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**“SECURITY & SAFETY MEASURES
IN MANAGING PUBLIC BUILDINGS AND FACILITIES”**

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Abstract

This presentation covers the aspects of security, surveillance, emergency preparedness, disaster recovery and relief management in respect to operations of public buildings and facilities. The importance of human safety and property security must be shouldered by all parties involved in managing public assets. Therefore in this session, the speaker will share some insight experience from the Royal Malaysia Police perspective in tackling some challenges that are currently faced by the law enforcement agency particularly the police in maintaining the public order within the assets and facilities belonging to the government. The delegate members will have the opportunity to understand further on the role and responsibilities of the police in ensuring the well-being of the public buildings and how this contributes to the optimize use of the assets in the long run. The delegates will be given a short question and answer session at the end of this presentation.

1. INTRODUCTION

- 1.1. While safety, health and environment concerns have a major impact on the importance of and need for asset and facility professionals, very little consideration or low priority is given towards security. More often the plan for security of a facility or building and its occupants are being done after the completion of the construction. Rightfully security, safety, health and environment must not be separated. It come as a package and should be wrapped together. If there is no security, there is also no safety and health and thus affect the environment. Without or lack of security, the management and maintenance of the asset and facility becomes very costly.

- 1.2. Despite incidents and attacks by terrorists such as bombardments, criminal activities, chemical releases, accidents, disaster from flood, fires, building collapse, vandalism and many other incidents affecting the life and property, how much attention has been given across the country in reviewing their building security standards? These tragedies and incidents that have been overwhelming showed clearly the need for fast, safe, reliable exit path markings in public buildings. How much consideration has been given in evaluating and reviewing the security aspect? What action plan formed to assess the disaster response and to make recommendations that would help increase security in the event of any lights-out emergency.
- 1.3. What is our direction in ensuring the security of our lives and our properties? Nobody knows when a disaster struck or when a terrorist attack will occur. Nobody knows what, when and where. It is not **"IF"** but who, when and where. Nobody knows who will become the victim or targets.

2. THE THREAT AROUND YOU

- 2.1. Just look at yourself and around you. Are you secured and safe in this building? Are the people around you, or those who work with you or people you work for, safe? What about those people who is sitting just beside you? Do you know who they really are? Do you really anticipate what will happen? How many of you are really interested as who comes in and goes out of this hall?
- 2.2. There may be criminals or bad hats waiting for you just outside this hall. As you leave this convention hall someone may be looking at every opportunity wanting to cause harm to you. They may want to rob or kidnap or even to assassinate you. Someone may be waiting for you at the parking area in the basement of this building waiting to attack and assault you. Who knows? And who cares? Until and unless one of us has becomes a victim.
- 2.3. What if there is a fire? Explosion? Power failure or black out? The building you are in right now collapse? Even in a worst scenario, an earthquake? Or any other form of disaster? What would you do? What are your plans?

- 2.4. Someone may deposit a chemical agent in the HVAC system in this building? Or, someone may even placed an explosive or any incendiary device in the room where we are now. It may just be hoaxes. Or someone may simply shout "ANTRAX." What will be your reaction in any of this incident?
- 2.5. Have you look into the security and safety aspects of the building you are in now? Do you know what and where the means of egress are? What is the evacuation plan? Which way shall you proceed to save yourselves? Can you see escape signage or routes?
- 2.6. Beside the security guards that you see in and around you, what are the facilities provided to the security in ensuring your security and safety. Are the security guards trained and equip with knowledge on what to do if an emergency occur. Are they prepared to response to any of the situations? Just ask any of them what is their action plan? Ask them on any of the questions above. How much thoughts have been given on security aspect.
- 2.7. You can have the best asset and facility managers that maintain and managers this building but if there is a situation of terrorist threat, what is your reaction? It is just insufficient just to know or to be able or even being specialize to manage or maintain assets and facilities....whether it belongs to the government, organizations or individuals. Being complacent and categorizing security as a second priority may be very costly later after an incident or disaster.

3. THE THREATS

- 3.1. What are some of the situations that might arise to test you? There can be crises that happen out of the blue - natural disasters, environmental incidents, workplace accidents, product failure, or even shooting incidents. There can also be incidents that have been smoldering within the business that all of a sudden burst into flame - fraud by an employee, government fines, labour unrest, group protests, lawsuits, customer allegations, or investigations by watchdog agencies.

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- 3.2. Government building, public places of attractions, facilities like theaters and amusements and this PWTC where we are today are soft target. It can be the targets of criminals, terrorist, demonstrators, riots.
- 3.3. The most pertinent threat occurrence are:
- 3.3.1. Criminal activities
 - a. Theft
 - b. Pick pockets
 - c. Robberies
 - d. Assault
 - 3.3.2. Acts of terrorism
 - a. Bombing
 - b. Barricade situation
 - c. Kidnapping
 - d. Assassination
 - e. Attacks by weapons of mass destruction (WMD)
 - f. Arson or sabotage
 - 3.3.3. Disasters (Natural or man made)
 - a. Flood
 - b. Fire
 - c. Power failure or black out
 - d. Landslide or building collapse or part there of
 - e. Explosion
 - f. Chemical release or leakage
- 3.4. Demonstration by certain faction of people or community who wants to show protest on certain issue may into riot and becoming violent.
- 3.5. Bomb Hoaxes and false alarm calls are becoming very common.
- 3.6. Vandalism by
- 3.6.1 Public nuisance
 - 3.6.2 Bad characters and rouges
 - 3.6.3 Vagabonds

3.6.4 Intruders

4. IDENTIFYING RISKS

- 4.1. A prudent first step is to list geographic and climatic hazards and other risks that could jeopardize the building and collections. These might include the institution's susceptibility to flooding, or fires, and even the possibility of unusual hazards such as earthquakes.
- 4.2. Consider man-made disasters such as power outages, sprinkler discharges, fuel or water supply failures, chemical spills, arson, bomb threats, or other such problems. Take note of the environmental risks that surround your institution. Chemical industries, shipping routes for hazardous materials, and adjacent construction projects all expose your institution to damage. While all institutions are not vulnerable to all disasters, any event that is a real possibility should be covered under your emergency plan.
- 4.3. The surrounding terrain and geographical factor such as:
 - 4.3.1. Is the building located on a slope?
 - 4.3.2. Is the basement above flood level?
 - 4.3.3. Are there large trees near the building?
 - 4.3.4. Are such things as utility poles and flagpoles secure?
 - 4.3.5. Is the roof flat? Does water accumulate?
 - 4.3.6. Do gutters and drains work properly?
 - 4.3.7. Are they cleaned regularly?
 - 4.3.8. Are windows and skylights well sealed?
 - 4.3.9. Is there a history of leaks or other building and structural problems?

5. YOUR RESPONSE

- 5.1. In any of the situation above, there will be chaos. During a disaster for instance, you have to save your own life. When each and everyone rush out to save your life, the tendency of pushing and pulling is very obvious. Your action may lead to stampeding. Stampeding caused injuries or even death. While disaster is not resolved, another crisis occurred, that is crowd disaster.

- 5.2. The term stampede, also known as a **crush** or **trampling**, commonly describes a sudden rush of a crowd of people, usually resulting in many injuries and death from suffocation and trampling. Human stampedes most often occur during religious pilgrimages and professional sporting and music events. They can also occur as a result of another problem such as a fire, as people try to move away or escape.
- 5.3. Examples of stampede incidents are:
- 5.3.1. *The annual Muslim Hajj in Mecca, Saudi Arabia, which is attended by millions of pilgrims, has increasingly suffered from stampedes and other disasters. The worst documented stampede in modern history happened at the 1990 Hajj, when over 1400 people died in a tunnel.*
- 5.3.2. *The Station Nightclub Fire on the evening of Thursday, February 20, 2003, was the fourth-deadliest nightclub fire in U.S. history, killing 100 people and injuring more than 200. Ninety-six perished on the night of the fire, and four died later from their injuries.*
- 5.3.3. *The Baghdad bridge stampede occurred on August 31, 2005 when up to 1,000 people died following a stampede on Al-Aaimmah bridge, which crosses the Tigris river in the Iraqi capital of Baghdad. It was the biggest loss of life in Iraq in one day since the US-led invasion of 2003.*
- 5.3.4. *The Ellis Park Stadium South Africa disaster was the worst sporting accident in South African history on the 11 April 2001. 43 people were crushed to death.*
- 5.4. In the same scenario, in the process of everybody rushing trying to save their lives, due to panic, the pushing and pulling, glass window, glass doors, glass corridors, glass pathways and glass walls may be broken. Furniture such as tables, chairs, cabinets and other equipments, materials shattered. These broken glasses will cause more injuries including casualties.
- 5.4.1. *After building collapse, the most significant threat to people and property in bombings arises from the failure of conventional glass. For instance, the*

1998 bombings at the embassies in Kenya and Tanzania injured over 5,000, many due to broken glass.

5.4.2. *Another good example is when broken glass in the 1996 terrorist bombing of Khobar Towers at the U.S. Air Force base in Saudi Arabia, resulted in over 330 injuries, 80 to 90% of those were caused by broken glass.*

5.5. Beside injuries and death, properties are damage too. This will cost more in the repairs and maintenance of those damaged items or parts of the buildings.

5.6. One of the most difficult aspects of properly handling a media-driven crisis in the franchise industry knows how to respond when multiple interests are at stake. The frustration for a multi-unit franchisee escalates when, for example, a crisis affects one specific unit halfway across the country, but the news media treat the brand name in such a cavalier manner that your customers think the crisis is affecting all other units in the chain.

6. DURING AN EMERGENCY OR CRISIS

6.1. Assessing The Situation

6.1.1. Assessment is an important process before, during and after an emergency situation. Assessing a situation include the following:

- a. Assess the threat before it happens;
- b. Create a crisis management plan ;
- c. Create a crisis management team;
- d. Plan simulations to make your organization or community less vulnerable;
- e. Choose a spokes person;
- f. Respond to the media during a crisis;
- g. Help victims, families, and staff to cope and recover;
- h. Return your organization to normal after the crisis is over.

6.1.2. Assessing the possible threats to a facility quickly adds up to a long list of potential hazards. Facility managers can identify areas of vulnerability by considering factors both internal and external to the organization. Facilities that store and use hazardous materials, for example, should be prepared to contain a potential spill. In another instance, buildings located in the path of

regularly occurring strong wind or storms can benefit from the reinforcement that specialized building materials provide.

- 6.1.3. While facility managers cannot predict an emergency situation, they can prepare for one. There are many kinds of emergency events that can affect a facility, including building system failures, fire, natural disasters, and manmade crises. In a perfect world, a facility manager would have a detailed, step-by-step plan in place for each and every possibility. However, in reality, it is virtually impossible to create a plan for every type of emergency.
- 6.1.4. Still, planning for known vulnerabilities is only part of the picture. On any given day, a facility can be affected by a variety of threats ranging from a fire to a storm to a terrorist attack. A plan that takes into account the wide variety of threats and circumstances is one crafted with an all hazards approach.
- 6.1.5. With this in mind, facility managers can turn to the task of creating a plan that addresses preparedness, response, and recovery operations. A comprehensive approach to emergency preparedness begins to bring a plan into focus.
- 6.1.6. Other organizations focused on the business of emergency preparedness and response; also recommend an all hazards approach.
- 6.1.7. In responding to a crisis, it is critical to first assess people security and safety. Once that is assured, you can activate the rest of your business recovery plan. Restoration plan can come later after the recovery stage.
- 6.1.8. For instance we may not be able to prevent a disaster, effective contingency planning will help speed recovery, address safety issues and decrease recovery costs. All businesses should have workable, written recovery plans in place and available because business owners will not have time or resources to draft thorough plans during a disaster. In addition, it is critical that plans are tested regularly so businesses know they work.

6.2. Evaluation By Facility Manager

- 6.2.1. Every day, local emergency management officials are faced with decisions that relate to providing emergency services to its citizens. Now more than ever, many local government executives are hard pressed to justify any increase in expenditures unless they can be attributed directly to improved or expanded service delivery in the community. This effort is often hampered by the lack of a state accepted set of criteria by which a community can judge the level and quality of emergency management.
- 6.2.2. Facility managers should evaluate their assets and facilities against criminal activities, disaster incidents and terrorist threat. Facility managers should assess by touring the asset and facility, reviewing and re-evaluating, and looking at any architectural or infrastructure impairments and limitations. Taking stock of the facility and interior configurations helps the facility manager in outlining the response, mitigation and evacuation plan.
- 6.2.3. Knowing who will need additional assistance helps facility managers to keep an up-to-date emergency plan. Facility managers should sit with whoever they need to in order to assure they are notified when people with disabilities are brought into the organization. There is some privacy issues involved, but if someone has a disability, it needs to get back to the facility manager. Then he or she can make accommodations for those people.
- 6.2.4. While these measures help ensure the safety of all occupants, **“who cares about the evacuation route is accessible to all”**. What it really involves is a change in mindset. We have to realize that everyone is an individual, and when we are talking about emergencies, we need to plan for all of those individuals, whether they are school kids, the olds, adults who work in a building everyday or adults who may be in the building for the first time when the event happens.

6.3. Communication

- 6.3.1. When disaster or emergency strikes, communication is key. When communication fails, the plan fails too. This holds true through all phases of an unexpected and stressful event. Therefore, it is crucial that all members of the organization are accounted for and informed. Reliable communications can contribute significantly to how well the organization weathers the disaster.

- 6.3.2. In order to communicate with people critical to the organization, contact information should be stored offsite. Crucial contacts may include key personnel, support agencies, customers, suppliers, and insurance agents.
- 6.3.3. While phone trees have been a major form of emergency notification, changing technology has produced faster and more efficient systems. Automated notification systems, for example, activate communications to a pre-selected list of contacts. Messages can be sent by a phone call, an e-mail, or a page. Through this type of system, first responders, offsite personnel, parents of schoolchildren, and other crucial contacts receive a message regarding the nature of the situation. It is important to note that automated notification systems should not replace the primary mode of communication with first responders.

6.4. Evacuation

- 6.4.1. Evacuation is the most difficult process. There may be an evacuation plan, but it is often on papers only. In practice many plans failed.
- 6.4.2. During an evacuation, building occupants who have a disability may require additional assistance. Another occupant may volunteer to offer assistance in this situation. Also, help can come in the form of alarms with flashing lights or strobe lights as well as voice annunciations. Of course, these alarms and voice annunciations can benefit all occupants.
- 6.4.3. To ensure the fastest possible evacuation from a multi-story building during any lights-out emergency, security and safety officers and building managers of many government buildings, municipalities, universities, hospitals and other public buildings are to follow certain code or model, with a particular emphasis on installing visually instructive egress markings in buildings such as hospitals, and multi-story buildings.
- 6.4.4. Facility managers are beginning to retrofit their evacuation stairwells – including basements and sub-basements – with markings and/or signage on:
 - a. Doors opening to exits or exit passageways.

- b. Corridors that serve as required exit passageways connecting two vertical exits.
- c. Doors serving as horizontal exits.
- d. Landings, perimeters of certain egress routes and individual stair steps.
- e. Certain hazards and obstructions with-in or along vertical exits.
- f. Horizontal extensions in vertical exits, horizontal exits, supplemental vertical exits, and exit passageways.
- g. Handrails (mandatory for new construction, optional for existing buildings).

6.4.5. To be effective, the markings must be visible when the instant lights go out, and they must be installed near floor-level so they are visible to building occupants who might be crawling along stairwells to avoid smoke.

6.4.6. Evacuation is a risk management strategy, which may be used as a means of mitigating the effects of an emergency or disaster on a community. It involves the movement of people to a safer location. However, to be effective it must be correctly planned and executed. The process of evacuation is usually considered to include the return of the affected community. Evacuation involved:

- a. Evacuation planning;
- b. Evacuation planning considerations;
- c. Five stages of evacuation:
 - i. Decision to evacuate
 - ii. Warning,
 - iii. Withdrawal,
 - iv. Shelter and
 - v. Return.

6.5. Response and Recovery

6.5.1. There is specific relationship between response and initial recovery activities. Relationship between response and recovery is not mutually exclusive. In fact, recovery activities were occurring during times of response, and response activities occurring during times of recovery. A number of response and recovery activities occur simultaneously. Finally,

activities related to one phase may directly affect the activities in another phase.

- 6.5.2. Emergency response and recovery is not a linear process; decisions that are made during the emergency phase will impact the recovery process. In practice, however, recovery often takes place in an ad hoc fashion because key decisions are not part of a strategic program to restore services and rebuild communities.
- 6.5.3. In fact, the functions and effects study generated the notion that the relationship between mitigation, preparedness, response, and recovery is not even linear. Rather, some preparedness activities (like educating government officials) could really have mitigation effects; and some recovery activities, mitigate against future disasters (like using housing loans to relocate residences out of a flood plain). The Functions and Effects experts hypothesized at least a cyclical relationship among these four phases of disaster activity.
- 6.5.4. Over the years, researchers studying community recovery have recognized that it is difficult to generalize about communities' experiences because both the communities impacted and the events themselves are unique. Cities and towns are of varying sizes, in different states or territories, with different economic bases and community and cultural values. The communities are impacted by different types of natural hazards, experience different types and extents of losses, and have recovery periods unique in nature and timing. In addition, the recovery and reconstruction experiences of these communities are heavily influenced by the current forms of national disaster assistance, of which the amounts, types, and procedures have changed significantly over the years. .
- 6.5.5. Nevertheless, there are a number of similar trends and recovery lessons that can be learned from the experiences of these communities. Common themes and issues that run through the accounts of community recovery and redevelopment can be identified. These lessons are important to the potential development of a community recovery assistance team program.

7. EMERGENCY PREPAREDNESS

- 7.1. Education is very vital in instilling awareness to everyone including the service providers. Another way of creating awareness by having campaigns by furnishing information to them through pamphlets, news, magazines, media etc. Awareness is the understanding and getting ready of the incidents in order to be prepared.
- 7.2. Emergency preparedness is everyone's job. Not just government agencies but all sectors of society - service providers, businesses, civic and volunteer groups, industry associations and neighborhood associations, as well as every individual citizen - should plan ahead for any emergency. During the first few hours or days following an emergency situation, essential services may not be available. People must be ready to act on their own.
- 7.3. Preparedness provides leadership, training, readiness and exercise support, and technical and financial assistance to strengthen citizens, communities, State, local and central governments, and professional emergency workers as they prepare emergency, mitigate the effects of situation, respond to community needs after the emergency, and launch effective recovery efforts.
- 7.4. Emergency take many forms. Disasters, gale force winds, sudden floods, draught, explosion, and releases of deadly chemicals, fire, even upheavals of the earth itself, cause them. When disaster strikes, the best protection is knowing what to do.
- 7.5. In responding to emergency situation, the following need to be done:

7.4.1. Threats

- a. What is the level of threats?
- b. Have you identified the threats?
- c. Where are the threats?
- d. Who are the threats?

7.4.2. Evaluation or Assessment

- a. Who evaluates or assesses?
- b. How to evaluate or assesses?

- c. What equipment used to evaluate or assesses?
- d. What are the risks during evaluations?
- e. Do you have your threat assessment process?

7.4.2. Response

- a. When to response?
- b. Who to response?
- c. How to response?
- d. How to mitigate?

7.4.5. Plans

- a. What are your plans established?
- b. Were there plans tested?
- c. Is it feasible?
- d. Do you have your emergency response plan?
- e. What is your incident action plan?
- f. What about your communication plan?
- g. What is your contingency plan?

7.4.6. Emergency Team Members

- a. Who are team members of your emergency services?
- b. How do you select your team members?
- c. Are they trained? How often?

7.4.7. Equipments (PPE)

- a. What equipment is available?
- b. Is it serviceable?
- c. How often do you check?
- d. Did you test these equipments?
- e. Did you train your team members?

7.4.8. Evacuations

- a. What is your evacuation plan?
- b. How to evacuate?
- c. Who to evacuate?
- d. Where is your evacuation center?

7.4.9. Evacuation Team

- a. Who are the evacuation team?
- b. Are they trained?
- c. What are the equipments?
- d. Are the equipments serviceable?
- e. Are the team members trained?

7.4.10. Recovery

- a. What is your mitigation plan?
- b. Is there any incubation period?
- c. What sort of recovery.... Short term or long term
- d. Financial support

7.4.11. Your Support Team

- a. Who are your supporters
- b. Can you communicate with them immediately?

8. WHY PLAN FAILS

- 8.1. There are many reasons why many plans often fail. The most common and obvious are:
 - 8.1.1. Studies have found that many plans in place suffer from several basic flaws.
 - 8.1.2. Most plans focus heavily on emergency response and preparedness issues and do not give adequate attention, if any, to recovery and reconstruction.
 - 8.1.3. Plans are often "paper" plans—they exist on paper but are not referred to or acknowledged during post disaster decision making.
 - 8.1.4. Many public officials are not aware of the content of the plans and are not taking actions or making decisions based on them;
 - 8.1.5. Plans tend to be viewed as end products rather than as dynamic instruments and the basis for ongoing dialogue and processes.

9. MEDIA ROLE AN ASET TO FACILITY MANAGEMENT

- 9.1. Information management must be a part of every management plan and should be carried out on a regular basis by every manager. To deal with them effectively for the good of your organisation you must give them your best effort to provide accurate information about your activities and situation. Management of information for the mass media is a very important ingredient in the overall management for any organization.
- 9.2. Give good service to the media. Provide the news media with interesting timely materials for their publications or broadcasts and they will remember you as a reliable, credible news source. Good information management for the mass media produces several benefits. It creates a favourable climate and contact for good donor relations. It can help prevent false representations of your organizations and people involved in a particular emergency.
- 9.3. It can enhance your reputation for future participation in future emergency situations. Ultimately good media relations and information management are the product of good performance. If performance of the mission is not satisfactory, the long term image of an organisation is not going to be good. However, the long-term is made up of a long series of small steps that must be made known through the mass media in order to create an overall image of an organisation and what it does.
- 9.4. Let them know of your operation, where you can be reached, what your responsibilities are, and find out what you can do for them that will help them cover the story. (Good relationships with the media can be very helpful in gathering information about what is going on in a particular situation, what others are thinking about an emergency, who is doing what and the like. Media relations are a two-way street and a good exchange of information can benefit you in carrying out your responsibilities).
- 9.5. While journalists are always on the lookout for a good story, they are not out to make your life miserable. So relax and be friendly. Get to know the journalists in your area and keep in mind that they are good sources of information. The media is part of emergency management system.
- 9.6. If they call and you're not in, try to return their call as soon as possible. It is not wise to get into fruitless disputes, continuing misunderstandings, and bitter arguments

with people who can give themselves unlimited broadcast time. They have the ability to reach millions of people on a daily basis.

10. POLICE CORE FUNCTIONS - PROTECTING OF LIFE AND PROPERTY

- 10.1. One of the police core functions is to ensure the security and safety of life and property. The police must maintain peace. The police must enforce law and order. It is all about maintenance and management of the whole thing in the state. It includes the people and the property. It include buildings, facilities and assets – movable or immovable, on land, water or the air space....where ever it may be.
- 10.2. The police give assistance and advice to the facility managers in ensuring protection of life and safety of the property, beside security assets and facilities as well as equipment are in proper working order is part of the preparedness plan. It is also important to be sure that building structure and equipment is code compliant.
- 10.3. The police can also assist in educating facility managers and all elements through training, exercises and imparting knowledge on certain relevant policing aspects.

11. RECOMMENDATIONS

11.1. Best Management Practice

- 11.1.1. The best practices and procedures from incident management disciplines i.e. security, emergency management, law enforcement, firefighting, public works, public health, responder and recovery worker health and safety, emergency medical services, and the private sector — and integrates them into a unified structure. It forms the basis of how the federal government coordinates with state and local governments, the private sector, non-government organizations and voluntary organizations during incidents. It establishes protocols to help:
 - a. Save lives and protect the health and safety of the public, responders, and recovery workers;
 - b. Ensuring security:

- c. Prevent an imminent incident, including acts of terrorism, from occurring;
- d. Protect and restore critical infrastructure and key resources;
- e. Conduct law enforcement investigations to resolve the incident, apprehend the perpetrators, and collect and preserve evidence for prosecution and/or attribution;
- f. Protect property and mitigate damages and impacts to individuals, communities, and the environment;
- g. Facilitate recovery of individuals, families, businesses, governments, and the environment.

11.2. Building Designs And Structures

- 11.2.1. The priority on security requirements and needs to meet functional expectations of the building should begin during the planning stage in designing the building or facility. Besides complying with building codes (Uniform Building By Law – UBBL), security must be an integral part of a building from the design phase forward. Economically the thought of planning security fitting of building after construction is not right because it is going to be very costly and sometimes impossible.
- 11.2.2. Assessment on the threat and the vulnerabilities of the building before construction is of equal importance in determining the type and function of the building to be constructed. Security perimeters, fencing and gating to prevent criminal activities, act of terrorism and natural disasters. Assessment on the location of the building need an assessment on issues on social problems crime rates, believes.

11.3. Facility Construction

- 11.3.1. The building materials being used in construction are very important in creating a secure structure. Issues such as fire protection, environmental issues and structural decisions will need to be evaluated. A fine balance of usability and security need to defined and negotiated between management and the security team to ensure a building that is both effective and one that can be secured.

- 11.3.2. CCTV and Cameras would help deter crime and aid in investigations by providing surveillance footage. Cameras are cost effective are cost-effective in preventing crime by serving as a visible deterrence. CCTV is used with guards to enhance their surveillance ability and to record events covering a bigger area.
- 11.3.3. When looking at the actual structural components of the facility, the windows for example may need to be bullet proof, translucent or opaque. Both interior and exterior doors may need to have particular opening directions, certain fire ratings, and protection against forcible entry.
- 11.3.4. Security aspects must be look into right from the beginning that is during the planning stage. When construction begins, security features have to be considered. Basic need for security such as:
- a. Perimeters and fencing including gates.
 - b. Means of egress and ingress or escape routes.
 - c. Staircases, lifts, balconies, corridors for multi-storey or high-rise buildings – not forgetting the safe areas before the lifts and in between levels of staircases and around it.
 - d. The surveillance system such as CCTV, cameras, ICTs.
 - e. Evacuations areas.
 - f. Evacuation routes.
- 11.3.5. Many buildings collapse as a result of poor design and architecture. Many buildings were damaged as a result of poor maintenance. It could be as a result of poor quality materials or good materials used but not according to specifications. There may be crime committed by greedy contractors that design or build the buildings. Often building contractors are never taken to court due to breach of contracts on building designs.
- 11.3.6. Evacuation area when a building collapses. Where do you evacuate the people found in the building? How do you explain to those people what to do?
- 11.3.7. When design professionals consider security in a holistic manner, such as required by the UBBL rating systems, they will produce better, more

innovative solutions which will enhance building security. *Building owners are not buying products, they are buying results.*

11.4. Educating The People

11.4.1. Training is one of the most important missions we have of the Emergency Management Agency. The only way to develop a strong statewide network of emergency management is to begin at the local level, and one of the most important building blocks is providing high-quality training to all parts of the state.

12. CONCLUSION

12.1. Today, vast arrays of responsibilities must be part of facility management, including providing security, safety, health and environmentally friendly and effective workplace for disabled and weak employees and customers. Security issues and health concerns have a major impact on the importance of and need for asset and facility professionals.

12.2. Facility professionals must be equipped with a tremendous amount of knowledge and the ability to cope with and solve a multitude of complex problems and challenges. Facilities managers must always looked to security professionals for guidance on how to protect the individuals in their buildings, as well as the organization's property and vital information. The increased possibility of terrorist attacks only intensifies the need to consult with the experts. `

12.3. One of the most beneficial actions a facilities manager can take is authorizing a top-to-bottom security audit conducted by qualified professionals. Such an assessment will:

12.3.1. Identify potential threats or "soft targets" that might not otherwise be recognized.

12.3.2. Result in recommending the best, most cost-efficient methods and technologies to harden these targets and protect the facility and its people.

12.3.3. A security audit can often identify potentially devastating threats that were not even on facilities managers' radar screens a few years ago. For

example, today's managers need to be concerned about such possibilities as chemical, biological, and even nuclear terrorism. There are many ways chemical or biological agents can spread throughout a building that one wouldn't normally have considered a risk a few years ago. This potential threat needs to be considered, and methods must be developed to reduce the likelihood of such occurrences--or to minimize the damage if such an event does occur.

- 12.4. It is easy to be caught up in the excitement of designing a new building for your organization. It is very important in the design phase of the building that management, security, and the contractor discuss the threat risk assessment to ensure the building is designed and built not only with usability but also with security in mind. A secure building is your first line of defense against unauthorized activity.
- 12.5. Normally, when budgets get tight, training is one of the first items to disappear. However, if training is at your minimum, a study is to be made to ensure courses which are not only relevant but crucial to a better performance as service provider that provide you with the most knowledge for your dollar. If training is at a standstill, encourage senior management to allow junior members of the team to mentor with senior members of the team. It is simply amazing how much information is passed on the experience of others. Mentoring does not cost organization hard dollars and in times of budget constraints. Thus they should not expect you to run critical security services without adequate training.

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