

FIRE SAFETY PLAN



BUILDING NAME: Richards Building

BUILDING NUMBER: 018

DATE: 17 August 2017 **FPO #2**

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INTRODUCTION

The Ontario Fire Code (O. Reg. 213/07) Section 2.8, requires the establishment and implementation of a Fire Safety Plan for every building containing a Group A or B occupancy, and for every building required by the Ontario Building Code (O. Reg. 403/97) to have a fire alarm system.

The implementation of a Fire Safety Plan helps to assure effective utilization of life safety features in a building, to help protect life, property and the environment from a fire emergency.

INFORMATION FOR BUILDING OWNERS, PROPERTY MANAGERS AND OTHER PERSONS CONTROLLING PROPERTIES

The Fire Code (Ontario Regulation 213/07) is a provincial regulation made under the Fire Protection and Prevention Act 1997. This code requires the owner to be responsible for carrying out the provisions of this code, and defines "owner" as *"any person, firm or corporation having control over any portion of the building or property under consideration and includes the persons in the building or property."*

FIRE SAFETY PLAN

Copies of this official document are to be readily available at the locations indicated below:

1. University of Guelph, Fire Prevention Office.
2. Building Management: Dean, Director, Chair, Department Head, Unit Head,
3. University of Guelph, Campus Community Police Main Office.
4. Guelph Fire Department

FORWARD

CENTRAL MONITORING FIRE ALARM SYSTEMS:

The fire alarm system for this building is monitored by the University of Guelph Campus Community Police Dispatch Centre located in the Trent Building. The central monitoring control system is supervised by the Police Dispatch staff on a continuous basis.

Signals are transmitted via a supervised communication circuit to a computer terminal located at the Campus Community Police Dispatch Centre.

The recording device (computer) is designed and arranged to automatically provide a permanent record of the incoming signal, including the date and time of receipt.

The Campus Community Police Dispatch Centre is equipped with a direct fire telephone line to the City of Guelph Fire Department, and radio contact with the University of Guelph Fire and Campus Community Police Division.

EMERGENCY POWER SUPPLY:

This building is connected to the Campus Essential Power Distribution System, which is backed up by a 1100 kW diesel generator located in the Generator Building. The diesel generator will automatically start and transfer on line within twenty (20) seconds upon interruption of the normal Hydro supply.

WATER SUPPLY:

The campus grid system consists of 4 - 6 & 8 inch mains, supplied by the City of Guelph via one 12 inch water main. There are two standby 8 inch supply lines connected to the city water supply.

ACCESS KEYS:

The University of Guelph Campus Community Police and/or Fire Division will respond to the building and supply appropriate keys for the building and fire alarm panel(s), along with communication back to the Control Centre by portable radio. The City of Guelph Fire Department has a set of keys which will allow them access to all University of Guelph buildings.

AUDIT OF BUILDING DATA

BUILDING NAME: Richards Building

BUILDING NUMBER: 018

MUNICIPAL ADDRESS: 101 Reynolds Walk

OWNER/OCCUPANT: University of Guelph, School of Engineering

TYPE OF OCCUPANCY: Assembly , Offices and Labs

TYPE OF CONSTRUCTION: Masonry

YEAR OF CONSTRUCTION: 1959 renovated in 2013

HEIGHT OF BUILDING: 48 feet

AREA OF BUILDING: 52, 460 sq. ft.

APPROXIMATE NUMBER OF OCCUPANTS: Typical occupancy load is around 100-170

ANNUNCIATOR PANEL: Located on the ground floor inside the main front doors. There is no zone diagram.

FIRE ALARM CONTROL PANEL: Located in the basement electrical room.

PULL STATIONS: Located throughout the building

AUDIBLE DEVICES: Bells and Strobes

THERMAL HEAT DETECTORS: Throughout the building,

SMOKE DETECTION: In the ventilation system and the south east stairwell

AUTOMATIC SPRINKLER SYSTEMS: Yes

STANDPIPE AND HOSE CABINETS: None

FIRE PUMP: None

PUMPER CONNECTION(S): None

AUDIT OF BUILDING DATA contd.

HYDRANT LOCATION: 1) Approx. 100' north of the building on the corner of Trent Lane. 2) Approx. 350 feet to the south of the building by Thornbrough

ELEVATORS: One which runs from the basement to the top floor and operates normally during a fire alarm.

TRANSFORMER VAULT: located in B3 the electrical room in the basement, Contains PCB's.

NATURAL GAS MAIN SHUT-OFF LOCATION: None.

FIRE FIGHTING EQUIPMENT

FIRE HOSE AND STANDPIPE SYSTEM: [None](#)

AUTOMATIC SPRINKLER SYSTEM: [Yes](#)

FIRE PUMP AND CONTROL VALVES: [None.](#)

PORTABLE FIRE EXTINGUISHERS: [Located throughout the building.](#)

AUTOMATIC FIRE SUPPRESSION SYSTEMS: [None](#)

AUDIT OF HUMAN RESOURCES

Director, School of Engineering:

Hussein A. Adbullah

Extension: 52430

“ON CALL” MANAGER(S):

The University Police maintains a list of 24 hour “on call” personnel for each campus building.

CHIEF FIRE WARDEN:

Phil Watson, Extension 53820

John Whiteside ,Extension 54427

MAINTENANCE DEPARTMENT WORK REQUESTS:

Extension **53854** 08:00 to 16:30 hrs. Monday - Friday.

EMERGENCY SUPERVISORY PERSONNEL:

University of Guelph **824-4120**

24-hours - Emergency Ext: 52000

Police ext. **52245**

Fire ext. **52071**

AUDIT OF BUILDING RESOURCES

BUILDING CONSISTS OF: The Richards building is an 'L' shaped building with three floors plus a mechanical penthouse and full basement. The fourth floor or penthouse is only accessible through the main centre stairwell.

If entering in through the main doors at the North side of the building you have an option of going up a ½ a flight of stairs or down a ½ a flight of stairs. If you go down a ½ a flight of stairs you are now on the first floor, which consists of labs on the south side of the hallway and offices on the north side of the hallway. The second and third floors are configured the same as the first. In the basement there are labs as well as electrical and mechanical spaces.

PRIMARY ACCESS: Main front doors at the North side of the building off of Reynolds Walk.

SECONDARY ACCESS: The south side of the building at the loading dock

DIAGRAMS AND FLOOR PLANS: Appendix B

DESIGNATED ALTERNATIVE SHELTER: The University Centre

ATTIC: None

ALTERNATIVE MEASURES FOR OCCUPANT SAFETY

Ontario Regulation 388/97,(Ontario Fire Code) Section 6.3.1.4. states that Fire Alarm systems must be maintained in operating condition.

NO ONE MAY SHUT DOWN OR ARRANGE TO SHUT DOWN A FIRE ALARM SYSTEM ON CAMPUS WITHOUT PRIOR CONSULTATION WITH UNIVERSITY OF GUELPH FIRE DIVISION

SITE NAME: [Richards building](#)

ADDRESS: University of Guelph

CITY: Guelph, ON

A) FIRE ALARM PRE-PLANNED SHUTDOWN:

In the event of the need to shut down the fire protection equipment/system or part thereof, Campus Community Police Dispatch must be informed at EXT. 52245. Campus Community Police Dispatch will notify the Guelph Fire Department. The occupants of the building will be notified by posting notices on each floor and in the common areas in the building, 48 hours prior to a scheduled shutdown of any fire protection equipment/systems. Signage explaining the shutdown will be provided and installed by University Fire Prevention, Campus Community Police, Physical Resources or contractors, depending on the situation.

B) FIRE ALARM FAILURE:

In the event of a failure of the fire protection equipment/system or part thereof, the Guelph Fire Department will be notified immediately by University Police Dispatch. The occupants of the building will be notified by the immediate posting of notices on each floor and in the common areas of the building. Signage explaining the failure will be provided and installed by University Fire Prevention, Campus Community Police or Physical Resources or contractors, depending on the situation. If a fire watch is needed the Campus Community Police and Fire Prevention officers will initiate the watch as needed.

In addition, in both the foregoing situations:

1. In advance of any shutdown of the fire protection equipment/system or part thereof Physical Resources will notify the Campus Community Police Dispatch and the effected departments.
2. The Guelph Fire Department will be notified by Campus Community Police Dispatch or Fire Prevention of the shutdown/failure date and the estimated length of time of the shutdown. Upon completion of the repairs, the Fire Department will be notified when the system is in working order. Periodic updates may be requested.

METHOD & FREQUENCY OF CONDUCTING FIRE DRILLS

The University Fire Division will ensure fire drills are conducted as required. The [Richards building](#) requires an annual fire drill. The purpose of the fire drill is to ensure that staff is familiar with emergency evacuation procedures, resulting in orderly evacuation with efficient use of exit facilities.

Building management will not be advised of fire drill date or times, unless the University Fire Division deems it necessary.

All designated supervisory personnel will be provided access to a copy of the Fire Safety Plan prior to being assigned any fire related duties/responsibilities, by the Chief Fire Warden. Each Dean, Director, Chair or Unit Head will have a copy of this Fire Safety Plan.

Campus Community Police Dispatcher will notify the City Fire Department that we are conducting the drills, and the City will be invited to participate.

The fire drill should include, but not necessarily be restricted to:

- a) a check of the annunciator panel identifying the alarm source/location.
- b) check to ensure elevator(s) operate as designed during a fire alarm.
- c) review of the fire alarm systems, silence and re-set procedures.
- d) ensuring proper evacuation of persons during the alarm
- d) practice of emergency evacuation plan with Fire Wardens.

Following each drill, all persons with delegated responsibility shall attend a debriefing session to report on the actions and the reactions of the participants. The University Fire Division shall keep a record of the date the drill was conducted as well as any problems or complaints that arose during the drill.

EMERGENCY SUPERVISORY PERSONNEL

DISPATCH:

All Dispatch Personnel, upon receipt of a computer, radio or telephone message indicating that the building fire alarm has been activated or that smoke or fire has been discovered, shall immediately:

1. Telephone the Guelph Fire Department using the direct fire line. Identify yourself, advise the Fire Department of the location of the alarm.
2. Contact the University of Guelph Fire Prevention officer and/or Police Officer and advise them of the alarm and that the Guelph Fire Department has been notified and are on the way.
3. Contact other persons/agencies or Departments as requested/required.

POLICE AND FIRE OFFICERS:

Upon receiving the fire alarm notification from dispatch, respond to the building and prepare for the arrival of the Guelph Fire Department.

1. Obtain from the annunciator panel, the location of the alarm.
2. Obtain information from Building Manager, Safety Officer or Chief Fire Warden, on the cause of the alarm and if any occupants are know to be unaccounted for.
3. Assist the Guelph Fire Department with necessary information and provide a copy of the Fire Safety Plan on their arrival.
4. The fire alarm panel shall not be silenced or reset until approved by the Guelph Fire Department.
5. Confirm reset with Control and/or initiate corrective measures.

SUPERVISORY PERSONNEL

DEAN, DIRECTOR, CHAIR, or UNIT HEAD:

- Is responsible in general for the safety of all persons in this building.
- Be in charge of implementing the approved Building Fire Safety Plan and the specific responsibilities of the personnel.

MANAGER or CHIEF FIRE WARDEN:

In an Emergency:

- Notify Police Dispatch of the emergency condition by calling extension **52000** to ensure Police Dispatch has received the alarm.
- Ensure alarm is sounding and supervise the evacuation of the occupants.
- Meet fire wardens at predetermined location.
- Upon arrival of City/Campus Emergency Services, inform the Responders of conditions in the building and assist where directed.
- Take steps to ensure evacuees do not return to the building until all the bells have stopped ringing
- Direct evacuees to temporary shelter.
- Liaison with City/Campus Emergency Services and assist when needed.

As required:

- Maintenance of building facilities - provide for safety of occupants.
- Implement procedures to be followed during emergencies.
 - Follow up on request to Physical Resources for the repair of building safety features.
- Arrange training for staff in the implementation & maintenance of the Fire Safety Plan and fire equipment.
- Ensuring there are alternate Chief Fire Warden & Fire Wardens available if needed.
- Control of fire hazards in the building.
- Maintain records of fire safety checks and inspections.

UNIVERSITY FIRE DIVISION:

- Ensure that checks, inspections and tests, as required by the Fire Code, are completed on schedule and that records are retained.
- Provide training seminars which are open to the University Community. Building specific seminars are also available to be set up through your department. University of Guelph Fire Prevention Officers are available for assistance in any area of Fire Safety. Please contact our office to set up training for your building, or to learn about upcoming training events X52071.

PHYSICAL RESOURCES:

- Assist the Building Manager in his/her responsibilities.
- Ensure that checks, inspections and tests, as required by the Fire Code, are completed on schedule and that records are retained including any repairs and said records forwarded to the Building Manager and Fire Division

THOSE IN NEED OF ASSISTANCE DURING AN EVACUATION

At this time there are no known persons who need help during an evacuation.

To be provided by Building Management to Fire Division as required to update this Fire Safety Plan.

CHECKS, TESTS AND INSPECTIONS LISTING

Items bolded will be the responsibility of building fire safety personnel/occupants

CHECK - Means visual observation to ensure the device or system is in place and is not obviously damaged or obstructed.

INSPECT - Means physical examination to determine that the device or system will apparently perform in accordance with its intended function.

TEST - Means operation of device or system to ensure that it will perform in accordance with its intended operation or function.

The University of Guelph will be responsible for the implementation of the following schedule of checks, tests & inspections, whether by on-site personnel or contractors.

<u>REF. NO.</u>	<u>REQ'd</u>	<u>ITEM</u>
<u>DAILY</u>		
2.7.3.1.		
2.7.3.2.	Check	To ensure that all exit lights are not damaged, are illuminated and clearly legible.
6.3.2.3	Check	Fire alarm system for indication of trouble in the system.
6.6.3.2	Check	Fire pump room temperature during freezing weather.
2.2.3.5.(1)	Check	That all fire separation doors are kept closed.
<u>WEEKLY</u>		
6.5.3.1		
6.6.1.2	Check	That unsupervised fire protection water supply system control valves are always fully open.
6.5.3.3	Check	That air pressure on dry pipe sprinkler system is being maintained.
6.6.3.1	Check	Water level in fire pump reservoirs.
6.6.3.3. (1) (2)	Inspect	Operate fire pump. The fire pump discharge pressure, suction pressure, lubricating oil level, operative condition of relief valves, priming water and general operating conditions shall be inspected during the weekly operation of the fire pump.

<u>REF. NO.</u>	<u>REQ'd</u>	<u>ITEM</u>
2.6.1.3.(1)	Check	Hoods, filters and ducts subject to combustible deposits and clean as necessary.

MONTHLY

6.2.7.2.	Inspect	All portable fire extinguishers.
6.3.2.3.	Check	All fire alarm components, including standby power batteries.
6.3.2.1.	Test	Fire alarm system.
6.3.2.4.	Test	Voice communication to and from floor areas to the central alarm control facility.
6.4.2.1.	Inspect	Hose cabinets to ensure hose position and that equipment is in place. Report deficiencies to Fire Department.
2.2.3.4.	Check	All doors in fire separations.
6.5.5.2.	Test	Sprinkler alarms using alarm test connection (mechanical signal only).
6.7.1.1.	Test	All components of the emergency power systems, operate the emergency power generator set under at least 30% of rated load for 60 minutes.
6.7.1.1.	Check	Clean crankcase breathers, governors and linkages on emergency generators.

EVERY TWO MONTHS

6.5.5.7.	Test	Electrical sprinkler transmitters and water flow devices.
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EVERY THREE MONTHS

7.2.2.1.(2)	Test	Elevator key-operated switches located outside an elevator shaft shall be tested to ensure that actuation of the switch will render the emergency stop switch in each car inoperative and bring all cars to the first floor by cancelling all other calls after the car has stopped at the next floor at which it can make a normal stop.
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<u>REF. NO.</u>	<u>REQ'd</u>	<u>ITEM</u>
7.2.2.1.(3)	Test	Key operated switches in each elevator car shall be tested to ensure that the actuation of the switch will: (A) Enable the elevator to operate independently of other elevators. (B) Allow operation of the elevator without interference from floor call buttons. (C) Render door protective devices inoperative. (D) Control the opening of power-operated doors only by continuous pressure on the door opening buttons or switches to ensure that if the "open" button or switch is released while the door is opening, the door will automatically close.

ANNUALLY

6.2.7.1.	Service	All portable fire extinguishers.
6.3.2.2.	Test	Fire alarm system in accordance with CAN/ULC-S536-“Inspection and Testing of Fire Alarm Systems”.
6.3.2.4.	Test	Fire alarm system voice communication in accordance with CAN/ULC S536 “Inspection and Testing of Fire Alarm Systems”.
6.4.2.4.	Inspect	Hose valves to ensure tightness and to ensure no water leakage.
6.4.2.5.(1)	Inspect	Remove and re-rack hoses and replace worn gaskets.
6.4.1.3. (1) & (2)	Inspect	Remove plugs or caps on fire department standpipe and hose system connections and inspect the threads for wear, rust or obstruction. Plugs or caps will be secured wrench tight.
6.5.3.2.	Check	Exposed sprinkler system pipe hangers.
6.5.3.5.	Check	All sprinkler heads.
6.5.4.4. (1) & (2)	Inspect	Remove plugs or caps on fire department sprinkler connections and inspect the threads for wear, rust or obstruction. Plugs or caps will be secured wrench tight.

<u>REF. NO.</u>	<u>REQ'd</u>	<u>ITEM</u>
6.5.5.3.	Test	Water flow on wet sprinkler system using most remote test connection.
6.5.5.4. (1)(2)(3)(4)(5)	Test	Trip-test dry pipe trip system.
6.5.5.5.	Test	Flow of water supply using main drain valve.
6.6.3.5.	Test	Fire pump at full rated capacity.
6.7.1.1.	Test	All components of the emergency Power generating system in accordance with CSA-C282 "Emergency Electrical Power Supply for Buildings".
2.2.3.7.	Inspect	All fire dampers and flue pipes and clean as necessary.
2.6.1.5.	Inspect	Chimneys, flues and flue pipes and clean as necessary.
2.6.1.8.	Inspect	Disconnect switch for mechanical air conditioning and ventilation.
7.2.3.1.(4)	Inspect	Controls for air handling system used for venting in the event of a fire conform to Ontario Building Code 3.2.6.2.(2)(3)(4).

EVERY FIVE YEARS

6.2.7.1.	Test	Carbon dioxide and water type extinguishers hydrostatically (NFPA 10).
6.4.3.6.	Test	Standpipe system piping which normally remains dry hydrostatically.

EVERY SIX YEARS

6.2.7.1.	Check	Empty stored pressure type extinguishers and subject to maintenance. (NFPA 10).
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EVERY TWELVE YEARS

6.2.7.1.	Test	Hydrostatically test dry chemical and vaporizing liquid type extinguishers. (NFPA 10).
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REF. NO. REQ'd
EVERY FIFTEEN YEARS

ITEM

6.5.4.2. Inspect Dry pipe sprinkler system and flush if necessary.

AS REQUIRED

6.2.7.6. Recharge Extinguishers after use or as indicated by an inspection or when performing maintenance.

6.4.3.2. Test Hydrostatically test standpipe systems that have been modified, extended or are being restored to use after a period of disuse exceeding one year.

6.5.3.4. Check Dry sprinkler pipe valve rooms or enclosures during freezing weather.

6.5.4.1. Inspect Auxiliary sprinkler drains to prevent freezing.

2.5.1.2.(2) Check To ensure that the fire department sprinkler and standpipe connections are clearly identified and maintained free of obstructions for use at all times.

2.5.1.2.(1)

2.5.1.3. Check To ensure that fire access routes and access panels or windows provided to facilitate access for fire fighting operations are not obstructed at all times by vehicles, gates, fences, building materials, vegetation, signs or any other form of obstruction.

2.7.1.7.(1) Check Maintain corridors free of obstructions.

2.4.1.7. Check Clean lint traps in laundry equipment .

APPENDIX A

EMERGENCY EVACUATION PROCEDURES
(when a fire alarm rings)

All Alarms must be taken seriously, and treated as real.

Scope:

- The following instructions are provided to ensure safe evacuation from any University building in the event of an emergency and apply to all employees, students and visitors.
- All persons should familiarize themselves with the floor plan of the building and in particular the stairwells and exits from buildings.
- University Policy #851.03.01 states that everyone shall evacuate when the fire alarm rings

When alarm bells sound:

- Leave the building as quickly and safely as possible using the stairs.
- **Do not use the elevator.**
- Walk, do not run.
- Advise the fire wardens at the building entrance of any individuals having difficulties evacuating or if you notice any signs of a fire.
- Do not enter the building until the all clear has been given by the Guelph Fire Department, Campus Community Police, University Fire Prevention, or Fire Warden.

**EMERGENCY EVACUATION PROCEDURES FOR PERSONS WITH
DISABILITIES**
(when a fire alarm rings)

All Alarms must be taken seriously, and treated as real.

Scope:

- The following instructions are provided to ensure safe evacuation for individuals with disabilities from any University building in the event of an emergency and apply to all employees, students and visitors.
- All persons with disabilities and their support staff should familiarize themselves with the floor plan of the building and in particular the location of the stairwells and exits from the building.
- An evacuation plan should be established for individuals with disabilities before an actual emergency arises.

Procedures:

- Leave the building as quickly and safely as possible if able to do so safely.
- **Do not use the elevator.**
- The volunteer or support staff member should not endanger themselves but have a duty to ensure occupants with disabilities are aware of the emergency and to assist them to a location inside the stairwell.
- If time permits the volunteer or support staff member should phone extension 52000 and report the location and any other relevant information to Campus Community Police Dispatch.
- No one should attempt to carry a disabled person down the stairs but rather proceed down the stairs and report the location of the disabled person to the Fire Warden or responding emergency personnel.
- Guelph Fire Department will locate the individuals and if needed evacuate them.

APPENDIX B

APPENDIX C

MASTER LIST OF FIRE EXTINGUISHERS

SERIAL #	BUILDING NAME	LOCATION	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Ann
914285	Richards Building	by 3529													
690889	Richards Building	by 3508													
690001	Richards Building	by 3504													
241786	Richards Building	by 2504													
241769	Richards Building	by 2508													
241772	Richards Building	by 2529													
241766	Richards Building	by 2570 N													
241761	Richards Building	room 2520 S													
241771	Richards Building	room 1532 S													
241751	Richards Building	by 1529													
	Richards Building	room 1525													
241760	Richards Building	by 1525													
241765	Richards Building	by 1517													
241770	Richards Building	by 1505													
241066	Richards Building	by 0502A													
213690	Richards Building	basement south exit													

CODES

G = Good
D = Discharged
A = Ass. Req.