consultation on the South Campus LRDP Amendment and an additional year on the consultations and design efforts for the intersection itself would be at risk and would force the university to amend its South Campus LRDP principles to be inconsistent with those of smart growth and community building as outlined in the approved plan.

It is the University of Alberta’s recommendation that the OC be granted given the extent of consultation that has occurred with the community and City of Edmonton, the alignment of this proposal to the approved LRDP, the ongoing negative impact to the Lendrum community, the risk associated with shared ownership, and, the operational and reputational risk that the institution would face with an alternate solution/arrangement.

TRANSPORTATION PLANNERS AND ENGINEERS

bunt & associates

OPPORTUNITY PAPER ATTACHMENT 1

Fox Drive Extension into U of A South Campus Traffic Assessment

Final Report

Prepared for

The City of Edmonton and The University of Alberta

Date

January 7, 2011

Prepared by

Bunt & Associates

Project No.

3027.37

CORPORATE AUTHORIZATION

This document entitled "***Fox Drive Extension into U of A South Campus Traffic Assessment, Final Report***" was prepared by Bunt & Associates for the benefit of the Client to whom it is addressed. The information and data in the report reflects Bunt & Associates best professional judgment in light of the knowledge and information available to Bunt & Associates at the time of preparation. Except as required by law, this report and the information and data contained are to be treated as confidential and may be used and relied upon only by the client, its officers and employees. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. Bunt & Associates accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

PERMIT TO PRACTICE
BUNT & ASSOCIATES (N. ALBERTA) LTD.
Signature
Date JAN. 7, 2011
PERMIT NUMBER: P 7991
The Association of Professional Engineers, Geologists and Geophysicists of Alberta

Corporate Permit

CATHERINE L. OBERG

JAN 7, 2011

Engineer's Stamp

TRANSPORTATION PLANNERS AND ENGINEERS

bunt
& associates

January 7, 2011

3027.37

Jody Hancock, P.Eng.
City of Edmonton, Director – Development Planning and Engineering
13th Floor, Century Place
9803 – 102A Avenue
Edmonton, AB T5J 3A3

and

Bart Becker, P.Eng.
University of Alberta, Associate Vice President – Planning and Infrastructure (Facilities and Operations)
4th Floor, General Services Building
Edmonton, AB T6G 2H1

Re: Fox Drive Extension into U of A South Campus
Traffic Assessment
Final Report

Please find enclosed the Fox Drive Extension into U of A South Campus Traffic Assessment, Final Report for your files.

Preparation of the enclosed report began in January 2010. Over the last year, a number of projects in the area were progressing simultaneously, including the South Campus Sector Plan and plans for Expo 2017. The attached report was prepared based on the best information available at the outset of the project. For example, plans for the University of Alberta West 240 lands had not been initiated when the land use assumptions were identified for the establishment of the 2041 Background Traffic Volumes. As well, the bid package for Expo 2017 was being prepared through 2010 and was therefore considered as part of the Ancillary Considerations section. Therefore, while it is recognized that the landscape in the vicinity of South Campus may have changed, the attached report was finalized based on the initial land use assumptions. It is anticipated that additional traffic assessments will be completed where required to address land use changes and specific site access designs.

At this time, Bunt & Associates would also like to thank both the City of Edmonton and University of Alberta representatives that provided input and reviewed the attached document. It was a pleasure working with the two agencies on this project.

If there are any questions regarding the information contained in the attached report, please contact the undersigned at 780-732-5373 ext. 226.

Yours truly,
Bunt & Associates

Catherine Oberg, P.Eng.
Senior Transportation Engineer

TABLE OF CONTENTS

TABLE OF CONTENTS CONTINUED

LIST OF EXHIBITS

LIST OF TABLES

1. INTRODUCTION

1.1 Preface

The University of Alberta (U of A) is currently preparing sustainable Sector Plans outlining the long term development plans for the South Campus area. The South Campus development area is generally located south of Belgravia Road, north of 51 Avenue, and east of 122 Street. The development area also includes the West 240 area, located between the Landsdowne and Grandview neighbourhoods west of 122 Street. The completion of the South Campus Sector Plans will provide the foundation for the development of a new university campus. At this time the South Campus is being planned to accommodate a total population of approximately 19,750 students, faculty and staff by 2030. Of this total population, the student population is anticipated to be in the order of 15,000 people.

The expansion of the U of A along the South LRT line represents the extension of the campus as a "linear urban campus" that incorporates the South LRT into the daily operation of the campus. LRT operations will not only transport students, faculty, and staff to the South Campus area but will also facilitate the movement of students, faculty, and staff between the North and South Campus areas as well as between these two campuses and the downtown campus. In general, the U of A would like to maximize the utility associated with South LRT operations as a strategy to reduce single occupant vehicle travel to the South Campus. Therefore, as part of the development of the South Campus Sector Plan, multi-modal access to the site will be considered.

With the opening of the South Campus LRT and Transit Centre in April 2009 and the more recent opening of South LRT to Century Park, key components of the transit system to the South Campus have been established. Long term operations of the LRT may include changes to frequency and number of cars, but the alignment of the track through the U of A South Campus will not change. As well, it is anticipated that the primary transit centre for the South Campus will be maintained adjacent to the South Campus LRT station to provide effective coordination between bus transit and LRT.

With key components of the transit system established, consideration was given to the location and functionality of vehicle access and parking accommodation. Notwithstanding that it is the intent of the U of A to minimize single occupant vehicle travel to and from the South Campus area, it is recognized that private vehicle travel will continue to be a measurable component in the movement of people and goods to and through the South Campus area, particularly in light of the significant community recreation component being planned at this time. The possible use of the development area as the host site for EXPO 2017 also needs to be acknowledged.

The continued use of private vehicle travel to and from the South Campus area will be a reflection of the nature and characteristics associated with University traffic and non-University related traffic. Non-University traffic is anticipated to include traffic generated by community recreation facilities such as the Saville Centre, the GO Centre, the fieldhouse, and the proposed twin ice arenas, as well as traffic generated by the existing and expanded Neil Crawford Provincial Centre (NCPC). In addition to private vehicle traffic activity, service vehicle movements, internal transit movements, and parking will also require accommodation.

1.2 Study Need and Purpose

The South Campus Area is constrained from a traffic accommodation perspective given the restrictions imposed by South LRT development and the existing lack of suitable access to Belgravia Road. The primary purpose of the study is to review alternative traffic networks for the North Quarter of the South Campus area that have the capability of providing an appropriate level of traffic access into the greater South Campus area, which could perform satisfactorily from a traffic operational and access management perspective and which are designed to meet current roadway geometric standards.

The completion of the study will allow for an appropriately designed roadway system plan to be selected and developed. This will allow the University and the City to monitor the implementation of roadway, intersection, and access improvements during the staged development of the plan area. The development of the traffic management plan will reflect current realities and future trends, to the extent that they can be anticipated. In this fashion, cumulative impacts can be evaluated.

1.3 Project Scope

The project scope includes the following:

- Analysis of existing intersection operations at Belgravia Road/Fox Drive and 63 Avenue/122 Street;
- Estimation, distribution and assignment of site generated traffic activity from the north portion of the South Campus sector based on a series of mode split assumptions for the various land use components planned to be developed;
- Review of transit operations to and from the South Campus Transit Centre; and,
- Analysis of alternative site access scenarios including but not limited to access to and from Fox Drive, Belgravia Road, and 122 Street.

2. EXISTING AND FUTURE AREA CONDITIONS

2.1 Site Location

The study area includes the north quarter of the University South Campus area. This study area is generally bounded by Belgravia Road to the north, the LRT alignment to the east, the existing 60 Avenue right-of-way to the south, and 122 Street to the west as shown in **Exhibit 2-1**.

2.2 Existing Adjacent Land Uses

The study area is located within an Alternative Jurisdiction zone that currently accommodates the U of A South Campus, the Saville Centre, the NCPC, and the Alberta School for the Deaf. The Alternative Jurisdiction zone is surrounded by primarily low density residential land uses.

2.3 Existing Roadway Network

Key arterial roadways adjacent to and in the vicinity of the study area include:

51 Avenue is a four-lane divided urban arterial roadway between 111 Street and 122 Street in the vicinity of the South Campus site. West of 122 Street, 51 Avenue transitions to an urban collector roadway within the Lansdowne neighbourhood. The posted speed limit along 51 Avenue in the vicinity of the site is 50 km/hr.

Belgravia Road/71 Avenue is a divided urban arterial that includes two westbound lanes and three eastbound lanes in the vicinity of the South Campus. The posted speed limit along Belgravia Road/ 71 Avenue is 60 km/hr.

122 Street is a four-lane divided urban arterial between Whitemud Drive and Fox Drive. The posted speed limit along 122 Street is 60 km/hr.

113 Street south of 71 Avenue is a four-lane divided urban arterial. 113 Street terminates at 61 Avenue with the arterial roadway continuing along 61 Avenue to the east. The posted speed limit along 113 Street is 60 km/hr.

61 Avenue is a four-lane divided arterial between 104 Street and 113 Street. As the extension of 113 Street, 61 Avenue provides an arterial connection between 113 Street and 111 Street, which provides the continuation of the north/south arterial west of Calgary Trail. The posted speed limit along 61 Avenue in the vicinity of the South Campus site is 60 km/hr. The extension of 61 Avenue west of 113 Street currently provides access to the South Campus area (60 Avenue).

3027.37 - Fox Drive Extension into U of A South Campus/CAD/Exhibits/Final Report 2011 01 07/2-1.dwg

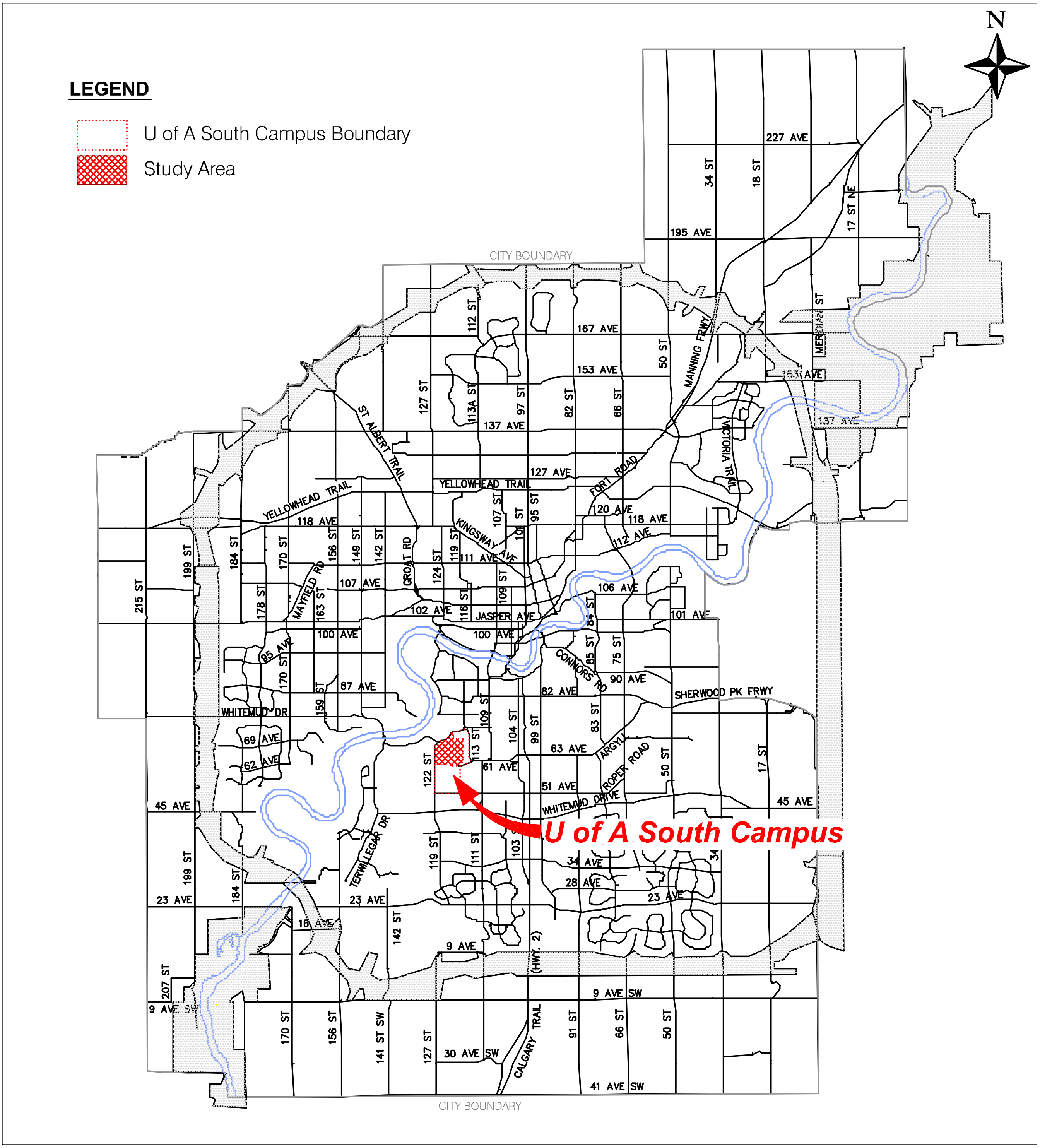

Exhibit 2-1

Scale NTS

Site Location

111 Street is a four-lane divided arterial between 51 Avenue and 61 Avenue. South of 51 Avenue additional lanes are added in the vicinity of the Whitemud Drive/111 Street interchange. The posted speed limit along 111 Street is 60 km/hr.

Fox Drive is a six-lane divided urban arterial, (four travel lanes plus curbside lanes dedicated to transit) that provides a connection between 122 Street/Belgravia Road and Whitemud Drive. The posted speed limit along Fox Drive is 70 km/hr, with a short section of the eastbound lanes posted at 60 km/hr approaching Belgravia Road. Fox Drive has recently been upgraded to six lanes to accommodate curb side dedicated transit lanes as part of the overall Quesnell Bridge roadway improvement project.

Whitemud Drive is a six-lane free-flow facility that is a key component in the City of Edmonton's inner ring loop. The posted speed limit on Whitemud Drive is 80 km/hr. In the southwest, interchanges are located along Whitemud Drive at Calgary Trial/Gateway Boulevard, 111 Street, 122 Street (119 Street), Terwillegar Drive, 53 Avenue, and Fox Drive. Access to Whitemud Drive is also available via 106 Street as C/D roads are provided between Calgary Trail and 111 Street.

2.4 Existing Daily and Peak Hour Traffic Volumes

Existing and historical traffic flows on arterial roadways immediately adjacent to, and in the vicinity of the South Campus were ascertained based upon a review of Average Annual Weekday Traffic Volume Reports prepared by the Transportation Department. **Table 2-1** summarizes the traffic volumes along the arterial roadways in the vicinity of the study area.

Table 2-1: Average Annual Weekday Traffic Volumes

Location	2002	2003	2004	2005	2006	2007
51 Avenue west of 107 Street	-	19,700	-	18,500	-	17,800
51 Avenue west of 111A Street	10,600	-	13,300	-	-	-
61 Avenue west of 109 Street	-	14,300	-	16,100	-	27,300
111 Street south of 61 Avenue	-	35,300	-	38,900	-	32,500
113 Street south of Belgravia Road	29,400	-	29,500	-	-	-
122 Street north of 51 Avenue	12,600	-	12,900	-	-	-
122 Street south of Fox Drive	-	12,300	-	11,900	-	12,700
122 Street north of Whitemud Drive	-	15,000	-	14,800	-	16,600
Belgravia Road east of Fox Drive	37,200	-	37,600	-	-	-
Fox Drive west of Belgravia Road	-	34,800	-	34,300	-	30,700
Whitemud Drive west of 122 Street	86,800	99,000	-	101,800	94,800	89,400
Whitemud Drive north of 53 Avenue	103,700	103,000	-	-	92,600	93,800
Quesnell Bridge	112,900	113,700	117,000	118,900	112,000	109,500

Table 2-2 and **Table 2-3** summarize the Weekday AM and PM Peak Hour traffic movements (two-way) along the arterial roadways adjacent to the study area.

Table 2-2: Weekday AM Peak Hour Traffic Volumes

Location	Direction	2002	2003	2004	2005	2006	2007
51 Avenue west of 107 Street	EB	-	692	-	664	-	589
	WB	-	398	-	366	-	334
51 Avenue west of 111A Street	EB	676	-	701	-	-	-
	WB	317	-	329	-	-	-
61 Avenue west of 109 Street	EB	-	579	-	696	-	-
	WB	-	533	-	499	-	-
111 Street south of 61 Avenue	NB	-	2,004	-	1,903	-	1,865
	SB	-	708	-	725	-	716
113 Street south of Belgravia Road	NB	1,110	-	816	-	-	-
	SB	918	-	989	-	-	-
122 Street north of 51 Avenue	NB	1,079	-	1,060	-	-	-
	SB	330	-	341	-	-	-
122 Street south of Fox Drive	NB	-	913	-	971	-	935
	SB	-	263	-	322	-	230
122 Street north of Whitemud Drive	NB	-	1,226	-	1,203	-	1,362
	SB	-	395	-	401	-	397
Belgravia Road east of Fox Drive	EB	2,104	-	2,032	-	-	-
	WB	667	-	710	-	-	-
Fox Drive west of Belgravia Road	EB	-	1,820	-	1,846	-	1,673
	WB	-	877	-	878	-	741
Whitemud Drive west of 122 Street	EB	5,091	4,997	-	4,375	4,439	3,976
	WB	3,218	3,213	-	3,423	3,041	2,266
Whitemud Drive north of 53 Avenue	NB	4,695	4,605	-	-	3,915	3,233
	SB	3,967	3,778	-	-	3,217	4,531
Quesnell Bridge	NB	4,521	4,333	4,687	4,693	4,059	4,500
	SB	4,610	4,585	4,675	4,853	4,175	4,525

Table 2-3: Weekday PM Peak Hour Traffic Volumes

Location	Direction	2002	2003	2004	2005	2006	2007
51 Avenue west of 107 Street	EB	-	738	-	699	-	818
	WB	-	968	-	992	-	896
51 Avenue west of 111A Street	EB	349	-	483	-	-	-
	WB	674	-	710	-	-	-
61 Avenue west of 109 Street	EB	-	573	-	592	-	-
	WB	-	836	-	944	-	-
111 Street south of 61 Avenue	NB	-	1,097	-	1,193	-	957
	SB	-	1,998	-	2,082	-	1,888
113 Street south of Belgravia Road	NB	1,395	-	1,333	-	-	-
	SB	1,312	-	1,254	-	-	-
122 Street north of 51 Avenue	NB	519	-	548	-	-	-
	SB	683	-	700	-	-	-
122 Street south of Fox Drive	NB	-	534	-	689	-	686
	SB	-	649	-	604	-	588
122 Street north of Whitemud Drive	NB	-	530	-	618	-	761
	SB	-	812	-	820	-	837
Belgravia Road east of Fox Drive	EB	1,103	-	935	-	-	-
	WB	2,250	-	2,210	-	-	-
Fox Drive west of Belgravia Road	EB	-	1,030	-	1,051	-	1,001
	WB	-	2,183	-	2,060	-	2,197
Whitemud Drive west of 122 Street	EB	3,731	3,606	-	3,114	3639	3,215
	WB	4,628	4,398	-	4,790	4758	4,461
Whitemud Drive north of 53 Avenue	NB	4,376	4,223	-	-	3798	4,377
	SB	4,541	4,604	-	-	4386	3,769
Quesnell Bridge	NB	5,302	5,199	5,400	5,460	4723	5,117
	SB	4,793	4,620	4,841	4,845	4304	4,586

Overall traffic volumes on the arterial roadways in the vicinity of the study area appear to be relatively consistent between 2002 and 2007, with the exception of 61 Avenue west of 109 Street, where a significant increase in daily traffic was noted in 2007. In general, the daily and peak hour volumes from 2002 to 2007 are reflective of arterials within a mature part of the City of Edmonton.

In addition to the above historic traffic volume data, the City of Edmonton completed intersection turning movement counts at the Belgravia Road/116 Street intersection in 2007 and the Belgravia Road/Fox Drive and 63 Avenue/122 Street intersections in 2008. The AM and PM Peak hour turning movement volumes measured at these intersections are summarized in **Exhibit 2-2**. While more recent counts have been completed at intersections within the study area, a review of the data suggests that road closures associated with Whitemud Drive construction may have resulted in changes in traffic patterns in the vicinity of South Campus. The 2008 counts are therefore anticipated to be the most recent counts available that reflect the availability of the complete roadway network.

2.5 Existing Transit Operations

The south LRT extension to South Campus opened on April 25, 2009 and the extension to Century Park opened on April 24, 2010. In addition to LRT service to South Campus, the South Campus Transit Centre also opened in April 2009 and accommodates seven basic routes, seven peak hour routes, one night route, and a shuttle to Fort Edmonton Park. **Table 2-4** summarizes the bus transit service accommodated at the South Campus Transit Centre.

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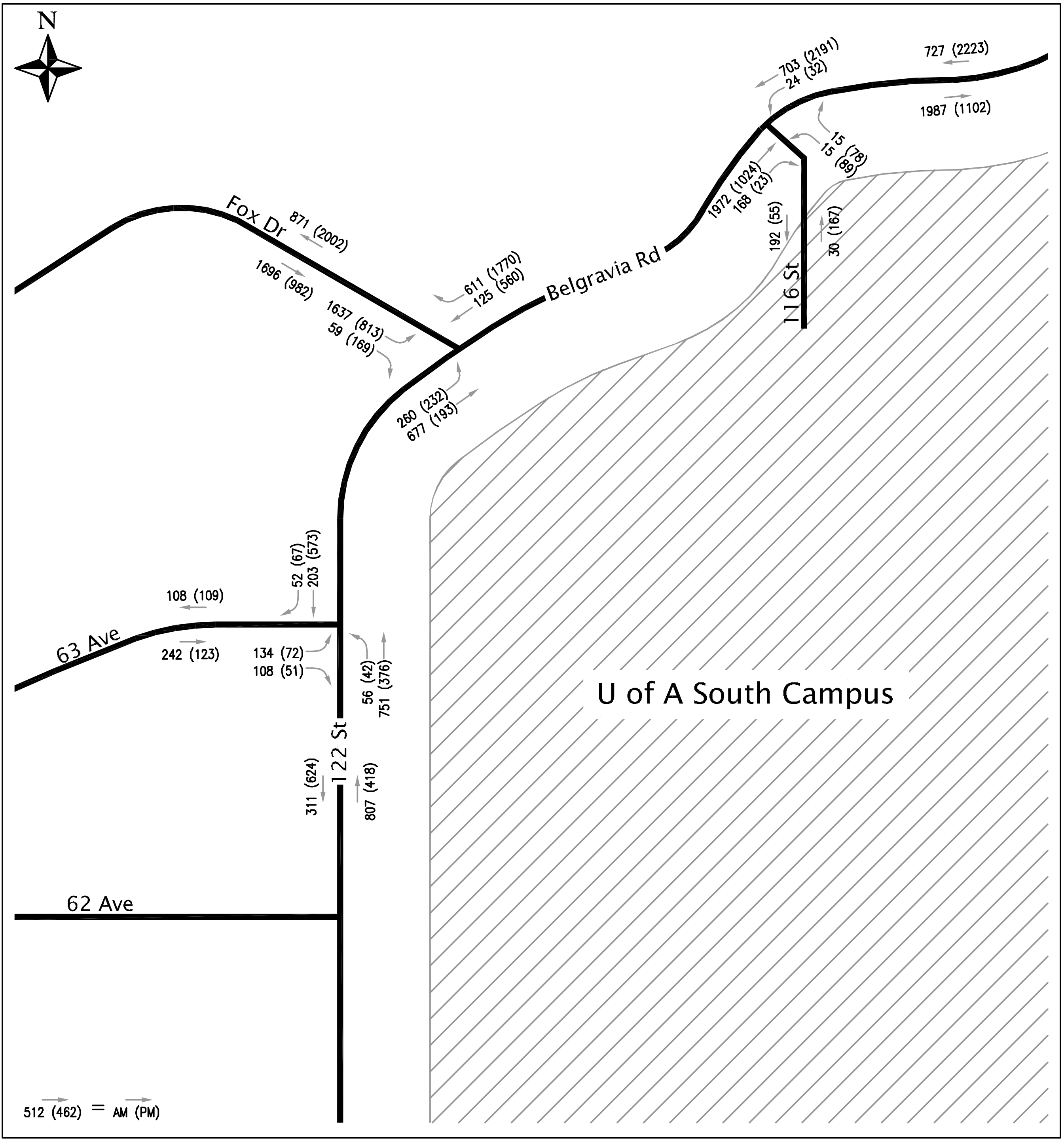

Exhibit 2-2

Scale NTS

Existing (2008) Traffic Volumes
AM (PM) Peak Hour

Table 2-4: South Campus Transit Centre – Available Bus Routes

Route	Service	Destination	Weekday Frequency (minutes)			
			AM/PM Peak Hours	Midday	Early Evenings	Late Evenings
4	Basic	West Edmonton Mall - Capilano	15	15	15	30
30	Basic	Leger	15	30	30	
32	Peak	Brander Gardens/Southgate	30			
36	Basic	Century Park	15	30	30	
43	Peak	Century Park	7/8			
50	Basic	Southgate	15	30	30	60
53	Basic	Southgate	15	30		
55	Basic	Southgate	30	30	30	
104	Peak	Lymburn	30			
105	Peak	Lessard	15			
106	Basic	Capilano	30	30		
133	Peak	West Edmonton Mall	30			
138	Peak	Wedgewood	30			
139	Peak	Grange	30			
330	Night	Leger				60
596	Sunday & Holiday	Fort Edmonton/Valley Zoo (May - Sept)				

In addition to the transit routes now serving South Campus, two basic routes operate along 51 Avenue (Routes 33 and 34).

2.6 Existing Pedestrian and Bicycle Routes

Sidewalks are currently provided along the following arterials:

- 51 Avenue - sidewalks are provided on both sides of 51 Avenue between 111 Street and 115 Street, but are only provided on the south side between 115 Street and 122 Street
- 60 Avenue – Sidewalks are provided along the north side of 60 Avenue, west of 113 Street.
- 61 Avenue – Sidewalk connections extend from 113 Street into the Lendrum Neighbouhood at the 61 Avenue/113 Street intersection and into the Parkallen neighbourhood at the 61 Avenue/113 Street and 61 Avenue/111 Street intersections.
- Belgravia Road/71 Avenue – A sidewalk is provided on the north side of the service road located on the north side of Belgravia Road. This sidewalk provides access to the pedestrian overpass, above Belgravia Road, located west of 116 Street. Sidewalk connections are also provided along the south side of Belgravia Road from 113 Street into the NCPC lands, and from 116 Street to Fox Drive.
- 111 Street – Sidewalks are provided on both sides of 111 Street south of 61 Avenue.
- 113 Street – Sidewalks are provided on both sides of 113 Street; however, the walk on east side is adjacent to the houses along the service road.
- 122 Street – The sidewalk on the south side of Belgravia Road continues on the east side of 122 Street to 63 Avenue. South of 63 Avenue a sidewalk is provided on the west side of 122 Street.

Two main north/south bicycle routes are provided adjacent to the study area. The first north/south route includes a separated bike path (sidewalk shared with pedestrians) along the west side of 122 Street/119 Street from Fairway Drive to 63 Avenue. At 63 Avenue a short link of separated bike path is provided on the east side of 122 Street, which connects to a signed bike route (on roadway) along roadways within South Campus. The signed bike route connects to a pedestrian overpass that goes over Belgravia Road at approximately 116 Street. The signed bike route then continues north along 116 Street and 115 Street to 87 Avenue.

The second north/south route extends north from Whitemud Drive as a signed bike route on 115 Street to 60 Avenue, and along 60 Avenue to 113A Street. East of 113A Street a separated bike path is provided to 113 Street, and continues north along the west side of 113 Street to 74 Avenue. An east/west signed bike route is identified along 74 Avenue west of 113 Street, which connects to the signed bike route along 115 Street.

In addition to the above, a multiuse trail was recently opened along the west side of the LRT tracks.

2.7 Future Roadway Network

Whitemud Drive is currently being widened, with construction scheduled for completion in 2010. The construction project also includes the rehabilitation and widening of the Quesnell Bridge and the reconstruction and widening of the Fox Drive overpass. Upon completion in 2010, Whitemud Drive will accommodate six lanes plus two auxiliary lanes between the Fox Drive overpass and 149 Street. As well a Transit Priority Lane will be provided on the Whitemud Drive/Fox Drive southbound to eastbound loop ramp, the 149 Street northbound to eastbound ramp will be widened to two lanes, and Fox Drive will be widened by one lane in each direction.

The U of A South Campus is located within a mature area of the City of Edmonton. Other than the improvements currently underway on Whitemud Drive and Fox Drive, no major roadway network modifications are anticipated in the future.

2.8 Horizon Year Background Traffic Volumes

The City of Edmonton Transportation Department provided 2041 AM peak hour, PM peak hour, and Daily link volume estimates for use in determining background traffic volumes for the evaluation of the traffic impacts associated with development of the U of A South Campus.

The 2041 model volumes provided by the City of Edmonton include traffic anticipated to be generated by the U of A South Campus and the NCPC within the 2041 horizon. Three zones are identified that approximately correspond to the South Campus and the NCPC development areas. These three zones include combined employment estimates in the order of 4,500 employees and population estimates in the order 5,540 people.

Access to the three study area zones within the model includes two accesses to 122 Street, one access to Belgravia Road, and two accesses to 113 Street. As well, the existing westbound flyover from the north end of the South Campus lands to Fox Drive westbound is included in the model. The model also includes a link from Fox Drive Eastbound directly into the South Campus lands; although it accommodated minimal volumes.

The City of Edmonton provided select link analysis plots (in percentages) illustrating the origin and destination of traffic for each of the three study area zones, as well as for short cutting traffic that was identified in the model as traveling through the NCPC between 113 Street and Fox Drive. The select link analysis plots were used to remove short cutting traffic through the NCPC and to remove traffic associated with the U of A. Traffic anticipated to be associated with the 860 NCPC employees included in the model was retained.

Once the model volumes were adjusted to remove short cutting and U of A traffic, potential traffic growth associated with the NCPC was added to the network. Based on a review of the *South Campus/Neil Crawford Provincial Centre Planning Study: Traffic Impact Assessment* (NCPC TIA) prepared by IBI Group in March 2007 on behalf of the Government of Alberta and the U of A, the NCPC is anticipated to expand to ultimately include approximately 3,500 employees on-site. Using the trip generation information included in the NCPC TIA, the number of trips anticipated to be generated by the net increase in employees on the NCPC site, as compared to the 2041 model, was estimated. Therefore, the traffic anticipated to be generated by an additional 2,640 employees on the NCPC site was added to the 2041 background traffic volumes. While it is recognized that the NCPC TIA identifies that the ultimate expansion could occur by 2030, as it is an ultimate build out, the number of employees on site should be consistent in the 2041 horizon.

In addition to the above, the 2041 background volumes were adjusted to reflect the potential for the fourth leg at the Belgravia Road/Fox Drive intersection and the reconfiguration of the Belgravia Road/116 Street intersection from an all-directional to a right in/right out access. **Exhibit 2-3** illustrates the 2041 Background Traffic Volumes used in the assessment.

It should be noted that the 2041 background traffic volumes do not include significant development on the U of A West 240 lands. The 2041 model provided by the City of Edmonton included employment and population estimates of 940 employees and 230 residents within the U of A West 240 lands by 2041. It is anticipated that a more detailed traffic assessment will be completed once development concepts have been prepared for the U of A West 240 lands and more accurate employment and population estimates can be provided.

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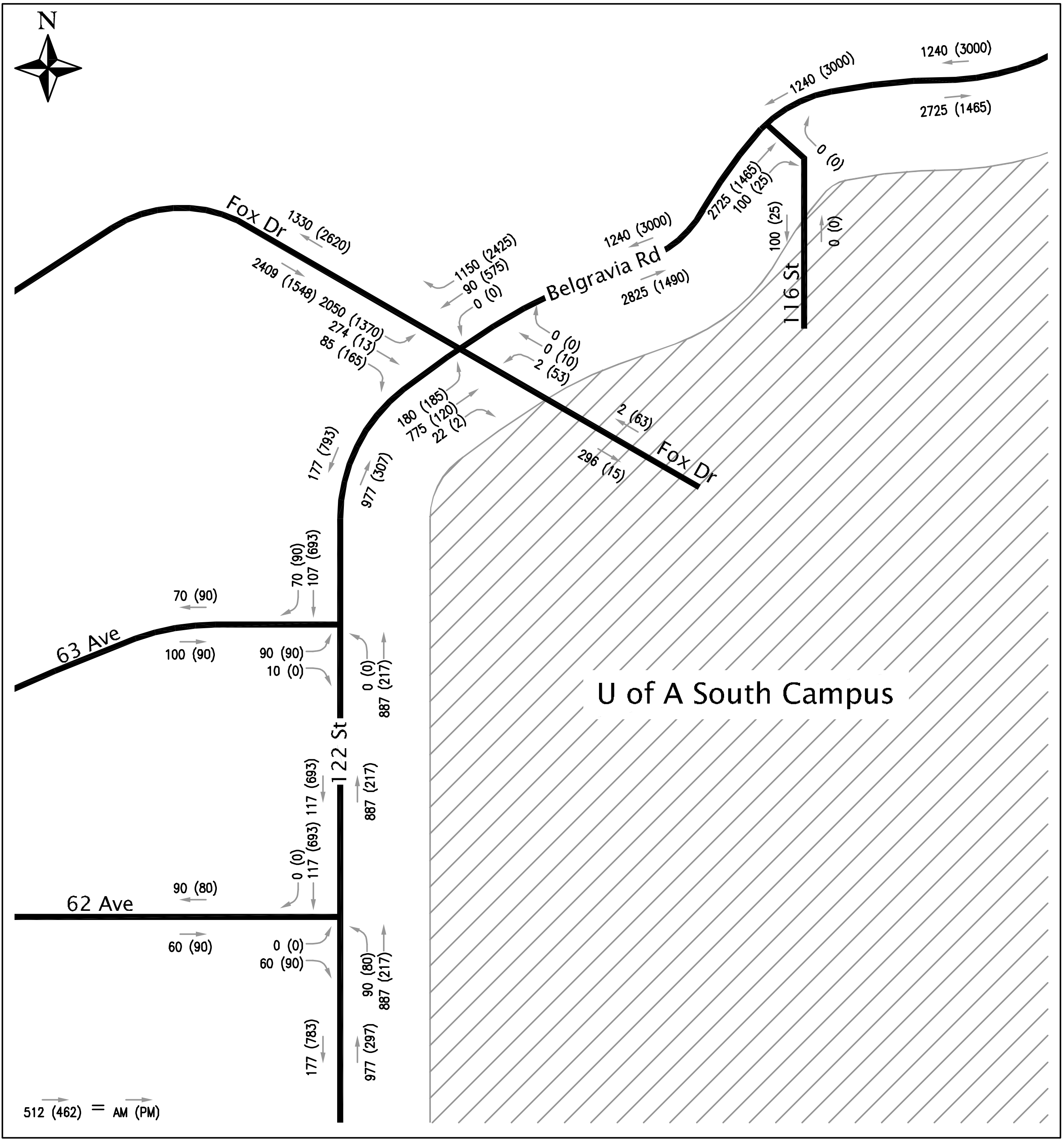


Exhibit 2-3

Scale NTS

2041 Background Traffic Volumes (Option 1) AM (PM) Peak Hour

3. LAND USE ASSUMPTIONS

3.1 Study Area

For the purposes of this assessment, the study area includes the lands located within the north portion of the South Campus. This generally includes Sector 12 (north ¼) as defined in the South Campus Sector Plan Long Range Development Plan prepared by Stantec. **Exhibit 3-1** illustrates the study area.

3.2 Land Use Assumptions

Development within the South Campus is anticipated to include academic, research, and administration space, student residences, and parkades in the central and southern portions of the South Campus, with a series of recreation facilities developed along the north boundary that will be shared with community users. **Exhibit 3-2** illustrates the potential layout of the South Campus, based on draft information provided by the U of A.

The recreation facilities proposed on the north boundary of the campus include:

- Saville Centre – existing
- Foote Field - existing
- GO Centre – under construction
- Twin Ice Arena – proposed
- Fieldhouse – proposed

The Saville Centre is a combination curling/tennis facility that includes 10 curling sheets and 8 indoor tennis courts. In addition, a gymnasium, a fitness centre, and general public space are included in the facility.

Foote Field is the home field for the U of A Golden Bears and also includes track and field space.

The GO Community Centre is currently under construction and includes a main spectator gym (2,800 seats), general gymnasium and fitness facilities, and court areas that can be used for volleyball and basketball. While the court areas can accommodate both volleyball and basketball courts, available site plans generally indicate that the north court area would predominantly be used for basketball (max 5 courts) and the south court area would predominantly be used for volleyball (max 12 courts).

3027.37 - Fox Drive Extension into U of A South Campus\CAD\Exhibits\Final Report 2011 01 07\3-1.dwg

Exhibit 3-1

Scale NTS

Study Area

3027.37 - Fox Drive Extension into U of A South Campus/CAD/Exhibits/Final Report 2011 01 07/3-2.dwg

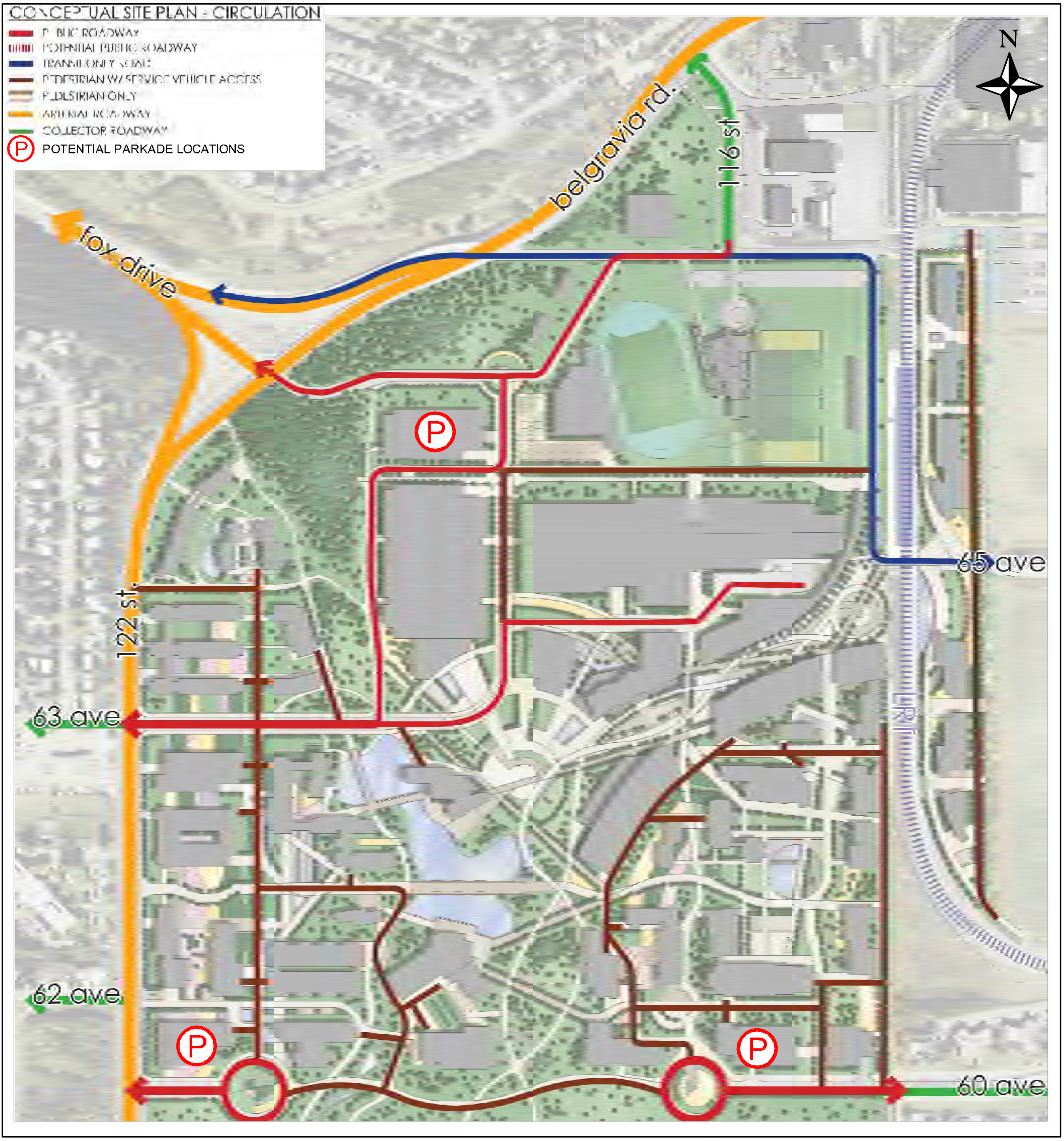


Exhibit 3-2

Scale NTS

South Campus Concept Plan

At this time, details regarding the twin ice arena and field house complexes have not been established. For the purposes of this assessment is assumed that the twin ice arena facility will include two NHL size ice rinks and associated locker rooms, referee rooms, a concession stand, and small meeting rooms. It is anticipated that the field house could accommodate a variety of indoor sporting events including soccer, ball hockey, and lacrosse.

3.3 On-Site Parking

Based on a review of the South Campus Sector Plan, the South Campus is anticipated to accommodate 15,000 students (full time learning equivalents – FLEs) and 4,750 faculty and staff (full time equivalents – FTEs) by 2030. This is anticipated to represent the build out of Sector 12 and has been used for assessment purposes.

Based on information contained in the South Campus Sector Plan, a recommended parking supply ratio of 0.15 trips/total population has been assumed to determine the potential parking requirements on the site. Based on this parking ratio, a total of approximately 3,000 parking stalls may be developed on site. For the purposes of the assessment it is assumed that three parkades will be developed on the periphery of the South Campus. It is assumed that a southeast parkade would be located in the vicinity of 60 Avenue and 115 Street and accommodate 700 stalls, that a southwest parkade would be located in the vicinity of 62 Avenue and 122 Street and accommodate 1,150 stalls, and that a northwest parkade would be located in the vicinity of 63 Avenue and 122 Street and also accommodate 1,150 stalls. The northwest parkade would accommodate both University users and recreation facility user groups, while the south east and southwest parkades are anticipated to accommodate primarily University users.

3.4 Access Options

It is anticipated that a site access will be provided in the southeast quadrant at approximately 60 Avenue and 115 Street and in the southwest quadrant at 62 Avenue and 122 Street. These accesses have been identified in close proximity to the assumed parkades servicing the campus. As well, the existing access at Belgravia Road and 116 Street is anticipated to be modified to a right in/right out only access as a result of poor sightlines for the northbound left turn and potential queuing issues regarding the westbound left turn. In addition to these accesses, three options were reviewed for access to the north portion of the South Campus as follows:

- Option 1 – Two Additional Accesses: The extension of Fox Drive into the South Campus at Belgravia Road and the construction of the fourth leg of the 63 Avenue/122 Street intersection.
- Option 2 – The construction of the fourth leg of the 63 Avenue/122 Street intersection only.
- Option 3 – The extension of Fox Drive into the South Campus at Belgravia Road only.

4. TRIP GENERATION

4.1 Trip Generation Assumptions

4.1.1 U of A Students, Staff, and Faculty

Trips anticipated to be generated by U of A students, faculty, and support staff have been estimated based on a review of the ITE *Trip Generation, 8th Edition*. Based on this review, ITE land use code 550 – University/College identifies an average AM peak hour trip rate of 0.21 trips per student (80% inbound, 20% outbound) and a PM peak hour trip rate of 0.21 trips per student (30% inbound, 70% outbound).

As ITE trip rates are based on survey data, they inherently account for mode split and auto occupancy factors, therefore no additional reductions in trip-making activity have been applied. The AM and PM peak hour trip generation characteristics anticipated to be exhibited by the University land use component (students, faculty, and staff) are summarized in **Table 4-1**.

Table 4-1: U of A Students, Staff, and Faculty AM and PM Peak Hour Trip Generation

Variable	Trip Generation Rate	IN		Out		Total Trips
AM Peak Hour						
15,000 students	0.21 trips / student	80%	**2,520**	20%	**630**	**3,150**
PM Peak Hour						
15,000 students	0.21 trips / student	30%	**945**	70%	**2,205**	**3,150**

4.1.2 Saville Centre

The Saville Centre currently accommodates a number of user groups attending to various facility components including curling, tennis, gymnasium activity, fitness centre, and public meeting areas. As this facility is anticipated to continue to operate as it currently does, the estimate of trips associated with this facility has been based on discussions with U of A facility operators.

Patron arrivals and departures in the AM peak hour tend to be limited to the fitness centre and the curling rinks. While the fitness centre may include both inbound and outbound patrons, the curling rinks generally attract trips in the AM peak hour for a 9:00 AM start time. Based on discussions with the operators at Saville, it is estimated that up to 150 patrons arrive, and 50 patrons leave the Saville Centre during the AM peak hour on a typical weekday.

Table 4-2 presents the PM peak hour patron characteristics associated with the various components of the Saville Centre, while **Table 4-3** presents the AM and PM peak hour trip generation characteristics anticipated based on applying mode split and auto occupancy assumptions. It is of note that trips specifically associated with facility staff have not been included as it is anticipated that these trips have been captured in the above trip rate applied to the U of A students, staff, and faculty component of the overall site.

Table 4-2: Saville Centre PM Peak Hour Patron Estimate

Facility Component	Patrons			Notes
	In	Out	Total	
Curling Rinks	80	80	160	-10 curling sheets, 8 patrons per sheet arriving for 5:30PM start (80 inbound patrons) -10 curling sheets, 8 patrons per sheet leaving prior to 5:30PM start (80 outbound patrons)
Tennis Courts	32	16	48	-8 tennis courts, 4 players per court arriving for 5PM start (32 inbound patrons) -50% of courts generate outbound person trips prior to 5PM start (16 outbound patrons)
Gymnasium	40	10	50	
Fitness Centre	20	10	30	
Public Meeting Space	0	0	0	-Anticipated to generate trips outside of peak hours
Miscellaneous	30	10	40	-Includes visitors, guests, spectators, etc... not otherwise accounted for
Total Patrons	**202**	**126**	**328**	

Table 4-3: Saville Centre AM and PM Peak Hour Trip Generation

		AM Peak		PM Peak	
Patron Load		**In**	**Out**	**In**	**Out**
		150	**50**	**202**	**126**
Auto Trips		**In**	**Out**	**In**	**Out**
Mode Split to Transit	10%	-	-	-	-
Mode Split to Auto	85%	106	35	143	89
Auto Occupancy	1.2				
Primary Trip Subtotal		**106**	**35**	**143**	**89**
Mode Split to Drop-off Inbound	5%	8	8	10	10
Mode Split to Pick-up Outbound	5%	3	3	6	6
Drop-off/Pick Up Trip Subtotal		**11**	**11**	**16**	**16**
Total Trips		**117**	**46**	**159**	**105**

4.1.3 GO Centre

Activity at the GO Centre in the AM peak hour is anticipated to be limited to the gymnasium/fitness centre. It is estimated that the patron loads associated with the GO Centre in the AM peak hour could be in the order of 50 inbound patrons and 25 outbound patrons.

Table 4-4 presents the PM peak hour patron characteristics associated with the various components of the GO Centre. **Table 4-5** presents the AM and PM peak hour trip generation characteristics anticipated based on applying mode split and auto occupancy assumptions to the anticipated patron loads. The mode split assumed for the GO Centre is slightly higher than that assumed for the Saville Centre, as it is anticipated that users of the GO Centre may include a younger demographic with a slightly higher propensity to use transit for recreation trips.

Again, trips specifically associated with facility staff have not been included as it is anticipated that these trips have been captured in the above trip rate applied to the U of A students, staff, and faculty component of the overall site.

Table 4-4: GO Centre PM Peak Hour Patron Estimate

Facility Component	Patrons			Notes
	In	Out	Total	
Basketball	96	24	120	-4 courts, 24 patrons per court (96 inbound patrons) -25% of courts generate outbound person trips (24 outbound patrons)
Volleyball	90	15	105	-6 courts, 15 patrons per court (90 inbound patrons) -1 court generates outbound person trips (15 outbound patrons)
Gymnasium/Fitness Centre	40	20	60	
Spectator Event Gym	0	0	0	-Typically used evenings and weekends
Miscellaneous	20	10	30	-Includes visitors, guests, spectators, etc... not otherwise accounted for
Total Patrons	**246**	**69**	**315**	

Table 4-5: GO Centre AM and PM Peak Hour Trip Generation

		AM Peak		PM Peak	
Patron Load		**In**	**Out**	**In**	**Out**
		50	**25**	**246**	**69**
Auto Trips		**In**	**Out**	**In**	**Out**
Mode Split to Transit	15%	-	-	-	-
Mode Split to Auto	80%	33	17	164	46
Auto Occupancy	1.2				
Primary Trip Subtotal		**33**	**17**	**164**	**46**
Mode Split to Drop-off Inbound	5%	3	3	12	12
Mode Split to Pick-up Outbound	5%	1	1	3	3
Drop-off Trip Subtotal		**4**	**4**	**15**	**15**
Total Trips		**37**	**21**	**179**	**61**

4.1.4 Twin Ice Arenas

The twin ice arena facility is anticipated to include 2 NHL sized ice sheets and associated locker rooms, referee rooms, concession and small meeting rooms. In the AM peak hour, traffic associated with the site is anticipated to be minimal; therefore, for the purpose of this study, 5 inbound trips have been assumed to be associated with the Twin Ice Arenas in the AM peak hour.

Based on a review of operating characteristics of other ice arenas in the City of Edmonton, the ice arenas have been assumed to generate about 100 patrons per rink during the PM peak hour (40 players, 60 spectators/coaches/other). It has been assumed that all peak hour patrons arrive during the PM peak hour. In addition, 50 outbound patrons have been assumed to account for rink users (prior to the peak hour) leaving the facility. Patron and trip generation characteristics assumed for the twin ice arena facility are summarized in **Table 4-6**.

Table 4-6: Twin Ice Arena AM and PM Peak Hour Trip Generation

		AM Peak		PM Peak	
Patron Load		**In**	**Out**	**In**	**Out**
		5	**0**	**200**	**50**
Auto Trips		**In**	**Out**	**In**	**Out**
Mode Split to Transit	0%	-	-	-	-
Mode Split to Auto	100%/95%	5	0	76	19
Auto Occupancy	1.0/2.5				
Primary Trip Subtotal		**5**	**0**	**76**	**19**
Mode Split to Drop-off Inbound	0%/5%	0	0	10	10
Mode Split to Pick-up Outbound	0%/5%	0	0	3	3
Drop-off Trip Subtotal		**0**	**0**	**13**	**13**
Total Trips		**5**	**0**	**89**	**32**

4.1.5 Field House

It is anticipated that the fieldhouse will operate year-round and host a wide variety of indoor sporting events including indoor soccer, ball hockey, and lacrosse. The peak periods of the fieldhouse are assumed to occur during the weekday evenings and weekend afternoons. Therefore, minimal AM peak hour traffic is anticipated. For the purpose of this study, 5 inbound trips have been assumed to be associated with the Field House in the AM peak hour.

The PM peak hour patron demand has been estimated assuming user group profiles based on discussions with the operators of existing facilities and experience working on similar projects. A complement of about 35 players and coaches and an average spectator attendance of 20 people have been assumed to represent inbound traffic demand generators associated with the facility during the PM peak hour. User groups that could generate this type of demand include minor soccer associations, ball hockey associations and leagues, and lacrosse leagues. In addition, 40 outbound patrons have been assumed to account for facility users (prior to the peak hour) leaving the facility.

Table 4-7: Fieldhouse AM and PM Peak Hour Trip Generation

		AM Peak		PM Peak	
Patron Load		**In**	**Out**	**In**	**Out**
		5	**0**	**110**	**40**
Auto Trips		**In**	**Out**	**In**	**Out**
Mode Split to Transit	0%	-	-	-	-
Mode Split to Auto	0%/95%	5	0	105	38
Auto Occupancy	1.0/2.0				
Primary Trip Subtotal		**5**	**0**	**105**	**38**
Mode Split to Drop-off Inbound	0%/5%	0	0	6	6
Mode Split to Pick-up Outbound	0%/5%	0	0	2	2
Drop-off Trip Subtotal		**0**	**0**	**8**	**8**
Total Trips		**5**	**0**	**113**	**46**

4.2 Trip Generation Totals

Table 4-8: Total Peak Hour Trip Generation

Auto Trips	AM Peak Hour		PM Peak Hour	
	In	Out	In	Out
U of A students, staff, and faculty	2,520	630	945	2,205
Saville Centre	117	46	159	105
GO Centre	37	21	179	61
Twin Ice Arena	5	0	89	32
Fieldhouse	5	0	113	46
Total Trips	**2,684**	**697**	**1,485**	**2,449**

4.3 Trip Distribution

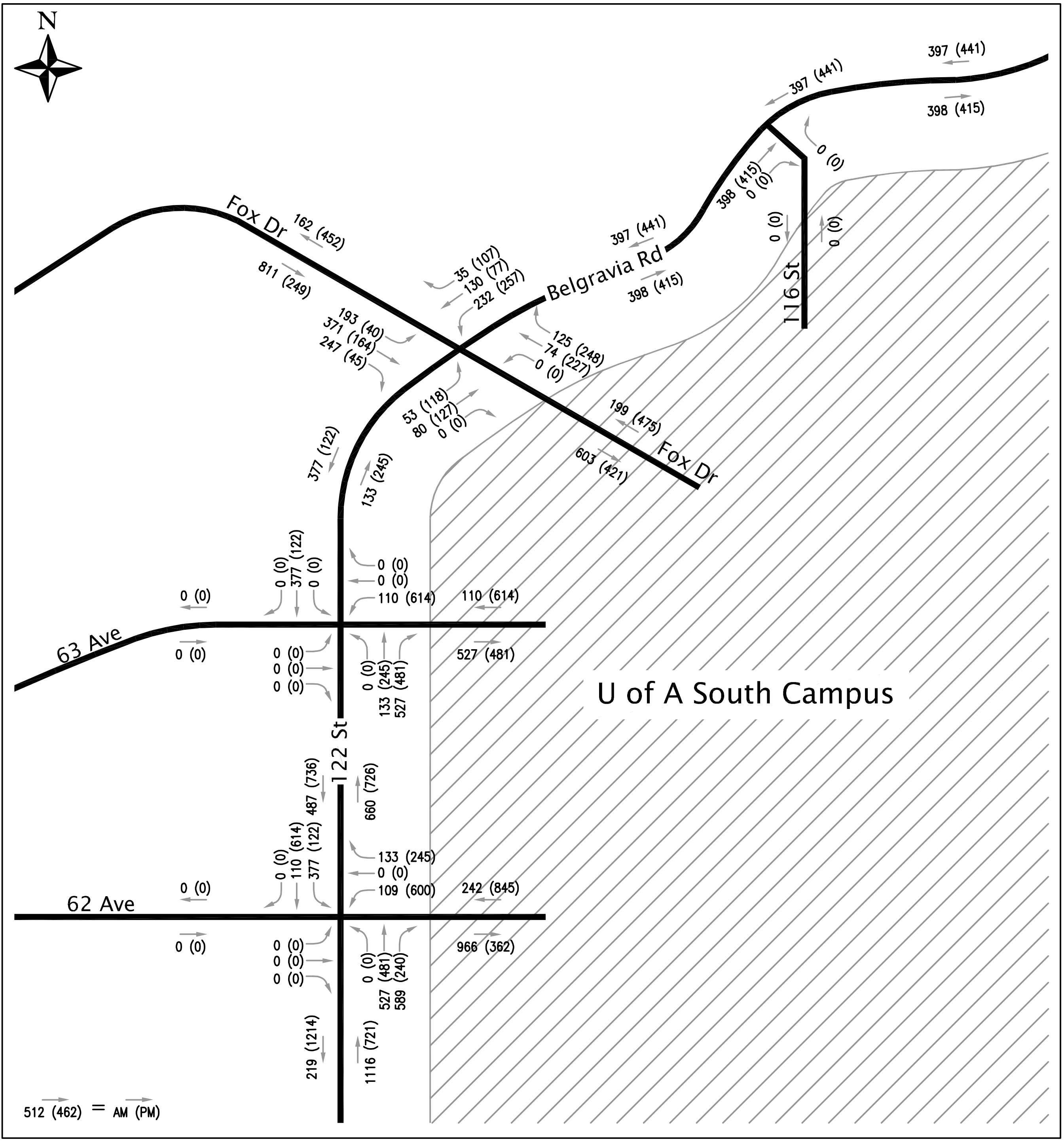
The distribution of trips associated with the South Campus are assumed to reflect the typical origin-destination patterns within the southwest inner area. Therefore, 2041 origin-destination information from the City's Origin-Destination Car Driver Trips for Edmonton and the Surrounding Region was used in the assessment.

4.4 Trip Assignment

Traffic was assigned to the adjacent roadway network based on the availability of parking within the South Campus and the access options considered for review. **Exhibit 4-1** summarizes the AM and PM peak hour site generated traffic anticipated to utilize the study area intersections based on Access Option 1.

4.5 Total Traffic

The traffic anticipated to be generated by the study area was superimposed on the 2041 Background Traffic Volumes to provide the 2041 Total Traffic volumes for use in the assessment of each access option. **Exhibit 4-2** summarizes the 2041 Total Traffic volumes used in the assessment of Access Option 1. Site Generated and 2041 Total Traffic volumes for Access Options 2 and 3 are included in **Appendix A**.



3027.37 - Fox Drive Extension into U of A South Campus/CAD/Exhibits/Draft Report v 3.0 2010 11 02/4-1.dwg

Exhibit 4-1

Scale NTS

Site Generated Traffic Volumes (Option 1) AM (PM) Peak Hour

3027.37 - Fox Drive Extension into U of A South Campus/CAD/Exhibits/Draft Report v 3.0 2010 11 02/4-2.dwg

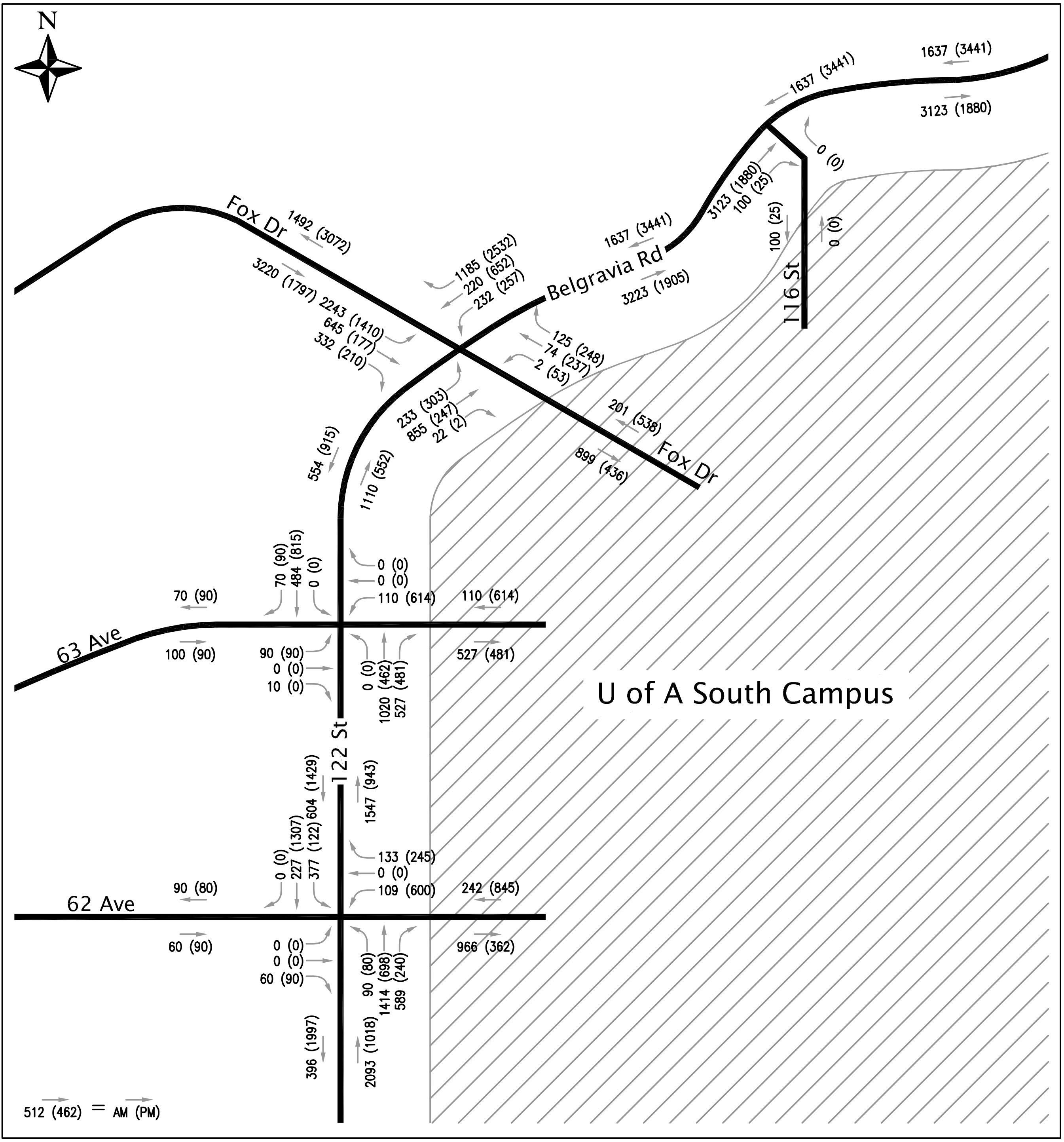


Exhibit 4-2

Scale NTS

2041 Total Traffic Volumes (Option 1) AM (PM) Peak Hour

5. TRANSPORTATION ASSESSMENT

5.1 Intersection Analysis Assumptions

The capacity analysis is based on the methods outlined in the Highway Capacity Manual 2000, using SYNCHRO 7.0 analysis software.

Intersection operations are typically rated by two measures. The volume-to-capacity (v/c) ratio describes the extent to which the traffic volumes can be accommodated by the physical capacity of the road configuration and traffic control. A value (measured during the peak hour) less than 0.90 indicates that generally there is sufficient capacity and the projected traffic volumes can be accommodated at the intersection. A value between 0.90 and 1.0 suggests unstable operations may occur and volumes are nearing capacity conditions. A calculated value over 1.0 indicates that traffic volumes are theoretically exceeding capacity. The second measure of performance, Level of Service (LOS), is based on the estimated average delay per vehicle among all traffic passing through the intersection. A low average delay merits a LOS A rating. Average delays greater than 80 seconds per vehicle at a signalized intersection generally produce a LOS F rating, while at unsignalized intersections a LOS F is reached when vehicles experience an average delay greater than 50 seconds.

The City of Edmonton's Roadway Planning and Design Objectives (February 2005 Edition) identifies the Peak Hour Level Of Service (LOS) Design Objectives for Signalized Arterials at LOS D in the medium term and E in the long term. At signalized intersections, LOS D generally relates to v/c ratios between 0.75 and 0.90, while LOS E generally relates to v/c ratios greater than 0.9 and less than 1.0.

The anticipated 95th percentile queue length has also been included in the following assessment summaries. The queues provided may include a footnote that relates to the ability of the program to estimate the queue accurately. The 'm' footnote indicates that the volume entering the intersection is being metered by an upstream intersection. The Synchro help file also provides the following regarding the '#' footnote:

"The # footnote indicates that the volume for the 95th percentile cycle exceeds capacity. This traffic was simulated for two complete cycles of 95th percentile traffic to account for the affects of spillover between cycles. If the reported v/c <1 for this movement, the methods used represent a valid method for estimating the 95th percentile queue. In practice, 95th percentile queue shown will rarely be exceeded and the queues shown with the # footnote are acceptable for the design of storage bays."

The methodology includes a number of assumptions that relate to the operating conditions present at the intersections. The following assumptions were used in the analysis.

- Saturation Flow Rate – 1,850 vphg
- Minimum Lane Width – 3.6 metres
- Total Lost Time Adjustment Factor– 0.5
- Peak Hour Factor – 1.0
- %HV – existing percentages at Belgravia Road/Fox Drive, 2% 122 Street intersections

5.2 Intersection Assessments

As the purpose of the study is to evaluate the access options in the north portion of the plan area, the study includes assessments completed for the Belgravia Road/Fox Drive intersection and the 63 Avenue/122 Street intersection for each of the following three access options.

- ***Option 1*** – Two Additional Accesses: The extension of Fox Drive into the South Campus at Belgravia Road and the construction of the fourth leg of the 63 Avenue/122 Street intersection.
- ***Option 2*** – The construction of the fourth leg of the 63 Avenue/122 Street intersection only.
- ***Option 3*** – The extension of Fox Drive into the South Campus at Belgravia Road only.

The following sections summarize the results of the assessments completed.

5.2.1 Belgravia Road and Fox Drive

The intersection of Belgravia Road and Fox Drive is currently a signalized T-intersection. **Table 5-1** summarizes the existing operations of the Belgravia Road/Fox Drive intersection based on 2008 measured traffic volumes and signal timings.

Table 5-1: Belgravia Road and Fox Drive 2008 Existing AM and PM Peak Hours

	EB (122 Street)		WB (Belgravia Rd)		SB (Fox Dr)	
Movement	**L**	**T**	**T**	**R**	**L**	**R**
2008 AM Peak Hour – Signalized (110s cycle)						
Geometry	L/T/T		T/T/R		L/L/R	
Volume (vph)	260	677	125	611	1637	59
v/c	0.57	0.52	0.20	0.35	0.87	0.06
Delay (s)	32.2	29.6	40.4	0.5	28.1	5.2
LOS	C	C	D	A	C	A
95th Queue (m)	67	77	21	0	187	8
Intersection Delay			**23.8**	**Intersection LOS**		**C**
2008 PM Peak Hour – Signalized (100s cycle)						
Geometry	L/T/T		T/T/R		L/L/R	
Volume (vph)	232	193	560	1770	813	169
v/c	0.62	0.11	0.39	1.00	0.60	0.22
Delay (s)	22.9	12.6	22.7	24.6	27.4	4.1
LOS	C	B	C	C	C	A
95th Queue (m)	41	15	54	#85	85	13
Intersection Delay			**23.3**	**Intersection LOS**		**C**

As shown in Table 5-1, the intersection of Belgravia Road and Fox Drive was projected to be operating well in the AM peak hour, although the assessment doesn't factor in downstream congestion, which may reduce overall operations in the field. In the PM peak hour, the westbound free flow right turn is projected to be at capacity under existing conditions.

With the addition of the fourth intersection leg in Option 1 and Option 3, the intersection geometry was assumed to include the following:

- ***West Approach (Belgravia Road)*** – One left turn bay, two through lanes, one right turn bay
- ***East Approach (Belgravia Road)*** – one left turn bay, two through lanes, one channelized free flow right turn bay
- ***South Approach (U of A Fox Drive Extension)*** – one left turn bay, one through lane, one right turn bay
- ***North Approach (Fox Drive)*** – dual left turn lanes, one through lane, one channelized right turn bay

Tables 5-2 and **5-3** summarize the results of the Belgravia Road/Fox Drive intersection analyses for access Options 1 through 3 for the AM and PM peak hours respectively. The signal timings were optimized for each scenario analyzed.

Table 5-2: Belgravia Road and Fox Drive 2041 Total Traffic Scenarios AM Peak Hour

	EB (122 Street)			WB (Belgravia Rd)			NB (U of A Access)			SB (Fox Dr)		
Movement	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**
Option 1 (Fox Drive and 63 Ave Accesses) -Signalized (120s cycle, SB, EB, and WB L Phases)												
Geometry	L/T/T/R			L/T/T/R			L/T/R			L/L/T/R		
Volume (vph)	233	855	22	232	220	1185	2	74	125	2243	645	332
v/c	0.77	1.17	0.07	1.27	0.26	0.67	0.02	0.34	0.50	1.25	0.62	0.29
Delay (s)	64.3	137.2	34.3	187.6	39.0	2.0	47.5	53.1	27.0	140.4	18.8	1.9
LOS	E	F	C	F	D	A	D	D	C	F	B	A
95th Queue (m)	#75	#162	m8	#109	34	0	3	33	30	#352	136	12
Intersection Delay						**84.7**	**Intersection LOS**					**F**
Option 2 (63 Ave Access Only) -Signalized (120s cycle, EB L Phase)												
Geometry	L/T/T			T/T/R						L/L/R		
Volume (vph)	301	877			453	1185				2518		621
v/c	1.00	0.74			0.81	0.67				1.25		0.56
Delay (s)	67.5	16.5			61.5	2.0				140.5		9.6
LOS	E	B			E	A				F		A
95th Queue (m)	#111	84			#78	0				#429		76
Intersection Delay						**71.3**	**Intersection LOS**					**E**
Option 3 (Fox Drive Access Only) -Signalized (120s cycle, NB, SB, EB, and WB L Phases)												
Geometry	L/T/T/R			L/T/T/R			L/T/R			L/L/T/R		
Volume (vph)	233	855	467	232	220	1185	106	80	125	2243	727	332
v/c	0.77	1.17	0.96	1.27	0.26	0.67	0.63	0.37	0.49	1.27	0.84	0.35
Delay (s)	31.3	113.5	49.2	187.6	39.0	2.0	42.3	53.8	25.0	148.9	36.8	6.5
LOS	C	F	D	F	D	A	D	D	C	F	D	A
95th Queue (m)	#54	#163	#129	#109	34	0	#27	35	29	#357	#216	31
Intersection Delay						**81.8**	**Intersection LOS**					**F**

Table 5-3: Belgravia Road and Fox Drive 2041 Total Traffic Scenarios PM Peak Hour

	EB (122 Street)			WB (Belgravia Rd)			NB (U of A Access)			SB (Fox Dr)		
Movement	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**
Option 1 (Fox Drive and 63 Ave Accesses) - Signalized (120s cycle, SB, EB, and WB L Phases)												
Geometry	L/T/T/R			L/T/T/R			L/T/R			L/L/T/R		
Volume (vph)	303	247	2	257	652	2532	53	237	248	1410	177	210
v/c	0.97	0.26	0.01	0.85	1.00	1.43	0.33	0.95	0.63	0.99	0.18	0.20
Delay (s)	73.9	34.8	24.5	61.2	85.4	210.0	53.3	97.7	17.7	53.5	14.3	2.2
LOS	E	C	C	E	F	F	D	F	B	D	B	A
95th Queue (m)	#119	41	m1	#88	#121	#474	26	#110	35	#207	34	11
Intersection Delay						**117.4**	**Intersection LOS**					**F**
Option 2 (63 Ave Access Only) -Signalized (120s cycle, EB L Phase)												
Geometry	L/T/T			T/T/R						L/L/R		
Volume (vph)	457	248			952	2552				1423		322
v/c	1.10	0.14			1.00	1.44				0.99		0.40
Delay (s)	97.1	5.7			73.6	215.2				58.0		11.6
LOS	F	A			E	F				E		B
95th Queue (m)	#183	m6			#163	#483				#224		45
Intersection Delay						**126.2**	**Intersection LOS**					**F**
Option 3 (Fox Drive Access Only) -Signalized (120s cycle, NB, SB, EB, and WB L Phases)												
Geometry	L/T/T/R			L/T/T/R			L/T/R			L/L/T/R		
Volume (vph)	304	246	431	257	652	2532	593	311	248	1410	229	210
v/c	1.02	0.39	0.70	0.61	1.00	1.43	0.91	1.00	0.58	1.06	0.55	0.37
Delay (s)	84.3	39.8	22.3	36.1	85.4	210.0	41.5	102.0	15.6	74.5	46.6	7.0
LOS	F	D	C	D	F	F	D	F	B	E	D	A
95th Queue (m)	#122	42	67	71	#121	#474	#163	#138	35	#219	77	20
Intersection Delay						**110.4**	**Intersection LOS**					**F**

As shown in Table 5-2, the southbound left turn is anticipated to be over capacity under all three access options evaluated. While the v/c ratio is estimated to be 1.25 under both Access Options 1 and 2, the actual capacity predicted for the southbound left turn under Access Option 2 is actually greater, at approximately 2015 vph as compared to approximately 1,795 vph under Access Option 1. As well, Option 2 is anticipated to have one additional movement operating at capacity in the AM peak hour, as opposed to two additional movements operating significantly over capacity as shown for Option 1. Based on a review of v/c ratios and delays it is anticipated that Option 2 would operate at higher levels of service overall than Option 1 in the AM peak hour. Option 3 is similar to Option 1, but with higher overall volumes; therefore, it is considered to be the least effective access option in the AM peak hour from the perspective of the Belgravia Road/Fox Drive intersection operations.

As shown in Table 5-3, the westbound right turn is anticipated to be over capacity under all three access options analyzed. Although the westbound right turn is projected to be over capacity in the PM peak hour in 2041, the movement currently operates under free flow conditions, and no improvements have been identified.

Overall, in the PM peak hour under Access Option 1, the remaining intersection movements at the Belgravia Road/Fox Drive intersection (other than the westbound right turn) are anticipated to operate at or below capacity. In the PM peak hour, the Belgravia Road/Fox Drive intersection is anticipated to operate with two movements at or near capacity, and one movement, the eastbound left turn, operating over capacity by approximately 10% under Access Option 2. While the Belgravia Road/Fox Drive intersection is anticipated to accommodate a greater range of movements at or below capacity in the PM peak hour under Access Option 1, Option 2 could be considered a viable option in the PM peak hour based on the magnitude of traffic potentially impacted by capacity constraints. The projected v/c ratio of 1.10 means that the movement is projected to be over capacity by approximately 40 to 50 eastbound left turns.

Similar to the AM peak hour, Access Option 3 is anticipated to have higher overall volumes at the Belgravia Road/Fox Drive intersection as compared to Access Option 1. Although Access Option 1 is anticipated to operate below capacity for the majority of movements, the additional volume under Access Option 3 results in a number of additional movements being projected to operate at or above capacity. Therefore, Access Option 3 is not anticipated to be an effective access option for the development of the South Campus lands and has not been included in the remaining assessments.

Based on the assessments completed, the analysis of the Belgravia Road/Fox Drive intersection was revised assuming the westbound left turn is relocated to a new signal at the Belgravia Road/116 Street intersection. As the eastbound through and westbound left turn movements are the two movements projected to be over capacity in the AM peak hour under Access Option 1, removing the westbound left turn from the intersection would allow the eastbound through movement to operate below capacity. **Table 5-4** summarizes the results of the revised analysis in the AM and PM peak hours.

Table 5-4: Belgravia Road and Fox Drive 2041 Total Traffic Scenarios Revised Intersection Geometry

	EB (122 Street)			WB (Belgravia Rd)		NB (U of A Access)			SB (Fox Dr)		
Movement	**L**	**T**	**R**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**
AM Peak Hour Option 1A (WB Left Banned) -Signalized (120s cycle, SB, and EB L Phases)											
Geometry	L/T/T/R			T/T/R		L/T/R			L/L/T/R		
Volume (vph)	233	855	22	220	1185	2	74	125	2243	645	332
v/c	0.80	0.88	0.05	0.37	0.67	0.02	0.34	0.67	1.16	0.58	0.29
Delay (s)	41.4	34.9	8.2	46.8	1.9	47.5	53.1	65.8	98.3	15.1	1.5
LOS	D	C	A	D	A	D	D	E	F	B	A
95th Queue (m)	#71	#130	m2	37	0	3	33	#55	#332	120	10
Intersection Delay					**49.7**	**Intersection LOS**					**D**
PM Peak Hour Option 1A (WB Left Banned) -Signalized (120s cycle, SB, and EB L Phases)											
Geometry	L/T/T/R			T/T/R		L/T/R			L/L/T/R		
Volume (vph)	303	247	2	652	2532	53	237	248	1410	177	210
v/c	0.97	0.19	0.00	1.00	1.43	0.33	0.95	0.65	0.99	0.18	0.20
Delay (s)	73.0	22.6	15.5	85.4	210.0	53.3	97.7	19.5	53.5	14.3	2.2
LOS	E	C	B	F	F	D	F	B	D	B	A
95th Queue (m)	#118	37	m1	#121	#474	26	#110	38	#207	34	11
Intersection Delay					**119.3**	**Intersection LOS**					**F**

As shown in Table 5-4, the majority of the movements at the Belgravia Road/Fox Drive intersection are anticipated to operate below capacity in the AM peak hour assuming the westbound left turn is banned at the intersection. In the PM Peak hour, banning the westbound left turn did not have a significant impact on the intersection operations.

Although banning the westbound left turn in the PM peak hour didn't have a significant impact on the overall intersection operations, the analysis showed that the majority of the movements are estimated to operate at or below capacity in the PM peak hour, and therefore, Option 1 is anticipated to continue to be the most efficient access option in the PM peak hour.

Based on the revised analysis completed for the Belgravia Road/Fox Drive intersection, a signalized left in was considered for the Belgravia Road/116 Street intersection.

5.2.2 Belgravia Road and 116 Street

The Belgravia Road/116 Street intersection was initially assumed to be downgraded to a right in/right out access. Based on the assessment completed for the Belgravia Road/Fox Drive intersection, an analysis was completed assuming the Belgravia Road/116 Street intersection operates as a signalized right in/right out/left in access. A signal was assumed to address concerns regarding sight lines for the eastbound left turn. A full signalized all-directional access was not considered as this would also require signalizing the high volume westbound through movement in the PM peak hour. **Table 5-5** summarizes the results of the signalized intersection assessment.

Table 5-5: Belgravia Road and 116 Street 2041 Total Traffic Scenario

	EB (Belgravia Rd)		WB (Belgravia Rd)		NB (116 St)	
Movement	**T**	**R**	**L**	**T**	**R**	
AM Peak Hour Option 1A (WB Left at 116 St) -Signalized (120s cycle)						
Geometry	T/T/TR		L/T/T		R	
Volume (vph)	3123	100	232	1405	0	0
v/c	0.88		0.63	0.39	-	
Delay (s)	10.7		51.9	0.3	-	
LOS	B		D	A	-	
95th Queue (m)	m107		81	0	-	
Intersection Delay			**9.7**	**Intersection LOS**		**A**
PM Peak Hour Option 1A (WB Left at 116 St) -Signalized (120s cycle)						
Geometry	T/T/TR		L/T/T		R	
Volume (vph)	1880	25	257	3441	0	
v/c	0.48		0.60	0.95	-	
Delay (s)	1.1		20.7	7.8	-	
LOS	A		C	A	-	
95th Queue (m)	m7		47	0	-	
Intersection Delay			**6.1**	**Intersection LOS**		**A**

As shown in Table 5-5, a westbound left turn could be accommodated at the Belgravia Road/116 Street intersection assuming the intersection is signalized. The westbound through movement in the PM peak hour shows a v/c ratio of 0.95. As the westbound through movement was assumed to be free flow through the intersection, the analysis indicates that the movement is approaching capacity under a two lane section.

5.2.3 63 Avenue and 122 Street

The 63 Avenue/122 Street intersection is currently developed as a signalized T-intersection providing access to the Grandview Heights neighbourhood. As shown in **Table 5-6**, the 63 Avenue/122 Street intersection is anticipated to be operating well in the AM and PM peak hours based on the 2008 traffic volumes and signal timings.

Table 5-6: 63 Avenue and 122 Street 2008 Existing AM and PM Peak Hours

	EB (63 Ave)		NB (122 St)		SB (122 ST)	
Movement	**L**	**R**	**L**	**T**	**T**	**R**
2008 AM Peak Hour – Signalized (70s cycle)						
Geometry	L/R		L/T/T		T/TR	
Volume (vph)	134	108	56	751	203	52
v/c	0.30	0.24	0.09	0.36	0.13	
Delay (s)	19.9	5.5	7.9	8.5	5.8	
LOS	B	A	A	A	A	
95th Queue (m)	25	10	9	39	12	
Intersection Delay			**8.9**	**Intersection LOS**		**A**
2008 PM Peak Hour – Signalized (70s cycle)						
Geometry	L/R		L/T/T		T/TR	
Volume (vph)	72	51	42	376	573	67
v/c	0.11	0.09	0.12	0.21	0.36	
Delay (s)	16.1	5.6	10.8	10.4	11.2	
LOS	B	A	B	B	B	
95th Queue (m)	15	7	8	21	35	
Intersection Delay			**11.0**	**Intersection LOS**		**B**

Under access Options 1 and 2, the intersection would be expanded to include the east intersection approach and could include the following geometry:

- ***West Approach (63 Avenue)*** – one left turn bay, one through/right lane
- ***East Approach (U of A Access)*** – one left turn bay, one left/through/right lane
- ***South Approach (122 Street)*** – one left turn bay, two through lanes, one right turn bay
- ***North Approach (122 Street)*** – one left turn bay, one through lane, one shared through/right lane

The above cross section for the east approach represents an assumed cross-section for the completion of the analysis. It is anticipated that the ultimate cross section for the east intersection leg will be confirmed in conjunction with the development of parkade plans for the northeast parkade. **Tables 5-7** and **5-8** summarize the results of the analysis for the 63 Avenue/122 Street intersection for Access Options 1 through 3 in the AM and PM peak hour respectively.

Table 5-7: 63 Avenue and 122 Street - AM Peak Hour

	EB (63 Ave)			WB (U of A Access)			NB (122 St)			SB (122 St)		
Movement	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**
Option 1 (Fox Drive and 63 Ave Accesses) -Signalized (120s cycle)												
Geometry	L/TR			L/LTR			L/T/T/R			L/T/TR		
Volume (vph)	90	0	10	110	0	0	0	1020	527	0	484	70
v/c	0.41	0.02		0.24	0.25		-	0.38	0.43	-	0.21	
Delay (s)	50.9	0.0		46.3	46.7		-	0.6	1.3	-	3.4	
LOS	D	A		D	D		-	A	A	-	A	
95th Queue (m)	38	0		25	26		-	3	m0	-	18	
Intersection Delay						**5.6**	**Intersection LOS**					**A**
Option 2 (63 Ave Access Only) – Signalized (120s cycle, SB L Phase)												
Geometry	L/TR			L/LTR			L/T/T/R			L/T/TR		
Volume (vph)	90	0	10	116	0	68	0	1020	610	520	484	70
v/c	0.42	0.02		0.42	0.30		-	0.71	0.72	0.83	0.21	
Delay (s)	51.5	0.0		50.9	17.7		-	6.0	11.8	26.0	2.0	
LOS	D	A		D	B		-	A	B	C	A	
95th Queue (m)	38	0		39	21		-	m35	m13	m#147	m8	
Intersection Delay						**13.0**	**Intersection LOS**					**B**

Table 5-8: 63 Avenue and 122 Street - PM Peak Hour

	EB (63 Ave)			WB (U of A Access)			NB (122 St)			SB (122 St)		
Movement	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**
Option 1 (Fox Drive and 63 Ave Accesses) -Signalized (120s cycle)												
Geometry	L/TR			L/LTR			L/T/T/R			L/T/TR		
Volume (vph)	90	0	0	614	0	0	0	462	481	0	815	90
v/c	0.32	-		0.61	0.64		-	0.24	0.47	-	0.47	
Delay (s)	30.9	-		37.1	38.8		-	4.2	3.8	-	6.9	
LOS	C	-		D	D		-	A	A	-	A	
95th Queue (m)	31	-		94	101		-	12	29	-	m18	
Intersection Delay						**14.1**	**Intersection LOS**					**B**
Option 2 (63 Ave Access Only) – Signalized (120s cycle, SB L Phase)												
Geometry	L/TR			L/LTR			L/T/T/R			L/T/TR		
Volume (vph)	90	0	0	688	0	153	0	462	533	369	815	90
v/c	0.38	-		0.78	0.77		-	0.44	0.66	0.73	0.50	
Delay (s)	31.0	-		42.9	39.7		-	31.6	17.8	9.9	4.1	
LOS	C	-		D	D		-	C	B	A	A	
95th Queue (m)	31	-		#139	133		-	67	89	m9	m9	
Intersection Delay						**21.6**	**Intersection LOS**					**C**

As shown in Tables 5-7 and 5-8, the potential access at 63 Avenue and 122 Street is anticipated to operate well in the AM and PM Peak hours under either access Option 1 or access Option 2. The addition of the fourth intersection leg is anticipated to result in longer delays for eastbound traffic exiting the Grandview Heights neighbourhood as compared to existing conditions; however, there continues to be sufficient capacity for eastbound movements at the intersection.

Based on the assessments completed, the 62 Avenue/122 Street intersection is anticipated to operate at acceptable levels of services as an access point to the north sector of the South Campus.

As noted previously, the 2041 background traffic volumes assumed limited residential and employment development on the U of A West 240 lands. It is anticipated that full development of the West 240 lands will result in significantly higher residential and employment activity. Additional development within the U of A West 240 lands would increase demands on 122 Street, which could further impact the operations of the sidestreets. It is anticipated that a full TIA will be completed once a development concept has been prepared for the U of A West 240 lands to confirm the transportation requirements for the area.

5.2.4 Intersection Analysis Summary

Under both options where 63 Avenue is extended into the U of A South Campus lands, the assessment indicated that the 63 Avenue/122 Street intersection could accommodate the projected site generated traffic at acceptable levels of service based on the estimated 2041 traffic volumes and assumed traffic control and intersection geometry. As well, it should be noted that the sidestreet geometry assumed for the east intersection leg (U of A Access) was the same for the analyses of Options 1 and 2. Therefore, 63 Avenue is anticipated to provide an excellent opportunity for access into the U of A South Campus.

The operational analyses completed for the Belgravia Road/Fox Drive intersection are less definitive. In the AM peak hour, Access Option 2, which does not include the extension of Fox Drive into the South Campus, is anticipated to operate at higher levels of service than if the extension is provided. However, in the PM peak hour, the Belgravia Road/Fox Drive intersection is anticipated to operate slightly better with the Fox Drive extension than without.

A revised access scenario, including a signalized westbound left turn at the intersection of Belgravia Road and 116 Street and banning the westbound left turn at the Belgravia Road/Fox Drive intersection was also analyzed. Based on the assessment completed, the relocation of the westbound left turn from Fox Drive to 116 Street is anticipated to allow the majority of the movements at the Belgravia Road/Fox Drive intersection to operate at acceptable levels of service in the AM peak hour. As well, the projected v/c ratio for the southbound left turn in the AM peak hour decreased from 1.25 to 1.16 under the revised geometry. A review of the Belgravia Road/116 Street intersection with a signalized westbound left turn indicated that the intersection could operate at acceptable levels of service during peak hours.

Based on the assessment completed, Access Option 1, with the relocation of the westbound left turn from Fox Drive to 116 Street is anticipated to be the most effective option when considering the operations of the key access points, and the impacts on the adjacent roadway network and traffic conditions. If the relocation of the westbound left turn from Fox Drive to 116 Street is not deemed acceptable, the simplicity of the Belgravia Road/Fox Drive intersection under Access Option 2 is recommended based on the improved operating conditions in the AM peak hour.

5.3 Belgravia Road and Fox Drive Intersection Design

Exhibit 5-1 illustrates a potential design of the Belgravia Road/Fox Drive intersection, including the extension of Fox Drive into the U of A South Campus Lands. The intersection geometry included in Exhibit 5-1 is based on the geometry used in the intersection analyses completed for Options 1 and 3. Based on a review of the existing topography southeast of Belgravia Road, it is anticipated that the Fox Drive extension could be constructed with a maximum grade of 6%.

It should be noted that the development of the fourth leg of the Belgravia Road/Fox Drive intersection assumes that transit movements heading to the South Campus Transit Centre would utilize the new intersection leg both northbound and southbound. While there is currently a third southbound left turn lane dedicated to transit vehicles, the revised configuration shown in Exhibit 5-1 does not include a dedicated transit lane. Therefore, the development of a fourth intersection leg at the Belgravia Road/Fox Drive intersection will remove the existing transit only lane through the intersection, potentially increasing delays for transit at the intersection.

3027.37 - Fox Drive Extension into U of A South Campus/CAD/Exhibits/Draft Report v 3.0 2010 11 02/Exhibit 5-1.dwg

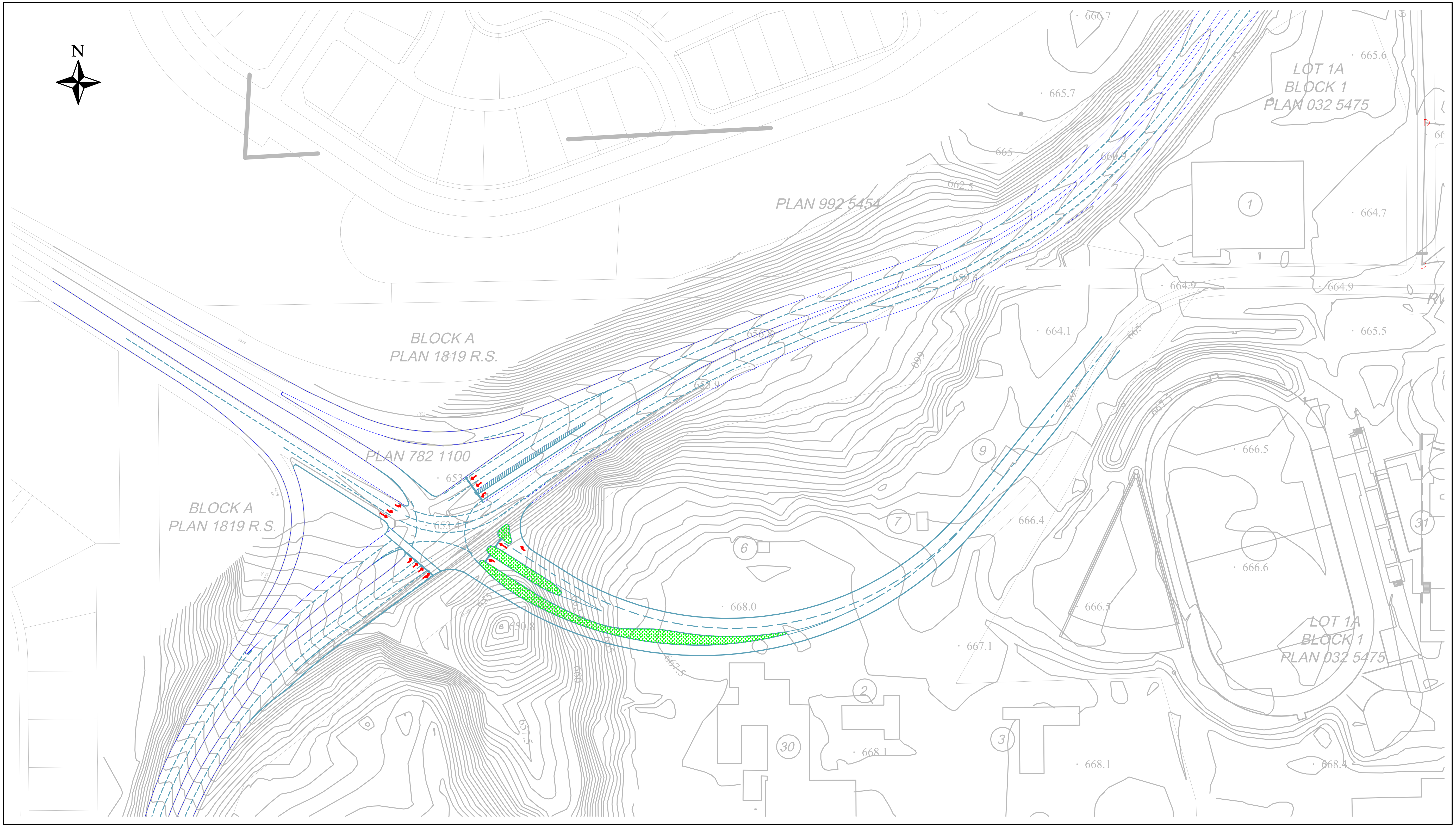


Exhibit 5-1

Scale 1:2000

Belgravia Road and Fox Drive Intersection Potential Geometry Options 1 & 3

6. ANCILLARY CONSIDERATIONS

In documenting the traffic operational impacts associated with the alternative site access scenarios, it is often difficult to include in the assessment non-traffic operational considerations. In the case of the South Campus access management plan, these items should include:

- City of Edmonton transit related benefits;
- Maximizing utilization of available frontage for access;
- Establishing a “front door” for the South Campus
- Land use planning implications;
- Accommodation of high volume traffic movements from parkade facilities after major events; and,
- Back of house truck access to support EXPO 2017.

6.1 Transit Considerations

The development of a new internal connector from the South Campus Transit Centre to 122 Street/ Belgravia Road could result in reduced operating times for a number of transit routes. At the present time there are three transit routes that leave the South Campus Transit Terminal with an enroute destination of 51 Avenue and 122 Street. Based on a review of available transit schedules, the travel time under current operating conditions is in the order of 10 minutes. Based on discussions with Edmonton Transit, travel time savings in the order of 5 to 6 minutes per departure can be realized if transit vehicles could access 122 Street more efficiently.

It is anticipated that these time savings could allow for improved transit service to neighbourhoods west of the South Campus, through the implementation of route extensions, or the incorporation of secondary timing points along the routes. As well, it is anticipated that transit routes that access the South Campus via Fox Drive would be able to enter the campus via the Fox Drive extension.

While the proposed Fox Drive extension could reduce travel times for routes accessing 122 Street, the elimination of the dedicated transit southbound left turn at the Belgravia Road/Fox Drive intersection could negatively impact transit operations utilizing Belgravia Road, that are not accessing the South Campus Transit Centre.

6.2 Maximizing Utilization of Available Frontage

Although the South Campus development area is generally surrounded on three sides by arterial roadways, access into the South Campus area is very restricted from these roadways. Direct access is anticipated to be available from 122 Street as well as from 60 Avenue west of 113 Street, while limited access is available from Belgravia Road (right in/right out access only). Vehicular access is anticipated to continue to be restricted from 113 Street, as no new vehicle access to the South Campus is proposed across the LRT tracks.

Given the limited arterial roadway access opportunities into the South Campus, consideration should be given to maximizing the development of arterial roadway access where operationally and geometrically feasible to provide improved flexibility in accommodating traffic movements and providing for improved traffic distribution.

6.3 Establishing a "front door" for the South Campus.

Given the locational constraints associated with the development of access into the South Campus area, it is difficult to establish a primary access point that would be the "front door" for both University and community recreation land uses. The extension of Fox Drive across Belgravia Road would provide a strategic, easily accessible South Campus address.

6.4 Land Use Planning Considerations

In establishing the framework for the development of a sustainable South Campus, a founding principle is the creation of an integrated transportation system that prioritizes non-vehicular movement and public transportation. Some of the goals that have been established in support of this cornerstone initiative include:

- Development of a significant South Campus student resident population;
- Implementation of TDM initiatives;
- Focusing on an internal pedestrian and cyclist network as opposed to a passenger vehicle network;
- Limiting the extent of the vehicular roadway network to minimize pedestrian/vehicle conflict points on campus;
- Applying minimal roadway cross sections/widths that meet the intended use(s) of the roads;
- Discouraging public vehicle access through the South Campus area by restricting public vehicular access to the periphery of the campus; and,

- Strategically locate major parking facilities, including structured parking, to promote shared use parking opportunities for a variety of South Campus population groups.

Of the aforementioned goals, restricting public vehicle movements through the South Campus area can be more easily accomplished by minimizing internal roadway development. The current land use plans for the South Campus include the development of a significant student residential precinct immediately to the east of 122 Street north of 63 Avenue. Establishing a single public roadway connector that separates the student residence area from academic buildings would not be consistent with current U of A goals.

6.5 Parkade Traffic Accommodation

As mentioned previously, private vehicle auto travel into the South Campus area will continue to be generated. Although the U of A has the ability to better control the use of private auto travel for students, faculty, and staff, the University has little control over private auto travel generated by non-university population groups.

Current development plans for the North Sector of the South Campus includes major community recreation facilities such as the GO Centre, the Twin Ice Arena complex, and a field house. At this time it is known that the GO Centre will include a major spectator event facility, which can accommodate about 2,800 spectators. The Twin Ice Arena could accommodate patron loads in the order of 3,000 to 5,000 people. It is anticipated that for some major events in either the GO Centre or the Twin Ice Arena complex, many of the trips will be completed by private auto.

To accommodate these types of special events from a parking accommodation perspective, the University plans to construct and operate a shared use parking garage in the northwest corner of the site. It will be important to provide appropriate primary and secondary access facilities to and from this parkade to ensure that the internal circulation systems are designed to accommodate the needs of the various user groups and parking profiles, and to ensure that a flexible parkade portal system is implemented.

Considering the size of this parking structure (in the order of 1,150 stalls), it is recommended that at least two points of entry and exit to the parking structure be considered to accommodate peak periods of traffic activity. Providing two access facilities to/from the parking structure will assist in distributing site generated traffic to the adjacent arterial roadway network in an efficient and effective manner. The development of a direct connection between the parking garage and Fox Drive would facilitate the movement of inbound and outbound vehicles from this future parking garage.

6.6 EXPO 2017 Considerations

The South Campus area has been identified as the host site in the City of Edmonton’s bid for EXPO 2017. Although detailed plans for EXPO 2017 have not been finalized, there are opportunities for South Campus facilities to be used as EXPO 2017 facilities. Joint use facilities could include the construction and operation of the parkades to accommodate VIP and employee parking activity. The north sector of the South Campus could also be used to accommodate “back of house” activities. Providing a more direct link from the external roadway system into the north sector of the South Campus could facilitate the movement of truck activity and would minimize the need for and intrusion of internal roadways.

7. STUDY CONCLUSIONS AND RECOMMENDATIONS

7.1 Study Overview

The purpose of this technical review was to assist the City of Edmonton and the U of A in better understanding the transportation and traffic characteristics associated with a proposed extension of Fox Drive south of Belgravia Road. The technical assessment included a logical process and methodology for evaluating the traffic and transportation impacts associated with the possible extension of Fox Drive. The feasibility assessment did not restrict itself to the traffic operational aspects associated with the roadway extension, but also included the review of ancillary transportation related considerations.

7.2 Synopsis

The development of traffic and transportation plans for urban campuses, particularly urban campuses which are being planned as sustainable campuses, are undergoing continuous changes prompted by both external roadway infrastructure systems and policy directed requirements.

In developing a preferred site access strategy for the U of A's South Campus area, the number and location of site access portals should be carefully considered. The development of a sustainable South Campus area traffic access plan must take into consideration anticipated user groups (community and University population groups), land use development activity, plans, and characteristics (educational, recreational and office related land use plans) as well as social, institutional, and environmental objectives. This approach will assist in the planning and development of an access management strategy which minimizes traffic operational impacts on the abutting roadway network, mitigates neighbourhood traffic impacts, and improves local transit circulation characteristics. Key objectives in the development of a preferred access management strategy for the north sector of the South Campus lands include:

- Consideration of land use impacts (vehicular and pedestrian accessibility, types of land use development, surrounding development);
- The need to integrate and maximize the utility of public transit; and,
- To consider institutional and environmental needs and requirements.

The development of the Fox Drive extension into the U of A South Campus area represents a promising component of an overall site access management strategy for this mixed use activity area.

7.3 Conclusions

The technical assessment completed identified a number of key capacity constraints at the Belgravia Road/Fox Drive intersection under all scenarios evaluated. These include the southbound left turn from Fox Drive to Belgravia Road in the AM peak hour, and the reverse westbound to northbound right turn in the PM peak hour. These movements are already substantial and are projected to increase based on the model volumes provided by the City of Edmonton.

Based on the technical assessment completed, the recommended access strategy includes accesses at 63 Avenue and 122 Street, Belgravia Road and Fox Drive, and Belgravia Road and 116 Street. An all-directional access is proposed at 63 Avenue and 122 Street. The Belgravia Road/Fox Drive access is proposed to include the extension of Fox Drive into the U of A South Campus lands, allowing for all movements except the westbound to southbound left turn movement from Belgravia Road into the U of A South Campus. It is proposed that the westbound to southbound left turn movement from Belgravia Road would be allowed via a new signal at the Belgravia Road/116 Street access (right in/right out/left in access).

The recommended access strategy was developed based on a review of the technical analysis completed for the various access strategies reviewed, but also takes into consideration the non-technical rationale for the provision of access to the north portion of the South Campus area. The recommended access strategy also addresses the following initiatives.

- minimize travel on the adjacent arterial roadway network by maximizing usage of available frontage;
- improve area wide transit characteristics;
- reduce travel time for some site generated traffic movements;
- create a new strategic address for the South Campus area; and.
- provide additional back of house access for delivery vehicles to support Expo 2017.

7.4 Future Work

It is recommended that the U of A initiate environmental and geotechnical studies to better understand the environmental issues and mitigating solutions associated with the construction and operation of a new roadway corridor (Fox Drive extension) into the South Campus area. It is anticipated that these additional studies will further inform the decision making process regarding the extension of Fox Drive into the U of A South Campus.

APPENDIX A

2041 Traffic Volumes
Access Options 2 and 3

3027.37 - Fox Drive Extension into U of A South Campus/CAD/Exhibits/Draft Report v 3.0 2010 11 02/A-1.dwg

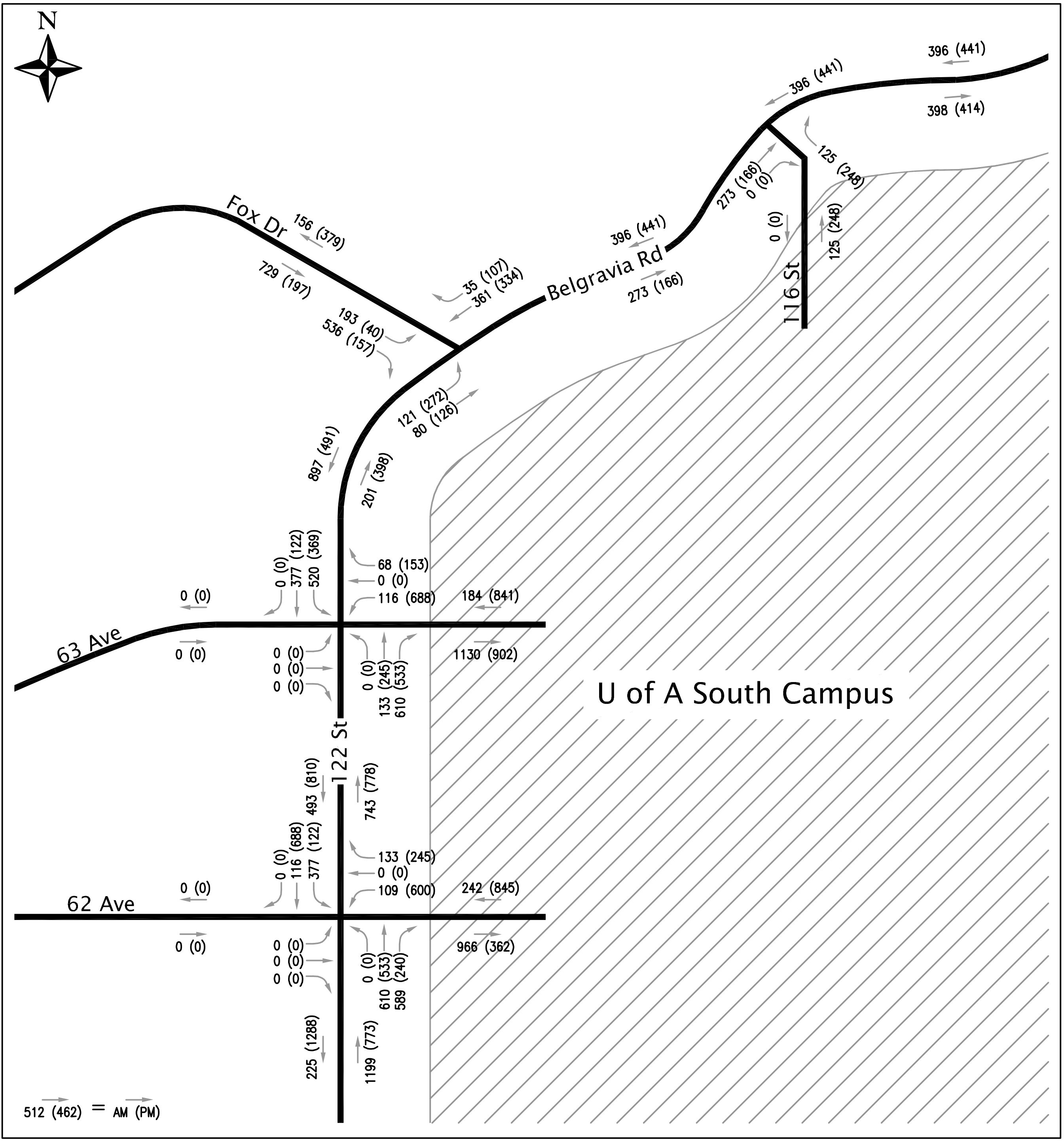


Exhibit A-1

Scale NTS

Site Generated Traffic Volumes (Option 2) AM (PM) Peak Hour

3027.37 - Fox Drive Extension into U of A South Campus/CAD/Exhibits/Draft Report v 3.0 2010 11 02/A-2.dwg

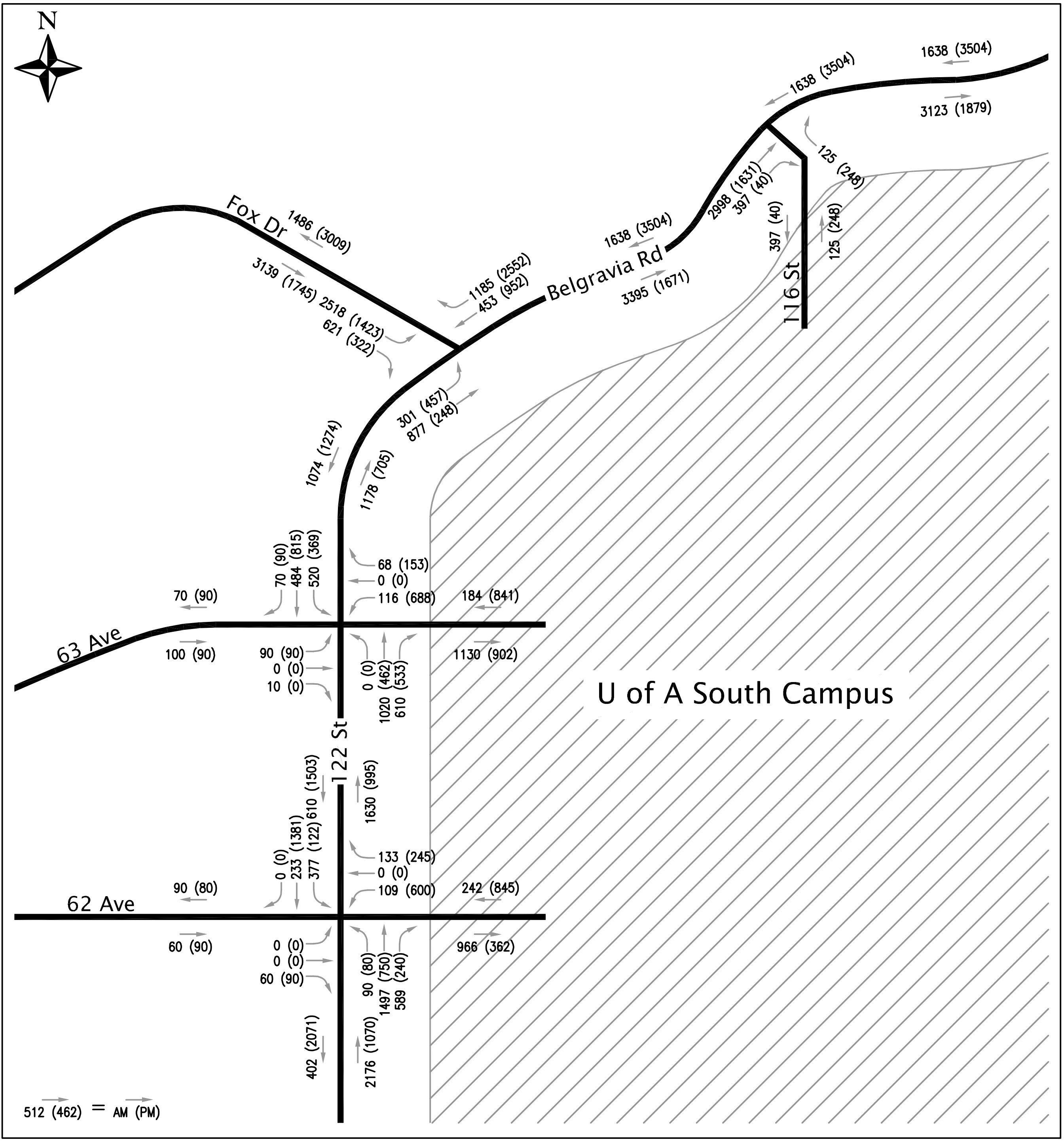


Exhibit A-2

Scale NTS

2041 Total Traffic Volumes (Option 2)
AM (PM) Peak Hour

bunt
&associates

3027.37 - Fox Drive Extension into U of A South Campus/CAD/Exhibits/Draft Report v 3.0 2010 11 02/A-3.dwg

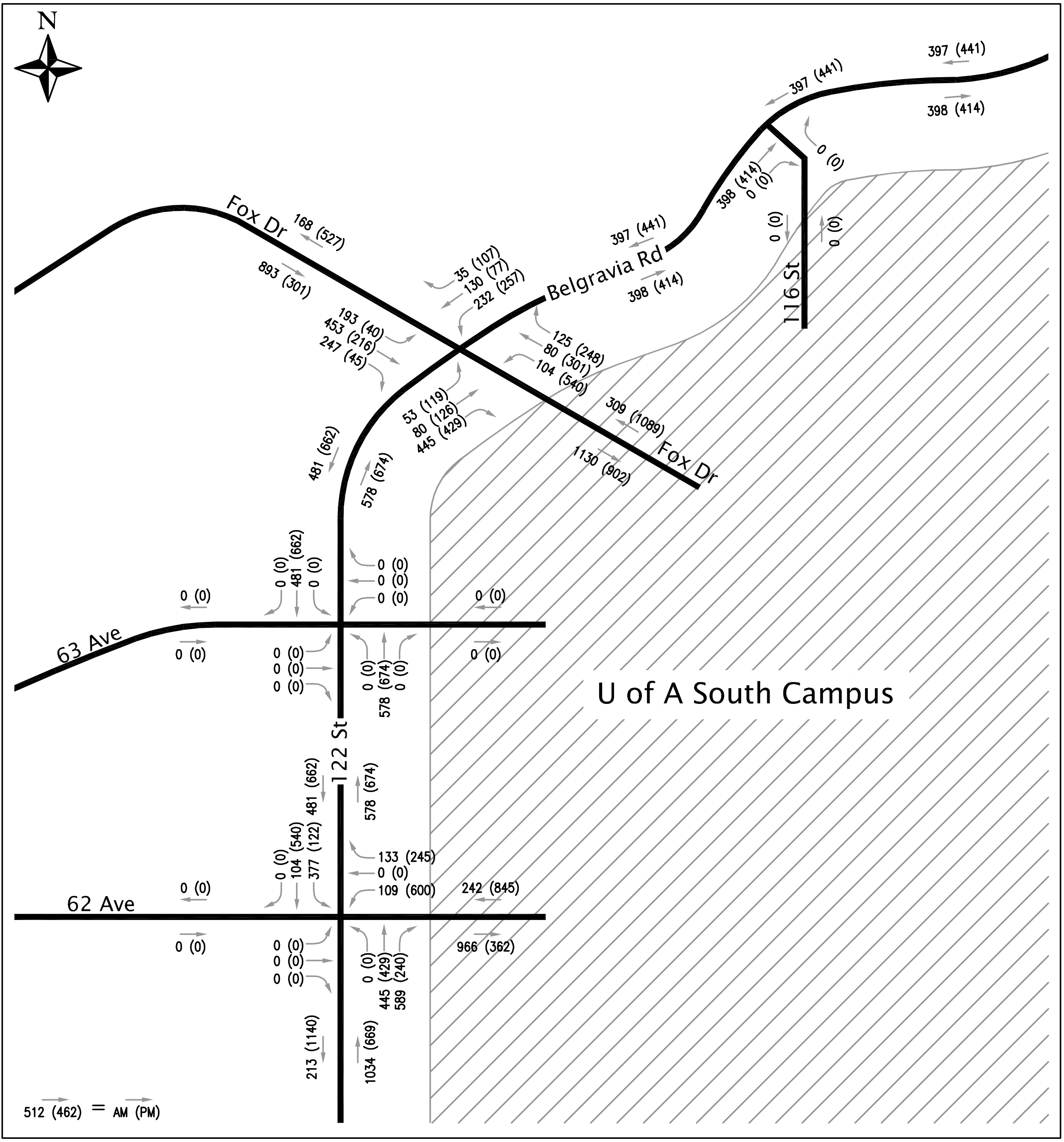


Exhibit A-3

Scale NTS

Site Generated Traffic Volumes (Option 3) AM (PM) Peak Hour

3027.37 - Fox Drive Extension into U of A South Campus/CAD/Exhibits/Draft Report v 3.0 10 11 02/A-4.dwg

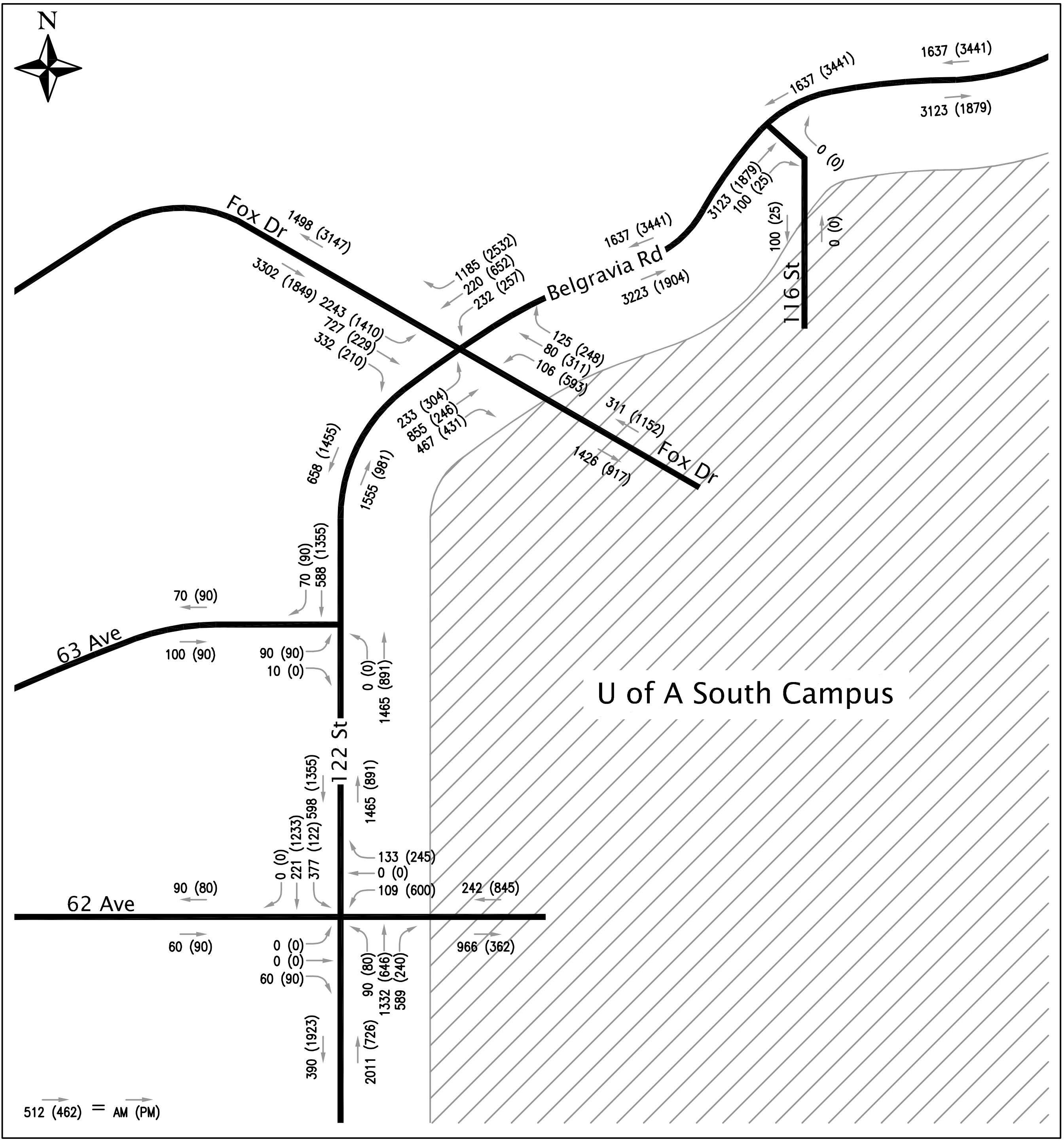


Exhibit A-4

Scale NTS

2041 Total Traffic Volumes (Option 3)
AM (PM) Peak Hour

OPPORTUNITY PAPER ATTACHMENT 2

NO.	REVISIONS	BY	DATE	APP'D
7				
6				
5				
4				
3				
2				
1	UPDATED REQUIRED PROPERTY LIMIT	P.B.C.	2013-09-24	A.D.D.

DATE

DATE

DATE 2013.-08-27

DESIGNED A.D.D.

SCALE 0m 5 10 20

CHECKED P.S.L.

UNIVERSITY OF ALBERTA

PROJECT

122 STREET
WIDENING

DRAWING **ROAD R.O.W. REQUIREMENT PLAN**

RESOLUTION OF The Governors of The University of Alberta

(“Board of Governors”)

IT IS HEREBY RESOLVED:

THAT, subject to the prior approval of the Lieutenant Governor in Council under section 67(1.1)(a) of the *Post-secondary Learning Act,* The Governors of The University of Alberta

authorizes and approves granting to the City of Edmonton for road widening a right of way over approximately ¾ of an acre of land which is surplus to the needs of the University of Alberta and which is contained within the parcel legally described as the SW ¼ 19 – 52 – 24 – W4M.

I hereby certify that this resolution has full force and effect on the 13th day of December, 2013.

____

Chair, The Governors of The University of Alberta

Item No. 12

OUTLINE OF ISSUE

Agenda Title: ***Envision* Year 2 – Capital Expenditure Authorization Request**

Motion: THAT the Board Finance and Property Committee, acting with delegated authority of the Board of Governors, approve that the University proceed with the second year of the seven-year *Envision* energy management program, and approve a capital expenditure of not more than Five Million Dollars ($5,000,000.00) in Canadian funds to implement the second year of the program.

Item

Action Requested	☒Approval ☐Recommendation ☐Discussion/Advice ☐Information
Proposed by	Don Hickey, Vice-President (Facilities and Operations)
Presenter	Don Hickey, Vice-President (Facilities and Operations), Len Sereda Director, Energy Management and Sustainable Operations (Facilities and Operations)
Subject	*Envision* Year 2 and Capital Expenditure Authorization Request Approval

Details

Responsibility	Facilities and Operations
The Purpose of the Proposal is (please be specific)	To obtain approval to proceed with the second year of the seven-year *Envision* energy management program, and approval of a capital expenditure of not more than Five Million Dollars ($5,000,000.00) in Canadian funds to implement the second year of the program.
The Impact of the Proposal is	Allows completion of the second year of the *Envision* energy management program to achieve energy savings. Other benefits achieved are reduced operating and maintenance costs, improved space conditions, infrastructure renewal to address deferred maintenance, reduction of greenhouse gas emissions, and support of and commitment to sustainable development.
Replaces/Revises (eg, policies, resolutions)	N/A
Timeline/Implementation Date	April 2014 – March 2015
Estimated Cost	$5,000,000.00
Sources of Funding	Borrowing of $5,000,000.00 from the Alberta Capital Finance Authority with payback from the energy savings.
Notes	▪ An Energy Management Program has existed at the University of Alberta since the mid 1970s, resulting in an accumulated cost avoidance of $288,000,000.00 since its inception, and an annual cost avoidance of $14,200,000.00 in 2011/2012. ▪ The University is currently implementing the final year of its previous seven-year, $25,000,000.00 Energy Management Program, which, upon completion, is anticipated to save approximately $3,900,000.00 annually. ▪ Notwithstanding the University's past success, significant energy reduction opportunities remain and a continued energy reduction implementation is warranted to keep our energy bill as low as cost effectively feasible. ▪ Parallel to the execution of the previous seven-year program, a Next Generation seven-year $35,000,000.00 Energy Management Program was developed. In June 2011 the Board of Governors approved the next generation program and the expenditure of $5,000,000.00 for implementation of the first year of the program. ▪ Annual savings at the completion of the next generation program,

	rebranded under the name *Envision* are estimated to be approximately $3,800,000.00 with CO_2 emission reductions anticipated to be approximately 30,000 tonnes. ▪ Other benefits that would result are: reduced operating and maintenance costs; improved space conditions; infrastructure renewal to address deferred maintenance; reduced demand on utility plant and distribution infrastructure; reduced environmental impact; and a continued demonstration of our commitment to sustainability. ▪ The University's energy efficiency actions align with the strategic direction of the University and contribute to city-wide, regional, provincial and national efforts to reduce the impact of greenhouse gas emissions on the global climate. ▪ The first year of the *Envision* program is currently in progress and the second year has been developed for implementation, pending approvals. ▪ As in the previous seven-year Energy Management Program and in the first year of the *Envision* program, it is proposed that the second year of the program be financed through borrowing from the Alberta Capital Finance Authority over a fifteen-year amortization period with payback from the energy savings.

Alignment/Compliance

Alignment with Guiding Documents	Dare to Deliver; Comprehensive Institutional Plan
Compliance with Legislation, Policy and/or Procedure Relevant to the Proposal (please quote legislation and include identifying section numbers)	PSLA, Section 60 (1)(b) refers: *The Board of a public post-secondary institution shall develop, manage and operate, alone or in co-operation with any person or organization, programs, services and facilities for the educational or cultural advancement of the people of Alberta* PSLA, Section 72 (1)(2) and (3) refers: *Borrowing* *72* ***(1)*** *A board may borrow from any bank or treasury branch or from any other person any sum of money required to meet the expenses of the public post-secondary institution until the time the revenues for the current year are available.* ***(2)*** *Any borrowings made pursuant to subsection (1) must be repaid out of and are a first charge on the revenues of the current year, and may be secured by a promissory note or notes given on behalf of the board in any manner the board may arrange.* ***(3)*** *Subject to the approval of the Minister, a board may for the purposes of the public post-secondary institution, as defined in section 73, borrow by way of temporary loans from any bank or treasury branch or from any other person any sums of money on any terms that the board determines, by way of an overdraft or line of credit or by the pledging as security for the temporary loans of notes, bonds, debentures or other securities of the board pending the sale of them, or instead of selling them, or in any other manner the board determines.* BFPC Terms of Reference, Section 3(f) refers: *f) approve original Capital Expenditure Authorization Request (CEAR) or individual Supplemental CEARs up to a maximum of $7 million and aggregate total CEAR and Supplemental CEARs up to a maximum of $14 million. The Vice-President (Facilities and Operations) is authorized to approve original CEARs or individual Supplemental CEARs up to $2 million and aggregate total CEAR and Supplemental CEARs up to $4 million.*

Item No. 12

Routing (Include meeting dates)

Consultative Route (parties who have seen the proposal and in what capacity)	▪ Associate Vice-President, Facilities & Operations – October 2013 ▪ Vice-President, Facilities & Operations – October 2013 ▪ Presidents Executive Committee – Operations – October 24, 2013
Approval Route (Governance) (including meeting dates)	Board Finance and Property Committee – November 26, 2013
Final Approver	Board Finance and Property Committee

Attachments:

1. Attachment 1 - Document titled, *Envision* Year 2*, 2013-2014*, dated October 10, 2013 (21 pages)

Prepared by:
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Energy Management & Sustainable Operations
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ENvision

INTELLIGENT ENERGY REDUCTION

Year 2

2013-14

October 10, 2013

UNIVERSITY OF ALBERTA
FACILITIES AND OPERATIONS

Table of Contents

Section 1 Introduction

A very successful Energy Management Program has been in place at the University of Alberta since the mid-1970s. The University's program resulted in an annual cost avoidance of $14,200,000 in 20011/2012, with accumulated cost avoidance in excess of $288,000,000 achieved since its inception in 1975/1976. As well the program has resulted in a cumulative reduction in excess of 2,400,000 tonnes of CO_2.

Notwithstanding the University's past success, including that of the most recent $25,000,000 program currently nearing completion, significant energy reduction opportunities remain. Continuation of a major energy reduction implementation is warranted to keep our energy bill as low as cost effectively feasible.

Other benefits that would also result are:

- reduced operating and maintenance costs
- improved lighting quality and space conditions
- infrastructure renewal to address deferred maintenance
- reduced demand on utility plant and distribution infrastructure
- significant environmental benefits

Continuation of this long-standing program also further demonstrates the University's solid and on-going actions and commitment to sustainability. As well, actions taken by the University of Alberta to improve energy efficiency align with the strategic direction of the University and contribute to city-wide, regional, provincial and national efforts to reduce the impact of greenhouse gas emissions on the global climate.

The previously developed *Next Generation Energy Management Program* business case dated May 5, 2011 that identified a $35,000,000 energy management program is the basis for the current program underway. A copy of this document is available upon request. Annual savings at the completion of the program are estimated to be approximately $3,800,000 and CO_2 emission reductions are anticipated to be in the order of 30,000 tonnes.

The purpose of this report is to provide background on the previous energy management program being completed, and to indicate the current status of projects underway as part of the first year of the next generation 7-year program rebranded under the name *Envision*. It will also identify projects being developed for the second year of the new program, review the program approach, and provide recommendations for continuation of a successful program.

Section 2 Background

The University is currently completing its most recent seven-year, $25,000,000 Energy Management Program, which is anticipated to save approximately $3,900,000 annually and reduce CO_2 emissions by 27,000 tonnes per year. Information on the program and on its performance is included in the appendices.

Parallel to the execution of the most recent program, a Next Generation Energy Management Program was developed in the spring of 2011 to identify the magnitude of further energy reduction potential on campus, duration of implementation, annual levels of funding required, benefits and business case, as well as the possible funding options for consideration and senior decision-making. The next generation program was also developed to confirm University long-term support and commitment for a long-range program with steady and stable funding solutions.

The program identified the potential for $35,000,000 of energy management implementations phased over a 7-year period ($5 million/year). Annual savings at the completion of the 7-year program are estimated to be in the order of $3,800,000 and CO_2 emission reductions are anticipated to be in the order of 30,000 tonnes.

Board of Governors approval for the program and to borrow $5,000,000 from the Alberta Capital Finance Authority to finance the implementation of the first year of the program was obtained in June 2011. An Order-in-Council from the Alberta Government was received in December 2011 to authorize borrowing.

As part of the launch of the new generation, the Energy Management Program was rebranded under the name *Envision;* a fusion of the words energy and vision. *Envision* and the new tag line *Intelligent Energy Reduction* speaks to the program's commitment to adopting new technologies and approaches that advance sustainability on campus today, while continuously looking to the future and seeking out the most intelligent energy reduction solutions for generations to come.

Year 1 of the *Envision* program is currently in progress. Preliminary audits and feasibility studies have been developed for Year 2 of the program for subsequent implementation pending approvals.

Section 3 Potential Energy Reduction Measures

While further detailed energy auditing and analysis is required to determine the full extent of cost-effective potential energy reduction measures in each facility, the following list represents the potential actions that exist and the known types of typical implementations that can be undertaken.

- Lighting system upgrades and retrofits
- Fan system upgrades
- Upgrades and improvements in efficiency to heating, ventilating, and air-conditioning systems
- Re-commissioning and system optimization
- Fume hood replacements and controls upgrades
- High efficiency motor replacements
- Waste heat recovery systems (air and water)
- Variable speed drive installations (fans and pumps)
- Controls systems modifications and upgrades
- Automation of building room controls
- Piping and equipment insulation
- Building envelope sealing and upgrades
- Micro-steam turbines

In addition to the preceding list, the seven-year *Envision* program will also focus on several additional program areas, including;

- water conservation
- infrastructure renewal and energy reduction synergies
- energy reduction for Ancillary Services
- renewable energy
- education and awareness

Section 4 *Envision* Year One

The following projects are currently in progress:

Augustana Residence Lighting Retrofit
Camrose Performing Arts Centre (CPAC) Energy Efficiencies and Renewable Energy
PAW Centre Energy Efficiencies and Renewable Energy
Katz Lab Optimization
Li-Ka Shing Lab Optimization
Waste to Energy High Solids Anaerobic Digester Facility (HSADF)

The Augustana project is complete and the CPAC and PAW Centre projects are currently under construction. The remaining three projects are currently in the design phase.

The above projects are on track with the $5,000,000 budget for year one and with payback within 15 years.

Section 5 *Envision* Year Two

Preliminary assessment and early project identification has been conducted for the second year of the *Envision* program. The following projects have been identified and are currently being further investigated and developed:

CCIS Lab Optimization
Agriculture Forestry Lab Optimization
Chemistry West Lab Optimization
Agri-Food Discovery Lab Optimization
Parkade Lighting Retrofits – Education, Timms/Telus, Stadium, Windsor
Steam System Insulation – Medical Sci, Biological Sciences, Agriculture Forestry
Pump System VSD's and Controls - Medical Sci, Bio Sci, Agriculture Forestry
South Academic Building Window Replacement
Small Scale Solar PV – CMEB & ICE Buildings
Domestic Water Reduction –Students Union, School of Business

Based on the analysis to date, the estimated cost for implementation of Year 2 of the *Envision* program is $5,000,000. Average annual energy savings from this implementation over the fifteen-year period is estimated in the order of $596,000. Based on Utility forecasts to 2017/18 and a 1.5% escalation thereafter, payback of the second year of the program occurs within a fifteen year period. As in the previous seven-year Energy Management Program and in the first year of the *Envision* program, it is proposed that these projects be financed through borrowing from the Alberta Capital Finance Authority over a fifteen-year amortization period.

Financial feasibility is checked through each stage of development of a project (preliminary feasibility, detailed audit, preliminary design, detailed design, and tender) with project costs and energy savings refined at each stage of the process to confirm viability. Projects are modified if necessary during the various development stages to maintain feasibility. As well, the annual programs and the program as a whole are reviewed on an on-going basis to confirm viability.

Section 6 Program Approach and Funding

The University of Alberta has significant expertise and experience in energy management, and has effectively managed successive initiatives since the mid-1970s. The energy reduction projects which are being proposed for the *Envision* program are consistent with past proven projects with successful financial performance.

A number of funding considerations and implementation approaches to execute the program have been reviewed and assessed. These included traditional capital funding, infrastructure maintenance funding, internal-financing via the Investment Office, as well as an Energy Performance Contracting (EPC) approach.

Traditional capital funding or infrastructure maintenance funding specifically for energy management initiatives is not available at this time due to other funding priorities. Limitations exist on the use of internal financing through the University's Investment Office due to the amount of internal financing available at any one time, as well as limits on the amortization periods.

The University undertook a very intensive investigation, analysis, and assessment of the EPC approach as an alternative method to implementing energy reduction projects a number of years ago. This process included an actual Request for Proposal on the Education Complex, a review of vendor submissions, and interviews with the vendors to obtain the necessary information and data to conduct this analysis. In general it was found that this approach resulted in long paybacks, and that the monitoring, verification, and administration of these contracts over the long term in a dynamic setting such as the University would be very administratively and resource-intensive. It was also found that there were substantial cost premiums involved with the EPC approach in comparison to the University's own proven previous experience and approach in managing the execution of this type of work. These cost premiums, which can be upwards of or in excess of 30%, substantially increase the cost of the work, result in long paybacks, and do not add any capital upgrading value to the University. In conclusion it was determined that the EPC approach did not effectively meet the University's needs, was not in its best interests, and did not offer any real advantages in an area of work that the University is very familiar with, and which the University has very effectively managed for over 35 years.

The University of Alberta may be unique to other institutions due to its size, and that it has significant experience, expertise, and capabilities in the energy management area. The University's goal has always been to maximize and make best use of the available dollar, and the University needs to retain the flexibility to assess and use the approach that best meets its needs for specific types of work.

The most recent seven-year Energy Management Program currently being completed has been successfully implemented by borrowing from the Alberta Capital Finance Authority (ACFA) with payback from the energy savings over an amortization period of ten years (for Years 1 to 4) and fifteen years (for Years 5 to 7 of the program). As the loans from the current seven-year program begin to successively retire, starting in 2015/16, these savings can be reinvested into the next generation of energy management program and other sustainability initiatives.

The University has significant knowledge and experience in, and has very effectively managed, an ongoing Energy Management Program for over 35 years. A financing approach through ACFA to fund the second and subsequent years of the *Envision* program with payback from the energy savings, allows the University to continue its effective management and implementation of an ongoing program. As individual loans are paid off, the subsequent energy savings can be applied to further energy reduction initiatives, sustainability programs, or debt reduction on remaining energy management program loans.

The use of an ACFA approach does not preclude various combinations of funding options, depending on the circumstances, to provide maximum flexibility and effectiveness throughout implementation of the program, and best meet the needs of the University.

Opportunities are sought and taken where feasible, to implement energy management initiatives in conjunction with maintenance, infrastructure renewal, or facility alteration projects where energy savings, operational, maintenance, space environmental benefits, and infrastructure upgrades will collectively occur, but cannot be achieved totally on energy savings or capital or operational dollars alone. This allows an optimization of available funding and an efficient use of resources to mutual benefit.

It should be noted that while the University manages the *Envision* program, the private sector is primarily used in the actual implementation of the various projects. Preliminary audits, detailed audits, engineering design, and tender/construction phase services are contracted to various external consulting engineering firms, and the construction is executed by various external contractors.

Financial Analysis

Following is the financial analysis for the second year of the *Envision* program and the cash flow projection and payment schedule that would be required to service a $5,000,000 loan over a fifteen-year term, modeled at an anticipated interest rate of 5.5%. *(The lending rate from the Alberta Capital Finance Authority (ACFA) as of October 1, 2013, is 3.329% per annum for a fifteen-year amortization period.)*

To establish an upper limit for borrowing purposes, an analysis and cash flow projection was also performed to determine the effect if inflationary pressures caused interest rates to rise above the 5.5% used in the model, with concurrent inflation/escalation on the utility rates. The fifteen-year amortization financial model can support interest rate increases up to 7% with 1.5% escalation in utility rates.

The energy savings are based on the University of Alberta Utilities Department energy rate forecasts to 2017/18 with a 1.5% per year escalation in utility rates thereafter.

The net present value (NPV)[1] for Year-2 of the program with a fifteen year amortization period is $3,634,190.

The internal rate of return (IRR) for Year-2 of the program with a twenty-five year economic life is 11.27%.[2]

The 11.27% IRR is well above the opportunity cost of capital at 4%, and the NPV is positive, which would indicate good project viability for Year-2 of the *Envision* program.

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[1] NPV is the value of the monetary impact of the project in terms of today's dollars, i.e. if all future cash flows are discounted into today's dollars, and the cost of the project is subtracted, this will give a NPV total. If the total is positive the project is deemed as acceptable, if negative it is not. For this analysis, an opportunity cost of capital of 4% was used and financing costs were assumed to be 7.0%.

[2] IRR is a measure of the interest yield on a project over its useful life. As long as the IRR is greater than the opportunity cost of capital (4.0%), the project is deemed acceptable.

Likely Projected Cash Flow, Loan Payment and Savings Schedule

15 Year Amortization Period, 5.5% Interest Model

Fiscal Year	Project Expense	Energy Savings	ACFA Loan Payment	Principal	Loan Interest 5.5%	ACFA Loan Balance	Net Cumulative Cash Flow
Apr 2014	$70,000						-$70,000
May 2014	$70,000						-$140,000
Jun 2014	$100,000						-$240,000
Jul 2014	$140,000						-$380,000
Aug 2014	$190,000						-$570,000
Sept 2014	$540,000						-$1,110,000
Oct 2014	$720,000						-$1,830,000
Nov 2014	$740,000						-$2,570,000
Dec 2014	$630,000						-$3,200,000
Jan 2015	$610,000						-$3,810,000
Feb 2015	$600,000						-$4,410,000
Mar 2015	$590,000		$5,000,000				$0
2014/15		$605,000	($498,128)	$223,128	$275,000	$4,776,872	$106,872
2015/16		$636,366	($498,128)	$235,400	$262,728	$4,541,472	$245,110
2016/17		$584,408	($498,128)	$248,347	$249,781	$4,293,125	$331,390
2017/18		$546,018	($498,128)	$262,006	$236,122	$4,031,119	$379,280
2018/19		$554,208	($498,128)	$276,416	$221,712	$3,754,702	$435,361
2019/20		$562,522	($498,128)	$291,619	$206,509	$3,463,083	$499,755
2020/21		$570,959	($498,128)	$307,658	$190,470	$3,155,425	$572,586
2021/22		$579,524	($498,128)	$324,580	$173,548	$2,830,845	$653,982
2022/23		$588,217	($498,128)	$342,432	$155,696	$2,488,413	$744,070
2023/24		$597,040	($498,128)	$361,265	$136,863	$2,127,148	$842,982
2024/25		$605,996	($498,128)	$381,135	$116,993	$1,746,013	$950,850
2025/26		$615,085	($498,128)	$402,097	$96,031	$1,343,916	$1,067,807
2026/27		$624,312	($498,128)	$424,213	$73,915	$919,704	$1,193,991
2027/28		$633,676	($498,128)	$447,544	$50,584	$472,159	$1,329,540
2028/29		$643,182	($498,128)	$472,159	$25,969	$0	$1,474,593
2029/30		$652,829		$0	$0	$0	$2,127,422
2030/31		$662,622		$0	$0	$0	$2,790,044
2031/32		$672,561		$0	$0	$0	$3,462,605
2032/33		$682,649		$0	$0	$0	$4,145,255
2033/34		$692,889		$0	$0	$0	$4,838,144
2034/35		$703,283		$0	$0	$0	$5,541,426
2035/36		$713,832		$0	$0	$0	$6,255,258
2036/37		$724,539		$0	$0	$0	$6,979,798
2037/38		$735,407		$0	$0	$0	$7,715,205
2038/39		$746,438		$0	$0	$0	$8,461,643
TOTAL		**$15,933,563**	**($7,471,920)**	**$5,000,000**	**$2,471,920**		**$8,461,643**

Projected Cash Flow, Loan Payment, and Savings Schedule

(To establish upper limit of borrowing)

15 Year Amortization Period, 7.0% Interest Model

Fiscal Year	Project Expense	Energy Savings	ACFA Loan Payment	Principal	Loan Interest 7.0%	ACFA Loan Balance	Net Cumulative Cash Flow
Apr 2014	$70,000						-$70,000
May 2014	$70,000						-$140,000
Jun 2014	$100,000						-$240,000
Jul 2014	$140,000						-$380,000
Aug 2014	$190,000						-$570,000
Sept 2014	$540,000						-$1,110,000
Oct 2014	$720,000						-$1,830,000
Nov 2014	$740,000						-$2,570,000
Dec 2014	$630,000						-$3,200,000
Jan 2015	$610,000						-$3,810,000
Feb 2015	$600,000						-$4,410,000
Mar 2015	$590,000		$5,000,000				$0
2014/15		$605,000	($548,973)	$198,973	$350,000	$4,801,027	$56,027
2015/16		$636,366	($548,973)	$212,901	$336,072	$4,588,126	$143,420
2016/17		$584,408	($548,973)	$227,804	$321,169	$4,360,321	$178,855
2017/18		$546,018	($548,973)	$243,751	$305,222	$4,116,571	$175,900
2018/19		$554,208	($548,973)	$260,813	$288,160	$3,855,757	$181,135
2019/20		$562,522	($548,973)	$279,070	$269,903	$3,576,687	$194,684
2020/21		$570,959	($548,973)	$298,605	$250,368	$3,278,082	$216,670
2021/22		$579,524	($548,973)	$319,507	$229,466	$2,958,575	$247,221
2022/23		$588,217	($548,973)	$341,873	$207,100	$2,616,702	$286,464
2023/24		$597,040	($548,973)	$365,804	$183,169	$2,250,898	$334,531
2024/25		$605,996	($548,973)	$391,410	$157,563	$1,859,488	$391,553
2025/26		$615,085	($548,973)	$418,809	$130,164	$1,440,679	$457,666
2026/27		$624,312	($548,973)	$448,126	$100,848	$992,553	$533,004
2027/28		$633,676	($548,973)	$479,494	$69,479	$513,059	$617,708
2028/29		$643,182	($548,973)	$513,059	$35,914	$0	$711,916
2029/30		$652,829		$0	$0	$0	$1,364,745
2030/31		$662,622		$0	$0	$0	$2,027,367
2031/32		$672,561		$0	$0	$0	$2,699,928
2032/33		$682,649		$0	$0	$0	$3,382,578
2033/34		$692,889		$0	$0	$0	$4,075,467
2034/35		$703,283		$0	$0	$0	$4,778,749
2035/36		$713,832		$0	$0	$0	$5,492,581
2036/37		$724,539		$0	$0	$0	$6,217,121
2037/38		$735,407		$0	$0	$0	$6,952,528
2038/39		$746,438		$0	$0	$0	$7,698,966
TOTAL		**$15,933,563**	**($8,234,597)**	**$5,000,000**	**$3,234,597**		**$7,698,966**

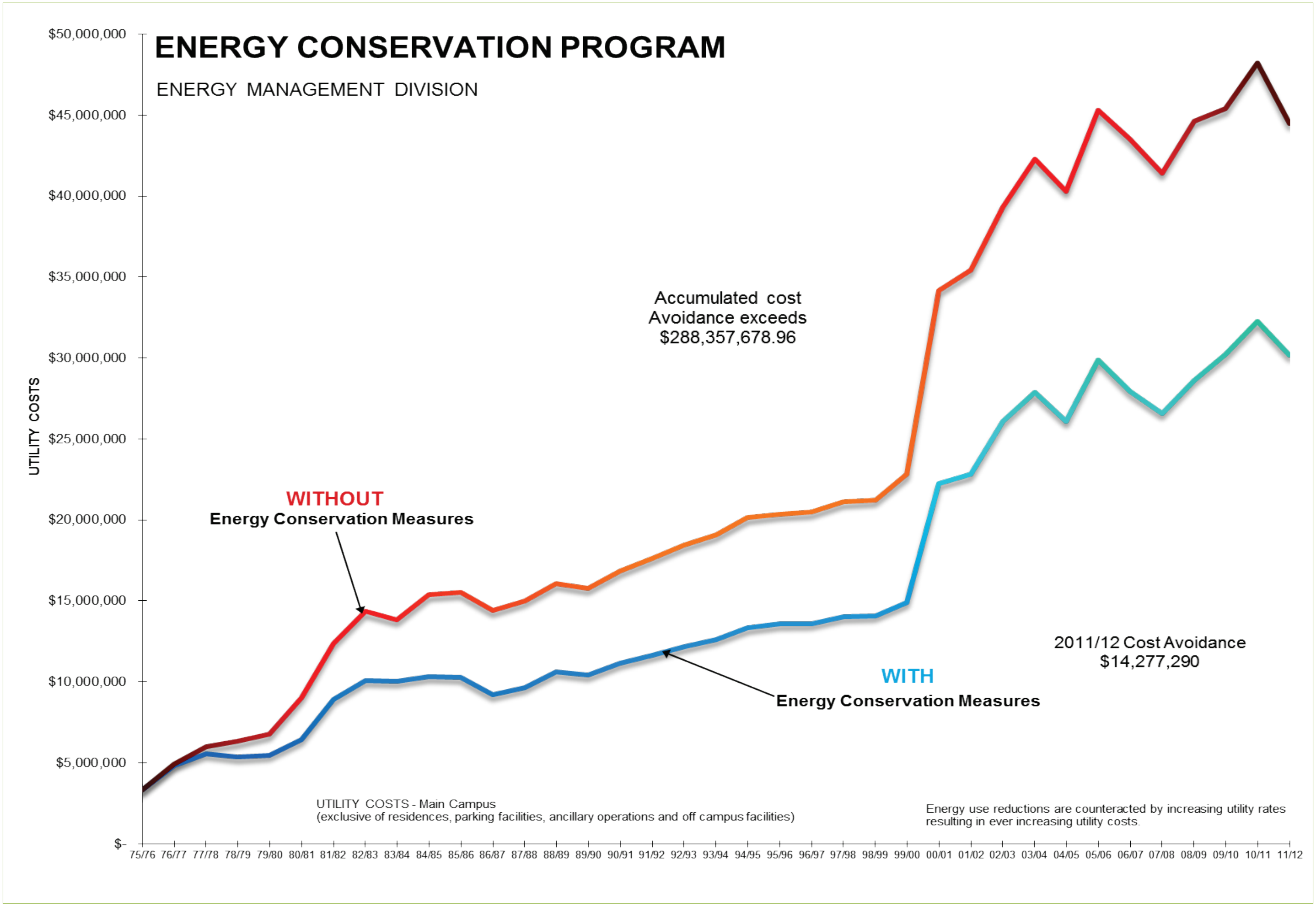
Section 8 Conclusion and Recommendations

Notwithstanding the University's past success, including that of the program currently being completed, significant energy reduction opportunities remain. Continuation of a major energy reduction implementation is warranted to keep our energy bill as low as cost effectively feasible, reduce our consumption of non-renewable resources, minimize our environmental impact, demonstrate our commitment to sustainability, and realize many other benefits.

It is recommended that:

- The University reaffirms its strong commitment to energy management and sustainability, by supporting development and implementation of the second year of the *Envision* program in the amount of $5,000,000.
- The University borrow not more than $5,000,000 from the Alberta Capital Finance Authority for a term not to exceed fifteen years at an interest rate not to exceed 7% for the purpose of funding the second year of the seven-year *Envision* program.

APPENDICES


ENERGY CONSERVATION PROGRAM
ENERGY MANAGEMENT DIVISION
UTILITY COSTS
$50,000,000
$45,000,000
$40,000,000
$35,000,000
$30,000,000
$25,000,000
$20,000,000
$15,000,000
$10,000,000
$5,000,000
$-
75/76
76/77
77/78
78/79
79/80
80/81
81/82
82/83
83/84
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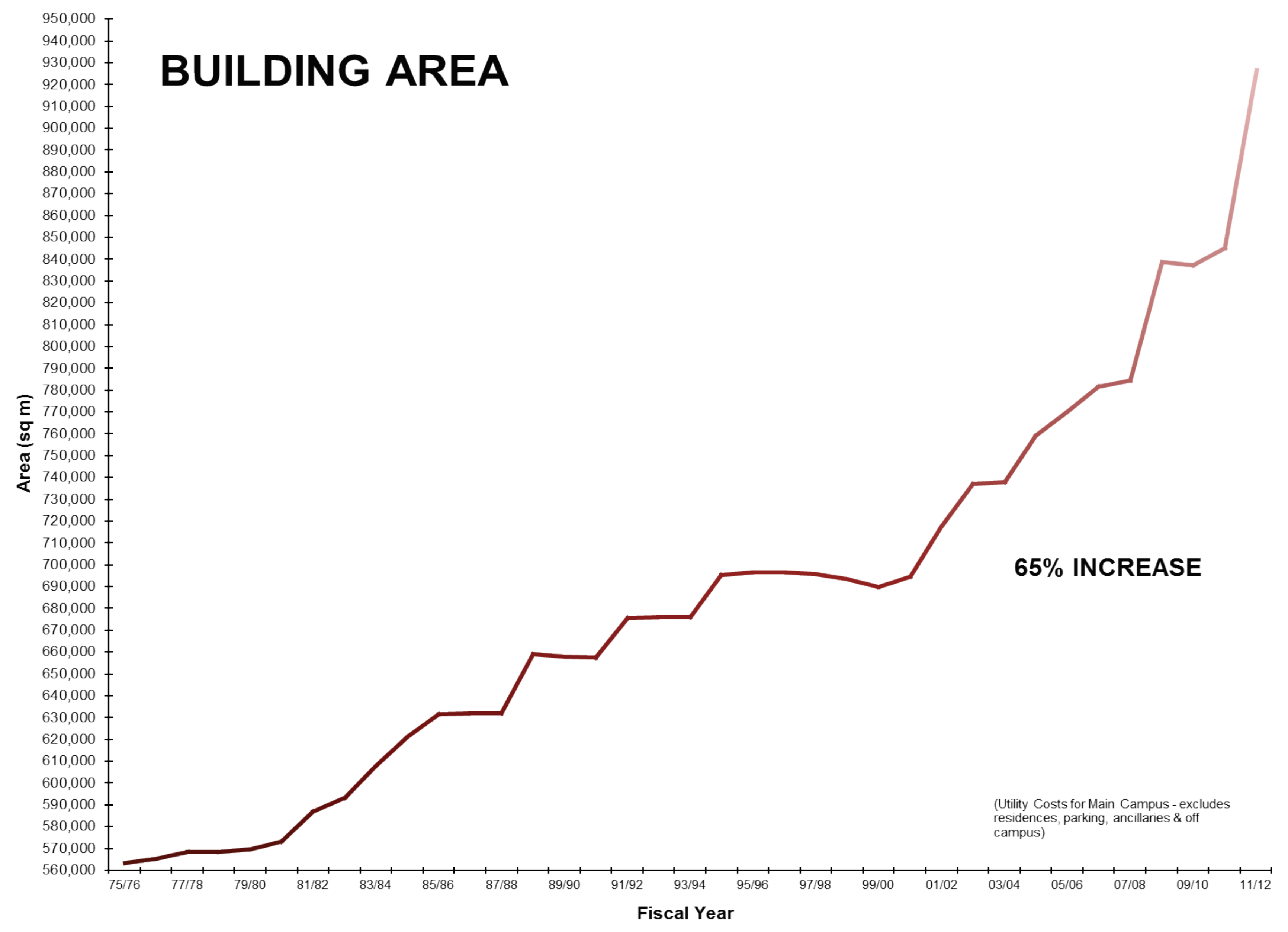
99/00
00/01
01/02
02/03
03/04
04/05
05/06
06/07
07/08
08/09
09/10
10/11
11/12
Accumulated cost
Avoidance exceeds
$288,357,678.96
WITHOUT
Energy Conservation Measures
WITH
Energy Conservation Measures
2011/12 Cost Avoidance
$14,277,290
UTILITY COSTS - Main Campus
(exclusive of residences, parking facilities, ancillary operations and off campus facilities)
Energy use reductions are counteracted by increasing utility rates
resulting in ever increasing utility costs.


BUILDING AREA
Area (sq m)
950,000
940,000
930,000
920,000
910,000
900,000
890,000
880,000
870,000
860,000
850,000
840,000
830,000
820,000
810,000
800,000
790,000
780,000
770,000
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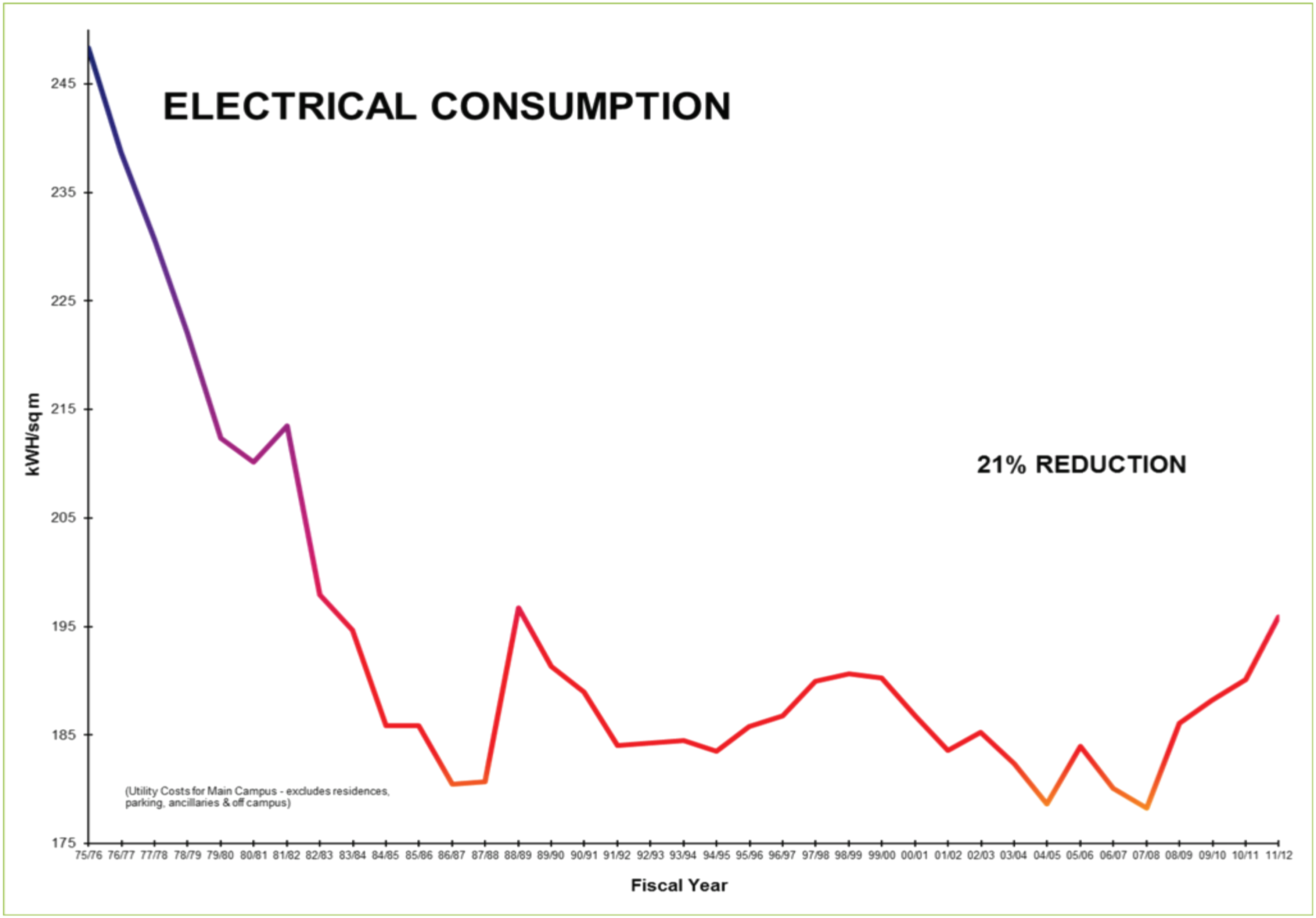
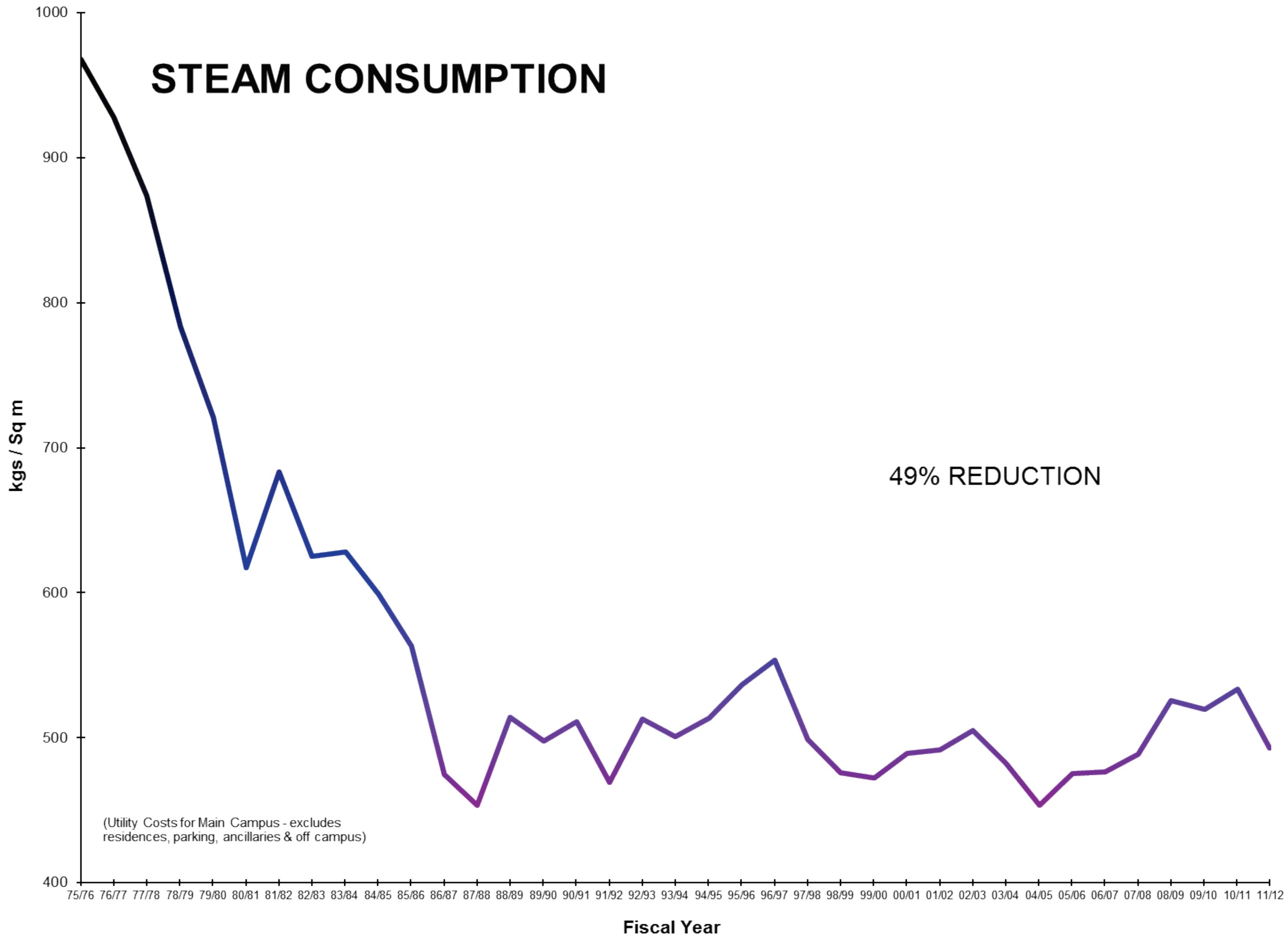
580,000
570,000
560,000
75/76
77/78
79/80
81/82
83/84
85/86
87/88
89/90
91/92
93/94
95/96
97/98
99/00
01/02
03/04
05/06
07/08
09/10
11/12
Fiscal Year
65% INCREASE
(Utility Costs for Main Campus - excludes residences, parking, ancillaries & off campus)

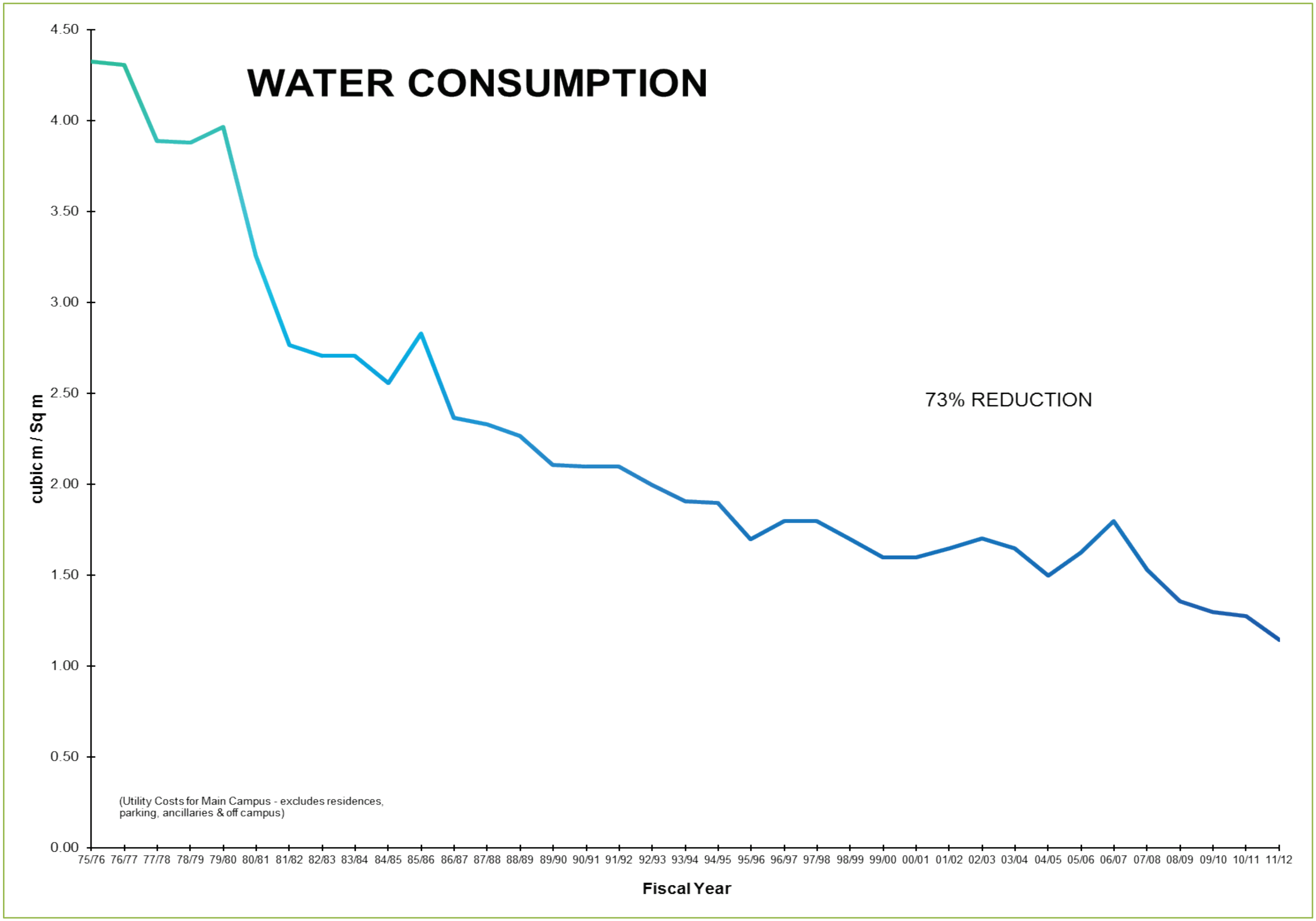

ELECTRICAL CONSUMPTION
21% REDUCTION
kWH/sq m
245
235
225
215
205
195
185
175
(Utility Costs for Main Campus - excludes residences, parking, ancillaries & off campus)
75/76 76/77 77/78 78/79 79/80 80/81 81/82 82/83 83/84 84/85 85/86 86/87 87/88 88/89 89/90 90/91 91/92 92/93 93/94 94/95 95/96 96/97 97/98 98/99 99/00 00/01 01/02 02/03 03/04 04/05 05/06 06/07 07/08 08/09 09/10 10/11 11/12
Fiscal Year



STEAM CONSUMPTION

49% REDUCTION

(Utility Costs for Main Campus - excludes residences, parking, ancillaries & off campus)


WATER CONSUMPTION
73% REDUCTION
cubic m / Sq m
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
(Utility Costs for Main Campus - excludes residences, parking, ancillaries & off campus)
75/76
76/77
77/78
78/79
79/80
80/81
81/82
82/83
83/84
84/85
85/86
86/87
87/88
88/89
89/90
90/91
91/92
92/93
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95/96
96/97
97/98
98/99
99/00
00/01
01/02
02/03
03/04
04/05
05/06
06/07
07/08
08/09
09/10
10/11
11/12
Fiscal Year

Previous 7- Year Energy Management Program
Years One to Seven Assessment

Building Name	**Total Project Cost Estimate/Actual**	**Annual Cost Savings**	**Financed Payback**
YEAR 1	**Actual**	**Actual**	
Biological Sciences Lighting Upgrade	$ 1,817,773	$321,841	
VFD Projects:			
Zoology, Genetics, Microbiology, Botany	$ 218,350	$77,080	
Ruth N, Cameron, Humanities	$ 172,075	$45,076	
GSB, Mech E, EdCarpark	$ 171,000	$56,351	
Other Projects:			
Ice Arena Heat Recovery	$ 114,000	$38,490	
Law Lighting	$ 340,700	$57,170	
AgForestry Growth Chambers	$ 275,000	$81,734	
Materials Mgmt Lighting	$ 35,000	$5,163	
Extension Classroom Lighting	$ 20,000	$3,081	
GSB 4th Floor Lighting	$ 20,000	$2,884	
Exterior Lighting Upgrade	$ 71,775	$14,399	
Audits and Studies	$ 244,327		
Year 1 Total:	**$ 3,500,000**	**$703,269**	**7.03**
YEAR 2			
Medical Sciences Lighting	$ 1,150,000	$124,449	
Rutherford North Lighting	$ 706,000	$170,850	
Earth Sciences Lighting	$ 535,000	$83,410	
Ag/Forestry Centre Lighting	$ 605,000	$107,552	
Ag/Forestry Greenhouse Lighting	$ 540,000	$70,322	
Arts Building Lighting	$ 335,000	$49,832	
Exterior Lighting Upgrade	$ 39,000	$10,559	
Audits and Studies	$ 15,000		
Year 2 Total:	**$ 3,925,000**	**$616,974**	**9.25**
YEAR 3			
Van Vliet Centre E & W Lighting	$ 685,000	$89,609	
Pavilion Lighting	$ 590,000	$97,643	
H. M. Tory Lighting	$ 825,000	$115,519	
Humanities Lighting	$ 405,000	$32,182	
Extension Centre Lighting	$ 330,000	$47,014	
Exterior Lighting Upgrade	$ 130,000	$48,883	
Bio/HUB VSD’s	$350,000	$95,975	
Clare Drake Arena Ice Controls	$40,000	$6,657	
CCIS-II NLT VSD	$40,000	$14,879	
ERS F75 Poultry Research Lighting	$10,000	$1,652	
Audits and Studies	$95,000		
Year 3 Total:	**$ 3,500,000**	**$550,013**	**8.35**
YEAR 4			
Agriculture/Forestry Heat Recovery	$ 375,000	$86,799	
Biological Science Cage Washer	$ 134,000	$27,613	
Corbett Hall Lighting	$ 335,000	$36,280	
Student’s Union Lighting	$ 390,000	$58,336	
General Services Lighting	$ 365,000	$41,934	
Chemistry East Lighting	$ 463,000	$59,580	
Fine Arts Lighting	$ 462,000	$63,583	
Chemistry West Heat Recovery	$ 400,000	$191,356	
Tory, Humanities, GSB Window Tinting	$220,000	$64,086	
GSB Mechanical HVAC Optimization	$175,000	$16,304	
Audits and Studies	$181,000		
Year 4 Total:	**$ 3,500,000**	**$645,871**	**6.43**

Building Name	Total Project Cost Estimate/Actual	Annual Cost Savings	Financed Payback
YEAR 5			
Mechanical Engineering Lighting	$532,000	$74,726	
Education North Lighting	$570,000	$71,457	
Education South Lighting	$951000	$106,394	
Admin Lighting	$170,000	$14,073	
HUB Main Floor Lighting	$596,000	$69,164	
CAB Window Film	$95,000	$20,494	
Morrison Structural Lighting	$31,000	$6,343	
RTF Lighting	$5,000	$646	
RCMS Lighting	$7,000	$1,365	
GSB Condenser removal + HR	$350,000	$31,228	
Chemistry West V-Wing AHU	$20,000	$17,098	
Industrial Design Studio Lighting	$55,000	$4,933	
Audits and Studies	$118,000		
Year 5 Total:	**$ 3,500,000**	**$417,921**	**10.43**
YEAR 6			
Timms Centre Lighting	$120,000	$12,493	
CSJ Campus Lighting	$255,000	$18,780	
Augustana Campus Lighting	$350,000	$39,450	
SUB Ventilation Optimization	$105,000	$38,398	
Bio Sciences Heat Recovery	$1,060,000	$165,995	
Environmental Engineering Lighting	$26,000	$6,587	
HRIF Steam Turbine	$500,000*	$92,646*	
Htg. Plant, Corridor & Ext LED Lighting	$175,000	$40,264	
HMRC Lighting	$800,000	$107,993	
Lab Demand Based Vent Study	$109,000		
Year 6 Total:	**$ 3,500,000**	**$522,606**	**8.61**
YEAR 7			
HRIF Level 4 Controls	$210,000	$100,027	
Clinical Sciences Lighting	$1,100,000*	$87,673*	
Solar PV Projects	$275,000*	$18,491*	
Multi-AHU VSD and Controls	$930,000	$132,525	
Campus wide lighting controls	$500,000*	$57,116*	
Med. Sciences Heat Recovery	$135,000	$13,580	
GSB Rad Heating / AHU optimization	$205,000	$35,820	
Ed South Window Tint	$115,000	$27,930	
Audits and Studies	$105,000		
Year 7 Total:	**$ 3,575,000**	**$473,162**	**9.39**
PROGRAM TOTAL:	**$ 25,000,000**	**$3,929,816**	**7.54**

Notes:

* Indicates estimated amounts

1. Energy savings and payback are based on the University of Alberta Utilities department cost forecast for electricity and steam in 2013/14 to 2017/18 with escalation of 1.5% after 2017/18.
2. The previous 7-Year Energy Management Program is on track with the initial estimated cost of $25,000,000, with savings of $3,929,816 exceeding the initial estimated savings of $3,300,000 and meets targeted payback within 10 years (for Years 1-4) and 15 years (for Years 5-7).

Item No. 13

OUTLINE OF ISSUE

Agenda Title: ***Envision* Year 2 –Management Borrowing Resolution - Order in Council**

Motion: THAT the Board Finance and Property Committee recommend that the Board of Governors:

a) execute a Borrowing Resolution requesting approval of financing the second year of the seven-year *Envision* energy management program in an amount not to exceed Five Million Dollars ($5,000,000.00) in Canadian funds for a term not to exceed fifteen (15) years at an interest rate not to exceed seven percent (7.0%); and

b) make application to the Minister of Enterprise and Advanced Education for the required approval of the Lieutenant Governor in Council.

Item

Action Requested	☐Approval ☒Recommendation ☐Discussion/Advice ☐Information
Proposed by	Don Hickey, Vice-President (Facilities and Operations)
Presenter	Don Hickey, Vice-President (Facilities and Operations), Len Sereda Director, Energy Management and Sustainable Operations (Facilities and Operations)
Subject	*Envision* Year 2 - Financing

Details

Responsibility	Vice-President (Facilities and Operations)
The Purpose of the Proposal is (please be specific)	To obtain financing to fund the implementation of the second year of the seven-year *Envision* energy management program. A borrowing resolution and borrowing motion requires the approval of the Board of Governors, based on the recommendation of Board Finance and Property Committee, in order that the required Order in Council may be obtained from the Government of Alberta prior to undertaking the implementation.
The Impact of the Proposal is	Allows implementation of the second year of the *Envision* energy management program to achieve energy savings. Other benefits achieved are reduced operating and maintenance costs, improved space conditions, infrastructure renewal to address deferred maintenance, reduction of greenhouse gas emissions, and support of and commitment to sustainable development.
Replaces/Revises (eg, policies, resolutions)	N/A
Timeline/Implementation Date	April 2014 – March 2015
Estimated Cost	$5,000,000.00
Sources of Funding	Borrowing of $5,000,000.00 from the Alberta Capital Finance Authority with payback from the energy savings.
Notes	The financial analysis, projected cash flow, and payment schedule that would be required to service a $5,000,000.00 loan over a fifteen-year term, modeled on two interest rate scenarios is included in the attached document titled, *Envision* Year 2*, 2013-2014*, dated October 10, 2013. The 5.5% interest rate scenario is a more likely scenario, with interest rates potentially being less. *(The lending rate from the Alberta Capital Finance Authority (ACFA) as of October 1, 2013, is 3.329% per annum for a fifteen-year amortization period.)* To establish an upper limit for borrowing purposes, an analysis and cash

	flow projection was also performed to determine the effect if inflationary pressures caused interest rates to rise above the 5.5% used in the model, with concurrent inflation/escalation on the utility rates. The fifteen-year amortization financial model can support interest rate increases up to 7% with 1.5% escalation in utility rates beyond 2017/2018.

Alignment/Compliance

Alignment with Guiding Documents	Dare to Deliver; Comprehensive Institutional Plan
Compliance with Legislation, Policy and/or Procedure Relevant to the Proposal (please quote legislation and include identifying section numbers)	PSLA, Section 60 (1)(b) refers: *The Board of a public post-secondary institution shall develop, manage and operate, alone or in co-operation with any person or organization, programs, services and facilities for the educational or cultural advancement of the people of Alberta* PSLA, Section 72 (1)(2) and (3) refers: *Borrowing* *72* ***(1)*** *A board may borrow from any bank or treasury branch or from any other person any sum of money required to meet the expenses of the public post-secondary institution until the time the revenues for the current year are available.* ***(2)*** *Any borrowings made pursuant to subsection (1) must be repaid out of and are a first charge on the revenues of the current year, and may be secured by a promissory note or notes given on behalf of the board in any manner the board may arrange.* ***(3)*** *Subject to the approval of the Minister, a board may for the purposes of the public post-secondary institution, as defined in section 73, borrow by way of temporary loans from any bank or treasury branch or from any other person any sums of money on any terms that the board determines, by way of an overdraft or line of credit or by the pledging as security for the temporary loans of notes, bonds, debentures or other securities of the board pending the sale of them, or instead of selling them, or in any other manner the board determines.* BFPC Terms of Reference, Section 3(f) refers: *f) approve capital expenditures to a maximum of $7 million. The Vice-President (Facilities and Operations) and BFPC are authorized to approve individual Supplemental CEARs on a project up to a maximum of 50% of their original signing authority limit. The aggregate total of all Supplemental CEARs cannot exceed the total Supplemental CEAR limit.*

Routing (Include meeting dates)

Consultative Route (parties who have seen the proposal and in what capacity)	▪ Associate Vice-President, Facilities & Operations – October 2013 ▪ Vice-President, Facilities & Operations – October 2013 ▪ Presidents Executive Committee – Operations – October 24, 2013
Approval Route (Governance) (including meeting dates)	1. Board Finance and Property Committee – November 26, 2013 2. Board of Governors – December 13, 2013
Final Approver	Board of Governors

Attachments:

1. Attachment 1 - Document titled, *Envision* Year 2*, 2013-2014*, dated October 10, 2013 (21 Pages) (attached to Item 12)
2. Attachment 2 - Borrowing Resolution (2 Pages)

Prepared by: Len Sereda, Director, Energy Management & Sustainable Operations
4th Floor General Services Building, Phone: 780-492-2209, Email: len.sereda@ualberta.ca

ENvision

INTELLIGENT ENERGY REDUCTION

Year 2

2013-14

October 10, 2013

UNIVERSITY OF ALBERTA
FACILITIES AND OPERATIONS

Table of Contents

Section 1 Introduction

A very successful Energy Management Program has been in place at the University of Alberta since the mid-1970s. The University's program resulted in an annual cost avoidance of $14,200,000 in 20011/2012, with accumulated cost avoidance in excess of $288,000,000 achieved since its inception in 1975/1976. As well the program has resulted in a cumulative reduction in excess of 2,400,000 tonnes of CO_2.

Notwithstanding the University's past success, including that of the most recent $25,000,000 program currently nearing completion, significant energy reduction opportunities remain. Continuation of a major energy reduction implementation is warranted to keep our energy bill as low as cost effectively feasible.

Other benefits that would also result are:

- reduced operating and maintenance costs
- improved lighting quality and space conditions
- infrastructure renewal to address deferred maintenance
- reduced demand on utility plant and distribution infrastructure
- significant environmental benefits

Continuation of this long-standing program also further demonstrates the University's solid and on-going actions and commitment to sustainability. As well, actions taken by the University of Alberta to improve energy efficiency align with the strategic direction of the University and contribute to city-wide, regional, provincial and national efforts to reduce the impact of greenhouse gas emissions on the global climate.

The previously developed *Next Generation Energy Management Program* business case dated May 5, 2011 that identified a $35,000,000 energy management program is the basis for the current program underway. A copy of this document is available upon request. Annual savings at the completion of the program are estimated to be approximately $3,800,000 and CO_2 emission reductions are anticipated to be in the order of 30,000 tonnes.

The purpose of this report is to provide background on the previous energy management program being completed, and to indicate the current status of projects underway as part of the first year of the next generation 7-year program rebranded under the name *Envision*. It will also identify projects being developed for the second year of the new program, review the program approach, and provide recommendations for continuation of a successful program.

Section 2 Background

The University is currently completing its most recent seven-year, $25,000,000 Energy Management Program, which is anticipated to save approximately $3,900,000 annually and reduce CO_2 emissions by 27,000 tonnes per year. Information on the program and on its performance is included in the appendices.

Parallel to the execution of the most recent program, a Next Generation Energy Management Program was developed in the spring of 2011 to identify the magnitude of further energy reduction potential on campus, duration of implementation, annual levels of funding required, benefits and business case, as well as the possible funding options for consideration and senior decision-making. The next generation program was also developed to confirm University long-term support and commitment for a long-range program with steady and stable funding solutions.

The program identified the potential for $35,000,000 of energy management implementations phased over a 7-year period ($5 million/year). Annual savings at the completion of the 7-year program are estimated to be in the order of $3,800,000 and CO_2 emission reductions are anticipated to be in the order of 30,000 tonnes.

Board of Governors approval for the program and to borrow $5,000,000 from the Alberta Capital Finance Authority to finance the implementation of the first year of the program was obtained in June 2011. An Order-in-Council from the Alberta Government was received in December 2011 to authorize borrowing.

As part of the launch of the new generation, the Energy Management Program was rebranded under the name *Envision;* a fusion of the words energy and vision. *Envision* and the new tag line *Intelligent Energy Reduction* speaks to the program's commitment to adopting new technologies and approaches that advance sustainability on campus today, while continuously looking to the future and seeking out the most intelligent energy reduction solutions for generations to come.

Year 1 of the *Envision* program is currently in progress. Preliminary audits and feasibility studies have been developed for Year 2 of the program for subsequent implementation pending approvals.

Section 3 Potential Energy Reduction Measures

While further detailed energy auditing and analysis is required to determine the full extent of cost-effective potential energy reduction measures in each facility, the following list represents the potential actions that exist and the known types of typical implementations that can be undertaken.

- Lighting system upgrades and retrofits
- Fan system upgrades
- Upgrades and improvements in efficiency to heating, ventilating, and air-conditioning systems
- Re-commissioning and system optimization
- Fume hood replacements and controls upgrades
- High efficiency motor replacements
- Waste heat recovery systems (air and water)
- Variable speed drive installations (fans and pumps)
- Controls systems modifications and upgrades
- Automation of building room controls
- Piping and equipment insulation
- Building envelope sealing and upgrades
- Micro-steam turbines

In addition to the preceding list, the seven-year *Envision* program will also focus on several additional program areas, including;

- water conservation
- infrastructure renewal and energy reduction synergies
- energy reduction for Ancillary Services
- renewable energy
- education and awareness

Section 4 *Envision* Year One

The following projects are currently in progress:

Augustana Residence Lighting Retrofit
Camrose Performing Arts Centre (CPAC) Energy Efficiencies and Renewable Energy
PAW Centre Energy Efficiencies and Renewable Energy
Katz Lab Optimization
Li-Ka Shing Lab Optimization
Waste to Energy High Solids Anaerobic Digester Facility (HSADF)

The Augustana project is complete and the CPAC and PAW Centre projects are currently under construction. The remaining three projects are currently in the design phase.

The above projects are on track with the $5,000,000 budget for year one and with payback within 15 years.

Section 5 *Envision* Year Two

Preliminary assessment and early project identification has been conducted for the second year of the *Envision* program. The following projects have been identified and are currently being further investigated and developed:

CCIS Lab Optimization
Agriculture Forestry Lab Optimization
Chemistry West Lab Optimization
Agri-Food Discovery Lab Optimization
Parkade Lighting Retrofits – Education, Timms/Telus, Stadium, Windsor
Steam System Insulation – Medical Sci, Biological Sciences, Agriculture Forestry
Pump System VSD's and Controls - Medical Sci, Bio Sci, Agriculture Forestry
South Academic Building Window Replacement
Small Scale Solar PV – CMEB & ICE Buildings
Domestic Water Reduction –Students Union, School of Business

Based on the analysis to date, the estimated cost for implementation of Year 2 of the *Envision* program is $5,000,000. Average annual energy savings from this implementation over the fifteen-year period is estimated in the order of $596,000. Based on Utility forecasts to 2017/18 and a 1.5% escalation thereafter, payback of the second year of the program occurs within a fifteen year period. As in the previous seven-year Energy Management Program and in the first year of the *Envision* program, it is proposed that these projects be financed through borrowing from the Alberta Capital Finance Authority over a fifteen-year amortization period.

Financial feasibility is checked through each stage of development of a project (preliminary feasibility, detailed audit, preliminary design, detailed design, and tender) with project costs and energy savings refined at each stage of the process to confirm viability. Projects are modified if necessary during the various development stages to maintain feasibility. As well, the annual programs and the program as a whole are reviewed on an on-going basis to confirm viability.

Section 6 Program Approach and Funding

The University of Alberta has significant expertise and experience in energy management, and has effectively managed successive initiatives since the mid-1970s. The energy reduction projects which are being proposed for the *Envision* program are consistent with past proven projects with successful financial performance.

A number of funding considerations and implementation approaches to execute the program have been reviewed and assessed. These included traditional capital funding, infrastructure maintenance funding, internal-financing via the Investment Office, as well as an Energy Performance Contracting (EPC) approach.

Traditional capital funding or infrastructure maintenance funding specifically for energy management initiatives is not available at this time due to other funding priorities. Limitations exist on the use of internal financing through the University's Investment Office due to the amount of internal financing available at any one time, as well as limits on the amortization periods.

The University undertook a very intensive investigation, analysis, and assessment of the EPC approach as an alternative method to implementing energy reduction projects a number of years ago. This process included an actual Request for Proposal on the Education Complex, a review of vendor submissions, and interviews with the vendors to obtain the necessary information and data to conduct this analysis. In general it was found that this approach resulted in long paybacks, and that the monitoring, verification, and administration of these contracts over the long term in a dynamic setting such as the University would be very administratively and resource-intensive. It was also found that there were substantial cost premiums involved with the EPC approach in comparison to the University's own proven previous experience and approach in managing the execution of this type of work. These cost premiums, which can be upwards of or in excess of 30%, substantially increase the cost of the work, result in long paybacks, and do not add any capital upgrading value to the University. In conclusion it was determined that the EPC approach did not effectively meet the University's needs, was not in its best interests, and did not offer any real advantages in an area of work that the University is very familiar with, and which the University has very effectively managed for over 35 years.

The University of Alberta may be unique to other institutions due to its size, and that it has significant experience, expertise, and capabilities in the energy management area. The University's goal has always been to maximize and make best use of the available dollar, and the University needs to retain the flexibility to assess and use the approach that best meets its needs for specific types of work.

The most recent seven-year Energy Management Program currently being completed has been successfully implemented by borrowing from the Alberta Capital Finance Authority (ACFA) with payback from the energy savings over an amortization period of ten years (for Years 1 to 4) and fifteen years (for Years 5 to 7 of the program). As the loans from the current seven-year program begin to successively retire, starting in 2015/16, these savings can be reinvested into the next generation of energy management program and other sustainability initiatives.

The University has significant knowledge and experience in, and has very effectively managed, an ongoing Energy Management Program for over 35 years. A financing approach through ACFA to fund the second and subsequent years of the *Envision* program with payback from the energy savings, allows the University to continue its effective management and implementation of an ongoing program. As individual loans are paid off, the subsequent energy savings can be applied to further energy reduction initiatives, sustainability programs, or debt reduction on remaining energy management program loans.

The use of an ACFA approach does not preclude various combinations of funding options, depending on the circumstances, to provide maximum flexibility and effectiveness throughout implementation of the program, and best meet the needs of the University.

Opportunities are sought and taken where feasible, to implement energy management initiatives in conjunction with maintenance, infrastructure renewal, or facility alteration projects where energy savings, operational, maintenance, space environmental benefits, and infrastructure upgrades will collectively occur, but cannot be achieved totally on energy savings or capital or operational dollars alone. This allows an optimization of available funding and an efficient use of resources to mutual benefit.

It should be noted that while the University manages the *Envision* program, the private sector is primarily used in the actual implementation of the various projects. Preliminary audits, detailed audits, engineering design, and tender/construction phase services are contracted to various external consulting engineering firms, and the construction is executed by various external contractors.

Section 7 Financial Plan

Financial Analysis

Following is the financial analysis for the second year of the *Envision* program and the cash flow projection and payment schedule that would be required to service a $5,000,000 loan over a fifteen-year term, modeled at an anticipated interest rate of 5.5%. *(The lending rate from the Alberta Capital Finance Authority (ACFA) as of October 1, 2013, is 3.329% per annum for a fifteen-year amortization period.)*

To establish an upper limit for borrowing purposes, an analysis and cash flow projection was also performed to determine the effect if inflationary pressures caused interest rates to rise above the 5.5% used in the model, with concurrent inflation/escalation on the utility rates. The fifteen-year amortization financial model can support interest rate increases up to 7% with 1.5% escalation in utility rates.

The energy savings are based on the University of Alberta Utilities Department energy rate forecasts to 2017/18 with a 1.5% per year escalation in utility rates thereafter.

The net present value (NPV)[1] for Year-2 of the program with a fifteen year amortization period is $3,634,190.

The internal rate of return (IRR) for Year-2 of the program with a twenty-five year economic life is 11.27%.[2]

The 11.27% IRR is well above the opportunity cost of capital at 4%, and the NPV is positive, which would indicate good project viability for Year-2 of the *Envision* program.

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[1] NPV is the value of the monetary impact of the project in terms of today's dollars, i.e. if all future cash flows are discounted into today's dollars, and the cost of the project is subtracted, this will give a NPV total. If the total is positive the project is deemed as acceptable, if negative it is not. For this analysis, an opportunity cost of capital of 4% was used and financing costs were assumed to be 7.0%.

[2] IRR is a measure of the interest yield on a project over its useful life. As long as the IRR is greater than the opportunity cost of capital (4.0%), the project is deemed acceptable.

Likely Projected Cash Flow, Loan Payment and Savings Schedule

15 Year Amortization Period, 5.5% Interest Model

Fiscal Year	Project Expense	Energy Savings	ACFA Loan Payment	Principal	Loan Interest 5.5%	ACFA Loan Balance	Net Cumulative Cash Flow
Apr 2014	$70,000						-$70,000
May 2014	$70,000						-$140,000
Jun 2014	$100,000						-$240,000
Jul 2014	$140,000						-$380,000
Aug 2014	$190,000						-$570,000
Sept 2014	$540,000						-$1,110,000
Oct 2014	$720,000						-$1,830,000
Nov 2014	$740,000						-$2,570,000
Dec 2014	$630,000						-$3,200,000
Jan 2015	$610,000						-$3,810,000
Feb 2015	$600,000						-$4,410,000
Mar 2015	$590,000		$5,000,000				$0
2014/15		$605,000	($498,128)	$223,128	$275,000	$4,776,872	$106,872
2015/16		$636,366	($498,128)	$235,400	$262,728	$4,541,472	$245,110
2016/17		$584,408	($498,128)	$248,347	$249,781	$4,293,125	$331,390
2017/18		$546,018	($498,128)	$262,006	$236,122	$4,031,119	$379,280
2018/19		$554,208	($498,128)	$276,416	$221,712	$3,754,702	$435,361
2019/20		$562,522	($498,128)	$291,619	$206,509	$3,463,083	$499,755
2020/21		$570,959	($498,128)	$307,658	$190,470	$3,155,425	$572,586
2021/22		$579,524	($498,128)	$324,580	$173,548	$2,830,845	$653,982
2022/23		$588,217	($498,128)	$342,432	$155,696	$2,488,413	$744,070
2023/24		$597,040	($498,128)	$361,265	$136,863	$2,127,148	$842,982
2024/25		$605,996	($498,128)	$381,135	$116,993	$1,746,013	$950,850
2025/26		$615,085	($498,128)	$402,097	$96,031	$1,343,916	$1,067,807
2026/27		$624,312	($498,128)	$424,213	$73,915	$919,704	$1,193,991
2027/28		$633,676	($498,128)	$447,544	$50,584	$472,159	$1,329,540
2028/29		$643,182	($498,128)	$472,159	$25,969	$0	$1,474,593
2029/30		$652,829		$0	$0	$0	$2,127,422
2030/31		$662,622		$0	$0	$0	$2,790,044
2031/32		$672,561		$0	$0	$0	$3,462,605
2032/33		$682,649		$0	$0	$0	$4,145,255
2033/34		$692,889		$0	$0	$0	$4,838,144
2034/35		$703,283		$0	$0	$0	$5,541,426
2035/36		$713,832		$0	$0	$0	$6,255,258
2036/37		$724,539		$0	$0	$0	$6,979,798
2037/38		$735,407		$0	$0	$0	$7,715,205
2038/39		$746,438		$0	$0	$0	$8,461,643
TOTAL		**$15,933,563**	**($7,471,920)**	**$5,000,000**	**$2,471,920**		**$8,461,643**

Projected Cash Flow, Loan Payment, and Savings Schedule

(To establish upper limit of borrowing)

15 Year Amortization Period, 7.0% Interest Model

Fiscal Year	Project Expense	Energy Savings	ACFA Loan Payment	Principal	Loan Interest 7.0%	ACFA Loan Balance	Net Cumulative Cash Flow
Apr 2014	$70,000						-$70,000
May 2014	$70,000						-$140,000
Jun 2014	$100,000						-$240,000
Jul 2014	$140,000						-$380,000
Aug 2014	$190,000						-$570,000
Sept 2014	$540,000						-$1,110,000
Oct 2014	$720,000						-$1,830,000
Nov 2014	$740,000						-$2,570,000
Dec 2014	$630,000						-$3,200,000
Jan 2015	$610,000						-$3,810,000
Feb 2015	$600,000						-$4,410,000
Mar 2015	$590,000		$5,000,000				$0
2014/15		$605,000	($548,973)	$198,973	$350,000	$4,801,027	$56,027
2015/16		$636,366	($548,973)	$212,901	$336,072	$4,588,126	$143,420
2016/17		$584,408	($548,973)	$227,804	$321,169	$4,360,321	$178,855
2017/18		$546,018	($548,973)	$243,751	$305,222	$4,116,571	$175,900
2018/19		$554,208	($548,973)	$260,813	$288,160	$3,855,757	$181,135
2019/20		$562,522	($548,973)	$279,070	$269,903	$3,576,687	$194,684
2020/21		$570,959	($548,973)	$298,605	$250,368	$3,278,082	$216,670
2021/22		$579,524	($548,973)	$319,507	$229,466	$2,958,575	$247,221
2022/23		$588,217	($548,973)	$341,873	$207,100	$2,616,702	$286,464
2023/24		$597,040	($548,973)	$365,804	$183,169	$2,250,898	$334,531
2024/25		$605,996	($548,973)	$391,410	$157,563	$1,859,488	$391,553
2025/26		$615,085	($548,973)	$418,809	$130,164	$1,440,679	$457,666
2026/27		$624,312	($548,973)	$448,126	$100,848	$992,553	$533,004
2027/28		$633,676	($548,973)	$479,494	$69,479	$513,059	$617,708
2028/29		$643,182	($548,973)	$513,059	$35,914	$0	$711,916
2029/30		$652,829		$0	$0	$0	$1,364,745
2030/31		$662,622		$0	$0	$0	$2,027,367
2031/32		$672,561		$0	$0	$0	$2,699,928
2032/33		$682,649		$0	$0	$0	$3,382,578
2033/34		$692,889		$0	$0	$0	$4,075,467
2034/35		$703,283		$0	$0	$0	$4,778,749
2035/36		$713,832		$0	$0	$0	$5,492,581
2036/37		$724,539		$0	$0	$0	$6,217,121
2037/38		$735,407		$0	$0	$0	$6,952,528
2038/39		$746,438		$0	$0	$0	$7,698,966
TOTAL		**$15,933,563**	**($8,234,597)**	**$5,000,000**	**$3,234,597**		**$7,698,966**

Section 8 Conclusion and Recommendations

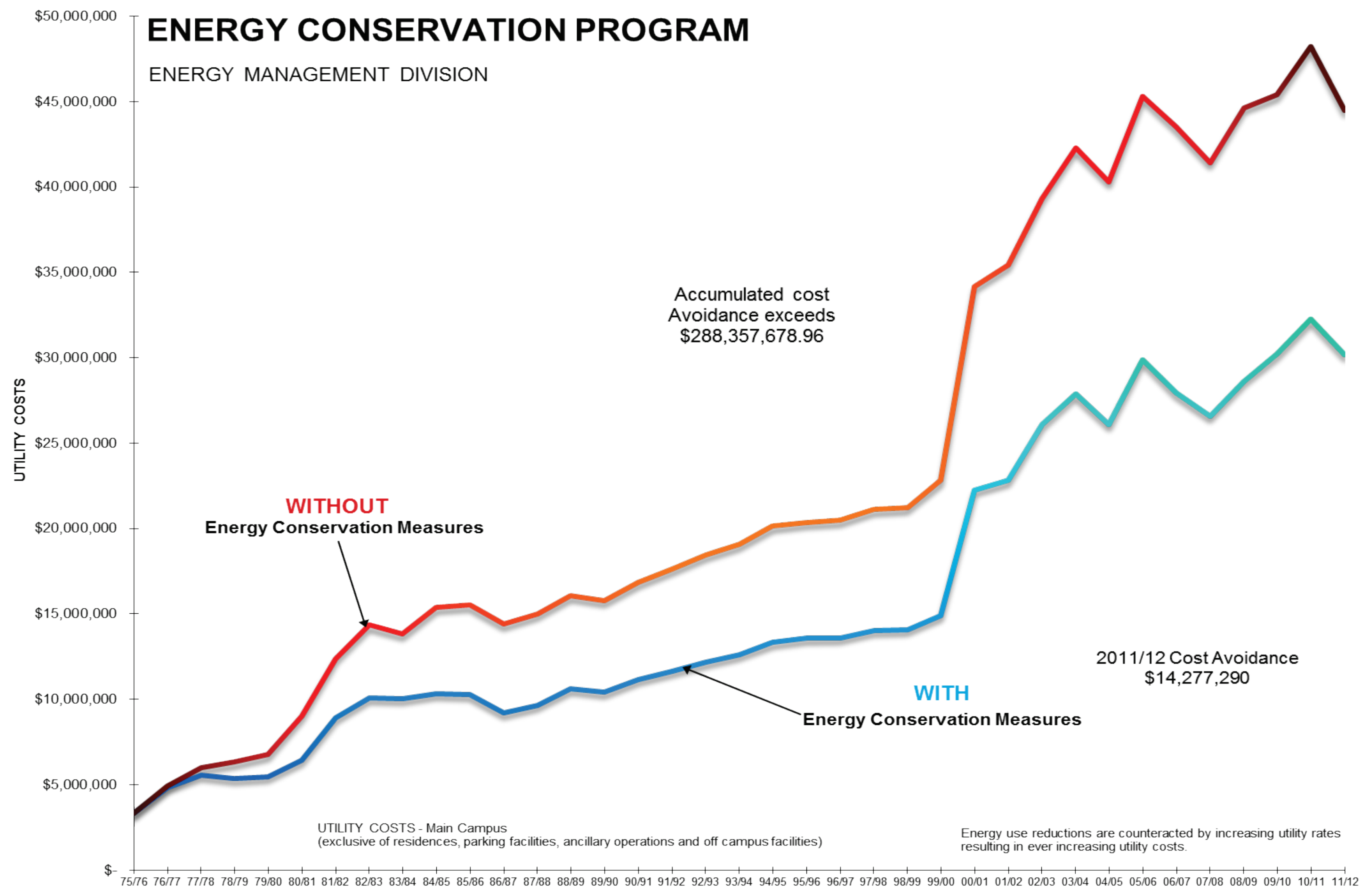
Notwithstanding the University's past success, including that of the program currently being completed, significant energy reduction opportunities remain. Continuation of a major energy reduction implementation is warranted to keep our energy bill as low as cost effectively feasible, reduce our consumption of non-renewable resources, minimize our environmental impact, demonstrate our commitment to sustainability, and realize many other benefits.

It is recommended that:

- The University reaffirms its strong commitment to energy management and sustainability, by supporting development and implementation of the second year of the *Envision* program in the amount of $5,000,000.
- The University borrow not more than $5,000,000 from the Alberta Capital Finance Authority for a term not to exceed fifteen years at an interest rate not to exceed 7% for the purpose of funding the second year of the seven-year *Envision* program.

APPENDICES

1. Utility Costs - With vs. Without Energy Conservation
2. Building Area
3. Electrical Consumption
4. Steam Consumption
5. Water Consumption
6. Previous Energy Management Program Years 1-7 Assessment


ENERGY CONSERVATION PROGRAM
ENERGY MANAGEMENT DIVISION
UTILITY COSTS
$50,000,000
$45,000,000
$40,000,000
$35,000,000
$30,000,000
$25,000,000
$20,000,000
$15,000,000
$10,000,000
$5,000,000
$-
Accumulated cost
Avoidance exceeds
$288,357,678.96
WITHOUT
Energy Conservation Measures
WITH
Energy Conservation Measures
2011/12 Cost Avoidance
$14,277,290
UTILITY COSTS - Main Campus
(exclusive of residences, parking facilities, ancillary operations and off campus facilities)
Energy use reductions are counteracted by increasing utility rates
resulting in ever increasing utility costs.
75/76
76/77
77/78
78/79
79/80
80/81
81/82
82/83
83/84
84/85
85/86
86/87
87/88
88/89
89/90
90/91
91/92
92/93
93/94
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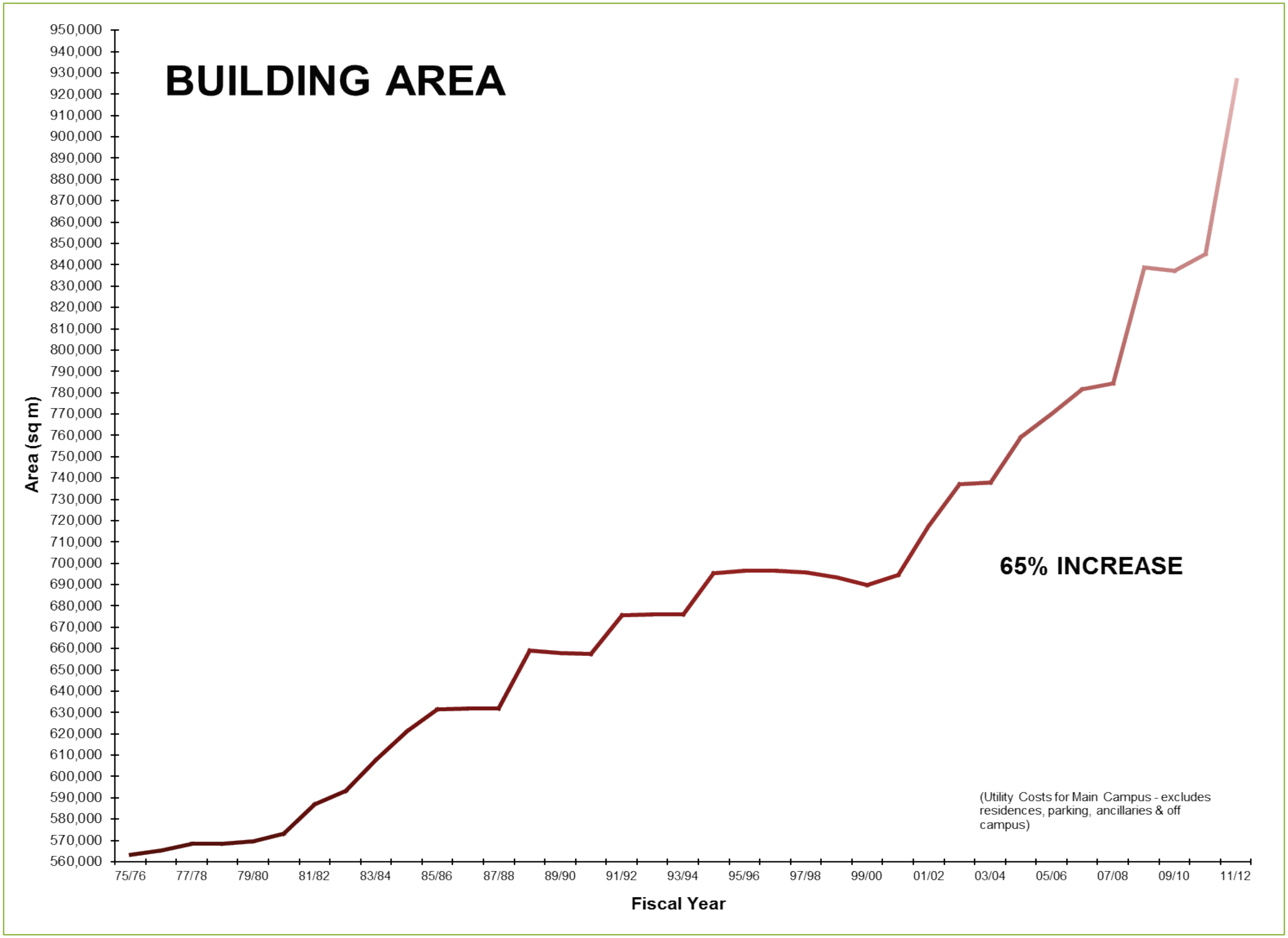
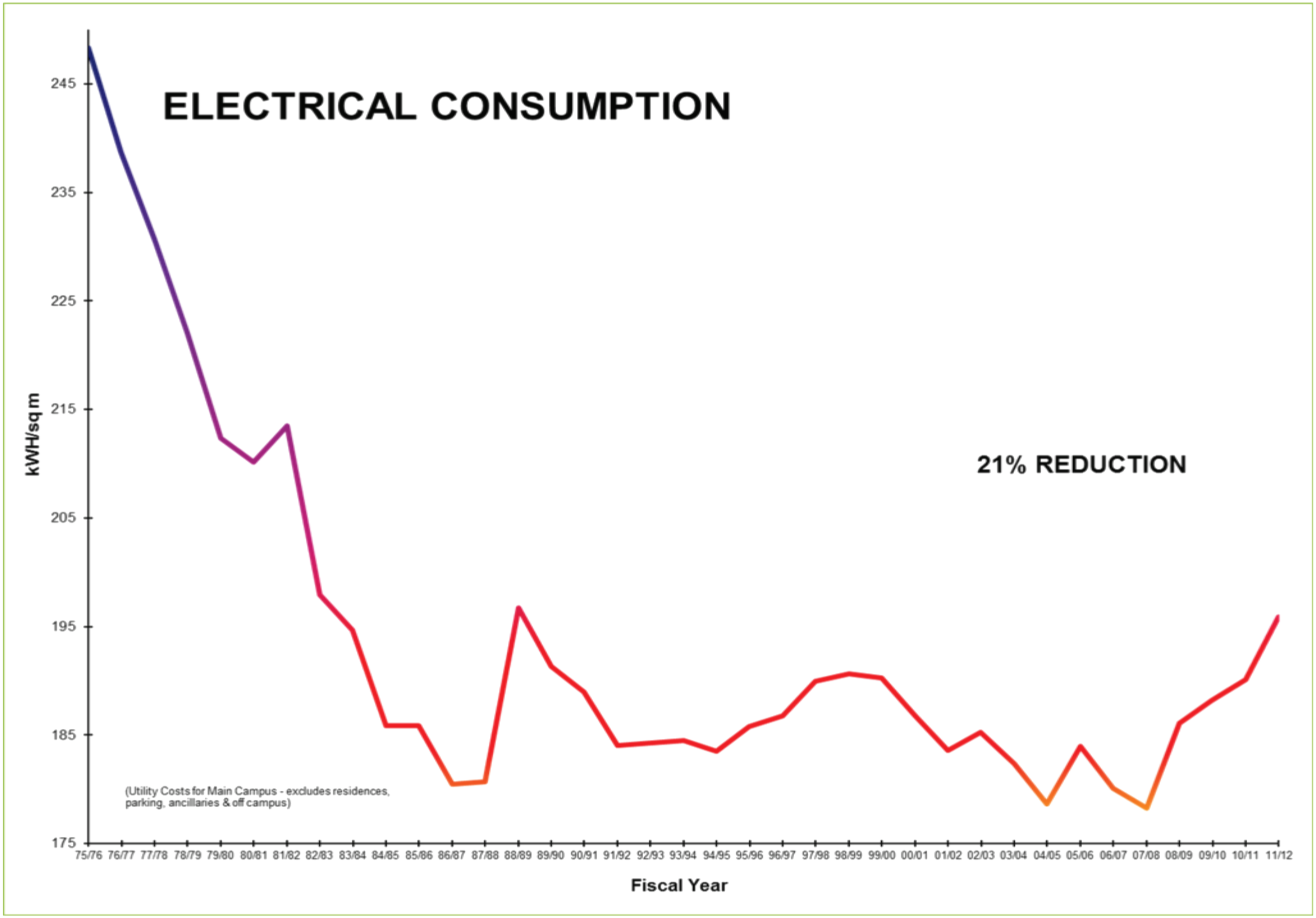
09/10
10/11
11/12



BUILDING AREA

65% INCREASE

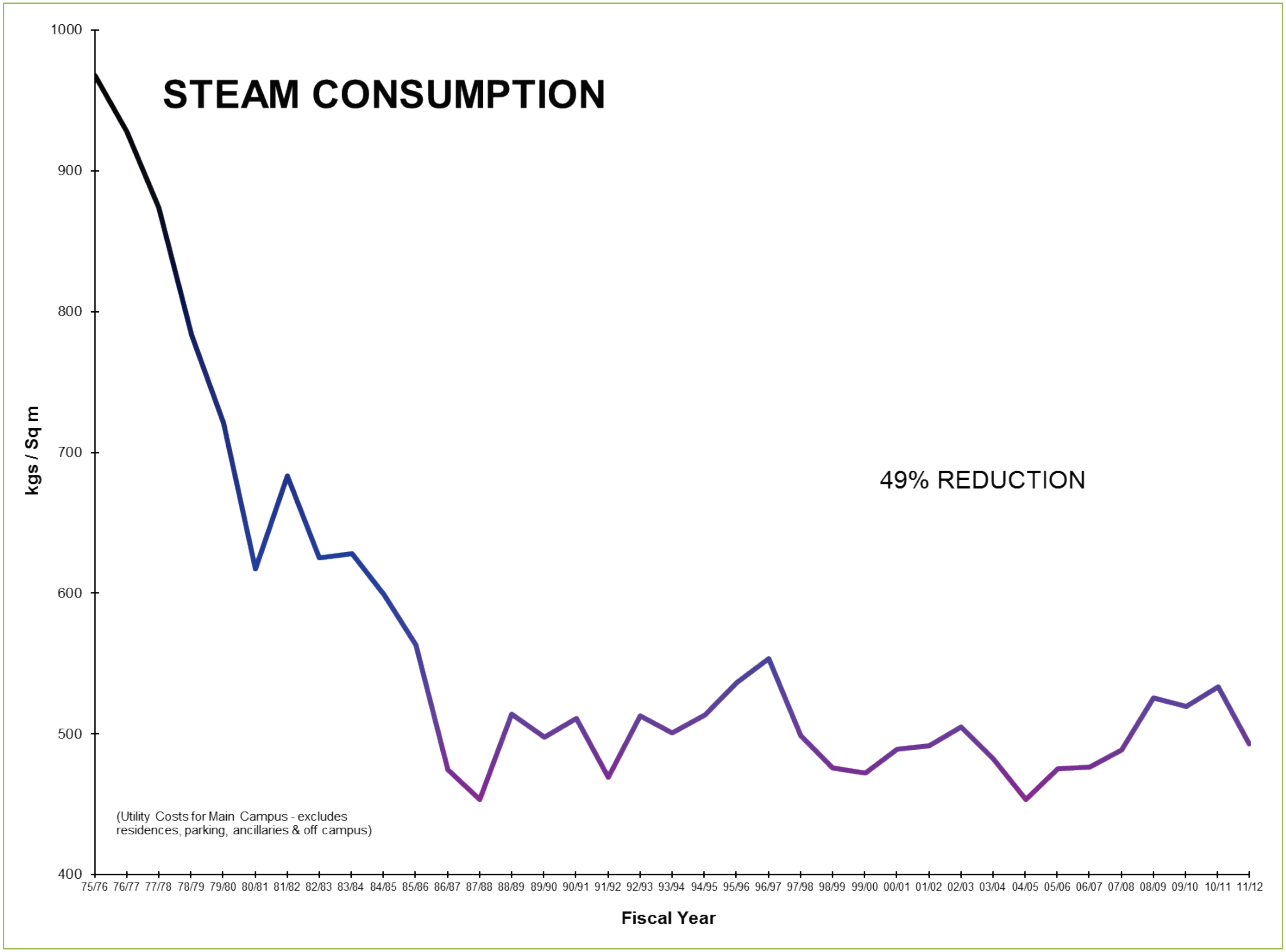
(Utility Costs for Main Campus - excludes residences, parking, ancillaries & off campus)



ELECTRICAL CONSUMPTION

21% REDUCTION

(Utility Costs for Main Campus - excludes residences, parking, ancillaries & off campus)


STEAM CONSUMPTION
49% REDUCTION
(Utility Costs for Main Campus - excludes residences, parking, ancillaries & off campus)
kgs / Sq m
1000
900
800
700
600
500
400
75/76
76/77
77/78
78/79
79/80
80/81
81/82
82/83
83/84
84/85
85/86
86/87
87/88
88/89
89/90
90/91
91/92
92/93
93/94
94/95
95/96
96/97
97/98
98/99
99/00
00/01
01/02
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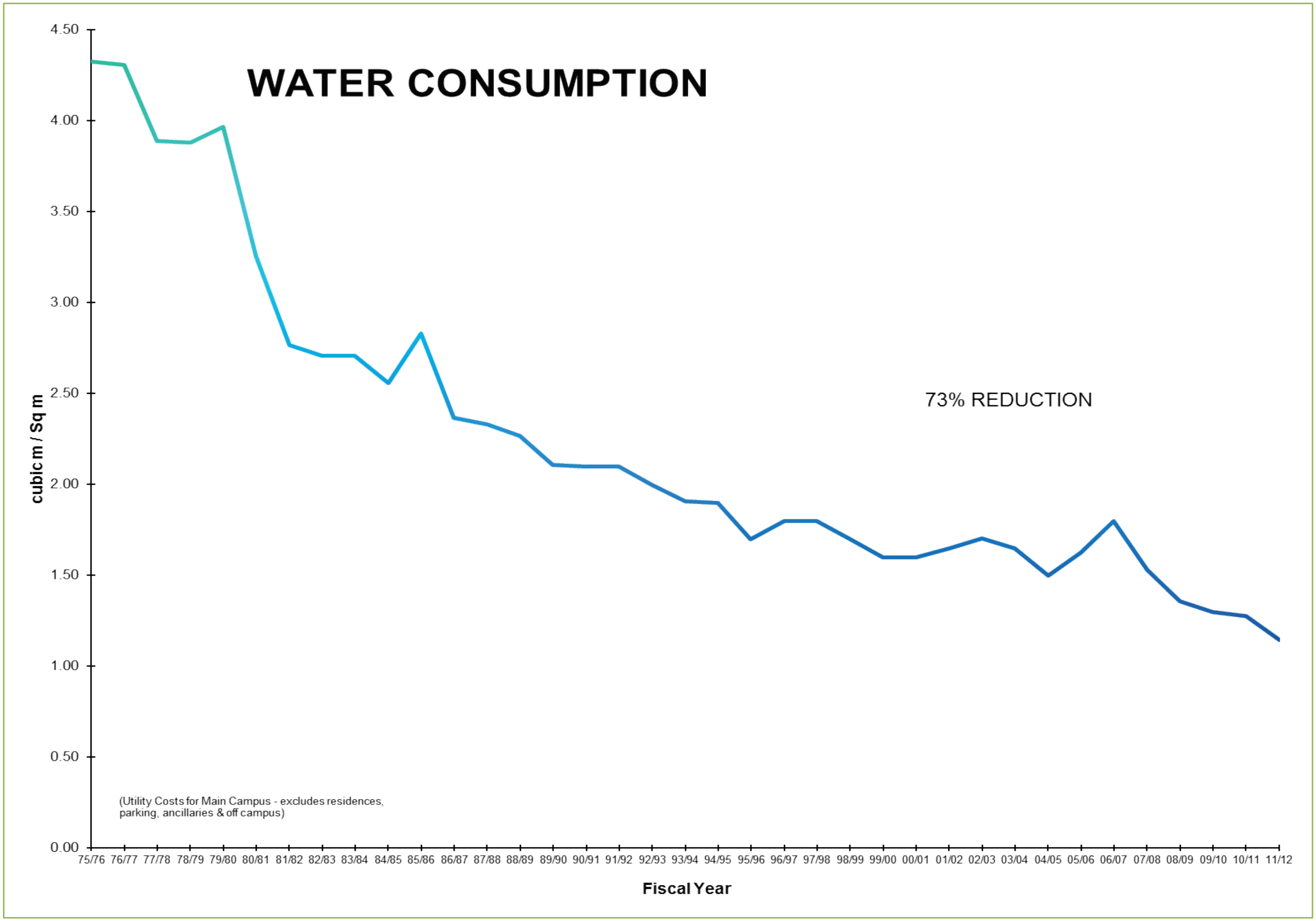
05/06
06/07
07/08
08/09
09/10
10/11
11/12
Fiscal Year


WATER CONSUMPTION
73% REDUCTION
cubic m / Sq m
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
(Utility Costs for Main Campus - excludes residences, parking, ancillaries & off campus)
75/76
76/77
77/78
78/79
79/80
80/81
81/82
82/83
83/84
84/85
85/86
86/87
87/88
88/89
89/90
90/91
91/92
92/93
93/94
94/95
95/96
96/97
97/98
98/99
99/00
00/01
01/02
02/03
03/04
04/05
05/06
06/07
07/08
08/09
09/10
10/11
11/12
Fiscal Year

Previous 7- Year Energy Management Program
Years One to Seven Assessment

Building Name	**Total Project Cost Estimate/Actual**	**Annual Cost Savings**	**Financed Payback**
YEAR 1	**Actual**	**Actual**	
Biological Sciences Lighting Upgrade	$ 1,817,773	$321,841	
VFD Projects:			
Zoology, Genetics, Microbiology, Botany	$ 218,350	$77,080	
Ruth N, Cameron, Humanities	$ 172,075	$45,076	
GSB, Mech E, EdCarpark	$ 171,000	$56,351	
Other Projects:			
Ice Arena Heat Recovery	$ 114,000	$38,490	
Law Lighting	$ 340,700	$57,170	
AgForestry Growth Chambers	$ 275,000	$81,734	
Materials Mgmt Lighting	$ 35,000	$5,163	
Extension Classroom Lighting	$ 20,000	$3,081	
GSB 4th Floor Lighting	$ 20,000	$2,884	
Exterior Lighting Upgrade	$ 71,775	$14,399	
Audits and Studies	$ 244,327		
Year 1 Total:	**$ 3,500,000**	**$703,269**	**7.03**
YEAR 2			
Medical Sciences Lighting	$ 1,150,000	$124,449	
Rutherford North Lighting	$ 706,000	$170,850	
Earth Sciences Lighting	$ 535,000	$83,410	
Ag/Forestry Centre Lighting	$ 605,000	$107,552	
Ag/Forestry Greenhouse Lighting	$ 540,000	$70,322	
Arts Building Lighting	$ 335,000	$49,832	
Exterior Lighting Upgrade	$ 39,000	$10,559	
Audits and Studies	$ 15,000		
Year 2 Total:	**$ 3,925,000**	**$616,974**	**9.25**
YEAR 3			
Van Vliet Centre E & W Lighting	$ 685,000	$89,609	
Pavilion Lighting	$ 590,000	$97,643	
H. M. Tory Lighting	$ 825,000	$115,519	
Humanities Lighting	$ 405,000	$32,182	
Extension Centre Lighting	$ 330,000	$47,014	
Exterior Lighting Upgrade	$ 130,000	$48,883	
Bio/HUB VSD's	$350,000	$95,975	
Clare Drake Arena Ice Controls	$40,000	$6,657	
CCIS-II NLT VSD	$40,000	$14,879	
ERS F75 Poultry Research Lighting	$10,000	$1,652	
Audits and Studies	$95,000		
Year 3 Total:	**$ 3,500,000**	**$550,013**	**8.35**
YEAR 4			
Agriculture/Forestry Heat Recovery	$ 375,000	$86,799	
Biological Science Cage Washer	$ 134,000	$27,613	
Corbett Hall Lighting	$ 335,000	$36,280	
Student's Union Lighting	$ 390,000	$58,336	
General Services Lighting	$ 365,000	$41,934	
Chemistry East Lighting	$ 463,000	$59,580	
Fine Arts Lighting	$ 462,000	$63,583	
Chemistry West Heat Recovery	$ 400,000	$191,356	
Tory, Humanities, GSB Window Tinting	$220,000	$64,086	
GSB Mechanical HVAC Optimization	$175,000	$16,304	
Audits and Studies	$181,000		
Year 4 Total:	**$ 3,500,000**	**$645,871**	**6.43**

Building Name	**Total Project Cost Estimate/Actual**	**Annual Cost Savings**	**Financed Payback**
YEAR 5			
Mechanical Engineering Lighting	$532,000	$74,726	
Education North Lighting	$570,000	$71,457	
Education South Lighting	$951000	$106,394	
Admin Lighting	$170,000	$14,073	
HUB Main Floor Lighting	$596,000	$69,164	
CAB Window Film	$95,000	$20,494	
Morrison Structural Lighting	$31,000	$6,343	
RTF Lighting	$5,000	$646	
RCMS Lighting	$7,000	$1,365	
GSB Condenser removal + HR	$350,000	$31,228	
Chemistry West V-Wing AHU	$20,000	$17,098	
Industrial Design Studio Lighting	$55,000	$4,933	
Audits and Studies	$118,000		
Year 5 Total:	**$ 3,500,000**	**$417,921**	**10.43**
YEAR 6			
Timms Centre Lighting	$120,000	$12,493	
CSJ Campus Lighting	$255,000	$18,780	
Augustana Campus Lighting	$350,000	$39,450	
SUB Ventilation Optimization	$105,000	$38,398	
Bio Sciences Heat Recovery	$1,060,000	$165,995	
Environmental Engineering Lighting	$26,000	$6,587	
HRIF Steam Turbine	$500,000*	$92,646*	
Htg. Plant, Corridor & Ext LED Lighting	$175,000	$40,264	
HMRC Lighting	$800,000	$107,993	
Lab Demand Based Vent Study	$109,000		
Year 6 Total:	**$ 3,500,000**	**$522,606**	**8.61**
YEAR 7			
HRIF Level 4 Controls	$210,000	$100,027	
Clinical Sciences Lighting	$1,100,000*	$87,673*	
Solar PV Projects	$275,000*	$18,491*	
Multi-AHU VSD and Controls	$930,000	$132,525	
Campus wide lighting controls	$500,000*	$57,116*	
Med. Sciences Heat Recovery	$135,000	$13,580	
GSB Rad Heating / AHU optimization	$205,000	$35,820	
Ed South Window Tint	$115,000	$27,930	
Audits and Studies	$105,000		
Year 7 Total:	**$ 3,575,000**	**$473,162**	**9.39**
PROGRAM TOTAL:	**$ 25,000,000**	**$3,929,816**	**7.54**

Notes:

* Indicates estimated amounts

1. Energy savings and payback are based on the University of Alberta Utilities department cost forecast for electricity and steam in 2013/14 to 2017/18 with escalation of 1.5% after 2017/18.
2. The previous 7-Year Energy Management Program is on track with the initial estimated cost of $25,000,000, with savings of $3,929,816 exceeding the initial estimated savings of $3,300,000 and meets targeted payback within 10 years (for Years 1-4) and 15 years (for Years 5-7).

(To be printed on University of Alberta Board Chair Letterhead)

RESOLUTION OF

THE BOARD OF GOVERNORS OF THE UNIVERSITY OF ALBERTA

(“Board of Governors”)

WHEREAS the Board of Governors, to carry out the purposes of the University of Alberta, considers it appropriate and necessary to proceed with the implementation of the second year of the seven-year *Envision* energy management program at a currently budgeted cost of Five Million Dollars in Canadian funds ($5,000,000.00) (“Project”); and

WHEREAS the Board of Governors considers it appropriate and necessary to borrow funds from the lender described in this resolution.

IT IS HEREBY RESOLVED THAT:

1. Pursuant to Section 73 of the *Post-secondary Learning Act* and subject to the prior approval of the Lieutenant Governor in Council, the Board of Governors, for the purposes of the University of Alberta, authorizes and approves the borrowing of an amount to fund the Project not to exceed Five Million Dollars ($5,000,000.00) in Canadian funds (“Loan”).

2. The Loan be:

   (a) from a lender which is the Alberta Capital Finance Authority (“Lender”) in an amount not to exceed Five Million Dollars ($5,000,000.00) in Canadian funds;
   (b) for a term not to exceed fifteen (15) years;
   (c) at an interest rate not to exceed seven percent (7.0%) per annum;

   and that within the parameters set out in this section 2, the establishment of the amount, term and interest rate be made by the Vice-President (Finance and Administration).

3. To secure the repayment of the Loan, the University of Alberta grant to the Lender such security as may be required by the Lender and agreed to by the Vice-President (Finance and Administration).

4. The Vice-President (Finance and Administration) be and is hereby authorized for and on behalf of the University of Alberta to:

   a) negotiate, execute and deliver to the Lender such notes, bonds, debentures or other securities in such form, with or without seal, and containing such terms and conditions related to amount, denomination, time and place of payment, principal and interest and redemption as the Lender requires as a condition of the Loan;

b) include in the security the Lender requires as a condition of the Loan all such securities, debentures, charges, pledges, mortgages, conveyances, assignments and transfers to or in favour of the Lender of all or any property, real or personal, moveable or immovable, owned by the University of Alberta or in which it may have an interest as the Lender may require;

c) give the Lender any other documents or contracts necessary to give or furnish to the Lender the security or securities required by the Lender including without limiting the generality of the foregoing, all or any receivables, book debts due or growing due, stocks, bonds, insurance policies, promissory notes, bills of exchange and securities of all kinds.

5. All agreements, securities, documents and instruments proposing to be signed, made, drawn, accepted, executed or endorsed as provided in this resolution shall be valid and binding on the University of Alberta.

6. The Lender shall be furnished with a signed copy of this resolution.

I hereby certify that this resolution has full force and effect on the ____ day of _______, 2013.

____
Chair of The Board of Governors of the
University of Alberta