



2010 Campus Traffic Survey University of Victoria

Final Report

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EXECUTIVE SUMMARY

Bunt & Associates was retained by the Department of Facilities Management, University of Victoria in the fall of 2010 to conduct a comprehensive survey of current traffic access patterns to and from the University for a typical weekday. The structure of the following report on the 2010 survey results is consistent with the previous traffic surveys conducted for the University since the early 1990's.

The 2010 campus traffic survey considers of three forms of traffic counts:

- ☐ Driveway Counts – 5 locations for 24 hour Automatic Tube Counts (ATC) from October 11 – 24, 2010 by TransTech Data Services;
- ☐ Transit Counts – Arriving ./ Departing Passenger Counts recorded through automatic counters on a sample of the bus fleet provided by BC Transit; and
- ☐ Driveway Counts – 19 locations for Peak Period Manual Observations including vehicles, vehicle passengers, cyclists, pedestrians, skateboarders, inline skaters and bikes on buses. These manual surveys were October 20th and 21st, 2010 for a 3 hour AM and 4 hour PM peak period on both days.

The campus population has remained relatively consistent since 2006 although there has been construction activity on campus over this period which has led to a reduction in available parking. For this reason, a new section has been included in the report documenting the number of and types of parking spaces available on campus. As well, this report also now includes a new section monitoring the number of bikes being transported on buses to and from the campus.

The findings of this survey are another entry in continuing report card of the impact of the University's Transportation Demand Management Strategy which has been underway for a number of years. The initial traffic survey was conducted in 1992 and the changes over the intervening 18 years have been quite dramatic and positive. Highlights from this survey are:

- ☐ The percentage of automobiles drivers in 2010 (38.8%) is comparable to that recorded in 2008 (37.5%) which was the largest relative decrease between surveys and in 2010 the total automobile-related trips was below 50% for the first time;
- ☐ Automatic tube counts reveal that over a 24-hour period, vehicular traffic volumes at the four stations common to the 2008 and 2010 surveys (University, West Campus Gate, McGill and Finnerty) showed an average weekday increase of 6.7%. These higher volumes were also reflected in the manual counts which had an 8.8% increase from 2008. It should be noted however that without the Finnerty site included, the 2010 24-hour volumes are less than those recorded for the 2000, 2004 and 2006 studies so there has been a decreasing trend over the past decade of these traffic audits;

- Transit ridership decreased by 4.8% from 2008 levels in spite of an increase in the number of routes serving UVic and an increase in the number of buses accessing the campus on an average weekday. However, when compared to earlier transit ridership figures, the 2010 totals are comparable to those reported for the 2004 and 2006 studies;
- There was a significant increase in pedestrian trips reported as they represented 15.9% of all trips, up from the 11.2% reported for 2008. This was partially due to the addition of two new survey locations which were pathways used by pedestrians and cyclists, as well as a large increase in pedestrians at the survey locations common to the 2008 and 2010 traffic audits;
- Cycling trips also had a large increase for similar reasons as the increased pedestrian trips, accounting for 8.9% of all trips in 2010 an increase from 7.1% reported in 2008. It was also noted that improved weather conditions during the survey period can be a contributing factor;

During the 2010 survey period, some factors which would influence overall results are: two additional manual survey locations; large numbers of construction workers travelling to and from campus, an overall decrease in transit ridership in the region as well as weather-related impacts on modal choice. With the increased vehicular trips and decreases in automobile passengers and transit ridership, it could be that passengers have now become drivers or shifted to more active modes of transportation. There may also have been a shift from transit ridership to more active forms of transportation as the growth in pedestrian and cycling traffic over the past two surveys has been quite significant.

The results from the 2010 survey document the continued positive trends with decreases in total automobile-related trips and large increases in both pedestrian and bicycle trips. In almost all cases the results observed or forecast are an improvement over past survey results and do indicate a positive trend consistent with TDM goals and objectives.

In the fall of 2010, Bunt & Associates Engineering Ltd. was retained by The Office of Campus Planning & Sustainability, University of Victoria (UVic) to conduct a comprehensive survey of current traffic access patterns to and from the University for a typical weekday. The reporting structure of the 2010 survey was closely modeled upon the previous traffic surveys conducted for the University since the early 1990's.

1. INTRODUCTION

The University of Victoria has been monitoring the travel demand to and from their campus since the first survey conducted in 1992 by BA Consulting. Similar surveys were conducted in 1996, 2000, 2004, 2006 and 2008 by Bunt & Associates. These surveys were initiated by UVic to monitor transportation activity patterns at the university and use the results to measure the effectiveness of various UVic initiatives as outlined below.

In May 2003, UVic's Board of Governors unanimously adopted its Campus Plan¹. This plan responds to one of the objectives in the University's Strategic Plan adopted in February 2002 which is:

"to develop a campus plan that:

- ☐ integrates our physical facilities into our unique natural setting;
- ☐ promotes sustainability in planning and operations; and
- ☐ is driven by academic priorities"

It does so by articulating a long-term vision for physical changes at UVic which is described and defined in more detail through three main policy goals, a series of nine foundation principles, 62 policy directions and 30 actions.

The Travel and Parking goal is:

"to reduce motor vehicle traffic to the campus and to encourage increased use of public transit, cycling and walking"

This in turn relates to five of the foundation principles which are listed below.

Principle 5 Smart Growth: The University will manage development carefully, respecting "smart growth" principles and practices as they may be adapted to the university context.

¹ "Campus Plan 2003", University of Victoria, May 2003

- Principle 6 Sustainable Building and Facilities:** The University commits to incorporate sustainable practices in the planning, construction and operation of buildings and facilities.
- Principle 7 Spirit of Place:** The University will continue to plan and design in a way that enhances social interaction on a human scale.
- Principle 8 Traffic:** The University is committed to open and universal access to its facilities while reducing dependence on single-occupant vehicles.
- Principle 9 Parking:** The University recognizes the need to minimize surface parking and pursue alternatives.

A major step in addressing the Traffic and Parking goal as well as the Traffic principle was the Transportation Demand Management (TDM) Study completed for the University in September 2003², which examined ways in which the University could promote the use of alternative modes of transport to and from the campus and reduce reliance on single occupant automobiles. Many of the study recommendations have now been implemented and include a broad range of initiatives such as parking pricing strategies, cycling infrastructure improvements, transit subsidies, crosswalk improvements, rideshare programs, and educational activities.

More recently, the University of Victoria completed a Traffic and Parking Management Study³ in October 2008, to support the university's aim of increasing sustainable transportation choices by reducing single-occupant vehicle trips, encouraging non-private auto trips, and reducing impacts on climate change.

The two key objectives of this study were to:

- ☐ Establish a parking supply and management strategy that supports sustainability objectives, is cost-effective, and is sensitive to the needs of all stakeholders; and,
- ☐ Establish a multi-modal on-site traffic management strategy that minimizes conflicts while promoting safe and efficient movement within the campus for all campus users.

A complete copy of this report can be found through the Office of Campus Planning and Sustainability. (<http://web.uvic.ca/sustainability/index.php>)

² "Transportation Demand Management Study", Boulevard Transportation Group for University of Victoria, September 24, 2003

³ "Traffic and Parking Management Study: Final Report", Opus International Consultants (BC) Ltd for University of Victoria, October 31, 2008

In addition to the documentation cited above, the University's transportation vision for a sustainable campus⁴ is:

“a campus that has sustainable travel options for every campus community member and acts as a hub in a regional sustainable transportation network”

This is reinforced in the progress report on the current Strategic Plan⁵ while the 2011 Strategic Plan is being developed. This progress report reiterates the key objective of continuing to develop an effective transportation demand management (TDM) strategy.

With UVic's ongoing commitment to sustainability, the biannual surveys are used to establish a current picture of the traffic and transportation patterns on campus. These survey results are performance measurements to be utilized in the evaluation of the effectiveness of the University's TDM program initiatives over the past two years.

The 2010 campus traffic surveys consider the following modes of traffic:

- ☐ Automobile driver;
- ☐ Automobile passenger;
- ☐ Transit passenger;
- ☐ Cyclist;
- ☐ Pedestrian;
- ☐ Skateboard; and
- ☐ Rollerblade.

As with the 2008 survey, Bunt & Associates were assisted by TransTech Data Services for the traffic data collection and BC Transit for the transit data collection.

1.1 University of Victoria: 2010 Status

1.1.1 Size of Campus and Facilities

UVic presently has a total enrolment of approximately 19,333 students⁶. In addition, UVic employs 4,478 people through various appointments from tenured faculty to support staff (including 843 faculty, 614 sessional instructors, 831 specialist / instructional staff and 2,190 administrative, professional and support staff. These numbers are slightly higher than those reported for 2008.

⁴ "Sustainability Action Plan: Campus Operations 2009 – 2014", University of Victoria, 2009

⁵ "Progress Report on the Implementation of the Strategic Plan: A Vision for the Future – Building on Strength", University of Victoria, January 2011, pg 65

⁶ <http://www.uvic.ca/resources/factsfigures.php>

With the provincial announcement of 1,900 new student spaces for the University by 2010, there has been significant construction on campus for some time. The 2008 report noted the completion of the [Engineering/Computer Science - ECS](#), [Mearns Centre for Learning - MCL](#), [Ocean, Earth and Atmospheric Sciences \(Bob Wright Centre\) - SCI](#), [Social Sciences and Mathematics - SSM](#) and [Administrative Services - ASB](#) between 2006 and 2008.

Since that time, construction has been completed on the following buildings:

- ☐ [Enterprise Data Centre - EDC2](#); and
- ☐ [First Peoples House](#)

Construction on the South Tower student residence commenced in July 2009 and opened in January 2011. In addition, almost \$42.5 million in project funding from the Canada-British Columbia Knowledge Infrastructure Program (KIP) has funded significant renovations to the following six buildings averaging 40 years of age:

- ☐ [Clearihue - CLE](#)
- ☐ [Cornett - COR](#)
- ☐ [Cunningham - CUN](#)
- ☐ [Elliott - ELL](#)
- ☐ [MacLaurin - MAC](#)
- ☐ [University Centre - UVC](#)

Even with the significant amount of new construction and renovation that is either underway or has been completed, the basic configuration and operation of the road access and internal ring road system has not changed appreciably since 2008.

1.1.2 Types of Parking Lots / Permits⁷

On the University campus there is a colour-coded system for parking. Blue areas are for General parking and are found in all of the numbered lots outside of Ring Road. All of the numbered lots inside of Ring Road are designated as Reserved. The most common types of designations for lots or parking spaces⁸ are:



General parking which is available to everyone including students, staff, faculty and visitors.

⁷ <http://www.uvic.ca/maps/parkingmap.html>

⁸ <http://web.uvic.ca/security/parking/types.html>



Flexible General parking which is available to full time employees only and allows holders to park up to 12 times per calendar month.



Reserved parking which is open to full-time staff and faculty members plus Commercial visitors who have purchased Reserved permits.



Flexible Reserved parking which is available to full-time employees only and allows holders to park up to 12 times per calendar month.



Disabled parking spaces are located in numerous lots around campus and indicated in the parking map as well as the accessibility map.⁹



Motorcycle and licensed scooter operators are required to purchase parking permits for parking in designated motorcycle parking areas.



Student Residence ('RZ') permits are only in Lots 1 and 5 and are reserved for students living in residence to have a designated parking area to park their vehicles.



Ridesharing parking spaces which are reserved for holders of Ride Share permits arriving with three or more people in the vehicle prior to 10 AM Monday to Friday.



Carpool parking spaces which are available for carpool permit holders.

At this time, the number and types of parking spaces on the University campus is shown in **Table 1**.

Table 1: Number and Types of Parking Spaces on Campus

Type	Number
General	2,924
Reserved	516
Metered	171
Disability	70
Motorcycle	154
Residence	263
Carpool / Rideshare	14
Total	4,112

⁹ <http://web.uvic.ca/webcoor/www.uvic.ca/maps/pdfs/Accessibility-Map-2010.pdf>

1.1.3 Parking Fees

At present, parking charges range from \$410 per year for general parking, and \$717.50 per year for reserved staff parking as shown in **Table 2**. These rates reflect an increase of approximately 9.4% or 4.6% per annum from the 2008 rates. However with the introduction of the Harmonized Sales Tax (HST) at 12%, replacing the 5% Goods and Services Tax (GST) that was previously applied to the parking rates, the overall cost has increased by approximately 16.6% or slightly over 8% per annum.

Table 2: 2010 – 2011 University of Victoria Parking Rates

2010 - 2011 PARKING RATES NOTE: HST calculated at 12% (EFFECTIVE SEPT 1, 2010)							
CATEGORY	Sept 1 to Aug 31	Jan 1 to Aug 31	May 1 to Aug 31	SEMESTER TERM	Monthly	Weekly (Monday – Friday)	Daily
PARKADE	1640.00 + 196.80 HST 1836.80	1099.00 + 131.88 HST 1230.88	541.00 + 64.92 HST 605.92	N/A	N/A	N/A	\$1.25/hr up to \$15/day
GENERAL / RESERVED COMMERCIAL	717.50 + 86.10 HST 803.60	481.00 + 57.72 HST 538.72	237.00 + 28.44 HST 265.44	N/A	132.50 + 15.90 HST 148.40	60.00 + 7.20 HST 67.20	15.00 + 1.80 HST 16.80
GENERAL (GP, SF, RZ)	410.00 + 49.20 HST 459.20	275.00 + 33.00 HST 308.00	135.00 + 16.20 HST 151.20	237.00 + 28.44 HST 265.44	79.00 + 9.48 HST 88.48	28.00 + 3.36 HST 31.36	7.00 + 0.84 HST 7.84
MOTORCYCLE & SCOOTER	156.00 + 18.72 HST 174.72	104.50 + 12.54 HST 117.04	51.50 + 6.18 HST 57.68	N/A	36.00 + 4.32 HST 40.32	28.00 + 3.36 HST 31.36	7.00 + 0.84 HST 7.84
CARPOOL	Regular General or Reserved rate	Regular General or Reserved rate	Regular General or Reserved rate	N/A	N/A	N/A	N/A
NT & FAMILY HOUSING	205.00 + 24.60 HST 229.60	137.50 + 16.50 HST 154.00	67.50 + 8.10 HST 75.60	N/A	17.08 + 2.04 HST 19.12	N/A	N/A
FLEXI-PASS (GEN)	307.00 + 36.84 HST 343.84	N/A	N/A	N/A	N/A	N/A	N/A
FLEXI-PASS (GEN/RES)	530.50 + 63.66 HST 594.16	N/A	N/A	N/A	N/A	N/A	N/A

The Flexible Parking Permit Program is designed to encourage staff to use non-vehicular modes of transport at least some of the time to travel to and from the campus by limiting their parking options and allowing them to participate in programs such as the Employee Bas Pass. It does provide the flexibility of occasional vehicle use for tasks such as running errands by allowing 12 parking uses per calendar month. The permit holder must commit to a full year as these passes are not sold on a monthly basis. The cost is \$530.50 for Reserved (a reduction of approximately 26%) and \$307 for General Parking (a reduction of approximately 25%) plus HST.

A variety of rideshare programs have been introduced to the campus. In August 2005, UVic introduced a 'ride-share' parking permit that allows vehicles with 3 or more occupants to park in designated spaces. These spaces are reserved between 7 AM and 10 AM and the cost of the permit is divided amongst the three (or more) occupants. These permits are the same price as regular parking permits. UVic has partnered with the Jack Bell Foundation to create a UVic page on its website to allow for people with a UVic e-mail address to register with its online rideshare matching program.

Motorcycle parking spaces, including several covered areas, are located in numerous lots around campus. New motorcycle shelters were constructed in 2009 in Parking Lots 2 and 6 to accommodate up to 20 scooters and motorcycles. Limited speed motorcycles (without pedals, and requiring a license, registration and insurance) require a motorcycle permit and must be parked in motorcycle parking areas. A motorcycle permit costs \$156.00 per year plus HST.

1.1.4 Car Share Co-op

UVic has partnered with the Victoria Car Share Co-op (VCSC)¹⁰ to create an employee membership program whereby full time staff who do not have a parking permit can apply to have a free membership in the co-op, a value of \$400. UVic has a similar program available for students living on campus in the Family Student Housing Complex. The Graduate Student Society also offers graduate students a subsidised membership in the VCSC for a non-refundable fee of \$50.

This gives members access to all of the vehicles in the VCSC fleet (currently 17), including three that are conveniently parked on campus, two behind Campus Security and one at the Family Housing Complex. Members may use these vehicles for personal or business use, and pay the normal hourly and mileage rates.

1.1.5 Transit Service and Programs

UVic is a major transit hub in the community. With more than 500 busses arriving and leaving each day, riders can connect from the campus to anywhere in the Capital Regional District (CRD). BC Transit provides fixed route bus services 365 days a year from 6:00 AM to midnight on most days.

¹⁰ <http://victoriacarshare.ca>

Four new bus routes were added since the previous study in 2008. Routes #12 (University Heights / UVic) and #13 (Cadboro Bay / UVic) were added in September 2009, Route #15 (UVic Express / Downtown Express) in January 2010 and #16 (Uptown Express / UVic Express) in September 2010. As seen in **Table 3**, these four new routes added almost 90 busses arriving and leaving each day. Route #80 (UVic / Swartz Bay) which provides direct transit service on Friday afternoon and Sunday afternoons / evenings during the regular school year, has not been included in the survey or analysis which is consistent with previous years.

The following 16 bus routes service the UVic Transit Exchange located on the Gordon Head campus at Finnerty Road.

Table 3: Bus Routes and Number of Trips at the UVic Transit Exchange

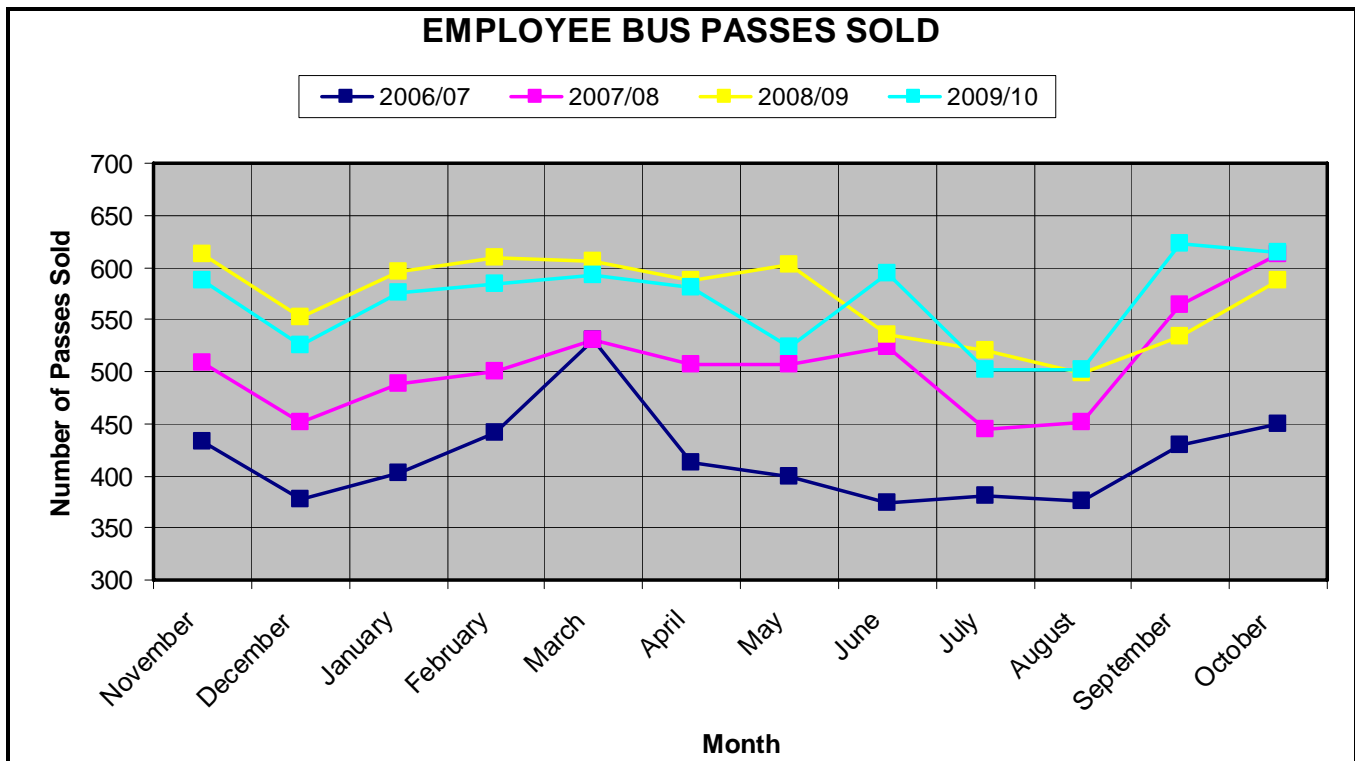
NUMBER	NAME	DESCRIPTION	ARRIVE	DEPART	TOTAL
#4	UVic / Downtown Via Hillside	Downtown via Douglas, Hillside, Lansdowne and Henderson	97	90	187
#7	UVic / Gonzales / Downtown	Downtown via Fairfield and Foul Bay	62	58	120
#11	Tillicum Mall / UVic	Tillicum Mall via Gorge, downtown, Fort, Cadboro Bay and Arbutus	67	68	135
#12	University Heights / UVic	Sinclair, Cadboro Bay, Arbutus	16	16	32
#13	Cadboro Bay / UVic	Cedar Hill, Kenmore, San Juan, Arbutus, Finnerty	4	4	8
#14	Vic General / UVic via Richmond	from Victoria General via Fort, Richmond and Cedar Hill	98	99	197
#15	UVic Express / Downtown Express	Downtown, Foul Bay, Henderson	64	59	123
#16	Uptown Express / UVic Express	Uptown, Pat Bay Hwy, McKenzie	7	7	14
#17	Cedar Hill School Special	Limited service, Monday to Friday AM and PM	1	0	1
#18	Cedar Hill School Special	Limited Service, Monday to Friday AM	1	0	1
#26	Dockyard / UVic via McKenzie	Esquimalt via McKenzie to UVic	71	73	144
#29	UVic	Gordon Head area to UVic, Monday to Friday	2	0	2
#33	UVic via Richmond	Monday to Friday AM service only	5	0	5
#39	UVic	Royal Roads University to Camosun College Interurban campus, Royal Oak Exchange to UVic Monday-Saturday only. Sunday service between Royal Oak Exchange and UVIC	29	27	56
#51	Langford / UVic	Langford Exchange to UVic Exchange (Monday-Friday only)	7	6	13
#80	UVic / Swartz Bay	UVic to Swartz Bay Friday afternoon and back on Sunday			0
Total Average Weekday Trips			531	507	1,038

Effective April 2008, the two-zone fare system was eliminated by BC Transit and a single fare is now valid throughout the region, from Sooke to Sidney. The price of a single cash fare (adult and college) has increased by \$0.25 to \$2.50 for a one way trip.

The Universal Bus Pass (U-PASS) was implemented in 1999 and gives all UVic undergraduate and graduate students unlimited access on all Greater Victoria BC Transit routes anytime, anywhere during a semester. The pass costs \$69.25 per semester as it did in 2008. The semester fee is mandatory, similar to Athletics and Recreation fees, and any fee increases outside of the existing U-PASS agreement require a referendum by the student body. The only students exempt from this program are those students who: have a BC Bus Pass; are registered solely in distance education programs; have mobility disabilities which prevent them from using BC Transit or Handy DART services; or are taking both Camosun College and UVic courses. The U-PASS program offers a large financial saving as BC Transit college bus passes are presently \$65.25 per month as compared to the \$17.31 per month for the U-PASS. In the fall of 2010, 15, 893 passes were issued to undergraduates.

The University introduced an Employee Bus Pass (EBP) in September 2005 to offset the difference in cost between parking and transit for campus employees and the number of EBP sold over the past four years is shown in **Exhibit 1**.

Exhibit 1: Employee Bus Passes Sold from November 2006 to October 2010



The pass cost is now \$36.00 per month and represents a savings of \$42.00 per month as it is subsidized by UVic and the Victoria Regional Transit Authority. There has been significant growth since 2006 / 07 when 5006 passes were sold, as there were 6087 passes sold in 2007 / 2008 and 6839 passes in 2008/2009. It levelled out in 2009 / 2010 as a total of 6803 passes were sold.

Capacity of the main transit exchange loop has been recognized as a concern and at the present time BC Transit has a project is underway to develop a University Campus Transit Plan which would include a Transit Service Plan and Transit Infrastructure Plan to accommodate a forecast increase in the campus population from 23,600 to 42,000 in future years.

1.1.6 Cycling Facilities

With more than 3,000 bicycle parking spaces, UVic is a bicycle-friendly campus. Cyclists can take advantage of covered bicycle shelters, bike lockers, clothing storage lockers, shower and change room facilities, pressurized air hose and towel service as indicated on the Cycling Amenities Map¹¹.

Bicycle parking, lockers, shower and change facilities are to be provided in all new buildings since 2004.

- ☐ Ian Stewart Complex;
- ☐ McKinnon Gym;
- ☐ Engineering Computer Science Building;
- ☐ Medical Sciences Building;
- ☐ Social Sciences and Mathematics Building;
- ☐ Technology Enterprise Facility;
- ☐ Bob Wright Centre – Ocean, Earth and Atmosphere Sciences;
- ☐ Administrative Services Building;
- ☐ First People's House; and
- ☐ Continuing Studies Building.

¹¹ http://web.uvic.ca/sustainability/documents/3DCyclingAmenitiesMap2009_000.pdf

The following cycling related initiatives or infrastructure expansion has occurred on the UVic campus:

- ☐ 96 bicycle lockers on campus available for students, faculty and staff to rent; and hundreds of free clothing lockers on campus, located in almost every building;
- ☐ All of the transit fleet has bicycle racks on board;
- ☐ Continuation of SPOKES Bike Bursary Program¹², a volunteer run program that lends out refurbished bikes to students, staff and faculty at no charge;
- ☐ Formal sponsorship and participation in Greater Victoria Bike to Work Week;
- ☐ Free Road Skills Cycling Courses for students, faculty and staff each year (spring and fall);
- ☐ A self service "bike kitchen" opened on campus in April 2010 and is located between the Student Union Building (SUM) and Graduate Student Society (GSS). Cyclists have access to bike stands, compressed air, and basic tools for quick repairs and minor adjustments;
- ☐ 4 free designated electric bike charging stations on campus. All stations are provided on a first-come first-served basis and are located at the following buildings:
 - ☐ Human and Social Development Building;
 - ☐ Visual Arts Building;
 - ☐ David Strong Building; and
 - ☐ University Centre Building

Bike engraving and registration is free of charge to those participating in the Bicycle Registration Program with Campus Security Services.

1.1.7 Walking / Jogging / Skateboarding / Rollerblading

As a walkable, pedestrian friendly campus, walking, jogging, skateboarding and rollerblading are popular modes of transportation if you live close to campus. To support those active transportation modes, reference is made to the Capital Bike and Walk Society, as well as programs and services provided by Campus Security Services. Two examples are Run Safer for personal safety trips for running at night and the Safewalk Program to provide escorted passage for members of the university community between buildings, and between buildings and vehicles, at any time within the boundaries of the campus.

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<http://web.uvic.ca/sustainability/SPOKES.htm>

1.1.8 Regional Growth and Transportation Infrastructure

It should be noted that in 2004, the Capital Regional District (CRD) completed its own Travel Choices Strategy, an implementation component of the Regional Growth Strategy. The Travel Choices Strategy establishes a long-term direction and a short term set of priorities for improving transportation options across the region. The University of Victoria has undoubtedly been impacted by the goals and actions of the Strategy to:

- (a) Coordinate land use and transportation;
- (b) Encourage use of alternative modes;
- (c) Provide access to commercial activities;
- (d) Maintain a safe transportation system;
- (e) Keep transportation affordable;
- (f) Preserve options such as the LRT for the future.

The RGS is updated on a five year cycle so the status of the transportation-related targets will be documented and made available within the next couple of years.

A five-year Travel Choices Implementation Plan was developed to identify key transportation projects at the University which would be required to achieve the objectives of the TravelChoices Strategy. UVic Travel Choices Program goals are:

- ☐ To reduce the number of commuter trips by students, faculty and staff to and from the University of Victoria;
- ☐ To shift travel time away from peak hours to reduce traffic congestion and improve local air quality;
- ☐ To shift the mode of travel from the Single Occupant Vehicle to either High Occupant Vehicles (carpool, rideshare, car-share, public transit etc.) or Active Transportation (cycling, walking, rollerblading etc); and
- ☐ To improve the efficiency of campus circulation on Ring Road.

Throughout 2008, the Office of Campus Planning and Sustainability undertook a process to develop a new Sustainability Policy and Sustainability Action Plan: Campus Operations. The transportation section in the Action Plan expands on the above goals to include the following vision, principles, and goals.

Vision: “A campus that has sustainable travel options for every campus community member.”

Principles:

- ☐ We will remain open and accessible while significantly reducing volumes of single occupant vehicle traffic.
- ☐ We support the creation of sustainable transportation networks in the region.

Goals:

- ☐ Increase bus use, cycling, and carpooling to 70% of campus modal split by 2014.
- ☐ Reduce the number of fleet vehicles that consume fossil fuels to 40% of total vehicle fleet.
- ☐ Increase support for persons with a disability as it relates to travel, parking and transportation choice.
- ☐ Quantify the emissions generated by university business-travel annually starting in 2012 to assist in developing reduction strategies.
- ☐ Work with neighbouring municipalities on linked transportation strategies to at least double the per capita proportion of bicycle use by 2014.

2. SURVEY METHOD

To ensure consistency with previous traffic surveys and continuation of the time series of transportation data on travel modes used to access the UVic campus, the study methodology used in previous studies has been replicated for 2010 where possible. As was the case in 2006 and 2008, the basic design of the travel mode survey was to establish a cordon around the periphery of the campus across which all trips entering and exiting the University could be systematically recorded.

Three different forms of traffic counts were used for the 2010 survey:

- ☐ Driveway Counts – 24-Hour Automatic Tube Counts (ATC);
- ☐ Driveway Counts - Peak Period Manual Observations including vehicles, vehicle passengers, cyclists, pedestrians, skateboarders, and rollerbladers;
- ☐ Transit Counts – Arriving / Departing Passenger Counts recorded through automatic counters on a sample of the bus fleet.

The traffic survey locations used for the 2010 survey are summarized in **Exhibit 2**. This graphic now shows the individual accesses for survey locations associated with Stations M-3 and M-F separately. Survey stations have been increased with two new survey stations for manual counts and an additional ATC added on Gabriola Road near survey station M-6. The new manual survey stations are on paths to the campus from the Gordon Head Road / McKenzie Avenue intersection (M-11) and Gordon Head Road / Cedar Hill Cross Road intersection (M-12). The transit count locations are summarized in **Exhibit 3**, as provided by BC Transit. As with the 2008 survey, results from the M-10 location are not included in the general results (consistent with the 2008 report) and are covered in a separate section of the report. Additional survey details are described below.

2.1 Driveway Counts: 24-Hour Automatic Tube Counts (ATCs)

TransTech Data Services established ATC stations on the same four (4) driveways surveyed in 2008, i.e.: University Drive, McGill Road, West Campus Gate Road and Finnerty Road. An additional ATC station was placed on Gabriola Road, south of McKenzie Avenue to complete a cordon of the main vehicular routes accessing the campus. Results from the Gabriola Road station have not been included in the general results (consistent with previous reports) and are covered in a separate section of the report. The automatic tube counts provided continuous 15 minute vehicle traffic counts by direction for a two week period. This data is summarized into hourly traffic volumes of all inbound and outbound vehicle traffic on these five (5) driveways for a two week period.

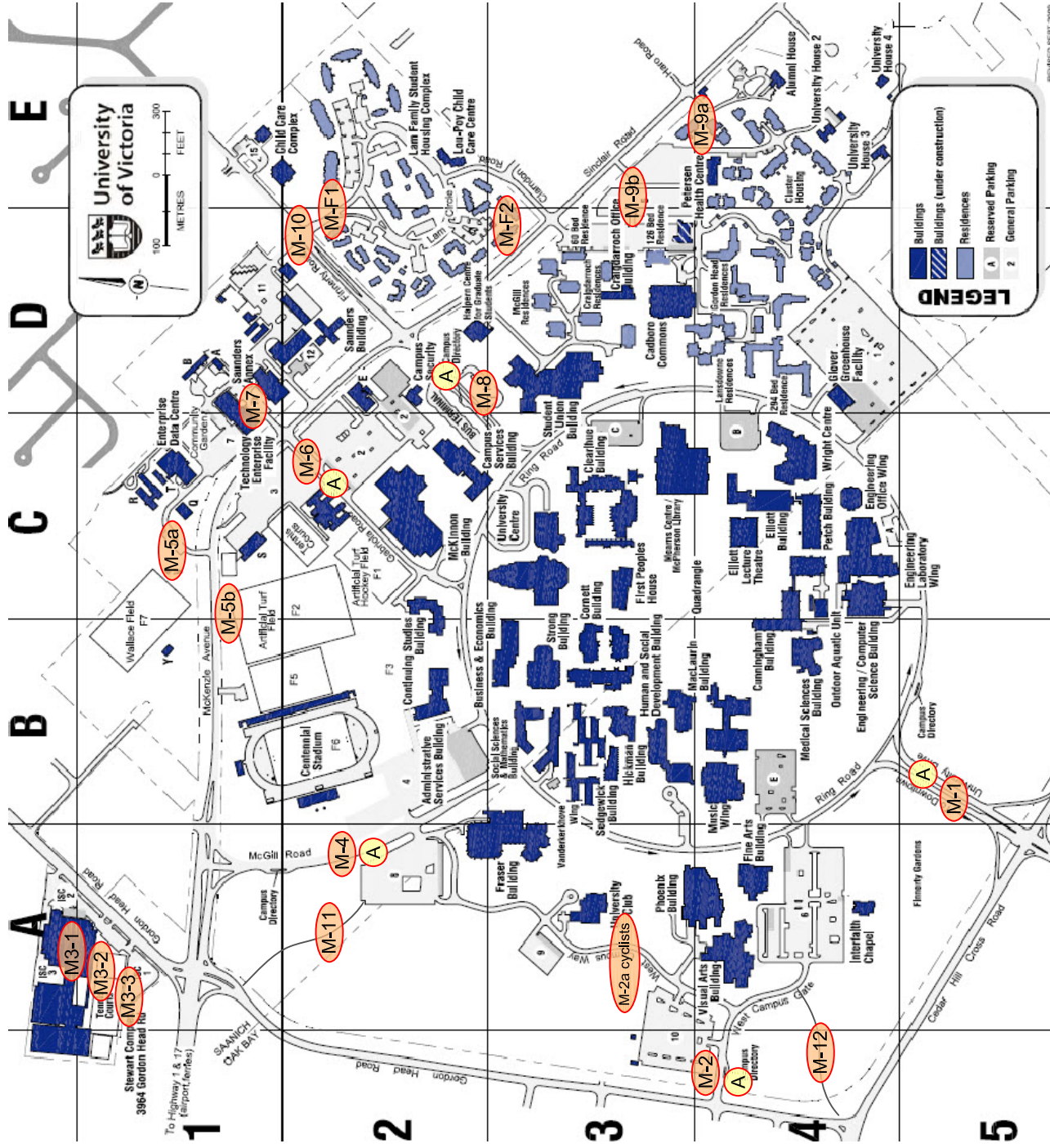


Exhibit 2

Location Plan and Manual Count Stations

University of Victoria - 2010 Traffic Survey

5070.03

December 20, 2010

Scale NTS

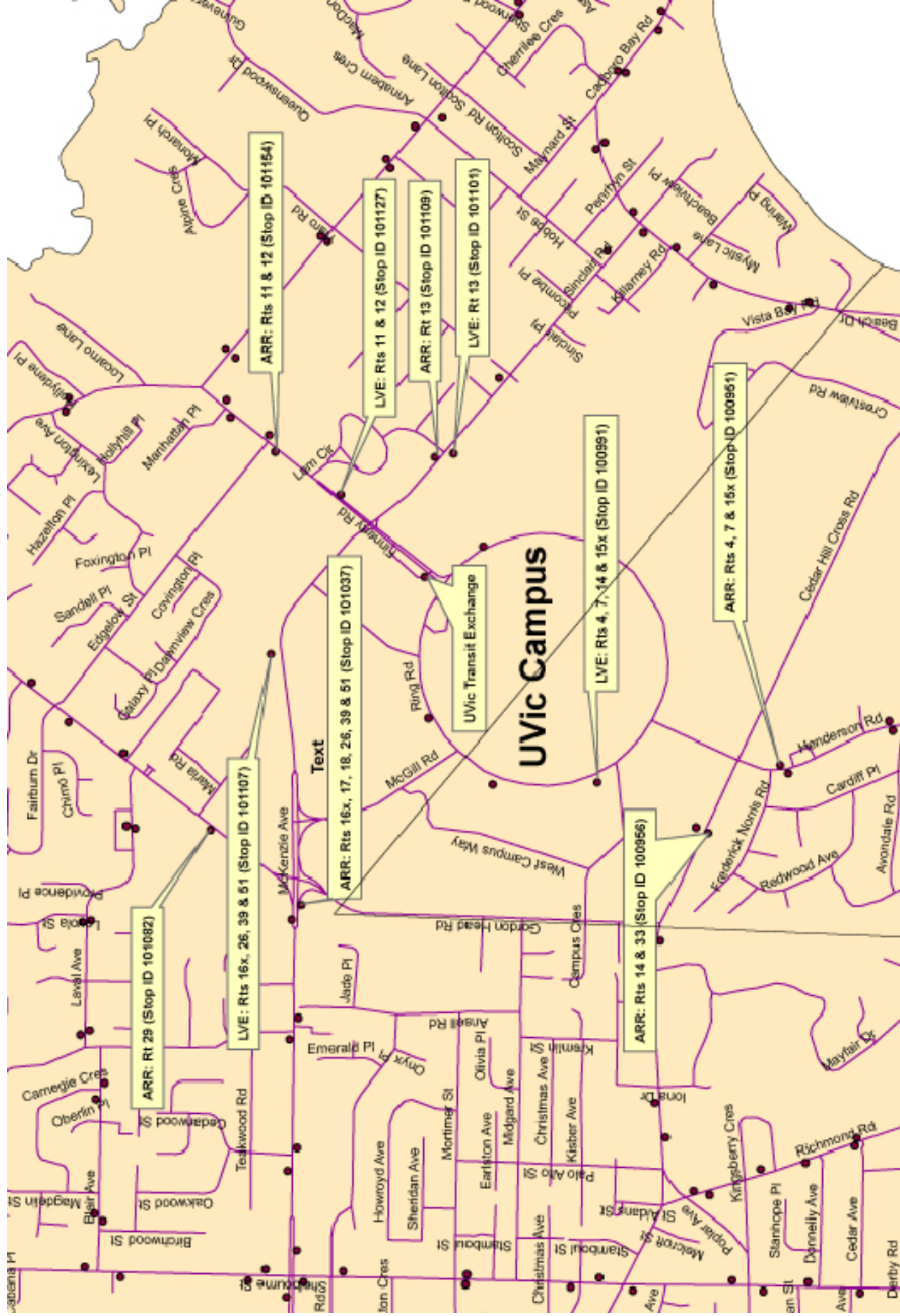


Exhibit 3

BC Transit Count Stop Locations

University of Victoria - 2010 Traffic Survey

5070.03

December 20, 2010

Scale NTS

The 2010 surveys were conducted between Monday, October 11 and Sunday October 24. The primary purpose of the ATCs was to provide some indication of the daily variation in total vehicle traffic activity at the University, as well as profiles of vehicle traffic activity throughout the course of a 24 hour period.

A complete record of the ATC data is provided in **Appendix A**.

2.2 Driveway Counts: Peak Period Manual Counts

As shown in Exhibit 2, a total of 19 manual traffic count locations were established at key driveway and parking lot entrances to the University. Two count locations were established for the David and Dorothy Lam Family Student Housing Complex – M - F1 at the Finnerty Road access and M - F2 at the Clarndon Road access. As was noted earlier, while M-10 is a survey location, it is an access to the Saunders Building which houses UVic Facilities Management and is discussed separately in this report.

As with the 2004, 2006 and 2008 surveys, the manual counts were conducted over two consecutive weekdays (Wednesday, October 20, 2010 and Thursday, October 21, 2010), during both the morning (7:00 AM – 10:00 AM) and afternoon (2:30 PM – 6:30 PM on Wednesday and 2:00 PM – 6:00 PM on Thursday) peak traffic periods at the University. The counts began a half hour later on Wednesday to coincide with the time class starts and finishes on this day. Data collected from the manual traffic counts included:

- ☐ Peak period inbound and outbound vehicle traffic in 15 minute intervals;
- ☐ Number of occupants in inbound vehicles during the AM peak and in outbound vehicles during the PM peak; and
- ☐ Peak period inbound and outbound pedestrian, cycling, rollerblading and skateboarding activity.

To ensure that the manual counts did not record the travel patterns of the same group of people, they were executed on two different class scheduling days (Wednesday and Thursday). A complete record of the peak period manual traffic count data is provided in **Appendix B**.

Factoring was used to estimate cyclist and pedestrian movements and on-site bicycle accumulation outside of the manual count periods. These factors are based on the weekday traffic profile derived from the ATC data.

2.3 BC Transit Passenger Counts

In 2004, 2006, 2008 and 2010 BC Transit conducted inbound and outbound transit passenger counts for the routes serving the University. The “arrival load count” numbers represent total transit arrivals when the bus reached the Ring Road entrance. The “leave load count” numbers represent total transit departures when the bus exited Ring Road. The “arrive” and “leave count numbers” were collected at the

locations shown on Exhibit 2. A complete record of the BC Transit passenger data is provided in **Appendix C**. A total of 16 bus routes serve the UVic Transit Exchange located on the Gordon Head campus at Finnerty Road, but the data from route #80 (UVic / Swartz Bay) which is a special service route has not been included, consistent with previous years studies.

Since 2000, BC Transit have equipped approximately 36% of their bus fleet with GPS automated passenger counters (APC) to record running time and passenger count information. APCs consist of directional infra-red sensors, a GPS antenna, and an on-board computer. The sensors are positioned either above the doors or side mounted (depending on the interior configuration), where they can detect people coming in or going out of the bus. The sensors' signals are sent to the on-board GPS antenna, which transmits the passenger information to the computer. For this survey, BC Transit was able to provide data relating to the average number of people entering and leaving the UVic campus during weekdays on the bus routes that service the site. The data supplied covered the period from September to November 2010 and is an average of 2010 Fall weekday ridership.

3. TRAVEL MODE SURVEY RESULTS

3.1 Automobile Drivers

The volume of automobile traffic (automobile drivers) was recorded using both automatic tube counts (ATC) and manual observations during the morning and afternoon peak periods on all key driveways and parking entrances (as previously mentioned, the new ATC station at Gabriola Road is discussed in a separate section). A summary of the combined 2010 daily traffic (24-hour inbound and outbound total) for the three (3) ATC stations also used in 2000, 2004, 2006 and 2008, is provided in **Table 4** on the following page. **Table 5** includes the counts for the Finnerty Road ATC which was initiated in 2008 so there is no traffic volume data prior to that time.

Overall, the average total weekday traffic (24 hour) recorded on the three driveways in 2010 was 16,574 vehicles / day (vpd) which is approximately 8% higher than in 2008. While still lower than the total average weekday volumes recorded in 2000, 2004 and 2006 by approximately -5%, it is a significant increase from the 2008 average weekday volumes. A portion of this increase is undoubtedly due to the significant number of contract construction workers driving to and parking on campus each day.

When the average total weekday traffic volumes (24 hour) recorded for the Finnerty Road site are examined this significant increase from 2008 to 2010 is not evident as the average weekday volume for 2008 was 4,361 vpd and 4,442 vpd in 2010.

Table 4: Combined Daily Traffic Volumes for McGill, University and West Campus Gate ATCs

Weekday / Year		McGill Road			University Drive			West Campus Gate			Totals			% of Wkday Average
		IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL	
MONDAY	2000	3,513	2,474	5,987	4,179	4,635	8,814	1,425	1,420	2,845	9,117	8,529	17,646	100.8
	2004	3,410	2,286	5,696	4,353	4,570	8,923	1,448	1,304	2,752	9,211	8,160	17,371	100.5
	2006	3,537	2,301	5,838	4,172	4,752	8,924	1,290	1,178	2,468	8,999	8,231	17,230	98.7
	2008	2,950	1,856	4,806	3,728	3,997	7,725	1,293	1,132	2,425	7,971	6,985	14,956	97.5
	2010	3,027	2,137	5,164	3,996	4,815	8,811	1,253	1,083	2,336	8,276	8,035	16,311	98.4
TUESDAY	2000	3,571	2,429	6,000	4,323	4,696	9,019	1,347	1,388	2,735	9,241	8,513	17,754	101.4
	2004	3,590	2,286	5,876	4,533	4,515	9,048	1,460	1,329	2,789	9,583	8,130	17,713	102.5
	2006	3,671	2,340	6,011	4,276	4,861	9,137	1,368	1,299	2,667	9,315	8,500	17,815	102.1
	2008	3,065	1,985	5,050	4,244	4,340	8,584	1,301	1,209	2,510	8,610	7,534	16,144	105.2
	2010	3,069	2,283	5,352	4,090	5,091	9,181	1,335	1,237	2,572	8,494	8,611	17,105	103.2
WEDNESDAY	2000	3,509	2,497	6,006	4,379	4,719	9,098	1,552	1,348	2,900	9,440	8,564	18,004	102.9
	2004	3,536	2,450	5,986	4,567	4,645	9,212	1,423	1,267	2,690	9,526	8,362	17,888	103.5
	2006	3,730	2,388	6,118	4,542	5,040	9,582	1,435	1,335	2,770	9,707	8,763	18,470	105.8
	2008	3,103	1,944	5,047	4,010	4,176	8,186	1,346	1,142	2,488	8,459	7,262	15,721	102.5
	2010	3,149	2,257	5,406	4,100	5,078	9,178	1,285	1,172	2,457	8,534	8,507	17,041	102.8
THURSDAY	2000	3,576	2,491	6,067	4,425	4,805	9,230	1,650	1,452	3,102	9,651	8,748	18,399	105.1
	2004	3,489	2,348	5,837	4,594	4,803	9,397	1,384	1,197	2,581	9,467	8,348	17,815	103.1
	2006	3,546	2,270	5,816	4,644	5,017	9,661	1,346	1,261	2,607	9,536	8,548	18,084	103.6
	2008	3,195	1,991	5,186	3,995	4,200	8,195	1,334	1,160	2,494	8,524	7,351	15,875	103.5
	2010	3,081	2,279	5,360	4,086	5,037	9,123	1,353	1,200	2,553	8,520	8,516	17,036	102.8
FRIDAY	2000	2,969	2,086	5,055	4,007	4,161	8,168	1,325	1,155	2,480	8,301	7,402	15,703	89.7
	2004	3,102	2,029	5,131	4,147	4,306	8,453	1,059	981	2,040	8,308	7,316	15,624	90.4
	2006	3,082	1,936	5,018	4,120	4,483	8,603	1,084	981	2,065	8,286	7,400	15,686	89.9
	2008	2,875	1,716	4,591	3,690	3,736	7,426	1,052	949	2,001	7,617	6,401	14,018	91.4
	2010	2,699	1,975	4,674	3,891	4,649	8,540	1,138	1,024	2,162	7,728	7,648	15,376	92.8
AVERAGE WEEKDAY	2000	3,428	2,395	5,823	4,263	4,603	8,866	1,460	1,353	2,812	9,150	8,351	17,501	n/a
	2004	3,425	2,280	5,705	4,439	4,568	9,007	1,355	1,216	2,570	9,219	8,063	17,282	n/a
	2006	3,513	2,247	5,760	4,351	4,831	9,181	1,305	1,211	2,515	9,169	8,288	17,457	n/a
	2008	3,038	1,898	4,936	3,933	4,090	8,023	1,265	1,118	2,384	8,236	7,107	15,343	n/a
	2010	3,005	2,186	5,191	4,033	4,934	8,967	1,273	1,143	2,416	8,310	8,263	16,574	n/a

Table 5: Combined Daily Traffic Volumes for McGill, University, West Campus Gate and Finnerty ATCs

Weekday / Year		Finnerty Road			McGill Road			University Drive			West Campus Gate			Totals			% of Wkday Average
		IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL	
MONDAY	2000				3,513	2,474	5,987	4,179	4,635	8,814	1,425	1,420	2,845	9,117	8,529	17,646	100.8
	2004				3,410	2,286	5,696	4,353	4,570	8,923	1,448	1,304	2,752	9,211	8,160	17,371	100.5
	2006				3,537	2,301	5,838	4,172	4,752	8,924	1,290	1,178	2,468	8,999	8,231	17,230	98.7
	2008	1,347	2,154	3,501	2,950	1,856	4,806	3,728	3,997	7,725	1,293	1,132	2,425	9,318	9,139	18,457	93.7
	2010	1,464	2,781	4,245	3,027	2,137	5,164	3,996	4,815	8,811	1,253	1,083	2,336	9,740	10,816	20,556	97.8
TUESDAY	2000				3,571	2,429	6,000	4,323	4,696	9,019	1,347	1,388	2,735	9,241	8,513	17,754	101.4
	2004				3,590	2,286	5,876	4,533	4,515	9,048	1,460	1,329	2,789	9,583	8,130	17,713	102.5
	2006				3,671	2,340	6,011	4,276	4,861	9,137	1,368	1,299	2,667	9,315	8,500	17,815	102.1
	2008	1,524	2,809	4,333	3,065	1,985	5,050	4,244	4,340	8,584	1,301	1,209	2,510	10,134	10,343	20,477	103.9
	2010	1,567	2,848	4,415	3,069	2,283	5,352	4,090	5,091	9,181	1,335	1,237	2,572	10,061	11,459	21,520	102.4
WEDNESDAY	2000				3,509	2,497	6,006	4,379	4,719	9,098	1,552	1,348	2,900	9,440	8,564	18,004	102.9
	2004				3,536	2,450	5,986	4,567	4,645	9,212	1,423	1,267	2,690	9,526	8,362	17,888	103.5
	2006				3,730	2,388	6,118	4,542	5,040	9,582	1,435	1,335	2,770	9,707	8,763	18,470	105.8
	2008	1,642	2,849	4,491	3,103	1,944	5,047	4,010	4,176	8,186	1,346	1,142	2,488	10,101	10,111	20,212	102.6
	2010	1,601	2,957	4,558	3,149	2,257	5,406	4,100	5,078	9,178	1,285	1,172	2,457	10,135	11,464	21,599	102.8
THURSDAY	2000				3,576	2,491	6,067	4,425	4,805	9,230	1,650	1,452	3,102	9,651	8,748	18,399	105.1
	2004				3,489	2,348	5,837	4,594	4,803	9,397	1,384	1,197	2,581	9,467	8,348	17,815	103.1
	2006				3,546	2,270	5,816	4,644	5,017	9,661	1,346	1,261	2,607	9,536	8,548	18,084	103.6
	2008	1,809	3,108	4,917	3,195	1,991	5,186	3,995	4,200	8,195	1,334	1,160	2,494	10,333	10,459	20,792	105.5
	2010	1,622	2,852	4,474	3,081	2,279	5,360	4,086	5,037	9,123	1,353	1,200	2,553	10,142	11,368	21,510	102.4
FRIDAY	2000				2,969	2,086	5,055	4,007	4,161	8,168	1,325	1,155	2,480	8,301	7,402	15,703	89.7
	2004				3,102	2,029	5,131	4,147	4,306	8,453	1,059	981	2,040	8,308	7,316	15,624	90.4
	2006				3,082	1,936	5,018	4,120	4,483	8,603	1,084	981	2,065	8,286	7,400	15,686	89.9
	2008	1,729	2,834	4,563	2,875	1,716	4,591	3,690	3,736	7,426	1,052	949	2,001	9,346	9,235	18,581	94.3
	2010	1,677	2,842	4,519	2,699	1,975	4,674	3,891	4,649	8,540	1,138	1,024	2,162	9,405	10,490	19,895	94.7
AVERAGE WEEKDAY	2000				3,428	2,395	5,823	4,263	4,603	8,866	1,460	1,353	2,812	9,150	8,351	17,501	n/a
	2004				3,425	2,280	5,705	4,439	4,568	9,007	1,355	1,216	2,570	9,219	8,063	17,282	n/a
	2006				3,513	2,247	5,760	4,351	4,831	9,181	1,305	1,211	2,515	9,169	8,288	17,457	n/a
	2008	1,610	2,751	4,361	3,038	1,898	4,936	3,933	4,090	8,023	1,265	1,118	2,384	9,846	9,857	19,704	n/a
	2010	1,586	2,856	4,442	3,005	2,186	5,191	4,033	4,934	8,967	1,273	1,143	2,416	9,897	11,119	21,016	n/a

A comparison between the manually counted 2000, 2004, 2006, 2008 and 2010 traffic volumes (a combined total of the AM and PM periods for all driveways) is included in **Table 6**.

Table 6: Observed Driveway Traffic Volumes (Peak 7 Hours)

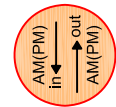
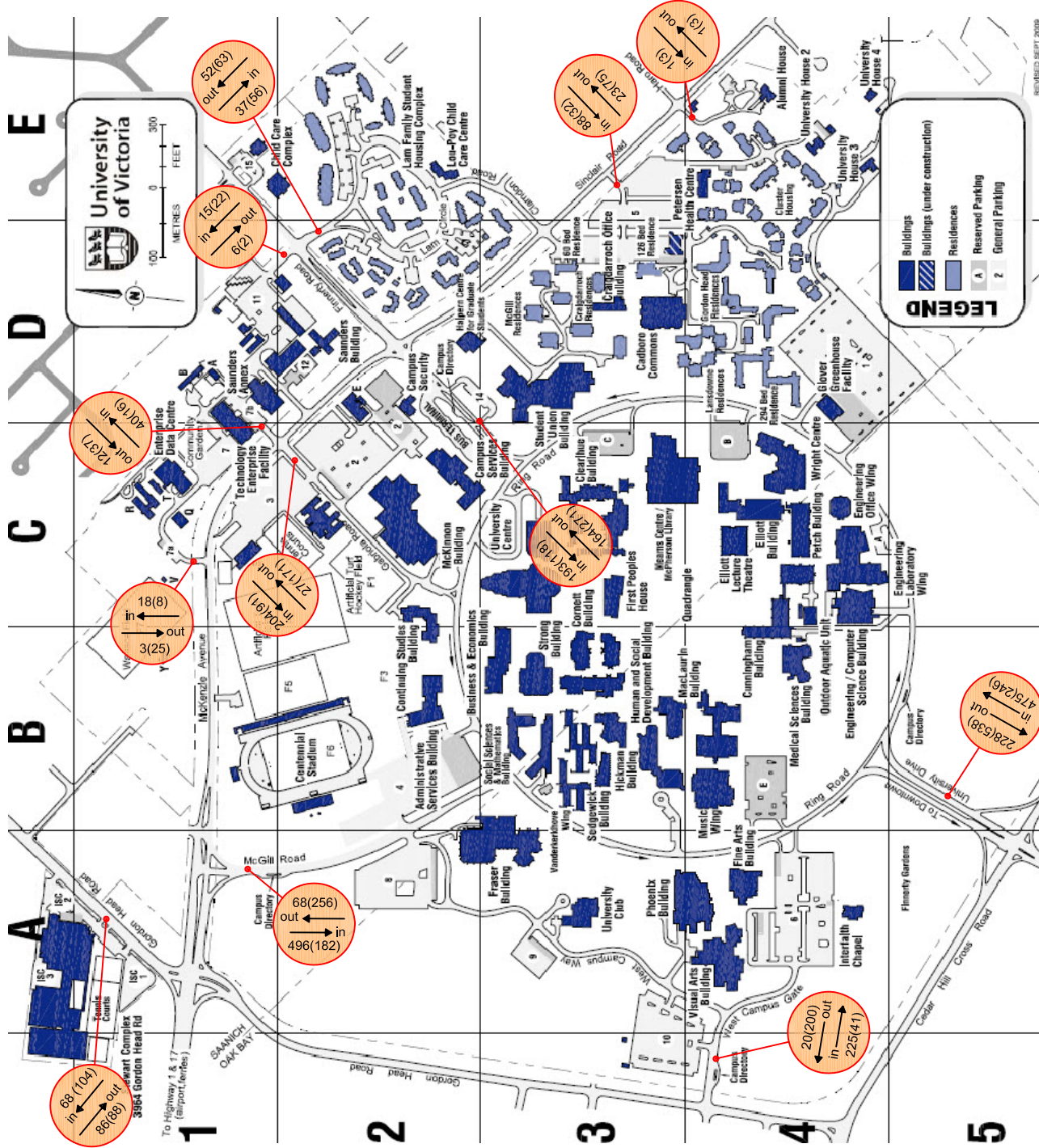
Travel Direction	Survey Year				
	2000	2004	2006	2008	2010
Inbound	8,010	6,598	6,197	6,683	7,187
Outbound	7,006	6,732	6,534	6,087	6,702
Total	15,016	13,330	12,731	12,770	13,889

Note: Volumes are averaged over the two days counted for each year.

Table 6 reflects a similar increase in the average driveway volumes recorded during the manual surveys as was exhibited in the ATC counts contained in Tables 4 and 5. The increase from 2008 to 2010 is 8.8%. The 2010 recorded volumes were also higher than those in 2006 (9.1%) and 2004 (4.2%) but lower than those recorded in 2000 (-7.5%). Inbound traffic has increased by approximately 7.5% since 2008, while outbound traffic increased by 10.1%.

As noted earlier, there has been a significant amount of new construction activity occurring on the University campus over the past years associated with creating an additional 1,900 student spaces as well as the more recent renovation work associated with the Knowledge Infrastructure Program. While volumes of construction trucks have been recorded in the past, there may be some related effects on daily traffic volumes but they can not be quantified at this time.

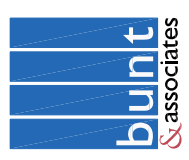
A summary of the AM and PM peak hours, averages of the October 20th and 21st counts, is illustrated in **Exhibit 4**. The AM peak hour occurs from 8:00 to 9:00 AM and during that period the heaviest two-way volumes are on University Drive, McGill Road and Finnerty Road at 27.6%, 22.2% and 14.0% respectively. The pattern is the same during the PM peak hour from 4:00 to 5:00 PM with those routes handling 29.6%, 16.6% and 14.7% respectively of all vehicular traffic entering or leaving the campus. These three roads carry approximately 61 to 64% of all traffic during these peak periods. If the Finnerty Road and Gabriola Road vehicular volumes are included, these five roads carry from 82.5 to 79.9% of all vehicular traffic during the AM and PM peak hour periods respectively. Both the total AM peak hour inbound and outbound traffic volumes are quite comparable to those from 2008 as is the total PM peak hour inbound traffic volume. However the 2010 total PM peak hour outbound traffic volumes is significantly higher at 1,728 vehicles compared to the 1,551 vehicles in 2008, an increase of 11.4%.



AM peak hour 08:00 - 09:00
 Total inbound traffic = 1856 vehicles
 Total outbound traffic = 687 vehicles

PM peak hour 16:00 - 17:00
 Total inbound traffic = 915 vehicles
 Total outbound traffic = 1728 vehicles

Note: Totals exclude M10



Using the daily traffic profile derived from the 24-hour ATC stations, estimates of the inbound and outbound vehicle trip profiles were developed for the 7:00 AM to 10:00 PM period. Over this period, which is presumed to account for the majority of the total daily traffic at the University, the inbound vehicle traffic estimate is 12,573 vehicles while the outbound traffic estimate is 12,017 vehicles. This overall average weekday trip volume of 24,590 vehicles is approximately 3,079 vehicles more than in 2008 or an increase of 14.3%. The inbound / outbound imbalance may be attributed to some vehicles not having departed from the University at 10:00 PM.

ATC data is only available for five main access roads, so the above calculation method has been used to forecast volumes for the other survey locations for the 7:00 AM to 10:00 PM period. It is also used to provide a consistent methodology that can be applied to vehicle passengers, cycling, pedestrian, rollerblade, and skateboard modes of transport.

3.2 Automobile Passengers

As described previously, the manual driveway counts included observations of the number of total occupants (i.e., driver plus passengers) in vehicles arriving to the University during the morning count period and leaving the University during the afternoon count period. An hourly summary of the vehicle occupancy at each count station is provided in Table 7.

Table 7: Vehicle Occupancy

Direction Location	ENTERING				EXITING					TWO-WAY
	7-8am	8-9am	9-10am	Average (AM)	2-3pm	3-4pm	4-5pm	5-6pm	Average (PM)	Average (day)
M1 - University Drive	1.25	1.28	1.26	1.27	1.26	1.25	1.29	1.38	1.29	1.28
M2 - West Campus Gate	1.21	1.21	1.21	1.21	1.20	1.21	1.20	1.22	1.21	1.21
M3 - Stewart Complex	1.23	1.39	1.21	1.30	1.28	1.40	1.39	1.34	1.36	1.34
M4 - McGill Road	1.17	1.31	1.28	1.28	1.31	0.24	1.27	1.30	1.28	1.28
M5a - R Hut	1.11	1.12	1.29	1.18	1.36	1.17	1.12	1.07	1.18	1.18
M5b - McKenzie Avenue										
M6 - Gabriola Road	1.24	1.20	1.14	1.19	1.24	1.23	1.29	1.33	1.28	1.24
M7 - Saunders Annex	1.07	1.09	1.07	1.08	1.12	1.06	1.12	1.12	1.09	1.08
M8 - Finnerty Road	1.20	1.26	1.30	1.26	1.27	1.39	1.37	1.40	1.36	1.33
M9a - Haro Road	1.00	1.00	1.00	1.00	1.00	1.00	1.60	2.00	1.53	1.40
M9b - Clarndon Road	1.19	1.22	1.29	1.24	1.24	1.35	1.24	1.43	1.30	1.27
MF - Lam Circle	1.15	1.11	1.13	1.12	1.32	1.31	1.48	1.33	1.39	1.30
Overall Average				1.25					1.29	1.27

As with the 2000, 2004, 2006 and 2008 surveys, the vehicle occupancy varies considerably at the different count stations. For the morning and afternoon periods combined, the highest average occupancy of 1.40 persons per vehicle occurs at the driveway to the housing areas on Sinclair Road at Haro Road (Station M-9a) but this is also the least used access of any of the surveyed locations. The lowest average occupancy of 1.08 persons per vehicle occurs at the driveway to the Saunders Annex (Station M-7) which is the offices

for the UVic Facilities Management. The overall average occupancy for vehicles arriving at the University is 1.25 persons per vehicle, which is the same as 2008 although slightly lower than 1.27 in 2004 and 1.26 in 2006. The overall average occupancy for vehicles departing the University is 1.29 down slightly that the 1.32 persons per vehicle in 2008 but comparable to the 1.28 in 2004 and 1.29 in 2006. The outbound vehicle occupancy was found to be higher than the inbound occupancy, which may be attributable to drivers offering friends and colleagues a ride home.

Similar to the 2000, 2004, and 2006 surveys, vehicles were grouped into one of six classes depending on the number of occupants per vehicle. The categories ranged from one person (driver only) up to six or more persons. A comparison of the 2000, 2004, 2006, 2008 and 2010 survey results is provided in **Table 8**.

Table 8: Occupants per Vehicle – Combined AM and PM Peak Periods

Year	Vehicular Volume	Vehicle Occupancy						Totals
		1 person	2 persons	3 persons	4 persons	5 persons	6+ persons	
2010	Vehicles	6,802	1,933	172	55	6	1	8,969
	%	75.8%	21.6%	1.9%	0.6%	0.1%	0.0%	
2008	Vehicles	6,148	1,909	195	47	6	2	8,307
	%	74.0%	23.0%	2.3%	0.6%	0.1%	0.0%	
2006	Vehicles	7,018	2,033	183	44	10	3	9,291
	%	75.5%	21.9%	2.0%	0.5%	0.1%	0.0%	
2004	Vehicles	7,523	2,069	187	49	4	3	9,835
	%	76.5%	21.0%	1.9%	0.5%	0.0%	0.0%	
2000	Vehicles	6,005	1,588	183	52	9	4	7,841
	%	76.6%	20.3%	2.3%	0.7%	0.1%	0.1%	

For 2000, inbound occupancy was recorded in both the AM and PM peak. In 2004, 2006 2008 and 2010, inbound occupancy was recorded in the 7:00 – 10:00 AM survey period and outbound occupancy in the 2:00 PM – 6:00 PM survey period. This may explain the difference between 2004, 2006, 2008 and 2010 vehicle totals being significantly higher than the 2000 total.

As indicated in Table 8, the following notes compare the 2004, 2006, 2008 and 2010 survey results:

- ☐ In 2010, single-occupant vehicles, i.e., driver only, accounted for 75.8% of all inbound trips between 7:00 AM – 10:00 AM and outbound trips between 2:00 PM – 6:00 PM., which was higher than in 2008 (74.0%) and comparable to the 2006 (75.5%);
- ☐ In 2010 there is an increase in total vehicles from 2008 as well as an increased percentage of driver-only vehicles;
- ☐ In 2010, two person vehicle trips accounted for 21.6% of all measured trips, down from 23% in 2008 and similar to the 21.9% in 2006;

- In 2010, three person vehicle trips accounted for 1.9% of all measured trips, and as with the 1 and 2 person vehicle occupancy distributions, this is down from the 2.3% of 2008 and comparable to the 2% in 2006;
- Little change occurred between 2004, 2006, 2008 and 2010 for trips with four or more persons per vehicle, accounting collectively for less than 1% of all vehicle trips to the University.

3.3 Transit Passengers

BC Transit's complete summary of the transit passenger survey conducted between September and November 2010 is presented in Appendix C and summarized in **Table 9** in terms of average weekday ridership.

Table 9: Transit Passenger Summary 2004 - 2010

Travel Direction	Survey Year			
	2004	2006	2008	2010
Inbound	8,194	7,885	9,426	8,805
Outbound	6,694	7,550	8,546	8,314
Total	14,888	15,435	17,972	17,119

Highlights of Table 9 include:

- For a typical weekday in Fall 2010, 8,805 transit passengers arrive at the University which is a decrease of 6.6% from 2008, although it is still an increase of 11.7% over 2006 and 8.1% over 2004. For inbound trips the busiest hour is still between 08:00 AM and 09:00 AM when 1,525 passengers which represents 17.3% of arrivals during the day. This is a decrease of 5.7% from the 1,618 passengers arriving in the peak hour in 2008;
- 8,805 passengers depart during the same average Fall weekday in 2010 which is a decrease of 2.7% from 2008 but still higher by 10.1% and 24.2% over the 2006 and 2004 average departures respectively. The peak hour for outbound trips is 3:00 PM– 4:00 PM when 1,193 passengers depart. This represents 14.3% of all departures during the day and is a decrease of 7.7% from the 1,292 passengers leaving during the peak hour in 2008;
- The combined total transit ridership for a typical weekday in Fall 2010 is 17,119 passengers which is a decrease of 4.7% from 2008 and an increase of 10.9% over 2006 and 15.0% over 2004. In terms of bus frequency, an average of 1,038 inbound and outbound bus trips are made throughout the typical weekday with 176 trips made during the AM and PM peak hours. This is a significant increase over the service from 2008 when there were a total of 851 inbound and outbound bus trips during the average weekday and a total of 132 trips during the peak hours

It would appear that overall transit ridership has decreased since 2008 although it is higher than the ridership in 2006 and 2004 which may be related to the increased vehicular use and decreased vehicular occupancy rates observed during the survey period. At the same time there continues to be increases in cycling trips and pedestrian trips as described in the following sections.

Of the routes serving the University, the most heavily used route is the #14 (Vic General / UVic via Richmond) route, accounting for 30.0% of all trips to and from the campus. The next most popular route is #26 (Dockyard / UVic via McKenzie) with 23.5% of all trips, followed by the #4 (UVic / Downtown via Hillside) with 15.4% of all trips. These top three routes are the same as in 2000, 2004, 2006 and 2008. In 2010 these three routes carried 68.8% of all trips to and from the campus during an average Fall weekday which is less than the 73.3% carried in 2008. Most of this decrease is on Route #4 which decreased from 20.0 to 15.4% of all trips. However the four new routes since 2008 (#12, #13, #15 and #16) carried 9.3% of all average Fall weekday trips.

The approximate distribution of transit trips at UVic is shown in **Exhibit 5**. As in 2004, 2006 and 2008, the predominant transit trip-orientation is to the south / southwest, primarily involving the #4, #7, and #14 routes accessing the UVic campus along University Drive. These three routes plus the #33, which heads in the same direction, account for 57.5% of all trips. With 32.9% of all transit trips using McKenzie Avenue, over 90% of all transit trips use either McKenzie Avenue or University Drive for access to and from the campus.

3.4 Cyclists

Using the procedure as described in Section 2.2, the observed peak period cycling trips were expanded into daily inbound and outbound trip profiles. A summary of the total inbound and outbound cycling trips at the University for the 7:00 AM to 10:00 PM period is summarized in **Exhibit 6**.

The most heavily used driveway for cycling trips is University Drive accounting for approximately 26.1%, followed by the McKenzie Avenue multi-use pathway at 14.4% and the West Campus gate at 12.4%. These percentages are lower than 2008, which can be partially attributed to the inclusion of two new manual survey stations for the 2010 survey. These two additional stations are paths to the campus from the Gordon Head Road / McKenzie Avenue intersection (M-11) and Gordon Head Road / Cedar Hill Cross Road intersection (M-12). It is calculated that during an average Fall weekday approximately 5,558 bicycle trips are made between 7:00 AM and 10:00 PM. This is an increase of approximately 40% more than the 3,964 bicycle trips calculated in 2008.

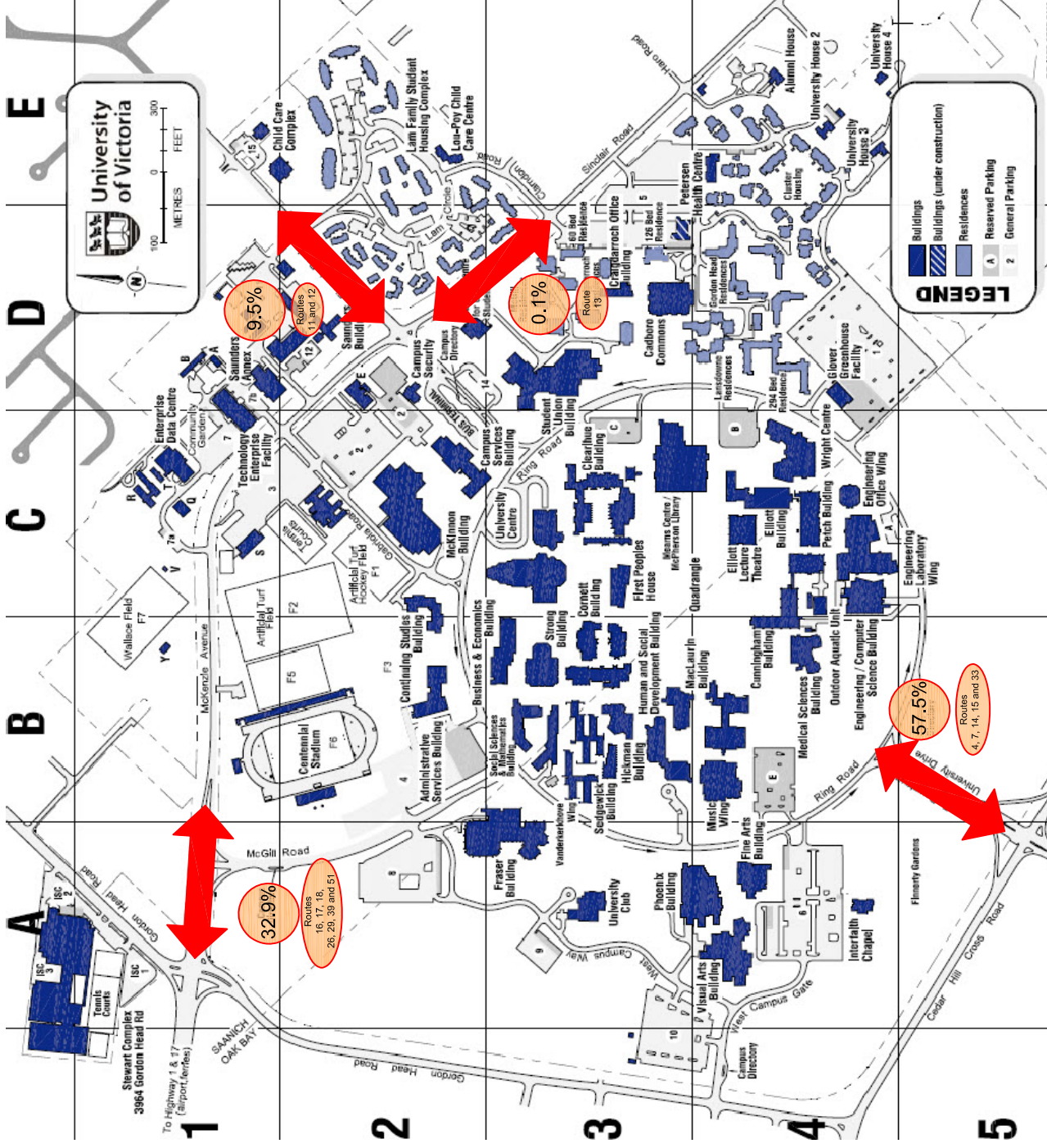


Exhibit 5 Transit Passenger Directional Distribution

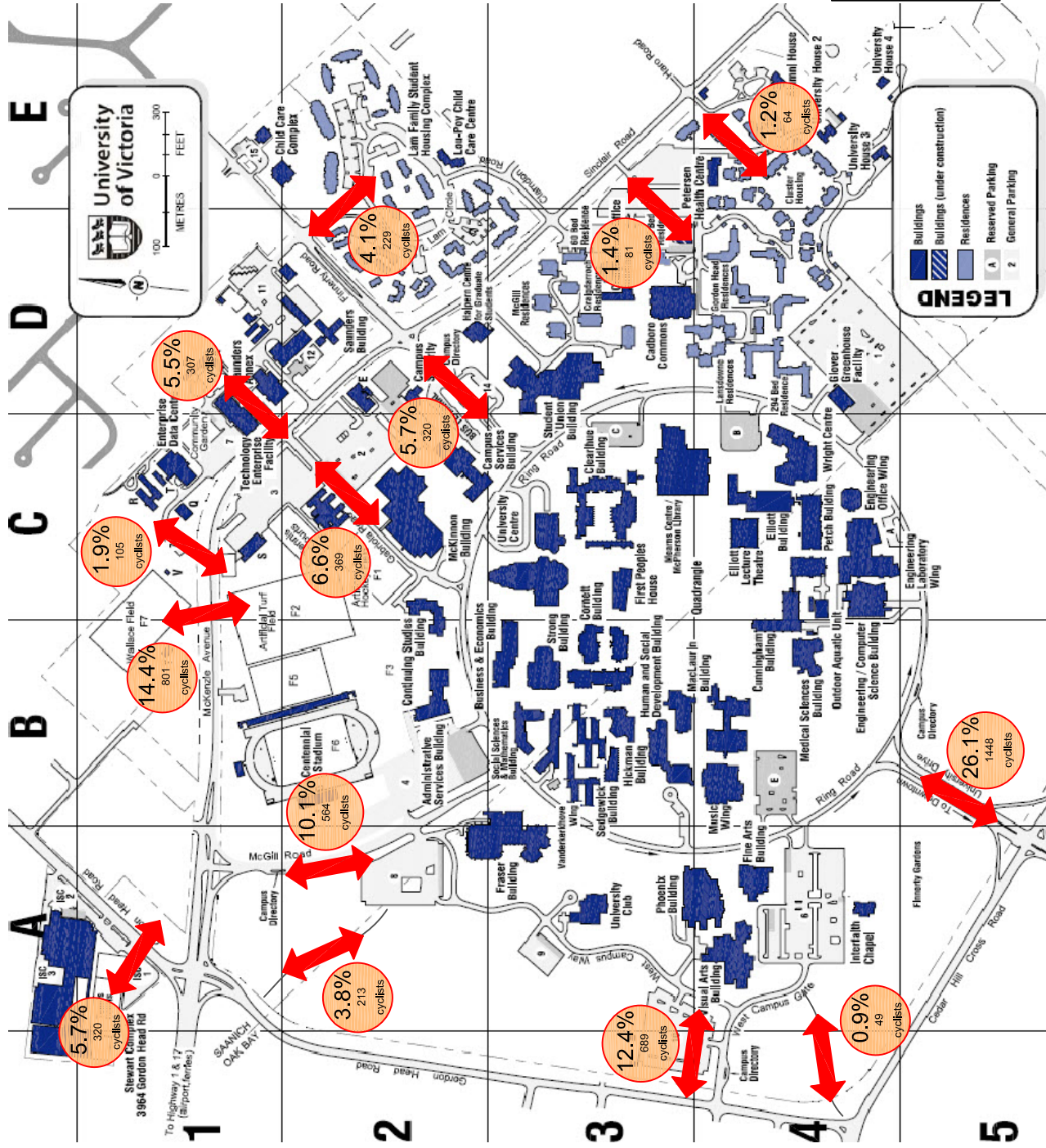


Exhibit 6 Cyclist Access Patterns

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There are two primary factors for this increase. As mentioned earlier, there were two additional survey locations added in 2010 and an average of 161 additional bicycle trips were recorded during the survey period at survey stations M-11 and M-12. In addition, at the other survey locations in 2010, which are the same survey locations used for the 2008 survey, the average number of observed bicycle trips was 3,126 or an increase of 592 bicycle trips over the 2,534 trips recorded in 2008. This is a total increase of 753 bicycle trips during the 7 hour survey period and when these trips are factored to forecast the total bicycle trips between 7:00 AM to 10:00 PM of an average Fall weekday, a large increase can be expected.

The 2010 cycling trip total includes 2,930 inbound and 2,628 outbound cycling trips. There is a slight inbound / outbound imbalance that may be due to cyclists still being on campus at 10:00 PM or cyclists using transit for their outbound trip.

The cumulative inbound and outbound cycle trip estimates were used to estimate on-site bicycle accumulation for each hour, as summarized in Table 10.

Table 10 On-Site Bicycle Parking Estimate

Hour beginning	Cumulative bicycle arrivals	Cumulative bicycle departures	On-site bicycle accumulation
7:00	114	43	70
8:00	645	141	503
9:00	1087	217	870
10:00	1332	289	1043
11:00	1584	385	1199
12:00	1836	491	1345
13:00	2060	600	1460
14:00	2197	849	1348
15:00	2346	1147	1199
16:00	2496	1582	913
17:00	2610	1949	661
18:00	2750	2175	575
19:00	2835	2316	519
20:00	2888	2438	450
21:00	2933	2614	320

Based on this method, the peak accumulation of bicycles parked at the University is approximately 1,460 bicycles between 1:00 PM and 2:00 PM. This is up from 1309 in 2008, 931 in 2006, 870 in 2004, and 600 in 2000. The increase in bicycle accumulation appears to coincide with the overall increase in cycling trips to and from the campus. A more accurate estimate of on-campus bicycle accumulation could be achieved through surveys of bike parking facilities throughout the day.

3.5 Pedestrians

Using the same procedure as in the 'Cyclists' section, estimated daily inbound / outbound trip profiles were developed for the 7:00 AM to 10:00 PM period and are summarized in **Exhibit 7**. The number of daily pedestrian trips to / from the University is estimated at approximately 9,906 trips consisting of 4,997 inbound and 4,908 outbound trips. This represents a 47.6% increase over the 2008 and 2006 pedestrian trips which were quite similar at 6,165 trips and 6,160 trips respectively.

As with the large increase in bicycle trips, there were significant differences in the number of pedestrian trips recorded during the 7 hour survey periods on October 20th and 21st. There were two additional survey locations at M-11 on path between Gordon Head Road / McKenzie Avenue intersection and campus, and M-12 which is a path connecting the campus to the Gordon Head Road / Cedar Hill Cross Road intersection. These two locations showed an average of 861 pedestrians per survey day. A comparison of the other survey locations, common to both the 2010 and 2008 surveys, also showed an increase of 1,020 pedestrian trips. This total average increase of 1,881 pedestrian trips recorded during the survey periods, when extrapolated, results in the large increase to 9,906 pedestrian trips during the 7:00 AM to 10:00 PM period.

The highest percentage of pedestrians was recorded at the McKenzie Avenue multi-use pathway with 12.0% followed by the Stewart Complex at 10.7% and the new station on the pathway from the intersection of McKenzie Avenue and Gordon Head Road at 10.6%. These first two percentages were the highest reported in the 2008 report as well. However the percentages are generally lower as 14.3% of the 2010 pedestrian trips are attributed to the two new survey stations of M-11 and M-12.

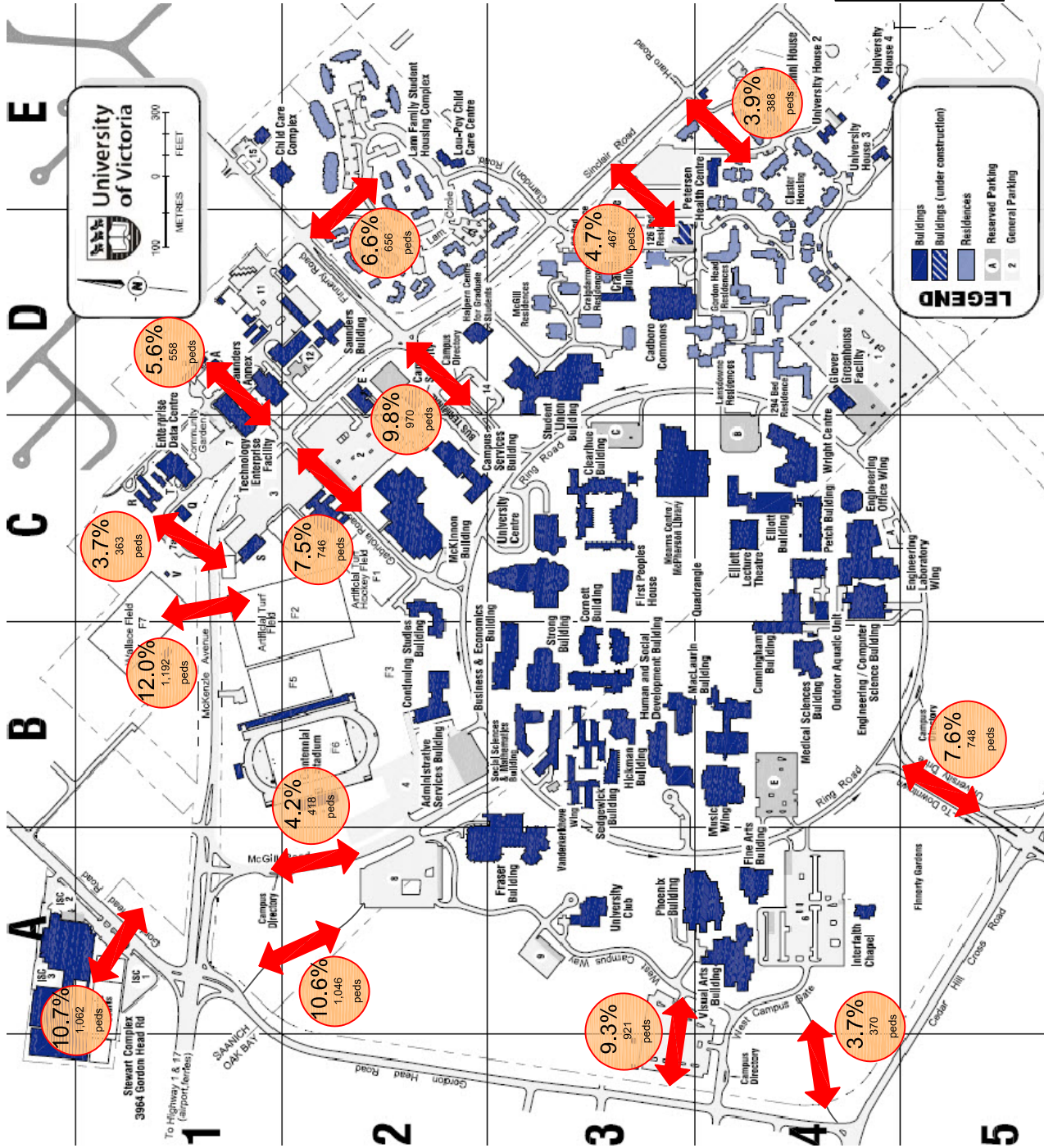


Exhibit 7
Pedestrian Access Patterns
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3.6 Modal Split Summary

For a typical weekday condition, the estimated daily profiles of inbound and outbound trips to / from the University are summarized in **Table 11** (Inbound) and **Table 12** (Outbound) for all the major modes considered, i.e., vehicles, automobile passengers, transit passengers, cyclists, pedestrian, and rollerblade / skateboards. **Table 13** summarizes the overall mode split for 2010. The corresponding profiles for inbound and outbound trips by all modes are presented in **Exhibits 8** and **9** respectively.

As noted in the earlier sections, there has been an increase in automobile drivers since 2008 as the inbound and outbound percentages have increased by 1.4 and 1.3% respectively. At the same time, the numbers of automobile passengers and transit passengers have decreased. Automobile passenger changes are -2.0 and -3.9% in the inbound and outbound directions of travel while transit passenger changes are -4.4 and -5.7% respectively.

However the active modes of transportation have shown significant growth as the changes in cyclists is 0.9 and 2.8% in the inbound and outbound direction. Pedestrians in the inbound and outbound travel directions have increased 4.1 and 5.4% respectively. Skateboarders and rollerbladers remained relatively constant between 2008 and 2010 based on percentage changes.

Table 11: Inbound Modal Trip Split by Hour

Hour beginning	Automobile drivers	Automobile passengers	Transit passengers	Cyclists	Pedestrians	Skateboards/rollerbladers	Total
7:00	678	122	671	114	153	2	1,740
8:00	1,809	446	1,525	531	657	16	4,984
9:00	1,284	294	1,202	442	640	7	3,869
10:00	847	194	734	245	326	6	2,352
11:00	880	201	580	252	338	6	2,257
12:00	868	198	608	251	334	6	2,265
13:00	774	177	429	224	298	5	1,907
14:00	775	186	396	137	331	12	1,837
15:00	854	182	653	149	387	14	2,239
16:00	891	206	402	150	404	7	2,060
17:00	791	163	405	114	298	3	1,774
18:00	837	186	200	140	359	9	1,731
19:00	510	114	228	85	219	6	1,162
20:00	326	73	115	54	140	4	712
21:00	264	59	130	45	113	3	614
Total	12,388	2,801	8,278	2,933	4,997	106	31,503
Modal split	39.3%	8.9%	26.3%	9.3%	15.9%	0.3%	100.0%

Table 12: Outbound Modal Trip Split by Hour

Hour beginning	Automobile drivers	Automobile passengers	Transit passengers	Cyclists	Pedestrians	Skateboards/rollerbladers	Total
7:00	272	84	494	43	76	1	970
8:00	669	209	439	98	237	6	1,658
9:00	535	171	520	76	214	3	1,519
10:00	498	156	420	72	178	4	1,328
11:00	685	215	431	96	245	5	1,677
12:00	744	233	436	105	266	5	1,789
13:00	781	245	706	109	279	6	2,126
14:00	1,058	254	818	249	549	17	2,945
15:00	1,231	304	1,193	298	555	13	3,594
16:00	1,684	476	885	435	674	27	4,181
17:00	1,117	365	651	366	508	14	3,021
18:00	853	235	337	226	383	12	2,046
19:00	533	146	221	141	239	7	1,287
20:00	463	127	204	122	208	6	1,130
21:00	658	181	159	175	295	9	1,477
Total	11,781	3,401	7,914	2,611	4,906	135	30,748
Modal split	38.3%	11.1%	25.7%	8.5%	16.0%	0.4%	100.0%

Table 13: Total 2010 Inbound and Outbound Trips (Overall Mode Split)

Hour beginning	Automobile drivers	Automobile passengers	Transit passengers	Cyclists	Pedestrians	Skateboards/rollerbladers	Total
Total	24,169	6,202	16,192	5,544	9,903	241	62,251
Modal split	38.8%	10.0%	26.0%	8.9%	15.9%	0.4%	100.0%

Overall in 2010 there is a forecast increase of 11.8% in total trips from 2008 as 62,251 trips are calculated to travel to and from the campus from 7:00 AM to 22:00 PM. The fluctuation in the percentages for total trips by mode is similar to that for each of the travel directions illustrated in Tables 11 and 12.

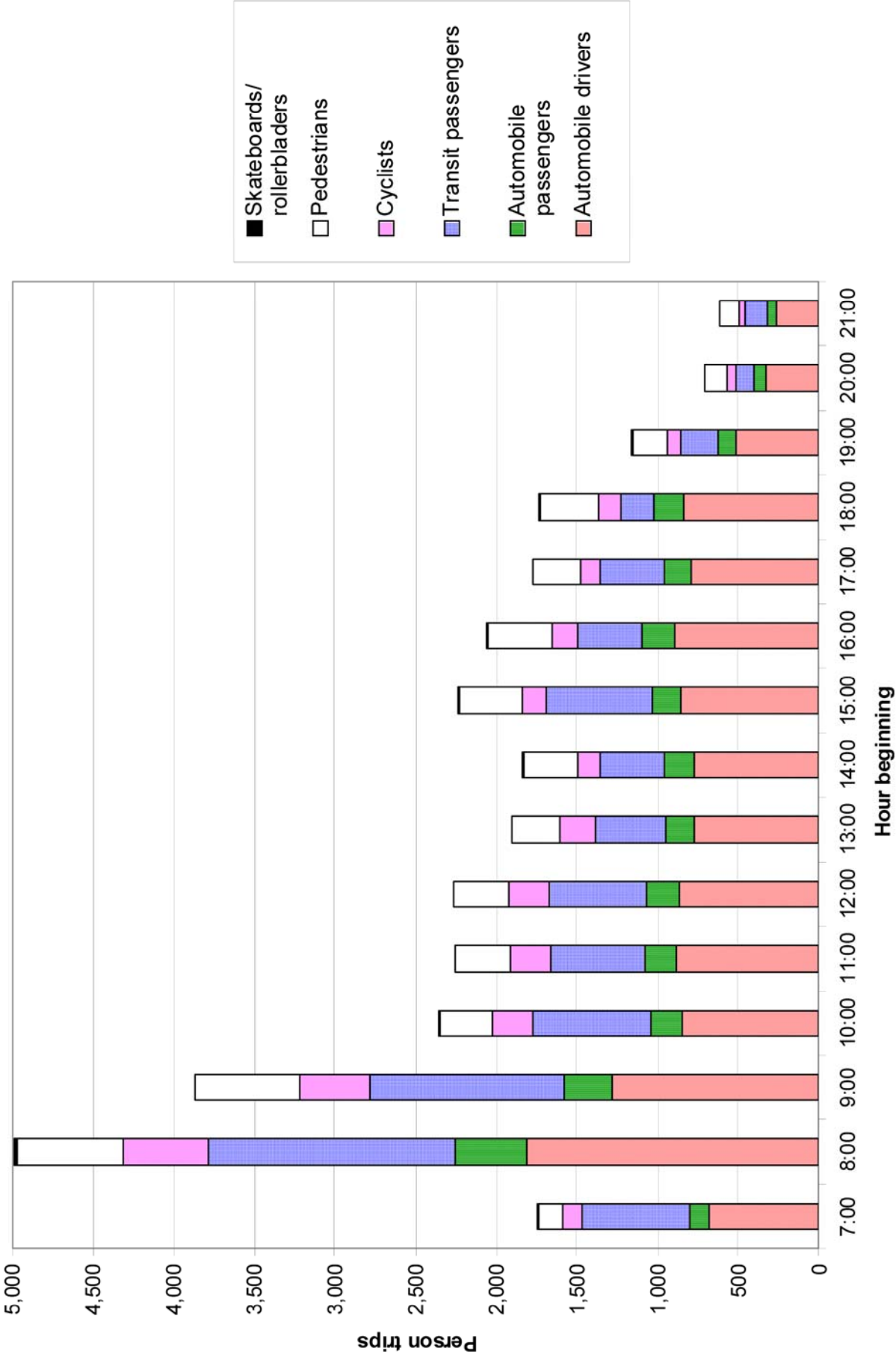


Exhibit 8 Inbound Traffic Profile (all travel modes)

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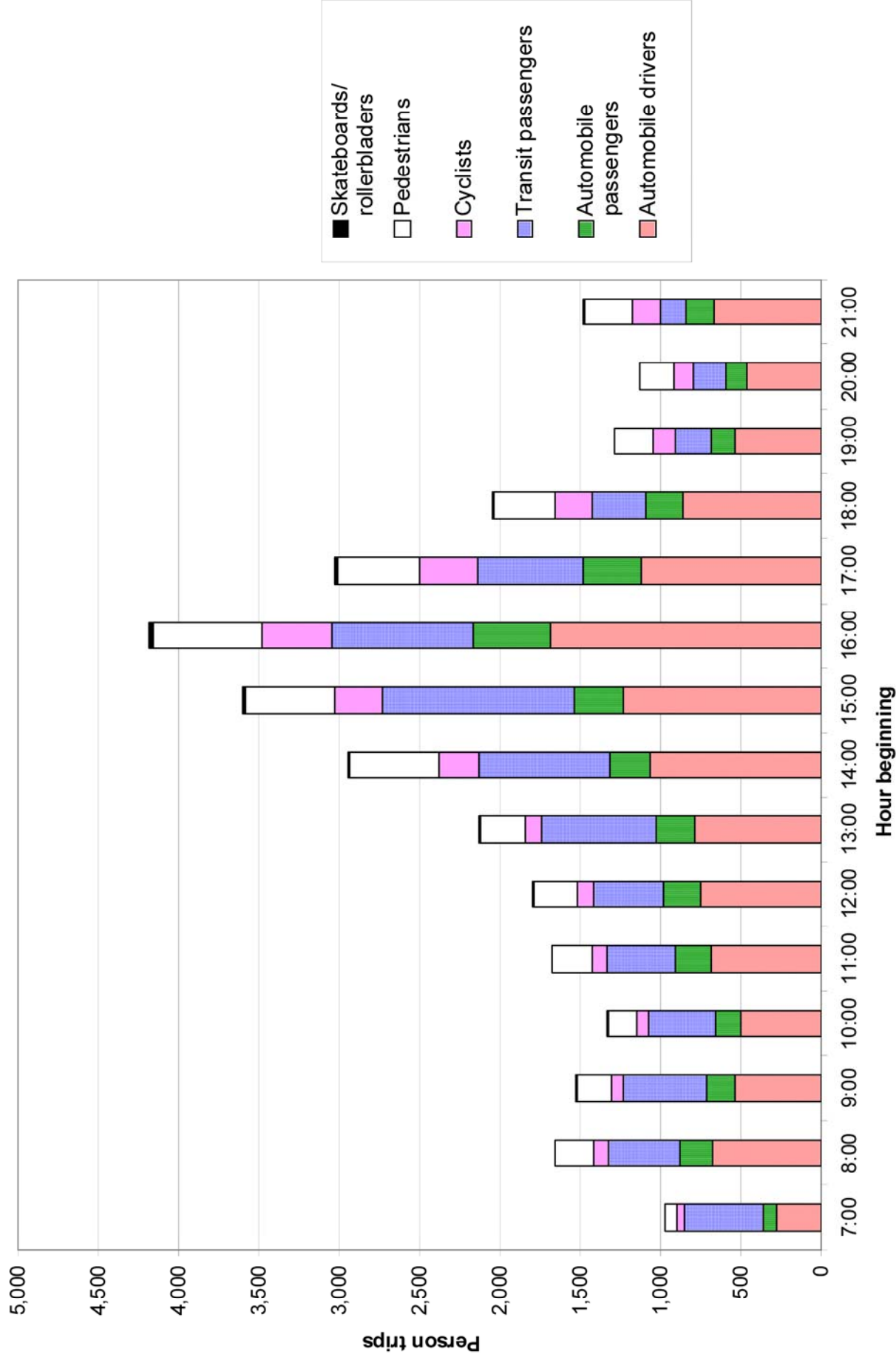


Exhibit 9

Outbound Traffic Profile (all travel modes)

University of Victoria - 2010 Traffic Survey

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Scale NTS

3.7 M-10 Finnerty Road Parking Lot

In 2006, the University of Victoria requested that a new manual count location be set up at the entrance / exit to the Finnerty Road parking lot at the entrance to Facilities Management to determine how this parking lot was being used. As with the 2006 and 2008 traffic study, this count station's data was not included in the general analysis as it would be inconsistent with the survey methodology of previous years.

During the observed peak hours (07:00 AM – 10:00 AM and 2:00 PM – 6:00 PM) a total of 37 vehicles entered the parking lot and 33 exited the lot while in 2008, 44 vehicles entered and 50 vehicles exited and 49 entered and 50 exited in 2006. This is presumably due to the current procedure to record vehicular movements of non-UVic vehicles only as the intent is to collect traffic volume data related to use of private vehicles.

The peak inbound hour occurred an hour later than the previous two studies at 8:00 AM - 09:00 AM when 12 vehicles (excluding trucks) entered the parking lot. The peak outbound hour was between 4:00 PM - 5:00 PM when 13 vehicles exited the parking lot (averaged over the two survey days).

As was done with the 2006 and 2008 studies, field reconnaissance was conducted to determine the utilization of the parking lot available for facilities management staff. Observations confirmed that the lot is typically occupied from 85 – 100% during periods of an average weekday which is consistent with the finds of the previous two studies.

The average vehicle occupancy observed at the lot was 1.26 for the inbound vehicles between 7:00 AM – 10:00 AM on October 20, 2010. This is comparable to the average vehicle occupancy for the remainder of the campus which is 1.27.

3.8 Gabriola Road Tube Count Station

As discussed in a previous section, the volume of automobile traffic (automobile drivers) was recorded using automatic tube counts on the University Drive, McGill Road, West Campus Gate Road and Finnerty Road. A new station was set up for the 2010 traffic audit on Gabriola Road south of McKenzie Avenue. The data for the Gabriola Road station was collected during same period as the other stations from October 11 to October 24, 2010.

A summary of the combined daily traffic (24-hour inbound and outbound total) for this automatic count station is provided in **Table 14**.

Table 14: Combined Daily Traffic

COUNT LOCATION / DIRECTIONAL VOLS.		MONDAY 2010	TUESDAY 2010	WEDNESDAY 2010	THURSDAY 2010	FRIDAY 2010	AVG. WEEKDAY 2010
GABRIOLA ROAD	IN	1,971	1,925	1,938	2,272	2,428	2,107
	OUT	1,346	1,463	1,405	1,243	1,602	1,412
TOTAL		3,317	3,388	3,343	3,515	4,030	3,519
% of AVG. WEEKDAY		94.3%	96.3%	95.0%	99.9%	114.5%	n/a

Overall, the average total weekday traffic (24 hour) recorded on this driveway in 2010 was 4,361 vehicles. The results of future automatic tube counts will indicate whether vehicle traffic at this driveway has been reduced.

3.9 Bikes on Buses

For the 2010 survey, the methodology was expanded to record the number of buses carrying bikes. Of the survey stations on roads University Drive (M-1), Finnerty Road (M-8), McGill Road (M-4), West Campus Gate Road (M-2), and Gabriola Road (M-6) – only the first three have bus routes to and from the campus.

Table 15: Number of Buses and Bikes on Buses

STATION		TIME	INBOUND		OUTBOUND	
NUMBER	NAME		BUSES	BIKES	BUSES	BIKES
M-1	University	7:00 - 10:00	88	13	77	0
		14:00 - 18:00	94	1	96	12
Station Average Sub-Total			182	14	173	12
M-4	McGill	7:00 - 10:00	50	10	0	0
		14:00 - 18:00	38	4	1	0
Station Average Sub-Total			88	14	1	0
M-8	Finnerty	7:00 - 10:00	22	0	87	1
		14:00 - 18:00	41	1	83	1
Station Average Sub-Total			63	1	170	2
Survey Average Totals			333	29	344	14

This is the first time this data has been collected so there is no datum to evaluate the results from the 2010 survey against previous years.

4. MODAL SPLIT COMPARISON-

A comparison of modal split results between 1996 and 2010 is shown in Table 16 and visually in **Exhibit 10**.

Table 16: Modal Split Comparison with Previous Years

Travel Mode	1996 Survey	2000 Survey	2004 Survey	2006 Survey	2008 Survey	2010 Survey
Auto Drivers	57.5%	54.4%	47.1%	44.1%	37.5%	38.8%
Auto Passengers	15.6%	11.0%	11.8%	11.9%	12.8%	10.0%
Transit Passengers	11.3%	17.8%	26.2%	27.4%	31.0%	26.0%
Cyclists	6.9%	5.5%	6.0%	5.3%	7.1%	8.9%
Pedestrians	8.7%	11.3%	8.7%	11.2%	11.2%	15.9%
Skateboards/ rollerbladers	0.0%	0.0%	0.2%	0.1%	0.3%	0.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

The percentage of auto drivers is at 38.8%, an increase from 2008 although lower than all of the other surveys. The percentage of auto passengers has decreased from 2008 and this year is the lowest percentage of any of the survey years to date. The percentage of transit users has also dropped significantly from 2008 although it is comparable to the results from 2004 and 2006. Cycling experienced another increase from 2008 (7.1% to 8.9%), and walking changed significantly from 2008 to 2010 increasing 4.7% to 15.9% of all trips. These increases in cycling and pedestrian trips are partially attributed to the two new survey stations M-11 and M-12. However the number of cycling and pedestrian trips for the other manual survey stations that were common for both the 2010 and 2008 surveys also recorded increased trips. Therefore there would have still been a net increase in these two modes of transportation even without the two new manual survey locations. Skateboarders and rollerbladers currently make up only 0.4% of traffic to and from the campus, a slight increase from 2010.

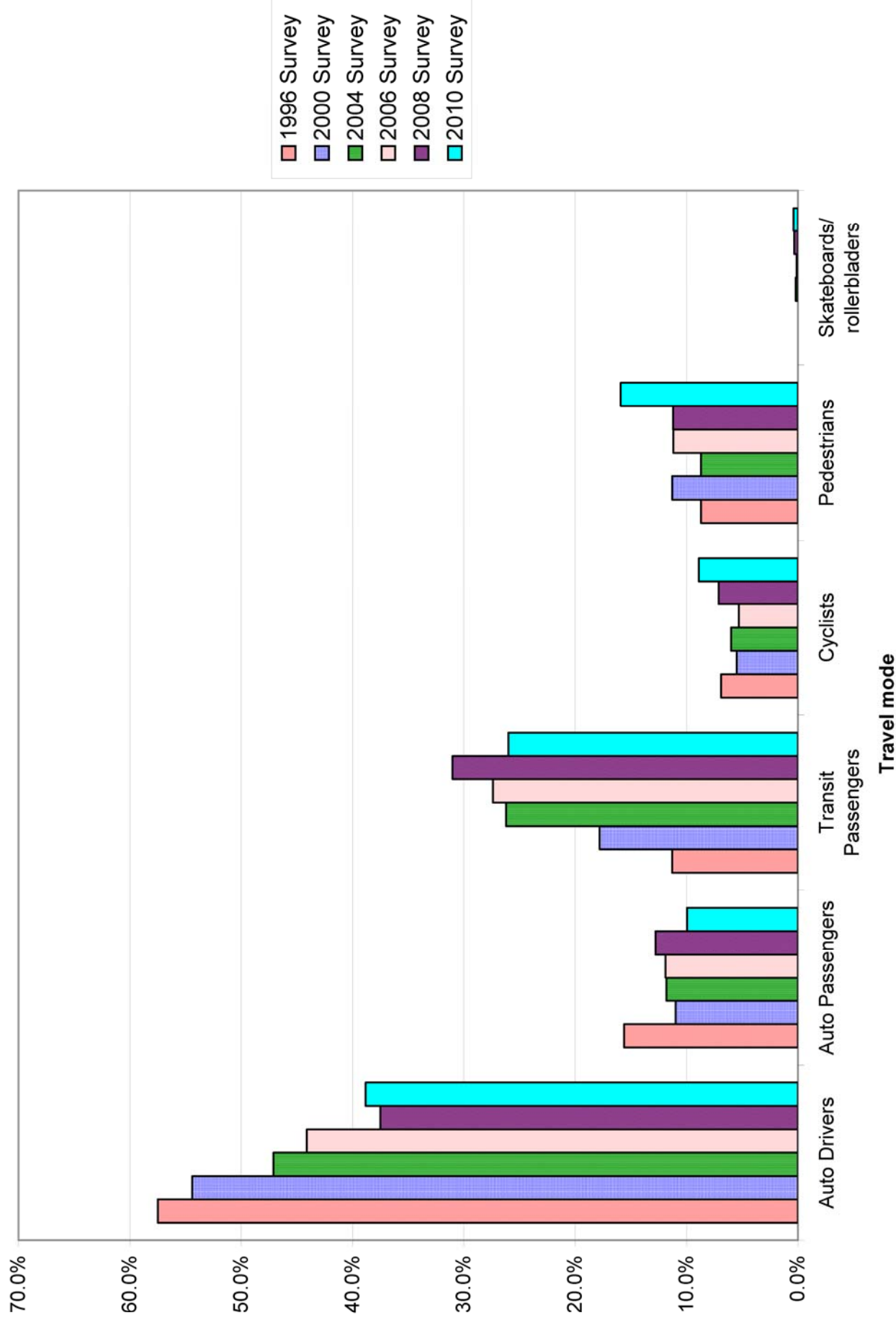


Exhibit 10

1996 / 2000 / 2004 / 2006 / 2008 / 2010 Travel Mode Split Summary

University of Victoria - 2010 Traffic Survey

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5. SUMMARY

The campus population has grown slightly over the past few surveys with an enrolment which is approximately 400 students higher than in 2006 which is comparable to the increase in UVic employees over the same period. During this period there has been significant construction, some of which have led to a reduction in available parking on campus. As with the previous traffic audits conducted for UVic, the findings documented in this report will help gauge the impact of the campus' Transportation Demand Management (TDM) Strategy. It was noted in the 2008 that overall travel patterns observed at the UVic campus had changed dramatically since 1992 and there were significant changes in 2008 when large reductions in vehicular use was observed and increases in vehicle occupancy, transit ridership and trips by cyclists and pedestrians were recorded. There were more positive signs in 2010 with regard to TDM programs as pedestrian and bicycle traffic increased and total automobile-related trips were 48.8%, the first time that these trips have accounted for less than 50% of the trips to and from the UVic campus. The analysis of the 2010 Campus Survey showed the following trends since 2008:

- While single occupant vehicles are still below 40% of all trips, a threshold noted in the 2008 report, in 2010 they increased slightly to 38.8% from the low of 2008 at 37.5%. However, there has been a decrease of almost 20% from the 1996 study;
- Automatic tube counts reveal that over a 24-hour period, vehicular traffic volumes at the four stations common to the 2008 and 2010 surveys (University, West Campus Gate, McGill and Finnerty) showed an average weekday increase of 6.7%. These higher volumes were also reflected in the manual counts which had a 8.8% increase from 2008. It should be noted however that without the Finnerty site included, the 2010 24-hour volumes are less than those recorded for the 2000, 2004 and 2006 studies so there has been a decreasing trend over the past decade of these traffic audits;
- Transit ridership decreased by 4.8% from 2008 levels in spite of an increase in the number of routes serving UVic and an increase in the number of buses accessing the campus on an average weekday. However, when compared to earlier transit ridership figures, the 2010 totals are comparable to those reported for the 2004 and 2006 studies;
- There was a significant increase in pedestrian trips reported as they represented 15.9% of all trips, up from the 11.2% reported for 2008. This was partially due to the addition of two new survey locations which were pathways used by pedestrians and cyclists, as well as a large increase in pedestrians at the survey locations common to the 2008 and 2010 traffic audits;
- Cycling trips also had a large increase for similar reasons as the increased pedestrian trips, accounting for 8.9% of all trips in 2010 an increase from 7.1% reported in 2008. It was also noted that improved weather conditions during the survey period can be a contributing factor;

One aspect of the survey methodology that should be addressed prior to future surveys is the increasing potential for double counting of trips in certain areas. While the methodology has remained consistent over the past surveys to ensure that results could be compared, the campus landscape continues to change as evidenced by the construction activities outlined earlier. This means that the ATC and manual survey stations may be recording internal trips between various facilities on campus. The addition of the new M-11 manual survey station on the path between the campus and the Gordon Head Road / McKenzie Avenue intersection means that trips to and from the Ian Stewart complex could also be recorded as trips to and from the main campus via this path. This potential double counting of trips could skew results. Whether the cordon line around the campus should be expanded or whether some of these facilities should be monitored as discrete activity nodes should be discussed to provide direction for future studies in the context of maintaining the relevance of the historical data base from 1992 to the present 2010 survey results.

6. CONCLUSIONS

The results from the 2010 document the continued positive gains resulting from UVic's TDM program with decreases in total automobile-related trips and large increases in both pedestrian and bicycle trips. It should be noted that during the 2010 survey period, some factors which would influence overall results are: two additional manual survey locations; large numbers of construction workers travelling to and from campus, an overall decrease in transit ridership in the region as well as weather-related impacts on modal choice. With the increased vehicular trips and decreases in automobile passengers and transit ridership, it could be that passengers have now become drivers or shifted to more active modes of transportation. There may also have been a shift from transit ridership to more active forms of transportation as the growth in pedestrian and cycling traffic over the past two surveys has been quite significant.

With this comprehensive traffic survey, in almost all cases the results observed or forecast are an improvement over past survey results and do indicate a positive trend consistent with TDM goals and objectives.

APPENDIX A

Automatic Traffic Count Data
TransTech Data Services

FINNERTY ROAD

ENTERING - SOUTHBOUND (from McKenzie Avenue / Sinclair Road)

START HOUR	Monday Oct 18	Tuesday Oct 19	Wednesday Oct 20	Thursday Oct 21	Friday Oct 22	Saturday Oct 23	Sunday Oct 24	7 day Average	Weekday Average
0:00	4	6	5	5	4	16	10	7	5
1:00	0	3	8	5	5	7	17	6	4
2:00	1	2	1	1	4	7	2	3	2
3:00	2	1	2	5	6	5	4	4	3
4:00	2	1	2	1	3	2	3	2	2
5:00	5	8	5	4	8	5	3	5	6
6:00	14	18	25	22	20	10	2	16	20
7:00	87	66	82	72	66	13	14	57	75
8:00	211	202	198	219	160	40	15	149	198
9:00	138	136	134	122	156	58	40	112	137
10:00	77	103	117	92	133	66	56	92	104
11:00	89	99	102	103	116	65	45	88	102
12:00	95	120	105	104	119	70	82	99	109
13:00	76	102	94	91	132	96	85	97	99
14:00	102	123	119	132	130	85	74	109	121
15:00	115	106	109	128	132	79	64	105	118
16:00	137	130	143	140	121	70	58	114	134
17:00	97	95	89	104	85	66	34	81	94
18:00	75	84	72	94	74	142	46	84	80
19:00	44	57	59	57	60	65	32	53	55
20:00	33	39	40	37	34	36	30	36	37
21:00	29	40	41	47	38	41	27	38	39
22:00	20	18	32	24	44	37	15	27	28
23:00	11	8	17	13	27	46	14	19	15
24 Hour Total	1,464	1,567	1,601	1,622	1,677	1,127	772	1,404	1,586
7:00 - 19:00 Total	1,299	1,366	1,364	1,401	1,424	850	613	1,188	1,371
7:00 - 22:00 Total	1,405	1,502	1,504	1,542	1,556	992	702	1,315	1,502

Average Weekday Peak Hour: 8:00 - 9:00

FINNERTY ROAD

EXITING - NORTHBOUND (towards McKenzie Avenue / Sinclair Road)

START HOUR	Monday Oct 18	Tuesday Oct 19	Wednesday Oct 20	Thursday Oct 21	Friday Oct 22	Saturday Oct 23	Sunday Oct 24	7 day Average	Weekday Average
0:00	12	16	22	17	27	40	26	23	19
1:00	8	7	11	7	12	19	22	12	9
2:00	3	2	2	6	6	17	15	7	4
3:00	0	0	0	2	6	3	8	3	2
4:00	4	5	5	6	3	2	4	4	5
5:00	3	4	6	7	11	5	4	6	6
6:00	21	22	30	26	23	9	4	19	24
7:00	95	80	89	93	87	16	9	67	89
8:00	240	207	212	243	187	43	21	165	218
9:00	165	178	179	151	156	79	39	135	166
10:00	134	171	144	131	173	94	56	129	151
11:00	181	184	171	195	197	94	77	157	186
12:00	156	183	182	165	208	144	137	168	179
13:00	157	169	190	184	225	146	102	168	185
14:00	241	219	227	238	244	157	149	211	234
15:00	266	260	255	253	269	150	130	226	261
16:00	282	292	321	282	271	140	144	247	290
17:00	238	221	235	231	208	104	119	194	227
18:00	177	187	206	196	141	106	109	160	181
19:00	117	119	119	102	108	81	73	103	113
20:00	82	114	109	88	94	79	79	92	97
21:00	93	118	116	111	82	74	61	94	104
22:00	64	55	80	75	60	54	60	64	67
23:00	42	35	46	43	44	49	34	42	42
24 Hour Total	2,781	2,848	2,957	2,852	2,842	1,705	1,482	2,495	2,856
7:00 - 19:00 Total	2,332	2,351	2,411	2,362	2,366	1,273	1,092	2,027	2,364
7:00 - 22:00 Total	2,624	2,702	2,755	2,663	2,650	1,507	1,305	2,315	2,679

Average Weekday Peak Hour: 16:00 - 17:00

FINNERTY ROAD

GABRIOLA ROAD

ENTERING - SOUTHBOUND (from McKenzie Avenue)

START HOUR	Monday Oct 18	Tuesday Oct 19	Wednesday Oct 20	Thursday Oct 21	Friday Oct 22	Saturday Oct 23	Sunday Oct 24	7 day Average	Weekday Average
0:00	0	3	2	1	1	3	4	2	1
1:00	3	2	3	4	5	2	2	3	3
2:00	1	2	3	2	3	1	1	2	2
3:00	3	1	3	1	1	2	1	2	2
4:00	5	3	5	3	2	1	1	3	4
5:00	4	21	20	16	7	6	1	11	14
6:00	48	39	40	40	51	13	6	34	44
7:00	98	167	119	142	93	39	4	95	124
8:00	265	240	219	257	219	108	23	190	240
9:00	154	153	154	185	194	161	53	151	168
10:00	103	146	129	138	191	115	82	129	141
11:00	113	100	105	144	154	90	51	108	123
12:00	133	141	122	141	161	86	135	131	140
13:00	82	101	103	106	145	88	110	105	107
14:00	130	109	104	156	130	87	108	118	126
15:00	147	81	134	153	126	87	81	116	128
16:00	161	109	94	167	120	119	96	124	130
17:00	138	111	111	132	177	87	44	114	134
18:00	145	138	158	157	205	210	101	159	161
19:00	78	100	96	118	192	83	37	101	117
20:00	80	79	89	104	96	49	27	75	90
21:00	48	43	84	55	57	91	13	56	57
22:00	20	23	22	42	89	29	7	33	39
23:00	12	13	19	8	9	62	1	18	12
24 Hour Total	1,971	1,925	1,938	2,272	2,428	1,619	989	1,877	2,107
7:00 - 19:00 Total	1,669	1,596	1,552	1,878	1,915	1,277	888	1,539	1,722
7:00 - 22:00 Total	1,875	1,818	1,821	2,155	2,260	1,500	965	1,771	1,986

Average Weekday Peak Hour: 8:00 - 9:00

GABRIOLA ROAD

EXITING - NORTHBOUND (towards McKenzie Avenue)

START HOUR	Monday Oct 18	Tuesday Oct 19	Wednesday Oct 20	Thursday Oct 21	Friday Oct 22	Saturday Oct 23	Sunday Oct 24	7 day Average	Weekday Average
0:00	0	2	6	1	4	1	6	3	3
1:00	0	2	3	4	2	5	1	2	2
2:00	1	0	1	1	1	0	0	1	1
3:00	1	2	2	1	3	0	1	1	2
4:00	3	0	3	1	1	0	1	1	2
5:00	3	9	10	5	3	2	2	5	6
6:00	17	13	9	6	11	6	2	9	11
7:00	24	41	28	42	20	16	0	24	31
8:00	38	52	46	44	30	25	2	34	42
9:00	60	70	53	61	81	71	18	59	65
10:00	58	60	50	53	64	49	29	52	57
11:00	99	93	75	97	147	112	23	92	102
12:00	93	81	87	78	109	80	63	84	90
13:00	76	121	95	86	131	65	45	88	102
14:00	98	128	122	96	176	52	52	103	124
15:00	139	128	139	114	149	72	109	121	134
16:00	159	154	173	134	136	46	60	123	151
17:00	141	124	140	90	108	47	54	101	121
18:00	92	114	83	80	62	48	57	77	86
19:00	67	77	65	56	81	53	29	61	69
20:00	86	64	74	84	67	38	25	63	75
21:00	38	86	73	63	104	116	6	69	73
22:00	28	32	45	37	98	45	6	42	48
23:00	25	10	23	9	14	94	3	25	16
24 Hour Total	1,346	1,463	1,405	1,243	1,602	1,043	594	1,242	1,412
7:00 - 19:00 Total	1,077	1,166	1,091	975	1,213	683	512	960	1,104
7:00 - 22:00 Total	1,268	1,393	1,303	1,178	1,465	890	572	1,153	1,321

Average Weekday Peak Hour: 16:00 - 17:00

McGILL ROAD

ENTERING - SOUTHBOUND (from McKenzie Avenue)

START HOUR	Monday Oct 18	Tuesday Oct 19	Wednesday Oct 20	Thursday Oct 21	Friday Oct 22	Saturday Oct 23	Sunday Oct 24	7 day Average	Weekday Average
0:00	7	5	5	4	6	12	16	8	5
1:00	1	3	1	4	7	13	10	6	3
2:00	1	2	0	3	5	5	12	4	2
3:00	1	1	3	3	3	3	3	2	2
4:00	20	12	17	22	20	7	8	15	18
5:00	9	6	9	18	14	3	2	9	11
6:00	52	42	46	53	47	6	1	35	48
7:00	152	109	131	153	109	28	7	98	131
8:00	518	463	439	524	397	55	22	345	468
9:00	390	356	346	373	378	91	55	284	369
10:00	184	262	241	197	276	90	95	192	232
11:00	228	232	227	226	190	101	129	190	221
12:00	213	180	203	223	219	123	124	184	208
13:00	166	208	226	146	212	142	141	177	192
14:00	175	156	205	177	198	128	139	168	182
15:00	150	137	165	159	128	96	100	134	148
16:00	182	200	231	174	114	81	93	154	180
17:00	155	166	174	145	98	79	88	129	148
18:00	215	262	204	237	90	177	63	178	202
19:00	93	121	114	98	83	64	62	91	102
20:00	50	61	77	65	43	35	47	54	59
21:00	32	53	46	43	23	32	30	37	39
22:00	22	27	27	21	20	21	16	22	23
23:00	11	5	12	13	19	17	5	12	12
24 Hour Total									3,005
7:00 - 19:00 Total									2,679
7:00 - 22:00 Total									2,879

Average Weekday Peak Hour: 8:00 - 9:00

McGILL ROAD

EXITING - NORTHBOUND (towards McKenzie Avenue)

START HOUR	Monday Oct 18	Tuesday Oct 19	Wednesday Oct 20	Thursday Oct 21	Friday Oct 22	Saturday Oct 23	Sunday Oct 24	7 day Average	Weekday Average
0:00	11	12	8	9	10	10	19	11	10
1:00	1	6	1	7	6	6	2	4	4
2:00	2	1	2	5	1	5	2	3	2
3:00	2	1	1	1	0	1	0	1	1
4:00	2	6	3	4	1	1	0	2	3
5:00	4	3	4	3	1	3	1	3	3
6:00	6	12	10	10	6	2	2	7	9
7:00	25	41	27	38	32	5	0	24	33
8:00	113	149	109	128	108	21	11	91	121
9:00	121	138	113	103	111	34	8	90	117
10:00	81	106	109	99	119	47	33	85	103
11:00	130	140	124	164	160	42	60	117	144
12:00	140	144	165	146	200	58	57	130	159
13:00	133	169	183	158	212	77	56	141	171
14:00	181	226	174	209	247	81	97	174	207
15:00	200	157	212	197	142	96	69	153	182
16:00	263	267	264	253	194	137	132	216	248
17:00	206	163	196	198	176	63	88	156	188
18:00	129	144	171	148	71	58	68	113	133
19:00	131	96	107	88	43	33	48	78	93
20:00	69	100	79	79	54	31	36	64	76
21:00	99	135	93	141	25	53	27	82	99
22:00	59	43	69	62	38	62	35	53	54
23:00	29	24	33	29	18	109	21	38	27
24 Hour Total	2,137	2,283	4,420	2,279	1,975	1,035	872	2,143	2,619
7:00 - 19:00 Total	1,722	1,844	1,847	1,841	1,772	719	679	1,489	1,805
7:00 - 22:00 Total	2,021	2,175	2,126	2,149	1,894	836	790	1,713	2,073

Average Weekday Peak Hour: 16:00 - 17:00

UNIVERSITY DRIVE

ENTERING - NORTHBOUND (from Cedar Hill Cross Road)

START HOUR	Monday Oct 18	Tuesday Oct 19	Wednesday Oct 20	Thursday Oct 21	Friday Oct 22	Saturday Oct 23	Sunday Oct 24	7 day Average	Weekday Average
0:00	9	10	13	14	28	34	23	19	15
1:00	9	1	5	7	9	23	28	12	6
2:00	1	3	1	4	3	18	18	7	2
3:00	0	1	0	1	2	5	9	3	1
4:00	5	6	3	5	4	4	4	4	5
5:00	5	8	8	18	14	4	2	8	11
6:00	53	43	54	50	43	11	3	37	49
7:00	165	187	183	169	177	53	18	136	176
8:00	531	541	522	557	503	96	33	398	531
9:00	447	417	404	422	388	223	84	341	416
10:00	199	308	272	224	318	156	135	230	264
11:00	284	248	237	281	248	133	143	225	260
12:00	269	248	255	274	279	209	232	252	265
13:00	208	231	251	238	273	190	201	227	240
14:00	290	234	235	277	274	169	212	242	262
15:00	273	235	298	259	237	161	175	234	260
16:00	311	311	319	299	256	140	145	254	299
17:00	245	291	259	251	228	150	139	223	255
18:00	263	276	280	267	176	221	121	229	252
19:00	154	196	172	161	159	97	85	146	168
20:00	104	130	138	123	104	69	73	106	120
21:00	101	92	108	98	71	61	48	83	94
22:00	47	40	54	61	52	43	33	47	51
23:00	23	33	29	26	45	44	20	31	31
24 Hour Total	3,996	4,090	4,100	4,086	3,891	2,314	1,984	3,494	4,033
7:00 - 19:00 Total	3,485	3,527	3,515	3,518	3,357	1,901	1,638	2,992	3,480
7:00 - 22:00 Total	3,844	3,945	3,933	3,900	3,691	2,128	1,844	3,326	3,863

Average Weekday Peak Hour: 16:00 - 17:00

UNIVERSITY DRIVE

EXITING - SOUTHBOUND (towards Cedar Hill Cross Road)

START HOUR	Monday Oct 18	Tuesday Oct 19	Wednesday Oct 20	Thursday Oct 21	Friday Oct 22	Saturday Oct 23	Sunday Oct 24	7 day Average	Weekday Average
0:00	16	27	22	28	25	35	34	27	24
1:00	3	7	14	15	23	26	39	18	12
2:00	5	7	7	8	8	15	15	9	7
3:00	1	1	3	6	3	13	5	5	3
4:00	2	3	2	3	6	4	1	3	3
5:00	3	9	4	6	6	6	2	5	6
6:00	34	36	50	38	40	13	2	30	40
7:00	114	123	136	131	108	37	18	95	122
8:00	289	275	262	320	266	56	25	213	282
9:00	245	253	218	253	246	129	56	200	243
10:00	189	212	222	191	253	113	98	183	213
11:00	294	266	252	296	326	202	121	251	287
12:00	308	325	329	293	369	189	124	277	325
13:00	261	382	348	289	404	164	155	286	337
14:00	380	408	383	419	443	178	189	343	407
15:00	434	388	420	435	442	245	242	372	424
16:00	618	648	664	663	537	205	224	508	626
17:00	498	473	508	504	361	178	178	386	469
18:00	332	354	327	318	196	176	125	261	305
19:00	247	214	227	191	142	93	107	174	204
20:00	165	218	199	175	103	96	112	153	172
21:00	212	295	244	278	151	173	88	206	236
22:00	103	106	153	119	133	91	74	111	123
23:00	62	61	84	58	58	109	51	69	65
24 Hour Total	4,815	5,091	5,078	5,037	4,649	2,546	2,085	4,186	4,934
7:00 - 19:00 Total	3,962	4,107	4,069	4,112	3,951	1,872	1,555	3,375	4,040
7:00 - 22:00 Total	4,586	4,834	4,739	4,756	4,347	2,234	1,862	3,908	4,652

Average Weekday Peak Hour: 8:00 - 9:00

WEST CAMPUS GATE

ENTERING - EASTBOUND (from Gordon Head Road)

START HOUR	Monday Oct 18	Tuesday Oct 19	Wednesday Oct 20	Thursday Oct 21	Friday Oct 22	Saturday Oct 23	Sunday Oct 24	7 day Average	Weekday Average
0:00	1	1	0	1	1	2	2	1	1
1:00	0	0	0	1	2	1	4	1	1
2:00	1	1	2	1	0	0	0	1	1
3:00	1	0	1	0	0	0	1	0	0
4:00	8	12	12	11	10	1	1	8	11
5:00	1	1	0	1	2	0	0	1	1
6:00	10	10	19	14	8	2	1	9	12
7:00	55	46	41	49	65	4	0	37	51
8:00	245	248	201	252	185	25	7	166	226
9:00	176	190	188	192	182	29	17	139	186
10:00	77	128	112	86	98	29	21	79	100
11:00	124	110	93	124	111	30	25	88	112
12:00	138	100	93	118	87	25	41	86	107
13:00	63	123	113	67	60	66	40	76	85
14:00	79	63	75	69	66	29	31	59	70
15:00	44	44	80	60	32	23	16	43	52
16:00	97	55	67	56	43	16	18	50	64
17:00	48	62	40	70	37	33	17	44	51
18:00	41	48	67	70	29	52	14	46	51
19:00	21	62	53	73	77	50	3	48	57
20:00	9	14	11	12	19	10	8	12	13
21:00	10	8	8	16	9	2	4	8	10
22:00	4	5	7	5	6	11	3	6	5
23:00	0	4	2	5	9	4	2	4	4
24 Hour Total	1,253	1,335	1,285	1,353	1,138	444	276	1,012	1,273
7:00 - 19:00 Total	1,187	1,217	1,170	1,213	995	361	247	913	1,156
7:00 - 22:00 Total	1,227	1,301	1,242	1,314	1,100	423	262	981	1,237

Average Weekday Peak Hour: 8:00 - 9:00

WEST CAMPUS GATE

EXITING - WESTBOUND (towards Gordon Head Road)

START HOUR	Monday Oct 18	Tuesday Oct 19	Wednesday Oct 20	Thursday Oct 21	Friday Oct 22	Saturday Oct 23	Sunday Oct 24	7 day Average	Weekday Average
0:00	1	9	10	13	13	13	1	9	9
1:00	2	0	1	2	2	2	6	2	1
2:00	0	0	1	1	0	0	3	1	0
3:00	2	1	1	1	1	1	3	1	1
4:00	1	1	1	2	0	2	0	1	1
5:00	1	1	1	3	0	0	3	1	1
6:00	1	2	4	2	3	0	0	2	2
7:00	4	2	5	8	3	2	1	4	4
8:00	22	16	18	23	13	9	0	14	18
9:00	37	36	27	33	42	9	7	27	35
10:00	27	46	47	42	47	13	6	33	42
11:00	78	79	73	81	72	25	9	60	77
12:00	89	109	97	94	126	30	20	81	103
13:00	87	166	105	87	123	35	15	88	114
14:00	123	108	100	111	92	15	18	81	107
15:00	106	100	119	117	87	52	30	87	106
16:00	190	177	189	188	131	32	27	133	175
17:00	115	97	142	114	68	22	15	82	107
18:00	64	71	60	53	42	28	10	47	58
19:00	71	52	49	40	14	16	7	36	45
20:00	21	53	35	39	17	16	8	27	33
21:00	23	75	51	106	66	46	9	54	64
22:00	10	22	28	32	40	44	7	26	26
23:00	8	14	8	8	22	18	3	12	12
24 Hour Total	1,083	1,237	1,172	1,200	1,024	430	208	908	1,143
7:00 - 19:00 Total	942	1,007	982	951	846	272	158	737	946
7:00 - 22:00 Total	1,057	1,187	1,117	1,136	943	350	182	853	1,088

Average Weekday Peak Hour: 16:00 - 17:00

APPENDIX B

Peak Period Manual Traffic Count Data

PEDESTRIAN SUMMARY

INBOUND TOTAL PEDESTRIANS (excluding M-10)

	M1	M2	M3	M4	M5a	M5b	M6	M7	M8	M9a	M9b	M10	M11	M12	MF	TOTALS
7:00 - 10:00	163	205	100	52	24	169	96	73	162	64	58	17	202	96	28	1,488
14:00 - 18:00	82	76	276	58	33	165	110	95	126	60	70	19	138	43	129	1,458
TOTALS	244	281	375	110	57	333	206	168	288	124	128	36	339	139	156	2,946

OUTBOUND TOTAL PEDESTRIANS (excluding M-10)

	M1	M2	M3	M4	M5a	M5b	M6	M7	M8	M9a	M9b	M10	M11	M12	MF	TOTALS
7:00 - 10:00	16	9	55	29	65	90	41	27	60	9	24	6	21	3	95	542
14:00 - 18:00	192	275	208	105	61	261	198	139	215	106	129	4	278	82	99	2,346
TOTALS	208	284	263	134	126	351	239	166	275	115	152	9	299	85	194	2,887

TWO-WAY TOTAL CYCLES (excluding M-10)

	M1	M2	M3	M4	M5a	M5b	M6	M7	M8	M9a	M9b	M10	M11	M12	MF	TOTALS
7:00 - 10:00	178	214	154	81	89	258	137	100	222	73	82	23	223	99	123	2,030
14:00 - 18:00	274	351	484	163	94	426	308	234	341	165	199	22	415	125	228	3,803
TOTALS	452	565	638	244	183	684	444	334	562	238	280	45	638	224	350	5,833

BICYCLE SUMMARY

INBOUND TOTAL CYCLES (excluding M-10)

	M1	M2	M3	M4	M5a	M5b	M6	M7	M8	M9a	M9b	M10	M11	M12	MF	TOTALS
7:00 - 10:00	338	168	24	130	18	165	68	56	57	13	12	4	44	13	14	1,116
14:00 - 18:00	102	54	71	52	8	97	36	34	41	11	11	4	17	2	32	564
TOTALS	440	222	94	181	25	262	104	89	97	24	23	8	61	15	46	1,680

OUTBOUND TOTAL CYCLES (excluding M-10)

	M1	M2	M3	M4	M5a	M5b	M6	M7	M8	M9a	M9b	M10	M11	M12	MF	TOTALS
7:00 - 10:00	40	5	25	14	16	25	15	17	15	1	4	1	4	0	44	223
14:00 - 18:00	383	195	68	142	13	192	102	74	77	15	22	3	66	16	23	1,385
TOTALS	423	200	93	156	28	217	117	91	92	16	26	4	70	16	67	1,607

TWO-WAY TOTAL CYCLES (excluding M-10)

	M1	M2	M3	M4	M5a	M5b	M6	M7	M8	M9a	M9b	M10	M11	M12	MF	TOTALS
7:00 - 10:00	378	173	49	144	33	190	83	72	72	14	16	5	48	13	58	1,338
14:00 - 18:00	485	248	138	194	20	289	138	108	117	26	33	7	83	18	55	1,949
TOTALS	863	421	187	337	53	479	220	180	189	39	48	12	131	30	113	3,287

VEHICLE SUMMARY (All vehicles excluding buses)

Peak Hours of Vehicles

INBOUND TOTAL VEHICLES (excluding M-10)

Hour	M1	M2	M3	M4	M5a	M5b	M6	M7	M8	M9a	M9b	M10	M11	M12	MF	TOTALS
7:00	141	45	36	155	5		107	59	62	2	56	18			14	678
8:00	475	225	68	496	18		204	40	193	1	88	15			37	1,841
9:00	348	188	29	370	14		126	26	117	1	69	7			25	1,311
AM Sub-Totals	963	458	132	1,020	36		436	124	372	3	212	40			76	3,830

14:00	219	53	51	165	3		88	19	106	1	52	4			37	792
15:00	245	63	88	173	4		100	12	111	0	36	13			33	864
16:00	246	41	104	182	8		91	16	118	3	32	22			56	893
17:00	225	44	93	185	1		101	2	85	2	37	2			37	810
PM Sub-Totals	934	200	334	704	16		379	49	420	5	156	40			163	3,358
TOTALS	1,897	658	466	1,724	52		815	173	791	8	368	80			238	7,188

OUTBOUND TOTAL VEHICLES (excluding M10)

Hour	M1	M2	M3	M4	M5a	M5b	M6	M7	M8	M9a	M9b	M10	M11	M12	MF	TOTALS
7:00	86	5	34	16	0		33	6	59	1	12	4			24	276
8:00	228	20	86	68	3		27	12	164	1	23	6			52	681
9:00	177	29	32	75	4		36	15	111	1	33	4			34	545
AM Sub-Totals	490	53	152	159	7		96	33	334	3	68	13			110	1,501

14:00	306	102	36	185	11		115	19	193	1	75	9			35	1,077
15:00	362	117	57	196	12		138	54	204	2	80	11			32	1,252
16:00	538	200	88	256	25		171	37	271	3	75	2			63	1,726
17:00	347	96	94	184	7		131	9	196	3	50	1			32	1,146
PM Sub-Totals	1,552	514	275	821	55		554	118	864	8	280	22			162	5,201
TOTALS	2,042	567	426	980	62		650	151	1,197	10	348	35			271	6,702

PEAK 7 HOURS 3,939 1,225 892 2,704 114 1,464 324 1,988 18 715 114 509 13,889

AM and PM PEAK HOURS at manual stations EXCLUDING M10 VOLUMES

Inbound	M1	M2	M3	M4	M5a	M5b	M6	M7	M8	M9a	M9b	M10	M11	M12	MF	TOTAL
AM	475	225	68	496	18		204	40	193	1	88	15			37	1,841
PM	246	41	104	182	8		91	16	118	3	32	22			56	893

Outbound	M1	M2	M3	M4	M5a	M5b	M6	M7	M8	M9a	M9b	M10	M11	M12	MF	TOTAL
AM	228	20	86	68	3		27	12	164	1	23	6			52	681
PM	538	200	88	256	25		171	37	271	3	75	2			63	1,726

APPENDIX C

Transit Passenger Count Data
BC Transit

BC TRANSIT PASSENGER ACTIVITY AT THE UNIVERSITY OF VICTORIA - AVERAGE 2010 FALL WEEKDAY

ARRIVE

Time	#4 - UVic Rides Trips	#7 - UVic Rides Trips	#11 - UVic Rides Trips	#12 - UVic Rides Trips	#13 - UVic Rides Trips	#14 - UVic Rides Trips	#15 - UVic Express Rides Trips	#16 - UVic Express Rides Trips	#17 - School Special Rides Trips	#18 - School Special Rides Trips	#26 - UVic Rides Trips	#29 - UVic Rides Trips	#33 - UVic Rides Trips	#39 - UVic Rides Trips	#51 - UVic Rides Trips	TOTALS Rides Trips
500																0 0
600	17 3	20 2	10 5	3 1		40 6	13 3	7 2			34 4			4 1	62 2	210 29
700	44 6	52 4	51 7	25 1		142 9	62 9	12 3			133 7		73 2	21 4	56 1	671 53
800	197 9	64 5	122 5	72 2		314 6	91 7	26 2	5 1	4 1	331 5	27 2	97 3	115 5	60 1	1,525 54
900	182 7	37 4	79 3	64 1	2 1	343 6	37 2				303 6			137 2	18 1	1,202 33
1000	114 6	58 4	56 3	31 2		278 6	37 2				160 4					734 27
1100	133 6	17 4	44 4	35 1	2 1	194 6	29 3				93 5			33 2		580 32
1200	119 5	23 4	24 3	28 2		235 6	20 4				91 5			68 3		608 32
1300	39 7	22 4	33 3	20 1	3 1	175 6	27 4				78 5			32 2		429 33
1400	35 6	17 4	13 3	13 2		150 6	44 5				84 5			40 2		396 33
1500	36 6	24 3	41 6	3 1	4 1	389 6	23 9				109 5			24 2		653 39
1600	56 6	11 5	26 6	21 1		90 6	15 6				137 5			28 2	18 2	402 39
1700	52 6	7 3	31 3	4 1		139 6	76 4				72 5			24 1		405 29
1800	53 4	6 4	7 3			50 4	20 2				42 3			22 1		200 21
1900	20 4	8 3	14 3			128 4	17 2				39 1			2 1		228 18
2000	38 4	13 3	9 3			15 4	11 2				29 2					115 18
2100	40 4	7 2	22 3			25 4					18 2			18 1		130 16
2200	10 2	9 2	17 2			18 3					23 1					77 10
2300	16 2	5 2	2 2			11 1					4 1					38 8
2400	17 2					27 2										44 4
2500	128 2					30 1										158 3
TOTALS	1,346 97	400 62	601 67	319 16	11 4	2,793 98	522 64	45 7	5 1	4 1	1,780 71	27 2	170 5	568 29	214 7	8,805 531

BC TRANSIT PASSENGER ACTIVITY AT THE UNIVERSITY OF VICTORIA - AVERAGE 2010 FALL WEEKDAY

LEAVE

Time	#4 - Downtown Rides Trips	#7 - Downtown Rides Trips	#11 - Tillicum Mall Rides Trips	#12 - University Rides Trips	#13 - Cadboro Bay Rides Trips	#14 - Vic General Rides Trips	#15 - Downtown Rides Trips	#16 - Uptown Express Rides Trips	Rides Trips	Rides Trips	#26 - Dockyard Rides Trips	Rides Trips	#39 - Royal Roads Rides Trips	#51 - Langford Rides Trips	TOTALS Rides Lve Trips
500	1 1					14 1									15 2
600	6 2	12 1	4 3			103 6	3 1				20 2		2 1		150 16
700	93 5	44 4	17 6	2 2		180 6	58 8				90 3		4 2	6 1	494 37
800	46 5	36 4	39 4	1 1		192 7	36 5				77 6		12 2		439 34
900	114 4	41 4	15 3	2 2	1 1	151 6	21 2				163 5		12 1		520 28
1000	58 5	45 4	32 4	9 1		158 6	32 2				68 5		18 2		420 29
1100	77 5	20 4	48 3	11 1	0 1	166 6	20 2				55 5		34 2		431 29
1200	68 7	37 4	32 3	20 2		110 6	19 3				140 6		10 2		436 33
1300	163 7	38 4	49 4	17 1	4 1	112 6	38 5				201 4		84 2		706 34
1400	95 6	58 4	77 6	12 2		263 6	31 8				262 7		20 2		818 41
1500	109 8	44 4	83 7	13 1	3 1	286 6	42 6	93 6			370 5		75 3	75 2	1,193 49
1600	94 5	46 4	106 6	34 2		113 6	67 6	13 1			273 7		81 2	58 2	885 41
1700	97 6	28 3	17 3	13 1		163 6	33 4				231 6		38 2	31 1	651 32
1800	67 4	15 3	22 3			73 5	15 2				100 4		45 2		337 23
1900	61 4	30 3	10 3			57 4	12 2				51 2				221 18
2000	47 4	15 2	11 3			72 4	11 2				39 1		9 1		204 17
2100	29 4	16 3	5 3			48 4	4 1				43 2		14 1		159 18
2200	18 2	13 2	18 3			24 3					60 2				133 12
2300	20 2	5 1	3 1			21 2					1 1				50 7
2400	6 2					30 2									36 4
2500	16 2					0 1									16 3
TOTALS	1,285 90	543 58	588 68	134 16	8 4	2,336 99	442 59	106 7	0 0	0 0	2,244 73	0 0	458 27	170 6	8,314 507

BC TRANSIT PASSENGER ACTIVITY AT THE UNIVERSITY OF VICTORIA - AVERAGE 2010 FALL WEEKDAY

TOTAL

Time	#4 - UVic		#7 - UVic		#11 - Tillikum Mall		#12 - University Heights		#13 - Cadboro Bay		#14 - Vic General		#15 - UVic Express		#16 - UVic Express		#17 - School Special		#18 - School Special		#26 - UVic		#29 - UVic		#33 - UVic		#39 - UVic		#51 - UVic		TOTALS	
	#4 - Downtown		#7 - Downtown		#11 - Tillikum Mall		#12 - University Heights		#13 - Cadboro Bay		#14 - Vic General		#15 - UVic Express		#16 - UVic Express		#17 - School Special		#18 - School Special		#26 - Dockyard		#29 - UVic		#33 - UVic		#39 - Royal Roads		#51 - Langford			
	Rides	Trips	Rides	Trips	Rides	Trips	Rides	Trips	Rides	Trips	Rides	Trips	Rides	Trips	Rides	Trips	Rides	Trips	Rides	Trips	Rides	Trips	Rides	Trips	Rides	Trips	Rides	Trips	Rides	Trips		
500	1	1	0	0	0	0	0	0	0	0	14	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	2	
600	23	5	32	3	14	8	3	1	0	0	143	12	16	4	7	2	0	0	0	0	54	6	0	0	0	0	6	2	62	2	360	45
700	137	11	96	8	68	13	27	3	0	0	322	15	120	17	12	3	0	0	0	0	223	10	0	0	73	2	25	6	62	2	1,165	90
800	243	14	100	9	161	9	73	3	0	0	506	13	127	12	26	2	5	1	4	1	408	11	27	2	97	3	127	7	60	1	1,964	88
900	296	11	78	8	94	6	66	3	3	2	494	12	58	4	0	0	0	0	0	0	466	11	0	0	0	0	149	3	18	1	1,722	61
1000	172	11	103	8	88	7	40	3	0	0	436	12	69	4	0	0	0	0	0	0	228	9	0	0	0	0	18	2	0	0	1,154	56
1100	210	11	37	8	92	7	46	2	2	2	360	12	49	5	0	0	0	0	0	0	148	10	0	0	0	0	67	4	0	0	1,011	61
1200	187	12	60	8	56	6	48	4	0	0	345	12	39	7	0	0	0	0	0	0	231	11	0	0	0	0	78	5	0	0	1,044	65
1300	202	14	60	8	82	7	37	2	7	2	287	12	65	9	0	0	0	0	0	0	279	9	0	0	0	0	116	4	0	0	1,135	67
1400	130	12	75	8	90	9	25	4	0	0	413	12	75	13	0	0	0	0	0	0	346	12	0	0	0	0	60	4	0	0	1,214	74
1500	145	14	68	7	124	13	16	2	7	2	675	12	65	15	93	6	0	0	0	0	479	10	0	0	0	0	99	5	75	2	1,846	88
1600	150	11	57	9	132	12	55	3	0	0	203	12	82	12	13	1	0	0	0	0	410	12	0	0	0	0	109	4	76	4	1,287	80
1700	149	12	35	6	48	6	17	2	0	0	302	12	109	8	0	0	0	0	0	0	303	11	0	0	0	0	62	3	31	1	1,056	61
1800	120	8	21	7	29	6	0	0	0	0	123	9	35	4	0	0	0	0	0	0	142	7	0	0	0	0	67	3	0	0	537	44
1900	81	8	38	6	24	6	0	0	0	0	185	8	29	4	0	0	0	0	0	0	90	3	0	0	0	0	2	1	0	0	449	36
2000	85	8	28	5	20	6	0	0	0	0	87	8	22	4	0	0	0	0	0	0	68	3	0	0	0	0	9	1	0	0	319	35
2100	69	8	23	5	27	6	0	0	0	0	73	8	4	1	0	0	0	0	0	0	61	4	0	0	0	0	32	2	0	0	289	34
2200	28	4	22	4	35	5	0	0	0	0	42	6	0	0	0	0	0	0	0	0	83	3	0	0	0	0	0	0	0	0	210	22
2300	36	4	10	3	5	3	0	0	0	0	32	3	0	0	0	0	0	0	0	5	2	0	0	0	0	0	0	0	0	88	15	
2400	23	4	0	0	0	0	0	0	0	0	57	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	8	
2500	144	4	0	0	0	0	0	0	0	0	30	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	174	6		
TOTALS	2,631	187	943	120	1,189	135	453	32	19	8	5,129	197	964	123	151	14	5	1	4	1	4,024	144	27	2	170	5	1,026	56	384	13	17,119	1,038

