

Computer Science and Artificial Intelligence Laboratory
Emergency Preparedness Plan
December 2007

Professor Victor Zue, Director



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Fire Alarm Information and Evacuation Plan

I. Fire Alarm

To activate the Fire Alarms in Building 32, pull down the lever on the Fire Alarm Box, usually located next to the stairwells.

This is the preferred method of reporting a fire because:

- The alarm alerts everyone in the area of concern to evacuate the building
- The Facilities Operations Center is notified immediately of the location so that they can call the Fire Department.
- It brings the Cambridge Fire Department and the Emergency Response Team to the location
- There is a smaller chance of confusion that could result from a telephone call.

The system is arranged so fire alarms – at a minimum – will sound on the floor of an incident, the floor above, and the floor below, and in some circumstances, will sound on several floors at the same time. The Fire Alarms in Building 32 are strobes accompanied by a set of three single tones followed by a voice command and then three single tones.

II. Emergency Phone Numbers

Dial 100 from any campus phone. When you dial this number, give your name, a description of the emergency, and your location. Speak slowly and clearly. Then wait to answer any questions or receive instructions the dispatcher may have. Stay on the line until the dispatcher hangs up.

III. Personnel with Delayed Evacuation

Institute policy is to evacuate immediately when an alarm is sounded. The Computer Science and Artificial Intelligence Laboratory does not have personnel who may delay evacuation.

Responsibility for Communicating an Alarm and Information

All staff have the responsibility of communicating the initial alarm. MIT Police Department will be relied upon to check all floors when deemed necessary by the Cambridge Fire Department.

The Computer Science and Artificial Intelligence Laboratory has designated Fire Marshals for each floor. The responsibilities of the Fire Marshals in case of a fire alarm or drill are to:

- know the location of fire alarm equipment and fire extinguishers
- notify the building of a fire via the fire alarm if/when necessary
- help members of the floor to safety if this can be accomplished without injury or danger to the rescuer
- remind people on the floor to close windows and doors and shut down equipment if possible, and to evacuate
- verify that all personnel on their floor have left the building, and account for each member of the floor at the Public Assembly Area. If safe to do so, each Fire Marshal shall make a sweep of their floor and report back to the Emergency Preparedness Coordinator that their floor is clear, or who did not leave the building.
- convey applicable information about a fire or other danger to emergency personnel at the Incident Command Post located on the Student Street in back of the Information Desk.

The Public Assembly Area is in front of the main entrance to each tower. Fire Marshals are to report to the Head Fire Marshal near the Gates entrance to Stata. The alternate point of assembly is the rear walkway by the retention pond. There are two inclement weather assembly locations, one at the Building 26 breezeway, the second on the first floor of building 36.

IV. Trained Personnel who will Fight Incipient Fires

MIT Policy is to evacuate immediately, not to fight fires. Fire fighting should only be performed by trained personnel. There are no fire brigades at MIT.

VI. Evacuation Procedures

General Procedures in the Event of Fire or Explosion

- Do not stop for valuables, coats, or computer work
- Shut off electrical appliances
- Leave lights on
- Close doors and windows
- If you lock your door, take your keys with you
- Alert others around you
- Assist any special needs persons in evacuating to one of the “Areas of Refuge) located at the landings of the stairways. The helper should remain with the special needs person until help arrives.
- Once outside, check in with your Fire Marshal and make sure to allow room for firefighters and their equipment.
- Give information about the fire or persons still inside to the Fire Marshal, the Cambridge Fire Department, MIT Police Department or the MIT Emergency Response Team.
- Do not reenter the building for any reason until told to do so by the Cambridge Fire Department, MIT Police Department or the MIT Emergency Response Team.

If you cannot leave because all exits are obstructed

- Crawl or stay low to the floor where there is cleaner and cooler air
- If possible, get to a telephone and dial 100 to let MIT Police Department know where you are
- Keep a damp cloth over your mouth and/or nose to aid your breathing

Of Particular Importance

- Keep Calm. A fire may be hot, noisy and generally overwhelming, but your best weapon is a composed and logical approach
- Assume there is a fire when the alarm sounds. Take it seriously.
- Do not call MIT Police Department or the Department of Facilities to ascertain if there is a real fire.
- Do not use the elevator. The shaft may act like a chimney, and the car may stop at the fire itself. Elevators may also act like giant pistons, pushing smoke and fire to other portions of the building. Use the nearest exit stairway or passageways to an adjacent building.
- Do not run if your clothes catch fire. Running will only fan the fire, causing it to intensify. Drop to the floor and roll back and forth to smother the flames. Call for help. Rescuers can smother the flames by quickly wrapping a coat or rug over the victim.

- **LEAVE THE BUILDING.** This includes lobby areas. Not doing so is considered interference with fire fighting operations and violators of this Massachusetts State Law are subject to a fine, imprisonment, or both.

Other Considerations

- **Exiting horizontally.** Horizontal evacuation generally means to move on the same floor to another section in the same building or an adjacent building instead of exiting vertically via the stairs or elevator. The advantage to horizontal evacuation is that one may remain inside, protected from the weather and avoid descending over stairs. This method is of primary importance for people with disabilities.

For horizontal evacuation to be effective, one must pass through smoke barriers and/or fire barriers. Usually, this means smoke or fire doors or perhaps a fire wall. The terms fire doors and smoke doors are really synonymous except a fire door can withstand a fire and prevent its passage more effectively because of heavier construction materials and a heftier frame. Smoke doors and their frames are comparatively more lightly constructed and cannot withstand a rigorous fire for as long a period as a fire door. Both, however, will keep deadly smoke and fire confined long enough to make an escape or rescue possible provided they are kept closed. Doors blocked open with wedges, broken or improperly working doors, a fire hose or other object holding the door even a little is enough to render the designed safety effect of preventing the spread of smoke and fire useless.

It is important to note when evacuating horizontally that it is not enough merely to exit into an adjoining building. It is necessary to go beyond an operating fire or smoke barrier

Evacuation of Persons with Ambulatory Difficulties

We will utilize horizontal evacuation whenever possible; refer to floor plans for possible routes. Occupants of Dreyfoos tower can evacuate horizontally to building 36 on floors 3 through 8.

If horizontal evacuation is not possible, staff will assist special needs individuals to the nearest enclosed stairway that is free of smoke and will remain at the “Area of Refuge” until help arrives (Fire Department, MIT Police Department, etc.). If possible, we will send someone to dial 100 to inform MIT Police Department of our stairway and floor location. The “Areas of Refuge” have an automatic call button that connects them to Facilities 24-hour dispatch center. We will not use elevators to evacuate.

Evacuation in the Event of a Bomb Threat

Evacuation procedures are the same as fire evacuation procedures, except it is permissible to use elevators to evacuate. However, elevators should be reserved primarily for those who are disabled, elderly, pregnant, or have medical problems. Others should exit via the stairwells to expedite evacuation. Please follow the directions of the Fire Marshals during this situation.

NOTE: The handling of explosives is a job **strictly for professionals**. Should you notice an item which may be a bomb (because it is an unusual item in an area with which you are very familiar) do NOT touch it. Report it to the MIT Police Department, Emergency Response Personnel, and/or Cambridge Fire Department personnel. Please be prepared to describe the item and its location.

Evacuation in the Event of an Explosion

In the event that an explosion occurs, use the Fire Evacuation Procedure.

VII. Rescue Assignments

Fire Marshals are assigned to limited preplanned rescue duties. No one is expected to be a rescue expert. Minimal rescue duties include aiding special needs persons with evacuation and assuring everyone is alerted to the need for evacuation if that is possible without injury or danger to the rescuer. We will preplan with the MIT Disabilities Services Office and the MIT Environment, Health, and Safety Office (EHS Office) for the evaluation of disabled personnel. Otherwise, all staff should inform the Fire Department of the location of trapped persons and anyone otherwise unaccounted for.

Personnel Assigned Specific Rescue Assignments

NAME	ALTERNATE	TASK
Ralph Swick	Simon Hernandez	assists physically challenged individual(s) from the building

Fire Marshals in CSAIL

Floor	Name	Task	Room	Telephone
2 nd Floor	Fern DeOliveria	Fire Marshal	32-250A	3-5860
	Aaron Adler	Fire Marshal	32-239	3-8926
	Frank Tilley	Fire Marshal	32-243	8-7981
3 rd Floor	Matt Walter	Fire Marshal	32-331	3-2155
	Igor Malioutov	Fire Marshal	32-360	3-2793
	TBD	Fire Marshal		
4 th Floor G	Rachel Avery	Fire Marshal	32-G428	3-3212
4 th Floor D	Sara Su	Fire Marshal	32-D416	3-8835
	Ray Jones	Fire Marshal	32-D474	2-2124
5 th Floor G	Simon Hernandez	Fire Marshal	32-G504	3-2920
	Ralph Swick	Fire Marshal	32-G518	8-5740

	Jeanne Darling	Fire Marshal	32-G566	3-4294
5 th Floor D	Maysoon Hamdiyyah	Fire Marshal (D Tower Reporter)	32-D529	3-6693
6 th Floor G	Be Blackburn	Fire Marshal	32-G675A	3-6098
7 th Floor G	Mary McDavitt	Fire Marshal	32-G764	3-9620
8 th Floor G	Sally Lee	Fire Marshal	32-G846	3-6837
	Paula Mickevich	Fire Marshal	32-G882	3-5896
9 th Floor G	Sheila Marian	Fire Marshal	32-G944	3-1996
	Neena Lyall	Fire Marshal	32-G970	3-6019

VIII. First Aid

Medical Personnel already assigned to the MIT Campus community, such as the Medical Department, MIT Police Department, and Emergency Medical Technicians, satisfy the requirements of OSHA Regulation 1910, subpart K. These trained and skilled personnel can be requested via telephone by dialing 100, or through emergency personnel. Those who are trained to assist the injured may aid the wounded only within the scope of their training and on a voluntary basis.

Organization and Responsibility

Computer Science and Artificial Intelligence Laboratory
MIT Building 32
32 Vassar St.
Cambridge, MA 02139
(617) 253-5851

Director	Victor Zue	32-G470	253-8513
Assistant Directors	Jack Costanza	32-273	253-6703
	Karen Shrier	32-G416	253-3491
EH&S Coordinators	Anthony Zolnik	32-266	253-3562
	Frank Tilley	32-269	258-7981
Emergency Action Plan Coordinator	Frank Tilley	32-269	258-7981
Emergency Prep. Coordinator	TBD		

Approximate Total Number of Employees: 200
Approximate Total Number of Students: 600
Approximate Number of Visitors per day: 25-50

Operations

The Computer Science and Artificial Intelligence Laboratory is a research laboratory where MIT faculty, staff, and students perform research in a wide variety of computer science and robotics disciplines. There are no hazardous materials or equipment involved.

Business hours of operation for the Laboratory are 8:30 am to 5 pm, Monday through Friday. This is a 24/7 operation with a various number of students, employees and faculty in the building at any given time.

Security for the building operates through a series of proximity card readers. The Stata Center is unlocked from 6:00 am to 6:00 pm Monday through Friday, locked 24/2 Saturdays and Sundays except for special events. CSAIL owns its own set of proximity card readers, allowing access to the Lab via a proximity card to CSAIL and LIDS members (with whom we have reciprocity). CSAIL doors lock and unlock at a variety of times; they are locked 24/2 on weekends.

Duties of the Fire Marshals

The duties of a Fire Marshal, in the case of a fire alarm or drill, are to:

- know the location of fire alarm equipment and fire extinguishers
- notify the building of a fire via the fire alarm if/when necessary
- help members of the floor to safety if this can be accomplished without injury or danger to the rescuer
- remind people on the floor to close windows and doors and shut down equipment if possible, and to evacuate
- verify that all personnel on your floor have left the building, and account for each member (as much as possible) of the floor at the Public Assembly Area
- convey applicable information about a fire or other danger to emergency personnel
- familiarize new employees and students with the Emergency Preparedness Plan
- note any malfunctioning alarms and other safety hazards
- report safety concerns to Headquarters
- discourage tampering with fire alarms, extinguishers, and other safety equipment
- participate in any fire alarm tests
- report strangers to Headquarters
- host informational sessions about safety procedures for CSAIL
- once a month, checking the fire extinguisher(s) in your area to make sure they are functional.

All Fire Marshals are assigned these responsibilities for their entire floor. In most cases, there is more than one Fire Marshal per floor. In case of the absence of a Fire Marshal, there are no alternate responsible persons; other Fire Marshals for the floor will be able to assume complete responsibility. See the previous list for the names and locations of the Fire Marshals.

Utilities Maintenance

Depending on the issue, it is best to first email oops@csail.mit.edu or help@csail.mit.edu. They will act as the liaison between the Lab and any utility issues.

Call Facilities B Zone at x8-9425 or email them, b-zone@mit.edu, to report any utility maintenance problem within the floor area. To contact Facilities in an emergency, 24 hours per day, dial FIXIT (x3-4948) or MIT Operations at 3-1500.

Fire Prevention Plan

I. Requirements

OSHA requires that a written Fire Prevention Plan be kept in the workplace and made available to employees. The Lab must also review with each new employee the parts of this plan that the employee needs to know to protect him/herself. This can be included in the Lab's safety briefing.

Hazardous materials: All employees and students should recognize hazards and report these to their supervisor(s), the floor Fire Marshals, and/or Headquarters so corrective action may be taken. The identification, proper handling, and storage of hazardous materials is the responsibility of Headquarters and the supervisor in the area. While the final accountability may rest with these individuals, it is the intent that ALL CASIL employees should know, understand and employ proper standard operating procedures for working with hazardous materials.

Extinguishers and other Fire Prevention Equipment: Department of Facilities Mechanical Operations is responsible for inspecting and testing extinguishers and hoses in all other areas of CSAIL once per year. As required by OSHA, the EHS Office suggests that the Fire Marshals briefly inspect the extinguishers in their areas once per month, documenting the fitness of each extinguisher. Building 32 is equipped with overhead sprinklers in all areas.

II. Identification of Fire Hazards: It would be impossible to list all the possible fire hazards you may encounter. The ones you are most likely to encounter while working at CSAIL are listed below. The Laboratory has no fuel source hazards.

<u>Common Fire Hazards</u>	<u>Control by</u>	<u>Sources are</u>
Electrical appliances and equipment	using equipment properly and maintaining it properly	overheating of appliance, sparks and electrical arcing from appliance or cord

The procedures for minimizing fire hazards from these sources are:

<u>Ignition Source</u>	<u>Control Procedure(s)</u>
Electrical Appliance producing heat	do not operate while unattended or near combustibles
Overloaded Extension Cord	install more electrical outlets unplug any unused appliances from cord unplug any unused extension cords

Also refer to written maintenance procedures for anti-overheating devices utilized to prevent heat-producing equipment from accidental ignition of combustible materials. Extension cords

are a temporary fix, they should be used no more than 30 continuous days. Please contact oops@csail.mit.edu if you need an extension cord replaced with a more permanent jack arrangement.

III. Housekeeping Procedures: Individual employees and students are responsible for the safety of their own areas regarding the safe use and maintenance of electrical equipment. Members of each floor are responsible for clearing the area of combustibles, such as newspapers. Facilities is responsible for the pickup of recyclable materials and emptying trash receptacles. There will be an annual cleaning to keep clutter, unwanted items, excess equipment, and outdated hazardous materials to a minimum.

Hazardous Waste Pick-Up: Employees and students are encouraged to go to the following website to contact EHS for any hazardous waste pick-up:
http://mit.edu/environment/ehs/chem_collection.html

Fire Protection Equipment

Each Fire Marshal is encouraged to check the fire extinguisher(s) in their area for fitness each month. Fighting fires with the extinguishers or otherwise using these extinguishers is not encouraged. **At MIT, we don't fight fires; we evacuate.** We will exercise good fire prevention practices at all times. In the event of a fire, we can assist the Cambridge Fire Department by promptly evacuating to the outside of the building, away from entrances to the building. If appropriate and possible without danger to yourself or others, please provide your Fire Marshal and/or the Fire Department with pertinent information about the known location of a fire, the material(s) burning, and potential hazards involved.

Please check each extinguisher in your area with the following chart.

Date	Mounted securely	Serviced less than 1 year ago	Gauge reading	Pin Sealed	No rust or dents	Bracket secure	Hose & Nozzle OK

You can request a new fire extinguisher by contacting the EHS Office, 52-496, x2-3477. They will make an appropriate recommendation and will explain the procedure for obtaining the extinguisher, installation, and service. Please call Frank at x8-7981 or Department of Facilities at x8-9425 if any extinguisher does not meet the requirements shown on the chart.

Shelter in Place

Computer Science and Artificial Intelligence Laboratory

Stata Center, Bldg 32, Headquarters, 32-G415

617-253-5851

2005

Introduction

Sheltering in place is a defensive action that building occupants can take to protect themselves against airborne hazards originating outdoors, and for which there is forewarning. A shelter is a pre-determined interior room or area of the building, which, with special provisions, can provide a barrier to protect the occupants from the external environment.

Buildings alone can provide protection to a varying degree, but are limited and effective only under certain conditions. The document offers procedures and methods to improve and enhance the protection provided.

Whether at home, in the workplace, or in a dormitory setting, sheltering in place is similar, and the basic steps remain the same:

1. Shut and lock all windows and doors.
2. Turn off all air handling equipment (heating, ventilation, and/or air conditioning, both supply and exhaust) within your ability to do so.
3. No sheltering rooms have been assigned at this time. Individuals are advised to remain where they are until further instructions become available.
4. Turn on a TV or radio and listen for further instructions.
5. When the “all clear” is announced, open windows and doors, turn on ventilation systems and go outside until the building’s air has been exchanged with the now clean outdoor air.

6. Due to the varying nature of MIT's buildings and ventilating systems, MIT EHS does not recommend the use of encapsulation methods such as plastic sheeting. For more information on these methods, contact www.ready.gov

*Some housing units and other areas are designating shelter areas. If you wish to designate an area as a shelter area, please contact MIT EHS Safety Program at 452.EHSS (3477) or email David Barber at dbarber@mit.edu

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BLDG.26

FIRE LANE

DREYFOOS WEST ENTRY

BLDG.36

Elevators 1 2 3

Fire Alarm Control Panels

FIRE DEPARTMENT CONNECTION

DREYFOOS ENTRY

VASSAR STREET

- FIRST FLOOR
- EMERGENCY EGRESS STAIR
- ELEVATORS
- SECOND FLOOR
- EXIT
- ACCESS TO STAIRS

COMPTON COURT ENTRY

Fire Alarm Control Panels

Stair #1 P2 to Roof

Childcare Center

Lecture Hall Rm. 123

Stair #2 P2 to 9th

West Flat Classroom Rm. 124

Dreyfoos Light Court

West Tiered Classroom Rm. 141

Stair #3 Basement to Roof

East Flat Classroom Rm. 144

Gates Light Court

East Tiered Classroom Rm. 155

Stair #5

Fire Pump Rm.

Stair to 3rd fl. & Stair #4

Quiet Room

Stair to 3rd fl. & Stair #4

Elevators 4 5 6

Stair to 3rd fl. & Stair #4

Driveway Ramp to Basement & Parking Garage

Hydrant

FIRE DEPARTMENT CONNECTION

BLDG.57

Athletic Facility

Elevators 9 10

FIRE COMMAND CENTER

32 Vassar Street Stata Center Floor 1, 2

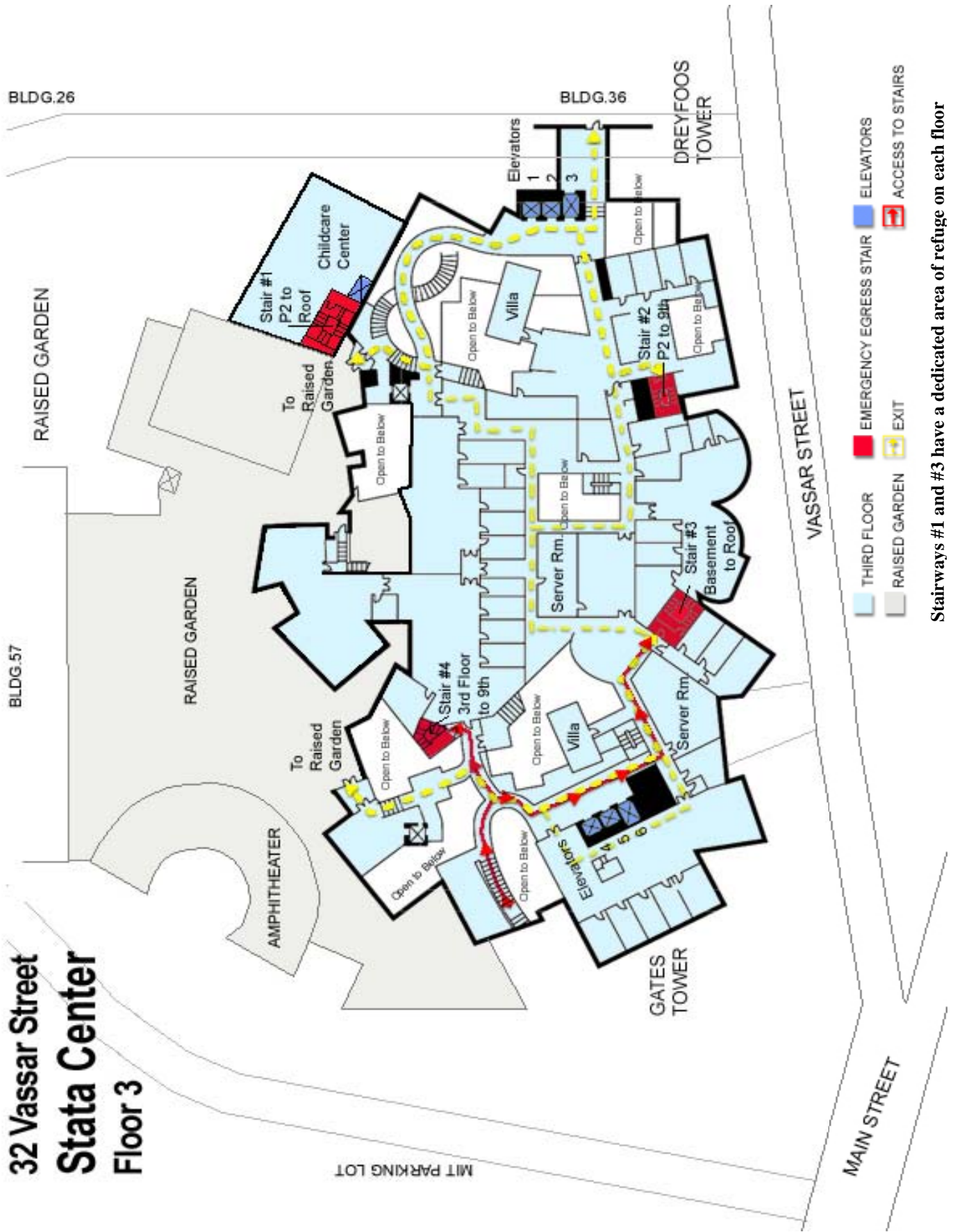
GATES ENTRY

MAIN STREET

MIT PARKING LOT

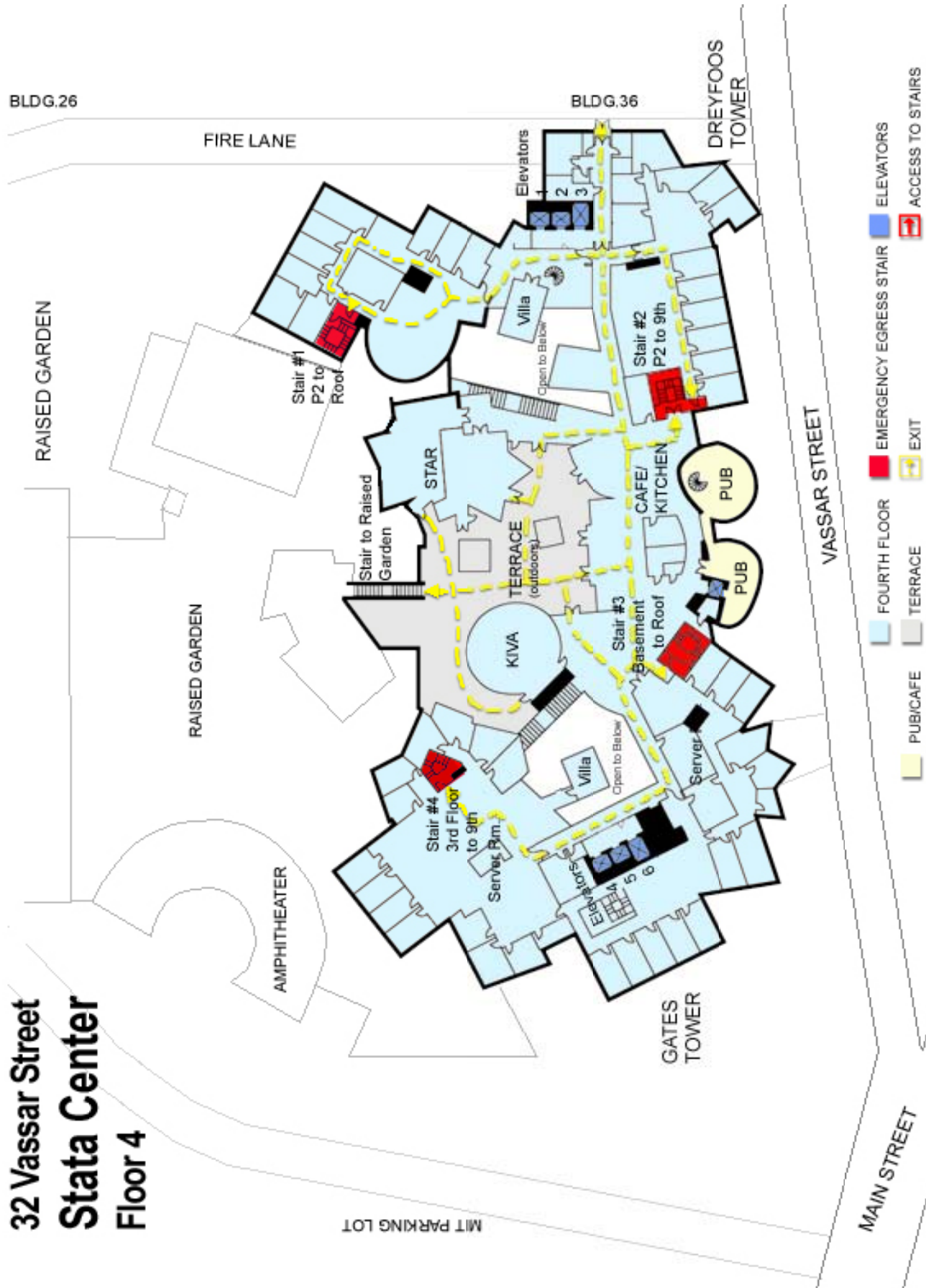
Stairways #1 and #3 have a dedicated area of refuge on each floor

32 Vassar Street Stata Center Floor 3



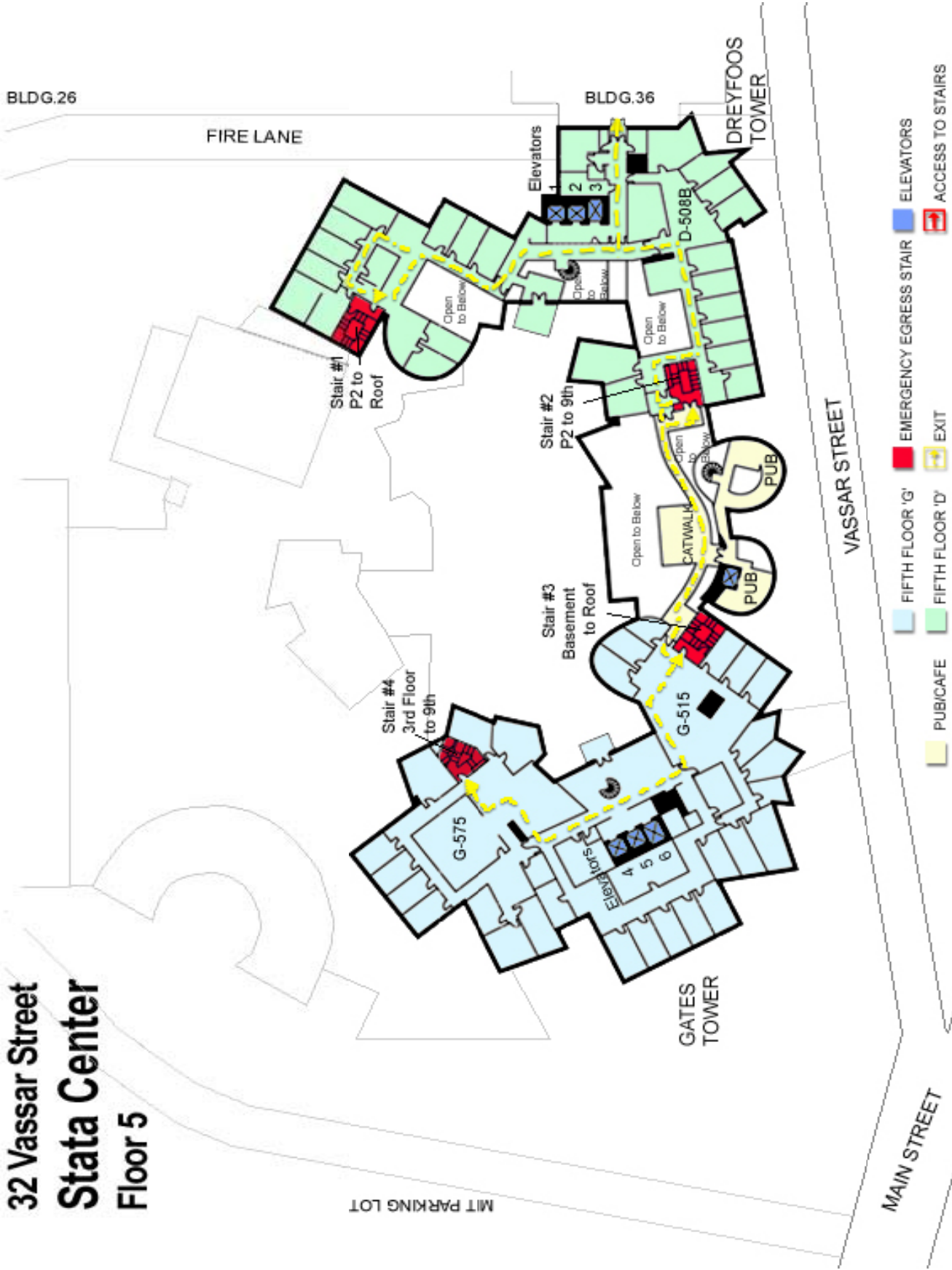
Stairways #1 and #3 have a dedicated area of refuge on each floor

32 Vassar Street Stata Center Floor 4



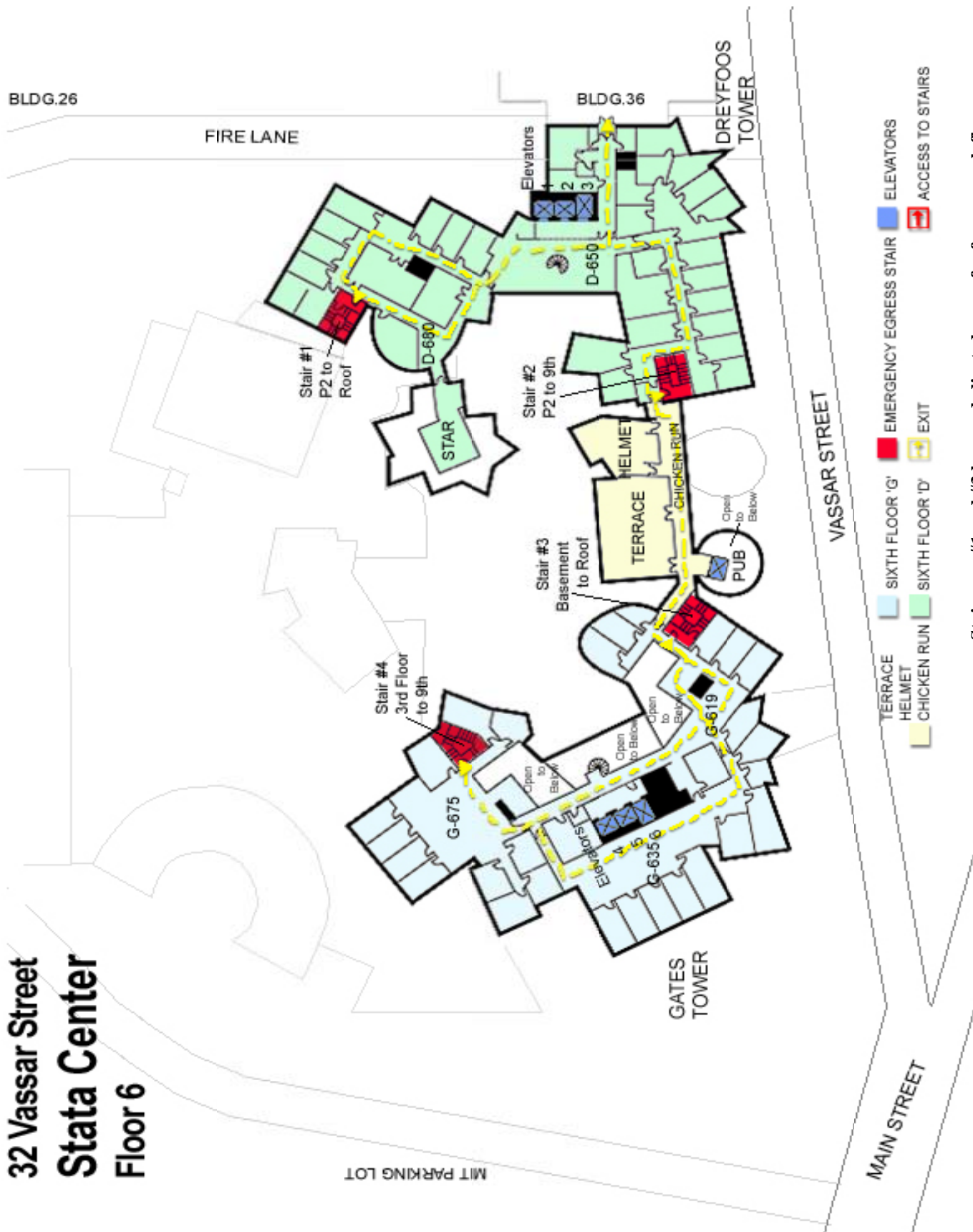
Stairways #1 and #3 have a dedicated area of refuge on each floor

32 Vassar Street Stata Center Floor 5



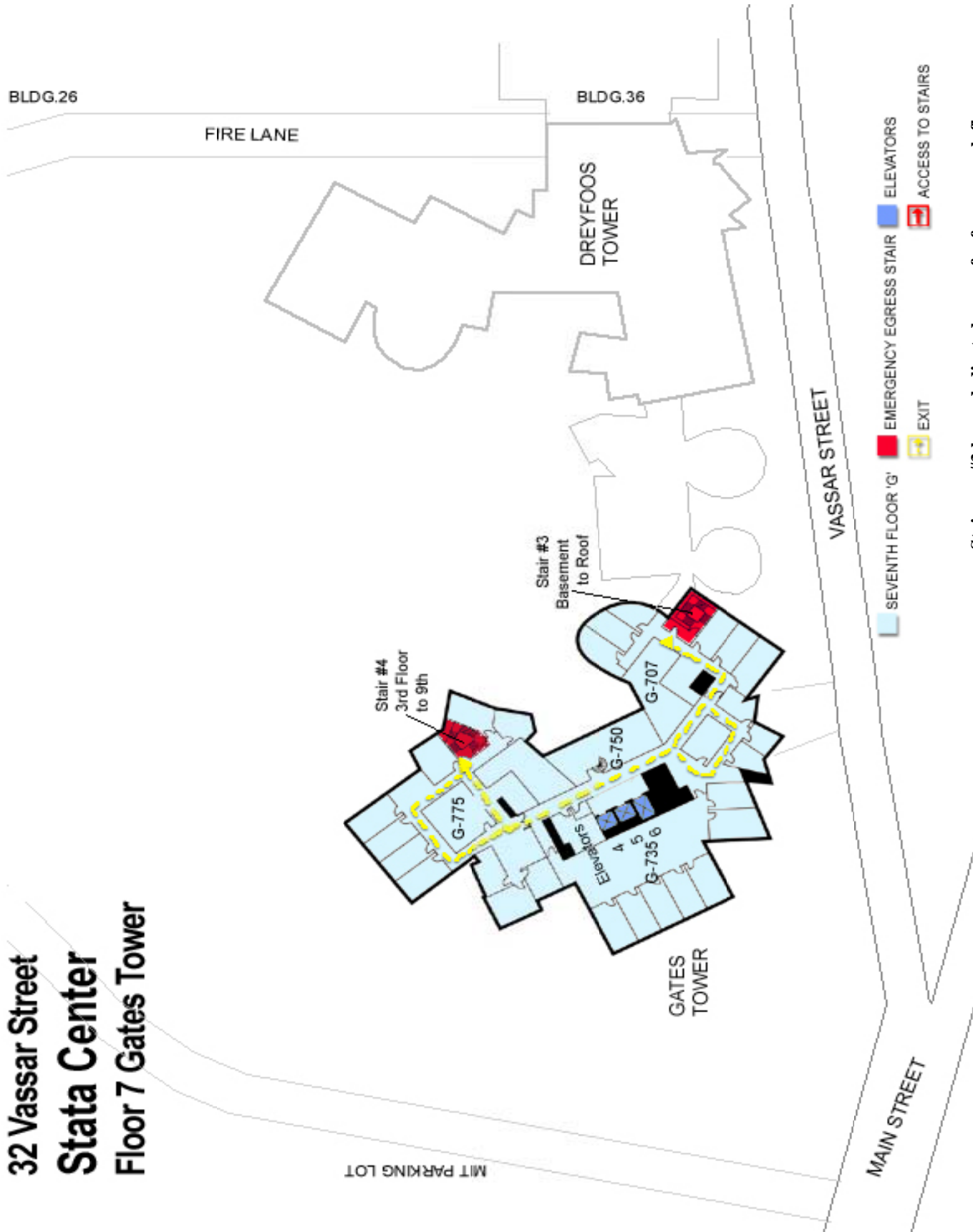
Stairways #1 and #3 have a dedicated area of refuge on each floor

32 Vassar Street Stata Center Floor 6



Stairways #1 and #3 have a dedicated area of refuge on each floor

**32 Vassar Street
Stata Center
Floor 7 Gates Tower**



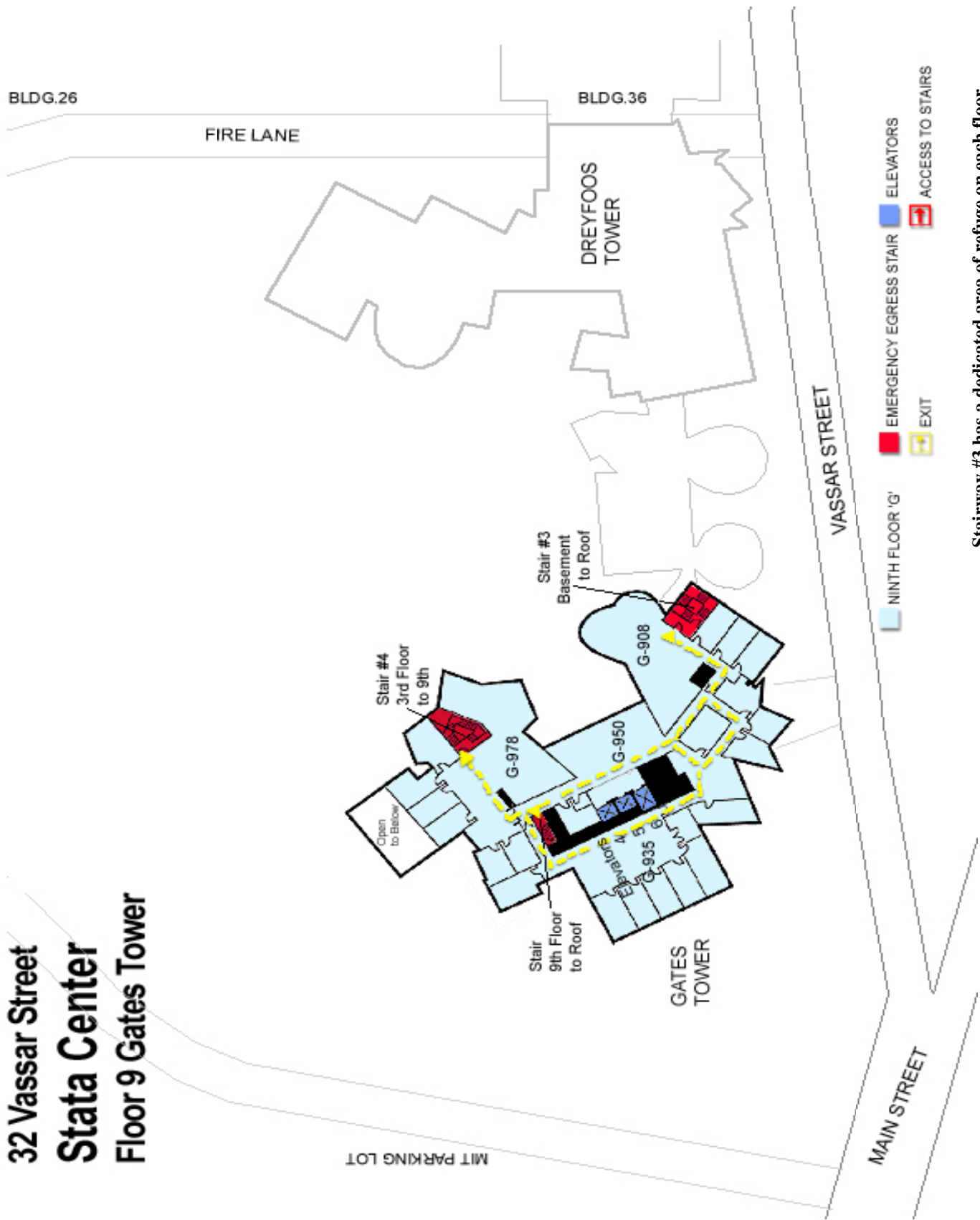
Stairway #3 has a dedicated area of refuge on each floor

**32 Vassar Street
Stata Center
Floor 8 Gates Tower**



Stairway #3 has a dedicated area of refuge on each floor

**32 Vassar Street
Stata Center
Floor 9 Gates Tower**



Stairway #3 has a dedicated area of refuge on each floor