

Who here, has....

Actively participated in the construction or renovation of a football stadium?

Actively participated in the construction or renovation of a gym?

Actively participated in the construction or renovation of an auditorium?

What is something you learned from the experience?

Public Spaces and Public Perception and Opinion

Once built, maintaining the appearance and functionality of our public spaces informs public opinion about the quality of our schools.

If they look good, the school looks good.

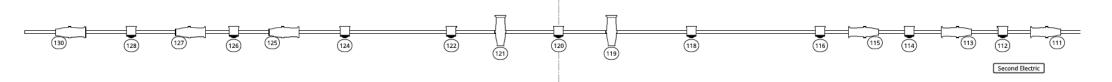
A secondary issue of public opinion concerns the perception of administrative effectiveness based on the appearance and functionality of these spaces.

And there is also the ongoing question of stewardship of public funds.



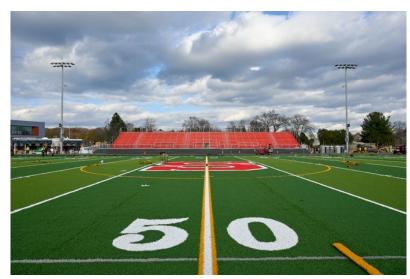


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Public Spaces and Public Perception and Opinion

When those spaces include gymnasiums, football fields, tracks, and parking lots...were good.





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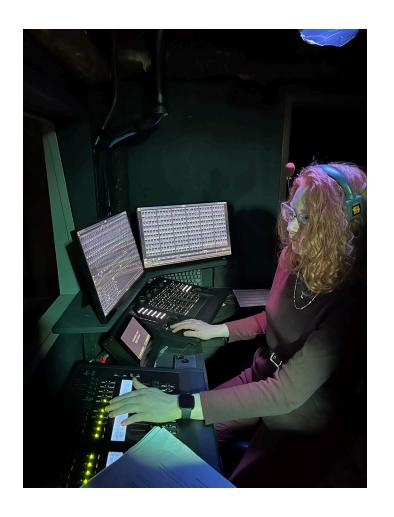


Public Spaces and Public Perception

Although there are elements common to all spaces, theaters are often more complex and use less-familiar systems.

Consequently, without a more complete, understanding of the unique needs of these spaces, they can fall quickly into disrepair, systems stop working, and in worse case scenarios, can become dangerous.

Why does this happen?



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- **1. It's Shiny** The individual who encouraged the purchase of these systems didn't explain and/or didn't understand the true cost ownership. The allure of *Cutting Edge* and *State of the Art*
- **2. Wow** We look at auditoriums and theatres through a cosmetic lens rather than one focused on the mechanics of the theatre. Consequently, if the seats are comfortable, the carpet is clean, and the drapes aren't tattered... it gets a pass.

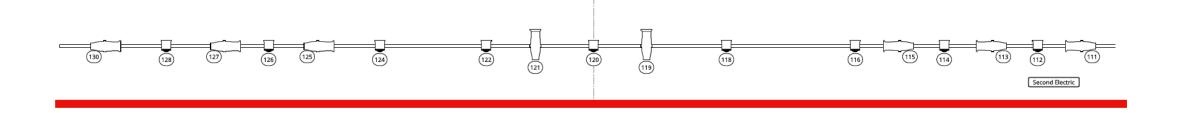
From the audience's perspective, it may be a beautiful venue, but is a disaster waiting to happen on the other side of the curtain.



3. There is No Informed Oversight

- 1. We don't understand what is required to maintain our venue and we don't hire someone who does.
- 2. There are no operational procedures for using the systems.
- 3. Little or no training on the systems
- 4. No understanding of legally mandated compliance issues.
- 5. In some instances, no one seems to who know is in charge.





Common Theatrical Systems

Lighting Acoustical Shell (safe deployment)

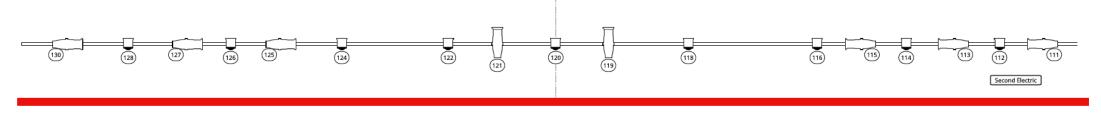
Rigging Risers and Platforms (safe assembly)

Audio Fire Curtain (NFP 80)

Soft Goods

Internal Communication

Stage Deck (maintenance)



Survey of Administrators and Educators

How long ago was your performing arts center/auditorium built, renovated or updated?

55% 20+ Years

Who is in charge of your performing arts center/auditorium?

60% Theatre Teacher or Technical Director

Does your school budget for performing arts center equipment replacement or repair?

60% Do Not

Does your school budget for performing arts facility inspections?

75% Do Not

Who is responsible for compliance with manufacturer mandated inspections, fire code compliance, FCC Broadcast Compliance, OSHA requirements and ANSI Standards for Entertainment Technology?

38% School Maintenance

20% Other

16% District Superintendent

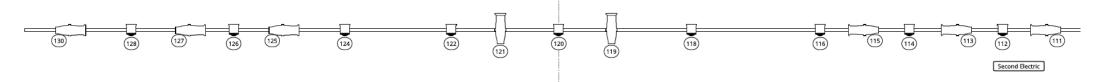
Fines: Per 47 U.S. Code § 503, the FCC may impose a fine on anyone who continues to operate in the relevant spectrum of "\$10,000 per violation or per day of a continuing violation and \$75,000 per any single act or failure to act."

There is no reason you should be aware of the lesser-known needs of a performing arts facility, but you need someone who is.

Who here was an administrator in 2010?

Do you remember the FCC auction of wireless frequencies?

Were you aware of a similar auction in 2017?

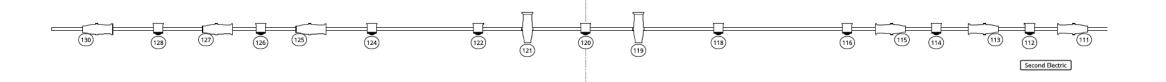


Consequently, we must find the right person to protect our students, our space, and our investment. If not, these things happen...

A melted 20 Amp connector. Evidence of electrical overload.



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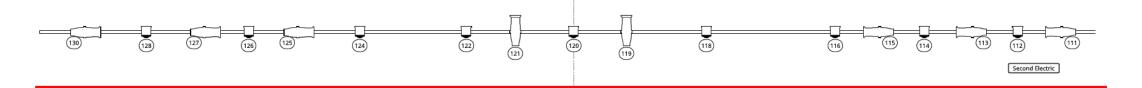


Consequently, we must find the right person to protect our students, our space, and our investment. If not, these things happen...

40 lbs. of counterweight suspended on a shot bag, 12' in the air.



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Consequently, we must find the right person to protect our students, our space, and our investment. If not, these things happen...

Rigging inspection indicator light, it has been on since 2013.



We can't change the equipment, but we can change the oversight

Identify someone who has broad knowledge of theatre the "place" and not just the "art form". Having "done theatre" is not enough.

Knowledge of theatre isn't the same as knowledge related to the technology used in theatre.

and, this may not be your theatre teacher.

Many theatre teachers lack specific training in technical theatre and may not be proficient in the use of the systems in your theatre.



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We can't change the equipment, but we can change the oversight

Theatre technicians or technical theatre educators will be your best candidates.

- 1. They know how things work including counterweight rigging, lighting, audio, etc.
- 2. They are acquainted with OSHA and ANSI standards associated with the theatre and can make sure you are compliant.
- 3. They have a thorough knowledge of procedures for working in the theatre.



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What Do They Need?

To have a say in scheduling the space.

The ability to recommend and schedule inspections, maintenance and repairs and they need a budget to pay for them.

The ability to write work orders/purchase orders.

Time and opportunity to train students or staff in the proper use of the equipment. Rarely can this work be done alone.

Have administrative support.



Whether you thought about it or not, building a theater is not a one and done proposition. There will be ongoing costs:

- 1. General expenses (expendables, bulbs for lights, etc.)
- 2. Replacement of equipment (cables, lights, mics)
- 3. Regular Maintenance
- 4. Inspections
- 5. The more your space is used, the more care it will require; use is good, use equals value.



As expected, you will have inspections performed by your fire marshal or their representative, additional inspections may be required based on your equipment, local ordinances and your AHJ.

Unless stipulated by the manufacturer, audio and lighting systems inspections are not required but are an efficient way to keep them working as they should.

So, what is required?



MAKE SURE YOUR RIGGING MEETS ANSI STANDARDS

Founded in 1918, the American National Standards Institute (ANSI) is dedicated to enhancing business competitiveness and quality of life by promoting and facilitating voluntary standards and safeguarding their integrity. ANSI E1.47 - 2017 Entertainment Technology, Recommended Guidelines for Entertainment Rigging System Inspections states that Manually Operated Equipment and Motorized Equipment should be inspected annually or immediately after equipment or components have been newly installed, altered or repaired.

At J.R. Clancy we schedule regular inspections with our customers to ensure their rigging systems are in excellent working order. We also train our customers to identify potential problems so they can act in the timeliest manner to promote ongoing safe operation.

"Ignorance of procedures and problems is not a legally defe position."

> - Dana Taylor, Director of T Theatre at Mt. Vernon (Inc High School

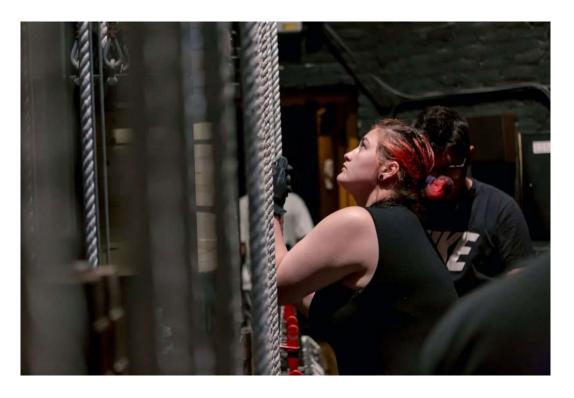
"Ignorance of procedures and equipment problems is not a legally defensible position."

 Dana Taylor, Director of Technical Theatre at Mt. Vernon (Indiana) Senior High School

- 1. Smoke Doors/Vents (NFPA 204)
- 2. Soft Goods (NFPA 701/705)
- 3. Counterweight Rigging (ANSI E1.47) and OSHA 1926.1501(a)(6)
- 4. Emergency Lighting (NFPA 101)

And, if you have them:

Fire Curtain (ANSI E1.22) (NFPA 80) Orchestra Pit Lift (ANSI E1.42)



Some inspections, like rigging, are mandated by OSHA* and ANSI Standards and failure to have them may void your equipment warranty. This is true especially if you have motorized rigging.

In the case of motorized equipment and equipment comprising an integrated theatre rigging system, the three-year warranty is contingent on inspection of the equipment and training on its use being provided annually by a J.R. Clancy-authorized technician. It is the responsibility of the end user to make arrangements with J.R. Clancy for the annual inspection and training. Failure to obtain the inspection and training annually will void the three-year warranty. In the event scaffolding or temporary lifts are

Rigging inspections are categorized as:

Level 1: Performed from accessible positions (rigging galleries, catwalks, facility ladders and gridirons) or the stage floor where no accessible positions exist. Unless otherwise noted, all accessible components of all sets, including lifting media, are to be inspected.

Level 2: Performed by gaining access, typically using ladders, scaffolding, or personnel lifts, to all rigging components. All components of all sets, including lifting media, are to be inspected.

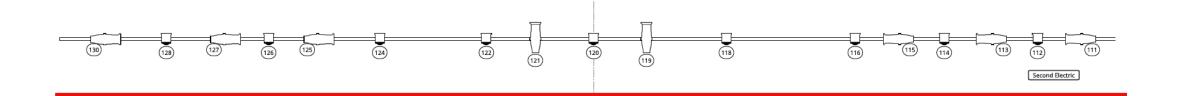


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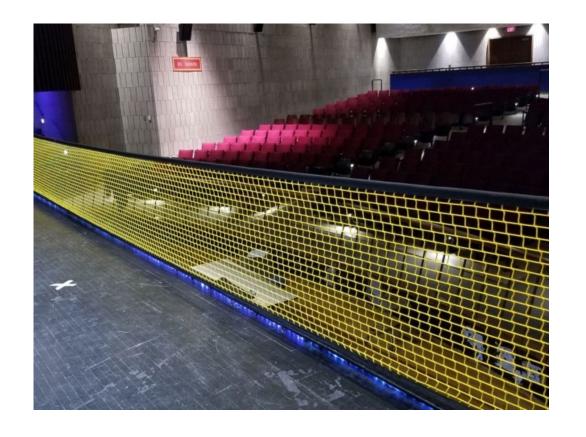
And, although not an inspection, you must have a **Fall Protection Plan**





ANSI Standard E1.46 – 2018 Standard for the Prevention of Falls from Theatrical Stages and Raised Performance Platforms

An adequate plan that will mitigate risks and increase user awareness.



Your fall protection plan is designed to be in effect at all times and will address all uses of your facility. Those times include when your stage is in use for a play or between productions, before and after concerts, while setting up for events, or striking them. It is in effect for facility tours and when outside workers are repairing something on stage. It is a written document shared with all who routinely work in the space, and its procedures and policies are clearly stated and enforced. The plan will describe your processes of protection and response to accidents. It is always up for revision and is revised every time there is an accident or a near miss.

"A reasonable fall protection plan is both adequate and moderate. It does the job, but it requires no more work or effort than is necessary to do the job." ANSI E1.46- 2018 4.2.2

Practical Solutions

Where to look for problems:

Open Orchestra Pit and Stage Front

Elevated Platforms

Stage Edges/Awards Programs

Anticipate when problems might occur

Performances, where performers have been directed and rehearsed where to stand, do not require railings, but other safety measures can be utilized.



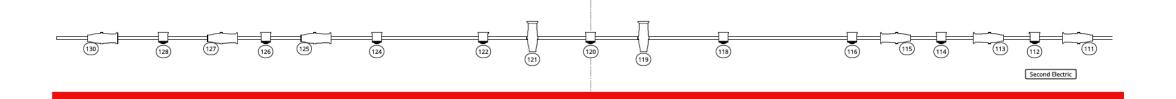
Training

Administrators are strongly encouraged to investigate the technical theatre skills of your teachers and if lacking, help them get the training they need. As some tasks in technical theatre involve risks, training is a first logical step toward a safer working environment and a step away from negligence.

Training can be gained through summer programs, vendor product training, in-service programs, workshops or industry led educational initiatives from USITT, EdTA and ESTA.



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Weighing Risk

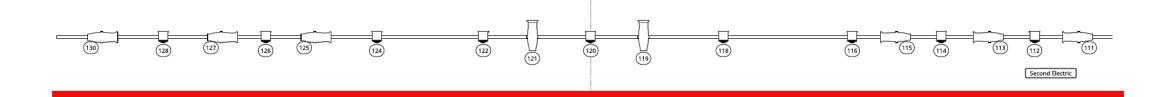
This template can be used for everything done in your theatre and your school:

- **1.Elimination or Substitution**: Eliminating the danger by removing the hazard or substituting a more reasonable solution and process.
- **2.Engineering**: Employing mechanical aids or guards to isolate the hazard from workers who could be injured.
- **3.Administrative**: Create and mandate safe practices and policies.
- **4.Personal Protective Equipment**: Provide appropriate PPE to protect workers.

Sample Risk Assessment Table

		Severity							
		Insignificant (1)	Minor (2)	Moderate (3)	Major (4)	Extreme (5)			
Probability	Very Unlikely (1)	1	2	3	4	5			
	Unlikely (2)	2	4	6	8	10			
	Possible (3)	3	6	9	12	15			
	Probable (4)	4	8	12	16	20			
	Very Likely (5)	5	10	15	20	25			

Low risk 1-3Moderate risk 4-8High risk 9-14Extreme risk 15-25



Weighing Risk

Administrative Option

The Administrative option is tempting as it can, by decree, remove students from the risk matrix.

This option typically forbids student participation in doing the work of the theatre:

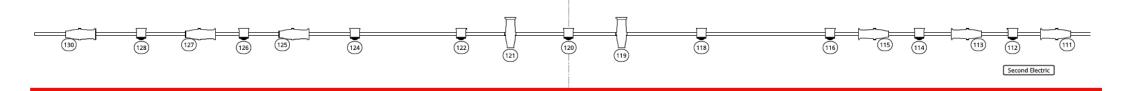
- 1. No climbing to catwalks or other elevated positions
- 2. No use of counterweight rigging
- 3. No use of power tools
- 4. No use of or doing_____

However, it also denies them the real life/vocational experience of working in the theatrical environment. With appropriate training and supervision, there is little our students can't do.

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Low risk 1 – 3 Moderate risk 4 – High risk 9 – 14 Extreme risk 15 – 29



Resources

United States Institute for Theatre Technology usitt.org

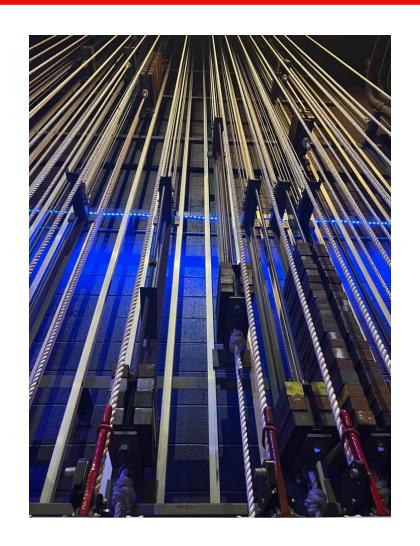
Educational Theatre Association schooltheatre.org

Entertainment Services and Technology Association esta.org

ESTA standards at tsp.esta.org

Theater Health and Safety theaterhealthandsafety.com

Event Safety Alliance eventsafetyalliance.org



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I Would Encourage You To:

- 1. Examine your current procedures and protocols
- 2. Identify/hire someone with the expertise to maintain your venue
- 3. Talk with your teachers and students and find out about how things are working
- 4. Educate yourself, your staff and your students
- 5. Get your inspections

A call from Minneapolis.

When you return home:

- 1. See if you have any wireless microphones, in use, that broadcast in the 608-806 MHz frequency range. It is indicated on the mics and/or receivers
- 2. Find the date of your last rigging inspection.

