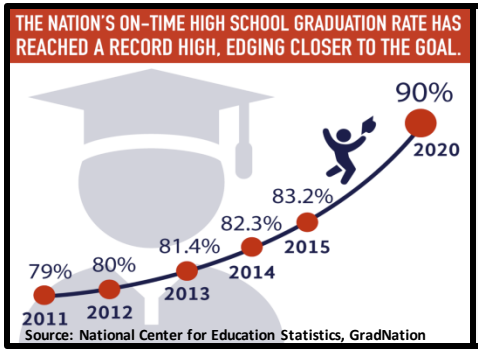
The School-Sanctuary Program

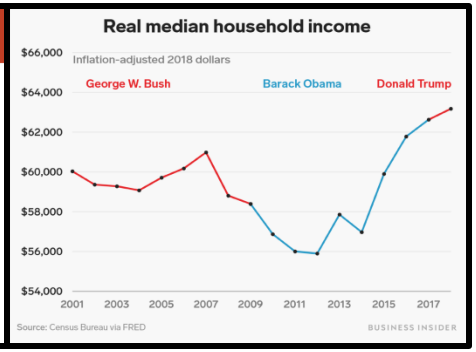
A Tripartite Approach to Restore the American Education System

Effects of COVID-19 on Business and Industry

Pre-COVID-19



Graduation Records

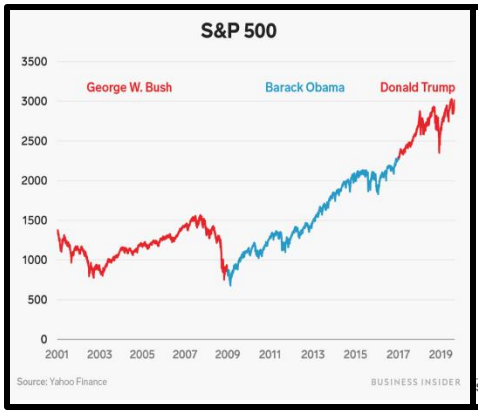


Business/Income Records

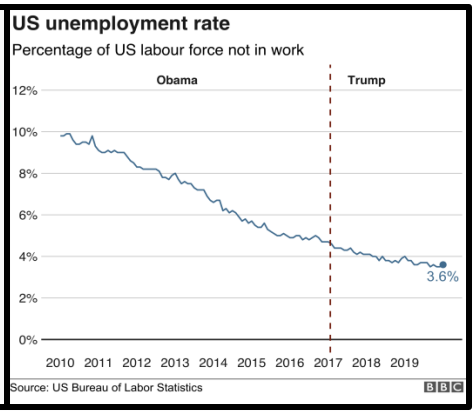
During COVID-19

Schools Closed

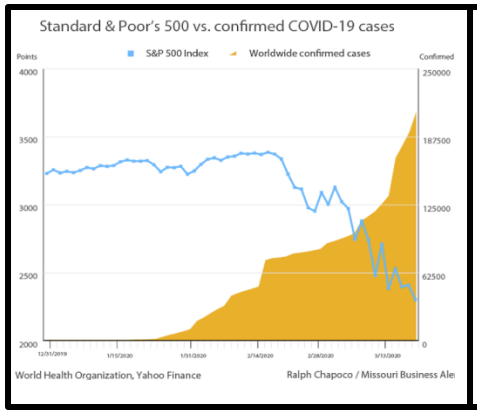
Business Closures



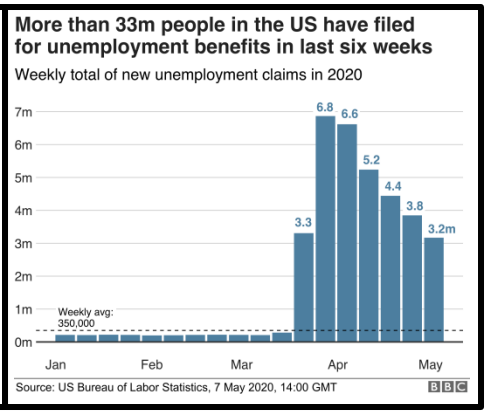
Record S&P Values



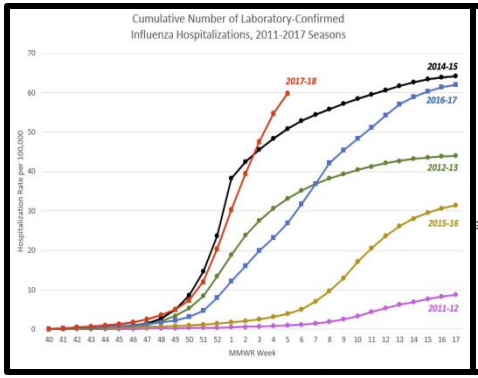
Record Low Unemployment

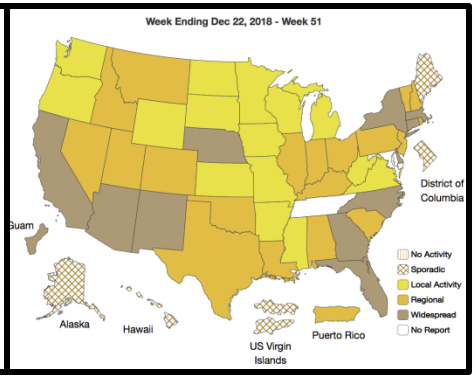


Decreased Trade



Increased Unemployment

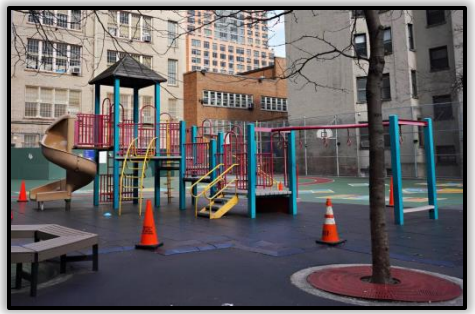




Predictable Viral Outbreaks and Medical Emergencies

Increased Viral Outbreaks and Medical Emergencies

Schools and COVID-19



Coronavirus Effects on Playgrounds

Coronavirus Effects on Schools

58.4 Million American School Children

5.8 Million American Grade School Teachers

Effects of Children not Attending to School

Decreased amount of parents, grandparents, and guardians in the American workforce

- Businesses closures
- Altered traditional way of life for children and their carekeepers
- May have a greater impact on America than the pandemic itself

116 Million Parents Affected by COVID-19 Influences on Schools

80 Million Grandparents Affected by COVID-19 Influences on Schools

COVID-19 Effects on the School System Impacts
79.3% of America's Population

116 Million Parents

80 Million Grandparents

58.4 Million Children

5.8 million Grade School Teachers

Solving school safety during the COVID-19 pandemic is an unforgettable legacy achievement for the U.S. President that can revitalize local, state, and federal communities

The School-Sanctuary Program

A Reasonable Tripartite Approach to Restore the American Education System that Saves the Government (FEMA) More Than $1.00 Trillion in Currently Scheduled Funds

The School-Sanctuary Program Makes Schools the Most Desirable and Safest Place For Kids During Crisis Events, Such as: Microbial epidemics/pandemics, Natural Disasters, and Active Shooters

Step 1:
Antimicrobially Treated Masks to Remove Germs and Viruses

Readily Deployable for Immediate Peace of Mind

Step 2:
Antimicrobial Treatment of All Surfaces in Schools and Buses

Preventative Measures Against Microbial Agents in American Public Schools (Including Coronavirus)

Step 3:
Small Ballistic Saferoom Shelters

Preventative Measures Against Active Shooters, Tornadoes, Earthquakes, Hurricanes, and Other Emergency Crises

How The School-Sanctuary Program Saves Money

FEMA currently supports construction of superstructure shelters with a 75%/25% financial participation (~ $10.5 million average cost)

Disadvantages:

- Expensive
- Takes too long for children to reach them (~ 14 minutes average)
  - Average crisis events start with 0-2 minutes of warning
  - Average duration ≤ 8 minutes
  - Not useful for many crisis situations
  - People are safer to shelter in place than to run to a shelter for many crises
- Provides an exploitable path/response for active shooters

National Superstructure Cost Breakdown:

- 114,225 schools in America
- 1 Structure per school
- $10,506,000 per structure
- **Total = $1.2 trillion**

National Shelter-In-Place Saferoom Cost Breadown:

- 114,225 schools in America
- 23 saferoom shelters per school
- $32,100 per saferoom
- **Total = $84.3 billion**

The School-Sanctuary Program is a real and reasonable solution, that costs ~14% (a net savings of more than $1.00 trillion) of the less effective superstructure shelters and restores the American school system

Timeframes, Costs, and Benefits

Timeframe

Antimicrobial treated masks: within 90 days of school commencing

Antimicrobial coating of schools and busses: within 6 months, annually thereafter

Installation of small ballistic saferooms: within 4 years after a 1 year ramp-up

Costs

Annual = **$0 per person**
(donation for coating schools)

Annual = **$312 per person**
($175,094 per average school)

One-time = **$1,311 per person**
($738,300 per average school)

Benefits

- Decreased unemployment rates
- Decreased need for relief packages
- Creates tens of thousands of new jobs
- Parents/Guardians return to workforce
- Schools become a “sanctuary” for children
- Protects against:
  - Microbes, earthquakes, hurricanes, tornadoes, and active shooters

For President Trump, solving school safety during the COVID-19 pandemic will be an unforgettable legacy achievement

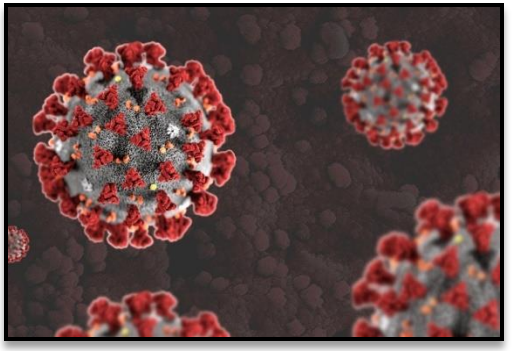
Schools Become the Safest and Most Desirable Place For Children

Possible Challenges Our School Children Face Everyday

Natural Disasters

Active Shooters

Microbial Pathogens



The Solution – Make Schools A Sanctuary

The School-Sanctuary Program – National Impact and Patriotism

Saferoom Patriotism:

- Protects <u>America's children and school staff</u>
  - More than 60 million Americans
- Made by <u>American steelworkers, processing American steel</u>
  - ~150,000 current steelworkers
  - Directly adds ~6,000 (SIP) jobs
  - Indirectly adds thousands more
- Installed with assistance from <u>America's local former soldiers</u>
  - **"<u>One More Mission</u>"** volunteer program to decrease costs

Timing:

- The American workforce needs the country's mothers and fathers to have the ability to return to work
- Education will continue despite the ever-present possibility that an active shooter, natural disaster, or microbial pathogen will attack our country
- The optimum timing to prepare for any crisis event is prior to the event

Our financing options make the school-sanctuary a real and financially reasonable solution

The School-Sanctuary Program

A Reasonable Tripartite Approach to Restore the American Education System that Saves the Government (FEMA) More Than $1.00 Trillion in Currently Scheduled Funds

The School-Sanctuary Program Makes Schools the Most Desirable and Safest Place For Kids During Crisis Events Such as: Microbial epidemics/pandemics, Natural Disasters, and Active Shooters

Step 1:
Antimicrobially Treated Masks to Remove Germs and Viruses

Readily Deployable for Immediate Peace of Mind

Step 2:
Antimicrobial Treatment of All Surfaces in Schools and Buses

Preventative Measures Against Microbial Agents in American Public Schools (Including Coronavirus)

Step 3:
Small Ballistic Saferoom Shelters

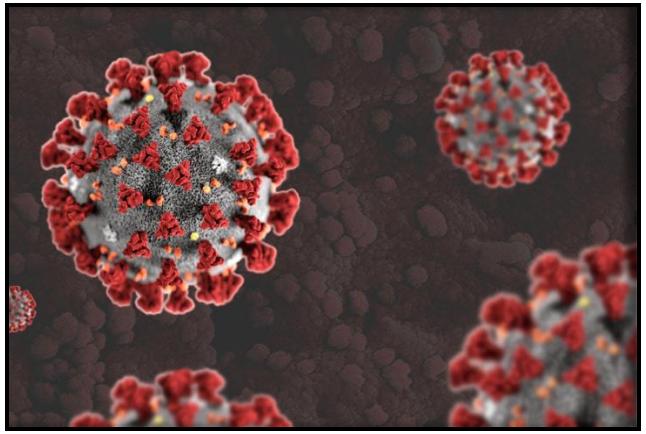
Preventative Measures Against Active Shooters, Tornadoes, Earthquakes, Hurricanes, and Other Emergency Crises

The School-Sanctuary Program
Step 1 Details – Antimicrobially Treated Masks

Antimicrobial Treated Masks:

- Kills the majority of air-borne bacteria and viral pathogens as they are exposed to nanoparticles with antimicrobial properties during normal breathing patterns
- Can be consistently used for ~ 6 weeks
- Annual donation to schools in the school-sanctuary program
- Donations occur during annual antimicrobial applications
- 9 masks per student/staff (1/month) with a 20% surplus

FDA Approved Nanoparticle Coated Antimicrobial Masks

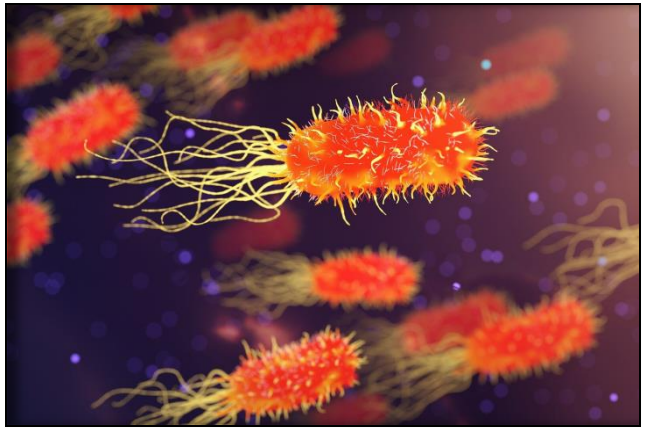


Effective against a broad range of viruses

Antimicrobial masks that are safe for human use

Annual donation value per school ~$ 127,000

National annual donation value ~$ 14.5 billion



Effective against a large spectrum of bacteria

Antimicrobial masks protect the air but school site and school related sites' surfaces also require antimicrobial protection to prevent the spread of dangerous pathogens, such as coronavirus

The School-Sanctuary Program

A Reasonable Tripartite Approach to Restore the American Education System that Saves the Government (FEMA) More Than $1.00 Trillion in Currently Scheduled Funds

The School-Sanctuary Program Makes Schools the Most Desirable and Safest Place For Kids During Crisis Events Such as: Microbial epidemics/pandemics, Natural Disasters, and Active Shooters

Step 1:
Antimicrobially Treated Masks to Remove Germs and Viruses

Readily Deployable for Immediate Peace of Mind

Step 2:
Antimicrobial Treatment of All Surfaces in Schools and Buses

Preventative Measures Against Microbial Agents in American Public Schools (Including Coronavirus)

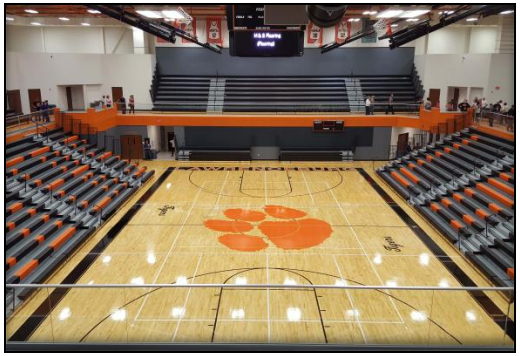
Step 3:
Small Ballistic Saferoom Shelters

Preventative Measures Against Active Shooters, Tornadoes, Earthquakes, Hurricanes, and Other Emergency Crises

The School-Sanctuary Program
Step 2 Details – Antimicrobially Treated Surfaces

Antimicrobial Treated Surfaces:

- Kills the majority of surface-borne bacteria and viral pathogens as they come in contact with antimicrobial nanoparticles that are sprayed on any surface
  - Microbes become non-pathogenic after a brief nanoparticle exposure
- One application lasts 18 months
- Decreases risks of infections for a variety of pathogens



Antimicrobial Coating/Treatment of Surfaces in Schools and Buses to Protect Against Microbial Threats:

- Walls
- Desks
- Doors
- Floors
- Ceilings
- Windows
- Gym
- Chairs
- Computers
- Tables
- Shelves
- Equipment

The School-Sanctuary Program

A Reasonable Tripartite Approach to Restore the American Education System that Saves the Government (FEMA) More Than $1.00 Trillion in Currently Scheduled Funds

The School-Sanctuary Program Makes Schools the Most Desirable and Safest Place For Kids During Crisis Events Such as: Microbial epidemics/pandemics, Natural Disasters, and Active Shooters

Step 1:
Antimicrobially Treated Masks to Remove Germs and Viruses

Readily Deployable for Immediate Peace of Mind

Step 2:
Antimicrobial Treatment of All Surfaces in Schools and buses

Preventative Measures Against Microbial Agents in American Public Schools (Including Coronavirus)

Step 3:
Small Ballistic Saferoom Shelters

Preventative Measures Against Active Shooters, Tornadoes, Earthquakes, Hurricanes, and Other Emergency Crises

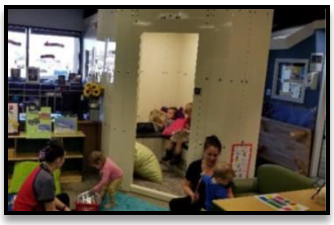
The School-Sanctuary Program
Step 3 Details – Retrofittable Ballistic Saferooms

Retrofittable Ballistic Saferooms:

- Certified in **<u>All 50 States</u>** against a variety of potential threats
  - Cat. 5 hurricanes, F-5 tornadoes, > 9.5 earthquakes, Underwriters Laboratory level 8 ballistic protection
- Variety of fully modular designs are available to retrofit saferooms within existing structures, without wasting space
- Rooms are safe and comfortable
  - Carpet, benches, friendly design
- Fitted with a camera system to view outside events in safety





Daily-use saferooms are deployed in nearly any location and don't waste existing space since they double as small functional rooms (i.e. reading, presentation, and individual/group study rooms)

Excerpt from Oklahoma and Texas Engineering Reports

STATE OF TEXAS
TREVOR P. HAWKES
122392
LICENSED
PROFESSIONAL ENGINEER

01/14/2020

<u>CONCLUSIONS:</u>

Based upon our analysis, the Shelter in Place model as described above are capable of withstanding wind forces produced by category 5 hurricanes and F-5 tornados as well as the maximum anticipated earthquake design forces required by the International Building Code at any location in the conterminous United States.

In addition to wind and seismic loads, the shelters are capable of supporting substantial vertical loads that may result from the collapse of the surrounding building, debris, or other sources.

PROFESSIONAL STRUCTURAL ENGINEER
WELLS LIND HOLMES
31682
OKLAHOMA

01/14/2020

Comparing Superstructure Shelters to Shelter-In-Place Saferooms During Crisis Events

An average crisis event provides little to no warning (0-2 minutes)
An average crisis event has an average duration of approximately 8 minutes or less

FEMA Superstructure Shelters

- Takes too long for children to reach shelter
  - Average time to shelter is 14 minutes
  - Not useful for many crisis situations
  - People are safer to shelter in place than to run for shelter if they aren't near the superstructure
- Provides an exploitable path/response for active shooters
- Built to provide protection against earthquakes, hurricanes, tornadoes, **but not ballistics**
- Does not have an integrated safety viewing system
- **Summary: Inferior product with a huge cost burden**

Shelter-In-Place Saferooms

- A properly equipped school-sanctuary provides all children and staff with **"seconds to safety"**
  - Average time to shelter is ≤ 30 seconds
  - Provides immediate safety to the maximum amount of people
- Active shooters can't exploit saferooms without a large coordinated effort
- Built to provide protection against earthquakes, hurricanes, tornadoes, **AND ballistics**
- Provides a system to safely view outside events
- **Summary: A superior product, at a lower cost**

Comparing Superstructure Shelters to Shelter-In-Place Saferooms Cost Analysis

FEMA Superstructure Shelters

Shelter-In-Place Saferooms

FEMA Financial Support

- Has FEMA financial support with a 75%/25% financial participation
- Limited outside funding options available
- Usually requires heavy fundraising via bonds

- Seeking FEMA financial support with a 75%/25% financial participation
- Strong partnerships with outside funding and financing options to reduce monthly costs

Extra Expenses

- Requires sizable land acquisition and development for many schools
- Extra expenses increase the cost of the shelter

- Does not require acquisition and development of new land
- Affordable, retrofittable, with no extra expenses

Cost Breakdown Per School

Cost isn't directly scalable based on school size:

- 1 Structure per school
- $10,506,000 per structure
- Average Cost to School = $2,625,000 (25%)
- **Average Monthly Financed Cost ~ $14,092**

Cost is scalable (511 student school cost shown):

- 23 saferoom shelters per 511 student school
- $32,100 per saferoom = $738,300 per school
- Average Cost to School = $184,575 (25%)
- **Average Monthly Financed Cost ~ $778**
- **With Antimicrobial and FEMA Support ~ $1,516**

Shelter-In-Place Saferooms – Short Video Clips

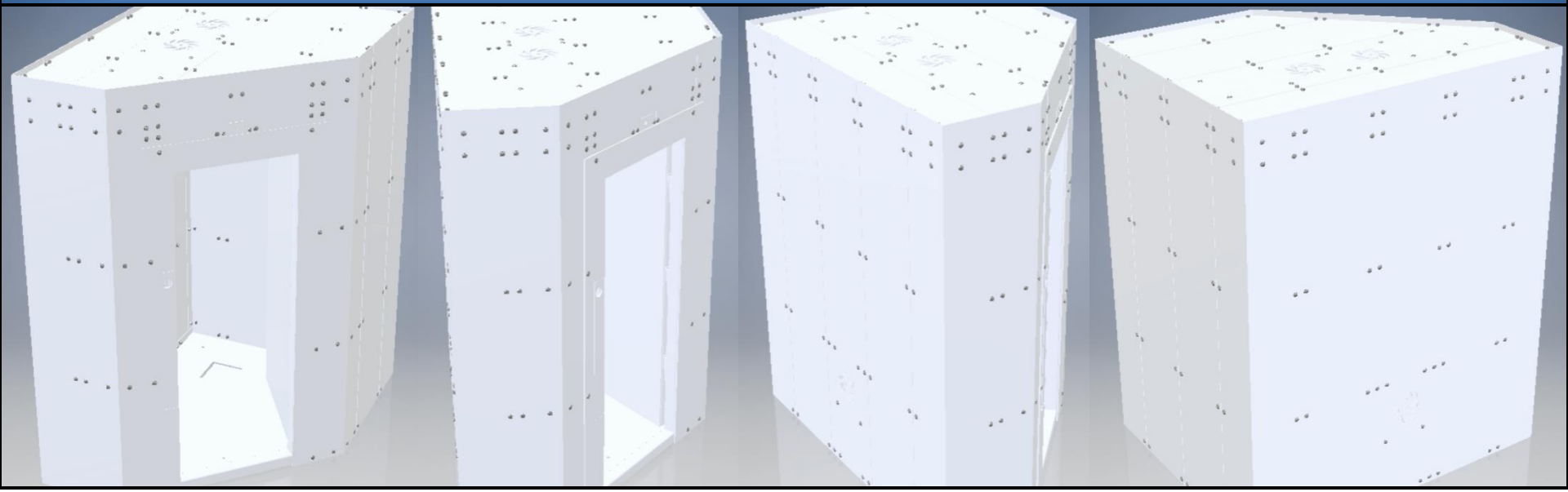
Texas News 2 Report
Carroll School District
https://www.youtube.com/watch?v=MMTN2gEKNSk&t=27s

Oklahoma News 5 Report
Healdton School District
https://www.youtube.com/watch?v=oQcla3t8vAI

Oklahoma News 12 Report
Atoka Elementary
https://www.youtube.com/watch?v=7N6dzGELRrw

Oklahoma News 4 Report
Healdton – Children's Perspective
https://www.youtube.com/watch?v=4rfY031iRM4

Questions?



Counter-Clockwise Rotation
of a Popular Saferoom Design