



3.2 Centres of Activity

Figure 11 | Centres of Activity

Areas identified in red include “hot spots” of activity in outdoor areas of campus, characterized by a higher pedestrian volume and typically resulting from the quality of the place, destination uses/programming, and a central position relative to a critical mass of users.

Many underutilized areas exist on campus that are largely composed of unprogrammed open spaces, interstitial spaces and lawn areas that attract lower amounts of activity throughout the year, when compared with the areas delineated as Centres of Activity. Underutilized areas will be explored in more detail during the Campus Plan Update process.

4. Land Use and Buildings



This section provides an overview of the buildings and destinations on campus, followed by summaries regarding the condition of facilities and infrastructure.

Of the three main goals identified in the 2003 Campus Plan, the second speaks directly to land use and buildings:

“To evolve a land use and building pattern that supports the university’s academic mission, respects the unique physical environment, encourages lively social interaction, and promotes compact, pedestrian-friendly, and sustainable development.”

Since 2003, under the auspices of the current Campus Plan, there have been nine new building projects completed, including three constructed on former parking lots.

Currently there is approximately 362,117m² of building space on campus. This includes classrooms, laboratories, libraries, athletic facilities, student and faculty services, greenhouses, an Interfaith Chapel and administrative services. There are 2463 student housing units, of which 2282 are dormitory or cluster-style residences and 181 are family housing units. There are 4218 parking spaces, which will increase to 4550 parking spaces in the spring of 2015 with the opening of a new parkade at the north end of campus.

The images to the left include two of the newer buildings on campus: the First Peoples’ House (top left) and the David Turpin Building (bottom left). There is also an image of Cornett Building (top right) and a convocation ceremony in UVic’s Farquhar Auditorium (bottom right).

Photographs provided by UVic Photo Services

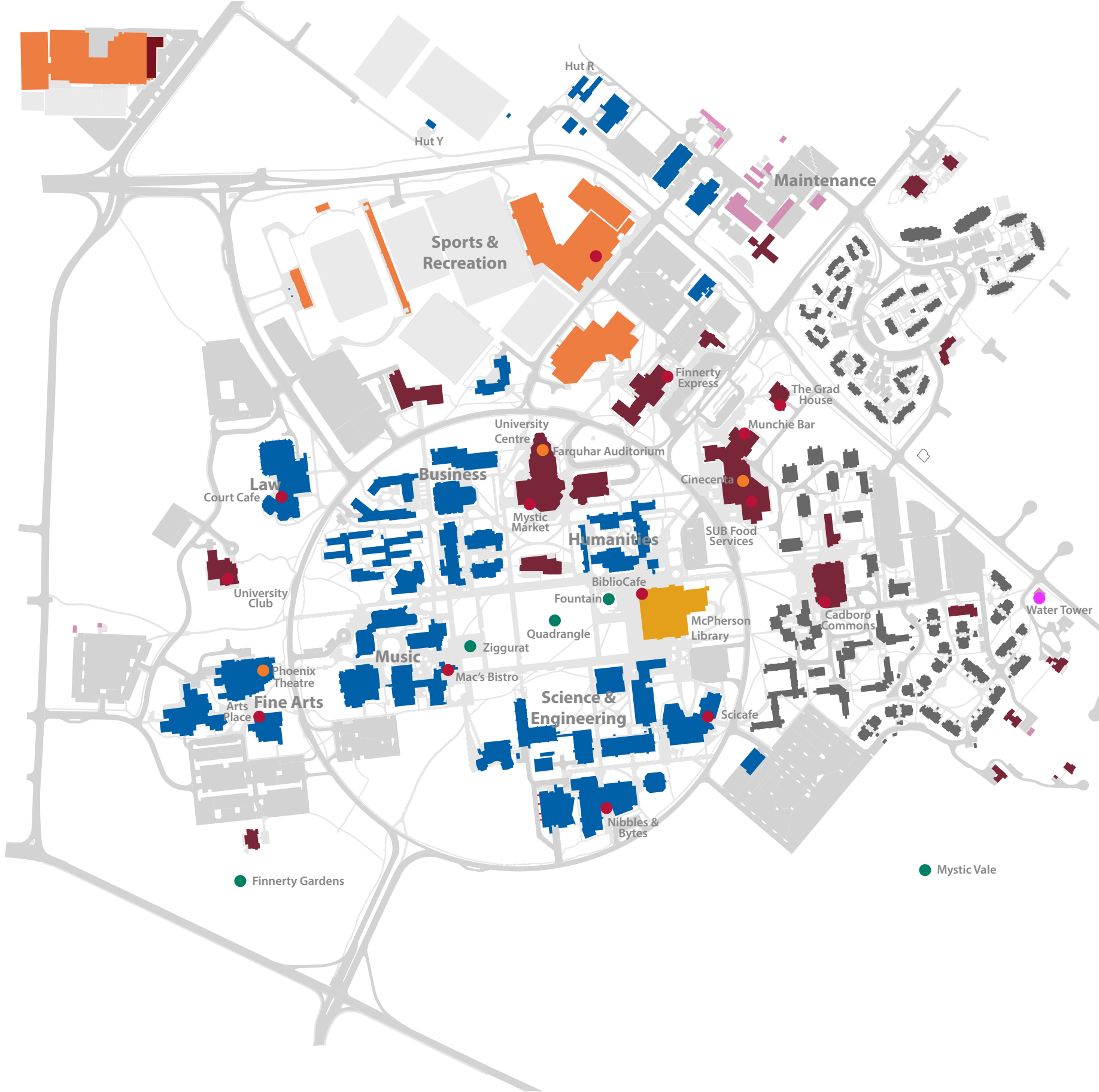
4.1 Uses and Destinations

Figure 12 | Uses and Destinations

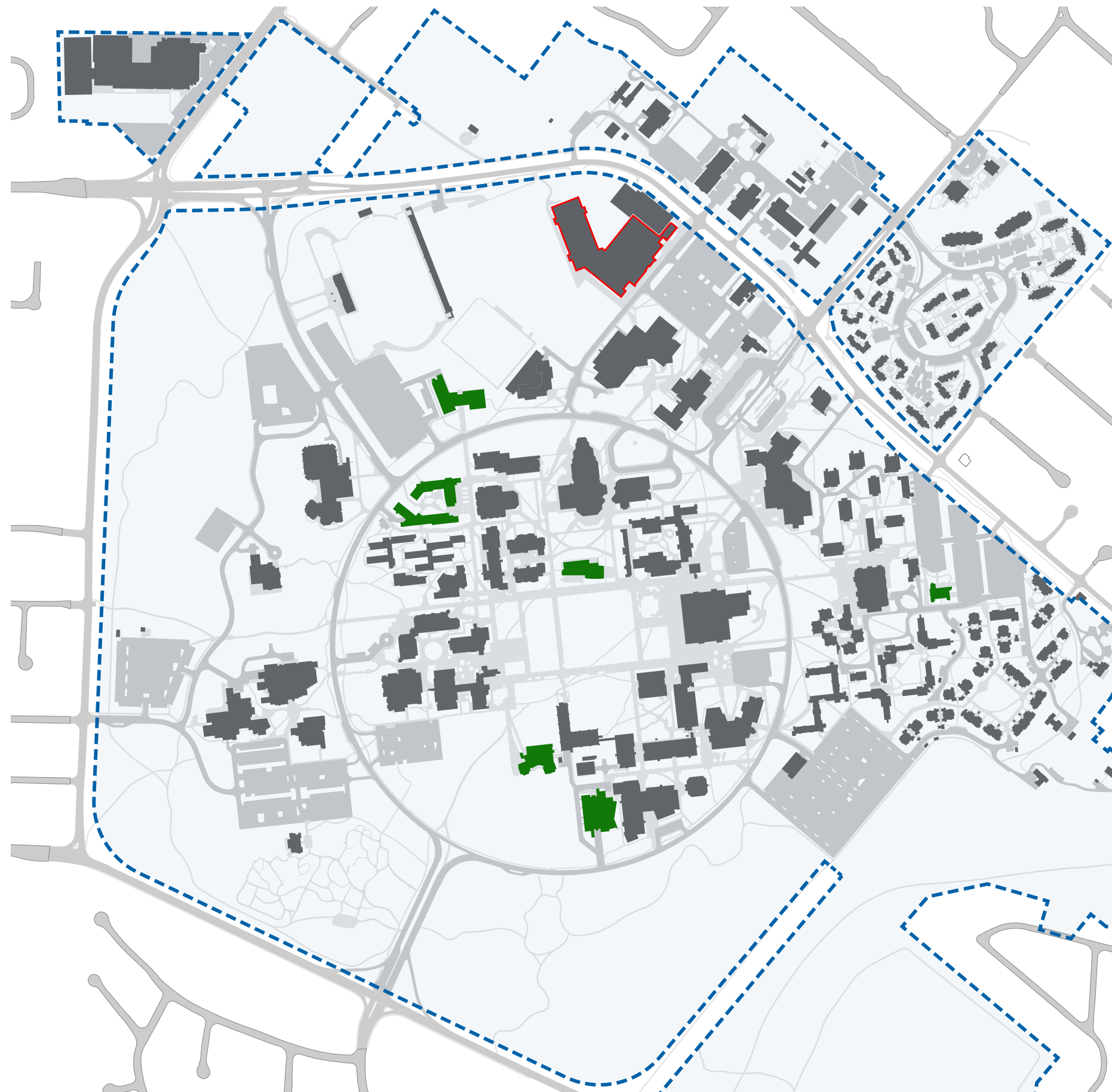
Figure 12 highlights the clustering of uses on campus. Sports and recreational facilities are in the northeast portion of campus, while administrative and student services are clustered further west near the transit exchange. Most classrooms, laboratories and research spaces are located inside Ring Road, with a few exceptions, including the Fine Arts and Law buildings (to the west). Student residences are located on the eastern side of campus. The Facilities Management Department’s service shops and yard are located in the Saunders complex at the the north end of campus.

Several key cultural facilities are important to highlight not only as a destination for UVic students, faculty and staff but also, depending on the programming, for the broader community. In the Student Union Building (SUB) there is Cineceta, which attracts movie-goers from around Greater Victoria. Across Ring Road in the University Centre is the Farquhar Auditorium, where convocation takes place. In the Fine Arts area there is the Phoenix Theatre, and close by, to the south, is UVic’s Interfaith Chapel. In the centre of campus is the William C. Mearns Centre for Learning, which includes the McPherson Library; with the Fountain and Quadrangle out front, this is the heart of campus.

The Water Tower on the eastern side of campus is UVic’s only designated heritage structure. Huts Y and R, located at the north end of campus, are noted on the Saanich Heritage Register as having heritage value, but are not formally designated.



- Sports / Recreation Buildings
- Administrative / Student Services
- Classroom / Lab / Research
- Library
- Student Residences
- Infrastructure / Maintenance
- Theatres / Auditoriums
- Food / Cafe
- Other Points of Interest
- Designated Heritage Structure



4.2 Buildings

UVic has undertaken detailed condition assessments of the various facilities on the UVic Gordon Head Campus, utilizing the Facility Condition Index (FCI). The FCI is a numerical value representing the “constructed asset’s condition at a specific point in time” (US Federal Real Property Council, 2008). FCI values are calculated by dividing the total estimated cost of required repairs, renewal, or upgrades by the facility’s estimated replacement value. The FCI was first used in the 1990’s by the US National Association of Colleges and Universities as a way to quantify the condition of their facilities and has since become the standard for post-secondary institutions across North America. The FCI has also been adopted by numerous other institutions and owners of large building portfolios as a method to prioritize capital expenditures. The FCI values for UVic’s facilities help guide Facilities Management, as well as the Campus Plan Update process, by helping determine locations where there may be redevelopment potential as buildings near the end of their useful life.

Figure 13 | LEED Buildings

Since 2007, all new buildings at UVic have been constructed to a LEED Gold green building standard. Figure 13 shows the six certified LEED Gold buildings currently on campus:

- Administrative Services
- David Turpin
- First Peoples House
- Island Medical
- Engineering/Computer Services
- South Tower

The Centre for Athletics, Recreation and Special Abilities (CARSA) complex is targeted to be the seventh LEED Gold building on campus.

- *LEED Gold Buildings*
- *Centre for Athletics, Recreation and Special Abilities*



4.3 Infrastructure Systems

Sewage

The sewage system servicing the western half of the campus south of Centennial Stadium and east of Ring Road (“Haro Road system”) appears to have adequate capacity for existing flows and for additional flows. The sewage system servicing the area north of Ring Road and the eastern half of the buildings within Ring Road (“Finnerty Road system”) is primarily restricted by the capacity of the downstream Saanich system.

Water

The water system for UVic is fed through connections from the Districts of Saanich and Oak Bay.

Stormwater

UVic’s 2004 Integrated Stormwater Management Plan (ISMP) provides guidance on approaches to reduce the quantity and improve the quality of stormwater leaving the Gordon Head campus. As described in the ISMP, UVic’s location at the height of land between Gordon Head and Cadboro Bay means that it is the headwaters stream source for four drainage systems: Bowker Creek to the west, Finnerty Creek to the north, Sinclair drainage system to the north-east and Hobbs Creek to the east. Stormwater management on campus is of critical importance to UVic’s municipal neighbours, which receive campus stormwater run-off.

The stormwater system does not have known significant capacity deficiencies. Future buildings and associated impervious surfaces (roads, parking areas and pathways) should incorporate stormwater Best Management Practices (BMPs) to reduce rates of runoff. As BMPs are incorporated, it is not expected that stormwater runoff will increase, therefore upgrades as a result of development likely will not be required.

Figure 14 | Sewage Systems

— Sewage
— Wastewater



Figure 15 | Water Systems

— Water



Figure 16 | Stormwater Systems

— Stormwater



Figure 17 | Energy

Figure 17 shows UVic's natural gas system and district energy system (DES). The DES serves almost all buildings inside Ring Road and a number of buildings outside Ring Road; however, many residences and other buildings on the UVic campus are not connected to the DES. These buildings have their own space heating and domestic hot water heating equipment, served by either natural gas or electricity. Most of the buildings not connected to the DES use natural gas boilers for heating and hot water. Some buildings use electric heating or electric heat pumps. Natural gas is distributed extensively throughout the campus, especially to buildings outside Ring Road.

The DES supplies hot water to many buildings on campus. The system is served by three operating plants, with the Engineering Lab Wing (ELW) plant acting as the primary plant. The ELW plant, at 15-20 years old, is the newest plant on campus. The ELW boilers are nearing the end of their useful life. The condition of boilers other than those in the ELW plant is not known. If the ELW plant continues to operate, changes could be implemented that may help increase the life of the plant. The design of the ELW plant means that boiler replacement will likely be disruptive and costly. It may be necessary to replace the ELW plant with a new natural gas plant.

The distribution piping system consists of hot water supply and return pipes in utilidors (small concrete trenches that are capped and buried). The temperature differential (ΔT) of the system is quite low, which may be a barrier to increasing the capacity of the DES. A number of measures have been identified that will increase ΔT . Increasing ΔT will significantly increase the capacity of the DES distribution system. The largest capacity restriction in the piping system is the line across Ring Road between University Centre and McKinnon.

The 2012 Integrated Energy Master Plan serves as a road map to support UVic in meeting its targets for energy, carbon and costs. It identifies how to incorporate new energy sources, capture waste heat and achieve energy use reductions, evaluate the potential for peak energy demand reductions and the feasibility of energy supply options.

- Boilers
- Mechanical Natural Gas Pipes
- District Energy System (DES)

5. Transportation



Photographs provided by UVic Photo Services

This section discusses transportation at UVic and associated Transportation Demand Management (TDM) strategies. Conditions for different modes are also addressed. Numerous UVic studies, plans and strategies related to transportation on campus informed the development of this report, including: the Traffic and Parking Management Study (2008), Campus Traffic Surveys (2010, 2012), the BC Transit and UVic Transit Plan (2013), the Transportation Demand Management Plan (2004) and the Athletics Centre Traffic Impact Assessment (2011).

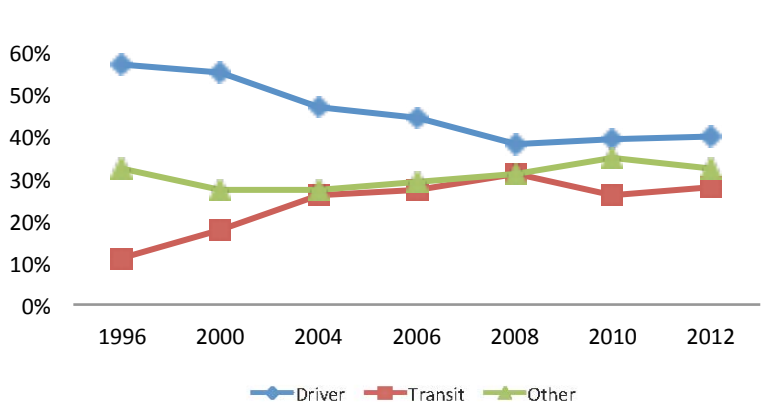
The third and final goal of the 2003 Campus Plan addresses travel and parking:

“To reduce motor vehicle traffic to the campus and to encourage increased use of public transit, cycling, and walking.”

In 2005, the University of Victoria introduced a Transportation Demand Management (TDM) strategy. This was followed by the Sustainability Action Plan for Campus Operations 2014-2019, which contained the following goal:

“Increase transit, cycling, walking and ride sharing to 70% of modal split by 2019”.

Figure 18 | Modal Split 1996 - 2012



Recent transportation studies in 2012 and 2014 indicate that around 60% of campus movements come from these modes, confirming the efforts are moving in the right direction (Figures 18). The following TDM initiatives are from UVic’s Green Guide and TDM strategy.

Cycling:

- 2900 bicycle racks are spread across campus, with some weather-protected;
- Lockers – 150 are available for rent;
- A self-service bike repair kiosk is open 24/7 for air and quick repairs;
- Shower facilities are available in nine buildings; and
- The Campus Bike Centre, which opened in 2013, provides covered bike parking, equipment lockers, benches and an expanded, renovated space for the SPOKES bicycle program.

Parking:

- Market-based parking fees were introduced in 2005 with two goals: to fund TDM initiatives and reduce parking demand; and
- Parking areas for motorcycles, scooters and electric vehicles have been introduced over the years.

Transit:

- The U-Pass for students was introduced in 1999;
- Employee subsidy was introduced in 2005/6 to provide a discount of 55% to the regular fare and to ensure pricing levels were consistent with the cost of parking permits;
- BC Transit recently introduced two new services #15 and #16;
- Currently 800 buses per day connect with the campus accommodating 17,000 riders; and
- All buses are equipped with bike racks.

Additional TDM initiatives on campus:

- Bike to Work Week: this occurs once a year and offers cycling safety courses.
- Car-share: full-time continuing employees, who do not have a parking permit, are eligible for a FREE membership with the Victoria Car Share Co-op.
- Ride Share Car Pool: anyone with a UVic email address can register with the online ride-share matching program sponsored by the Jack Bell Foundation
- Flexible Parking Pass: this allows the purchase of an annual flexible permit to park on campus for up to 12 days per month.
- Motor Pool Rentals: Campus Security maintains a motor pool where vehicles available for short and long-term rentals to staff and faculty engaged on university business.
- Reducing travel for meetings: UVic Audio Visual Services offers a series of video conferencing rooms available at no cost.

Travel Mode

University of Victoria has a favorable modal split, as indicated in Figure 19 (2012 Survey), with only 40% of trips made by people driving. Transit is the next highest mode with just over one-quarter of trips. Walking and cycling combined represent a healthy one-quarter of trips, but it should be noted that this does account for internal movements to and from student residences.

Positive trends in travel behavior have also been observed between 1996 and 2012, as can be seen in Figure 18, where the vehicle driver proportion has fallen from approximately 58% to 40%. This has been offset in good part by increased levels of transit use, which has almost tripled.

Figure 20 compares UVic's full-time equivalent (FTE) students to volumes of vehicles entering campus in the morning. It shows vehicle volumes have dropped since 2006, while the number of FTE students has increased. There could be potential to further improve this ratio over time.

**Figure 19 | 2012 Modal Split
(Inbound 7:00 - 10:00 am)**

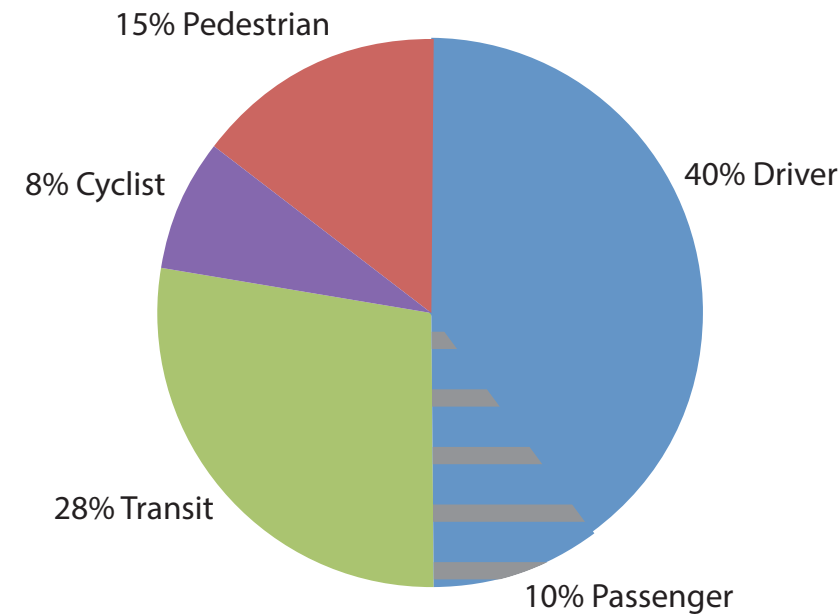
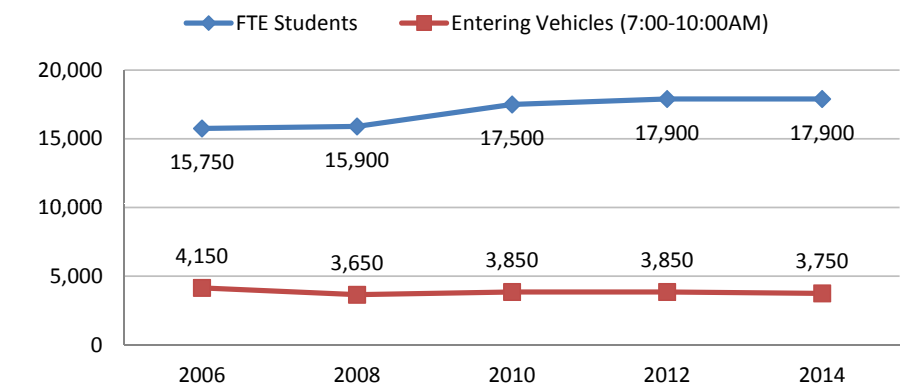


Figure 20 | FTE Students vs. Vehicle Volumes





5.1 Campus Gateways

Figure 21 | Campus Gateways

UVic's three key campus gateways are located:

1. at the intersection of McGill Road and McKenzie Avenue,
2. at Finnerty Road, where McKenzie Avenue turns into Sinclair Road and
3. at the intersection of University Drive and Cedar Hill Cross Road.

High volumes of vehicles, cyclists and pedestrians enter and exit campus through these gateways, while using numerous other campus access points to a lesser extent. Transit routes access the campus via University Drive and Finnerty Road.

Important secondary campus gateways for cyclists are located:

1. at the intersection between Gabriola Road and McKenzie Avenue; and
2. on the west side of campus where Midguard Avenue intersects with Gordon Head Road and becomes a cycling/pedestrian path leading eastward onto campus.

Figure 21 also highlights four key on-campus gateways for pedestrians crossing Ring Road to enter the core of campus (inside Ring Road), which is largely inaccessible by vehicles:

1. crossing Ring Road to the core of campus from the student residences on the east side of campus;
2. crossing Ring Road to the core of campus from the Transit Exchange on Finnerty Road;
3. crossing Ring Road at Gabriola Road; and
4. crossing Ring Road at University Drive.

● Major Multi-Modal Campus Gateways

● Secondary Campus Gateway - Cycling

● Campus Core Gateway - Pedestrian



5.2 Pedestrians

Figure 22 | Pedestrian Circulation

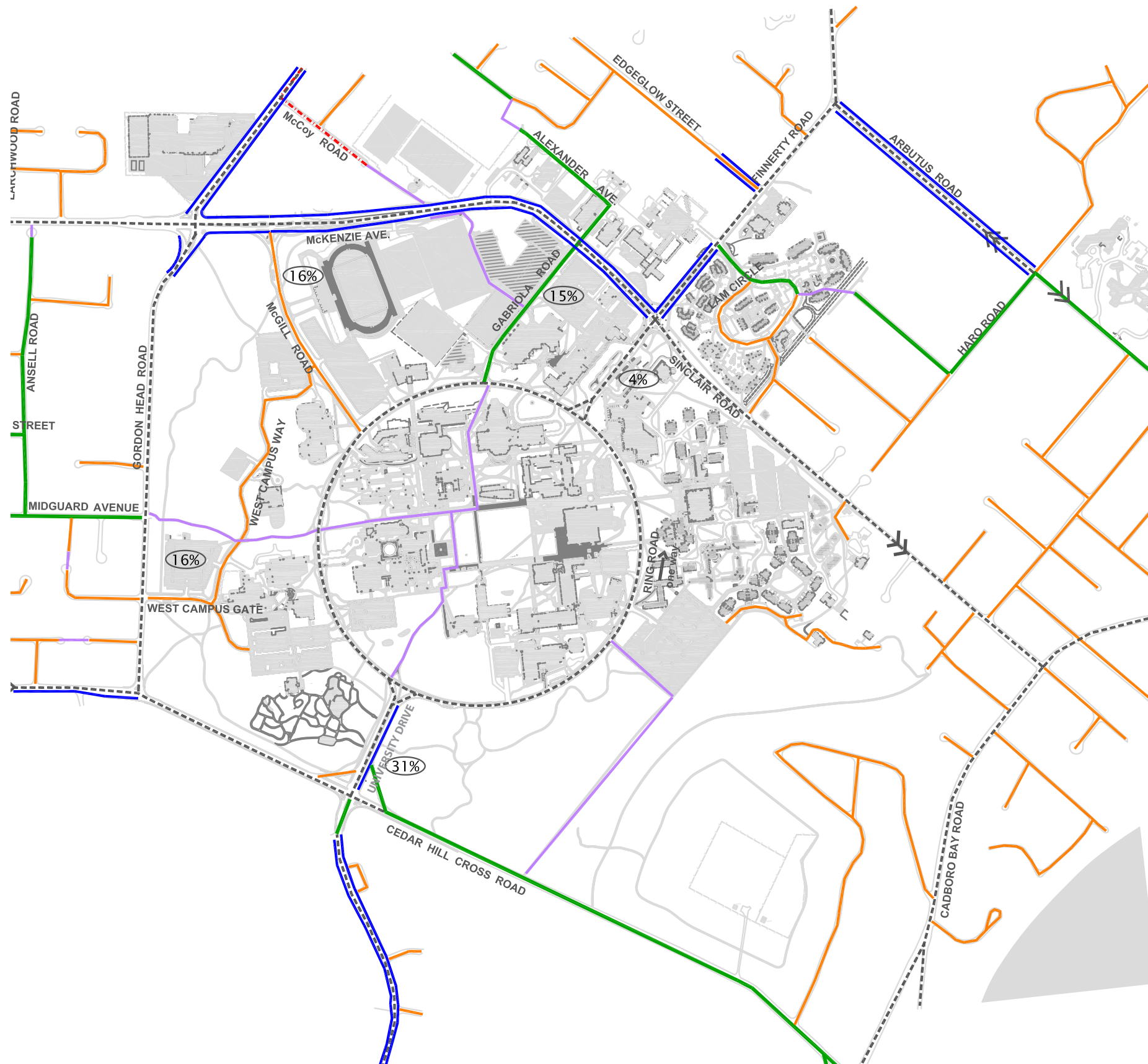
Figure 22 shows paths and pedestrian zones throughout campus. Both pedestrians and cyclists may access these areas, but much of this infrastructure was designed first and foremost for pedestrians. There are many connection points into neighbourhoods surrounding UVic that are accessible to pedestrians and cyclists, but not vehicles; examples of these are highlighted in pink. Highlighted in red are intersections where large volumes of pedestrians, cyclists and motorists converge, creating potential areas of conflict. All pathways that intersect with the Ring Road may create opportunities for conflict between modes; however, those indicated in Figure 22 typically have higher volumes of pedestrian crossings.

Permeability for pedestrians through campus is generally good, where there are generous widths on the main corridors that assist with way-finding/orientation. Crosswalks along internal streets (Ring Road, Finnerty Road and University Drive), are generally not well defined; materials are not providing visual cues (e.g. raised surfaces), while vehicle speeds can result in an uncomfortable experience for some users.

Street intersection layouts where Ring Road intersects with Finnerty Road and University Drive are biased to the flow of vehicles rather than pedestrians (or cyclists), and normalization of these into more compact urban designs would assist with re-addressing priorities. Sidewalks around Ring Road are not continuous and widths vary appreciably from one section to another. Some of the driveway connections to car parks off Ring Road have an angled orientation ("slip roads") that encourage higher vehicle speeds, particularly when entering.

Pedestrian volumes around the transit exchanges at the north part of the campus can impede the flow of buses at certain times of the day. As transit demand increases this could become more of a challenge.

- Sidewalks/ pathways
- Pedestrian/ cyclist pathway connections to surrounding neighbourhood
- Pedestrian zones
- Potential areas of conflict between pedestrians, cyclists & motorists



5.3 Cycling

Figure 23 | Cycling Routes

Figure 23 indicates cycling routes on campus and on surrounding streets. Main and minor roads are also identified due to their impact on the cycling experience; main roads typically have higher volumes of vehicles and vehicles traveling at higher speeds, whereas minor roads typically have lower vehicular volumes and lower speeds.

Within campus, the main bicycle route runs in a north-south direction between University Drive and Gabriola Road and connects with an east-west route to Midguard Avenue, that in turn also crosses the West Campus Way route (running the West Campus Gate and McGill Road). Other than this, there are no other identified routes within the campus.

The one-way Ring Road has no designated cycling facilities and cyclists are inconvenienced by having to follow the flow of general vehicles. As a consequence, some cyclists have been observed using the narrow sidewalk.

Bike lanes have been introduced on McKenzie Avenue adjacent to campus and on Gordon Head Road, north of McKenzie Avenue. At the University Drive access to the campus, there are bicycle lanes connecting to the south along Henderson Drive.

One-third of cyclists access the campus at University Drive, while other important connections are at the West Campus access, Gabriola Road and McGill Road, which account for around 16% of use on each.

- Cycling Route
- Main Road (Higher Speed)
- Bike Lanes
- Minor Roads (Lower Speed)
- Bike/Ped Connection Paths (Paved)
- - Gordon Head Local Connector
- >> Steep Hills
- xx% Percentage of Total Cyclists Using Key Campus Entry/Exit Points



5.4 Transit

Figure 24 | Transit Routes

Routing of transit and waiting facilities are presented in Figure 24, which identifies the 13 regular weekday bus routes serving the campus. All connect with the main transit exchange located on Finnerly Road at the north end of campus.

In the summer of 2014, the transit exchange at Finnerly Road was expanded to accommodate 15 bus stands and three drop-off zones (previously there were seven, as well as two overload spaces). There are bus stops at additional locations along Ring Road, to provide access to other parts of campus.

The Campus Transit Plan (2013) highlighted that approximately 17,000 transit trips per weekday are made to the university, and BC Transit projects that this could increase to over 50,000 in the longer-term (a 200% increase). BC Transit is looking at future options to expand capacity.



5.5 Vehicles

Figure 25 | PM Traffic Flow

Vehicle Flows

According to the 2012 Campus Traffic Survey, vehicle peak-hour volumes in the morning (8am to 9am) and afternoon (4pm to 5pm) have gradually fallen over the past 12 years. This change has been particularly marked in the afternoon, with 500 vehicles (per hour) less in that period.

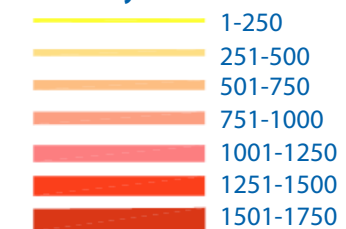
Vehicle volumes entering the UVic campus are generally flat since 2008, even though the number of full-time equivalent (FTE) students has increased by approximately 2000, or 14%, since 2006.

The University Drive vehicle access to campus accounts for approximately one-third of vehicle movements, with the next highest at McGill Road (19%), followed by West Campus Gate (11%), Gabriola Road (9%) and Finnerty Road (10%). Gabriola Road is expected to have an increase in use with the new car park structure (completion anticipated in the spring of 2015).

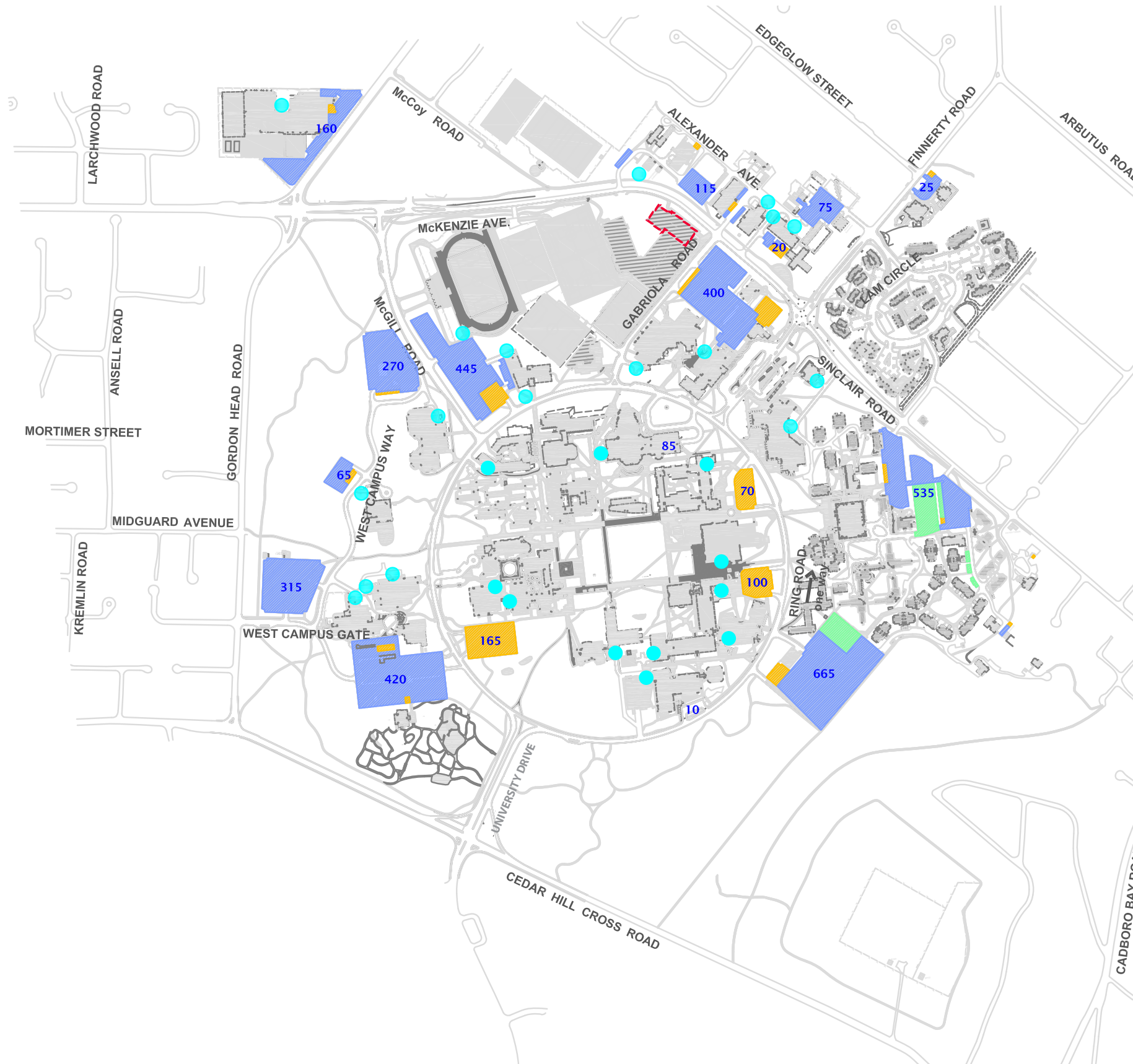
The highest vehicle volumes observed on the adjacent street network were found on McKenzie Avenue, followed by Cedar Hill Cross Road and Gordon Head Road.

Boulevard Transportation Group reviewed traffic operations along McKenzie Avenue as part of the Centre for Athletics, Recreation and Special Abilities (CARSA) changes, and made recommendations to provide a roundabout at Finnerty Street and McKenzie Avenue (now implemented). Gordon Head Road at McKenzie Avenue was found to operate within capacity on the weekday peak-hour periods.

Two-way Traffic Flow in Vehicles Per Hour at PM Peak Period



xx% Percentage of Total Traffic Using Key Campus Entry/Exit Routes



5.6 Parking

Figure 26 | Parking Facilities

Parking locations within campus are identified in Figure 26. These are spread among 30 different facilities. Currently there are 4,218 parking spaces in total. In the spring of 2015, a new structured car park will be opened on Gabriola Road, providing an additional 332 spaces.

The majority of current parking is located in surface lots and spread throughout the periphery of the campus. Inside Ring Road there are three parking lots, for reserved use only, during the day.

Opus conducted a survey at the university in 2007 that highlighted the overall parking demand peaked at 80% during a weekday mid-day period, but was typically around 75% of capacity over other periods of the day. At some of the parking lots, the demand was closer to 90%, while less convenient lots (away from the main activities) were closer to 60%. Campus Security Services also conducts regular parking lot vacancy surveys as part of their parking management activities.

Some campus-related parking does occur on streets adjacent to the university, particularly along Cedar Hill Cross Road (east of University Drive). On local streets there are resident-only parking signs to deter such activities, but the local municipalities are challenged in terms of resources to enforce. This activity will need to be quantified further through future planning work, to see how it may be addressed.

- Reserved Parking
- General Parking
- Student Resident Parking
- Future Parking Structure
- Loading Dock/ Deliveries

6. Next Steps

The information contained in this document – including the physical analyses and the overview of UVic’s regulatory, historical, and regional contexts – will be drawn upon in both engagement and planning activities to be undertaken in 2015.

For purposes of campus and community engagement, the information in this document will be useful for educating and informing about existing conditions and contextual considerations, offering parameters for a discussion about the future of campus.

For concept development and planning, the information in this document provides the necessary understanding of how the campus functions and performs. As such, it provides a foundation for both the creative and technical aspects of updating the Campus Plan.

Finally, after adoption of the updated Campus Plan, the information contained in this report can continue serving as an important benchmark against which performance of the new Plan can be measured into the future.

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Photograph provided by UVic Photo Services

