



VANCOUVER ISLAND UNIVERSITY (VIU)

TDM Strategy Update

Prepared for: **Vancouver Island University (VIU)**

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Our File: **2287**

Date: **January 10, 2018**

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APPENDIX A. CONSULTATION MATERIALS

1.0 INTRODUCTION

Watt Consulting Group (“WATT”) was retained by Vancouver Island University (“VIU”) to update the *2011 Integrated Transportation Demand Management (“TDM”) Strategy* to determine progress on recommended actions from 2011, update campus parking and travel characteristics, and engage the campus community to gauge the level of support for possible TDM strategies. This update is focused on the Nanaimo campus only.

Numerous references are made in this document to the *2011 Integrated Transportation Demand Management (TDM) Strategy*, which can be found online at:

www2.viu.ca/sustainability/documents/TDM2011.pdf

2.0 BACKGROUND INFORMATION

2.1 CAMPUS CHARACTERISTICS

2.1.1 POPULATION

The total student enrolment was 8,639 full time equivalents (“FTE”) for 2016/2017. This is approximately equal to the number of students in 2011 when the previous TDM Strategy was developed.

There are a total of 1,104 permanent and temporary staff employed at VIU, including 903 permanent full-time and part-time, and 201 temporary part-time and full-time¹. In 2011, there was a total of 1,018 permanent and temporary staff, representing a decrease of 8%.

2.1.2 BUILDING FLOOR AREAS

The campus contains a total of 83,477m² of gross floor area (“GFA”). This represents a 1% decrease in floor area from 2011.

The two buildings under construction are expected to be complete in September 2018 and will add approximately 10% (8,869 m²) to the total campus floor area.

2.2 PARKING MANAGEMENT

2.2.1 PARKING SUPPLY

The Nanaimo campus contains 2,168 parking spaces, distributed among 23 different parking lots. See **Table 1**. The construction of the two new buildings has reduced parking supply by

¹ Total staff numbers were manipulated to account for staff at the Nanaimo campus only.
Of total staff, 90% are employed at the Nanaimo campus.

approximately 100 parking spaces. A reference map is available on VIU's website at:
www2.viu.ca/eventservices/parkingmap.asp

TABLE 1. SUMMARY OF PARKING SUPPLY, BY LOT + SPACE TYPE

Lot	General	Short-Term	Employee	Disability	Carpool	Reserved	Other	Total
A	472							472
B	140							140
C	100	14		5		1	10	130
D								N/A
E	122			4	9			135
F	6	31	11	3			1	52
G			79	2		1	4	86
H			28	4				32
I		1	59	5			2	67
J	115			2			1	118
K	91						5	96
L	117							117
M	45							45
N	Upper		61	6			6	73
	Lower	98		1		2	1	102
P		11		1	2		1	15
Q			46	2	5			53
R			36					36
S	50			2				52
T	64							64
U	81			1				82
V1			4				5	9
V2			10	2				12
O	40	2	3	5		1	129 ²	180
TOTAL	1,541	59	337	45	16	5	165	2,168

² This accounts for on-campus housing parking

General parking represents approximately 71% of all parking. Parking is also assigned for Employees (16%), Short-Term (3%), Disability (2%), Carpool (1%), and Other (8% - note this includes parking for campus housing). The total number of parking spaces has increased by approximately 1% since 2011 (2,168 in 2017, up from 2,139 in 2011). See **Table 2**.

TABLE 2. PARKING SUPPLY, 2011 VS 2017

	2011	2017	% Change
General	1,681 (79%)	1,541 (71%)	-8%
Short-Term		59 (3%)	
Employee	354 (17%)	337 (16%)	-5%
Disability	45 (2%)	45 (2%)	0%
Carpool	21 (1%)	16 (1%)	-24%
Reserved	38 (2%)	5 (0%)	-87%
Other		165 (8%)	
Total	2,139	2,168	+1%

2.2.2 PARKING UTILIZATION

Campus parking conditions were observed in early October 2017 during AM and PM periods³. See **Table 3**. Campus parking utilization ranged between 88% and 93% overall during observations. Utilization rates were highest among General and Employee parking spaces (generally at or exceeding 90% utilization), and lower among the Short-Term, Disability, and Misc spaces. Peak parking occupancy was observed at 87.8% in 2011.

TABLE 3. PARKING UTILIZATION, BY SPACE TYPE

	Tues. Oct. 3 9:30am – 10:30am	Tues. Oct. 3 1:30pm – 2:30pm	Thurs. Oct. 5 1:45pm – 2:45pm	Thurs. Oct. 12 9:30am – 10:30am
General	94%	98%	89%	96%
Short-Term	73%	71%	69%	76%
Employee	88%	89%	89%	98%
Disability	72%	30%	65%	61%
Misc.	59%	30%	72%	52%
Total	91%	93%	88%	93%

³ Parking utilization figures represent most campus parking, but certain spaces were not included in observations. The following summarizes the portion of parking observed during each period:

- Tuesday October 3 (morning) – 86% of parking supply (1,869 spaces surveyed)
- Tuesday October 3 (afternoon) – 86% of parking supply (1,869 spaces surveyed)
- Thursday October 5 (afternoon) – 86% of parking supply (1,869 spaces surveyed)
- Thursday October 12 (morning) – 83% of parking supply (1,794 spaces surveyed)

2.2.3 PARKING RATES

Student parking permits are \$45 per month, \$150 per semester and \$300 per year. Staff permits are double the price of student permits. Short-term parking is available at \$3 per hour (Short-Term Lot), \$2.50 per two hours (General Access Lots), \$6 per 2 hours (Short-Term Lot) and \$8 per 12 hours. See **Table 4**.

Motorcycle permits are available at 25% the cost of vehicle permits. An annual Econo parking permit has been introduced for staff that allows for parking in the most peripheral parking areas (Lot L and Lot A) at a cost of \$400 per year. If the Econo parking is fully occupied, permit holders may use General parking if a supplementary ticket is purchased for \$2 per day.

TABLE 4. PARKING RATES

	Student	Staff	Econo	Visitor
Hourly				\$3 (2 hour max)
2 Hours	\$2.50	\$2.50	\$2	\$2.50 - \$6
4 Hours			\$4	
12 Hours	\$8	\$8	\$5	\$8
1 month	\$45	\$90		
4 month	\$150	\$300		
Annual	\$300	\$600	\$400 (staff)	

Parking permit approximately doubled in cost from 2011 to 2017. See **Table 5**. The cost of an annual student permit has increased from \$160 to \$300 since 2011, and annual staff costs have increased from \$320 to \$600.

TABLE 5. PARKING PERMIT RATES, 2011 VS 2017

	2011		2017	
	Student	Staff	Student	Staff
1 month	\$24	\$48	\$45	\$90
4 month	\$80	\$160	\$150	\$300
Annual	\$160	\$320	\$300	\$600

A total of 3,147 parking permits were issued in 2017 – the majority of which are student permits (2,436) and staff permits (468). See **Table 6**. These figures represent a 52% reduction in student permits and a 43% reduction in staff permits as compared to 2011.

TABLE 6. PARKING PERMIT SALES, 2011 VS 2017

	2011		2017 ⁴			
	Student	Staff	Student	Staff	Econo	Residence
1 month	1,534	96	138	5		7
4 month	1,669	91	916	25		129
Annual	2,183	644	1,382	438	90	5
Total	5,386	831	2,436	468	90	141

2.3 TRANSIT

Monthly and semester transit passes are available to students through the VIU Students' Union. Costs for eligible students are \$176 per semester, which represents a 35% discount from the cost of an adult transit pass (\$65 per month, \$260 per semester). A universal student bus pass ("U-Pass") has not been put in place at VIU.

A discounted transit pass is available to all VIU staff (called "ProPass"). The cost of the pass is \$57.94 per month⁵ - approximately 12% less than a typical adult monthly bus pass - and is paid automatically through payroll deduction. There are currently 24 employees enrolled in the ProPass program, representing approximately 2% of all employees.

2.4 CYCLING

A total of 278 bicycle parking spaces are provided on campus - 212 bike racks, 66 bike lockers. A refundable \$50 deposit is required to obtain a bike locker, as well as an annual fee of \$75 or semester fee of \$25. All bike lockers are currently subscribed, with five individuals on a waitlist.

A large number of bike racks are contained in the lower campus bike park (adjacent the Gymnasium) and it is commonly observed at or near capacity. The upper campus covered bike storage area is less well used.

There are four shower / change facilities available to cyclists on campus, with a fifth facility to be included in the Health and Sciences Centre (HSC) building currently under construction.

⁴ There are also 10 permits for "Vancouver Island University" and two permits for "Promo – No Charge"

⁵ Based on deduction amount with 12 pay periods on BC Transit website: <https://bctransit.com/nanaimo/fares/propass>

3.0 2011 STRATEGY RECAP

The 2011 *Integrated Transportation Demand Management (TDM) Strategy*⁶ created a framework for VIU to facilitate sustainable transportation behavior, improve parking management, and demonstrate leadership in environmental stewardship within the community. The Strategy identifies numerous recommended actions in pursuit of a reduction in single-occupancy vehicle travel and encouraging the use of sustainable transportation modes.

The table on the following pages is a summary of all recommended actions from the 2011 TDM Strategy, with consideration of their status, target audience, and anticipated impact.

Status Level of completeness, progress made since 2011	Completed (✓), On-Going (~), Outstanding (X)
Target Audience	Employees, Students
Impact Expected impact on travel mode choice and/or reducing parking demand	High (●), Moderate (◐), Low (○)

⁶ The 2011 *Integrated Transportation Demand Management Strategy* is available online at: www2.viu.ca/sustainability/documents/TDM2011.pdf

Parking Management	Progress	Target	Impact
Increase parking rates by 50% over the next 2 years (2011-2013)	✓	Student/Staff	●
Reduce parking permit supply by 10% in 2011-2012 and another 10% in 2012-2013	✓	Student/Staff	◐
Eliminate long-term permits in 2013-2014 and implement daily parking passes	X	Student/Staff	◐
Implement variable lot pricing if parking utilization decreases to below 95% occupancy	~	Student/Staff	◐
Establish parking supply rates (for planning of future buildings)	X	N/A	○
Reduce ratio between student and staff prices – staff should be 50% more than students	X	Student/Staff	○
If parking occupancy rates exceed 95%, daily rates should be increased to \$6	✓	Student/Staff	◐

Transit	Progress	Target	Impact
Implement a U-Pass program for students	X	Student	●
Encourage ProPass usage among employees (marketing plan)	X	Staff	◐
Consider offering subsidies for the ProPass program	X	Staff	●

Cycling / Walking	Progress	Target	Impact
Establish an inter-campus bicycle committee	X	Student/Staff	○
Increase quality of existing bicycle racks (weather protection)	✓	Student/Staff	◐
Increase supply of secured bicycle parking for long-term use	✓	Student/Staff	◐
Consider providing electric bike charging stations and increase supply as demand increases	✓	Student/Staff	○
Establish a bicycle repair station	✓	Student/Staff	○
Implement a bicycle and accessories loan program	X	Student/Staff	○
Offer a bicycle skills course	X	Student/Staff	○
Develop a pedestrian network plan	X	Student/Staff	○

Rideshare / Carshare	Progress	Target	Impact
Conduct a survey to assess the number of potential carshare users (students and staff)	X	Student/Staff	◐
Budget \$30,000 to purchase a new vehicle for Nanaimo CarShare that will be stationed on-campus for a fixed period	X	Student/Staff	◐
Budget for revenue guarantee to Nanaimo CarShare that commits the University to recouping costs	X	Student/Staff	◐
Develop “brand image” for ridesharing	X	Student/Staff	○
Increase rideshare program exposure	X	Student/Staff	○
Maintain reduced rates for carpool parking	X	Student/Staff	◐
Provide preferential parking for carpool users	~	Student/Staff	◐
Marketing/Coordination/Misc.	Progress	Target	Impact
Hire TDM Coordinator	X	N/A	◐
Conduct Annual Reviews to assess uptake of TDM Programs	X	N/A	◐
Conduct comprehensive updates every 5 years	~	N/A	◐
Stagger class start times	X	N/A	●
Implement Guaranteed Ride Home program	X	Student/Staff	◐

4.0 CAMPUS CONSULTATION

4.1 PROCESS

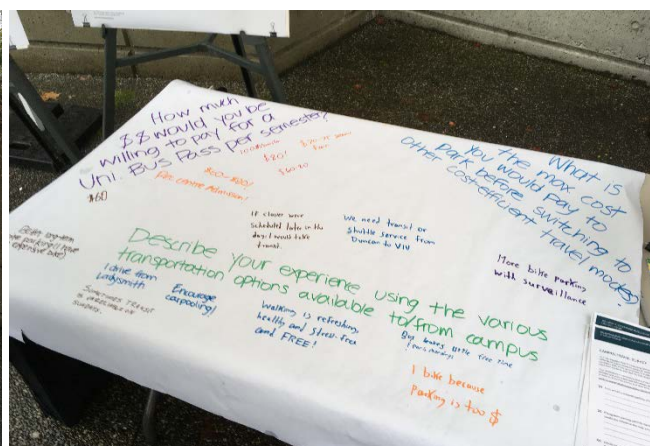
The TDM Strategy update included outreach to the campus community to gauge interest and support for the recommendations from the 2011 Strategy and to identify other possible opportunities to enhance travel options. The following activities were undertaken:

1. **Website:** A project website was maintained that provided an overview of the project, a link to the 2011 Strategy document, and an online version of the travel survey.
2. **Survey:** A survey was created seeking feedback on four questions. The survey was distributed in hardcopy at the Pop-Up Booths and the Open House, with a dropbox located in the Library for two-week period following the events. The survey was also available on the project website.
3. **Pop-Up Booths:** A series of “pop-up booths” were hosted on Tuesday, November 21 2017 between 10:30am and 4:00pm. Project team members were available to answer questions and a series of story boards were on display that explain the recommendations from the 2011 Strategy.
4. **Open House:** An open house was held in the Library on Thursday, November 23 2017 from 11:00am to 1:00pm. The same series of story boards from the Pop-Up Booths were on display.

ENGAGEMENT BY THE NUMBERS...

80	Pop-up booth attendees
50	Open house attendees
133	Dot-mocracy sticky dots
52	Table top comments
445	Survey responses
820	Project website page views

The promotional poster, storyboards that were on display during the Pop-Up Booths and Open House, and the travel survey are included in **Appendix A**.



4.2 FEEDBACK

The following is a summary of the main themes from all feedback that was received through the travel survey and the Pop-Up and Open House events. The full record of student and staff feedback has been provided to the University.

General:

- Numerous respondents indicated they live outside Nanaimo and non-vehicular travel modes are not a realistic alternative to driving. Survey respondents overwhelmingly indicated that they would still drive to campus, even if parking prices increased. Some explained how increased prices would be financially burdensome.

Parking:

- Students overwhelmingly expressed frustration accessing available parking on-campus. It was noted that conditions are challenging generally from 10:00am to 5:00pm, on Tuesday, Wednesday and Thursday, and that conditions are particularly constrained during the first few weeks of the Fall and Winter semesters.
- New parking lots or a parking structure were commonly cited as possible solutions.
- Staff did not report the same challenges with available parking.
- Students observed that staff parking lots are generally less busy later in the day. It was suggested that a shared parking solution be introduced to allow students to park in these staff parking spaces after a certain time of the day when staff lots are less busy.
- The results from the “dot-mocracy” exercise associated with the Pop-Up and Open House events demonstrates that students and staff are generally supportive of variable pricing to reflect the value and convenience of a particular parking lot. Some explained how they currently use the Econo lots to save money. In general, there was very little support to increase parking prices, which was cited as already being too high.
- The “dot-mocracy” also revealed little support for a pay-by-day parking fee structure. Both students and staff explained how long-term passes offer convenience and save them the hassle of dealing with the pay parking machines which, at times, are dysfunctional and difficult to use.

Cycling:

- There was overwhelming support for increasing the provision of bicycle parking on campus including racks, dedicated bike lockers, and bike repair stations.
- Importantly, students would like to see more surveillance and security in bicycle parking areas to minimize theft, which has been an on-going issue.

Transit:

- Survey responses were mixed about whether students would pay for a student transit pass (i.e., “U-Pass”) and use transit. Those opposed to it cited concerns about existing transit service not meeting the needs of VIU students. Others explained how they live outside of Nanaimo and do not use transit and as such, a transit pass would not benefit them. Those who expressed their support explained how it could make transit more viable (and cost-effective), and that the reduced cost to use transit would be of benefit over the current cost associated with their semester transit pass. There was general feedback that a student transit pass program would need to be accompanied by improvements in transit service to the University.
- Existing transit service is not meeting the needs of many students. Some of the common complaints are as follows:
 - Service does not run early enough to accommodate earlier classes.
 - Transit service is either limited or non-existent in communities outside the RDN including Duncan, Ladysmith, and other small communities.
 - Students often miss their transfers / connections, resulting in long waits and trip times to get to and from campus.

Other:

- Students were supportive of VIU continuing to provide carpool spaces. The “dot-mocracy” revealed some support for lowering costs for carpool parking spaces as a means to encourage their use, while the majority of the respondents indicated that VIU should continue to provide carpool spaces but not offer preferential treatment to carpoolers.
- Some students recommended that the University explore a regional commuter shuttle that would serve communities such as Victoria, Duncan, and Ladysmith. A shuttle service could operate in the morning and afternoon, and/or be scheduled around the busier times of the day.

5.0 TDM STRATEGY UPDATE

The recommended TDM Strategy Update is identified in the following section and contains a series of discrete actions to be carried out from 2018 to 2022 (i.e., five years). It reflects continuity with recommendations from the 2011 TDM Strategy, presents up-to-date campus travel and parking information, and was developed in consideration of feedback received through consultation with VIU students and staff.

5.1 TDM PLANNING + MONITORING

Action 1.

COMPLETE FIVE-YEAR COMPREHENSIVE REVIEWS

It is recommended that VIU complete comprehensive reviews on a 5-year basis, consistent with the recommendation from the 2011 Strategy. Each review should consider up-to-date transportation and parking conditions (supported by a new data collection and monitoring process, detailed in the following section), consider the effect of TDM programs over the previous five years, and reprioritize efforts and identify new TDM strategies.

The recommendations contained within this document were developed on the assumption that the University will revisit the TDM Strategy in five years. This action plan is therefore intended to guide campus TDM efforts for 2018 to 2022.

Action 2.

ESTABLISH ANNUAL DATA COLLECTION + MONITORING PROCESS

It is recommended that VIU initiate an annual transportation data collection process. See **Table 7**. This should be led by the University's identified TDM Coordinator (refer to 2011 Strategy, Section 8.1), and information collected annually and bi-annually. An understanding of campus transportation characteristics over a period of time will allow for the impact of future TDM initiatives to be understood. If, for example, significant changes to campus parking management were put in-place or the U-Pass were successfully implemented, the presence of baseline data would allow for meaningful comparison of conditions before and after change. On-going data collection will also allow the University to track progress toward campus goals over time and will support on-going campus planning initiatives with evidence. Both UBC and UVic, as examples, undertake regular transportation data collection reporting to understand campus travel characteristics and track progress toward sustainable transportation goals⁷.

⁷ The latest summary reports for both institutions are available online:
UBC - <https://planning.ubc.ca/vancouver/transportation-planning/research-and-reports/transportation-status-reports>
UVic - www.uvic.ca/campusplanning/assets/docs/campus-traffic-survey-2016.pdf

TABLE 7. RECOMMENDED TRANSPORTATION DATA COLLECTION PROGRAM

Measure		Frequency		Source / Method
		1yr	2yr	
Campus Population	Total numbers of students, staff and faculty	✓		Enrollment and staffing numbers reside with University records
Trip Origin / Trip Distance	Location of origin for commute trips, Trip distance for commute trips	✓		Postal code data for students, staff and faculty that resides with University records
Travel Mode Split	Total proportion of all trips to/from campus via each travel mode (SOV, carpool, walk, bike, transit)		✓	Manual observations of individuals entering/exiting the campus at key locations (approx. 10 locations)
Traffic Counts	Total vehicle trips to/from campus		✓	24-hour automated vehicle traffic counts at key campus entry/exit locations
Transit Counts	Total transit trips to/from campus		✓	Arriving / departing passenger counts recorded by automatic counters on buses
Parking Conditions	Parking utilization, by lot and by day-of-week	✓		Gathered during parking enforcement
Program Uptake	Total uptake on subscription/ registered campus travel services (parking permits, bike parking, bus passes)	✓		Gathered from various sources

5.2 PARKING MANAGEMENT

Action 3.

INCREASE PARKING RATES BY 50%

Campus parking reaches capacity during peak periods making it difficult to access available parking, particularly available student parking. This was communicated in the campus consultation events completed for this update (see Section 4) and is reflected in the parking utilization data (see Section 2). Further, there are a number of on-street parking areas nearby campus where there are noticeable accumulations of vehicles parked on-street (i.e., Nanaimo Lakes Rd, Wakesiah Ave, Fourth St), the majority of which are assumed to be students and staff either unable to find parking on-campus or unwilling to pay to park on-campus.



Examples of the concentration of vehicles parked on Nanaimo Lakes Road (left) and Fourth Street (right).

Student parking permit costs are low at VIU compared to other post-secondary institutions in British Columbia (see **Table 8**), even relative to institutions in communities similar in size to Nanaimo – Kamloops (TRU), Prince George (UNBC), Abbotsford (UFV). Interestingly, VIU's daily costs are higher than most other institutions.

TABLE 8. STUDENT PARKING COSTS AT REPRESENTATIVE INSTITUTIONS

	Daily	Monthly	Semester	Annual
Camosun College	\$6.50	\$130		
Capilano University		\$57	\$190	\$335
Thompson Rivers University	\$5		\$250	
University of British Columbia - Okanagan	\$6-\$8		\$232	\$464
University of Fraser Valley		\$52	\$160	
University of Northern British Columbia	\$3	\$47.25	\$189	
University of Victoria	\$8	\$98	\$294	\$490
Vancouver Island University	\$8	\$45	\$150	\$300

It is recommended that the cost of monthly, semester and annual parking passes increase by approximately 50% by 2022. An increase in parking costs has the potential to be one of the most impactful strategies in mitigating campus parking issues, making parking costs more than transit costs⁸, and bring VIU's costs more inline with other institutions. A summary of recommended costs is included in **Table 9**. As a comparison, a student that purchases an annual parking permit and parks on campus for 120 days⁹ will pay approximately \$3.75 per day which is under half the cost of the daily parking rate.

TABLE 9. RECOMMENDED PARKING RATES, 2017 TO 2022

	2017			2022		
	Student	Staff	Econo	Student	Staff	Econo
1 month	\$45	\$90		\$70	\$135	
4 month	\$150	\$300		\$225	\$450	
Annual	\$300	\$600	\$400	\$450	\$900	\$600

There are two important challenges that should be understood and anticipated as parking costs are increased, as follows:

1. The campus community - particularly students – expressed strong opposition to increased parking rates. Their feeling was that parking costs are already too high and an increase would put undue hardship on a population unable or unwilling to cope with added financial burden. There is also concern that a large proportion of the student population live outside Nanaimo and do not have a reasonable alternative to driving. The University should anticipate opposition from students to the recommended increase in parking costs.
2. Increased parking costs may result in a larger number of students and staff seeking parking off-campus in nearby on-street parking areas to avoid paying to park on-campus. The City has indicated that the accumulation of parked vehicles in on-street parking areas nearby the campus is an issue, and that they will increase enforcement of on-street parking restrictions and possibly expanding the geographic extent of on-street parking restrictions. Both these actions may serve to reduce the availability of on-street parking near campus. Further, the City should be alerted to any planned increase in parking in advance of implementation.

The University should track and report parking revenues. Increases in revenues resulting from increased costs should be allocated to off-set costs associated with TDM implementation, such as subsidizing transit passes (Action 7, 8) and investments in bike parking (Action 9, 10, 11).

⁸ A student semester transit pass is currently \$170, \$20 more than the semester parking pass

⁹ Assumes 4 days per week, 15 weeks per semester, 2 semesters

Action 4.

REDUCE THE NUMBER OF PARKING PERMITS

Numerous students expressed frustration during the consultation events or in survey responses over having purchased an annual or semester parking pass, but being unable to access available student parking. In 2017 there was an estimated 1,850-1,900 student parking permits in circulation at one time (includes annual, semester and monthly permits) and 1,541 available student parking spaces. While not all permit holders will seek parking at the same time, it is assumed that most seek parking during peak periods (i.e., morning and early afternoon, Tuesday to Thursday). It is therefore recommended that the number of long-term parking permits (i.e., annual, semester, monthly) issued during any particular month are limited to no more than 10% more permits than available student parking spaces. This will still result in potential for some permit holders to not find available parking during peak periods, but the magnitude will be significantly reduced from the current condition (approximately 150-200 fewer permits issued than in 2017, assuming consistent parking supply).

Action 5.

ELIMINATE LONG-TERM PARKING PERMITS

The elimination of long-term parking permits, in favor of a pay-by-day system forces motorists to make the decision each day whether they should drive or not, providing direct financial savings to travel via non-vehicular modes¹⁰. While long-term permits are unlikely to be phased out over the next five years, it is recommended that the following is undertaken to put VIU in a position in five-year's time to move to a pay-by-day system if conditions warrant it:

1. The current daily cost to park is \$8, compared to a student annual permit (i.e., annual, semester, monthly) cost that amounts to approximately \$2.50 per day¹¹. As the long-term permit costs increase by 50% over five years (refer to Action 3), the daily parking cost will become more closely aligned with the daily cost associated with long-term permits. This will allow for a more smooth transition from a permit-based to pay-by-day system if/when conditions warrant it.
2. The consultation tasks associated with this update revealed little support for a pay-by-day system due to the inconvenience associated with the current parking payment kiosks and the lack of reliability with the kiosks. As part of the adoption of the license plate recognition enforcement planned for Fall 2018, it is recommended that VIU explore opportunities and/or ensure compatibility with the technology and contractor to complete parking payment via license plate recognition. This would prepare the University for a shift to a pay-by-day system in future by eliminating the inconvenience associated with payment kiosks and allow for an easier transition.

¹⁰ Refer to the *VIU 2011 Integrated Transportation Demand Management Strategy*, page 21 for a more thorough overview.

¹¹ Estimated cost assumes classes over 30 weeks (2 semesters) and attendance on-campus an average of four days per week

Action 6.

INCREASE PARKING SUPPLY

The focus of the TDM Strategy is on managing parking demand - not increasing parking supply – for the reasons identified in the 2011 Strategy¹². As such, this Strategy does not suggest planning for large capital investments in new parking infrastructure. Further, it is anticipated that a more “staggered” class scheduling approach will be put in-place in 2020-2021 (refer to Action 14), which will serve to better distribute parking demand over the course of a day / week and provision of additional parking may not be necessary at that time.

There may, however, be opportunities to realize additional temporary parking or added parking supply with only small capital investments, as follows:

1. Identify locations within existing parking facilities where additional parking spaces may be achieved through reconfiguration of existing lots and/or adding spaces in unbuilt locations adjacent current parking areas; and
2. Explore opportunities for the University to use lands directly adjacent the campus (i.e., DND, School District) for temporary parking.

There are no known capital funds in-place to provide new parking supply. The University has indicated that capital funding is typically available only for core academic buildings, and not for supporting uses such as parking facilities.

5.3 TRANSIT

Action 7.

PURSUE A STUDENT TRANSIT PASS

Currently 17 of 28 post-secondary institutions in British Columbia have a student transit pass program in-place, most notably Thompson Rivers University, the University of Fraser Valley, University of Victoria and Camosun College. All have experienced significant increases in transit ridership as a result.

VIU conducted a survey in 2011 to determine student’s interest in the implementation of this program. The estimated cost at that time was \$60-\$80 per semester¹³. A survey of students concluded general opposition to a student transit pass, although approximately 25% of respondents indicated they already use transit and the lower cost of the U-Pass would be appreciated¹⁴. The feedback received through consultation as part of this update generally supports what was heard in 2011.

¹² Refer to the *VIU 2011 Integrated Transportation Demand Management Strategy*, page 1 for a more thorough overview.

¹³ Based on email correspondence with VIU representative on November 15, 2017

¹⁴ Vancouver Island University “The State of the University 2010/2011”, pg. 52

Despite a stated opposition from what is assumed to represent the majority of students, it is recommended that VIU re-visit the possibility of a U-Pass. Successful implementation of a student transit pass could be the most impactful strategy contained in this document both in increasing the number of students using transit and decreasing campus parking demand. It is believed that a more communicative and strategic implementation process could lead to a better chance of success and, ultimately, the University will need to gain support from the student body if the U-Pass is to be implemented.

It is recommended that the following steps are undertaken in working toward implementation of a student transit pass:

1. Establish a partnership between the University, the Student Union, and RDN Transit on the U-Pass initiative, and involve all parties in all steps identified below.
2. Review student place of residence / trip origin using postal code data on the University registry to determine the number of students that have reasonable access to public transit. Consideration should be given to pre-establishing the Nanaimo transit coverage area and determining a threshold (i.e., percentage of students) for students living with transit's coverage in order to further pursue the student transit pass.
3. Identify conditions where a student may opt-out of the U-Pass. Conditions may include limited hours on-campus, courses of a limited term, or place of residence outside of transit service area¹⁵.
4. Estimate the projected per-semester cost of the U-Pass to each student based on costs elsewhere and estimated U-Pass enrollment in consideration of opt-out conditions.
5. Develop a transit service plan for routes to VIU that identifies the frequency and scheduling improvements that would be rolled-out concurrent with the implementation of the U-Pass. The service plan should be based on increases in ridership that reflect the identified opt-out conditions and the expected U-Pass enrollment (i.e., more student riders will result in greater service).
6. Take the U-Pass proposal to a referendum among the student body. The program should be presented by the Students' Union to the student body in its entirety, including the per-semester cost, opt-out conditions, and associated transit service improvements.

Available online at: www2.viu.ca/docs/The-State-of-the-University-2010-11.pdf

¹⁵ Refer to the Thompson Rivers University (TRU) U-Pass opt-out conditions for an example – <http://trusu.ca/services/upass>

Action 8.

SUBSIDIZE EMPLOYEE TRANSIT PASSES

24 VIU staff were enrolled in the employee transit pass (“ProPass”) program in 2017. The cost to staff is \$57.94, which is \$7.06 less than the cost of an adult monthly transit pass. The discounted rate is offered by RDN Transit for “bulk” enrollment and the University does not contribute to the cost reduction.

It is recommended that the University offer a subsidy on the ProPass to encourage staff to enroll in the program and to use transit to travel to/from campus. A subsidy of \$20 per month, as an example, would bring the cost of a monthly staff transit pass to \$37.94. As an example, Island Health offers a subsidy of \$16.17 per pay period for the Royal Jubilee Hospital staff ProPass and has 354 staff enrolled in the program. Staff enrollment approximately doubled between 2007 and 2012 as the cost to staff decreased due to Island Health’s subsidy increases¹⁶. If VIU’s ProPass enrollment doubled as a result of a \$20 per month subsidy, the University would be contributing approximately \$11,000 annually toward the program¹⁷. Further, VIU should take steps to increase awareness of ProPass among staff to ensure all are aware of the program.

5.4 CYCLING

Action 9.

INCREASE BIKE RACK SUPPLY

There are currently two locations on campus with protected bike racks – the upper and lower bike parks. The lower bike park is commonly at or near capacity given its more central location. It is recommended that the University monitor utilization of both bike parks and take action to expand either the existing lower bike park or create a new bike park to accommodate cyclists not finding available bike racks. Any future bike racks should be located in consideration of key routes to/from campus and site topography so that they are appealing to cyclists.

Action 10.

INCREASE BIKE LOCKER SUPPLY

It is understood that there is a waitlist for students / staff to gain access to bike lockers. It is recommended that VIU commit to a policy to ensure that sufficient bike locker capacity is provided so that all students or staff seeking a bike locker are accommodated. This entails increasing the supply of bike lockers in Fall 2018 to address the shortfall in 2017/2018, plus continuing to add new lockers on-campus as the number of cyclists increases.

Consideration should also be given to purpose-designed bicycle parking in future buildings. These facilities should have controlled access and include surveillance, lockers, showers, and basic repair provisions¹⁸. Such facilities would replace the need for bike lockers in future.

¹⁶ Island Health Royal Jubilee Hospital, Master Campus Plan, June 2015. Available online at: https://www.viha.ca/NR/rdonlyres/8265BD67-2216-47E7-B20F-B55845C18A91/0/RJH_MCP_final_20151008.pdf

¹⁷ Assumes \$20 monthly subsidy per ProPass and enrollment of 48 staff

¹⁸ Information on the University of Victoria’s Campus Bike Centre is available online:

Action 11.

IMPROVE SECURITY AT BIKE PARKING

Providing surveillance for bike parking and lockers was a priority for students and staff based on feedback from the consultation exercises. The bike park is in a central location allowing for natural surveillance and there are CCTV cameras in-place. Despite this, there have been recent thefts of bicycles at this bike park¹⁹. VIU should do the following to increase security of bicycles on campus:

- VIU should locate any future bike parking spaces in a central location on campus to ensure sufficient visibility and natural surveillance;
- Ensure proper lighting is installed to improve user safety and enhance visibility; and
- If demand warrants, install CCTV cameras in other locations to further provide security for users.

5.5 OTHER

Action 12.

INCREASE CARPOOLING

The consultation undertaken on this update determined that a large number of students and staff live outside of Nanaimo (and are therefore good carpool candidates). It was also suggested that the current carpool permit system is at capacity (i.e., no permits available) and the 16 reserved carpool spaces are commonly at capacity. In an effort to continue to expand the number of individuals travelling to/from campus in a carpool, the following is recommended:

1. Increase supply of reserved carpool parking spaces in Lot “E”. It is recommended that four additional carpool spaces are provided in September 2018 and monitored over the Fall semester. If occupied, more carpool spaces should be provided in January 2019.
2. Increase available carpool permits to ensure all demand for carpooling is met. Carpool parking supply should increase as the number of carpool permits increases.
3. “Freeze” carpool permit costs at their current rate. The recommended increase in long-term parking permit costs (refer to Action 3) will result in a discount for carpool parking.
4. Increase promotion of carpool parking through social media and website, flyers, and information in the Parking office so that all students and staff are aware of the program.

www.uvic.ca/sustainability/topics/transportation/cycling/index.php

¹⁹ Nanaimo RCMP Looking for Culprits After Rash of Bike Thefts at University, November 7, 2017. Available online at: www.timescolonist.com/news/local/nanaimo-rcmp-looking-for-culprits-after-rash-of-bike-thefts-at-university-1.23086472

Action 13.

STUDY FEASIBILITY OF A SHUTTLE BUS

Numerous students indicated a desire for a shuttle service between the Cowichan Valley and the Nanaimo campus, with the potential for inter-campus service between the Cowichan and Nanaimo campuses. Some also noted a desire for a similar service north of Nanaimo (i.e., Parksville, Qualicum, Comox Valley). It was unclear whether VIU staff would benefit from a shuttle. The cost to operate a shuttle service would be significant, but could be feasible if high ridership and high user costs off-set the cost of the service.

A feasibility study is recommended for a shuttle service from the Cowichan Valley to the Nanaimo campus. The University could approach the VIU Master of Community Planning program to undertake this work as a student project. The study should address the following:

1. Review student and staff place of residence (review postal code registry) to understand trip origin/destination and inform shuttle routing;
2. Develop a conceptual shuttle routing and schedule;
3. Undertake a more detailed survey of students and staff to refine conceptual route / schedule and as a basis to estimate ridership (low, medium, high);
4. Estimate shuttle service operating costs - vehicle, driver, operation, insurance, etc; and
5. Compare estimated fare revenues against operating costs to determine the feasibility of the service, with consideration for potential external funding. Fare costs may be adjusted if costs exceed projected revenue, with consideration for the impact on ridership.

Action 14.

STAGGER CLASS TIMES

There is an opportunity to better distribute parking demand over the course of the day (or week) by scheduling a larger proportion of class times outside peak parking demand periods. The successful implementation of this strategy would have a significant impact on reducing peak period parking demand. A full description of how class scheduling impacts campus parking and options to improve schedule (i.e., staggered class times) is provided in the *2011 Strategy*²⁰.

It is understood through conversations with VIU staff as part of the 2017 update that the University's current scheduling system is limited in its ability to optimize class times and that pursuing staggered class times to manage parking demand is not feasible at this time. However, the University is pursuing a new course scheduling system that offers enhanced capability to schedule class times in consideration of the availability of campus resources such as classrooms and parking supply. The estimated implementation of this new system is +/- three years (i.e., 2021) and it is recommended that VIU pursue staggered class scheduling at that time as an approach to reduce peak parking demand.

²⁰ Refer to *VIU 2011 Integrated Transportation Demand Management Strategy*, page 52

5.6 SUMMARY OF TDM RECOMMENDATIONS, 2017

The following is a summary of all recommended actions for the 2017 TDM Strategy Update, with reference sections to the 2011 Strategy and the 2017 Strategy.

TDM Planning + Monitoring		Target	Impact	Reference	
				2017	2011
1	Conduct Five-Year Comprehensive Reviews	N/A	●	5.1	9.1-9.2
2	Establish Annual Data Collection + Monitoring Process	N/A	●	5.1	

Parking Management		Target	Impact	Reference	
				2017	2011
3	Increase Parking Rates by 50%	Student/Staff	●	5.2	4.1.3-4.1.4
4	Reduce the Number of Parking Permits	Student/Staff	●	5.2	4.1.7
5	Eliminate Long-Term Parking Permits	Student/Staff	●	5.2	4.1.6
6	Increase Parking Supply	Student/Staff	○	5.2	N/A

Transit		Target	Impact	Reference	
				2017	2011
7	Pursue a Student Transit Pass	Students	●	5.3	5.1
8	Subsidize Employee Transit Passes	Staff	●	5.3	5.2

Cycling		Target	Impact	Reference	
				2017	2011
9	Increase Bike Rack Supply	Student/Staff	●	5.4	6.3
10	Increase Bike Locker Supply	Student/Staff	●	5.4	6.3
11	Improve Security at Bike Parking	Student/Staff	○	5.4	N/A

Other		Target	Impact	Reference	
				2017	2011
12	Increase Carpooling	Students	●	5.5	7.2
13	Study Feasibility of a Shuttle Bus	Student/Staff	●	5.5	N/A
14	Stagger Class Times	Student/Staff	●	5.5	8.2

6.0 SUMMARY

The preceding provides a series of 14 actions intended to enhance travel options to/from VIU and address parking challenges over the next five years (up to 2022). The process of undertaking this update revealed significant challenges in successfully pursuing many of these actions. The University has noted that capital funding is not available for projects other than core academic buildings, which limits the ability to fund expanded transportation or parking initiatives. The student body and Students Union representatives have indicated that current parking conditions are unacceptable and that increases in costs to either parking or a student transit pass will not be supported. This Strategy Update takes the approach of , and careful consideration of terms

The following are the key recommended actions from this Strategy that offer opportunities to meaningfully reduce single-occupant vehicle travel and improve campus parking conditions:

1. **Increase Parking Rates (Action 3)** – An increase in parking rates is proposed to bring VIU's rates more inline with other post-secondary institutions and reduce demand for parking on-campus. An increase in rates will result in new revenues that should be used to off-set the costs of other TDM initiatives.
2. **Student Transit Pass (Action 7)** – A student transit pass ("U-Pass") is recommended to increase transit ridership among students and reduce parking demand. Further study is required in coordination with the Students Union and RDN Transit to determine a cost, opt-out conditions and transit service improvements that are supported by the student body.

It should also be noted that two key items may be implemented in the next five years that will expand opportunities to address parking challenges. The first is a license plate recognition ("LPR") parking enforcement system slated for implementation in Fall 2018, that may have the added benefit of more flexible and convenient payment methods by which to administer a "pay-by-day" parking system (Action 5). The other is a planned overhaul of the University's class scheduling system that would allow for more flexibility in balancing class times and therefore the ability to balance parking demand more evenly over the course of a day or week (Action 14). Once in-place, both offer a significant opportunity to manage campus parking challenges.

Low cost items that are easily implemented should be pursued on a more pro-active basis. The recommended data collection and monitoring process (Action 2) will help the University identify where demand is not being met and action is required. Opportunities for "easy wins" include the following:

- Increase the number of carpool permits (Action 12);
- Increase bike locker supply (Action 9); and
- Increase bike rack supply (Action 10).

APPENDIX A.
CONSULTATION MATERIALS

EVENTS FLYER

How do you Travel to VIU?



A review of **parking** and **transportation** options at the Nanaimo campus is being undertaken and we want to hear from **you!**

How to participate?

Pop by a “Pop-up” Booth

Tuesday, November 21st

10:00-11:30am
@ B180

12:00-1:30pm
@ Upper Cafeteria

2:00-3:30pm
@ B370

Come to the Open House

Thursday, November 23rd

11:00am to 1:00pm
@ Library B305

Visit the Website + Complete the Survey

viusustainabletransportation.wordpress.com

TRAVEL SURVEY

CAMPUS TRAVEL SURVEY

VIU has engaged WATT Consulting Group to assist in updating the *2011 Integrated TDM Strategy* to better understand opportunities to enhance transportation options for staff and students to/from the campus consistent with VIU's commitment to sustainability. WATT Consulting Group is conducting a survey to gather input from students and staff on their experience with parking and travel to and from the Nanaimo campus.

Your assistance in completing this survey by Friday December 1st is appreciated. The survey only takes a few minutes and your responses will remain anonymous. A survey drop-off box is provided in the Library if you choose to fill out the survey at a later time, or alternatively the survey can be completed online at:

www.viusustainabletransportation.wordpress.com

Q1. How would increased parking prices influence the way you travel to campus?

Q2. If long-term parking permits were eliminated and you had to pay for parking on a daily basis, would this influence the way you travel to campus?

Q3. Would you be willing to pay for a subsidized universal student bus pass ("U-Pass")?
Would a U-Pass encourage you to take transit to and from campus?

Q4. Do you have any additional comments or suggestions that were not discussed in the 2011 TDM Strategy? Please write on the back.

OPEN HOUSE / POP-UP
STORYBOARDS

There are many ways to get to VIU...



HOW DO YOU
TRAVEL TO VIU?

HOW DO YOU WISH
YOU TRAVELLED TO VIU?

WHAT WOULD ALLOW YOU
TO CHANGE THE WAY
YOU TRAVEL TO VIU?

A review of campus transportation options
is being undertaken to identify opportunities to
enhance travel options and address parking challenges

Priority Strategies



U-Pass activation station at UVic.

UNIVERSAL STUDENT BUS PASS (“U-PASS”)

The universal student bus pass (“U-Pass”) is a discounted semester pass offered by BC Transit to all students. The bulk purchase of passes results in a significantly reduced cost and requires that all students are enrolled (i.e., no opt out).

Currently 17 of 28 post-secondary institutions in British Columbia have a U-Pass, including UVic, Camosun College, Thompson Rivers University (TRU) and the University of the Fraser Valley (UFV).

A U-Pass program was considered for VIU in 2011 at a cost of \$60 - \$80 per semester. A survey found limited support among students for the U-Pass at that time.



\$340

The cost of two Student semester bus passes (8 months)



Example of a carpool stall at a post-secondary institution.

PARKING MANAGEMENT

Effective parking management is perhaps the most effective means to address current campus parking challenges and to incentivize students and staff to walk, bicycle, use transit or share rides.

The cost of an annual student parking permit has increased from \$160 in 2011 to \$300 in 2017. Presumably rates will continue to increase in response to increasing demand and for consistency with other post-secondary institutions.

Opportunities to better manage parking demand could include:

- Eliminate annual / semester passes and require that parking is paid each day, offering cost savings to part-time drivers
- Vary pricing by lot to reflect the location and convenience (i.e., more peripheral lots are cheaper)



\$300

The cost of an annual student parking permit (12 months)

TDM Strategies

The following are the detailed TDM actions identified in previous VIU plans / reports - most recently the *2011 VIU TDM Strategy* - that are the focus of this exercise.

PARKING MANAGEMENT	TARGET	IMPACT	PROGRESS
1. Increase Parking Prices Continue to increase parking prices to encourage modal shift and bring prices inline with transit costs	STUDENTS STAFF	● ● ●	●
2. Reduce Permit Numbers Reduce the number of parking permits issued to minimize instances of parking over-subscription	STUDENTS STAFF	● ● ●	●
3. Variable Pricing Vary parking lot prices to reflect the value and convenience of each lot	STUDENTS STAFF	● ● ●	●
4. Eliminate Long-Term Permits Eliminate long-term permits and shift to pay-by-day passes to encourage sustainable travel modes on a daily basis	STUDENTS STAFF	● ● ●	●

WALKING + CYCLING	TARGET	IMPACT	PROGRESS
1. Bike Lockers Continue to increase the supply of reserved bike lockers on-campus intended for long-term bike parking	STUDENTS STAFF	● ● ●	●
2. Bike Racks Increase the supply of bike racks on-campus and increase the number of racks protected from weather	STUDENTS STAFF	● ● ●	●
3. E-Bike Charging Establish electric bicycle charging points on-campus and increase supply as demand increases in future	STUDENTS STAFF	● ● ●	●
4. Loan Service Create a bicycle loan program that provides students with a bicycle or bicycle accessories on a per-semester basis	STUDENTS STAFF	● ● ●	●
5. Repair Station Maintain bicycle repair stations on-campus that allow cyclists to make basic repairs (i.e., bike stand, tire pump, wrenches, etc)	STUDENTS STAFF	● ● ●	●

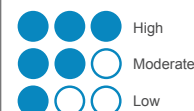
LEGEND

Target

Targetted user group - Students or Staff

Impact

Anticipated impact on travel mode shift





Progress


Progress toward implementation



TDM Strategies, cont.

The following are the detailed TDM actions identified in previous VIU plans / reports - most recently the *2011 VIU TDM Strategy* - that are the focus of this exercise.

PUBLIC TRANSIT		TARGET	IMPACT	PROGRESS
1.	Student Bus Pass ("U-Pass") Pursue a student bus pass program ("U-Pass") that all students are enrolled in at a discounted rate (exact cost TBD)	STUDENTS	● ● ●	
2.	Employee Bus Pass ("Pro Pass") Encourage VIU staff to enroll in the employee bus pass program offered by BC Transit ("Pro Pass") by subsidizing rates and improving awareness among staff	STAFF	● ● ○	

SHARED VEHICLES / MISCELLANEOUS		TARGET	IMPACT	PROGRESS
1.	Campus Carshare Contribute a vehicle toward the local carshare system ("Modo") to be parked adjacent student residences and available to students and staff enrolled in the carshare program	STUDENTS	● ● ○	
2.	Carpool Parking Offer reduced parking rates for carpool vehicles and provide preferential parking locations to encourage carpooling	STUDENTS	● ● ○	
3.	Ride Matching Continue to facilitate "ride matching" among students and staff via social media and online ridematching services	STUDENTS	● ○ ○	
4.	Stagger Class Times "Stagger" class times to more evenly distribute travel and parking demand over the course of a day or over the course of a week	STUDENTS	● ● ●	
5.	Guaranteed Ride Home Offer a "guaranteed ride home" for walkers, cyclists, and transit users that require a ride home in case of emergency	STUDENTS	● ○ ○	
6.	Campus TDM Coordinator Identify a campus TDM Coordinator to administer TDM programs, coordinate with on- and off-campus stakeholders, and complete annual reviews	STUDENTS	● ○ ○	

LEGEND

Target

Targetted user group - Students or Staff

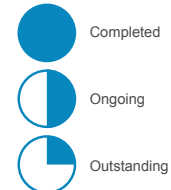
Impact

Anticipated impact on travel mode shift



Progress

Progress toward implementation



Dot-mocracy

Using a sticky dot, indicate which statement best describes your response to each of the questions below...

Vote with
sticky dots!

Q1. Should carpooling be encouraged at VIU to reduce the number of vehicles seeking parking on campus?

"Yes! Costs should be less for carpool parking"

"Yes! Reserved spaces for carpool vehicles should continue to be provided"

"No Way! Carpoolers shouldn't receive special treatment"

Q2. Would you park in less desirable or more remote parking lots if they cost less?

"Absolutely! I would love to save money"

"Yes, but only if the cost savings are substantial"

"No Way! I will gladly pay more to park near my destination"

Q3. Would you prefer to pay each day to park, rather than pay up-front for the entire semester or year?

"Yes, I would like the flexibility to drive part-time and save money when I walk, bike or use transit"

"No, I will drive everyday anyhow and prefer the convenience of paying only once"