

Building Fire Prevention and Evacuation Plan Guide

University at Buffalo Clinical Translational Research Center

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I. Introduction

The University at Buffalo's (UB) Clinical Translational Research Center (CTRC) comprises floors 5-8 of the Gates Vascular Institute (GVI) at 875 Ellicott Street, Buffalo NY 14203. As such, the building is shared with Kaleida Health which operates the GVI as part of Buffalo General Medical Center (BGMC). This arrangement presents a number of issues for the development of the Building Fire Prevention and Evacuation Plan herein referred to as the plan. The plan must take into consideration and work with Kaleida's Building Fire Prevention and Evacuation Plan since UB personnel will be required to transit GVI spaces during evacuations. Many of these spaces are active hospital areas which could have an effect on hospital operations. In addition, a hospital such as GVI has different protocols for events such as fire, where evacuation may be needed.

II. CTRC Description

The CTRC is a research facility located on the Buffalo Niagara Medical Center (BNMC) which is operated by the University at Buffalo (UB). The CTRC comprises floors 5-8 of the GVI and is interconnected with the BGMC. Each floor is approximately 50,000 square feet. The facility shares many facilities and services with Kaleida.

The fifth floor serves as the primary entrance to the facility, with a reception area located outside the main bank of elevators. A four story atrium is immediately adjacent to the reception area. The floor contains two large and one small seminar rooms. The floor also houses the CTRC administrative offices, Jacob's Institute, and UB Office of Science, Technology Transfer, and Economic Outreach (STOR). STOR also includes three laboratories that are leased to small biotech companies.

The sixth floor is mainly comprised of research laboratories. It also houses the Clinical Research Center (CRC) where research studies using human subjects are performed. The central corridors house mainly core laboratories while the peripheral hallways contain researcher's laboratories. The sixth floor also has a small seminar room and common kitchenette area.

The seventh floor houses the Laboratory Animal Facility (LAF), Imaging Center, and research laboratories. The LAF is a secured facility capable of housing both large and small animals. The imaging center houses a variety of scanners, including CT, PET/CT, and several MRIs that can be used for research studies with animals and humans.

The eighth floor includes research laboratories and building pumps and controls. The floor is approximately half laboratories, which are located on the north side and on both sides of the atrium on the west side of the building. The center of the building houses pumps and controls for the building facilities.

The CTRC also maintains a loading dock on the east side of the ground floor. A chemical storage room is located behind the loading dock area on the ground floor. There is also a future cyclotron room that sits below the loading dock area in the sub-basement of the building.



III. CTRC Operations

The operations of the CTRC facility are unique compared to other University facilities due to its co-location with the Gates Vascular Institute, which is a Kaleida hospital facility that occupies the first four floors of the building. This setup presents unique challenges for enacting an evacuation plan since a hospital facility is required to perform evacuation procedures differently from other facilities. In addition, care must be taken so that CTRC evacuation plans do not interfere with the special needs and concerns of the hospital.

IV. CTRC Evacuation Routes

The CTRC is serviced by three stairwells which would be used for building evacuation. The use of elevators for evacuation is not permitted. Evacuation routes are based on the locations of the stairwells. The stairwells are located on the southwest (stairwell #1), southeast (stairwell #2), and north (stairwell #3) sides of the building. Therefore the CTRC will be divided into three sections, each corresponding to the area of a stairwell that would serve as the primary route of egress. Stairwells adjacent to each section would be utilized in the event that the primary stairwell is inaccessible. Each section will be divided into areas that correspond to each of the four floors that comprise the CTRC.

Section 1 will include areas adjacent to stairwell #1, which will serve as its evacuation route. These areas would include the southwest and west sides of the CTRC. Stairwell #1 is located behind the main bank of elevators serving both the GVI and CTRC. Section 1 is divided into four areas, areas 1-5 – 1-8, which correspond to each of the floors in section 1. Area 1-5 would include the reception area, atrium, large seminar rooms and café on the fifth floor. Area 1-6 would include the biorepository, and Clinical Research Center. Area 1-7 would include laboratory 7035 and the Imaging Center. Area 1-8 would include laboratories and offices on the west side of the atrium on the eighth floor.

Section 2 includes areas on the southeast side of the building. The areas for section2Area 2-5 would include the Jacob's Institute. Area 2-6 would include the 6th floor east laboratories, workstations and offices. Area 2-7 is defined as the Laboratory Animal Facility. Area 2-8 encompasses mainly building engineering spaces where there are no permanent persons assigned.

Section 3, which is served by stairwell #3 serves the north side of the building. Stairwell #3 is located in the north central hallway, parallel to the northernmost east-west hallway on each floor. It should be noted that stairwell 3 includes a short walkway on the first floor, which leads to one set of additional stairs before one exits the building. Section 3-5 includes the STOR and UB2020 areas. Section 3-6 comprises the north laboratories, offices and workstations on the sixth floor, in addition to laboratories 6048 and 6050. Section 3-7 includes the laboratories, offices, and workstations on the north side of the building, in addition to the 7036 suite of laboratories.



Figure 1: Evacuation zones on the (5th) fifth floor of the CTRC (Blue 5-1, Pink 5-2, Green 5-3).



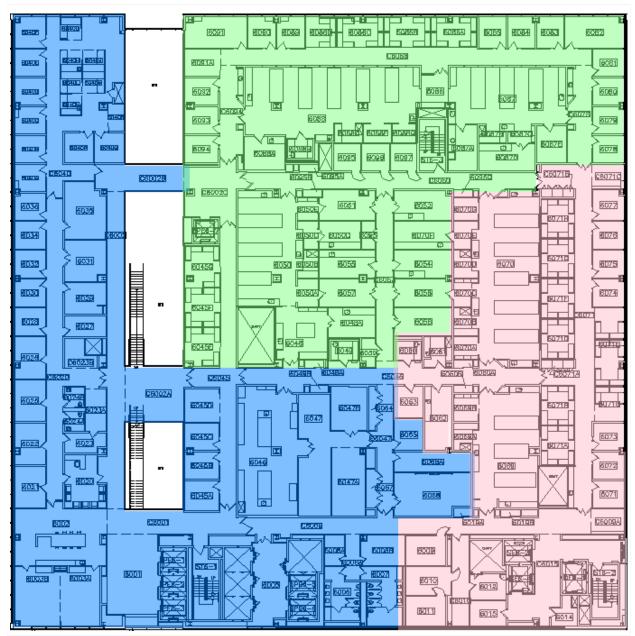


Figure 2: Evacuation zones on the (6th) sixth floor of the CTRC (Blue 6-1, Pink 6-2, Green 6-3).



Figure 3: Evacuation zones on the (7th) seventh floor of the CTRC (Blue 7-1, Pink 7-2, Green 7-3).



Figure 4: Evacuation zones on the (8th) eighth floor of the CTRC (Blue 8-1, Pink 8-2, Green 8-3).



Safe Room/Area of Refuge:

A safe room/area of refuge is located in the fifth floor landing of stairwell one in the CTRC. The stairwell is protected from penetration of heat and the products of combustion. The landing is equipped with an intercom that connects directly to Kaleida Security.

The function of the safe room/area of refuge is to serve as a shelter for individuals who are unable to evacuate the building. Persons using Safe Rooms, whenever possible, should be accompanied by a person (buddy) who is capable of providing assistance to the person who is unable to exit the building. Anyone needing to utilize the safe room/area of refuge should immediately use the intercom to contact Kaleida security and provide the following information:

Tell the dispatcher:

- 1. Your Name
- 2. Where you are (CTRC, fifth floor landing, stairwell #1)
- 3. How many people are with you
- 4. Why you are not able to exit the building
- 5. Report the location of any smoke or fire you may have observed

V. Building Hazards

The CTRC is situated over the Gates Vascular Institute (GVI), which occupies the lower floors. The GVI is a hospital facility, which has its own hazards that will not be discussed in this document. This document will focus on the hazards within the Universities CTRC spaces. The CTRC is primarily an academic research institution that contains wet labs, an animal facility, a clinical research center, imaging facility, and a facilities space. Therefore the facility has many hazards that are not present in traditional buildings.

Chemical hazards will be located throughout the laboratories and storage spaces in the building. In most cases, the amount of most chemicals will be relatively small, generally well below five kilograms in the laboratories. Flammables are stored in flammable cabinets, and acids are stored in vented cabinets below the fume hoods. Small amounts of volatile chemicals may also be stored within the fume hoods. In addition to the laboratories, chemicals may also be present in larger quantities in the CTRC chemical storage room, suite GB026. The suite is divided into six rooms where chemicals with different properties are stored.

Compressed gases are stored in various laboratories and rooms throughout the facility. The sixth and seventh floors have several compressed gas cylinder storage closets that store a variety of compressed gases including carbon dioxide, compressed liquid nitrogen, and oxygen. Additional compressed gas cylinders may also be stored in racks on the loading dock and in the chemical storage room located behind the loading dock (room B1001E, D). All cylinders are required to be secured and to have valve protectors in place when not in use. All rooms where compressed gases are stored will be labeled with a sign indicating so.



Radiological hazards may be present from open sources, sealed sources, and from radiation generating equipment. Various laboratories located throughout the facility may utilize small quantities of open source radioactive isotopes. Laboratories and areas where isotopes will be utilized and stored will be labeled appropriately. Areas where sealed sources are utilized and stored will also be labeled appropriately. Radiation generating equipment is located in the Imaging Facility on the seventh floor, in the Laboratory Animal Facility, and in the Toshiba Stroke Center on the eighth floor. In addition there is a mobile fluoroscopy device in the cardiology laboratories on the seventh floor.

Biological hazards are limited to Biosafety Level-2 organisms, however clinical samples may be processed in the laboratories and have the potential to carry unknown risks. Laboratories and equipment where there is a risk of exposure to biologicals will be labeled appropriately. In addition, laboratories who perform research on known pathogens will have signage on the outer doors indicating the risk level and agents present in the laboratory.

VI. CTRC Fire Prevention and Evacuation Planning Committee

A Fire Prevention and Evacuation Planning Committee comprised of a Chairman who serves as the Building Evacuation Coordinator and membership reflecting the organization of the CTRC's evacuation zones who serve as Section and Area Coordinators was created to implement the plan. The responsibilities of the committee are as follows:

- a. Coordinate with Environment, Health and Safety (EH&S) to schedule and conduct practice exercises to test evacuation organization functions.
- b. Monitor infrastructure and occupancy changes within the building and make modifications/adjustments to the BEP as necessary.
- c. EH&S recommends that the BEP be reviewed on a regular basis (at a minimum, once every 6 months) or when Building modifications are made.
- d. Ensure that all building occupants are aware of the BEP and that they agree with its provisions. The committee should work to ensure that all concerns or questions raised by the building occupants are addressed. EH&S can assist if needed.
- e. Promote occupant fire and life safety awareness and attitudes in the Building/Department through any of EH&S's Fire Prevention Programs.

The positions of the persons on the committee and their responsibilities are as follows:



Committee Chairperson/ Building Evacuation Coordinator (BEC)

Duties:

- a) During alarms or building evacuations, acts as the building liaison to the first responders.
- b) Receives accountability information from Building Section Coordinator(s) or Assistant Coordinator(s) and makes the information available to the first responders.
- c) Remains at post to answer any additional inquiries or requests from the first responders.

Building Section Coordinator

Duties:

- a) Oversees the BEP for a defined section of the building.
- b) Implements the BEP during an event and coordinates activities in the section.
- c) After evacuating the building, the Building Section Coordinator remains at the assigned assembly area, and collects accountability information and status reports from the Area Coordinators in his/her section.
- d) Relays the accountability information and status reports to the BEC.
- e) Relays information on any person or persons who may be in a Safe Room to the BEC. (Information needed: room number, number of persons requiring assistance, why they are not able to exit the building).
- f) On an ongoing basis, monitors corridors, exit access, exit way and exit egress conditions and reports hazardous conditions to the Building Evacuation Coordinator for corrective action.

Area Coordinator

Duties:

a) In the absence of a Building Section Coordinator, fills the Building Section Coordinator position as the designated Alternate.



- b) Walk through their assigned areas on their way out of the building, looking for occupants who have not evacuated. Area Coordinators are not to place themselves in danger during this process. If fire and/or smoke are observed, they are to leave the building immediately
- c) Reports status of assigned area to the Building Section Coordinator.
- d) Assists in the assigned assembly area as directed by the Building Section Coordinator.
- e) During evacuation, reports Safe Room Occupancy to Section Coordinator.

Fire Evacuation Drills:

All buildings must have three annual drills in accordance with the New York State Fire Code. These drills are unannounced and are held at the discretion of the Environment, Health & Safety Office (Building Code 405.4). Drills involve full evacuation of the building as part of the exercise. However since the CTRC occupies the floors above a working medical center which may interfere with the operations of the medical center, occupants will be directed to specific areas in cooperation with Kaleida Security. Evacuation routes lead occupants to the ambulance bay area where they are directed to proceed north along the wall towards North Street. Once around the wall, they may proceed up the drive towards Goodrich Road where they may reenter the back lobby of GVI. They are to remain at that location until given additional instructions or cleared to reenter the CTRC. Upon reentry, CTRC should avoid the main elevators to the GVI and utilize the back elevators or stairways to avoid interfering with patients, visitors and GVI staff.

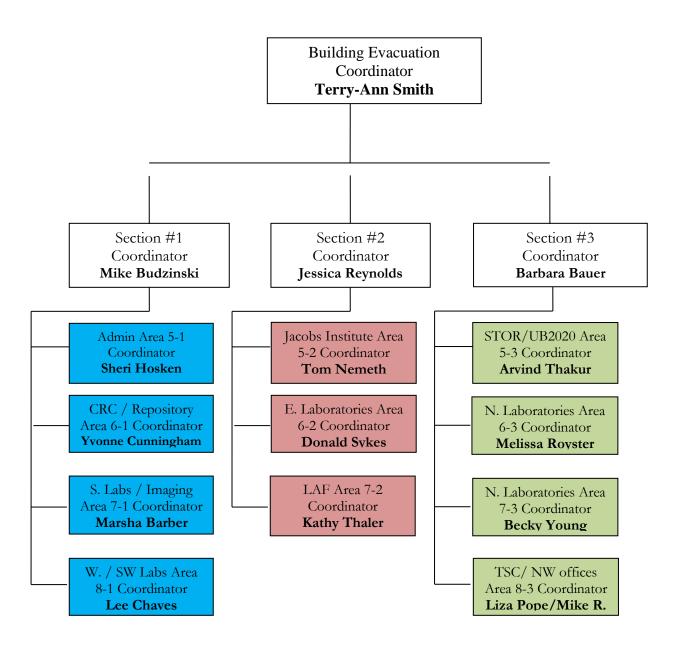


Appendix A:

CTRC Organization



CTRC Evacuation Committee Organizational Chart





Section 1: CTRC Building Occupant Information Date Implemented Building Name: Clinical and Translational Research Building Date Revised Review Date

DEPARTMENT INFORMATION:

Department: Jacobs Institute

Department Head: L Nelson Hopkins III, M.D.

Room Number: 5074 Phone Number: 888-4820

Location (s) in Building: Fifth floor rooms 5021-77

Department: UB STOR

Department Head: Lindsey McGurrin

Room Number: 5089 Phone Number: 888-4823

Location (s) in Building: Fifth floor rooms 5079-89

Department: Clinical Research Center

Department Head: Kimberley Brunton, R.N.

Room Number: 6040A Phone Number: 888-4840

Location (s) in Building: Sixth floor rooms 6020-40

Department: Division of Infectious Disease

Department Head: Timothy Murphy, M.D.

Room Number: 6091 Phone Number: 881-8010

Location (s) in Building: 6086B-D, 6088, 6091, and 6094



Department: Gastroenterology

Department Head: Andrew Talal, M.D.

Room Number: 6089 Phone Number: 888-4737

Location (s) in Building: 6045E, 6050, 6089-90

Department: Dermatology

Department Head: Animesh Sinha, M.D., Ph.D.

Room Number: 6082 Phone Number: 842-2116

Location (s) in Building: 6078-87

Department: Division of Endocrinology

Department Head: Husam Ghanim, M.D.

Room Number: 6077 Phone Number: 881-8924

Location (s) in Building: 6070, 6071H, 6077

Department: Division of Allergy, Immunology, and Rheumatology

Department Head: Stanley Schwartz, M.D.

Room Number: 6076 Phone Number: 859-2985

Location (s) in Building: 6070, 6071C-E, 6074-6

Department: Neurology

Department Head: Kinga Szigeti, M.D.

Room Number: 6073 Phone Number: 888-4724

Location (s) in Building: 6069, 6071E, 6073



Department: Laboratory Animal Facility

Department Head: Lisa Martin, D.V.M.

Room Number: 7069 Phone Number: 829-3877

Location (s) in Building: 7037-77

Department: Cardiology

Department Head: John Canty Jr, M.D.

Room Number: 7030F Phone Number: 829-2663

Location (s) in Building: 7030, 7035-6, 7080-4

Department: Nephrology

Department Head: Richard Quigg, M.D.

Room Number: 8022AA Phone Number: 859-4831

Location (s) in Building: 8022

Department: Pediatrics

Department Head: James Jarvis, M.D.

Room Number: 8030E Phone Number:

Location (s) in Building: 8022G, 8026, 8030

Department: Toshiba Stroke Center

Department Head: Steve Rudin, M.D.

Room Number: 8050 Phone Number: 829-5408

Location (s) in Building: 8033-53



Section 2: Building Organization Information

Building Fire Prevention & Evacuation Planning Committee:

Committee Chair/ Building Evacuation Coordinator: Terry-Ann Smith

Contact Number: 888-4730 E-Mail Address: tysmith@buffalo.edu

Committee Chair Alternate:______

Contact Number: ______E-Mail Address:______

Committee Members	Representing	Contact Number	E-mail
Michael Budzinski	Section Coordinator #1	888-4844	mabudzin@buffalo.edu
Jessica Reynolds, Ph.D.	Section Coordinator #2	888-4777	<u>jlr8@buffalo.edu</u>
Barbara Bauer	Section Coordinator #3	888-4825	bmbauer@buffalo.edu
Sheri Hosken	Area Coordinator #5-1	888-4850	slhosken@buffalo.edu
Yvonne Cunningham- Woolvine	Area Coordinator #6-1	888-4712	yvonnewo@buffalo.edu
Marsha Barber	Area Coordinator #7-1	829-2684	msbarber@buffalo.edu
Lee Chaves, PhD	Area Coordinator #8-1	888-4837	leechave@buffalo.edu
Tom Nemeth	Area Coordinator #5-2	888-4816	tnemeth@jacobsinstitute.com
Donald Sykes, Ph.D.	Area Coordinator #6-2	888-4779	desykes@buffalo.edu
Kathy Thaler	Area Coordinator #7-2		
Arvind Thakur, Ph.D.	Area Coordinator #5-3	688-4790	athakur@accutheranostics.com
Melissa Royster	Area Coordinator #6-3	878-3315	maroyste@buffalo.edu
Rebecca Young	Area Coordinator #7-3	829-2672	rfyoung@buffalo.edu
Liza Pope	Area Coordinator #8-3	829-5589	lco2@buffalo.edu

Alternates

Area	Name	Phone	E-mail
Area #5-1	Patricia Rybij	859-7040	pe8@buffalo.edu
Area #5-2	Mike Springer	888-4822	mspringer@jacobsinstitute
Area #6-2	Hakim Sojar, PhD	888-4873	orbhakim@buffalo.edu
Area #6-2	Ivanna Ihnatovych, PhD	859-7540	ivannai@buffalo.edu



Section 3: Building Information:

Dimensions: 225' x 225' Number of floors: 9 Hours of Operation: 24

Occupancy Characterization:

Build	ing Use	Please List All that Apply
Assembly	A	X
Business	В	X
Laboratory	L	X
Service	S	
Education	Е	X

Approximate Number of Occupants 120

Primary Occupancy: 120 Total Employees: ~120 Typical # of Students: ~50-100

Typical # of Visitors:~50 Contractors: ~10-50

Obtain building diagrams from Facilities Planning and Design of each floor of the building. Mark up these drawings to indicate the location of exits, main exit routes, fire alarm pull stations, manual activation stations for special agent systems and portable fire suppression equipment. If Safe Rooms are present in the building, indicate the location of each room (see Appendix B for signage).

3.2 Building Fire Detection and Suppression Systems:

Individual buildings may or may not have smoke detectors, heat detectors, fire alarm pull stations, sprinkler systems and/or special agent suppression systems. Therefore, the BFPEPC needs to identify and describe occupant training needs and evacuation practices specific to needs dictated by the presence or absence of such equipment. EH&S may be consulted for assistance in providing guidance in the completion of this section.



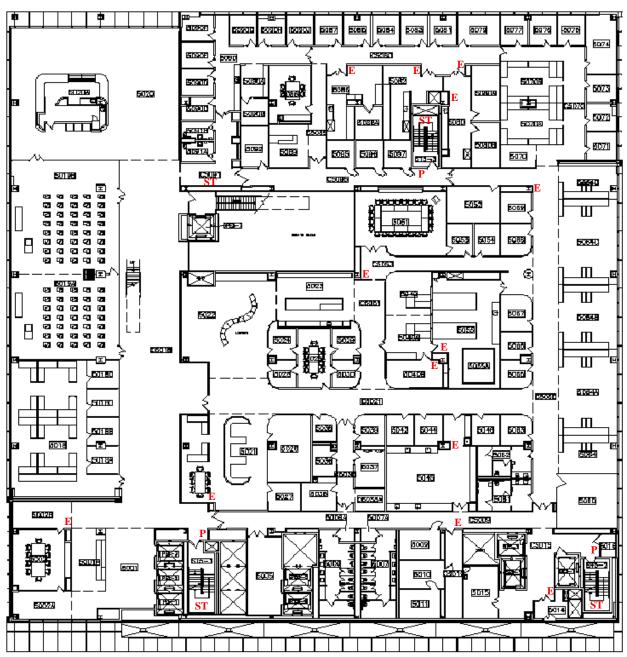


Figure A1: Emergency equipment on the fifth floor of the CTRC (E-fire extinguisher, P-pull station, ST- standpipe).



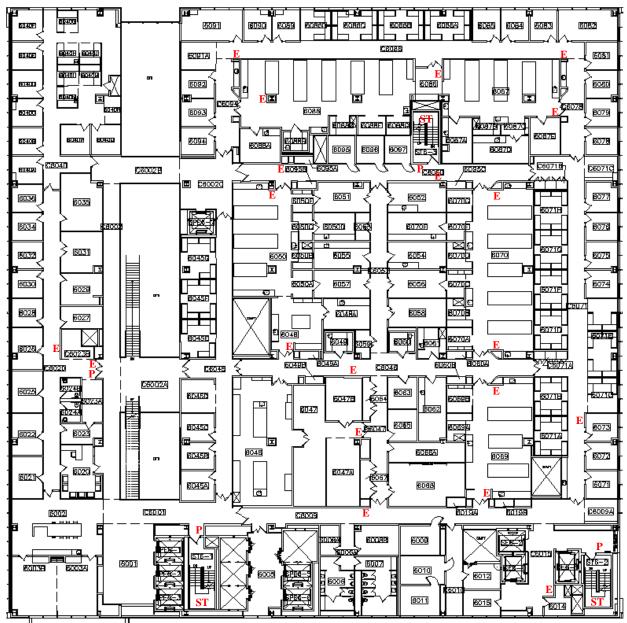


Figure A2: Emergency equipment on the sixth floor of the CTRC (E-fire extinguisher, P-pull station, ST- standpipe).



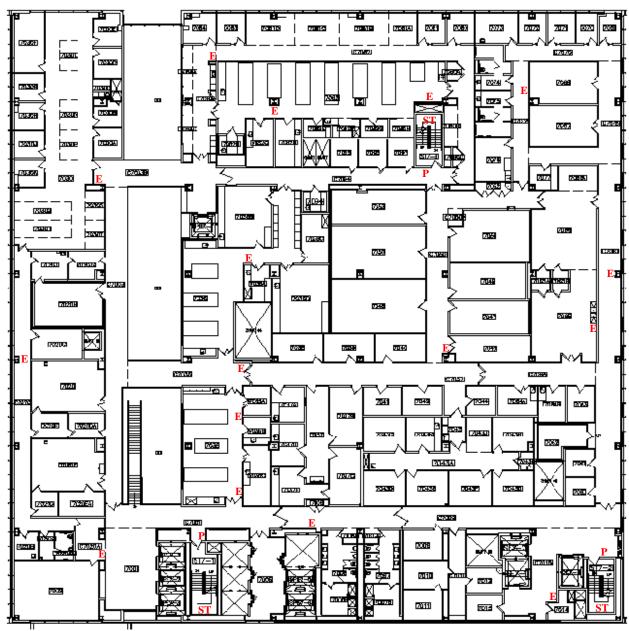


Figure A3: Emergency equipment on the seventh floor of the CTRC (E-fire extinguisher, P-pull station, ST- standpipe).



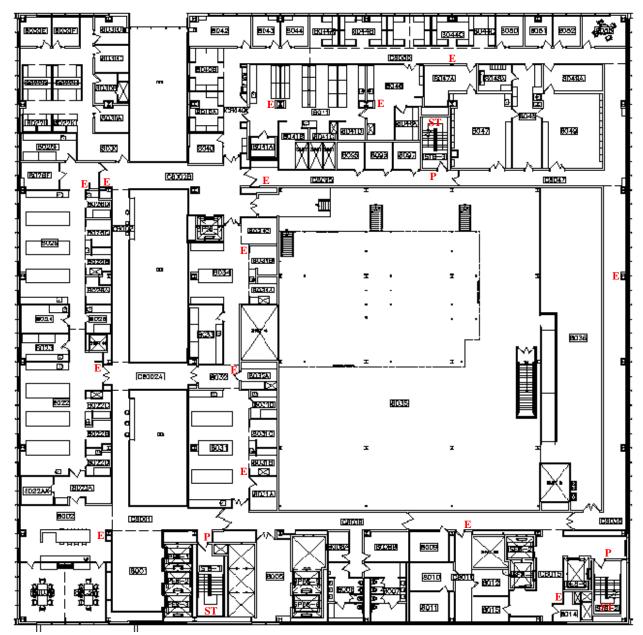


Figure A4: Emergency equipment on the eighth floor of the CTRC (E-fire extinguisher, P-pull station, ST- standpipe).