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KEISER UNIVERSITY SAN MARCOS CAMPUS EMERGENCY PLAN



KEISER
UNIVERSITY





TABLE OF CONTENTS

CONTENTS	PAGES
INTRODUCTION	3
DEFINITIONS.....	5
Legal framework	7
OBJECTIVES OF THE EMERGENCY PLAN	8
General Objective	8
Specific Objectives	8
STRUCTURE OF THE PLAN	9
DEVELOPMENT OF THE PLAN	10
Identification and location of threats	10
Vulnerability.....	13
Action plan	16
Before the emergency	16
During the emergency	19
After the emergency	22
Plan implementation.....	24
Training, testing, and evaluation of the plan	25
Distribution of Functions	26
PROCEDURES.....	28
Protocols	28
Evacuation Protocol	28
Area Evacuation Protocol.....	29
Location of Firefighting Equipment and First Aid Kits.....	30
Appendices.	



1. INTRODUCTION.

Technological and anthropogenic emergencies, i.e., those associated with a company's industrial processes and caused by humans, have been characterized by dire consequences in terms of human lives and negative environmental impacts, not to mention the damage they can cause in terms of lost production, damage to the organization's image, lost working days, and even possible legal conflicts that the company may face over time as the party responsible for the situation.

In addition to preventive measures, which control the occurrence of technological accidents, response measures must be in place for such contingencies to reduce the severity of their consequences.

The set of actions to be deployed is the emergency and contingency plan, which must be designed in advance, brought to the attention of all senior authorities and those involved in it, and practiced periodically.

The Keiser University Campus San Marcos facilities are located in the municipality of San Marcos, two blocks south of the Banco de América Central (BAC). Due to the nature of its activities, it is an international mission, whose purpose is bilingual higher education as a first-rate university.

Structurally, it has a university campus consisting of fifteen (15) buildings, with a built area of approximately 10,000 square meters. The construction is reinforced concrete for the foundations and main walls, with a GIPSUM structure for interior walls, a steel roof structure, and false ceilings in all areas of the building.

It should be noted that Keiser University's San Marcos Campus facilities house a total of 525 Human Resources distributed across different areas of work, Men 254 and Women 261, with 205 students



approximately, for a total of approximately 730 between workers and students, including both local and foreign nationals.

The facilities that house Keiser University, San Marcos Campus consist of 12 one-story buildings, 2 two-story buildings, and 1 three-story building, which have the following occupancy capacities:

Area	Maximum Capacity (People)
Faculty building	35
Dormitory building	12
Science building	30
Admissions building	40
Library	80
Administration Building	85
Language building	60
Cafeteria building	75
Classroom buildings A, B, C, D, E, F, G	205
Total	730

For these reasons, it is necessary to have a properly structured emergency plan with the human and material resources available to address the threats and vulnerabilities of the region to which physical structures, workers, teachers, visitors, students, and the community are exposed.

This document aims to cover all areas of Keiser University Campus San Marcos, in accordance with the nature and diversity of its activities; however, special attention should be given to those areas that require specialized treatment because they are considered to be areas of greater risk and danger.

This Plan constitutes an effort by the Institution and should be reviewed and updated frequently to maintain its functionality.



2. DEFINITIONS:

Emergency: An undesirable and insufficiently controlled condition or situation that requires assistance beyond that which can be obtained by the personnel working in an area at a given time, or that cannot be controlled in the normal manner and results in damage to persons and/or property.

Emergency Plan: The final result of a series of actions written in a document, as a result of analysis, observation, and evaluation, in order to adequately guide the prevention, mitigation, preparation, response, and rehabilitation actions required by an emergency situation caused by the vulnerability of people, activities, or buildings to natural or man-made threats.

Internal risks:

Falls of persons at the same level: Includes falls in passageways or work surfaces and falls on or against objects on the ground.

Falling objects: Includes the fall of materials or objects onto a worker, provided that the worker is not handling them.

Impacts against stationary objects. This considers the worker as a dynamic part, i.e., they intervene directly and actively, hitting an object that was not in motion, such as shelves.

Blows and cuts from objects or tools. The worker is injured by an object or work tool, as well as work equipment that is moved by forces other than gravity. Blows from falling objects are not included.

Thermal contact. Accidents due to objects at extreme temperatures coming into contact with any part of the body are considered.

Electrical contact. This includes all accidents caused by electricity, whether direct or indirect contact.

Fires. Actions caused by the effects of fire or its consequences due to the electrical installation itself, the existence of stored flammable products



that constitute risk factors for a fire.

Explosions. Actions that result in injuries caused by the shock wave or its secondary effects. These are due to the installations (electrical, compressors).

External risks:

Earthquakes: Sudden tremors or movements of the ground, generally caused by tectonic or volcanic disturbances.

Hurricanes: These are cyclonic disturbances of varying size with a center of very low atmospheric pressure, known as "the eye," around which high-speed winds blow. Hurricanes are tropical cyclones with winds exceeding 70 miles per hour and can last up to two weeks under the right atmospheric conditions.

Torrential rain: This is unusual rain that falls heavily and can last much longer, causing natural disasters.

Storms: An atmospheric phenomenon characterized by the close coexistence of two or more air masses of different temperatures. This contrast, associated with the physical effects involved, leads to instability characterized by rain, wind, lightning, thunder, and occasionally hail, among other meteorological phenomena.

Tornadoes: a violent, dangerous, and destructive rotating column of moving air that is in contact with both the earth's surface and a cumulonimbus cloud or, rarely, the base of a thundercloud. Tornadoes can vary in size, typically taking the form of a funnel cloud, the bottom of which reaches the ground and is usually surrounded by a cloud of debris and dust.

Volcanic eruption: a violent emission onto the earth's surface of material from inside the volcano, most of which is organic and comes from hydrocarbon deposits relatively close to the surface. Terrestrial eruptions are caused by volcanoes.



Tsunami: These are waves originating in the ocean that send large waves of water, sometimes reaching heights of 30.5 meters, inland. These walls of water can cause widespread destruction when they hit the coast.

2.1. Legal framework.

All institutions, companies, and industries are required to have emergency plans in place for the safety of their workers, based on the following laws and technical standards:

- Article 2 of Law 337 (principles of the National System for Disaster Prevention and Mitigation, SINAPRED) and Article 2(a) of Decree 98-2000.
- Mandatory Nicaraguan Technical Standard for Fire Protection NTON 22-003 – 10
- General Law No. 618 Ministry of Labor. Approved by the National Assembly on April 19, 2007, and published in Gazette No. 133 on July 13, 2007.
- Article 100 of Law 185 Labor Code on Occupational Health and Safety and Occupational Risks.

2.2. Scope of Application.

The provisions of this emergency plan shall apply to all Keiser University, San Marcos Campus facilities where teaching activities are carried out and where meetings or gatherings of people usually take place. The aforementioned environments must have Fire Brigades, First Aid, Evacuation, and Emergency Plans in place.

- Management or administration will be responsible for ensuring the organization and preparation, both theoretical and practical, of the personnel and members of the various emergency brigades to prevent or deal with adverse events efficiently and effectively.
- All centers where people gather must establish exits and evacuation routes, which shall be marked with arrows indicating the shortest and safest route, as established in the MITRAB signage regulations.



shortest and safest route, as established in the MITRAB signage regulations.

2.3. Location:

Keiser University, San Marcos Campus is located in the municipality of San Marcos.

The boundaries of Keiser University, San Marcos Campus, in the shopping center are:

- To the north, private and public property belonging to the city of San Marcos
- To the south, private and public property of the city of San Marcos
- To the east, private and public property belonging to the city of San Marcos
- To the west, soccer field.

3. EMERGENCY PLAN OBJECTIVES

General Objective:

To define the procedures, instructions, and information necessary to safely, quickly, and effectively mobilize the human and material resources available at Keiser University's San Marcos Campus in the event of an emergency, in order to minimize loss of life, property damage, and environmental impact.

Specific Objectives:

- a) To protect the lives of all workers, students, and visitors present at Keiser University, San Marcos Campus, who may be involved in an emergency situation.
- b) Ensure the proper organization of personnel to respond to natural or human emergencies that may occur within the facilities.
- c) To have adequate procedures in place to deal with an emergency without endangering those who carry out such procedures.

**4. KEISER UNIVERSITY EMERGENCY PLAN, SAN MARCOS CAMPUS.**

Keiser University, San Marcos Campus, is located in the municipality of San Marcos. Due to the nature of its activities, it is a private entity with legal personality and its own assets, indefinite duration, and full capacity to acquire rights and assume obligations.

Working hours: from 7:00 a.m. to 5:00 p.m., as regular working hours, with extended hours for operational workers upon request.

Number of employees: 525 employees, distributed as follows: 254 men and 261 women.

Operations: Administrative and teaching activities.

Location of emergency services:

EMERGENCY NUMBERS	
Institution	Phone
EMERGENCIES (Fire Department)	2249-2218
BENEMÉRITO FIRE DEPARTMENT.	120
WHITE CROSS (Emergency, Ambulance Dispatch Center)	128
ENACAL (emergencies)	2532-1264
DISNORTE-DISSUR	125, 134, 135

4.1. STRUCTURE OF THE PLAN

The structure of this plan will be as follows:

- Identification and location of threats.
- Risk and vulnerability perception.
- Action plan.
 - Before the emergency.
 - During the emergency.
 - After the emergency.
- Training, testing, and evaluation of the plan.



5. DEVELOPMENT OF THE PLAN

5.1. Identification and location of threats:

We understand a threat to be the presence of a natural phenomenon or one caused by human action that may endanger a group of people, their works, and their environments.

Based on their origin, these are classified into two groups:

- Natural origin
- Caused by human action

According to the possibility of presenting a greater danger to people and environments, we establish the following order:

5.1.1 Natural origin

a) Earthquakes:

An earthquake is a vibration of the different layers of the earth, caused by the release of energy that occurs when a block of the earth's crust rubs together or breaks. Four different processes cause seismic activity:

- Movement of tectonic plates.
- Volcanic activity.
- By rupture of the earth's crust (local fault).
- Underground explosions caused by humans.

The Keiser University San Marcos Campus facilities are constructed as a complex of buildings, whose construction system includes earthquake-resistant structural elements. However, the possibility cannot be ruled out that a seismic movement could generate enough force to cause one of these elements to fail, leading to structural collapse.

b) Heavy and persistent rainfall:

The frequency with which the area suffers flooding due to phenomena known as storms or persistent rainfall over prolonged periods of time is associated with certain risks, such as:

- Land flooding
- Rising groundwater levels



- Undermining of trees
- River overflow

c) Strong winds:

Wind gusts above the normal average speed, associated with heavy rains, can cause trees near buildings, access roads, and basic service facilities to fall. It should also be noted that outside the building there are utility poles carrying transformers, which could collapse in the event of strong wind gusts.

e) Storms:

At certain times of the year (May to October) when severe storms occur, buildings are exposed to lightning strikes in open fields and on infrastructure.

5.1.2 Caused by human action

These are mistakes that humans make, consciously or unconsciously, in the use of natural resources or the technology they have developed. Examples of disasters directly or indirectly caused by humans include fires, wars, epidemics, environmental pollution, toxic waste, experiments, and other reasons.

a) Fires:

Fires are generally a phenomenon caused by humans, through carelessness or lack of foresight, but the main cause is humans themselves. Fires are characterized by the fact that their destructive capacity depends on the combustible elements that feed them and the resources used to combat them, as well as the speed with which action is taken to control them.

The destructive action of a fire affects material goods, buildings, forests, plantations of various kinds, part of the fauna, and even human lives. Given the number of square meters of buildings and the diversity of construction materials, this risk poses a significant threat that must be taken into account due to the process, storage of large quantities of paper, and complexity of the layout of the premises.



b) Chemical and biological threats

Chemical and biological threats arise from chemical accidents and exposure. An accident is defined as any unwanted and insufficiently controlled event or occurrence that results in damage to people, infrastructure, the environment, and losses in processes.

Chemical accidents in the company can occur during preventive maintenance of the building, when handling paints and solvents, and when storing chemical products. Most accidents involving chemical substances can be prevented. The identification and knowledge of chemical and biological substances are a priority in order to prevent and mitigate a chemical accident.

Exposure refers to damage caused mainly to a person's organs or general health due to prolonged exposure to a chemical or biological agent without protection, either due to ignorance or failure to use appropriate protective equipment.

c) Explosions:

An explosion is the violent release of mechanical, chemical, or nuclear energy, usually accompanied by high temperatures and the release of gases. An explosion causes shock waves in the surrounding area where it occurs, and the damage caused will depend on its magnitude.

The company's facilities are exposed to the possibility of being affected by an explosion due to the characteristics of the chemical substances stored in the warehouse and maintenance workshop area and the numerous electrical transformers located outside the building, which could cause the anchoring of the poles to collapse, as well as the cylinder structure to detach due to the explosion. The possibility of an explosive device being placed on the premises for terrorist purposes cannot be ruled out.



5.1.3 Location of threats:

NATURAL THREATS	POSSIBLE IMPACTED AREAS
1. Earthquakes	Building facilities: Especially within buildings where there is a greater concentration of people, such as buildings a, b, c, d, e, f, and g, there is one (01) emergency exit from each of the classrooms with a safety meeting point located in green areas, which offer optimal safety conditions.
2. Heavy and persistent rain a. Flooding of land.	This mainly affects sewage drains and sewers, which can cause flooding and damage to facilities.
3. Tree uprooting.	Places where the terrain and rain cause trees to be undermined, fall to the ground, and damage the electrical system, which can create a collateral threat collateral threat such as fire due to electrical contact.
4. Strong winds	• Destabilization of trees, causing them to fall, which can make evacuation inaccessible and difficult. • Falling power poles (located at the building exit). • Falling high-voltage cables (located at the building exit).
5. Eruptions.	Undermining and deterioration of building roofs.

HUMAN-CAUSED THREATS	THREATS CAUSED BY HUMAN ACTION
1. Fires	The risk of fire is present in any building or facility where there are electrical services or other special uses. Due to their particular characteristics, the sites are listed in order of highest to lowest risk as follows: • Offices • Classrooms • Cafeteria kitchen
2. Chemical and biological hazards	The areas of greatest risk for chemical and biological accidents are potentially all environments where the company's building maintenance process is carried out, such as: • Chemical storage rooms • Cafeteria storage rooms
3. Explosions	The areas most at risk of explosions are as follows: • Chemical storage rooms • Cafeteria kitchen

5.2 Vulnerability



5.2.1 Natural causes

a) Earthquakes

The facilities at Keiser University, San Marcos Campus, include structures built using best available construction practices. For the purposes of this plan, they will be grouped together to determine their greater or lesser vulnerability. The main building, constructed with a concrete structure, metal roof, and reinforced concrete walls, is considered to be earthquake-resistant.

b) Heavy and persistent rains

The facilities of Keiser University, San Marcos Campus, pose a tolerable risk during periods of heavy rainfall, causing the external grounds to become moderately saturated and flooded with water due to their location in the central areas of the city, with the consequent flooding, mainly of streets and parking lots.

c) Strong Winds

The greatest vulnerability to strong winds is the risk of entire trees and power poles crossing near the building falling, because their root system, due to the rainy conditions that generally accompany these periods of strong winds, is unable to support their weight, causing them to fall.

e) Storms.

Storms occur for short periods, usually in the afternoons when staff are working (in this case, staff have a set departure time). All facilities are vulnerable to storms if they do not have a lightning protection device installed, mainly due to the type of construction and the existence of electromechanical equipment, which is subject to damage from system overloads.

d) Volcanic eruptions:

Volcanic eruptions can occur at any time, as the area is located near a volcanic mountain range where there are some active volcanoes, which could cause damage and undermining of roofs.



5.2.2 Caused by human action

a) Fires

Fire hazards at Keiser University's San Marcos Campus facilities are exposed due to improper electrical connections, deteriorated wiring, exposed cables, overloaded circuits installed by subsequent connections, excessive heat sources for a given area, improper storage of chemicals, and excessive paperwork on desks and office furniture.

Negligence in the use and maintenance of equipment, from office coffee makers to computer equipment, is a cause of fire vulnerability.

Incorrect use or lack of maintenance of equipment used in different environments can cause fires.

b) Chemical and biological threats

Vulnerability to chemical and biological threats is potentially present in all environments where building storage and preventive maintenance processes are carried out, due to the constant use of paints and solvents typical of the activity, as well as in food preparation areas.

The main accidents can be: fire, liquid and gas spills, explosions, chain reactions, and overexposure to a product that poses a health risk to the user, such as:

- Chemical burns.
- Skin irritation
- Skin ulcers due to prolonged contact with solvents.
- Infectious and contagious diseases.
- Intestinal infections
- Skin infections
- Respiratory disorders



5.3 Action plan

5.3.1 Before the emergency

Before an emergency, work must be done on prevention, mitigation, and staff preparation to deal with the emergency, such as:

- Training in fire prevention and extinguishing.
- First aid training.
- Rescue and lifesaving training.
- Evacuation and protection training.
- Training in incident command systems.
- Seminars to disseminate the emergency and evacuation plan.

Prevention consists of a series of measures to prevent an event from causing an emergency. Mitigation is the application of measures to reduce the effects that would be caused by the occurrence of an event.

Finally, preparation is the stage in which actions are planned and organized in response to an emergency that cannot be avoided. Mitigation actions are implemented and the various teams (fire prevention and fighting, evacuation, first aid, rescue and salvage) are prepared to respond promptly and appropriately to the event.

5.3.1.1 Natural Origin

a) Earthquakes.

Buildings:

- Secure and fasten structures and heavy furniture, inside and outside offices.
- Periodically check buildings and hallways to ensure that all shelves and furniture are secure and that there are no misplaced objects that could impede traffic.
- The evacuation plan must be known and practiced in the building so that employees can identify safe exit routes.
- Signage in each building is vital for evacuation.
- Doors should open easily, so they should be checked periodically.



- It is important to know where the water, gas, and electricity shut-off valves are located so that they can be turned off in case of an emergency.
- You should know the location and use of fire extinguishers and first aid kits.
- Conduct drills and evacuation exercises in case of an earthquake.
- Safety zones for evacuation must be designed.
- Plans must be designed and signs posted for each area to define evacuation routes and exits and safe zones.

b) Heavy rains, eruptions, and tsunamis.

Given that heavy rains are common in the country due to the climate, it is important to pay attention when the meteorological service (SINPRED-INETER) announces that a weather phenomenon is approaching, in order to be better prepared for self-protection in cases of flooding. Consider obtaining sandbags to create dikes in case of flooding.

c) Strong winds.

Check that there are no poles, trees, or branches that are prone to falling due to strong winds. To do this, avoid allowing trees to grow near buildings and keep an eye on older trees that are prone to falling.

e) Storms.

To mitigate damage to equipment caused by lightning strikes and voltage changes, computers must be equipped with uninterruptible power supplies (UPS). The entire electrical system must be grounded. The installation of phase protectors in building connections is also necessary. Protect the entire building against lightning strikes during storms.

5.3.1.2 Caused by human action**a) Fires:**

Fire is one of the leading causes of death worldwide. Work becomes safe when each of us can identify the types of fires and how to prevent them.



General preparedness for fire emergencies begins with an understanding of vulnerabilities. Mitigation will depend on that knowledge and on the training of fire and evacuation teams.

Having fire extinguishers appropriate for the potential type of fire, smoke detectors, and hydrants in good condition are also good measures.

All buildings must be marked with signs indicating emergency doors, exits, and escape routes.

All electrical installations must be conduit-mounted and devices (switches, lamps, distribution panels) must comply with the National Electrical Code.

Facilities must have the necessary number of fire extinguishers, taking into account the types of combustible materials in each office. Staff must know where to find them and how to use them (with prior training).

Attention must be paid to all electrical equipment, such as photocopiers, computers, air conditioners, etc. This means that each person responsible must ensure that the equipment is used and maintained correctly and, very importantly, that all electrical equipment is turned off and disconnected outside working hours.

All staff should ensure that air conditioners, computers, and lights are turned off and unplugged when they leave work.

An action protocol must be prepared for the provision of water supplies upon the arrival of the fire department. This protocol must be assigned to maintenance or physical security personnel and must be rehearsed in advance.

The security booth must have copies of all the institution's keys, identified by office and location. In the event of an emergency, security guards will be responsible for locating the keys to the emergency site, if needed.

Conduct fire drills and evacuation drills.

Hydrants must be located and have a periodic inspection program to ensure their proper functioning.



b) Chemical and biological threats

The main preparation that personnel can have is knowledge of the products they work with and the risks inherent in their use, as well as good work practices.

To prevent and mitigate accidents of this type in all areas of the company:

Have complete personal protective equipment, fire extinguishers, first aid kits, and spill control equipment according to the substances you work with.

In addition, classify them according to their degree of compatibility and have MSDS (Material Safety Data Sheets) available.

c) Explosions:

Explosions can occur in warehouses due to the storage of highly volatile chemicals and in transformer banks due to overloading.

5.3.2 During an emergency

5.3.2.1 Natural causes

a) Earthquake

During an earthquake, the following instructions should be followed:

- Remain calm Think clearly about what is most important at that moment. "Do not give in to panic."
- Assess your situation. If you are inside a building, stay there unless there is a clear exit nearby and you are sure that it is safe to go outside. If you are outside, stay in a safe area that has been previously analyzed or validated with SAFETY ZONE signage.
- Warn people around you to take cover. Watch out for falling objects.
- Take shelter next to a desk, wooden table, or other sturdy piece of furniture if you are in an office. If there is no furniture, go to the corner of a small office, hallway, or bathroom.
- Crouch or sit down, hold onto the furniture, and cover your head and face. Door frames are not necessarily the safest places



safe due to the movement of opening and closing and the fact that they are not as strong as expected.

- Avoid walls, windows, shelves, stairs, and the center of large rooms.
 - a) Heavy and persistent rain
 - b) Strong winds
 - c) Storms
- The measures to be taken during an emergency for the above threats are general in nature:
 - a) Remain calm.
 - b) Act prudently.
 - c) Use common sense.
 - d) Avoid standing near trees and poles.
 - e) Be alert to unusual vibrations or noises.
 - f) If possible, disconnect any electrical equipment that is not protected. Stay in high areas where there is no risk of flooding.
 - g) Follow any instructions given to you if necessary.
 - h) Evacuate the site via a safe route if instructed to do so.

5.3.2.2 Caused by human action

a) Fires:

During a fire, the following instructions must be followed:

- In the event of a small fire, if the person knows how to use a fire extinguisher, they should immediately attempt to put out the fire or call for help.
- If the emergency is more serious, the person who discovers the fire will immediately raise the alarm and the communication chain will be activated: reception, security, maintenance, administration, general management.
- Reception will activate the fire alarm. Upon hearing the fire alarm, all staff and visitors must evacuate the building, following the evacuation plan described in the procedures section.



- The fire brigade will attempt to extinguish the fire with the appropriate extinguisher if it is a small fire.
- If the fire cannot be controlled, immediately call reception so that they can call the fire department.

Security will be ready when the fire department arrives to indicate the exact location of the fire.

- A member of the Fire Brigade will assign a person to receive the Fire Department and inform them of the location of the event, the type of materials being consumed, and the location of nearby water sources (hydrants, wells, and tanks).
- The designated maintenance person must follow the protocol indicated in the Procedures section for preparing the water supply upon the arrival of the Fire Department.
- Security personnel will provide a member of the fire brigade with the keys to the event location.
- All equipment in operation at the scene of the fire shall be turned off and all electrical panels shall be disconnected.
- No one shall be allowed to enter the site, with the exception of support groups such as: Cruz Blanca, Volunteer Firefighters, National Police, etc.
- All telephone lines must be kept free.
- The First Aid Brigade team will be responsible for providing support in the event of an injury, setting up a victim classification area and a victim assembly area for proper stabilization.

b) Chemical and biological threats

- In case of fire, proceed as indicated above.
- In the event of a liquid or solid chemical spill, the spill area must be evacuated to a safe zone, and officials must put on the appropriate Personal Protective Equipment for the spill (goggles, respirator, etc.).



with cartridges for dust, fumes, and organic vapors, apron, boots, and long rubber gloves, safety face masks).

- The area must be evacuated by all personnel except the support team.

5.3.3. After the emergency

5.3.3.1 Natural Origin

a) Earthquake.

- If people are trapped, they must be located so that rescue teams can be directed to them promptly.
- If there are injuries, first aid should be administered and attention given to emotional reactions to the event. People with serious injuries should not be moved unless they are in danger.
- Assess any damage to the building and determine whether it is safe to remain there. For this assessment, it is recommended to seek the opinion of a construction professional.
- Check for gas leaks. If any are detected, immediately close the gas tank valve.
- Check the water, gas, and electricity shut-off valves.
- Take precautions with broken glass.
- Use a portable or car radio to obtain information.
- Do not use the telephone unless it is an emergency.
- Do not light matches or cigarettes.
- If there is a fire or danger of one starting, the fire department will be called. If the fire is small, attempts will be made to extinguish it.
- Do not touch fallen power lines or damaged electrical equipment.
- Spills of chemicals and flammable liquids should be cleaned up.
- Cellars and storage areas should be inspected with caution.



- Access routes will be cleared of debris.
- Access to them will be controlled until their safety has been determined.
- Stay informed of the instructions provided by the National System for Disaster Prevention, Mitigation, and Response and the Local Emergency Committees through the media.
- Any information to third parties or the press will be provided solely by the Directorate.

The measures to be taken after an emergency involving the above threats are of a general nature:

- Assessment of damage incurred.
- If there is a risk, partial or total evacuation of the facility.
- Estimation of corrective measures to bring the facility back into operation.
- Scheduling of work, budget, material estimates, and work schedule.
- If repair is not possible, proceed with demolition or whatever else is appropriate.

5.3.3.2 Caused by human action

a) Fires:

After the fire, proceed as follows:

- In the event of injuries or burns, first aid will be provided and attention will be given to emotional reactions to the event. People with serious injuries will not be moved unless they are in danger.
- Assess any damage to the building and determine whether it is safe to remain there. For this assessment, it is recommended to seek the opinion of a construction professional.
- Check the entire electrical system to assess damage and identify safe connections.
- Verify that gas pipes and cylinders are in good condition and there are no leaks.
- Clean up spills of chemicals and flammable liquids.



- Cellars and storage areas will be inspected with caution.
- Access routes will be cleared of debris. Access/traffic to these routes will be controlled until their safety has been determined.
- No electrical lines shall be used until authorized by the Maintenance Department.
- Any information to third parties or the press will be provided solely by management.
- Request a fire investigation and expert assessment from the General Directorate of Firefighters of Nicaragua and the National Police, which are institutions with the legal capacity to carry out this type of activity.

b) Chemical and biological threats.

- In the event of injuries or affected persons, first aid will be provided and attention will be given to emotional reactions to the event. Persons with serious injuries will not be moved unless they are in danger.
- The area will be cleaned and decontaminated.

5.4 Plan implementation.

The following persons are responsible for executing the plan:

- Members of the Joint Health and Safety Committee.
- Members of the Fire, First Aid, Evacuation, Rescue, and Salvage Brigades.

In addition, collaboration from the following external entities:

- Fire Department Headquarters
- Red Cross
- Medical Insurance Company
- Ministry of Health

Roles by entity:

Fire Department

- Fire response
- Rescue in collapsed structures
- Gas leaks
- Chemical spills



- Response to short circuits
- Pre-hospital care for possible victims
- Special equipment Power plant, lighting, communications

White Cross.

- Pre-hospital care for potentially affected individuals.
- Transportation of potentially affected individuals to hospitals.

Hospital and Medical Insurance Company.

- Care for affected persons
- Medical coordination

Ministry of Health

- Health monitoring of affected areas
- Instructions to the population

5.5 Training, testing, and evaluation of the plan.

Once the Emergency Plan has been drawn up, information and action are required to make it effective. The success of the Plan's implementation will depend on everyone understanding that its main objective is to save lives.

The Emergency Plan must be based on the training of its people, beginning with a risk communication program, where workers are shown, through an Induction Program or Continuous Training Program, the different risks in their work area. The roles and responsibilities of each person must be defined in order to achieve the success of the plan.

The Emergency Committee must schedule the dates for assessments and various drills, both those caused by natural causes and those caused by human actions.

The Fire Prevention and Fighting, First Aid, Evacuation, and Rescue and Salvage Brigades must also have a schedule of meetings and training sessions and send their observations to the Emergency Committee.

The Human Resources Department is ultimately responsible for reviewing and approving the committees' agendas and convening meetings, drills, and evaluations.



5.6 Distribution of Functions

5.6.1 Joint Health and Safety Commission and Occupational Health and Safety Department.

This Commission will be responsible for implementing strategies to promote the prevention of accidents and occupational diseases, as well as creating a safe and healthy work environment with the participation of all company employees. Actions will be aimed at maintaining the physical, mental, and social well-being of employees and prevention aimed at protecting personnel. The Joint Health and Safety Committee will be responsible for forming the Emergency Committee. This Committee will be under the coordination and supervision of the Human Resources Department.

5.6.2 Emergency Committee

It is responsible for monitoring the emergency plan and coordinating the execution of activities carried out before, during, and after an emergency. It must supervise the operation of the brigades according to their work plans and established procedures.

It will be made up of representatives from different areas of the company and will appoint a person in charge of each of the brigades, who will be responsible for coordinating the actions indicated in the emergency plan.

It must continuously disseminate the emergency plan and safety and protection measures to the workforce. It must have the support of senior management and other areas in order to ensure compliance and effectiveness of tasks.

The brigades to be formed are:

- 1) Fire Prevention and Fighting Brigade.
- 2) First Aid Brigade.
- 3) Evacuation Brigade.

The members of each brigade must be representatives from all areas and must have received training in the functions they will perform, under the supervision of the Emergency Commission.



At the time of the alarm, Brigade personnel must gather at the designated locations and will only mobilize when instructed to do so. They will perform the duties assigned to them by the corresponding Brigade Coordinator.

a) Fire Prevention and Fighting Brigade

The personnel of this brigade will receive information about the fire that is occurring. They will take action to mitigate all the initial stages of the fire that may occur. They will execute the action plan indicated in the emergency plan for fires.

b) First Aid, Rescue, and Salvage Brigade.

This brigade will be responsible for coordinating the care and transfer of injured persons.

They will establish a site for treating the injured in the event of a large-scale emergency, once the evacuation of personnel has been completed.

It must establish critical points in cases of structural collapse.

They must establish a search pattern in case the headcount of personnel in the safety zones is incomplete.

Perform basic rescue techniques in collapsed structures.

c) Evacuation Brigade

Responsible for evacuation when the order is given or the emergency directly affects their workstation.

They will guide personnel to designated safe locations: areas established in the company's plans. They must count and check the personnel under their charge. They will immediately notify the Rescue and Salvage Brigade Manager if anyone is missing at the time of the count or has any injuries.

d) Other Personnel

Follow the instructions given to you, carry out the evacuation in strict order, and do not interfere with the actions carried out by the members of the other brigades.



6. PROCEDURES

6.1 Protocols

6.1.1 Evacuation Protocol

When the alarm sounds, all staff and visitors must begin evacuating the buildings.

Follow the instructions of the Evacuation Brigade leader:

1. Form a line toward the exit closest to you at the time of the emergency.
2. Always walk on your right.
3. If there is a fire and there is a lot of smoke, you should crawl on your hands and knees.
4. In case of fire, before opening a door, first check the temperature with the back of your hand. If it is hot, leave it closed and find another exit.
5. Be especially careful with broken glass, hot surfaces, objects, etc. Do not go back for anything you left at your workstation. Belongings can be replaced, but people cannot.
6. When evacuating, everyone should go to and gather at the designated meeting point. If that location is threatened, another alternative will be indicated.
7. Upon arrival at the meeting point, the evacuation manager must take inventory of the personnel under their charge. Management must be notified of any missing persons.
8. The injured will be taken to a safe place.

Everyone must remain at the assembly point and wait for instructions.

- Use of stairs:
- Go down in a single file on the right.
- Hold on tightly to the handrails.
- Keep the left side clear so that other groups can move into action.



SAFETY ZONES

1. **Meeting point 1:** Located on the volleyball court in front of building G.
2. **Meeting point 2:** Southwest of the cafeteria building, green area.
3. **Meeting point 3:** Green area southwest of buildings A and C.
4. **Meeting point 4:** South side of the language building, green area.
5. **Meeting point 5:** Parking lot in front of the main library entrance.
6. **Meeting point 6:** North side of the admissions building, parking lot.
7. **Meeting point 7:** Southwest side of the science building, green area.

6.1.2 Evacuation Protocol by Area:

The Keiser University San Marcos Campus facilities consist of 15 buildings that house 525 employees, 254 men and 261 women, and serve approximately 200 students and visitors, who must evacuate the facilities in the following order:

1. Evacuate buildings A, B, C, D, E, and F through the emergency exit of each classroom to meeting point 3.
2. Evacuate building G through the emergency exit of the classrooms and adjacent offices to safety zone 1.
3. Faculty building (staff room): exit through each of the emergency exits to meeting point 7.
4. Dormitory building: evacuate through the emergency exits to meeting point 7.
5. Admissions building: evacuate through the emergency exits on the north side to assembly point 6.
6. The language building will evacuate through the emergency exit located on the south side of the building to meeting point 4.
7. The administration building will be evacuated via the emergency exit located on the southeast side of the building to meeting point 7.



8. The library building will be evacuated via the emergency exits to evacuation point 5.
9. The cafeteria building will be evacuated via the dining room emergency exits located on the sides of the building to assembly point 3.

6.1.3 Location of firefighting equipment and first aid kits:

Firefighting equipment	QUANTITY	CLASS/TYPE	LOCATION
	4	PQ	SCIENCE BUILDING
	2	PQ	CAFETERIA BUILDING
	13	PQ	BUILDINGS A, B, C, D, E, AND F.
	3	PQ	BUILDING G
	2	PQ	FACULTY BUILDING
	20	PQ	DORMITORY BUILDING
	4	PQ	ADMISSIONS BUILDING
	3	PQ	LANGUAGE BUILDING
	4	PQ	BUILDING MINISTRATION ADMINISTRATION
	6	PQ	LIBRARY BUILDING

First Aid Kits	QUANTITY	LOCATION
	1	CLINIC, WITH NURSING SERVICE 7 DAYS A WEEK, 24 HOURS A DAY.
	1	DORMITORY BUILDING

I hereby certify that the data obtained for the analysis of this study are accurate and obtained from primary sources of information through field visits, measurements, and assessment of indicators under the coordination of Ms. Darling Espinoza, Human Resources Manager at Keiser University, San Marcos Campus. Prepared in the city of Managua on the 7th day of October 2024.

Marlon Antonio Vandaña Reyes
Specialist in Ergonomics, Safety, and Industrial Hygiene.
MITRAB Accreditation: RLAHYST No. 090-10-2023



ANEXOS

- List of brigade members.
- Evacuation map plans.



MINISTRY OF THE INTERIOR - GENERAL DIRECTORATE OF FIREFIGHTERS - DGB

MINUTES OF THE ESTABLISHMENT OF EMERGENCY BRIGADES FIRE FIGHTING - EVACUATION AND FIRST AID



DATOS GENERALES

Nombre: **Concepción Solís Villavicencio**
Apellido: **Velásquez**
Edad: **35 años**
Sexo: **F**
Profesión: **Docente**
Dirección: **San Marcos**
Teléfono: **9999 9999**
Correo electrónico: **concepcion@velasquez.com**

Occupation: **Higher Education.**

According to training records submitted by: Multiplier Silvio Martinez, certified by the DGBN. The event took place in the city of San Marcos on June 28, 2024, with 43 people participating to form the following emergency brigades.

FIRE

Sayro Velásquez Garay. Brigade Chief. José Luis García Guzmán.
& Nercy Mozihna Toruño Quintero. & Yader Antonio Gaitán Baquedano.
José Carlos Hernández Aguilar. & Elba María Lorio Meléndez.
Oscar David Aragón Sánchez.
& Benjamin Balvino Aguilar Flores. & José Amin Hernández.
Edler Humberto Calero Calero. Luis Felipe Morales López.
Cecilia Auxiliadora Paredes & Carlos Alberto Treminio.
Silvia Maria Padilla Téllez.

EVACUATION

Pedro Dolores Aragón. Brigade Chief Amanda Raquel Solís Villavicencio.

Juan Francisco Hernández González.
Engela Hanoy Miranda Obregón.
Gioconda Elizabeth Sánchez Nürinda.
Nidia del Carmen Dávila Cruz.
Luis David Jarquín Mercado. Karen Valeria Torres Navarro. Marvin Francisco Téllez.
Katia Mercedes Rodríguez Vasquez.
Lester Sebastián López.

Concepción de Maria Velásquez Romero. Fatima Garcia Calero.
Iveth Alejandra González Centeno. Luis César Alemán Pavón.

FIRST AID.

**Marisol Espinoza. Brigade Chief
Manuela Alejandra Ojeda Flores.
Alexander José Castro Martínez.**

**Alberto Salvador Sánchez Alemán.
Edixia Rubbí Hernández Narváez
Josué Israel Espinoza Velásquez.
Anielka María Sánchez Calero.
Leonardo Antonio García Casco. Félix
Rubén Nejía Campos.
Irma Valeria Boza Sánchez.
Sivelia Fernanda Sánchez Dávila.
Martha Alicia Montiel.
Walter José Vilchez Machado.
Rolando Gabriel Balladares García**

**In witness whereof and in compliance with the
NTON 22 003- 10 Plans
fire protection. I sign and seal this
month of August 2024.**

Nicaraguan Mandatory Technical Standard for Fire Protection

eee ncias, N 22.0\$ 4 General requirements for

Act and n la in the d de Man Water, on the 9th day of

**Signed, Water
Commission nado
Eddy a**

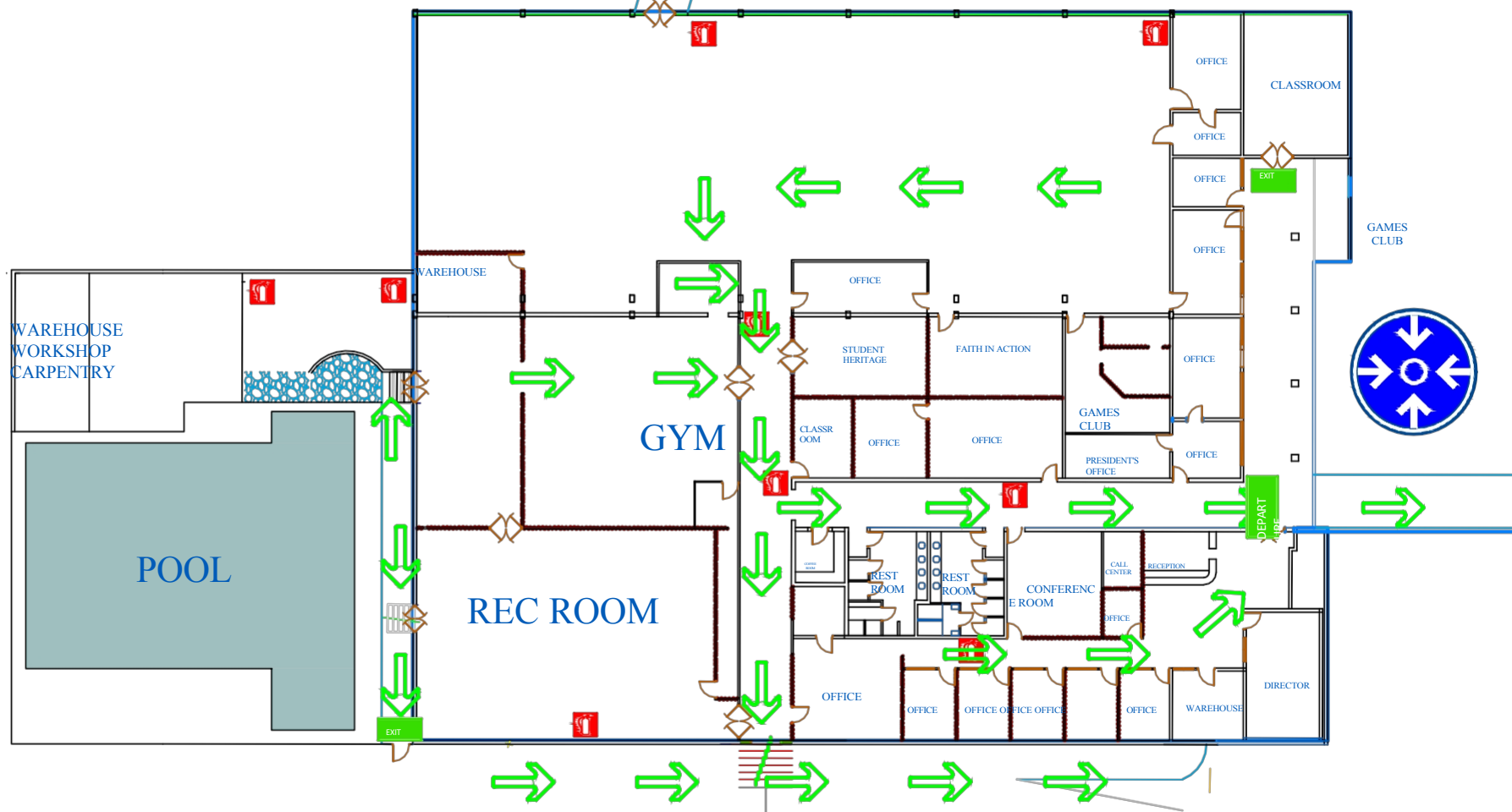
Head of Dept. dD

GBN-PIINC





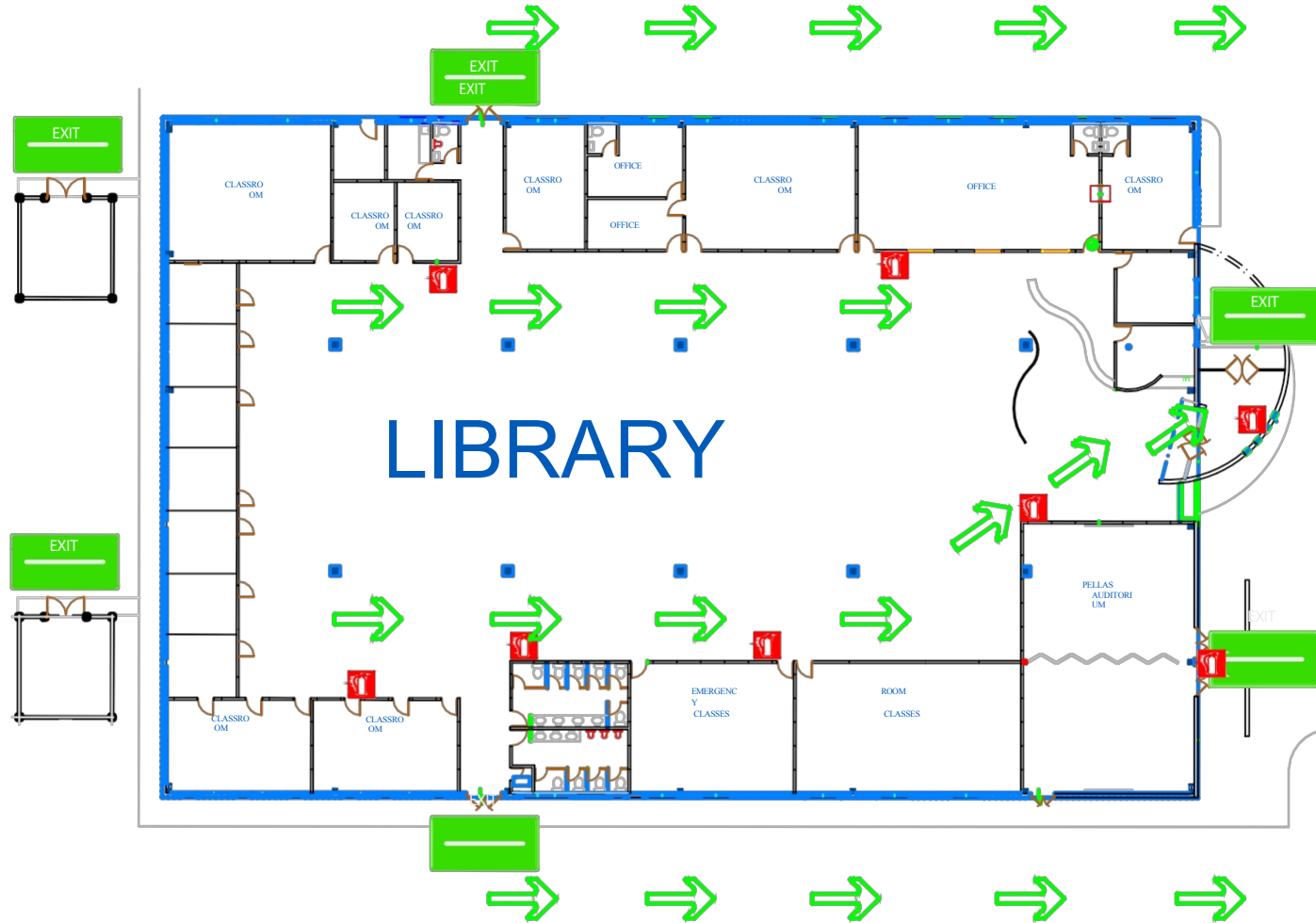
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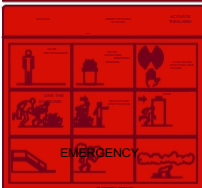
EMERGENCY

	SAFETY ZONE
	FIRE EXTINGUISHER
	FIRE HOSE
	FIRST AID KIT
	EMERGENCY EXIT

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WHAT TO DO IN CASE OF:
**EARTH
QUAKE**



	FIRE EXTINGUISHER
	FIRE HOSE
	FIRE ALARM
	FIRST AID KIT
	EMERGENCY EXIT

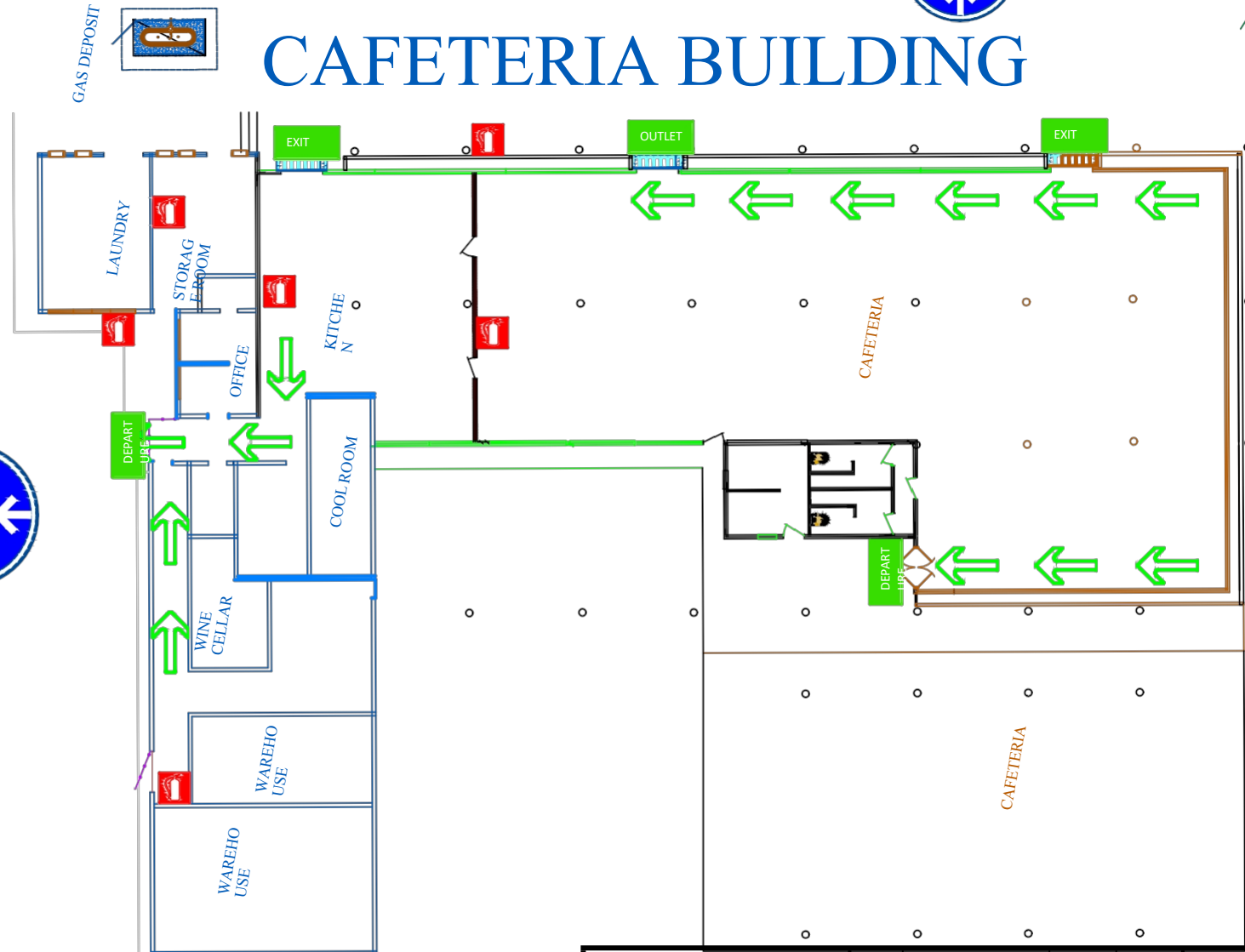
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CAFETERIA BUILDING



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WHAT TO DO IN CASE OF:

**EARTH
QUAKE**

STAY CALM
DO NOT RUN
DO NOT USE LIFT
DO NOT USE STAIRS
DO NOT USE ELEVATOR

DO NOT
DO NOT
DO NOT

DO NOT
DO NOT
DO NOT

WHAT TO DO IN CASE OF:

FIRE

STAY CALM
DO NOT RUN
DO NOT USE LIFT
DO NOT USE STAIRS
DO NOT USE ELEVATOR

DO NOT
DO NOT
DO NOT

DO NOT
DO NOT
DO NOT

EMERGENCY

SAFETY ZONE

STAIRWELL

BEDROOMS

2ND FLOOR

FIRE EXTINGUISHER

DESIGNED BY:

FORMAT: A3

NAME OF

10/11/2024

FIRE HOSE

DRAWN BY:

SCALE:

PLAN:

10/11/2024

FIRST AID KIT

MODIFIED BY: KEVIN PEREZ ALVARADO

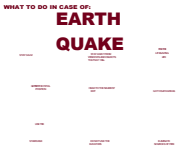
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EVACUATION MAP

DORMITORY BUILDING - SECOND FLOOR

PLATE No.:



CLASSROOM
TEXAS

CLASSROOM
BOSTON

CLASSROOM
LOS ANGELES

CLASSROOM
DALLAS

CLASSROOM
HOUSTON

BUILDING BEDROOMS 3RD FLOOR

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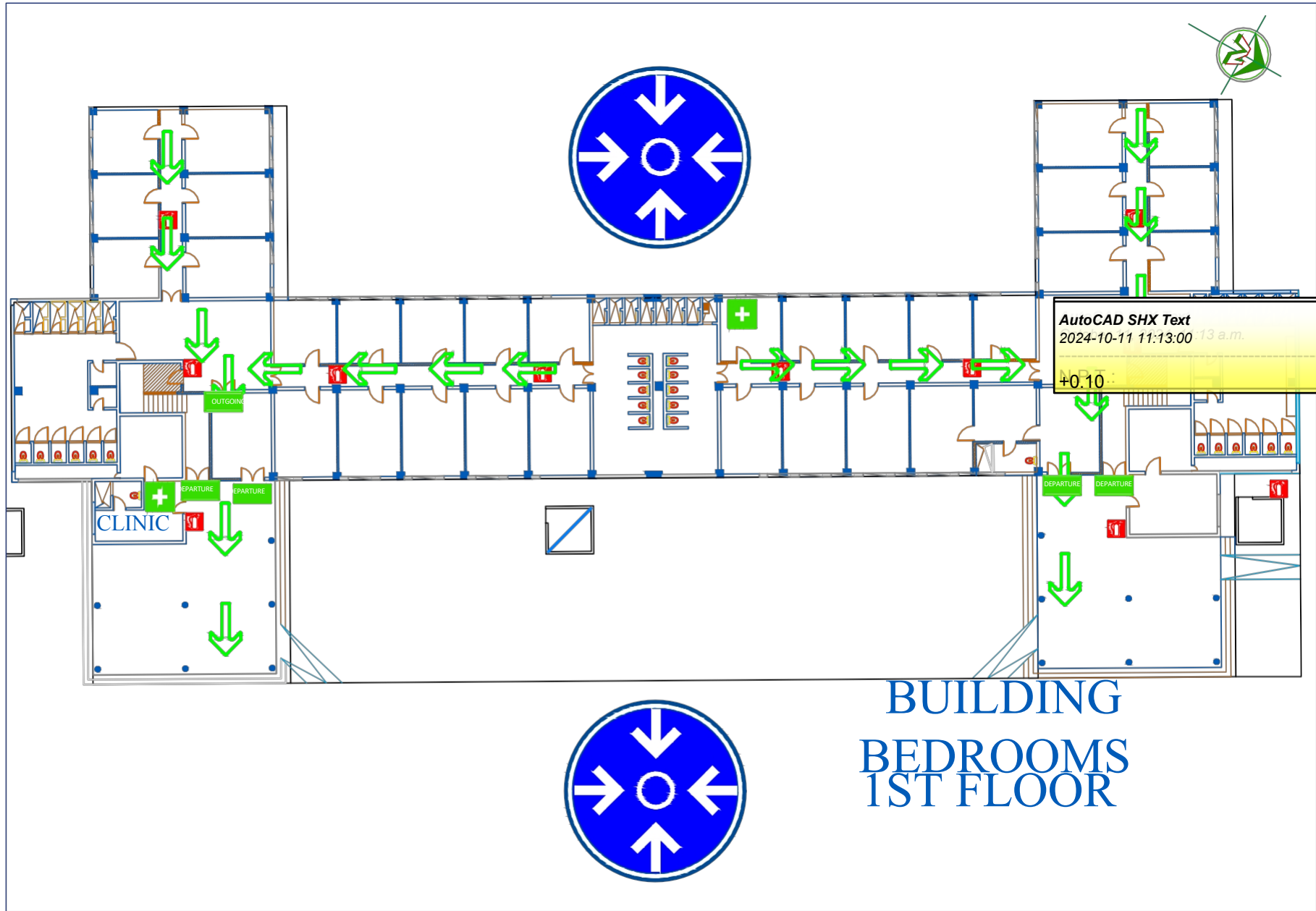


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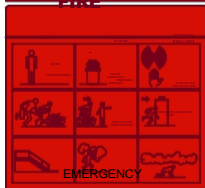
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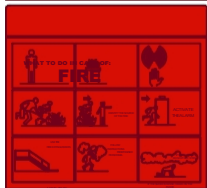


BUILDING BEDROOMS 1ST FLOOR



	SAFETY ZONE
	FIRE EXTINGUISHER
	FIRE HOSE
	FIRE ALARM
	EMERGENCY EXIT
	EMERGENCY EXIT

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KEISER
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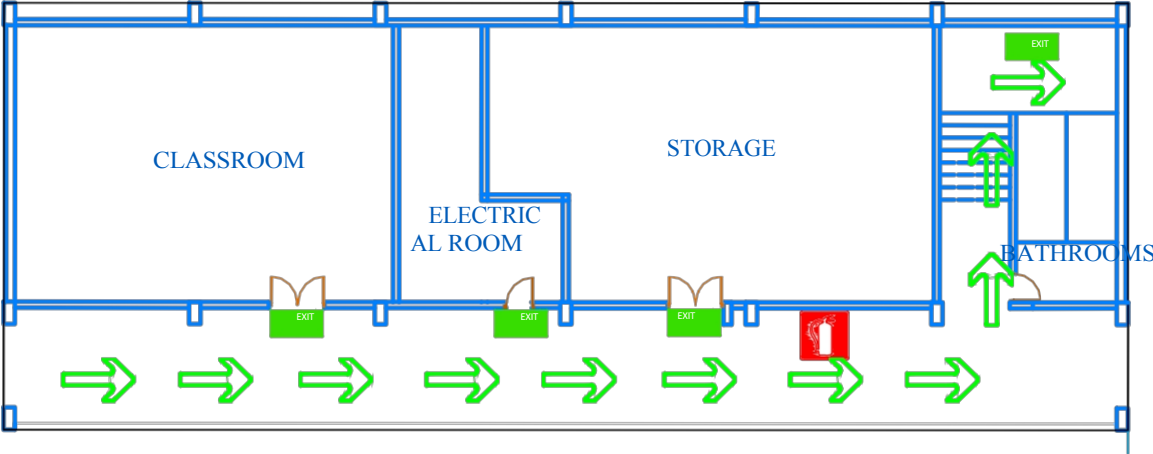
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	FIRE EXTINGUISHER
	FIRE HOSE
	FIRST AID KIT
	EMERGENCY EXIT

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SB BUILDING



UPPER FLOOR



**EARTH
QUAKE**

EMERGENCY

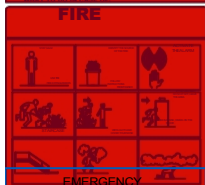
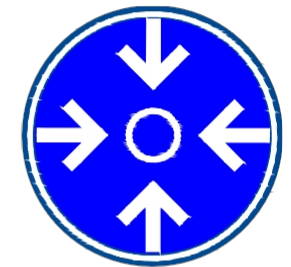
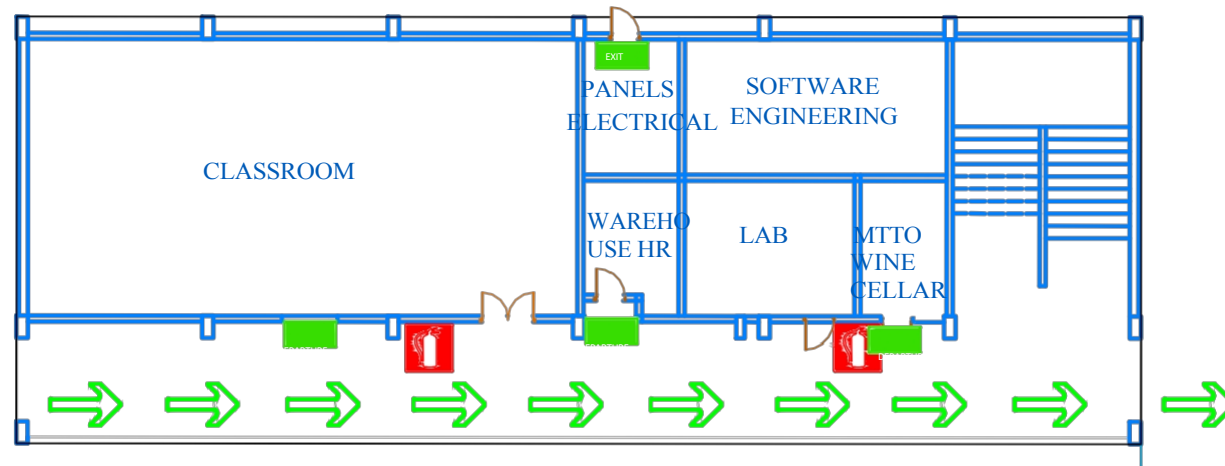
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SB BUILDING

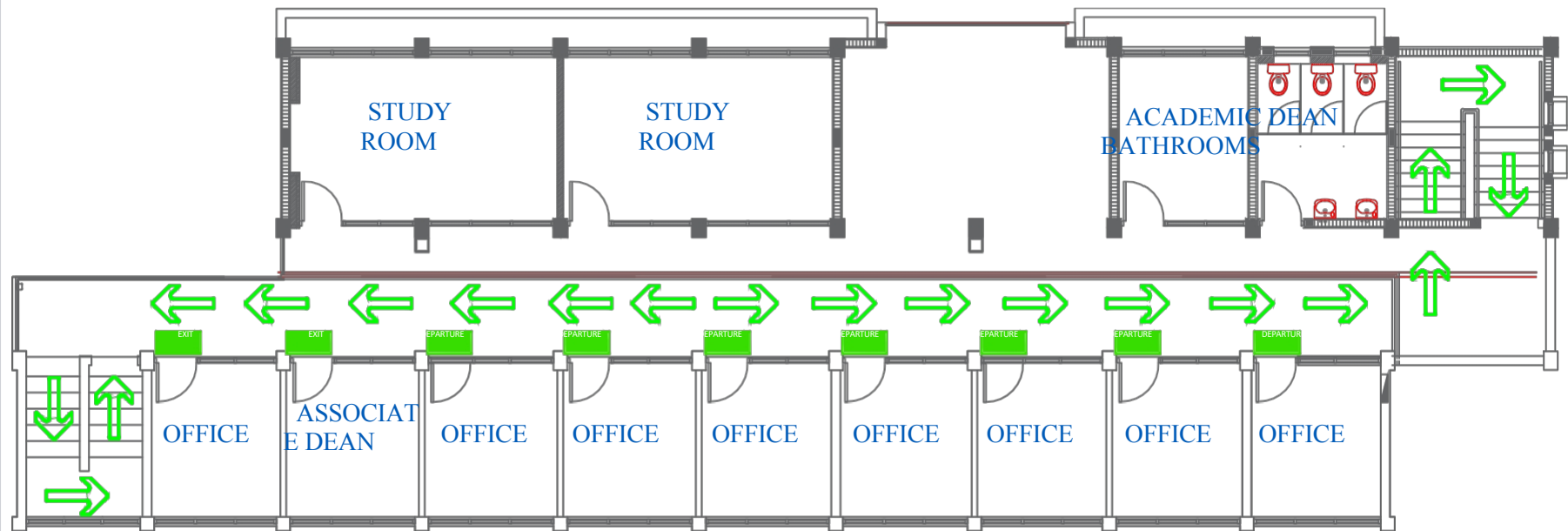
GROUND FLOOR



	SAFETY ZONE
	FIRE EXTINGUISHER
	FIRE HOSE
	FIRST AID KIT
	EMERGENCY EXIT

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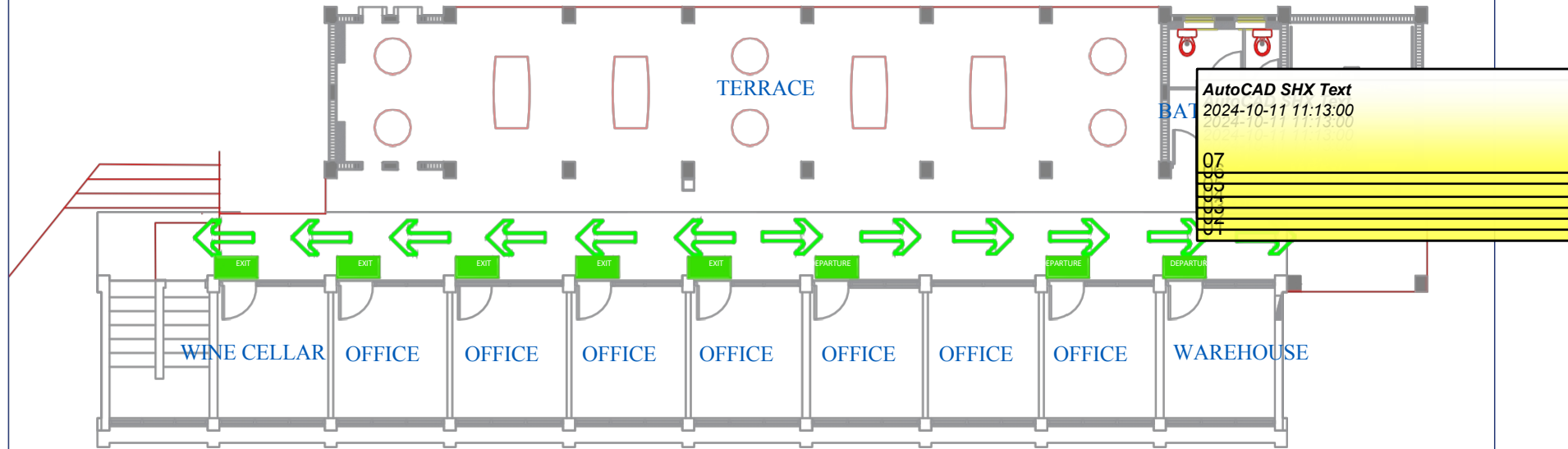
FACULTY BUILDING UPPER FLOOR



WHAT TO DO IN CASE OF:	
	Fire Alarm
	Fire Extinguisher
	Fire Hose
	First Aid Kit
	Emergency Exit

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FACULTY BUILDING GROUND FLOOR



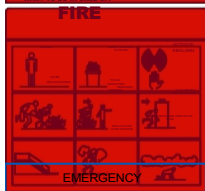
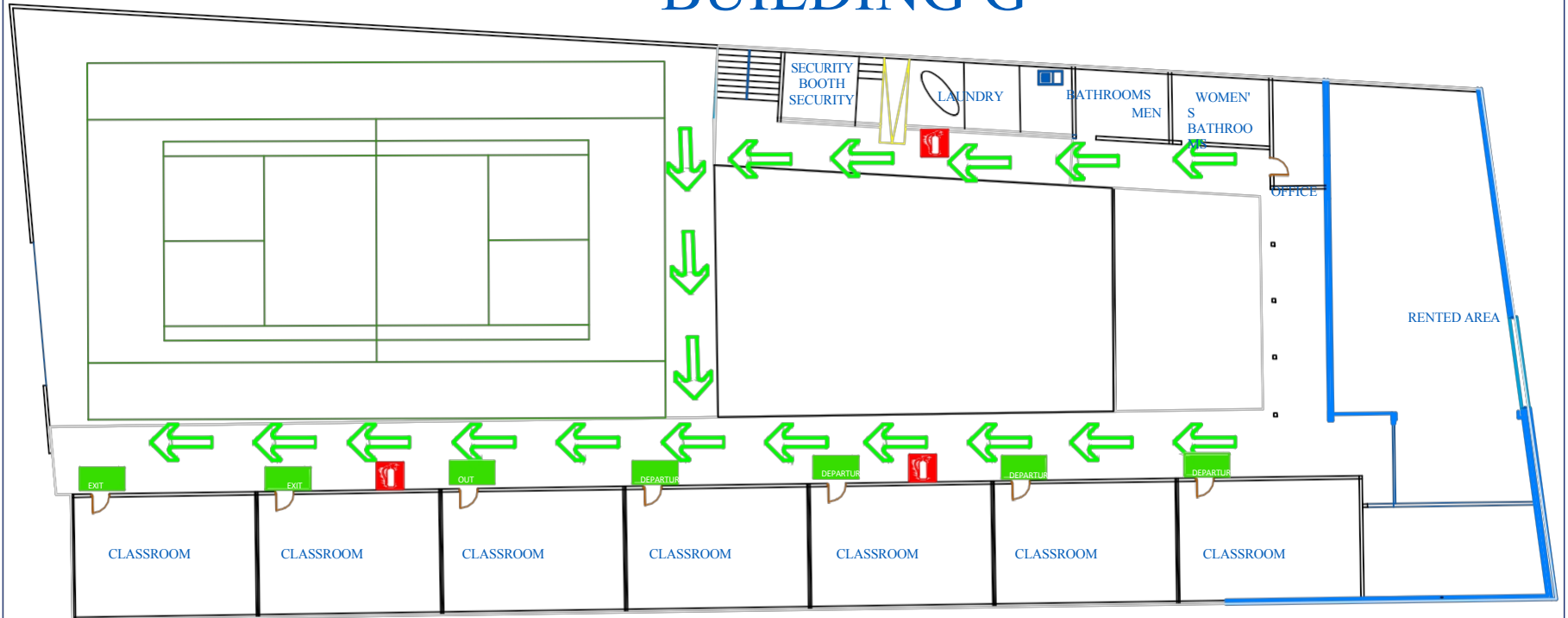
	SAFETY ZONE
	FIRE EXTINGUISHER
	FIRE HOSE
	FIRST AID KIT
	EMERGENCY EXIT



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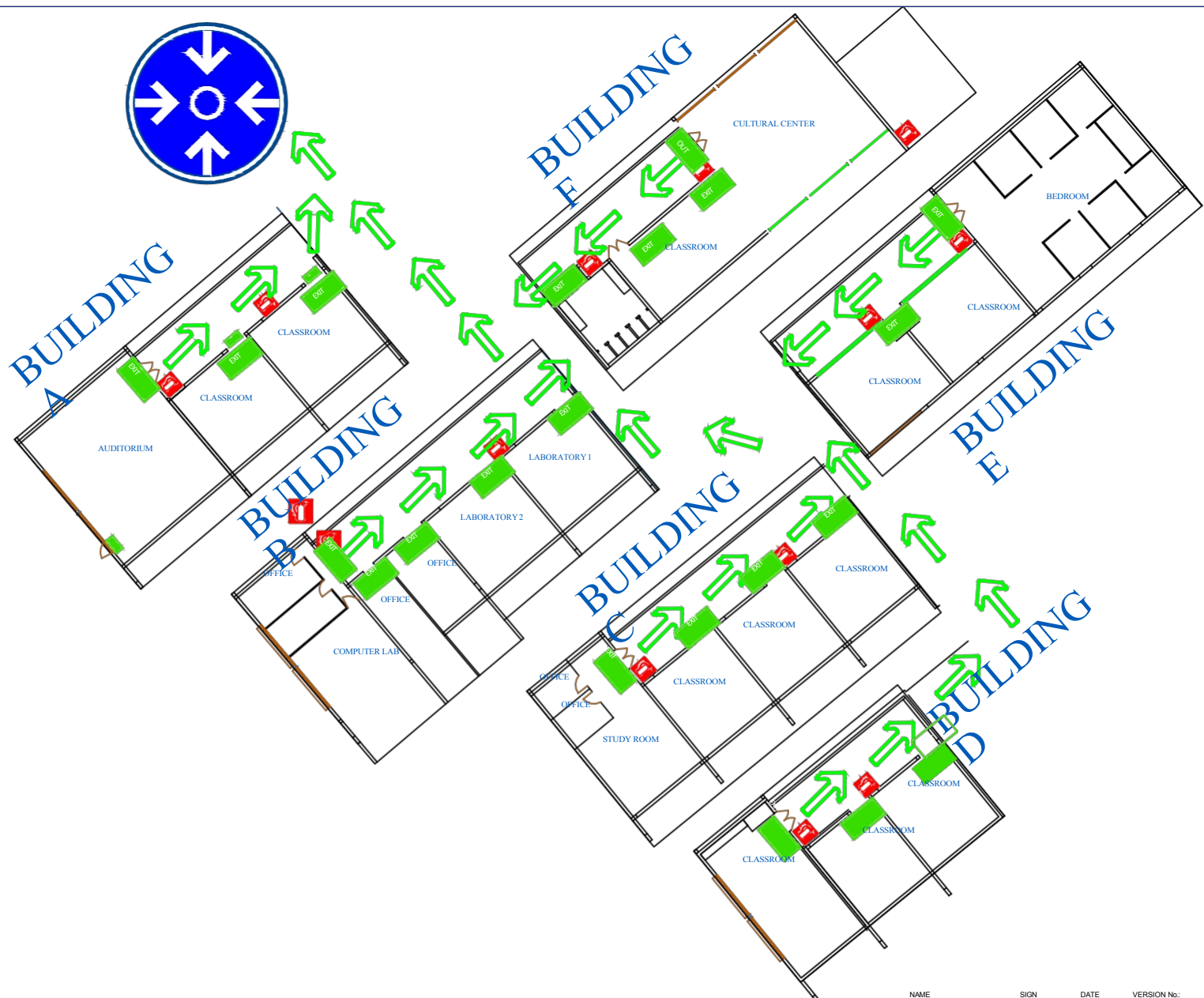


BUILDING G



	SAFETY ZONE
	FIRE EXTINGUISHER
	FIRE HOSE
	FIRST AID KIT
	EMERGENCY EXIT

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WHAT TO DO IN CASE OF:



	FIRE EXTINGUISHER
	FIRE HOSE
	FIRE ALARM
	EMERGENCY EXIT

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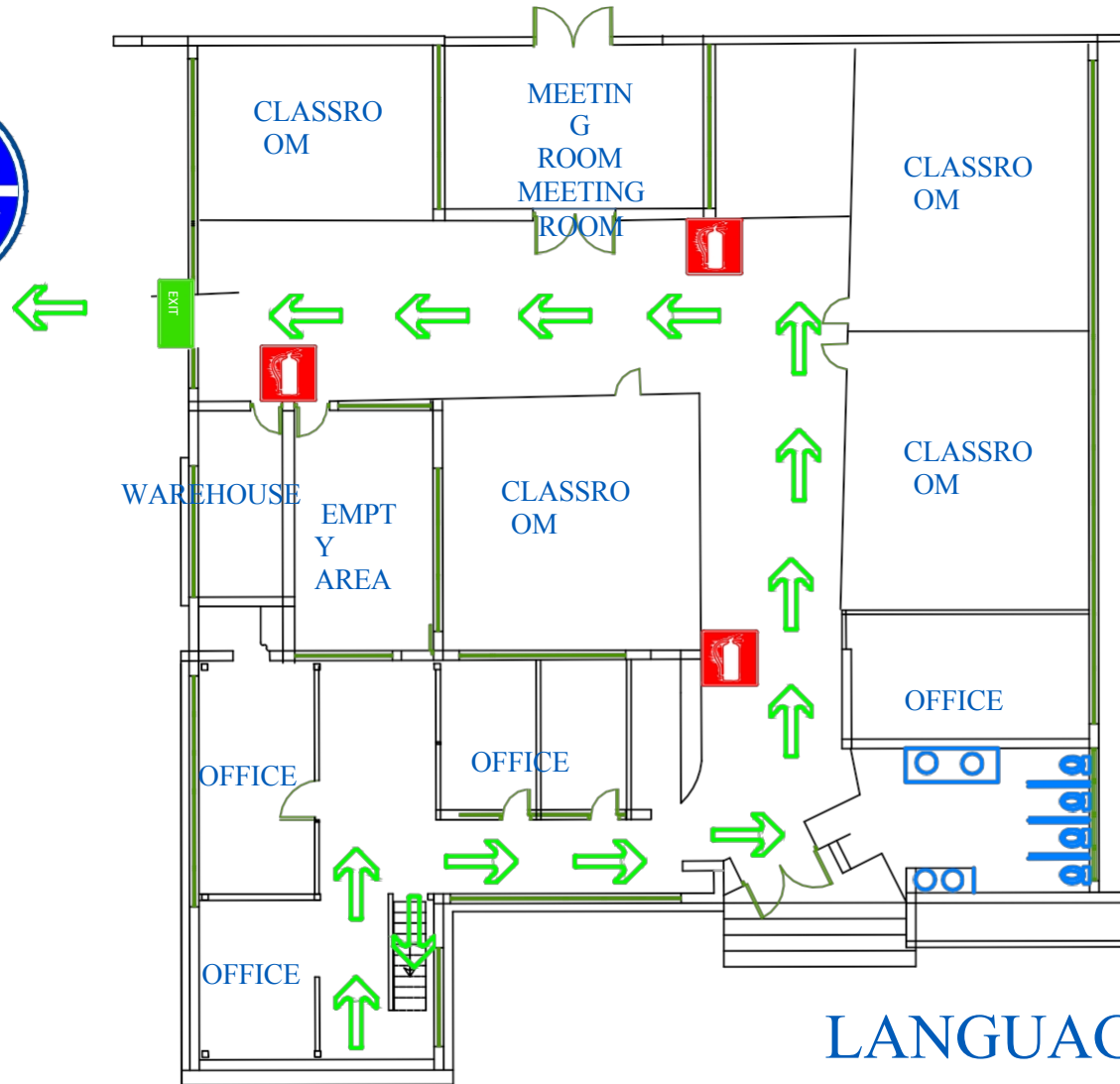
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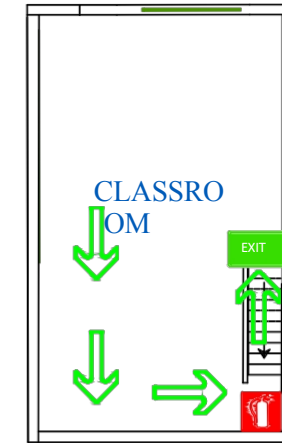
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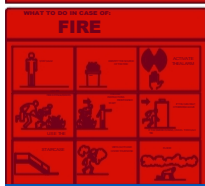
FIRST FLOOR



SECOND FLOOR



LANGUAGE BUILDING



EMERGENCY



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