

# Integrating Campus Security into Environmental Design

April 6, 2018

AIA Provider No.

Course Number:



# Best Practice Slide

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Questions related to specific materials, methods, and services will be addressed at the conclusion of this presentation.

# Learning Objectives

- Understand the basic components that are essential for inclusion in the General Sheets in a construction document set.
- Review the basic process for conducting a code review.
- Define the critical components that are to be shown on Life Safety Plans.
- Identify the connection between the UL details and the life safety plans.

# Agenda

1. Safety and Security Concepts
2. Fort Bend Safety and Security Case Study
3. Safety and Security Activity



**Why are we here...**





# Gun Related K-12 Non Accidental Incidents – 2018 Alone

March 20: Lexington Park, Maryland  
March 7: Birmingham, Alabama  
February 14: Parkland, Florida  
February 9: Nashville  
February 5: Oxon Hill, Maryland  
February 1: Los Angeles  
January 31: Philadelphia  
January 23: Benton, Kentucky  
January 22: Italy, Texas



# 2017 School Gun Incidents



# 2017 K-12 Gun Incidents





# 2017 K-12 Gun Homicides

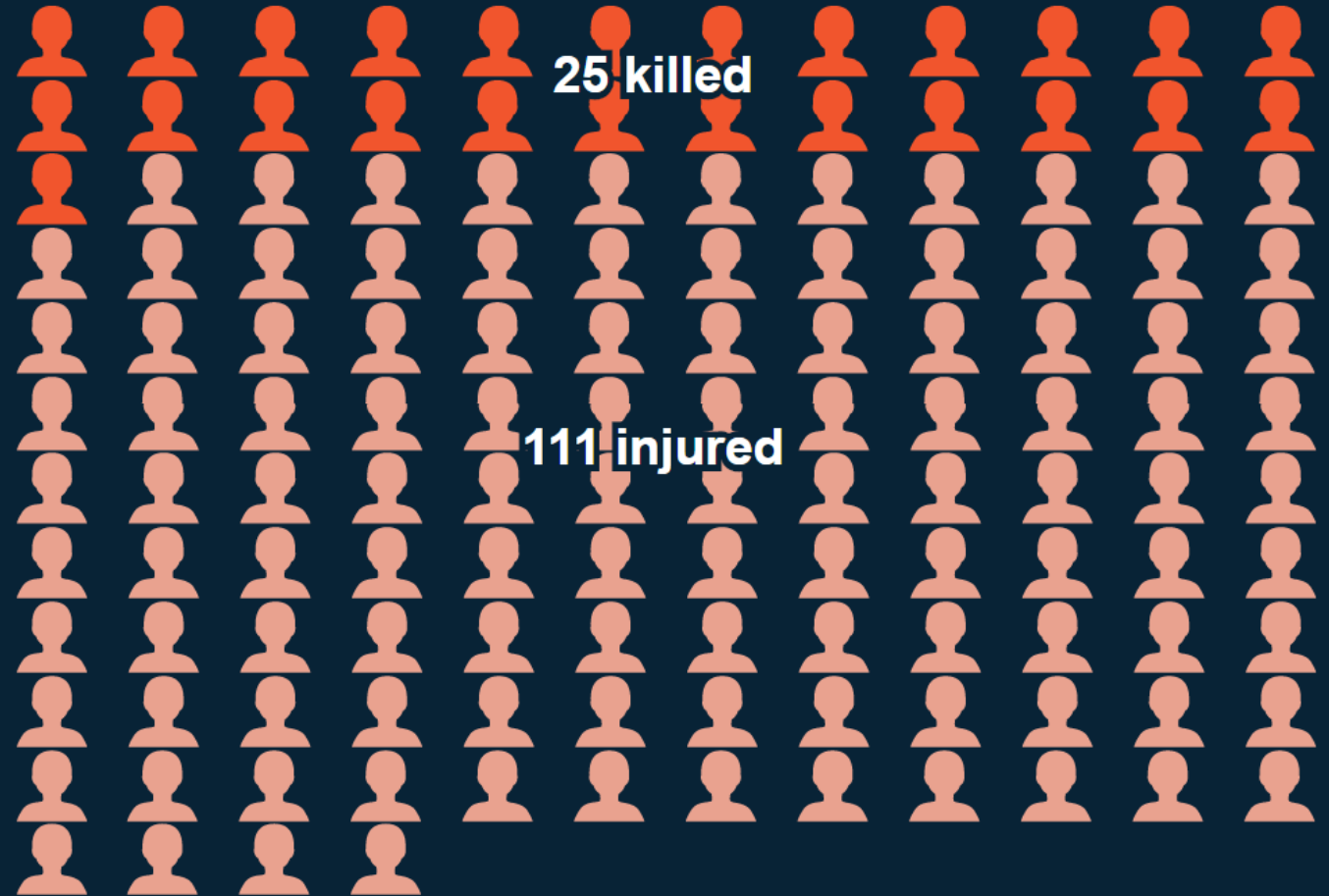


# Weekly Gun Incident Rates for Children 12 and Under

Every week, **136 children and teenagers** are shot.

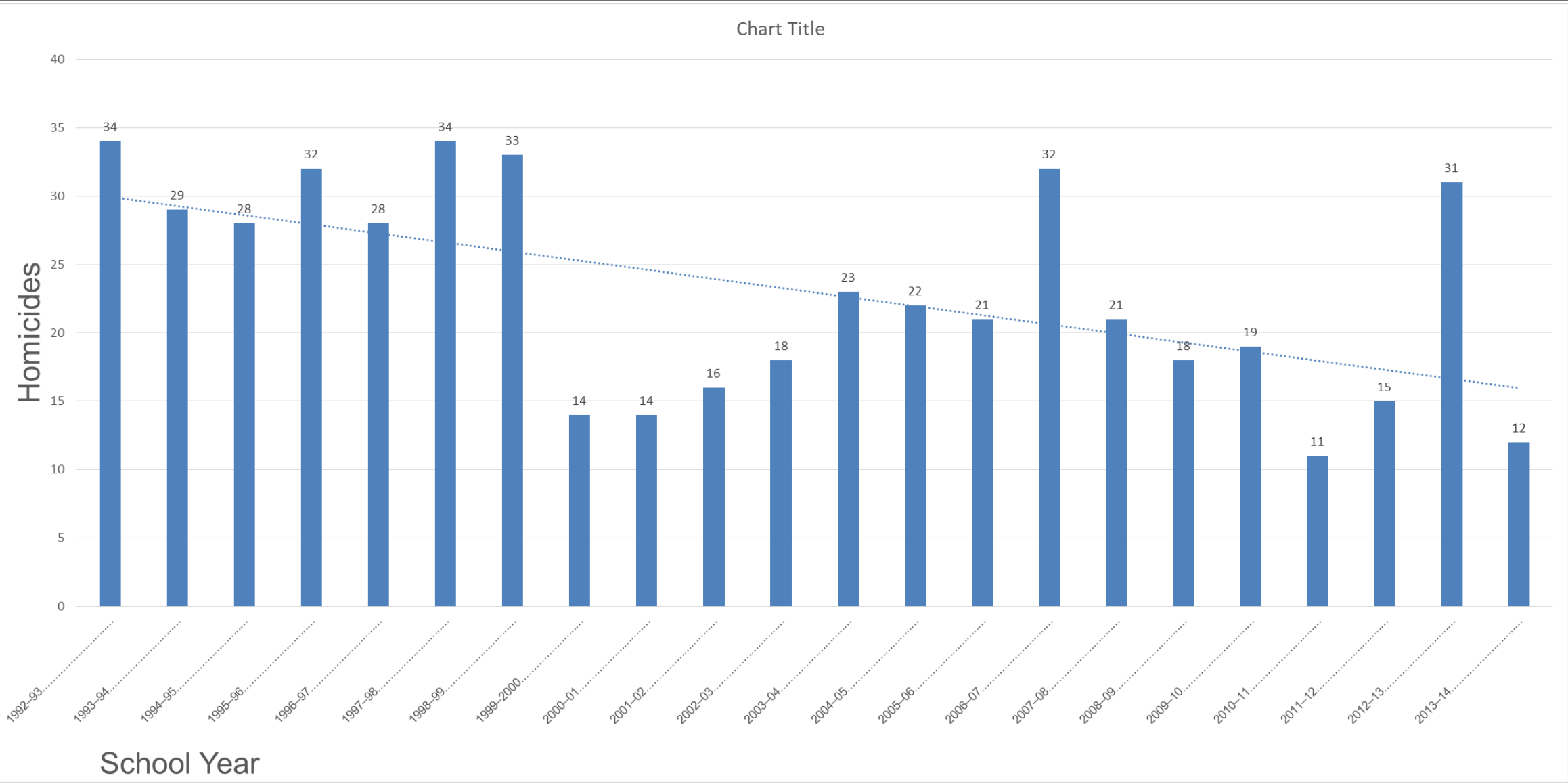
A CDC-authored [analysis](#) of childhood firearm injuries, published in the journal *Pediatrics*, offers a grim tally of the toll of gun violence on children. The majority of underage shooting victims are teens, but the study also found that more than 900 children aged 12 and younger are shot each year. Twenty-two percent of those shootings are fatal. And racial disparities that exist among adults are also present among children: black children die from firearm homicides at a rate 10 times higher than their white counterparts.

“These are preventable injuries that have a major public health impact on early death and disability among children,” the lead author Katherine Fowler [told The Trace](#).

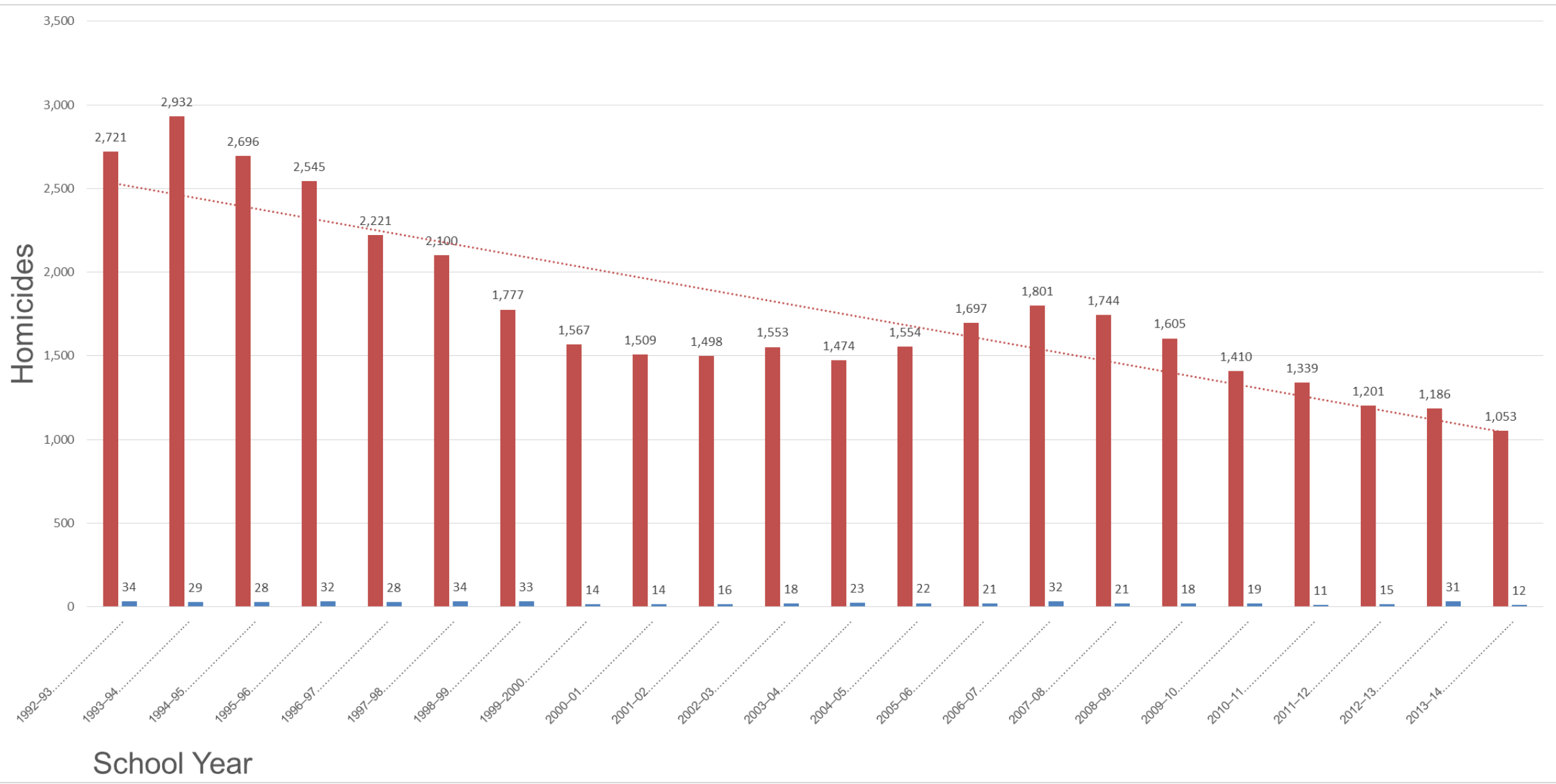


Source: [Pediatrics](#)

# Homicides at School from 1992 – 2014 Students 5-18



# Total Homicides from 1992 – 2014 Students 5-18



# Process and Products



# Phases of School Safety Plan

- Mitigation
  - Safety & Security Committee
  - Safety & Security Assessment
- Preparedness
  - Emergency Operations or Safety & Security Plan
  - Procedures & Training/Drills
  - Facility Design
- Response
  - Implement the Plan
  - Notification
  - Staff/Student Unification & Release
- Recovery
  - Emotional/Physical Health Needs
  - Continuity of Operations
  - After-Action Review & Corrective Action Plan



# Phases of School Safety Plan

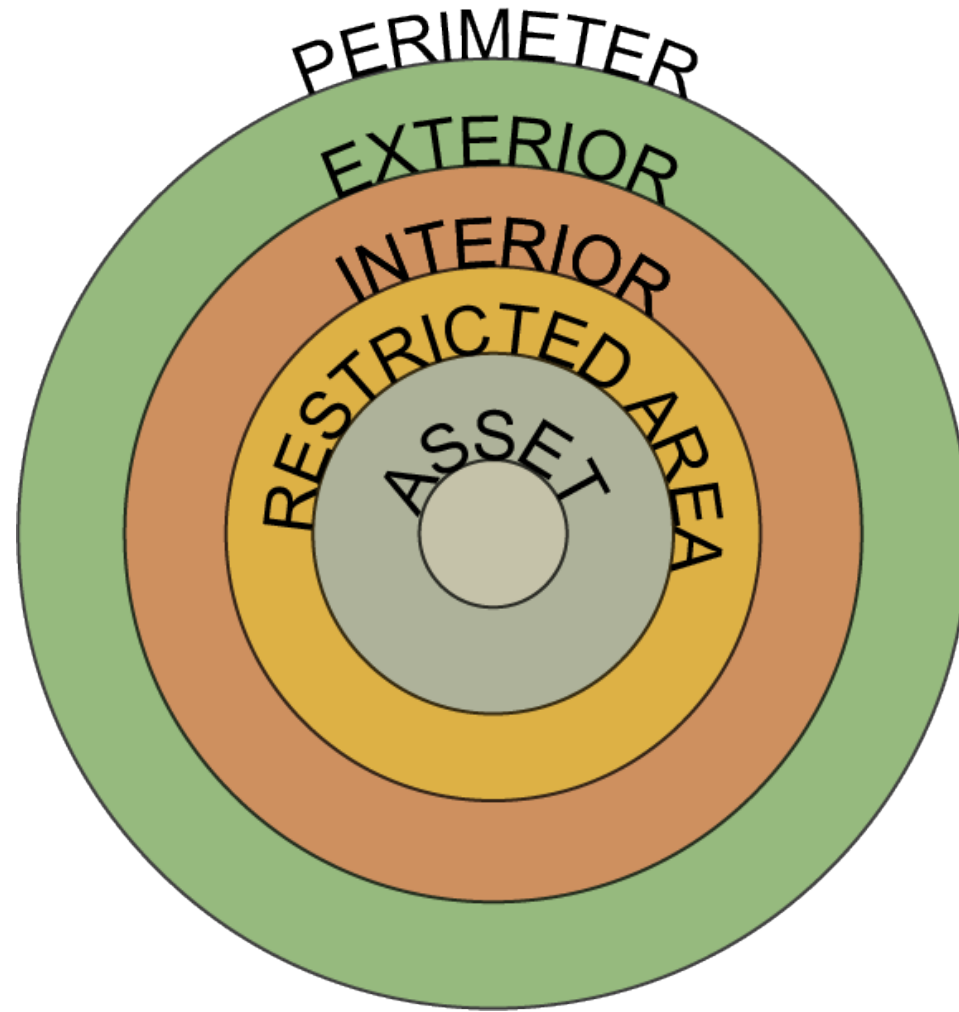
- Prevention/Mitigation
  - Safety & Security Committee
  - **Safety & Security Assessment**
- Preparedness
  - Emergency Operations or Safety & Security Plan
  - Procedures & Training/Drills
  - **Facility Design**
- Response
  - **Implement the Plan**
  - **Notification**
  - Staff/Student Unification & Release
- Recovery
  - Emotional/Physical Health Needs
  - **Continuity of Operations**
  - After-Action Review & Corrective Action Plan

# All Hazards

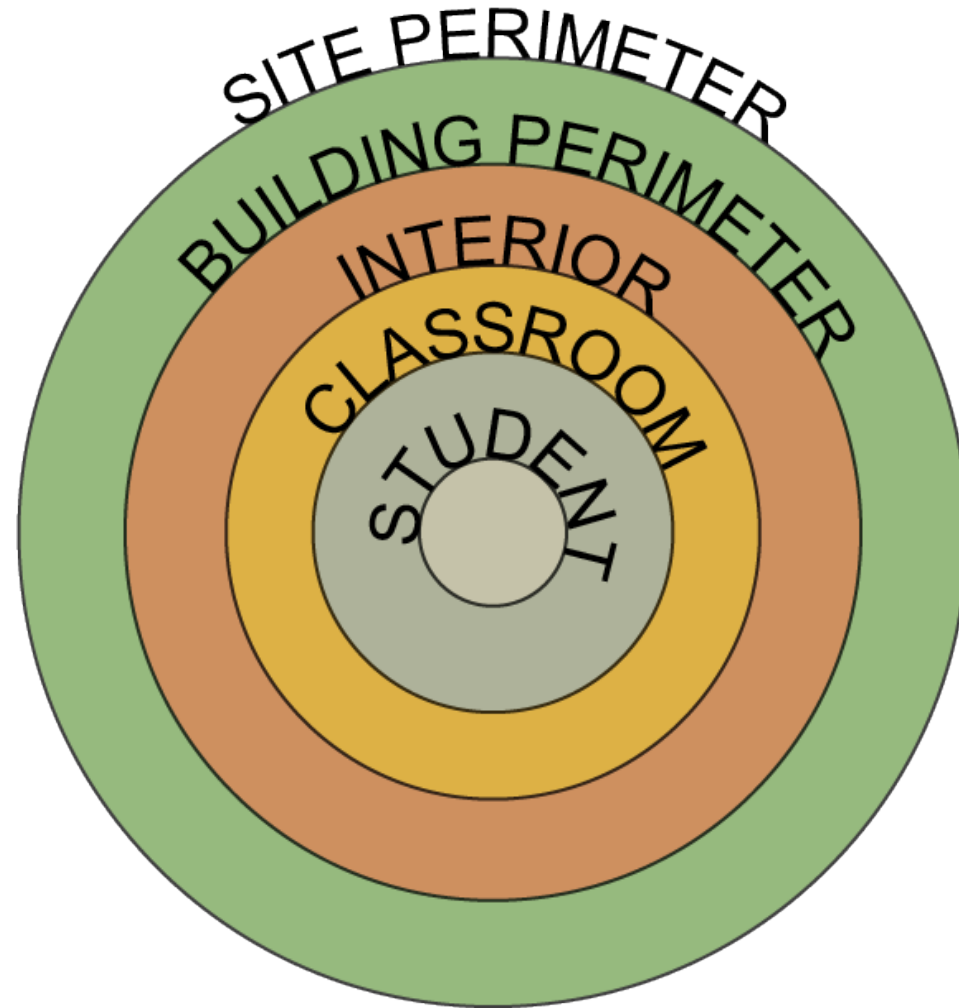
- There are many different threats or hazards.
- The probability that a specific hazard will impact your school is hard to determine.
- It is important to consider many different threats and hazards and the likelihood they will occur.



# Concentric Circles of Security

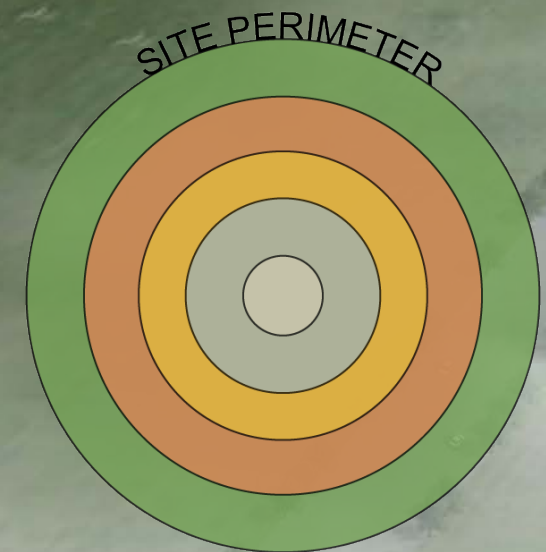


# Concentric Circles of Security

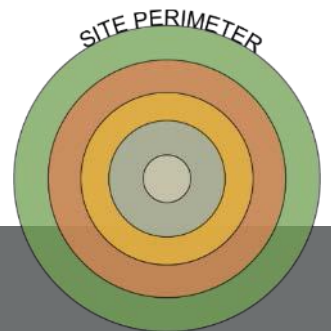




Site



# Perimeter Control

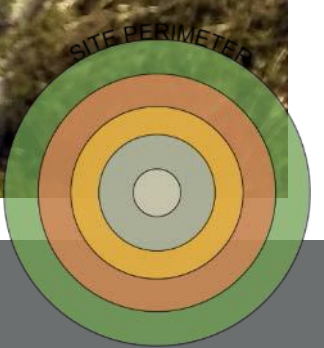




# Perimeter Control

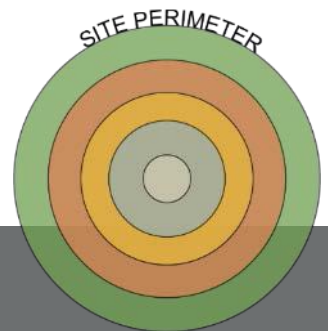


Fiber optic intrusion detection system

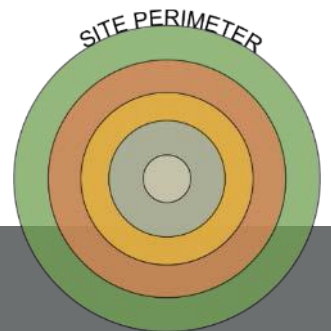




# Guard Shack

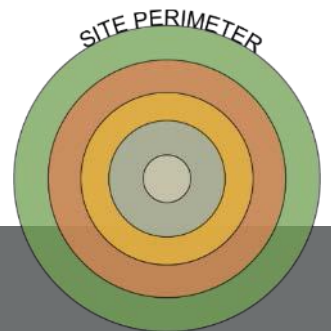


# Vehicle Barriers

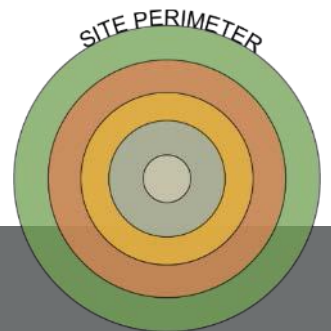




# Landscaping

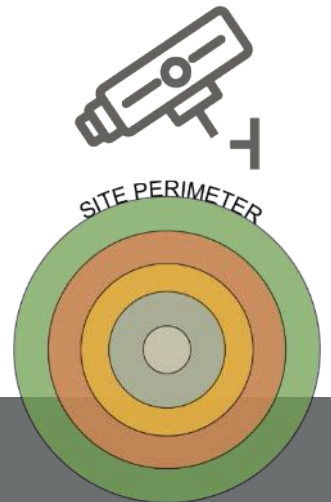


# Lighting





# Security Cameras - Site





# Building Perimeter





# Facade

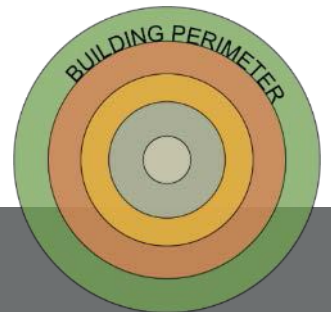




# Entries



# Entries





# Windows



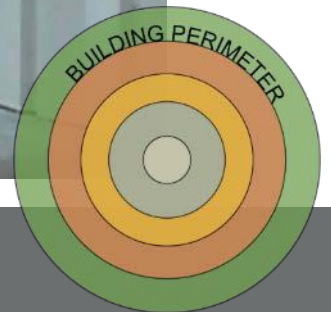
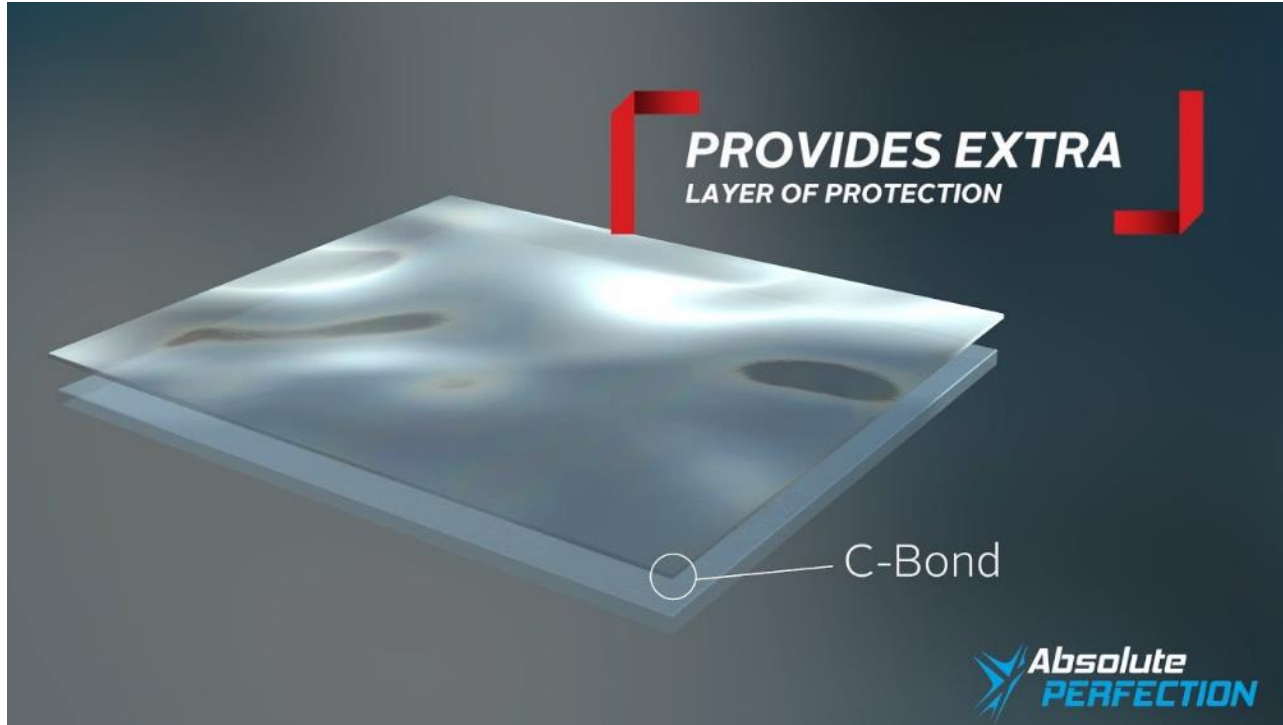


# Windows



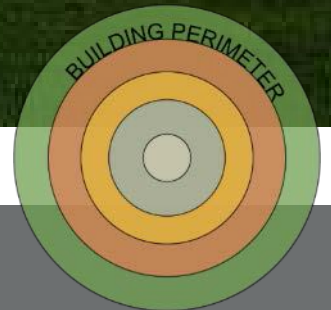


# Window Film

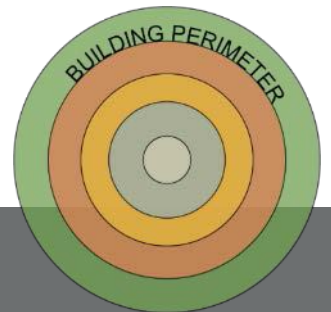




# Lighting

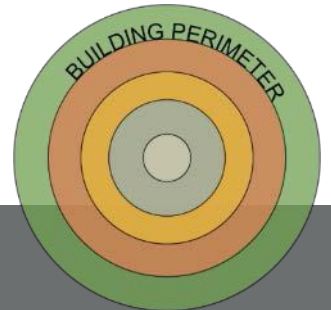


# Entry Cameras

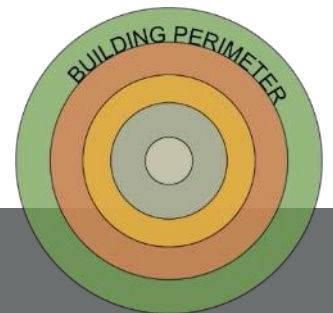




# Access Control

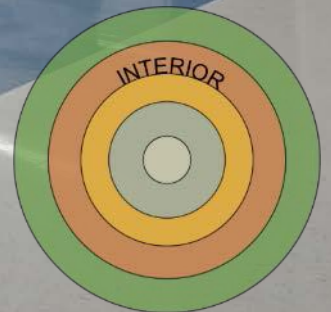


# Video Phone to Enter





# Interior





Interior

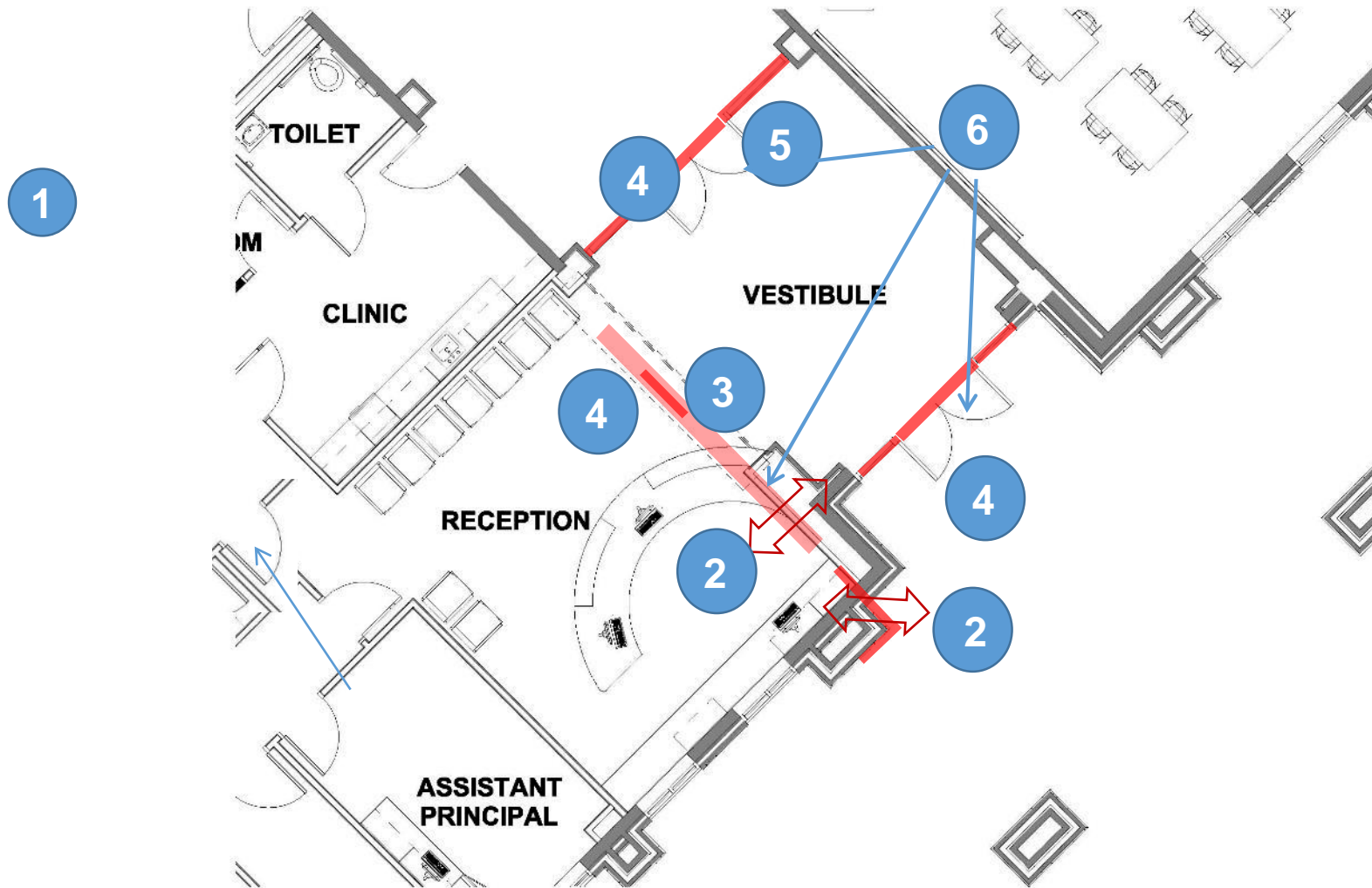




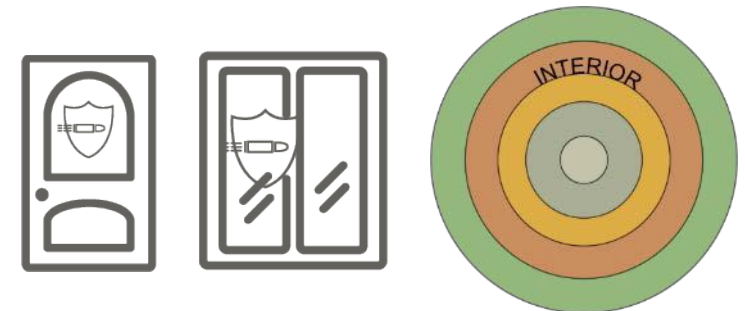
# Secure Vestibule



# Secure Vestibule

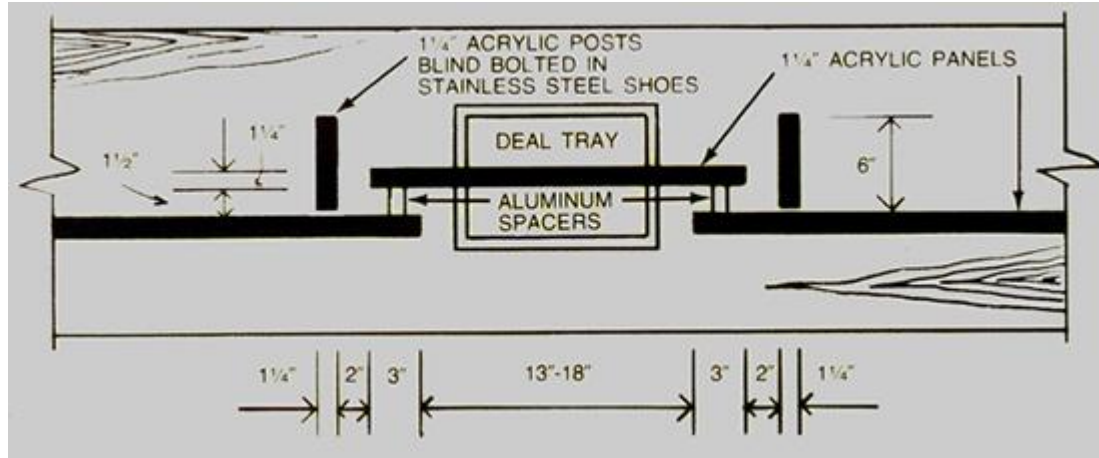


1. Bandit Barrier transaction counter
2. Direct View to Entrance
3. Electronic Unlock
4. BR Glass
5. Second Secure Door
6. Security Cameras





# “Bandit Barrier”

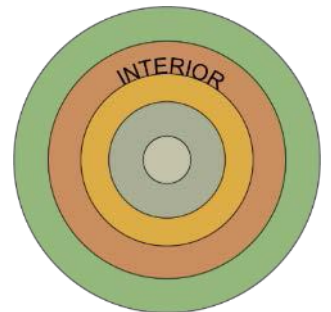


# Gates in Corridors

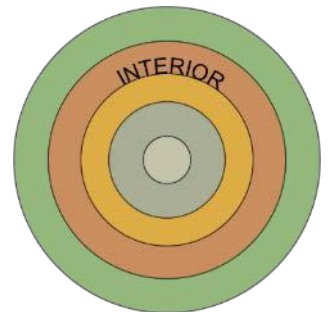




# Passive Security

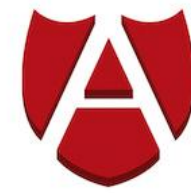
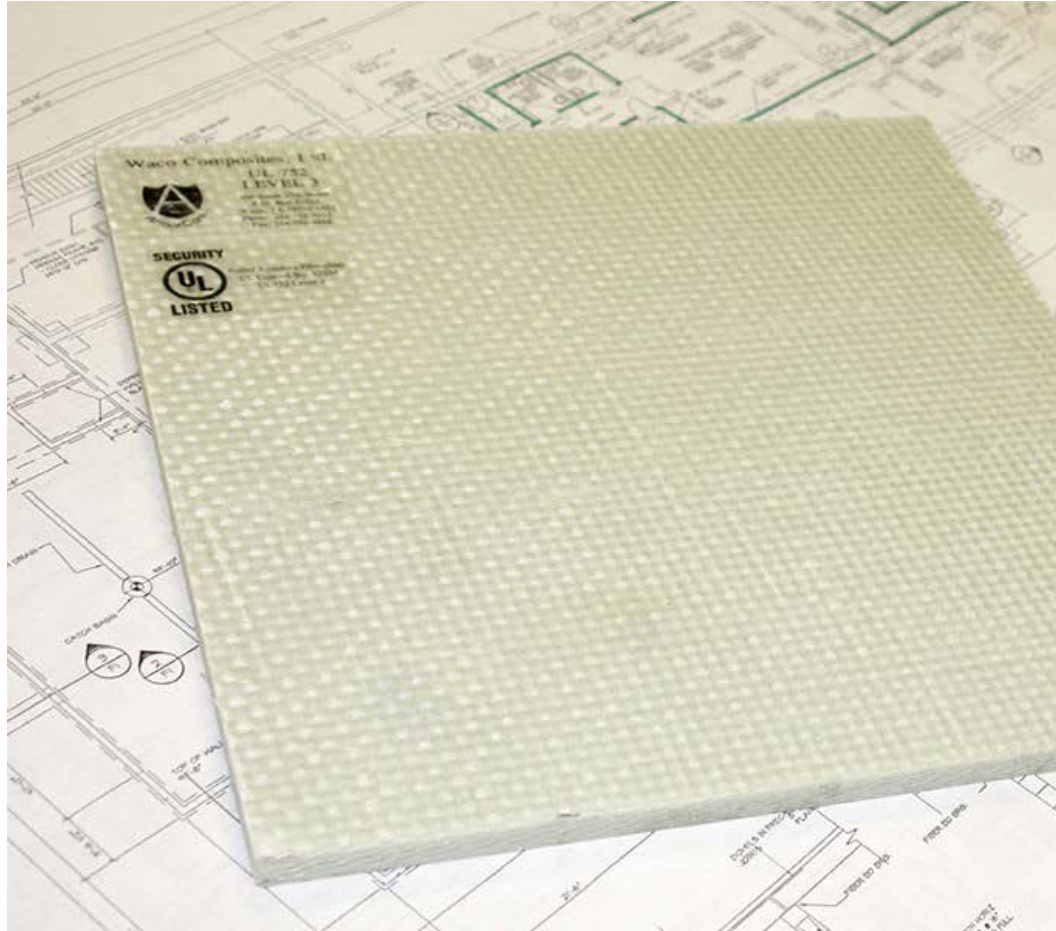


# No Doors at Restrooms



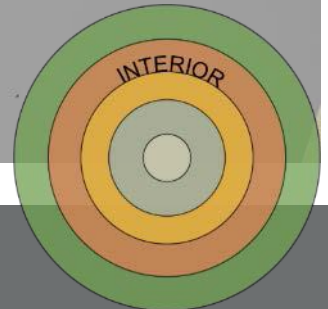
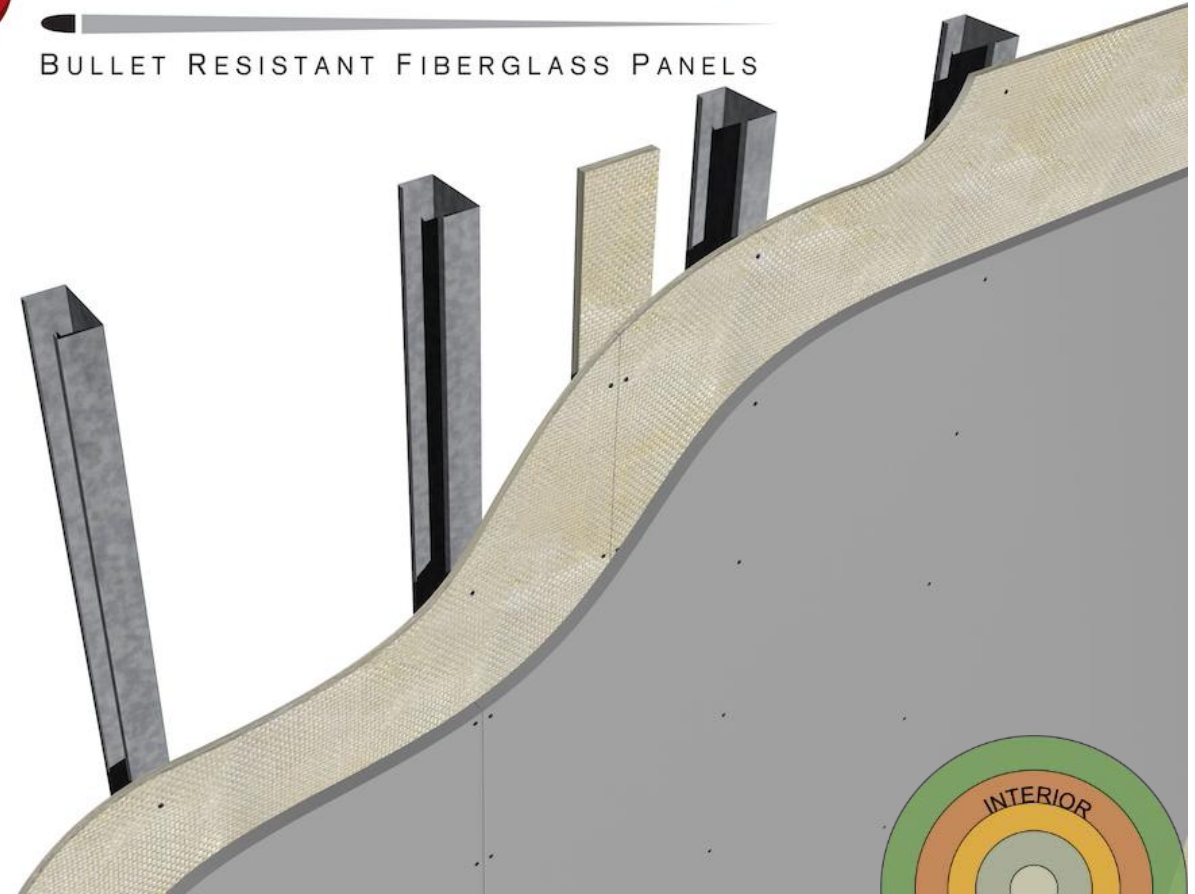


# Bullet Resistant Panels

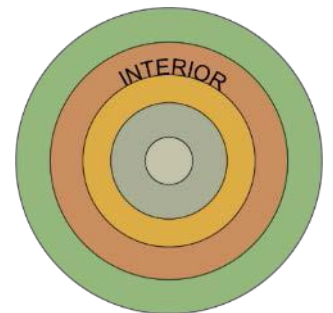
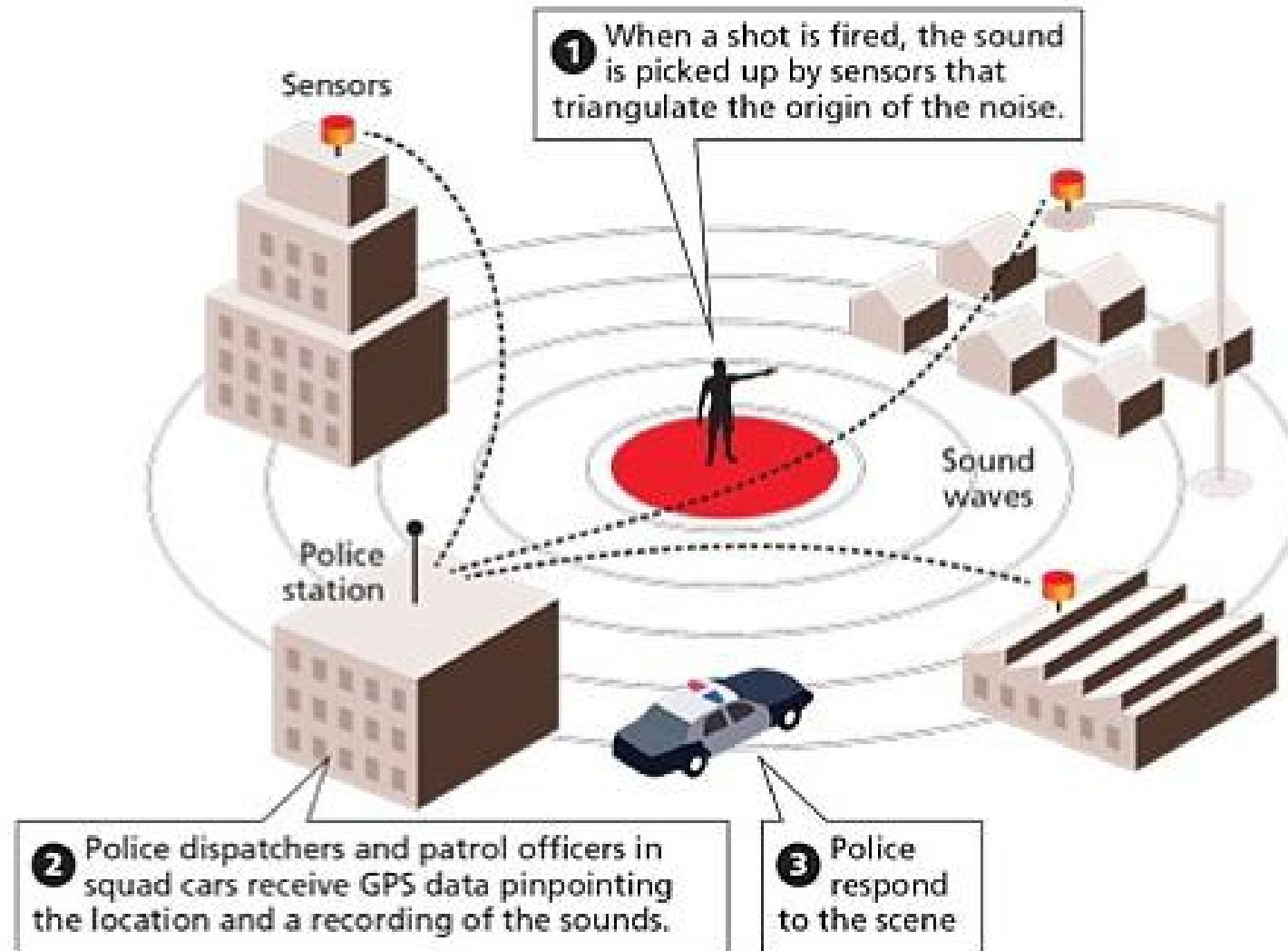


## ARMORCORE

BULLET RESISTANT FIBERGLASS PANELS



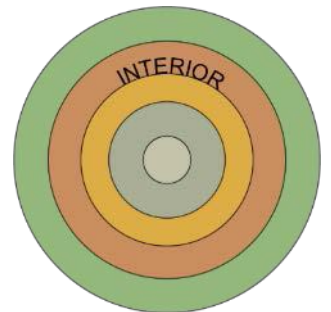
# Sound Triggered Alerts



# Weapon Signature Radar Detection System



REGISTRATION / FRONT DESK



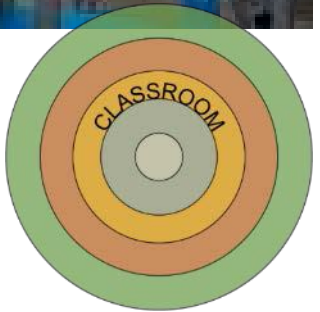


# Classroom

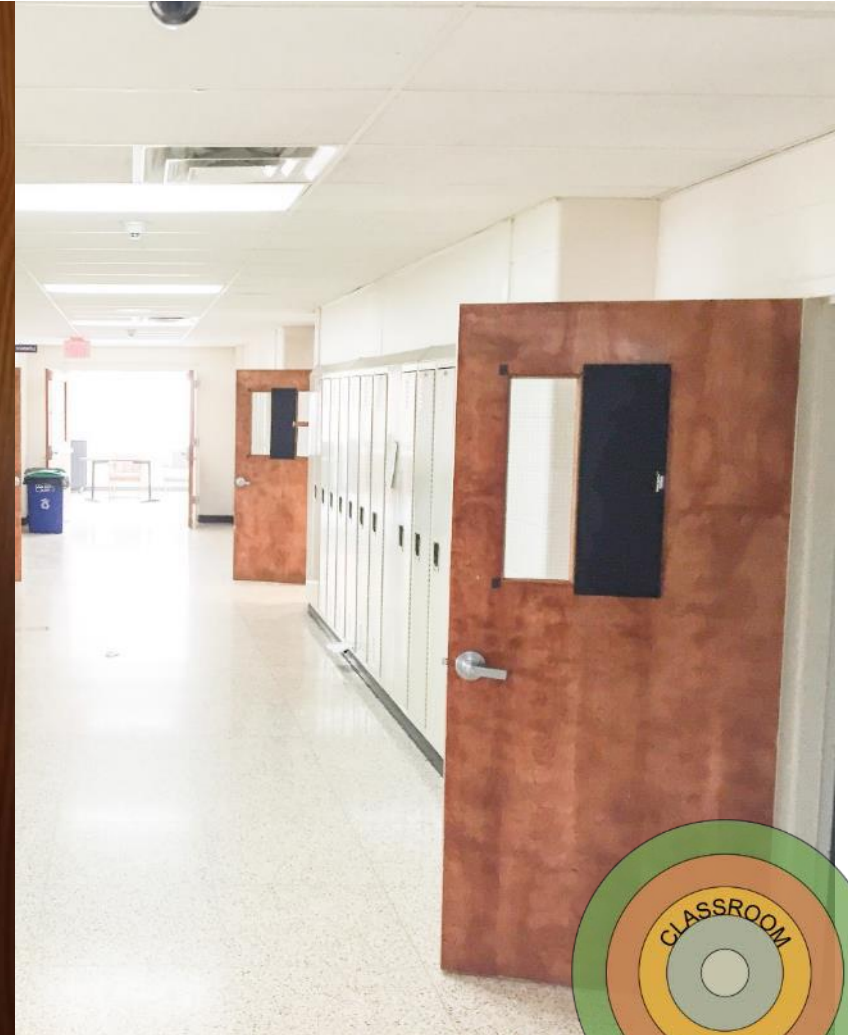
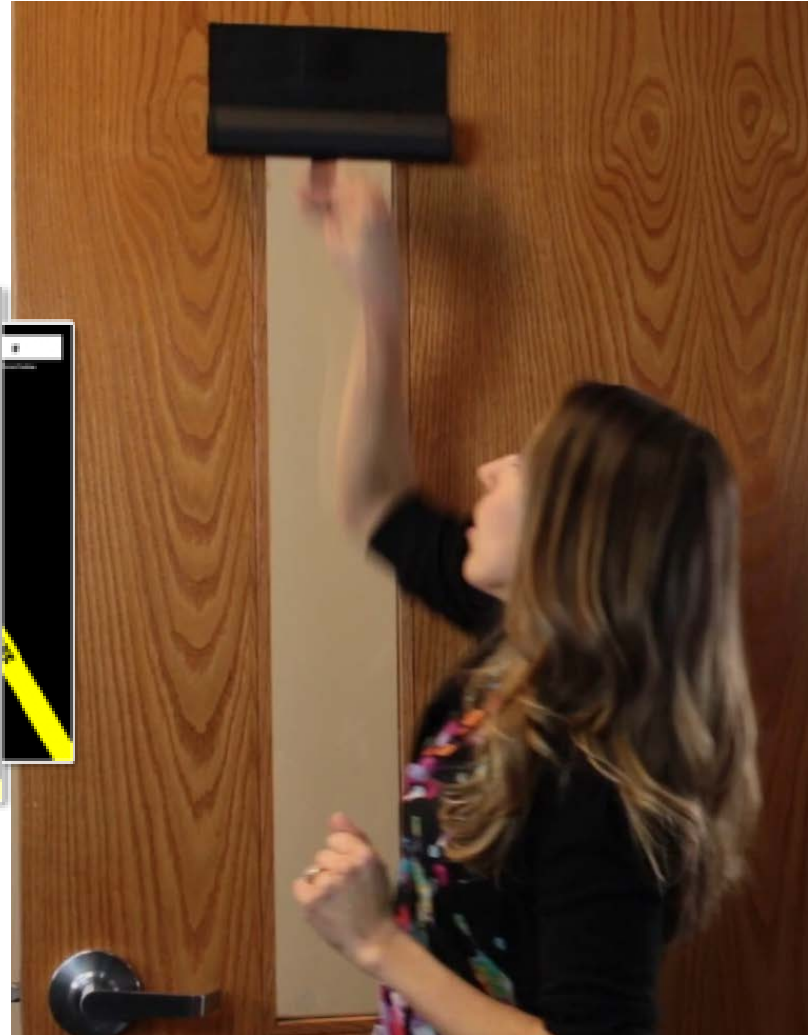




# Blinds / Shades / Curtains



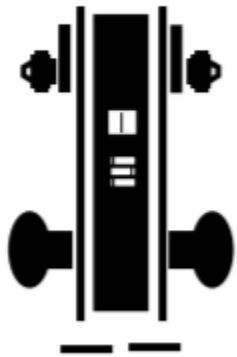
# Door Light Covers





# Classroom Shelter

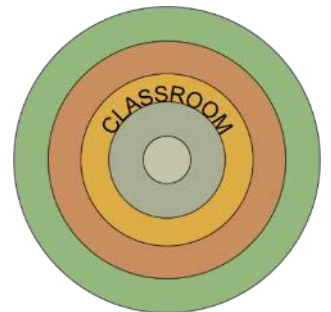




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## **Classroom Security Lock**

Latchbolt retracted by knob/lever from either side unless outside is locked by key from either side. When locked, latchbolt retracted by key outside or knob/lever inside. Auxiliary latch deadlocks latchbolt when door is locked. Inside lever is always free for immediate egress.



# Door Stops





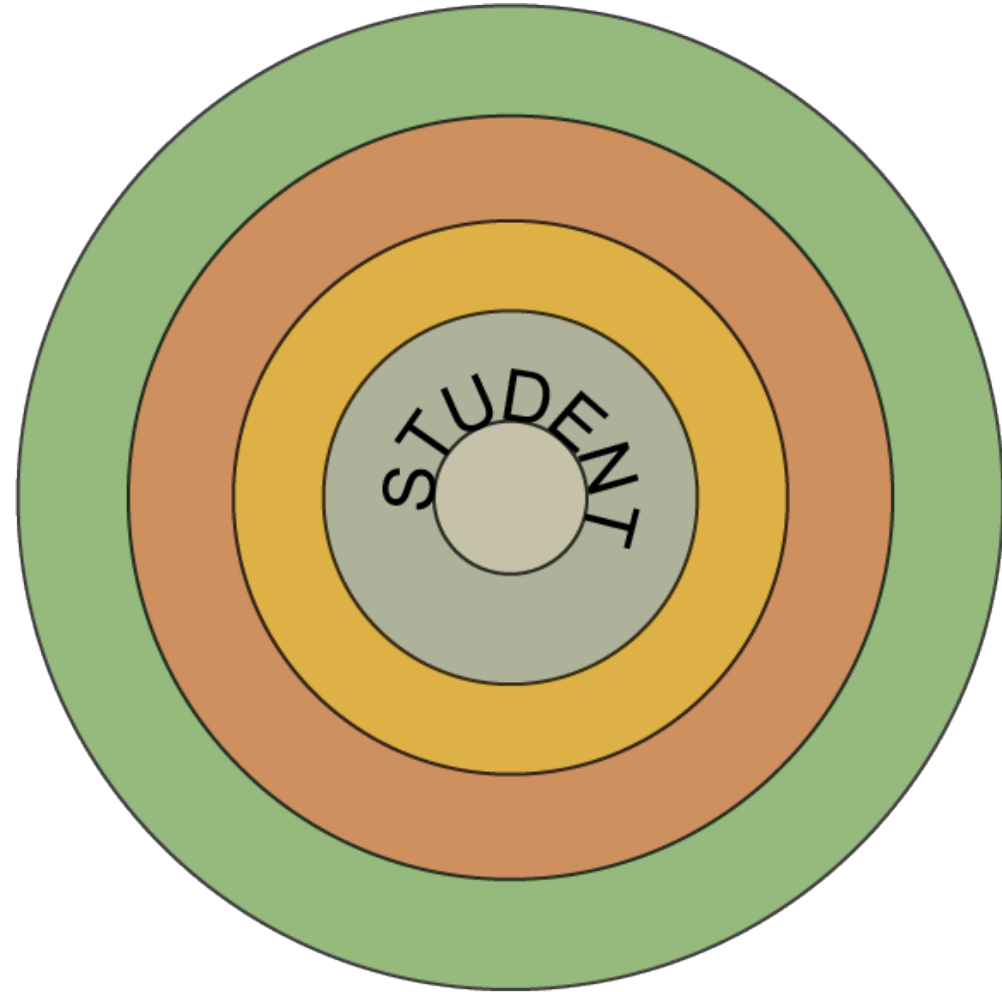
# Student / Faculty / Staff / Visitors / Parents

## Operations

- Training
- Communication
- Drills
- Preparation

## Personal Defense

- BR Backpacks



**FBI****ISD**

**INSPIRE • EQUIP • IMAGINE**

# Case Study - Fort Bend ISD



- Safety & Security Committee
- Safety & Security Master Plan
- Safety Drills & Training
- Safety Conversations/Videos
- Student Crime Stoppers hotline at 281-491-TIPS (8477)
- Counseling Resources
- 2014 Bond Security Upgrades including Secure Vestibules, Card Readers, Security Cameras, Video Intercom Systems, and Emergency Generators



# Case Study - Fort Bend ISD – Neill Elementary School



- Richmond, TX
- 850 students
- 124,000 Square Feet
- Opened Fall 2017

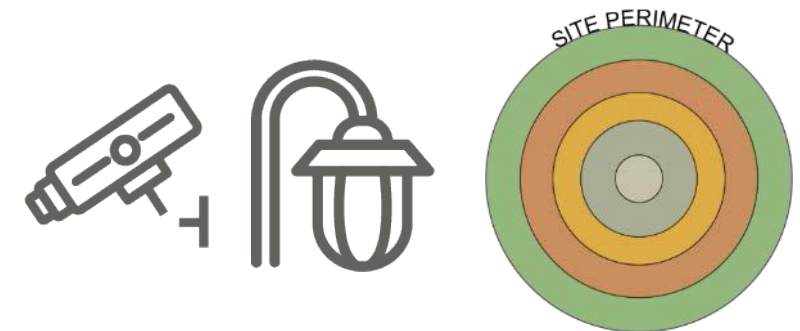




# Case Study – Site Perimeter



1. Perimeter Fencing
2. Playground Fencing
3. Signage
4. Site Lighting
5. Security Cameras
6. Landscape

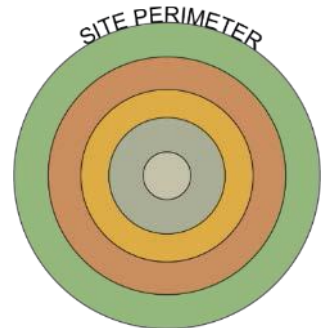




# Case Study – Site Perimeter



1. Perimeter Fencing
2. Playground Fencing



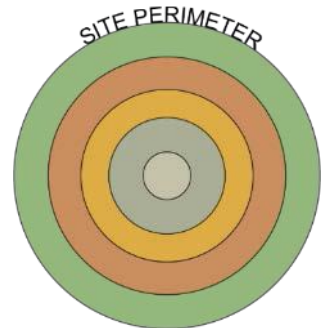


# Case Study – Site Perimeter



## 3. Signage

- Visible School Name
- Marquee w/ address
- Directional

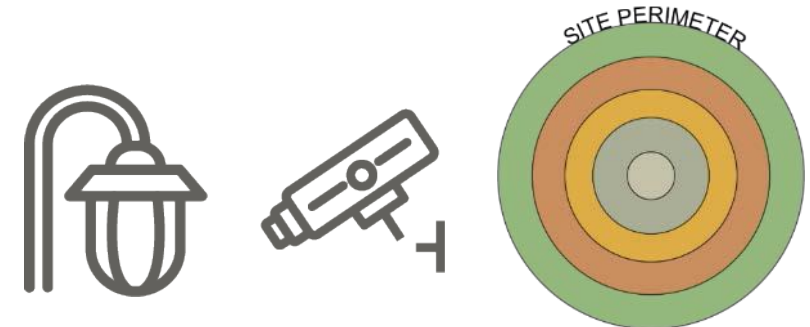




# Case Study – Site Perimeter



- 4. Lighting
  - Building, parking & courtyards
- 5. Security Cameras

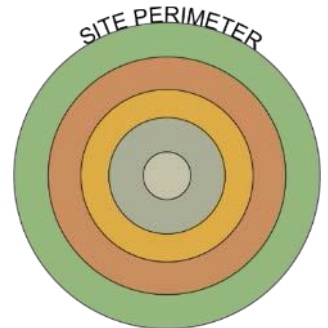




# Case Study – Site Perimeter



6. Landscape  
-Low native plants

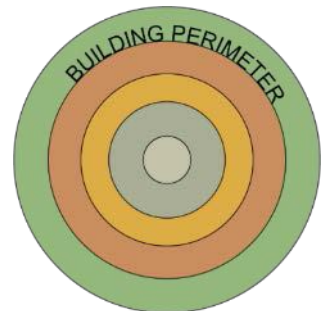
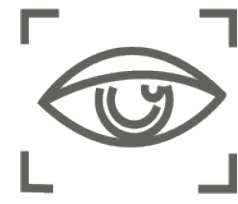




# Case Study – Building Perimeter



1. Prominent Front Entry
2. Controlled Secondary Entries
3. Card Access/Intrusion Detection
4. Window Film
5. Visual Security

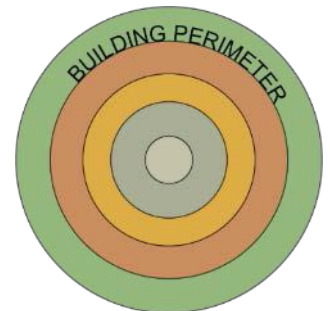




# Case Study – Building Perimeter



1. Prominent Front Entry
2. Minimal & Controlled Secondary Entries



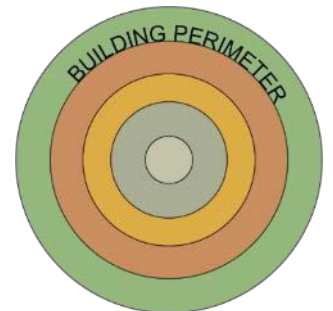


# Case Study – Building Perimeter



## 3. Card Access/Intrusion Detection

-Centralized card access for personal authentication and log



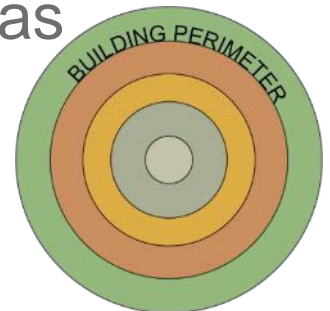


# Case Study – Building Perimeter



## 4. Window Film

- All Exterior Doors
- Secure Vestibule
- High Impact Areas



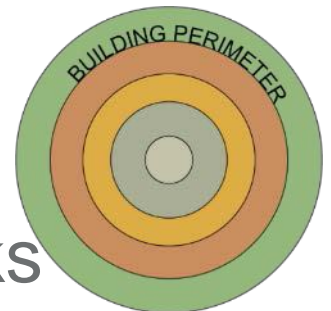


# Case Study – Building Perimeter



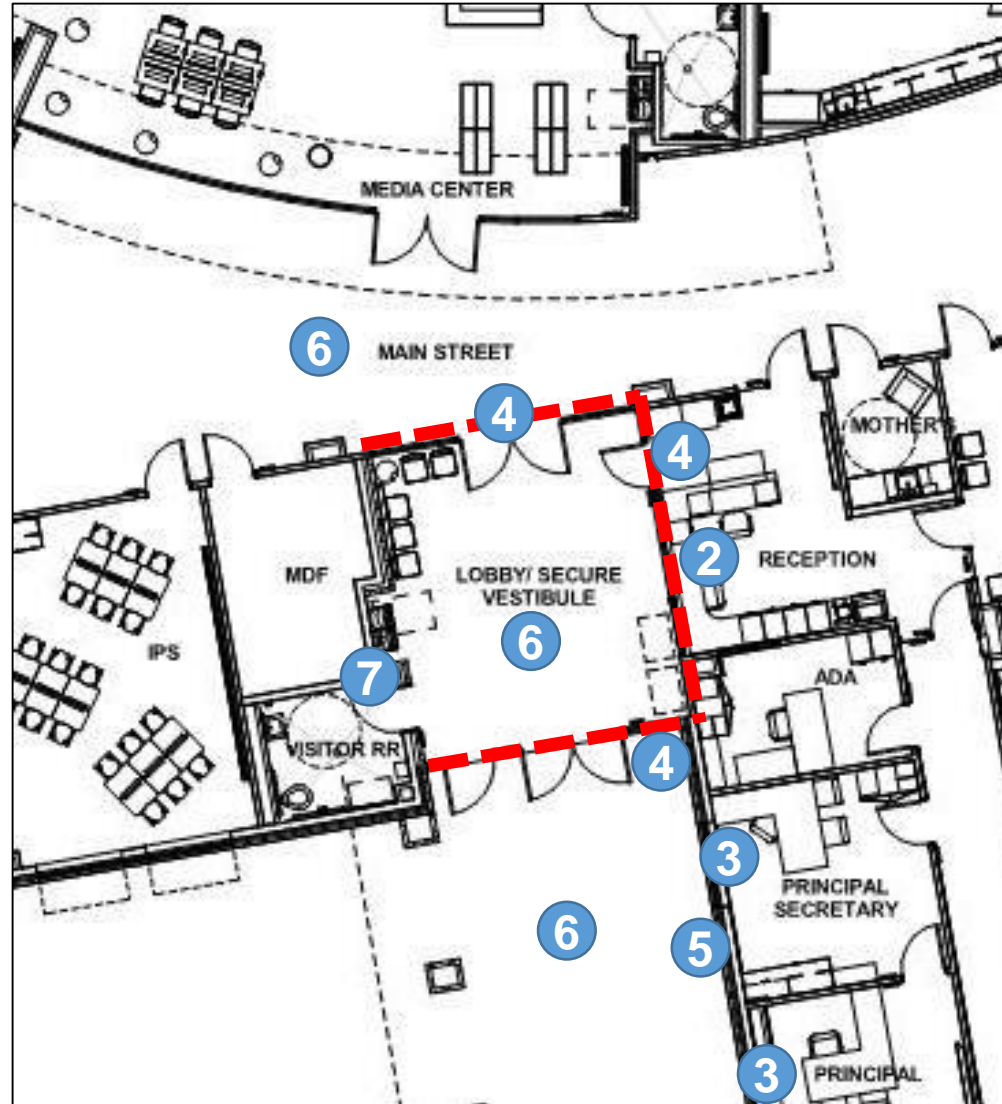
## 5. Visual Security

- Main Entrance
- Playgrounds
- Parking
- Corners/Nooks



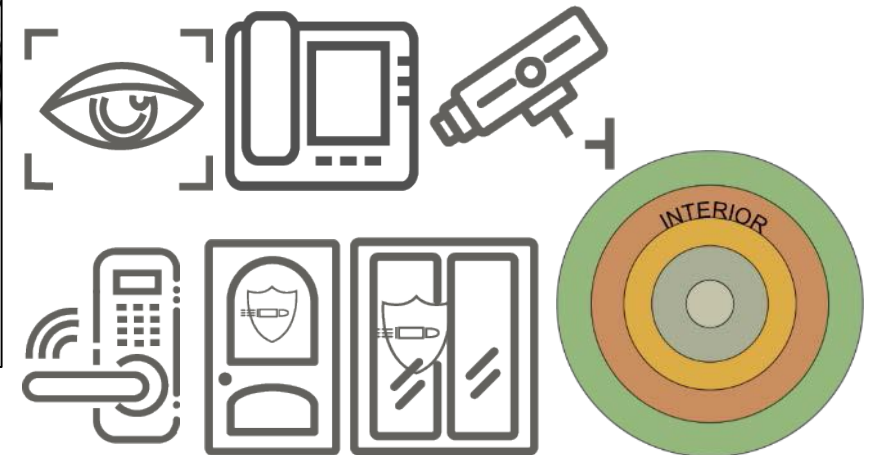


# Case Study – Interior – Secure Vestibule



1 - - - - -

1. Window Film
2. Transaction Window
3. Visual Security
4. Card Access/Door Release
5. Video Phone
6. Security Cameras
7. Restroom/Drinking Fountain

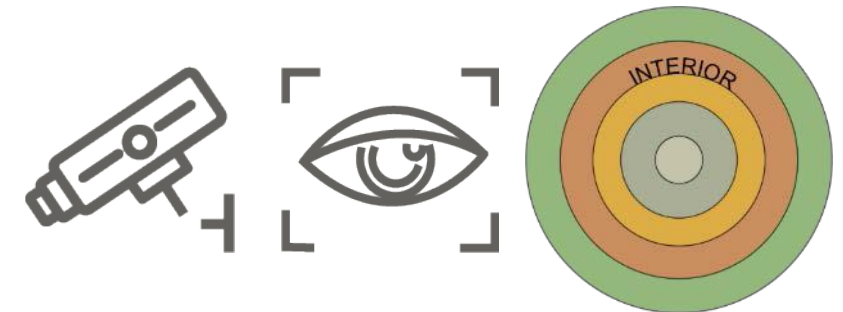




# Case Study – Interior



1. Security Cameras
2. Joint-Use Features
3. Visual Security
4. Emergency Generator
5. Panic Button

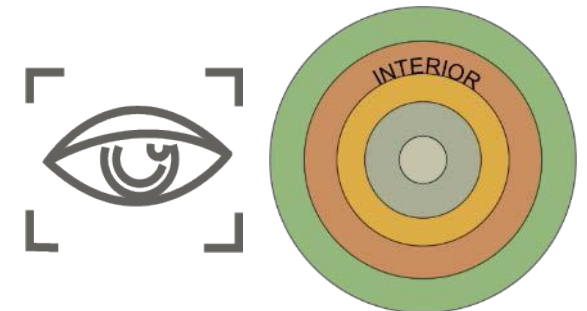




# Case Study – Interior



1. Security Cameras
  - All Building Entries
  - All Corridors
  - All Stairs
  - Media Center
  - Cafeteria
  - Gymnasium
  - Extended Day
  - Accessible on network throughout the district via centralized recording software



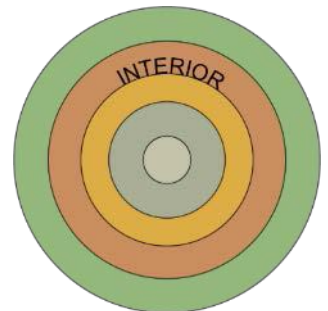


# Case Study – Interior



- ## 2. Joint-Use Features
- Public vs Private
  - Admin/Classrooms Secured
  - Separate HVAC
  - Roll Down Door

— Joint Use Area  
- - - Secured Door

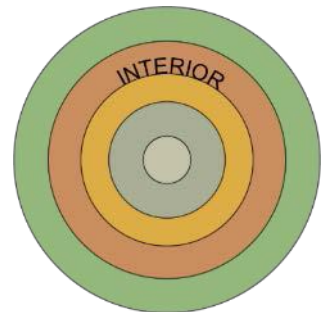




# Case Study – Interior

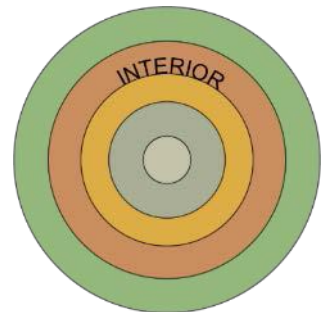


- ### 3. Visual Security
- No Restroom Doors
  - Windows into Main Street
  - Windows at Classrooms
  - Door Lites
  - Open Stairs





# Case Study – Interior



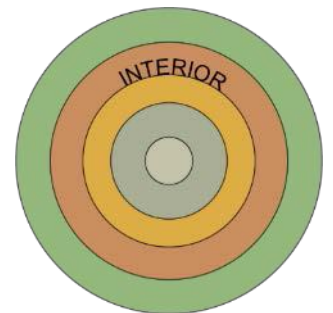


# Case Study – Interior

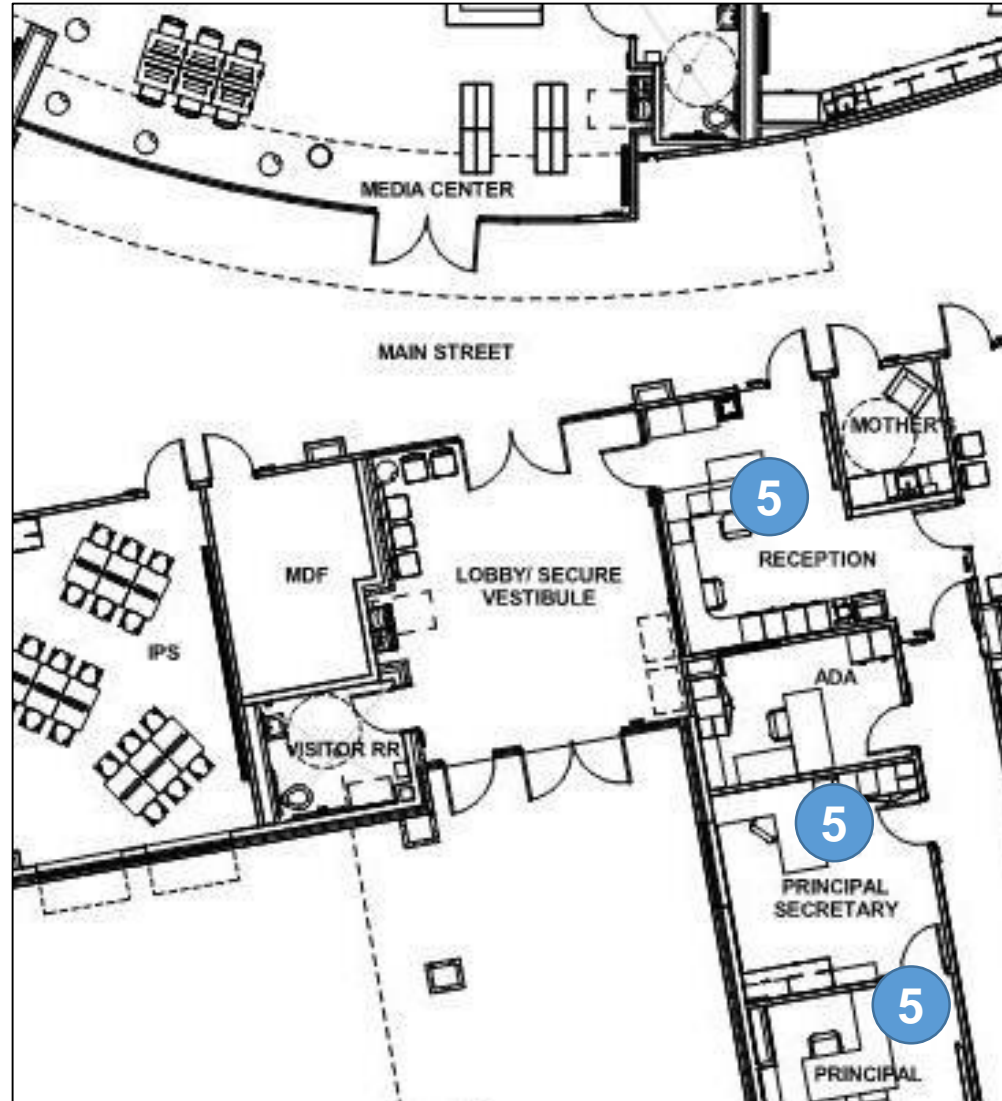


## 4. Emergency Generator

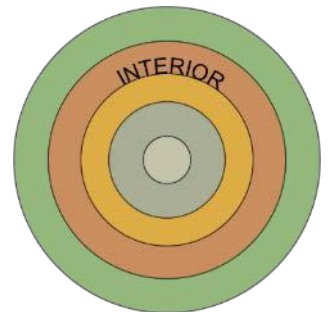
-Natural Gas generator powering critical equipment in power failure including IT rooms, lighting, security cameras, paging system, card readers, freezer/cooler, and fire alarm system



# Case Study – Interior

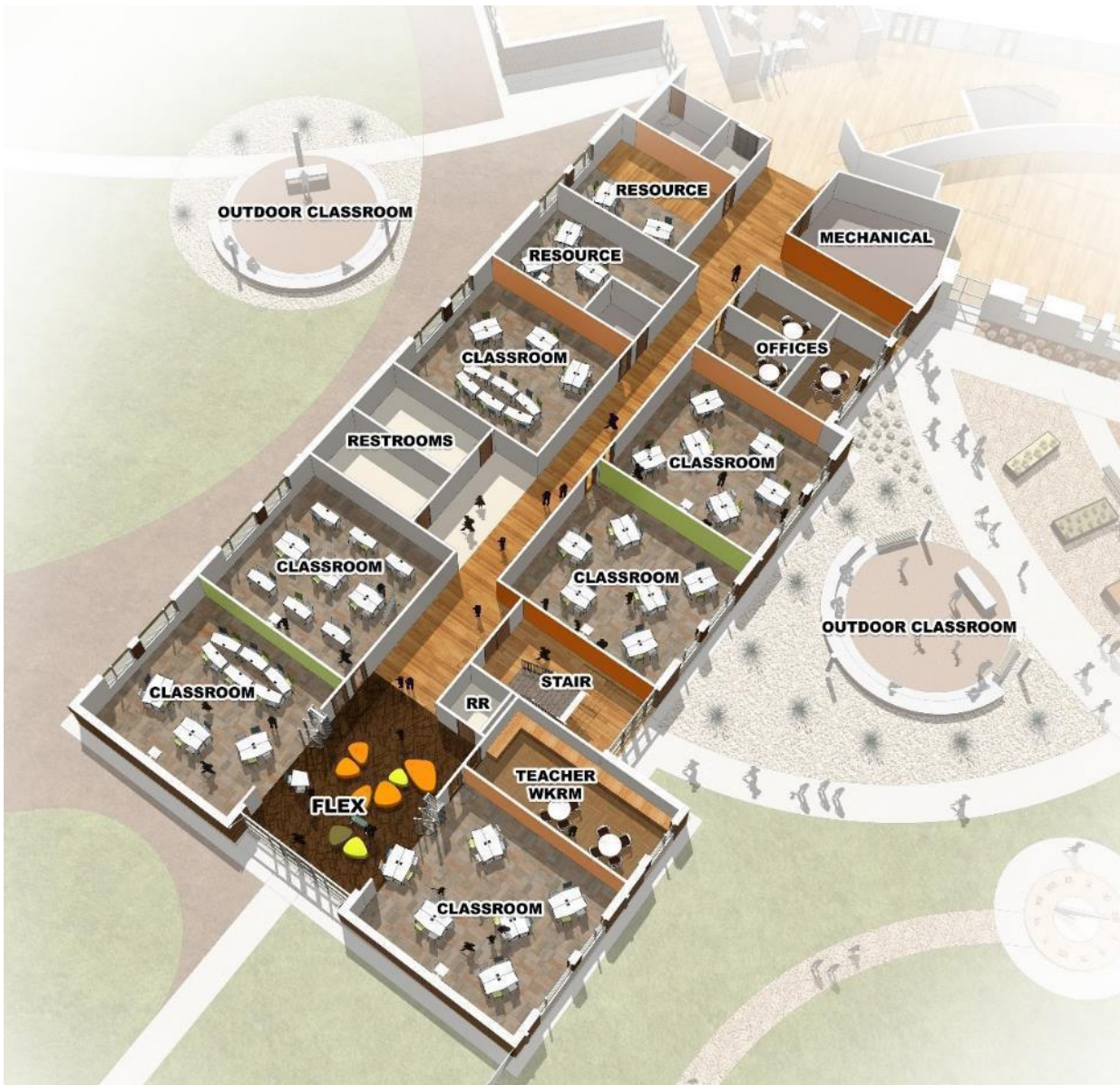


5. Panic Button
- Under counter duress button to notify security personnel at Reception, principal's office, and secretary's office

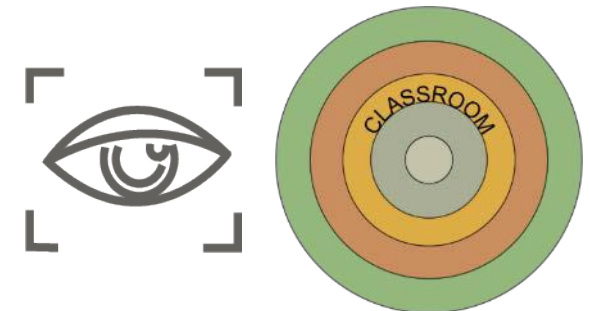




# Case Study – Classroom



1. Visual Security
  - Door Lites w/ Cover
  - Glass walls w/ Curtain





# Case Study – Classroom

## 2. Hardware

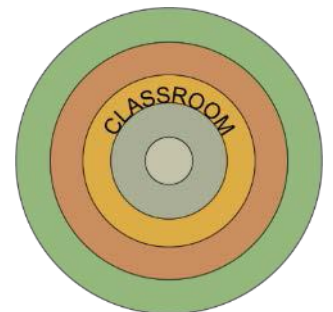
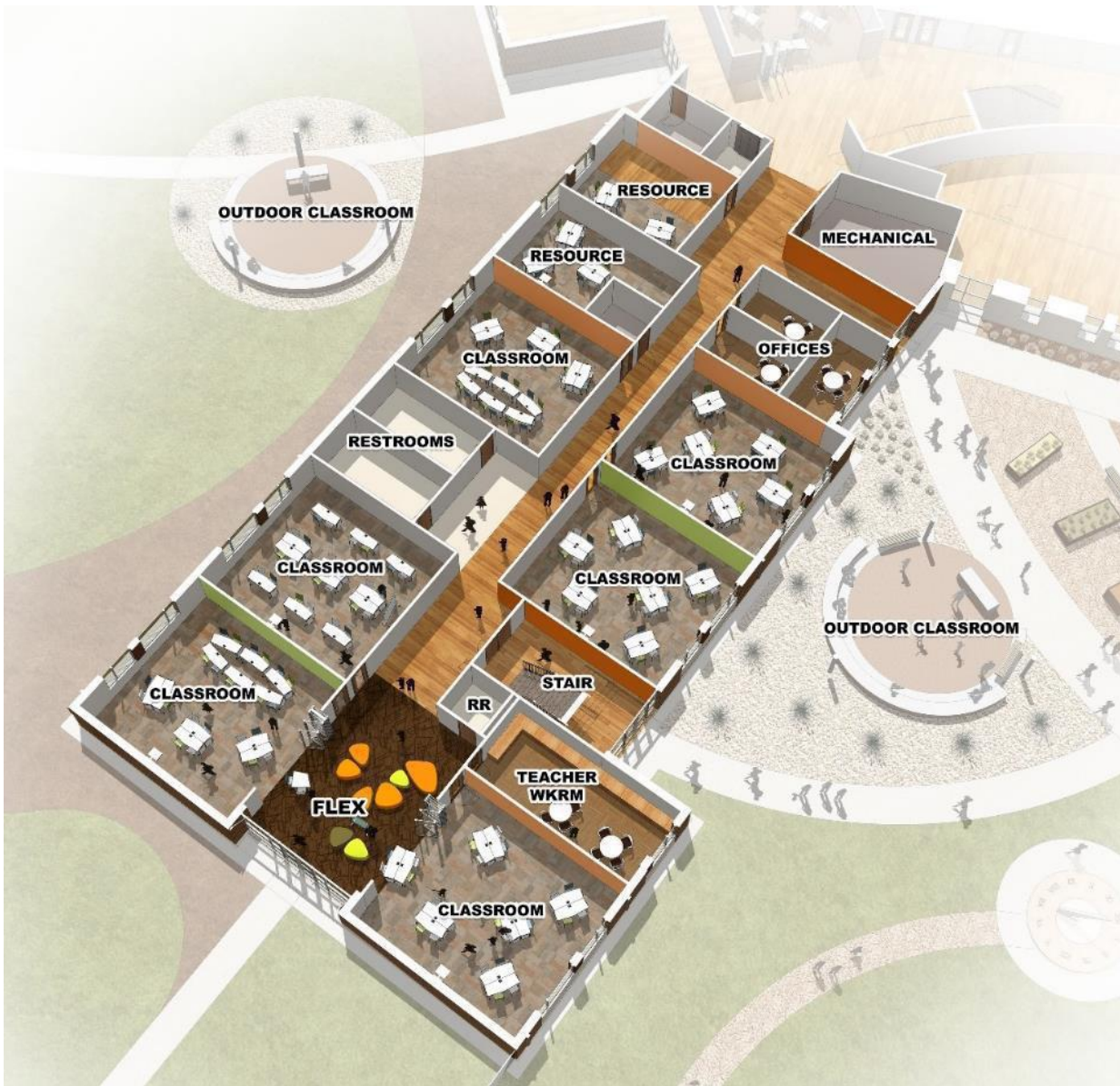


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LV9071



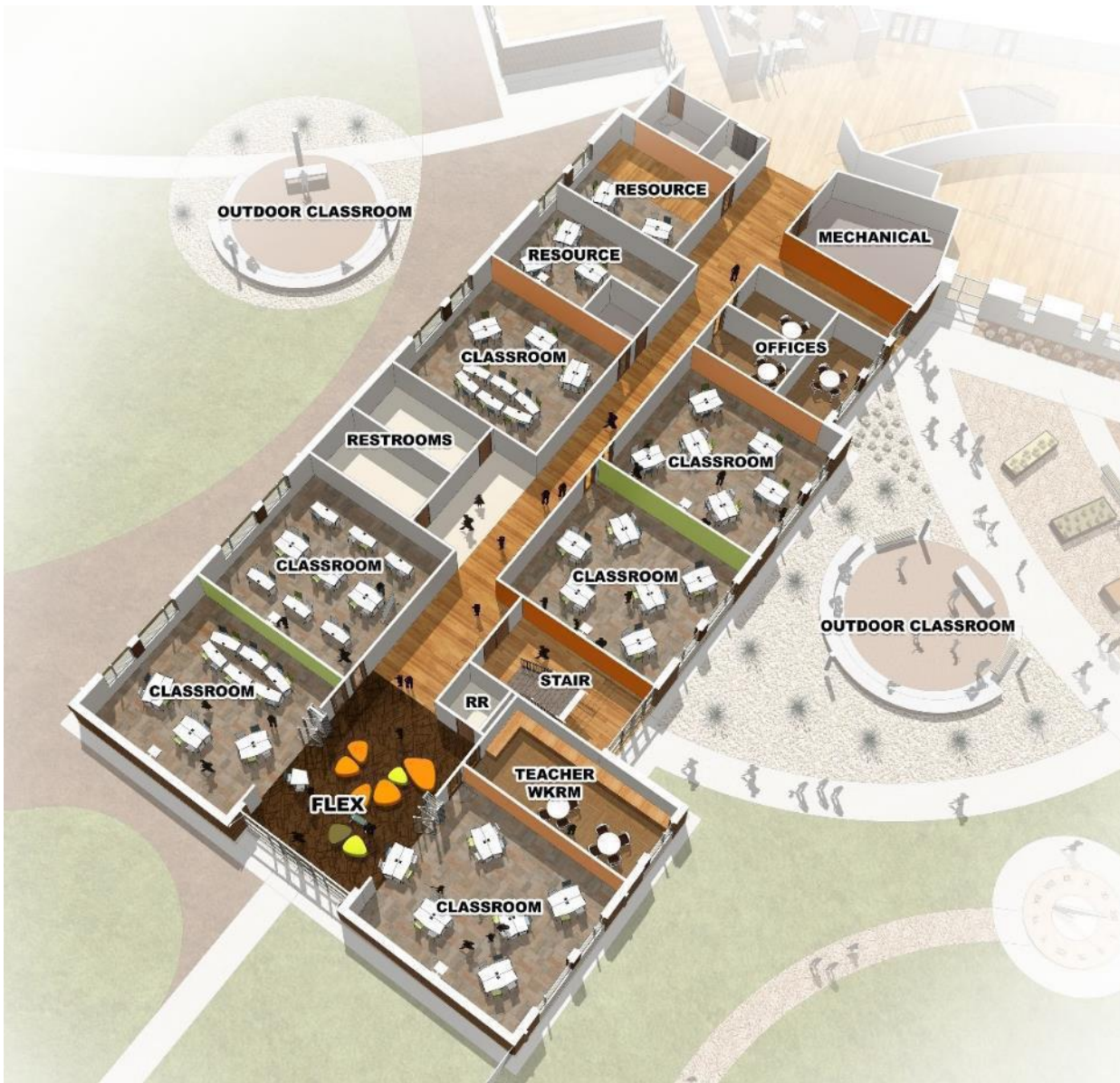
### Classroom security lock

Latchbolt retracted by knob/lever from either side unless outside is locked by key from either side. When locked, latchbolt retracted by key outside or knob/lever inside. Auxiliary latch deadlocks latchbolt when door is locked. Inside lever is always free for immediate egress.



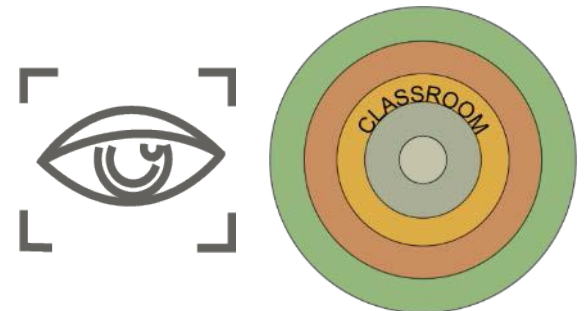


# Case Study – Classroom



## 3. Communication

- Campus wide public address intercom system for individual classrooms or campus wide announcements/bells
- Two-way communication in classrooms without use of phone handset

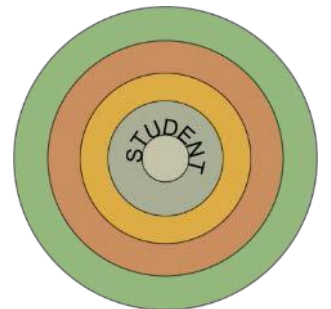




# Case Study – Student



- Policy & Procedure
- Staff/Student Training
- Lockdown Drills





# The Safety & Security Activity

# Safety & Security Activity

## Directions

1. Choose a plan
  1. Valley Oaks Elementary School
  2. Earl Warren Elementary School
  3. Dickinson Junior High School
  4. Dawson High School
  5. Bryan ISD Transportation Facility
2. Use the pins with icons to show location of each safety/security measure
3. Choose a representative to present your safety/security plan to the group



# Icons



- Passive Security



- Security



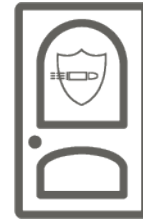
- Camera



- Light



- Alarm



- BR Window



- BR Door



- Access Controlled Point



- Camera / Phone
- Wild Card

Thank You!  
Questions?

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