TRAFFIC MANAGEMENT PLAN

CONSTRUCTION & CAMPUS EVENTS

THE UNIVERSITY OF BRITISH COLUMBIA

Campus Operations and Risk Management
1060 Diversity Place
Kelowna, BC V1V 1V7

Campus Operations and Risk Management
1060 Diversity Place
Kelowna, BC V1V 1V7

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UBC TRAFFIC MANAGEMENT PLAN APPROVAL

A Traffic Management Plan (TMP) is required in cases where any work or activity impacts circulation and access on the UBC Campus for pedestrians, cyclists, public transit and motor vehicles. The objectives of a TMP are to:

- Maintain public safety at all times.
- Minimize impacts on Campus particularly during peak operating hours which are between 8:30 am and 4:30 pm, weekdays.
- Provide the travelling public with advanced warning of impacts and direct them to alternative routes if necessary.

A TMP is to be prepared by the project manager (UBC Properties Trust, Project Services) or event applicant (i.e. Student Union for FROSH, Recess) and submitted to the Office of Campus Operations and Risk Management for approval prior to initiating any construction or event activities as part of the permit and approval process. Amendments to traffic control plans can be submitted for approval should there be a need for revisions to the original plans submitted, which is commonly done for longer duration construction projects.

This document is intended to provide guidelines on what should be included in Traffic Management Plans for events or construction on Campus.

Plans must be submitted at least 7-10 business days in advance of any potential impact to traffic or pedestrian flow. Plans must be submitted to:

Operations.ok@ubc.ca
Campus Operations and Risk Management
1060 Diversity Place
Kelowna, BC, Canada, V1V 1V7

Campus Operations and Risk Management will initiate the review and approval process with relevant UBC stakeholders such as Facilities Management, Risk Management Services, Campus Security, Central Receiving Mail Services, Campus Planning and Development, Parking Services, and other departments that may be impacted, as well as external agencies such as emergency services. It is however highly recommended that the applicant seek input from impacted stakeholders in advance of the submission to ensure a timely review and approval process.

CONTENTS OF THE PLAN

A Traffic Management Plan consists of multiple components depending on the scale of the project and can consist of all or some of the following sections:

- Traffic Control Plan – combination of text and traffic control devices that will be in place to manage traffic, pedestrians and cyclists.
- Public Information / Communication Plan – identify how local residents, stakeholders and emergency response agencies will be informed of impacts. This can be included as static messaging or changeable message signs in the traffic control plans.
- Incident Response Plan / Risk Management – identify what risks are associated with the project and identify what procedures are in place to manage an incident that protects the public and restores movement / circulation around the incident or unforeseen circumstance as quickly as possible.
- Implementation Plan – identify roles and responsibilities by including a list of key contacts during implementation. The key information to provide is the contact details of the Traffic Control Supervisor and event or project on-site manager.

For all projects, a Traffic Control Plan & Public Information / Communication Plan are required unless exempt or the project meets fast tracking criteria.

EXEMPTIONS – MINOR OR EMERGENCY WORKS – LESS THAN 24 HOURS

A TMP is not required or minor or emergency works as follows:

- Immediate emergency work which is expected to last for less than 24 hours. (Example: A fallen tree requiring roadside repair equipment.)
- Minor work which requires only a partial blockage of one lane which continues to allow two way traffic and lasts less than 24 hours. (Example: Roadside landscaping work.)
- Only a single lane is blocked for a period of 2 hours or less. (Example: Lifting a manhole for brief access.)

For work that falls within the above descriptions, the project manager/coordinator is required to:

- Follow the templated guidance for minor and emergency works provided at Appendix D.
- Provide immediate notification to Facilities (78213) and Security (79236) during regular business hours.
- Provide immediate notification to Security Dispatch (79236) after hours.

FAST TRACK – 2 DAYS TURN AROUND

A TMP is still required, but the committee will endeavour to provide consideration within 2 working days of submission where:

- Emergency work greater is expected to last longer than 24 hrs (e.g. a broken water pipe which requires roadside equipment for repair.)
- Issues arise (that require traffic management) within a project that is already underway.

TRAFFIC CONTROL PLAN DETAILS

The traffic control plan is commonly made up of schematic diagrams or scaled drawings of the areas impacted by the planned work or special event that show:

- The layout of traffic control devices overlaid on aerials or base plans to provide context (refer to the BC MoTI Manual of Traffic Control Devices for Work on Roadways for device placement).
    - Identify detour routes for traffic and pedestrians / cyclists and if necessary accessible routes.
    - Show location of temporary fencing that will be erected.
    - For construction projects include layouts for periods outside of work hours, if different.
    - Identify location, content and dimension of all custom signs (such as those referenced in Appendix F) in addition to standard construction signs. Signs need to be large enough to be seen from a distance whether directed at pedestrians, cyclists or vehicles.
- Details that supplement the plans such as:
    - Dates and hours of impacts.
    - Details on the role of specific Traffic Control Personnel.
    - Identify access routes for construction related vehicles.
    - Impact to public parking; arrangements must be made through Parking Services for any impacts to public parking spaces.
    - Identify impacts to and seek approval from public transit and emergency services.
    - Other known projects that may overlap or conflict with the TMP

COMMUNICATION PLAN & PUBLIC INFORMATION DETAILS

At UBC, some advanced warning to key stakeholders is managed internally once the work or event is approved. However, depending on the scale of the impacts, additional advanced information or warning will be required. In most instances in the very least the applicant must identify:

- The location and content of Static Message Signs to inform the travelling public. For large impact events such as full road closures these must be erected a minimum of 2 business days in advance of the start of impacts.
- The location and content of any Changeable Message Signs to inform the travelling public. These should be erected in advance of the start of impacts. Details of different sequencing and phasing should be identified.
- For larger-scale special events with multiple road closures, applicants must include details of any road closures as part of their application. This is most easily accomplished using maps, and this collateral will be shared by Campus Operations and Risk Management with local stakeholders such as UBC Campus Planning and Development so that the information can be uploaded to the transportation website at transportation.ok.ubc.ca/ to assist with reaching out to the local community and visitors.

AMENDMENTS & COMPLIANCE

UBC may require amendments to TMPs or situations may change on a construction site that requires a resubmission of a TMP for approval. Amendments may also be required as a result of:

- Public health or safety issues associated with construction activities.
- Changes in traffic conditions on roads affected by events or construction activities.

UBC Campus Security will, without prior notification, conduct periodic inspections. Any compliance issues, additions or modifications to the TMP identified by Campus Security must be addressed immediately on site or a revised plan may be requested for review and approval.

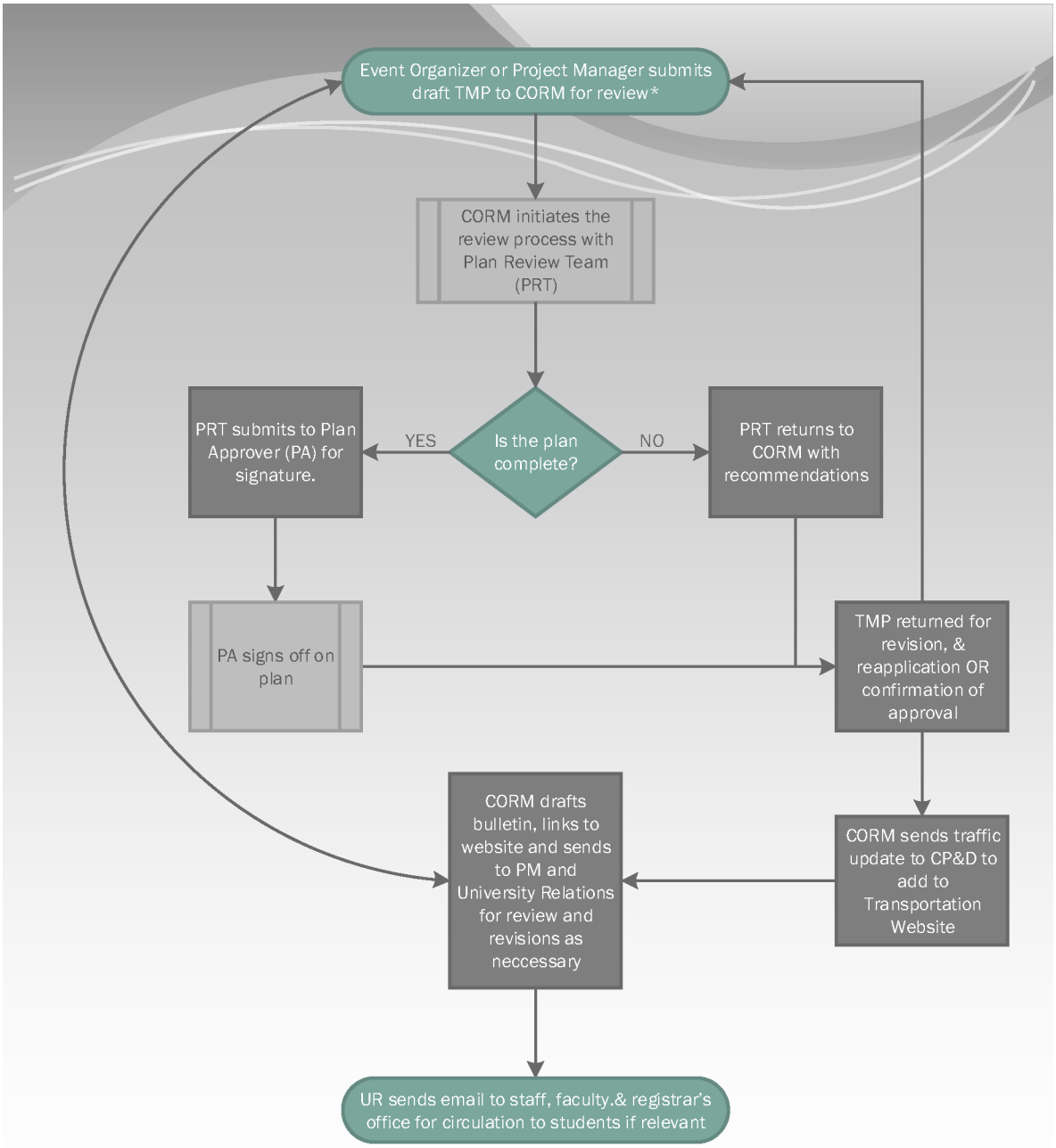
UBC staff may stop work that is immediately dangerous to life and health. All other non-compliance issues need to be forwarded to the Project Manager for timely resolve.

SUPPORTING DOCUMENTS

- Ministry of Transportation and Infrastructure: 1999 Traffic Control Manual for Work on Roadways AND Ministry of Transportation and Infrastructure: 2015 Interim Traffic Management Manual for Work on Roadways http://www.th.gov.bc.ca/publications/eng_publications/TCM/Traffic_Control_Manual.htm
- UBC Contractor Safety Manual – Requirement and link to TMP Guidelines
- UBC Project Impact Notification – Requirement and link to TMP Guidelines

APPENDICES:

APPENDIX A: TMP APPROVAL AND COMMUNICATION FLOWCHART



*Need for the TMP should be emphasized by CP&D at the Development Permit stage for construction projects or by Campus Security at the application stage for events. See appendix B for roles and responsibilities.

APPENDIX B: UBC OKANAGAN CAMPUS – TMP ROLES AND RESPONSIBILITIES

Campus Planning

- Communication of TMP requirement to project manager (Project Services or UBCPT) at development permit stage (Associate Director, Campus Planning).
- Oversight and management of transportation website (Administrative Assistant).
- Participate as part of the Project Review Team (Assoc. Director, Planning)

CPP:

- Support/expertise specific to transportation engineering (Transportation Engineer)

CORM:

Project Services:

- PM responsible for submitting plan for approval for projects less than 5M. Note draft TMP may be done through contractor but would be stewarded by UBC PM.

Office of CORM:

- Provides updates to community regarding logistical changes on campus (through engagement with PM and TMP review team) and provide link to transportation website (Administrative Assistant in consultation with Director as needed).
- Receives inquiries and complaints and liaise directly with PM and stakeholders on these issues to ensure timely response/resolve (Administrative Assistant in consultation with Director as needed).
- Initiates review and amend TMP Guidelines as needed through Project Review Team.
- Receives TMP and trigger review process through Plan Approvers (Assoc. Director Facilities Management, Associate Director, Risk Management and Security Services) – liaise directly with PM (Administrative Assistant).

Campus Security:

- Compliance enforcement (Managers or designates)

Project Review Team:

Facilities Management

- Potential conflict with other UBC related construction projects
- Impact to fire fighting and suppression equipment
- Notification to BC Transit
- Assoc. Director to convene Plan Review Team as necessary.
- Assoc. Director to approve TMP application or return to with comments within 7-10 business days to Office of CORM.
- Assoc. Director sign off for TMP amendments or partial TMP (i.e. minimal disruption, short duration). Approver to consult with members of PRT and impacted stakeholders as appropriate.
- Holds signage inventory (Manager, Landscape and Contract Services)

Central Receiving Mail Services (CRMS)

- Communicate impact to distribution services (including Bookstore, Student's Union) and modify delivery schedules if this is an option while maintaining business continuity.
- Notification of impact to Canada Post and couriers.

Health, Safety and Environment

- Preserve access and notify external emergency responders
- Preservation of evacuation assembly areas (i.e. Muster stations)
- Pedestrian and bike safety
- New/different safety hazards resulting from proposed TMP
- Signage

- Assoc. Director to approve TMP application or return to with comments within 7-10 business days to Office of CORM.

Campus Security

- Potential conflict with UBC events (plan approver level)
- Flag TMP requirements for Event Planners
- Enforce TMP compliance

Parking Services

- Potential loss of parking spaces/revenue, and impact to access of parking lots
- Impact to Food Services
- Assist with traffic management

Campus Planning

- Participate as part of the Project Review Team (Assoc. Director, Planning)

Additional Stakeholders (to be consulted as appropriate):

University Relations

- Campus-wide communications. Review and distribute CORM bulletins to faculty/staff (Global email) and students (though Registrar's Office)
- Communicate potential conflicts with events that are within the academic mandate (i.e. convocation, Create).

APPENDIX C: TRAFFIC MANAGEMENT PLAN APPLICATION TEMPLATE

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THE UNIVERSITY OF BRITISH COLUMBIA

Campus Operations &
Risk Management
1138 Alumni Avenue
Admin Bldg Rm. 106
Kelowna BC, V1V 1V7

Traffic Management Application Form

Prime Contractor:			**Address:**			
Project Name:						
Location of Work:						
Title	**Contact Name**	**Company Name**	**Office #**	**Cell #**	**24hr call #**	**Email**
Prime Contractor						
Traffic Control Supervisor						
Project Manager						
Note: Prime Contractor is to immediately notify the Project Manager of any change in contact information						
Description of Work or Activity:						

Permit Date/Time Requested and Schedule of Work

Start Date (M/D/Y)		**End Date** (M/D/Y)		**Start Time:** (00:00-24:00)		**End Time:** (00:00-24:00)	

Provide Work Schedule Detail as required	Yes ☐	No ☐	(Select one – "x")

Excavated Site Surface Material(s):
Mark all that apply with "x"

Asphalt		**Concrete**		**Other**	
Curb	☐	Curb	☐	Turf	☐
Sidewalk	☐	Sidewalk	☐	Gravel	☐
Roadway	☐	Roadway	☐	Trench Width in metres ie. .3m, 1m	☐

Amended from: City of Kelowna Road usage permit. (2012). *Road Usage Application Form*. Retrieved from the City of Kelowna website: https://www.kelowna.ca/roads-transportation/roads/road-usage-permit

Traffic Information *Mark all that apply with "x"*				
Road Name and Direction (n/b, s/b, etc.) Use additional sheet if more than one road	**Where on Roadway**		**Condition(s)**	
	Shoulder/Sidewalk/ Boulevard	☐	Road Closure – Local Traffic	☐
	Curb Lane	☐	Road Closure – No Traffic	☐
	Median Lane	☐	Single Lane – Alternating Traffic	☐
	Median	☐	Lane Closure (Multi Lane Roadway)	☐
	Intersection	☐	Traffic Control Person(s)	☐
	Rear Lane (Alley)	☐	Detour	☐
Attached Traffic Control Plan Detail is applicable upon request of the Project Manager (Select one "X") Yes ☐ No ☐				
Locates are required, prior to excavating, under the terms of the Road Usage Permit and WCB/Work Safe, Occupational Health and Safety Regulations; Failure to do so will invalidate the Road Usage Permit. I (we) hereby acknowledge I have read and understood the City of Kelowna Traffic and Subdivision Bylaws and agree to be bound by its provisions and amendments, if any, specifications and regulations to the University governing excavations in or under municipal streets and to such special conditions, restrictions and regulations as may be imposed by the University Engineer.				
Date of Application (m/d/y)	**Signature of Applicant:**			

Approved ☐	**Resubmit** ☐
Notes:	Reasoning:

Amended from: City of Kelowna Road usage permit. (2012). *Road Usage Application Form.* Retrieved from the City of Kelowna website: https://www.kelowna.ca/roads-transportation/roads/road-usage-permit

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Road Usage Permit
Traffic Control Plan

Traffic Control Supervisor – Work Zone Site Assessment	
Site Assessment Considerations	
Road Geography: winding; straight; grade; etc.	
Road Type: No. of lanes in each direction of travel; divided; undivided; bicycle; sidewalk etc.	
Road Width: (traffic routing) lanes; bicycle; sidewalk; shoulder; etc.	
Sight Obstructions: trees; buildings; etc.	
Approaches: hills; curves; intersections; drive way access; etc.	
Work Zone Length: active length; total length	
Regulated Speed: 50 km/hr; 60 km/hr; etc.	
Traffic Types: Pedestrian; Cyclists; Local; Tourist; Commercial; Transit; Emergency; School; etc.	
Surrounding Land Use: Commercial; Industrial; Residential; Rural; etc.	
Procedural Considerations:	
Work on roadway: median lane; curb lane; bike lane	
Work off roadway: median; sidewalk; shoulder; etc.	
Work zone access/egress: Construction equipment count per hour	
Equipment Access: location	
Work zone equipment buffer to: pedestrians/cyclists/motorists – see MOT TCMWR: Yes or No "If no provide TCP"	
Stationary work zone	
Continuously moving work zone	
Site Equipment Activity: high or low	
Working at or in an intersection	

Amended from: City of Kelowna Road usage permit. (2012). *Road Usage Application Form.* Retrieved from the City of Kelowna website: https://www.kelowna.ca/roads-transportation/roads/road-usage-permit

Working in or near a signalized intersection	
Hours of work: day/night	
Traffic control details when work ceases	
Emergency Vehicle Access	
Number of Traffic Control operations:	

Amended from: City of Kelowna Road usage permit. (2012). *Road Usage Application Form.* Retrieved from the City of Kelowna website: https://www.kelowna.ca/roads-transportation/roads/road-usage-permit

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Road Usage Permit
Traffic Plan Detail

Spacing of devices	
Advanced warning area	
Transition area	
Buffer area	
Work area	
Termination area	
Delineation during off hours	
Sign transition	
Turning and/or removing signs	
Maintenance and replacement plan	
Traffic Control Persons:	
○ **Qualifications**	
○ **Hours of Work**	
○ **Communications**	
○ **Relief**	
○ **Site Instructions**	
Traffic Control Supervisors	
Other:	

Site Diagram – Show all factors affecting traffic control, traffic control devices, spacing, etc.

Traffic Control Plan Developed by:

Site Meeting Attendance:

Name	Agency	Signature

Amended from: City of Kelowna Road usage permit. (2012). *Road Usage Application Form.* Retrieved from the City of Kelowna website: https://www.kelowna.ca/roads-transportation/roads/road-usage-permit

Campus Operations and Risk Management
1060 Diversity Place
Kelowna, BC V1V 1V7

APPENDIX D: TMP EXEMPTION TEMPLATE

Traffic Management Plan Standard Operating Procedure for minor short term work performed in UBC streets, sidewalks or roadsides.

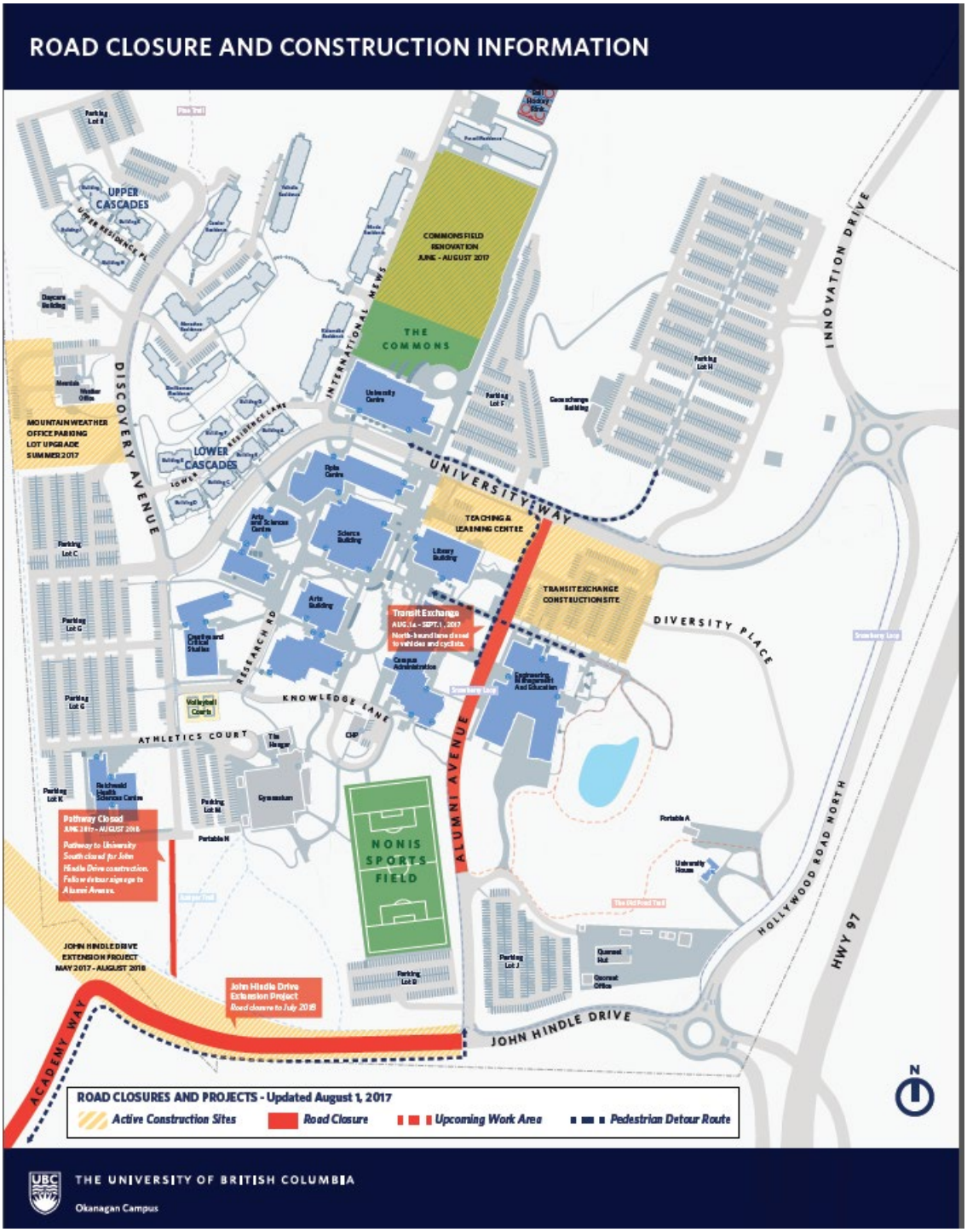
This procedure identifies preauthorized steps to be taken that will provide protection and safety for personnel working in and around moving traffic when work impacts pedestrians, cyclists, public transit and motor vehicles on campus.

The following steps to be adopted for safety while working in and around traffic are:

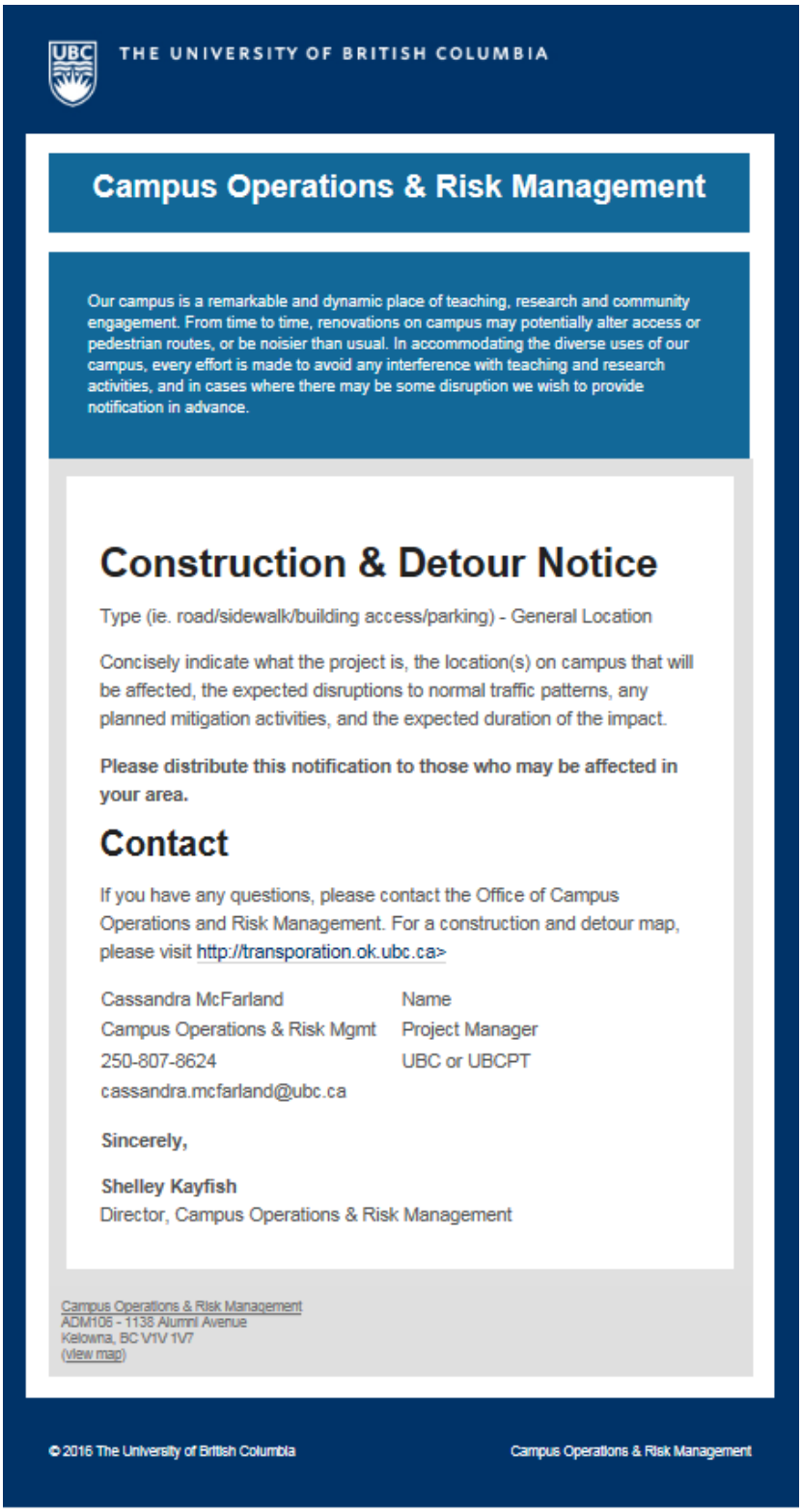
- All workers that are working in or near traffic must wear high visibility jackets or vests and other PPE as required.
-
- Turn on all flashing hazard lights on equipment in use (eg. Golf cart, man lift, skid steer) prior to beginning task to warn drivers and cyclists.
-
- Position traffic signs and pylons around work area to create a physical barrier between traffic and work zone.
-
- Provide a clearly marked work zone immediately around work area using flagging, safety ribbon or pylons to prevent pedestrians from risk of being struck by falling objects.
-
- Traffic control signage must be placed around the work area following the BC Ministry of Transportation's Interim Traffic Management Manual for Work on Roadways. (see approved signage in appendix G in the TMP)
- Pedestrians, cyclists, and motor vehicle traffic must always be accommodated safely around the work area.
- Work in high traffic areas should be conducted outside of regular business hours where possible. (regular hours M-F 8:00 am to 5:00 pm)
- Provide adequate lighting in work zone during work performed during darkness.

APPENDIX E: CONSTRUCTION AND DETOUR MAP

transportation.ok.ubc.ca/



APPENDIX F: TEMPLATE FOR NOTIFICATION



THE UNIVERSITY OF BRITISH COLUMBIA

Campus Operations & Risk Management

Our campus is a remarkable and dynamic place of teaching, research and community engagement. From time to time, renovations on campus may potentially alter access or pedestrian routes, or be noisier than usual. In accommodating the diverse uses of our campus, every effort is made to avoid any interference with teaching and research activities, and in cases where there may be some disruption we wish to provide notification in advance.

Construction & Detour Notice

Type (ie. road/sidewalk/building access/parking) - General Location

Concisely indicate what the project is, the location(s) on campus that will be affected, the expected disruptions to normal traffic patterns, any planned mitigation activities, and the expected duration of the impact.

Please distribute this notification to those who may be affected in your area.

Contact

If you have any questions, please contact the Office of Campus Operations and Risk Management. For a construction and detour map, please visit http://transporation.ok.ubc.ca>

Cassandra McFarland	Name
Campus Operations & Risk Mgmt	Project Manager
250-807-8624	UBC or UBCPT
cassandra.mcfarland@ubc.ca	

Sincerely,

Shelley Kayfish
Director, Campus Operations & Risk Management

Campus Operations & Risk Management
ADM105 - 1138 Alumni Avenue
Kelowna, BC V1V 1V7
(view map)

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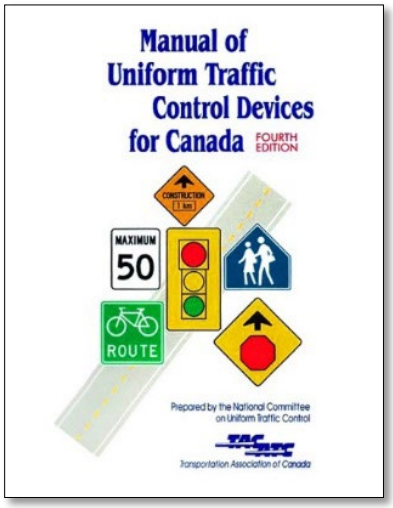
Campus Operations & Risk Management

APPENDIX G: CONTACTS

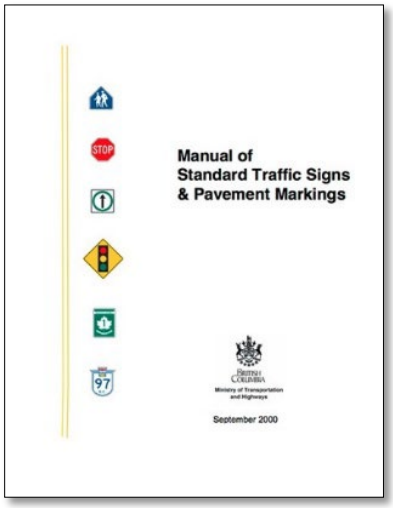
Name	Title / Role	Phone	Email
Abigail Riley	Associate Director, Campus Planning	250 807 9647	Abigail.riley@ubc.ca
Bud Mortenson	Director, University Relations	250 807 9255	Bud.mortenson@ubc.ca
Dave Waldron	Director, Campus Planning and Development	250 807 8094	David.waldron@ubc.ca
Gary Hartung	Manager, Ancillary Services, Food & Parking	250 807 9192	Gary.hartung@ubc.ca
Glen Forsythe	Central Receiving & Mail Services Supervisor	250 807 9105	Glen.forsythe@ubc.ca
Mike Barren **(G.Forsythe's designate)**	Central Receiving & Mail Services Attendant	250 807 9772	Mike.barran@ubc.ca
Jason McLeod	Health & Safety Advisor	250 807 8821	Jason.mcleod@ubc.ca
Justin Allaire	Senior Project Manager	250 807 9325	Justin.allaire@ubc.ca
Krista Falkner	Transportation Engineer	604 827 1552	
Marty Gibb	Manager, Operations & Utilities	250 807 9690	Martin.gibb@ubc.ca
Mike Gesi	Security Coordinator, Protective Services	250 807 9173	Michael.gesi@ubc.ca
Mike McGinty	Associate Director, Risk Management & Security Services	250 807 9182	Mike.mcginty@ubc.ca
Natalie Ingram	Assistant to the Director, Campus Operations & Risk Management	250 807 8624	Natalie.ingram@ubc.ca
Nicola Kane	Support Services Assistant	250 807 8182	Nicola.kane@ubc.ca
Paul Hipsey	Security Coordinator	250 807 9830	Paul.hipsey@ubc.ca
Properties Trust (Michael Beza)	Development Manager	604 788 0350	mbeza@ubcproperties.com
Roger Bizzotto	Associate Director, Facilities Management	250 807 8214	Roger.bizzoto@ubc.ca
Shelley Kayfish	Director, Campus Operations & Risk Management	250 807 8621	Shelley.kayfish@ubc.ca
Troy Campbell	Security Coordinator, Student Conduct and Safety	250 807 8295	Troy.campbell@ubc.ca

APPENDIX H: SIGNAGE RECOMMENDATIONS

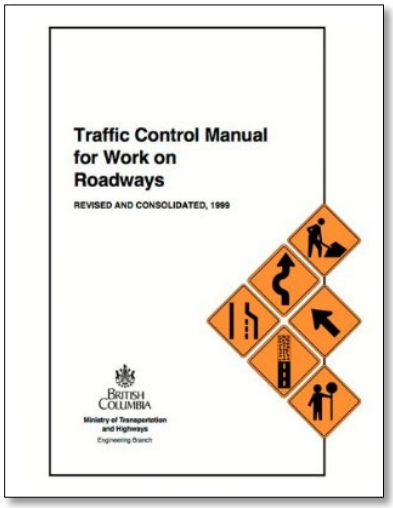
GUIDES



Manual of Uniform Traffic Control Devices for Canada (TAC).



Manual of Standard Traffic Signs and Pavement Markings (BC MoTI).



Traffic Control Manual for Work on Roadways (BC MoTI).

ROAD CLOSED SIGNS

"Road closed ahead" sign to be used at intersection or decision point in advance of closure where motorists can detour around closure. 900 x 600 mm.

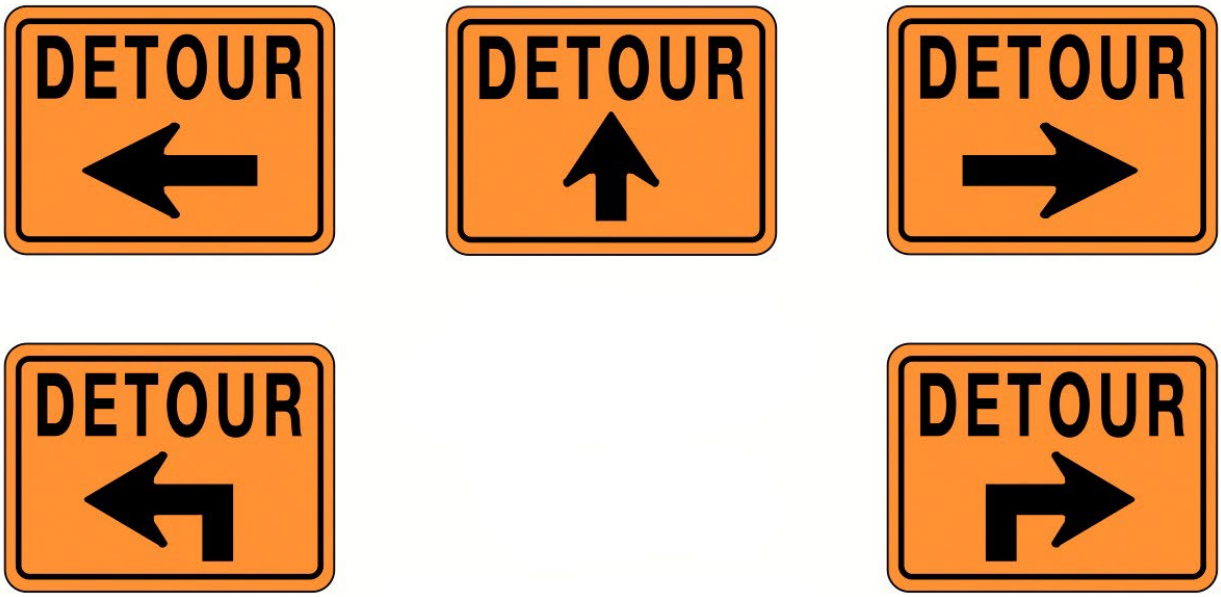
Example road closure advisory signs, with dates and times as appropriate. 900 x 600 mm or other sizes as appropriate.

No Stopping Signs

Temporary "no stopping" signs, with and without dates and times. 300 x 450 mm.

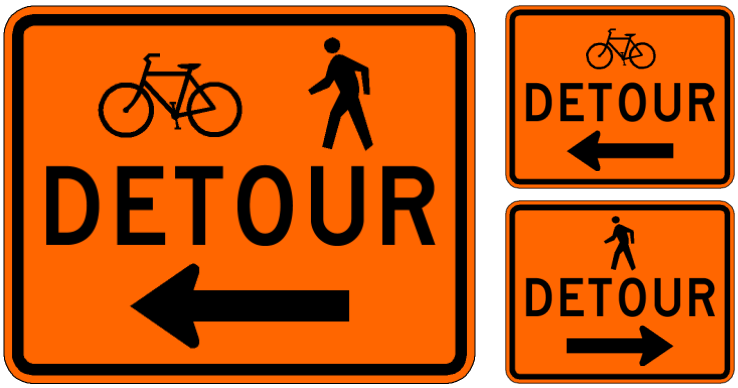
Detour Signs — Motor Vehicles

"Detour ahead" signs to be used at beginning or in advance of a detour. 750 x 750 mm.



Detour markers to be used on a detour route, at or in advance of decision points. 600 x 450 mm.

DETOUR SIGNS — PEDESTRIAN AND BICYCLE



"Standard" pedestrian and cyclist detour signs to be used at the beginning or a detour and at points along a detour. 750 x 600 mm or other sizes as appropriate.

Example "custom" pedestrian and cyclist detour signs. Sizes as appropriate.

Sidewalk Closed Signs

"Sidewalk closed, cross here" sign to be used at closure, or in advance of closure at intersection or location appropriate for pedestrians to cross road. 900 x 600 mm.

"Sidewalk closed, used other side" to be used at closure, or in advance of closure at intersection or location appropriate for pedestrians to cross road. 900 x 600 mm

"Sidewalk closed" sign to be used at location of closure. 900 x 600 mm.

"Crosswalk closed" signs to be used at intersection or crossing. 900 x 600 mm.

"Use crosswalk" signs to be used to direct pedestrians to crossing. 300 x 450 mm and 600 x 750 mm.

CYCLISTS DISMOUNT SIGNS

Example "cyclists dismount" signs to be used where cyclists are directed to use pedestrian facilities. Sizes as appropriate.