

<b>SUBJECT</b>	<b>UBC DAIRY EDUCATION &amp; RESEARCH CENTRE – ON-SITE RESEARCHER HOUSING</b>
<b>MEETING DATE</b>	<b>JUNE 14, 2018</b>

Forwarded to the Board of Governors on the Recommendation of the President

**APPROVED FOR  
SUBMISSION**



Santa J. Ono, President and Vice-Chancellor

**FOR INFORMATION**

<b>Report Date</b>	May 18, 2018
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**Presented By** Andrew Szeri, Provost and Vice-President Academic  
 Peter Smailes, Interim Vice-President Finance & Operations  
 Rickey Yada, Dean, Faculty of Land & Food Systems  
 Jim Thompson, Director, UBC Dairy Education & Research Centre  
 John Metras, Acting Associate Vice-President Facilities  
 Jennifer Sanguinetti, Acting Managing Director, Infrastructure Development  
 Aubrey Kelly, President and CEO, UBC Properties Trust

**EXECUTIVE SUMMARY**

Part of the Board-approved project management process, the Board 4 project close-out report is submitted following construction, occupancy and warranty period.

The UBC Dairy Education & Research Centre is located in Agassiz, B.C. on land leased from Agriculture and Agri-Food Canada (AAFC). Its research herd is the largest of its kind in Canada and its large animal research facilities are recognized globally as unique and state-of the-art.

Research productivity at the UBC Dairy Centre depends upon the number of graduate students, post-doctoral fellows (PDFs), visiting scholars, etc. located on site around the clock. The new Researcher Housing facility completed in September 2015 replaced old deteriorated and undersized residences that could not accommodate the housing needs of students and other scientists requiring access to the UBC Dairy Centre for their research. The new facility provides a total of 32 beds plus a meeting (community) area for 35 people.

The project was completed on budget at a cost of \$3.5 million. Azure Magazine named the facility as one of the 10 Best Residential Projects of 2016.

**Attached:** Photographs of Dairy Education & Research Centre On-Site Researcher Housing

**INSTITUTIONAL STRATEGIC PRIORITIES SUPPORTED**

- ✓ Learning
  - ✓ Research
  - ✓ Innovation
  - ✓ Engagement
  - ✓ International
- or ✓ Operational

**DESCRIPTION & RATIONALE**

The UBC Dairy Education and Research Centre was established in 1997 through a lease agreement with Agriculture and Agri-Food Canada (AAFC) in which it was agreed that that UBC would have access to certain AAFC lands in Agassiz provided it built the Dairy Centre on-site. UBC has developed a research herd of 500 dairy cattle which is of sufficient size to: 1) provide adequate numbers of animals at different physiological stages to meet researcher needs and 2) provide adequate income from the sale of milk and animals to cover all farm operating costs including staff salaries, feed and care of experimental animals, building and equipment maintenance and repairs, all services and other costs.

Since 1999 UBC has constructed and equipped seven research buildings on-site that house experimental animals and equipment as well as provide conference room, office and laboratory space. This represents an investment by UBC of more than \$13 million. The Centre’s research herd is the largest of its kind in Canada and its large animal research facilities are recognized globally as unique and state-of-the-art . The Centre’s excellent facilities have helped attract productive students and other researchers from more than 35 different countries. We greatly value the rich international environment at the Centre and the research linkages established with researchers from around the world.

Three of the Centre’s faculty members holding NSERC Industrial Research Chairs have developed the internationally recognized leading research programs in dairy cattle welfare and behavior. Additional research programs in areas such as animal reproduction, and nutrient recovery (with Civil Engineering) are under development. These programs and faculty members help the Centre attract and retain outstanding graduate students and other researchers. Recently as few as 1/100 student applicants is accepted. Research and scholarship funds attracted by the Centre each year amount to well over \$1M, substantial in view of the small number of faculty involved.

Research productivity at the UBC Dairy Centre depends upon the number of graduate students, post-doctoral fellows, visiting scholars, etc. living on-site around-the-clock. The new two-storey, 11,600 ft<sup>2</sup> on-site housing facility completed in September 2015 provides eight 4-bedroom units for a total of 32 beds for researchers. This replaces the previous deteriorated residence facilities which could accommodate only 15 to 17 researchers and restricted the Dairy Centre’s productivity. Each 4-bedroom unit in the new facility contains two bathrooms, a kitchen and living areas. The building also includes a meeting area for 35 people, laundry facilities and bicycle storage.

The project was managed by UBC Properties Trust.

**BENEFITS**  
Learning,  
Research,  
Financial,  
Sustainability &  
Reputational

Provision of adequate living facilities for 32 researchers on-site is essential for the Dairy Centre to continue to attract and retain the best students, scientists and faculty in an extremely competitive market. The local community cannot provide adequate housing and travel back-and-forth to Vancouver is expensive and time consuming. The meeting or community area is essential for the Centre to enrich its college-like international environment. Moreover, students and other researchers often need around-the-clock access to their experimental animals and facilities.

**RISKS** Project is now complete.

**COSTS** The project was delivered on budget for a final cost of \$3.5 million.

**FINANCIAL**  
Funding Sources,  
Impact on Liquidity

**Funding Sources**

Funding Source	\$ Amount
Dairy Centre reserves	\$2,000,000
Donor fundraising	\$400,000
Dairy Centre net operating income (Mar 2015)	\$400,000
Internal loan repaid from Dairy Centre future net operating income (\$400,000/year)	\$700,000
<b>Total</b>	<b>\$3,500,000</b>

**SCHEDULE**  
Implementation  
Timeline

The new Researcher Housing Facility was completed on schedule in September 2015.

**CONSULTATION**  
Relevant Units,  
Internal & External  
Constituencies

A stakeholder meeting of facility operators and project delivery team was held on May 14, 2018 to review project benefits, challenges and lessons learned. The following is a summary of discussion.

**Overall Impact**

The project is viewed by the Faculty of Land & Food Systems as the finishing touch on the Dairy Education & Research Centre, providing expanded and significantly improved on-site accommodations for researchers and making a positive difference for research productivity. Student and visiting researchers are very happy and grateful for the new facility.

**Design**

The building design is attractive. Room layouts are excellent. The meeting space is used well for social events and community building. Azure Magazine named the facility as one of the 10 Best Residential Projects of 2016.

Concerns were expressed regarding the choice of tilt and turn windows which cannot be put in the fully opened position for ventilation due to fall risk in second floor bedrooms. The partially opened window position does not provide adequate airflow. Fans have been provided to residents to address this issue during warm season.

The locking mechanism for the entry doors was also viewed as too complex and difficult to use. The design decision for both windows and doors was felt to have been based primarily on aesthetics rather than function. This is a lesson for future projects.

The building cladding system is viewed as very attractive and durable. It was the more economical option and works very well.

**Project Delivery**

The project was delivered on time and on budget. The contractor (Spaeti Construction) did good work. Concerns were expressed regarding multiple changes in the assigned development manager over the course of the project which affected continuity of decision-making. This was due to unplanned staff turnover but has been noted for future projects.

**Operations**

The facility has functioned well for almost 3 years with no significant maintenance issues. The geothermal heating systems is effective. Lack of mechanical cooling, which was not included in the original design, has proven to be an issue. Fans have been provided to residents but further measures may be required. Furnishings are attractive and durable, although originally supplied kitchen utensils were lower quality than expected and will require replacement. A full set of building records drawings have not yet been provided to the Dairy Centre team. UBC Properties Trust will ensure this information is provided.

Overall the project was viewed as a success by the Land & Food Systems team.

**Previous Report Date**

2 June 2014

**Decision**

The Board of Governors on April 14, 2014 passed the following resolution:

IT IS HEREBY grants BOARD 1, 2 and 3 approval for the UBC Dairy Education and Research Centre - On-Site Researcher Housing project, subject to construction tenders being received at or below budget based on 80% of tenders, with a funding release of \$3,500,000 to undertake and complete installation of a modular building. Approval is also granted for an internal loan of up to \$700,000 (5 year amortization, 5.75% annual interest), paid back from Dairy Centre operating budget, as bridge financing to support the project until donor fundraising is completed.

Capital Budget	\$3,500,000
Operating Budget	See report
Schedule	
Program	
Authorization to award contracts	
Funding Release	\$3,500,000

**Action / Follow Up**

Proceed to construction

Attachment 1 – Photographs of Dairy Education & Research Centre On-Site Researcher Housing





