

Designing Safe Schools: Planning and Retrofitting for Safety in Education Facilities

Welcome! The webinar will begin at 1:30 p.m. EDT

- To ask a question, use the Q&A Tool on the lower right side of your screen to send your message to the facilitator. Questions will be answered in the order in which they appear, at the end of the call.
- To download a copy of the presentation slides and other pertinent handouts, use the Downloads Box in the upper right-hand corner of your screen. Select the name of the handout(s) you want and click the “Download File(s)” button.
- There is no dial-in for this webinar. Audio is available via the link provided. If you are experiencing difficulty hearing the audio stream, make sure your computer speaker volume is turned up.
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Thank you for joining the webinar!



Designing Safe Schools: Planning and Retrofitting for Safety in Education Facilities



Webinar Agenda

School Safety in the News

Why Safe Schools Matter

Facility Design for Safety

Facility Retrofits for Safety

School Emergency Operations Plan Development

Addressing Safety Concerns

Safe Schools Resources

Summary

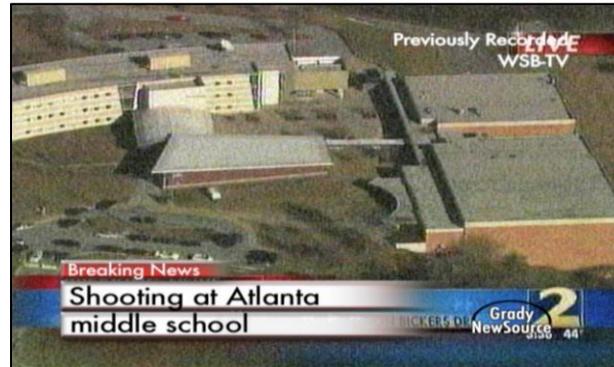
Q & A Session

Questions?

Remember to pose your question using the Q&A Tool on the lower right side of your computer screen.

School Safety in the News

Geographical Hazards – Criminal Threats – Man-Made Threats



Natural Disasters – Chemical Accidents – Environmental Hazards

School Safety in the News

NY DAILY NEWS: *New Jersey boy dies after school lunch table bench collapses on him*

KHOU: *Pasadena school evacuated because of fire*

NEW YORK POST: *Two high school kids burned in lab accident*

WEATHER CHANNEL: *Tornado destroys brand new Arkansas school*

NW News Network: *Washington schools face multiple threats from natural disasters*

Why Safe Schools Matter

“If we can’t help protect kids and staff, and make them feel safe at school, then everything else that we do is secondary...
...If kids don’t feel safe, they can’t learn. It’s that simple.”

– ARNE DUNCAN,
U.S. Secretary of Education



Why Safe Schools Matter

- Unsafe facility conditions may lead to potential injury and illness of occupants and visitors.
- Negative perceptions of safety affect learning outcomes, behavior, achievement, and school climate.
- Unsafe aspects of facilities have a negative impact on students' health, sense of security, and cooperation.
- Safety issues could have negative legal and economic outcomes.

Facility Design for Safety

Designing for safety involves identifying and implementing safety principles in the planning and construction of a facility.

The goals in this approach are to:

- Integrate best practices in facility design with risk assessment methods
- Identify potential hazards and assess vulnerabilities
- Minimize the likelihood of personal injury and damage to the facility
- Include a safety-centered approach to the design and use of all aspects of the structure

Facility Design for Safety

Planning for Safety:

- Identify potential threats and hazards
- Assess the risks posed by identified threats and hazards
- Prioritize threats and hazards

Lower priority

Higher priority



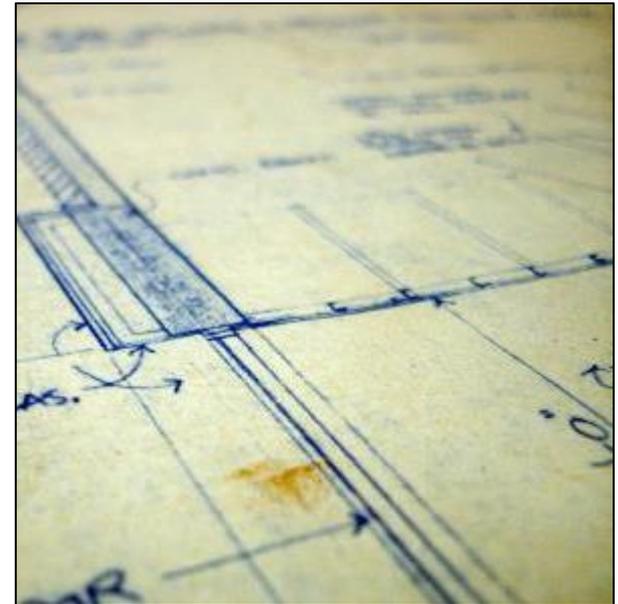
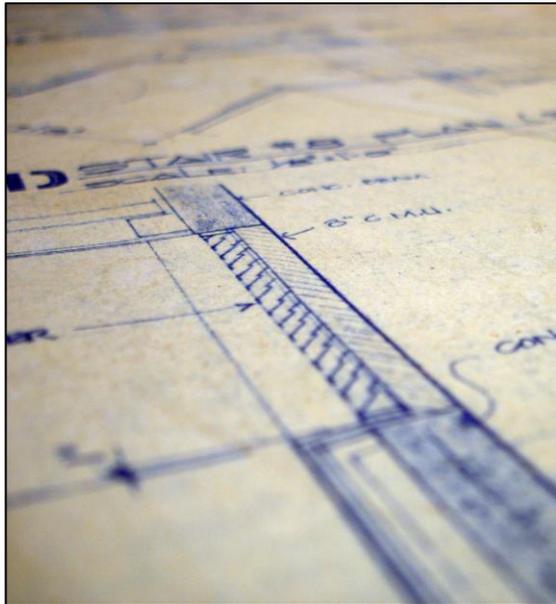
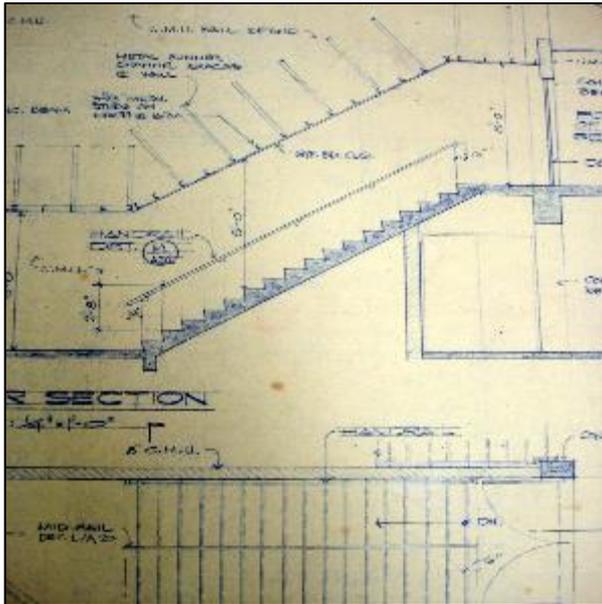
What can we live with?

What can we manage?

What must we avoid?

Facility Design for Safety

- What are some considerations for designing safe schools?



Facility Design for Safety

When planning for new construction, consider the following factors:

- Site location
- Crime Prevention Through Environmental Design (CPTED) principles
- Other building and grounds features

Facility Design for Safety

When planning for new construction, first consider site location:

- Geography
- Potential Threats and Hazards
- Accessibility

Facility Design for Safety

Crime Prevention Through Environmental Design (CPTED):

- Natural Surveillance
- Access Control
- Territoriality

Facility Design for Safety

Other Safe Design Considerations:

- Structural design for natural disasters
- Ingress/egress factors (entrances & exits)
- Protective gear and equipment
- Emergency response
- Safe rooms

Facility Retrofits for Safety

A retrofit is any modification of the facility to make use of a product or system developed or made available after the original construction of the facility.

For existing structures, retrofits are:

- Used to update aspects of the facility;
- Often needed to increase safety; and
- A cost-effective way to address safety concerns.

Facility Retrofits for Safety

Retrofitting for safety involves a thorough review of a facility's:

Buildings

Grounds

Facility Retrofits for Safety

- How can we determine what facility features should be considered for retrofits?



Facility Retrofits for Safety

Site assessments can identify facility features for retrofits in order to increase safety.

These assessments identify and evaluate potential risks, threats and hazards.

The task of assessing a facility's vulnerabilities involves a collaborative effort.

Facility Retrofits for Safety

Focus of Site Assessments

- Increased understanding of:
 - potential impact of threats and hazards
 - risks and vulnerabilities of the school buildings and grounds
- Knowledge of which facilities are:
 - physically accessible to students, staff, parents, volunteer workers and emergency response personnel
 - in compliance with the law

Facility Retrofits for Safety

What should be considered for retrofits?

Building
entrances

Windows

Bathrooms

Facility Retrofits for Safety

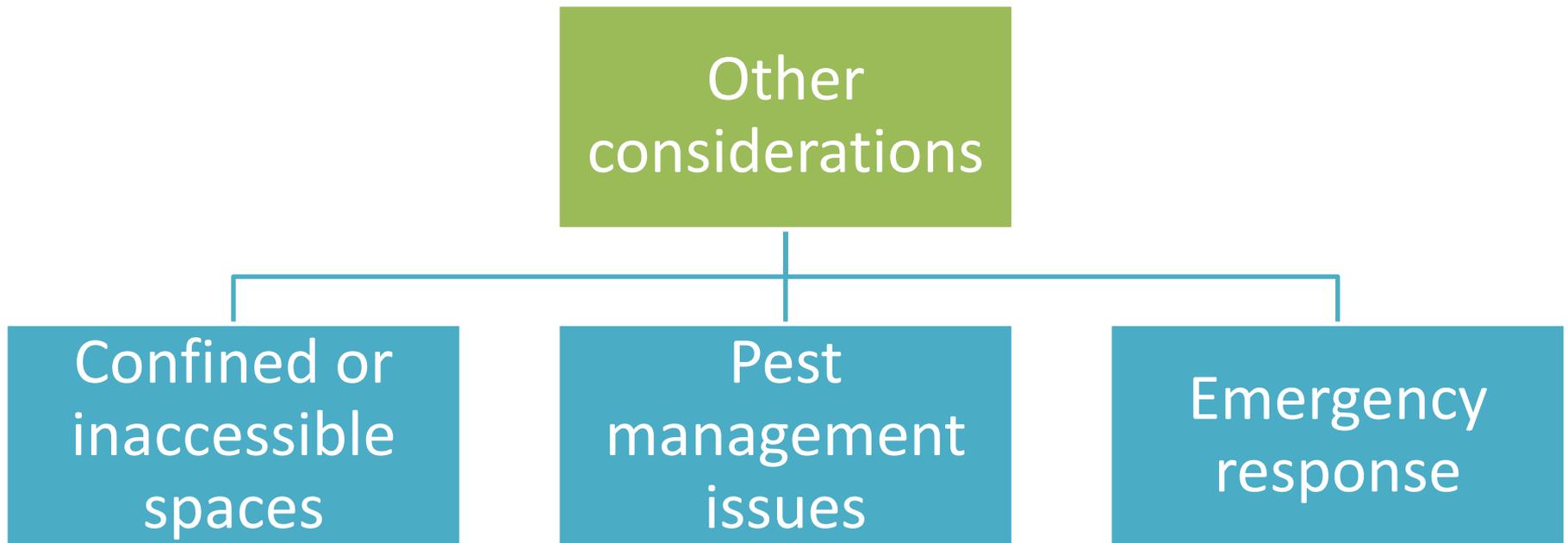
What should be considered for retrofits?

Sprinkler systems

Insulation

Heating and air-conditioning

Facility Retrofits for Safety



Facility Retrofits for Safety

Repurposing existing structures

- Consider site location
- Evaluate type of repurposed structure
- Assess the costs and benefits
- Identify difficult safety design features

School Emergency Operations Plan Development

Safety Preparedness: School safety is the responsibility of everyone.

Safety design features need to be supported with policies, training, routine monitoring, inspections and maintenance.

Presidential Policy Directive 8 (PPD-8)

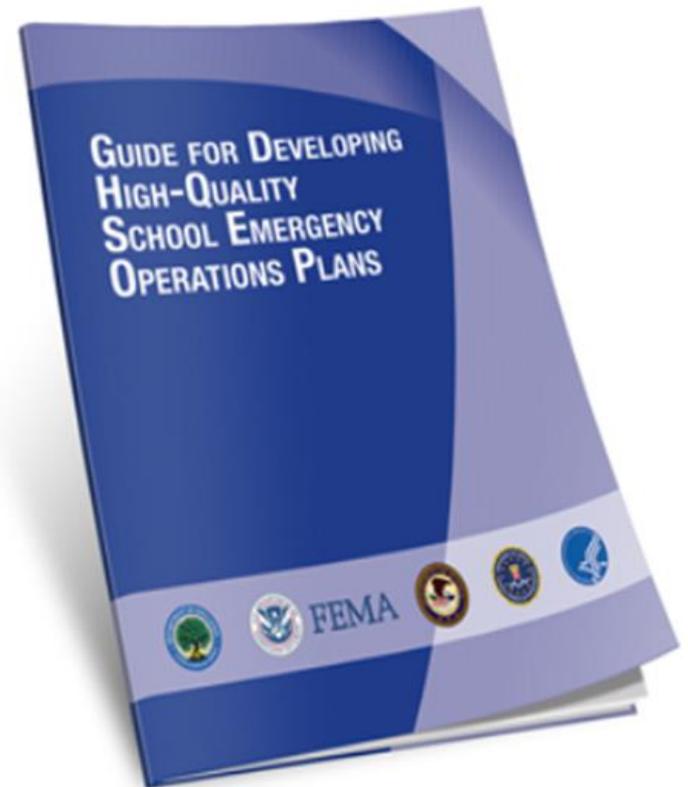
National Preparedness Directive

- **Prevention** is the action schools take to prevent a threatened or actual incident from occurring
- **Protection** focuses on ongoing actions that protect students, teachers, staff, visitors, networks, and property from a threat or hazard
- **Mitigation** means the capabilities necessary to eliminate or reduce the loss of life and property damage by lessening the impact of an event or emergency. It also means reducing the likelihood that threats and hazards will happen
- **Response** means to establish a safe and secure environment; save lives and property; and facilitate the transition to recovery
- **Recovery:** means the capabilities necessary to assist schools affected by an event or emergency in restoring the learning environment

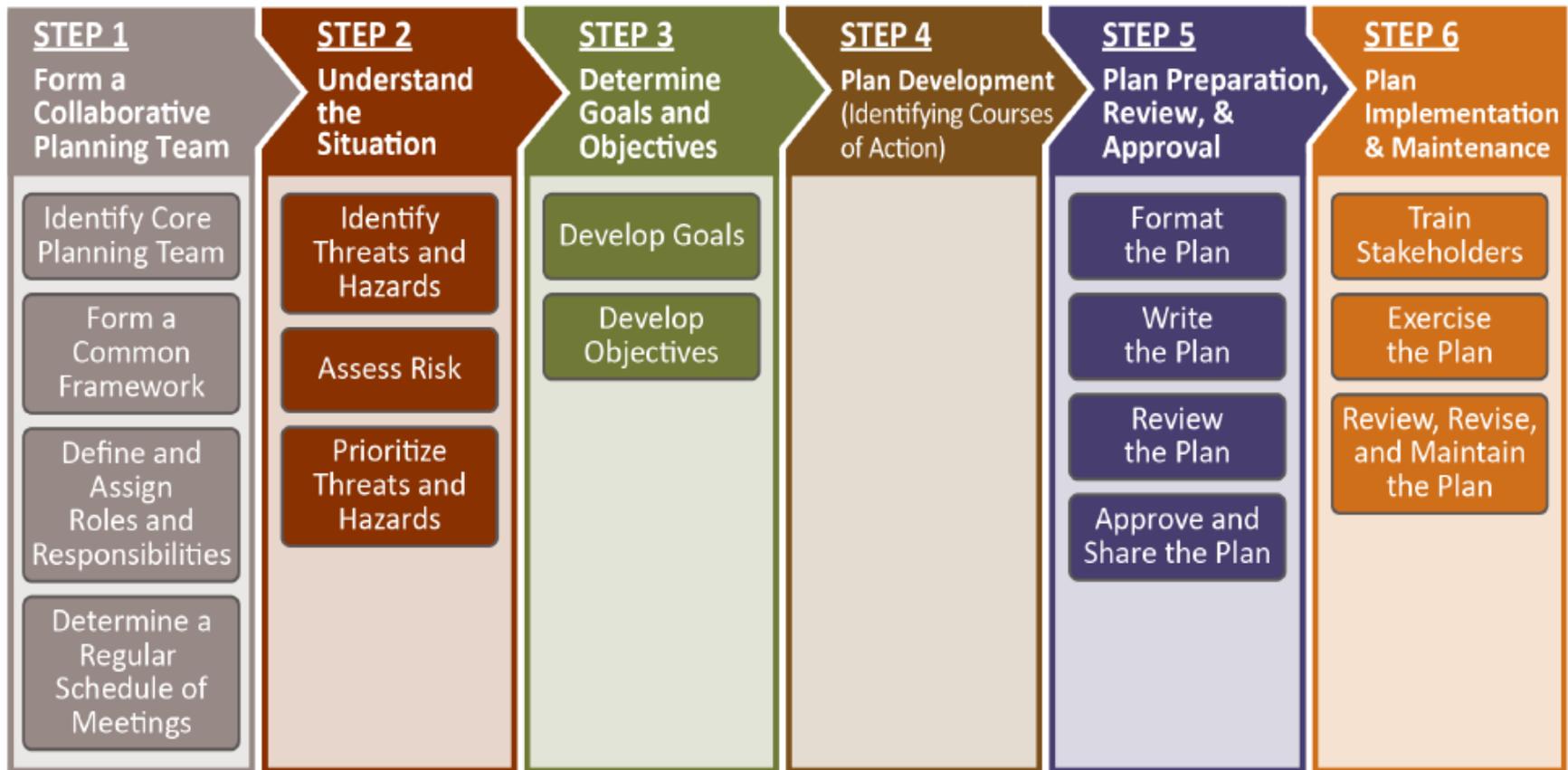
Federal Guides

- Released by the White House on June 18, 2013
- First joint product of ED, DHS, FEMA, DOJ, FBI, and HHS

- Download the full *Guide* from the EFC or the REMS TA Center websites
- Access topic-specific resources



The Six-Step Planning Process



SOURCE: GUIDE FOR DEVELOPING HIGH-QUALITY SCHOOL EMERGENCY OPERATIONS PLANS

Step 1: Form a Collaborative Planning Team

STEP 1
Form a Collaborative Planning Team

STEP 2
Understand the Situation

STEP 3
Determine Goals and Objectives

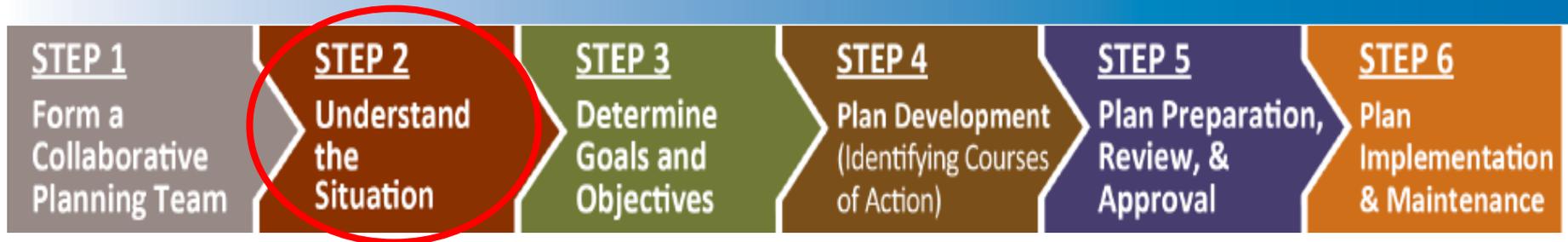
STEP 4
Plan Development
(Identifying Courses of Action)

STEP 5
Plan Preparation, Review, & Approval

STEP 6
Plan Implementation & Maintenance

- School administrators
- Facilities manager
- School safety officials
- Educators
- School psychologists
- Nurses
- Facilities managers, transportation managers, food personnel
- Individuals that represent the interests of those with disabilities, and those with access and functional needs, as well as racial minorities and religious organizations
- Community Partners
 - First responders
 - Local emergency management staff
 - Local law enforcement
 - EMS personnel
 - School Resource Officers
 - Public and mental health practitioners

Step 2: Understand the Situation

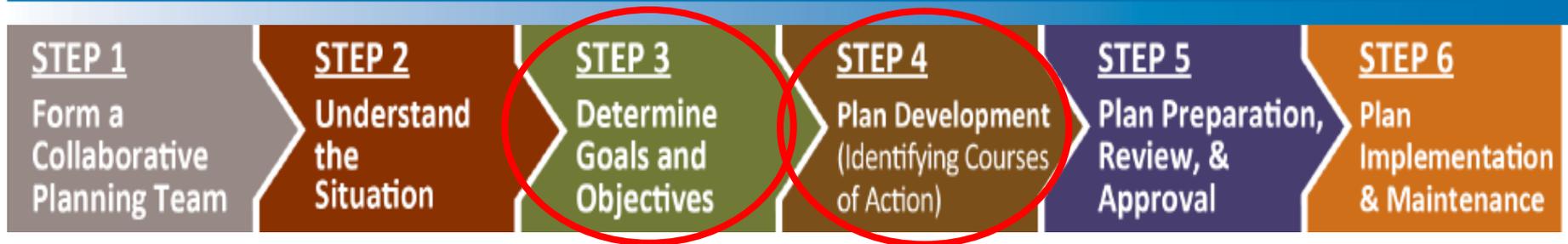


- Identify threats and hazards.
- Assess the risks and vulnerabilities posed by identified threats and hazards.
- Prioritize threats and hazards.

Sample Risk Assessment Worksheet

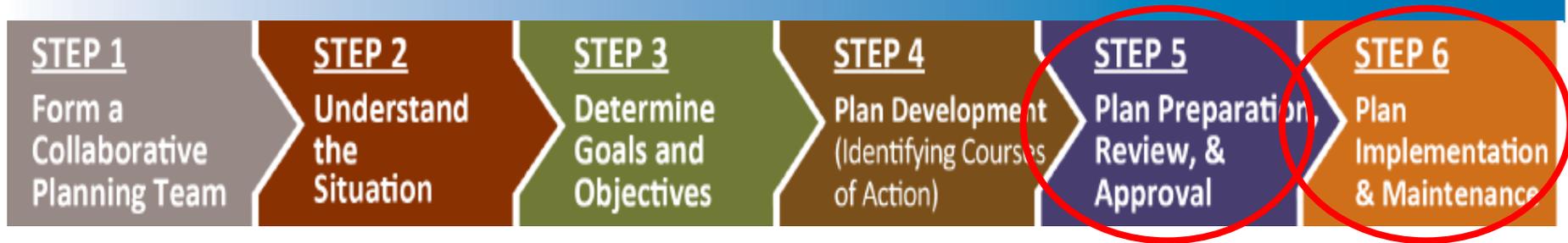
Hazard	Probability	Magnitude	Warning	Duration	Risk Priority
Fire	4. Highly likely 3. Likely 2. Possible 1. Unlikely	4. Catastrophic 3. Critical 2. Limited 1. Negligible	4. Minimal 3. 6–12 hrs. 2. 12–24 hrs. 1. 24+ hrs.	4. 12+ hrs. 3. 6–12 hrs. 2. 3–6 hrs. 1. < 3 hrs.	High Medium Low
Hazmat spill outside the school	4. Highly likely 3. Likely 2. Possible 1. Unlikely	4. Catastrophic 3. Critical 2. Limited 1. Negligible	4. Minimal 3. 6–12 hrs. 2. 12–4 hrs. 1. 24+ hrs.	4. 12+ hrs. 3. 6–12 hrs. 2. 3–6 hrs. 1. < 3 hrs.	High Medium Low

Steps 3 & 4: Develop Goals and Objectives, Identify Courses of Action



- Step 3: Determine Goals and Objectives and Step 4: Plan Development (Identify Courses of Action) will reveal a need for a multiple measures to maintain the health and safety of students and staff.
- In Step 4, the planning team develops courses of action for accomplishing each of the objectives identified in Step 3.
- Courses of action address the what, who, when, where, why, and how for each threat, hazard and function.

Steps 5 & 6: Plan Preparation, Review, Approval, Implementation, and Maintenance



Revise the plan, as needed, and share with stakeholders, including:

- School and school district officials
- Personnel from key departments with roles in preventing and responding to facility-related concerns or incidents

Addressing Safety Concerns

Many organizations have a process by which concerns for facility improvement can be raised and addressed:

- Identify the appropriate point of contact to raise a concern.
- Consult the facility manager.
- Refer to the facility emergency operations plan.

Safe Schools Resources



FEMA

fema.gov



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Summary



The safety and security of education facilities is a concern for all stakeholders.

Facility safety by design is a process involving safe design principles in the construction and maintenance of a facility.

There many common facility features to be considered for retrofits, and site assessments are an important way to evaluate the safety levels of any structure.

Use the emergency operations plan to respond appropriately in the event of an emergency.

There are appropriate channels to address safety concerns with building planners, construction companies and facility managers.

About the Education Facilities Clearinghouse



Free **technical assistance**
for public schools and universities

www.efc.gwu.edu

Online resources

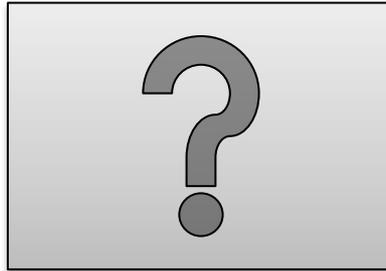
Training available

Phone: 1.800.EFC.0938
Email: askefc@gwu.edu

Disclaimer

The contents of this training were developed under a grant from the U.S. Department of Education. However, these contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the federal government.

Q&A Session



Questions?

About the REMS TA Center



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