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То:	All Bidders
From:	Ryan Fealey, Director of Finance
Date:	November 8, 2021
RE:	RFP 21-39 D-W Entertainment Technology Rigging System & Smoke Hatch Inspections

ADDENDUM 1

VENDOR QUESTIONS & ANSWERS

- 1. Can you provide 2020 inspection reports for Rippowam and Westover? **Reports Attached.**
- 2. 6.14 E. Submission of Questions, states that questions must be submitted by Friday, December 19, 2021. Is this supposed to say, Friday, November 19, 2021? Yes, that is a typo. 11/19/21 is deadline for questions.
- 3. Can you provide additional information describing the venues? That is: stage ceiling height, number of linesets, type of linesets (dead-hung, counterweight, or hoist) number of smoke hatches, type of smoke hatches (manual/motorized), fire curtain, fire curtain type (brail, manual, overbalance bar, motorized), number of catwalks in the house, number of catwalks on stage, and grid over the stage? No. Site visits are allowed. Coordination must be done with Andrew Glassman for school access.
- 4. Are there any fall protection systems to be inspected as part of this work? If so, how many, what types, and which schools? N/A
- 5. Can you provide pictures of each auditorium, stage, and rigging system? No. Site visits are allowed. Coordination must be done with Andrew Glassman for school access.
- 6. When are the inspections to take place? Annually, over a school break would be best.

- Under Bid Item #2 proposal requests "Material/Subcontractor Mark-Ups". Section 12 of the sample contract states that "Contractor is prohibited from subcontracting this Agreement or any part..." Please clarify.
 Bidding vendor must perform the work.
- 8. When are the inspections to be performed? Is there a predetermined schedule? At mutually agreeable dates between District and awarded Vendor? Anytime throughout the Year? Can multiple inspections be performed in the same day? See answers to questions 6. Yes, multiple inspections in one day is allowed.
- Please confirm that there is only (1) auditorium per school to be inspected? In other words, please confirm that there are (17) auditoriums total to be inspected.
 Confirmed.
- 10. Are all (17) schools to be inspected for FY21-22? Rippowam and Westover do not need to be inspected for this current fiscal year.
- 11. If a ladder is required, who is to provide it? The vendor performing inspections.
- 12. In our experience, inspection services are typically separate from repair services. This creates a clear separation and independence from the inspection firm to the contractor who is to perform the repair work. Otherwise, it's difficult for the Owner to determine adequacy of scope, price, and necessity of work. Repair work is typically a much larger expense than the inspection, so if the inspection is to be bid out, so should the repair work. We, as independent consultants, can help define scope of repair work for contractors to bid on. We are asking for inspection price and then repair work hourly rate. They should be separate.

Westover Magnet Elementary

VISUAL RIGGING SAFETY INSPECTION





The purpose of this document is to report our findings after a standard visual rigging inspection. There are some places where it is stated that conditions must be made a priority in terms of repair. These instances are recommendations of Northeast Stage based on visual observation and standard rigging practices. This is a visual not an engineering report. While every effort has been made to provide a comprehensive report, it is impossible to anticipate and cover every eventuality. Ultimately the liability of the safety of the venue is the responsibility of the owner of the venue.

Rigging equipment is affected by time, the environment, and by the frequency and severity of operation. Abuse or misuse of the equipment can also be a concern. A schedule should be established and followed for inspecting your theater and all of its equipment. The frequency of inspections should start with the manufacturer's instructions and should then be modified as necessary to fit the unique conditions in your performance space. Follow the schedule after it is established and keep permanent records of each inspection and the actions taken as a result of the inspections. These records can be useful for government (OSHA) and insurance purposes. Maintenance records are also useful in making future inspections and in evaluating the potential useful life of the equipment. This can help in planning future equipment purchases.



Employer of ETCP Certified Technicians



Site Information

Date: 09/15/2020	
Client: Westover Magnet Elementary	
Address: 412 Stillwater ave Stamford, CT 06902	
Phone: 475-333-1031	
Email: Enter email.aglassman@stamfordct.gov	
ETCP Inspector Chuck Allocca . ETCP Card# 1507	
Rigger present Enter rigger name.	
Miles from shop: 90	
Parking: Side lot	
Load-In: Double doors onto stage	
Ramp Required? Yes No	
Scissor Access? 🛛 Yes 🗆 No	
Single Man Access? 🛛 Yes 🗆 No	
Scaffolding required? Yes No	
Ladders required? Yes No	
Height to structure we are connecting to? 18'	
Type of steel we are connecting to? IBeam	
Drop ceiling? 🗆 Yes 🖾 No	
Sheetrock? Yes No	
Wood beams? Yes No	
Proscenium Opening: 12'h x 34'w	



Line Set Schedule

1.	Fire Curtain
2.	Valance
3.	Main curtain
4.	#1 Electric
5.	Projection screen
6.	Legs
7.	Border
8.	#2 Electric
9.	Legs
10.	Border
11.	Mid Stage Traveler
12.	#3 Electric
13.	Border
14.	Legs
15.	Empty pipe
16.	Border
17.	Rear Traveler
18.	
19.	
20.	
21.	
22.	
23.	
24.	
25.	



OBSERVATION DETAILS

Curtain and Track

1.	Curtain		(Condition?		Comments	Photo	Line
								Set#
		NA	Good	Needs Attention	Immediate Attention			
А	Condition		\square			Just cleaned		
В	Flame Retardant		\boxtimes					
С	Valance		\boxtimes			4'h x 38'w ties		
D	Main Curtain		\square			2@-13'h x 22'w grommets		
Е	Border		\square			4@ 4'h x 35'w ties		
F	Legs		\square			3 sets- 13'3"h x 8'w ties		
G	Mid-Traveler		\square			2@-12'8"h x 22'w grommets		
Н	Rear Traveler		\square			2@-12'8"h x 22'w grommets		
I	Cyclorama	\boxtimes						
							•	

Track		(Condition?		Comments	Photo	Line set#
	NA	Good	Needs Attention	Immediate Attention			
Track		\boxtimes			170		
Track Hardware		\boxtimes					
Attachments/Suspension		\boxtimes			Chain		
Curtain Draw Machine		\boxtimes			Floor mounted		
Clamps		\boxtimes					
	Track Track Hardware Attachments/Suspension Curtain Draw Machine	Image: state s	NAGoodTrackIITrack HardwareIIAttachments/SuspensionIICurtain Draw MachineII	NAGood ActentionTrackIITrack HardwareIIAttachments/SuspensionIICurtain Draw MachineII	NAGoodNeeds AttentionImmediate AttentionTrackIIIITrack HardwareIIIIAttachments/SuspensionIIIICurtain Draw MachineIIII	NAGoodNeeds AttentionImmediate AttentionTrackIIITrack HardwareIIIAttachments/SuspensionIIICurtain Draw MachineIII	NAGoodNeeds AttentionImmediate AttentionImmediate AttentionTrackIIIIITrack HardwareIIIIIAttachments/SuspensionIIIIICurtain Draw MachineIIIII

3. Additional Comments

Enter additional comments here.



Dead Hung Rigging System and Components

1.	DH Wire Rope/Chain		(Condition?		Comments Photo	Photo	Line set#
		NA	Good	Needs Attention	Immediate Attention			
А	Wire Rope/Chains		\square			Chain		
В	Terminations to structure		\square			Beam clamp w/ J-hook with a quick link	Y	All
С	Termination to pipe/track		\square			Chain double wrapped with quick link	Y	All
D	Number of rigging points					7 on travelers/ 5 on borders/ 2 on legs		
E	Pipe side adjustment devices					Chain		
F	Alignment/fleet angles							
2.	DH Battens Condition?					Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			

		NA	Good	Needs	Immediate		
				Attention	Attention		
А	Battens		\boxtimes				
В	Splices		\square			Bolted	
С	Pipe width		\square			38'/ 35'/10'	

3.	DH Electrics			Condition?		Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
А	Which sets	\boxtimes						
В	S/O Power Cable	\boxtimes						
С	Connector Strip	\boxtimes						
D	Cable management	\boxtimes						
Е	Safety cables	\boxtimes						

4. Additional Comments

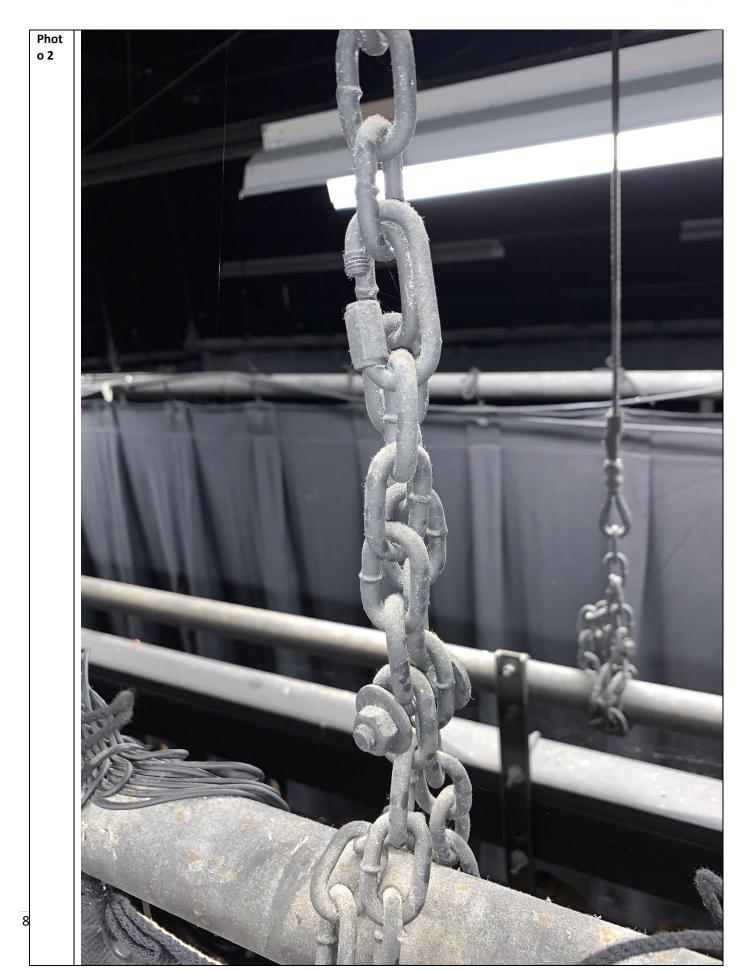
Enter additional comments.













Fire Curtain

1.	Fire Safety Curtain			Condition?)	Comments	Photo	Line
		NA	Good	Needs	Immediate			Set#
				Attention	Attention			
A	Curtain condition		\square					
В	Brail, Strait Lift,		\boxtimes			Brail		
	Framed, Trip, Free							
С	Ball? Smoke seals	\square				No where to put one	Y	
D	Yield Pad						1	
E	Dead hung points					Not letting curtain land on floor	Y	
F	Time to fully deploy					9 seconds		
•	curtain					5 Seconds		
	curtain							
2.	Fire Curtain Guide			Condition?)	Comments	Photo	Line
	System.							set#
		NA	Good	Needs	Immediate Attention			
А	Tracks	\boxtimes		Attention				
B	Rollers							
C	Guide wires							
D	Smoke pockets							
U	Shloke pockets							
3.	Fire Curtain Release			Condition?)	Comments	Photo	Line
	System							Set#
		NA	Good	Needs	Immediate			
A	Pull stations			Attention	Attention	Hemp rope system		
B	Signage							
C	SureGuard					SureGuard 1		
0	Surcound							
4.	Fire Curtain Arbor			Condition?)	Comments	Photo	Line
	Guide System							Set#
		NA	Good	Needs	Immediate			
٨	Lattice track	\square		Attention	Attention			
A B	Arbor shoes							
D	Albor shoes							
5.	Fire Curtain Arbors			Condition?)	Comments	Photo	Line
								Set#
		NA	Good	Needs	Immediate			
A	Arborton	\boxtimes		Attention	Attention			
B	Arbor top Arbor bottom							
в С	Arbor bottom Arbor rods							
D	Back bone							
E	Spreader plates							
	- Spicauci plates							
	Locking collars							
F G	Locking collars Guides/shoes							





6.	Fire Curtain Checking Device		l	Condition?	,	Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
А	Hydraulic Governor		\boxtimes					
В	Over balance weights	\boxtimes						
С	Dash pot	\boxtimes						
D	Motorized?	\boxtimes						
	·						•	

7.	Fire Curtain Wire Rope / Terminations			Condition?	•	Comments Photo	Line Set#	
		NA	Good	Needs Attention	Immediate Attention			
А	Wire rope		\boxtimes					
В	Terminations				\boxtimes	One Crosby and a Nico sleeve NOT terminated	Y	
С	Pipe side adjustment devices					Safety chain on top pipe		
D	Alignment/fleet angles		\square					
Е	Pipe clamps		\boxtimes					
F	Number of lift lines		\boxtimes			5		

8.	Fire Curtain Head Blocks			Condition?			Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
A	Mounting assembly (clips & bolts)							
В	Underhung? Overhung?					Underhung		
С	Housing (side plates & base angles)							
D	Sheave		\boxtimes					
Е	Bearing/shaft		\boxtimes					
F	Alignment/fleet angle		\boxtimes					
G	Head block to hoist connection	\boxtimes				Head block to mull block with clue and guide wires		

9.	Fire Curtain Loft Blocks		l	Condition?	I	Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
A	Mounting assembly (clips & bolts)		\square					
В	Underhung? Overhung?		\square			Underhung		
С	Housing (side plates & base angles)							
D	Sheave		\square					
E	Bearing/shaft		\square					
F	Alignment		\square					



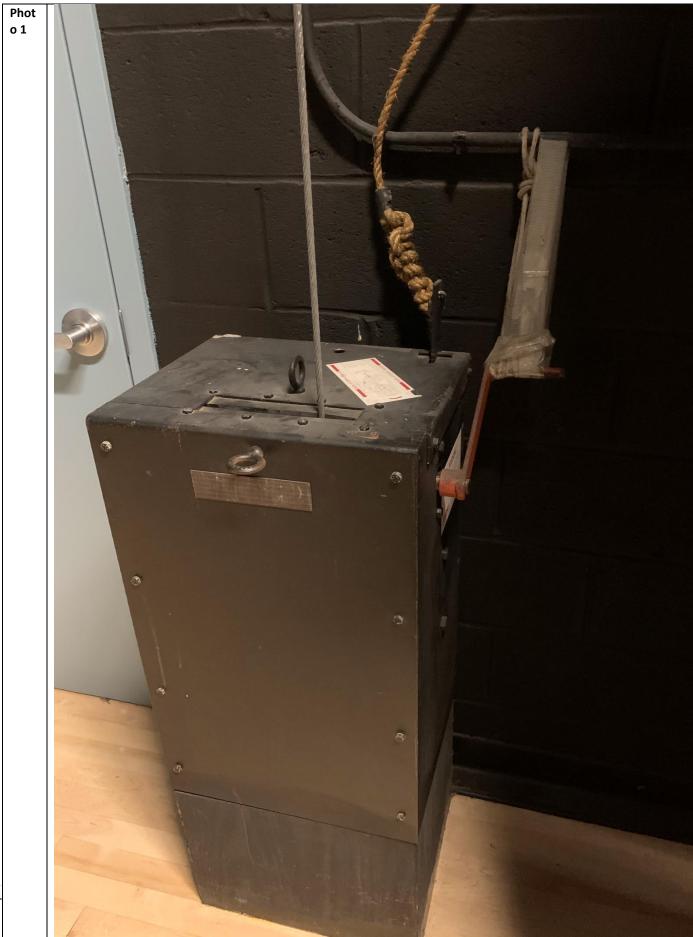
10.	Fire Curtain Shaft Hoists		(Condition?		Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
А	Drums	\boxtimes						
В	Driveshafts	\boxtimes						
С	Bearings	\boxtimes						
D	Mounting base	\boxtimes						
Е	Dampening system	\boxtimes						

11.	Fire Curtain Signage		l	Condition?		Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
A	Safe operation signage							

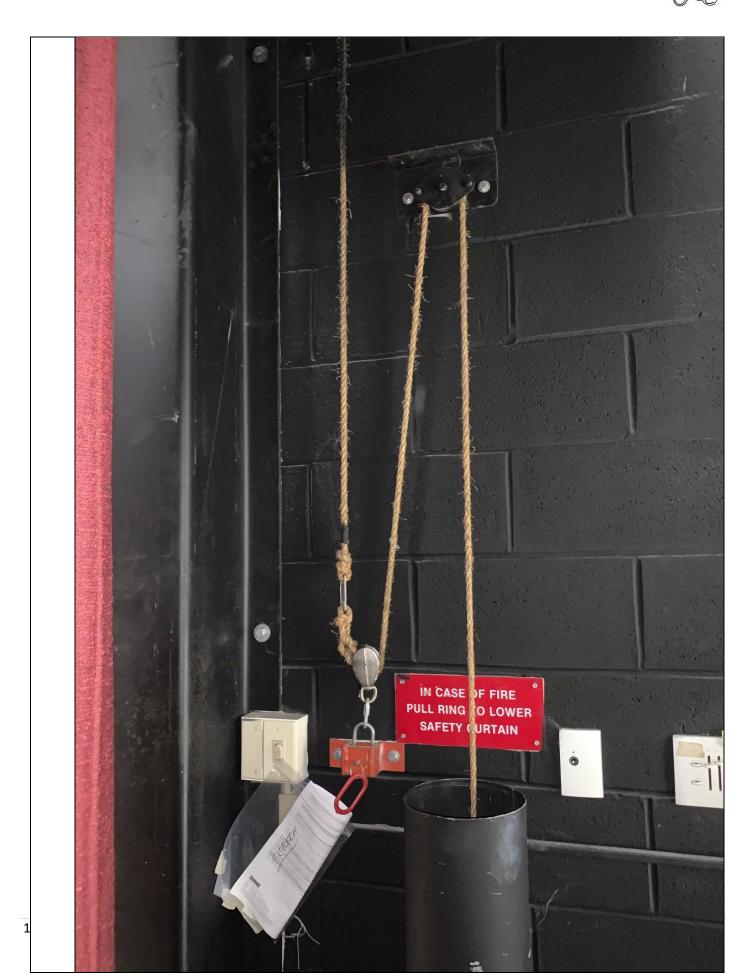
12. Additional Comments

SureGuard pin is broken so curtain is inoperable. Handle is roped and taped up. Safety chain prevents curtain to seal to floor

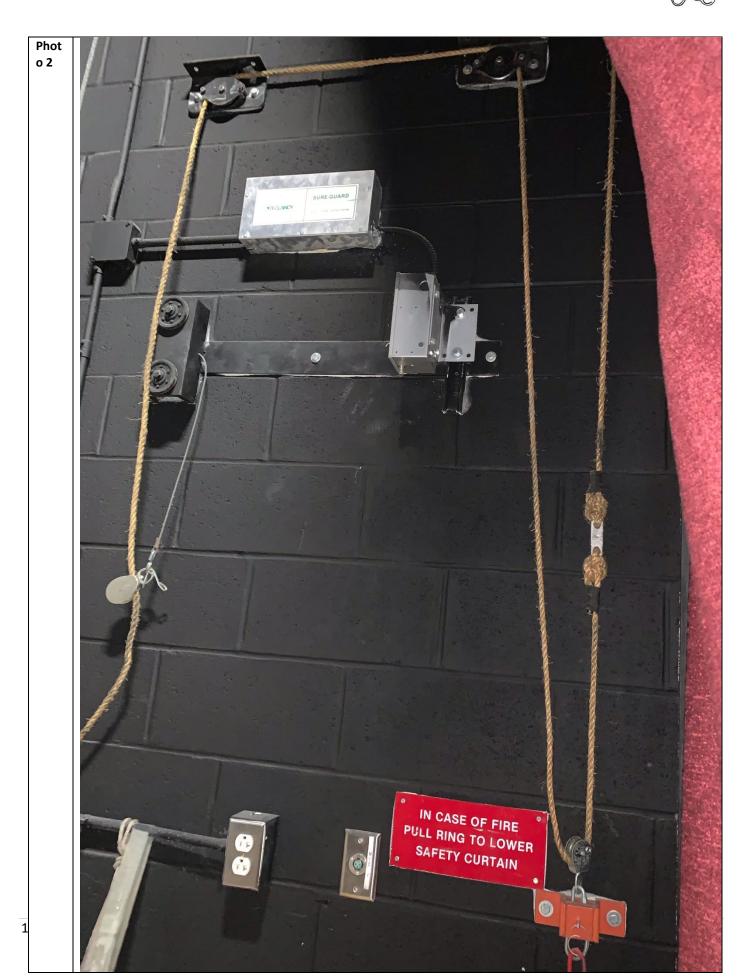




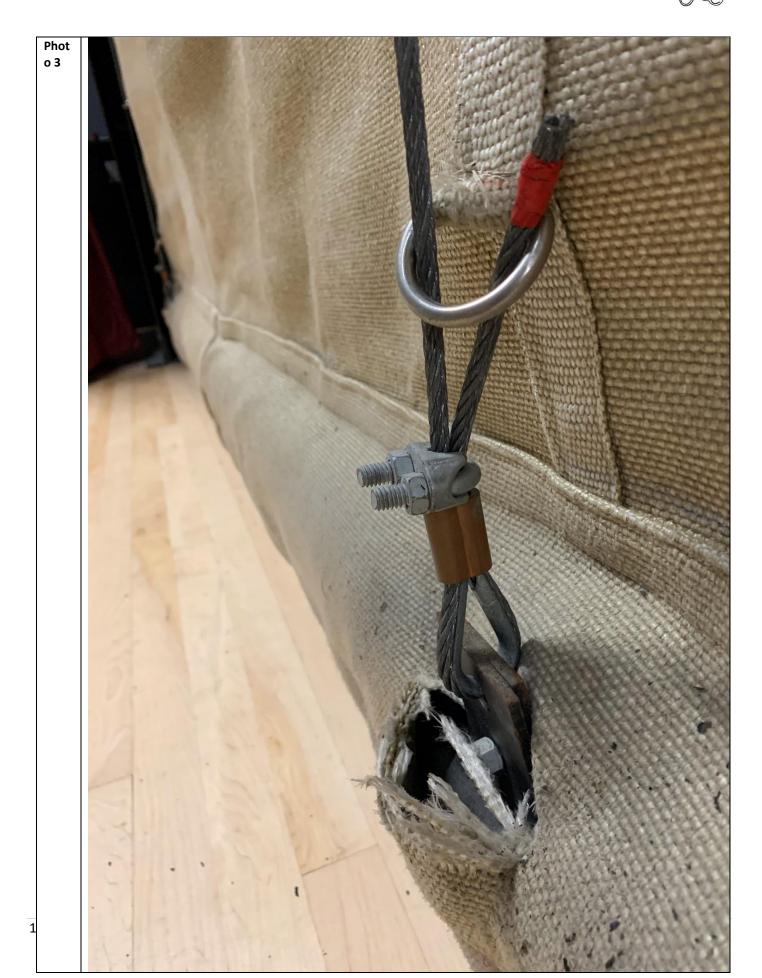








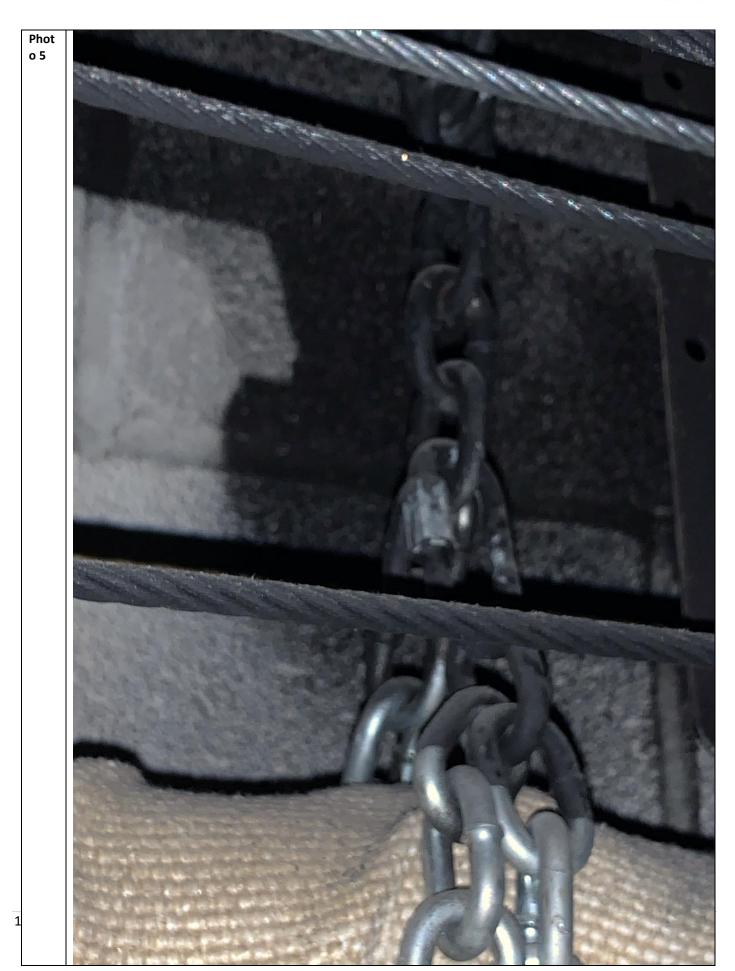






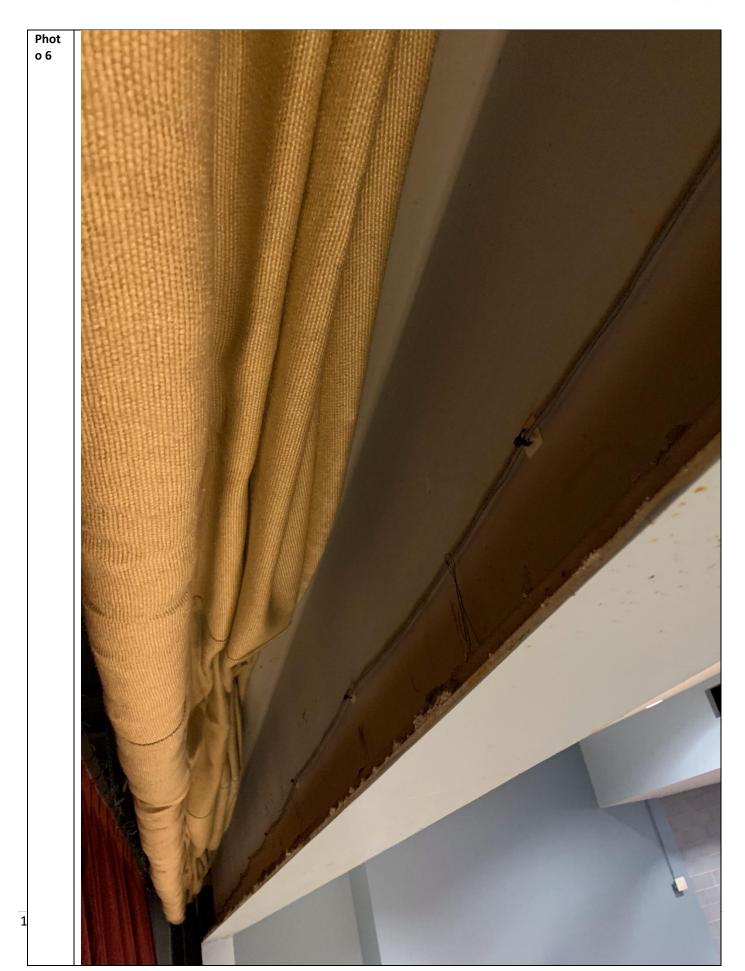














Hand Winch

1.	Hand Winch			Condition?)	Comments Photo	Photo	Line set#
		NA	Good	Needs Attention	Immediate Attention			
A	Leading bridge? Where?		\boxtimes			Stage left wall		
В	Proper hand rails?					OSHA 1910.23 €(1) top rail 36"-44" with mid rail		
С	Strait ladders?	\square						

2.	Winch			Condition?		Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
А	Make/model			\boxtimes		Jeamar/ WG		
В	Properly secured to wall		\boxtimes					

		1					_	L
3.	Hand Winch Wire			Condition	?	Comments	Photo	Line
	Rope / Terminations							Set#
		NA	Good	Needs Attention	Immediate Attention			
А	Wire rope		\boxtimes			3/8″		
В	Terminations		\boxtimes			3 Crosbys to clue/ Nicos from clue to		
						batten		
С	Pipe side adjustment			\square		Trim chain with a quick link		
	devices							
D	Alignment / fleet		\boxtimes					
	angles							
Е	Pipe clamps	\boxtimes						
F	Distance between lift		\boxtimes			9'/8'		
	lines							
F	Guide wires		\boxtimes					
G	Clew		\boxtimes					
	1						I	

4.	Hand Winch Head Blocks			Condition?	•	Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
A	Mounting assembly (clips & bolts)		\boxtimes					
В	Housing (side plates & base angles)		\boxtimes					
С	Sheave		\boxtimes					
D	Bearing/shaft		\boxtimes					
Е	Alignment		Х					



5.	Hand Winch Loft Blocks			Condition?		Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
A	Mounting assembly (clips & bolts)		\boxtimes					
В	Housing (side plates & base angles)		\boxtimes					
С	Sheave		\boxtimes					
D	Bearing/shaft		\boxtimes					
Е	Alignment		\square					

6.	Hand Winch Battens		I	Condition?)	Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
А	Battens		\square					
В	Splices		\square			Bolted together		
С	Pipe width		\square			38′		
						·		

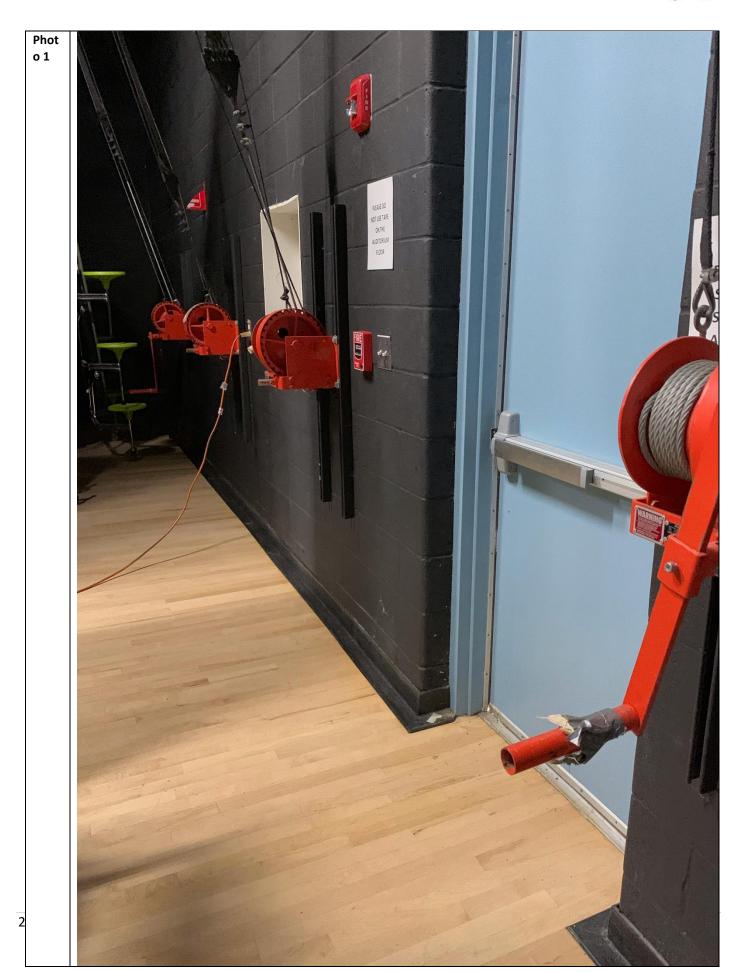
7.	Hand Winch Electrics			Condition?)	Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
				Attention	Attention			
А	Winch sets		\boxtimes					
В	S/O Power cable		\square					
С	Connector strip		\boxtimes					
D	Cable management		\boxtimes					
Е	Safety cables		\boxtimes					

8.	Hand Winch Signage			Condition?		Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
А	Safe operation	\boxtimes						
	signage							

9. Additional Comments

Winches do not have any type of brake system when lowering battens



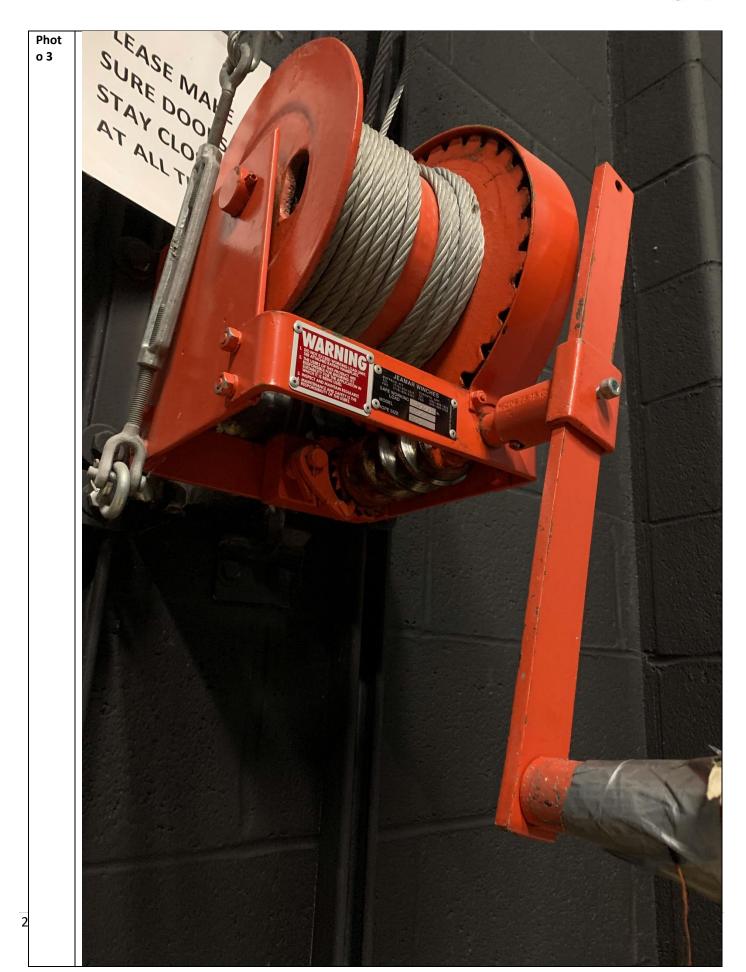














Smoke Hatch Elements

1.	Smoke Hatch Diverter Pulleys		Condition?			Comments	Photo
		NA	Good	Needs Attention	Immediate Attention		
A	Mounting assembly (clips & bolts)						
В	Housing (side plates & base angles)						
С	Sheave		\boxtimes				
D	Bearing/shaft		\boxtimes				
E	Alignment/fleet angle						

2.	Smoke Hatch Wire Rope / Terminations	Condition?				Comments	Photo
		NA	Good	Needs Attention	Immediate Attention		
А	Wire rope		\square				
В	Terminations		\square				
С	Pipe side adjustment devices	\boxtimes					
D	Alignment/fleet angles		\square				

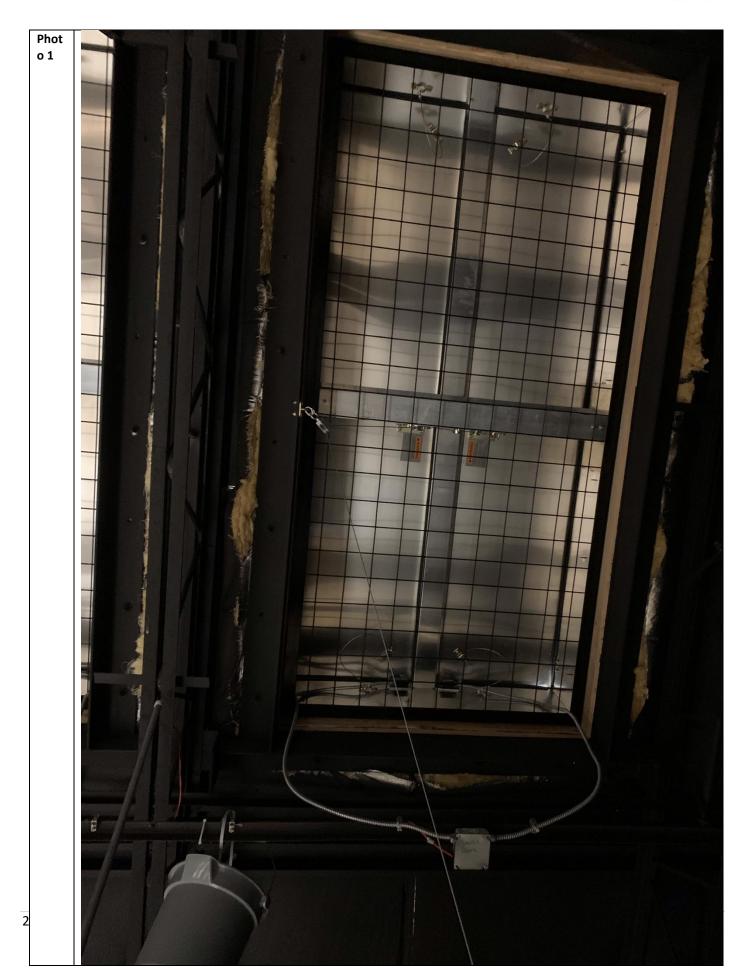
3.	Smoke Hatch Release Mechanisms		Condition?			Comments	Photo
		NA	Good	Needs Attention	Immediate Attention		
А	Operating Winch		\square				
В	Motor/gear box	\boxtimes					
С	Fusible links	\boxtimes					
D	Electro-thermal		\square				

4.	Smoke Hatch Other	Condition?				Comments	Photo
		NA	Good	Needs Attention	Immediate Attention		
				Attention	Attention		
А	Signage	\boxtimes					
В	Type of doors		\square			double	
С	Additional acoustic		\boxtimes			Doors open up	
	doors						

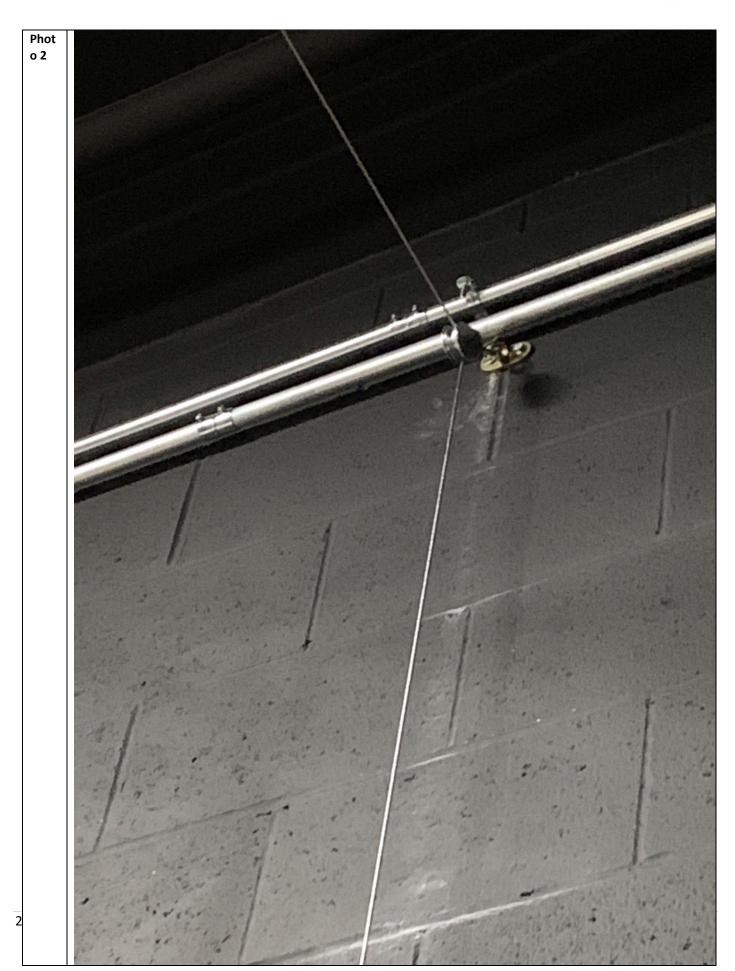
4. Additional Comments



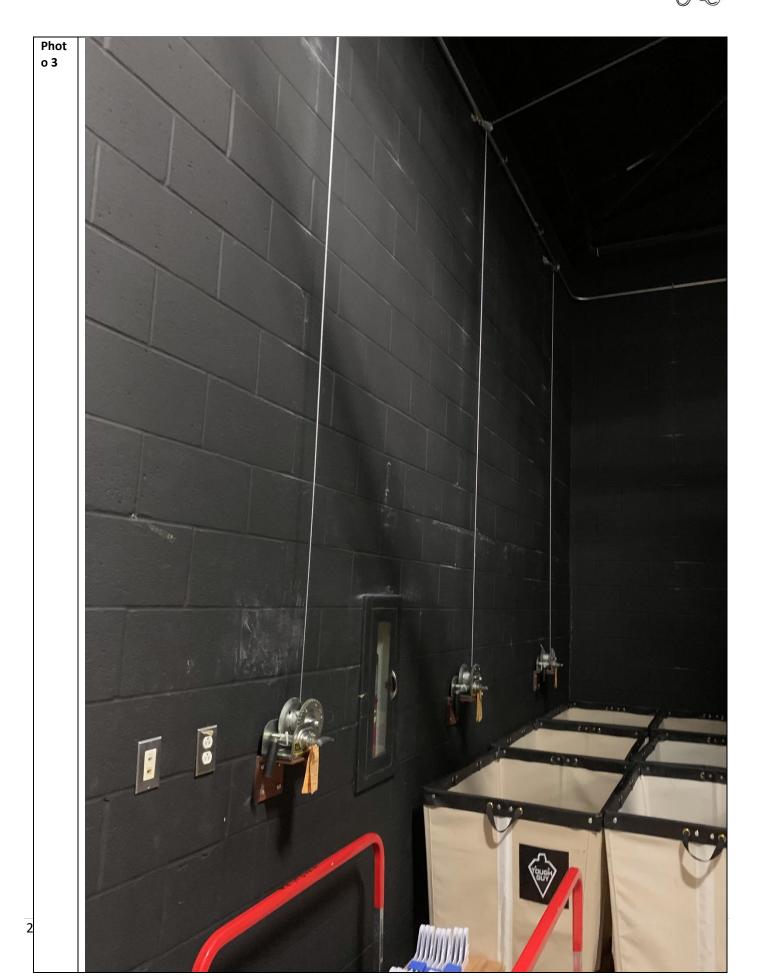














MAINTENANCE AND INSPECTION LOG

Use this log to keep track of required annual inspections and any service performed on your motorized rigging equipment. Keep this in a binder along with other service information such as inspection reports.

DATE	SET #	SERVICE PERFORMED	SERVICE PROVIDER	INITIALS
09/15/20	All	Rigging safety inspection		CA



FIRE CURTAIN TESTING LOG

Use this log to keep track of when you test your fire curtain.

Note: We recommend testing once every 30 days, and at least every 90 days depending on usage. Note: Should be tested once with smoke vents open and once with vents closed Note: Always deploy (close) your fire curtain when not in use

DATE	PERSON	SPEED	INITIALS
09/15/20	Chuck Allocca	9 seconds	CA



OBSERVATION SUMMARY AND RECOMMENDATIONS

Summary

The original install of the rigging equipment was substandard. The fire curtain needs some repairs to become functional. The rigging dead hung points do not meet minimum industry standards.

Priority (H-M-L)	ltem #	Recommendation	By Whom (Staff or Rigging Contractor)
Н	1	Re-rig dead hung points	NES
Н	2	Add smoke seal to fire curtain	NES
Н	3	Replace fire curtain dead hung rigging points	NES
н	4	Re-rig fire curtain release lines with 1/8" cable and new SureGuard	NES
Н	5	Re-terminate fire curtain cable terminations	NES
н	6	Replace dead hung pipe side trim chain using load properly sized hardware	NES
Н	7	Replace winches with product specifically designed for theater	NES



REFERENCE MATERIAL

Practical Health and Safety Guidelines for School Theater Operations Dr. Randal W. A. Davidson Risk International Publishing, Littleton, Colorado

Stage Rigging Handbook, second edition Jay 0. Glerum Southern Illinois University Press

Backstage Handbook Paul Carter Broadway Press, Louisville, Kentucky

J.R. Clancy Website-Allowable Batten Loads Design Manufacture & Installations of Theatrical Equipment Worldwide

Wire Rope Users Manual Wire Rope Technical Board

The Morrow Guide to Knots Mario Bigon and Guido Regazzoni Quill/William Morrow/ New York



End of Report

Respectfully submitted,

On behalf of Northeast Stage, Inc.

Bob Kress – <u>bob@northeaststage.com</u> Service contacts: 1-866-431-2201

Rippowam Middle School

09/14/2020

VISUAL RIGGING SAFETY INSPECTION





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Employer of ETCP Certified Technicians



Site Information

Client: Rippowam Middle School	
Address: 381 High Ridge Rd Stamford, CT 06905	
Phone: 475-333-1031	
Email: Enter email.aglassman@stamfordct.gov	
ETCP Inspector Chuck Allocca . ETCP Card# 1507.	
Rigger present Enter #	
Miles from shop: 90	
Parking: Loading dock	
Load-In: Loading dock to double doors onto stage	
Ramp Required? 🗆 Yes 🖾 No	
Scissor Access? 🛛 Yes 🗆 No	
Single Man Access? 🛛 Yes 🗆 No	
Scaffolding required? Yes No	
Ladders required? 🗆 Yes 🗵 No	
Height to structure we are connecting to? 43'	
Type of steel we are connecting to? I beam	
Drop ceiling? 🗆 Yes 🖾 No	
Sheetrock? 🗆 Yes 🖾 No	
Wood beams? Yes No	



Line Set Schedule

1.	Valance
2.	Main Curtain
3.	Projection screen
4.	#1 Electric
5.	Empty pipe
6.	Empty pipe
7.	Empty pipe
8.	Traveler/Border
9.	#2 Electric
10.	Scenery
11.	Traveler
12.	Scenery
13.	Empty track/ Border
14.	#3 Electric
15.	Empty pipe
16.	Cyclorama
17.	
18.	
19.	
20.	
21.	
22.	
23.	
24.	
25.	



OBSERVATION DETAILS

Curtain and Track

1.	Curtain		(Condition?		Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
А	Condition		\square	\boxtimes				
В	Flame Retardant		\boxtimes					
С	Valance		\square			6'h x 56'w ties		
D	Main Curtain		\boxtimes			2@- 18'h x 28'w grommets		
Е	Border					2@- 6'h x 56'w ties		
F	Legs	\boxtimes				Add size, fullness, and fabric.		
G	Mid-Traveler		\boxtimes			2@- 18'h x 28'w grommets		
Н	Rear Traveler		\square			2@- 18'8"h x 28'w grommets		
I	Cyclorama			\boxtimes		18'6"h x 50'w ties	Y	16
							•	

2.	Track		(Condition?		Comments	Photo	Line set#
		NA	Good	Needs	Immediate			
				Attention	Attention			
A	Track		\boxtimes			280		
В	Track Hardware		\boxtimes					
С	Attachments/Suspension		\boxtimes			Pipe to track clamps		
D	Curtain Draw Machine	\boxtimes						
Е	Clamps		\boxtimes					

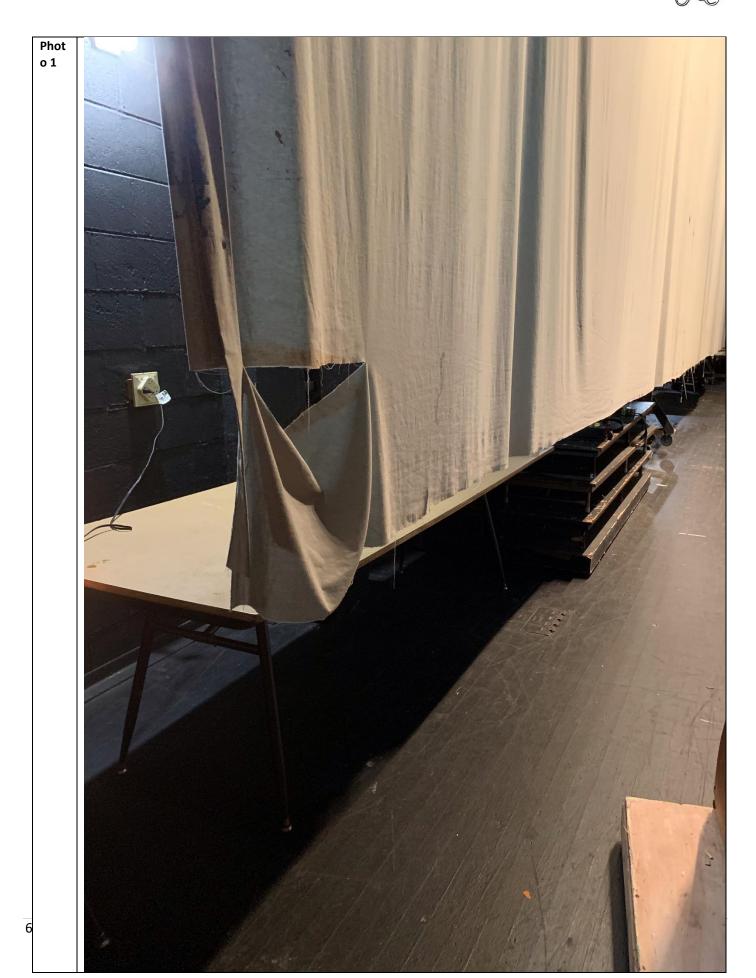
3. Additional Comments

End stop fell out of track on main Main curtains are hung backwards

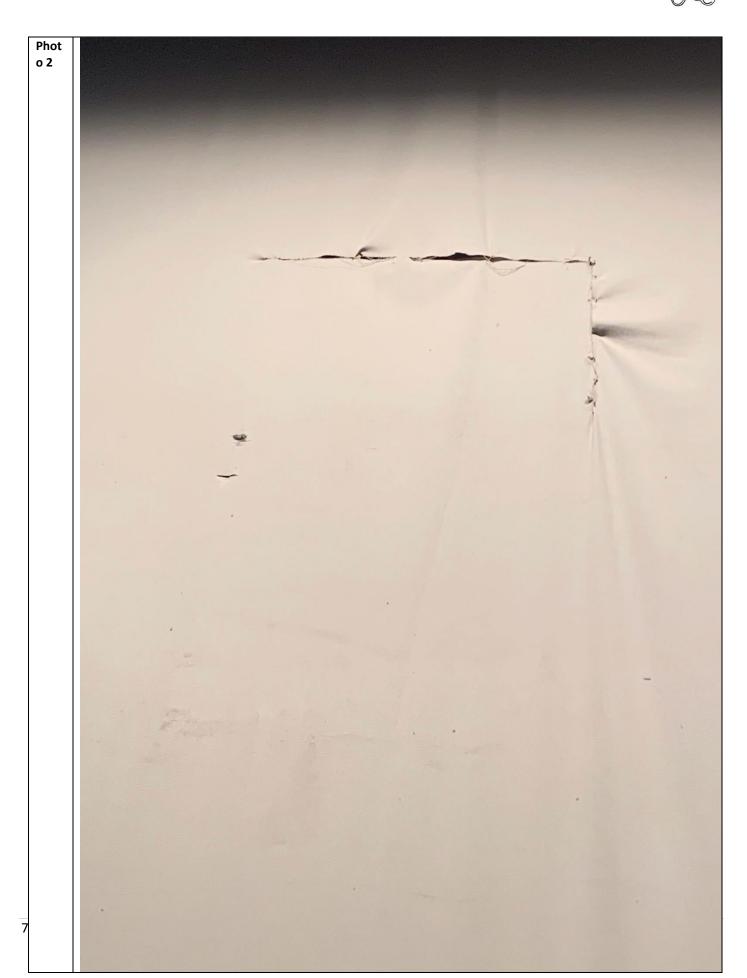
Cyclorama has no pipe pocket and is ripped in several spots

None of the travelers have the proper overlap.



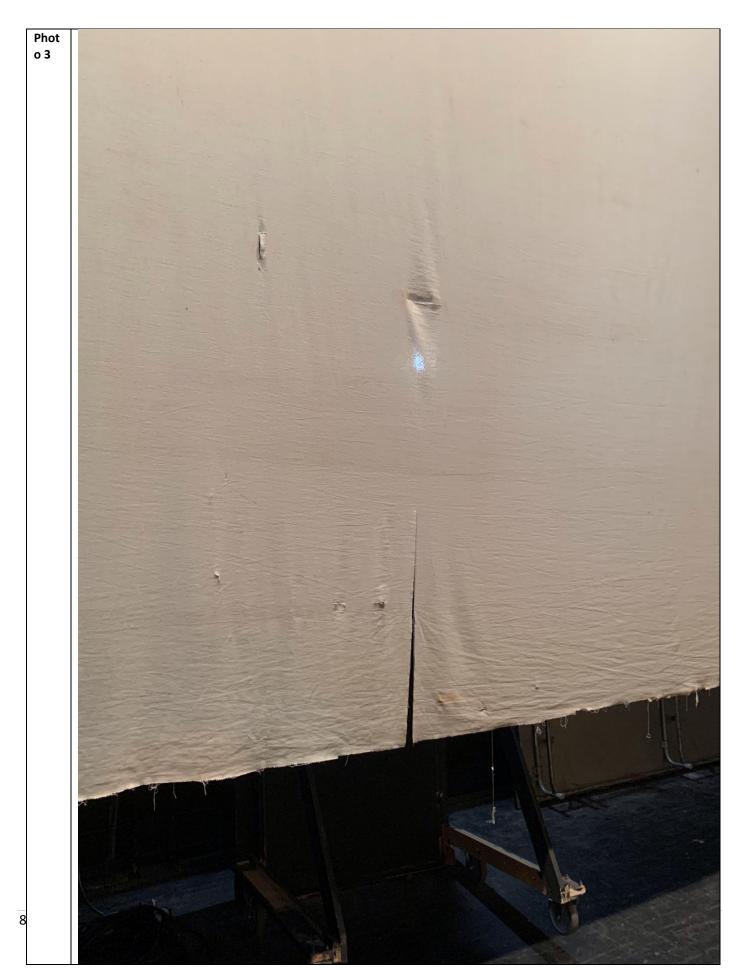














Dead Hung Rigging System and Components

1.	DH Wire Rope/Chain			Condition?		Comments Photo	to	Line set#
		NA	Good	Needs Attention	Immediate Attention			
А	Wire Rope/Chains		\square			¼" cable		
В	Terminations to structure		\square			2 part beam clamps Y		1
С	Termination to pipe/track		\square			Trim chain to pipe		
D	Number of rigging points		\square			5 per set		
E	Pipe side adjustment devices		\boxtimes			Trim chain		
F	Alignment/fleet angles		\square					
2.	DH Battens			Condition?		Comments Pho	to	Line

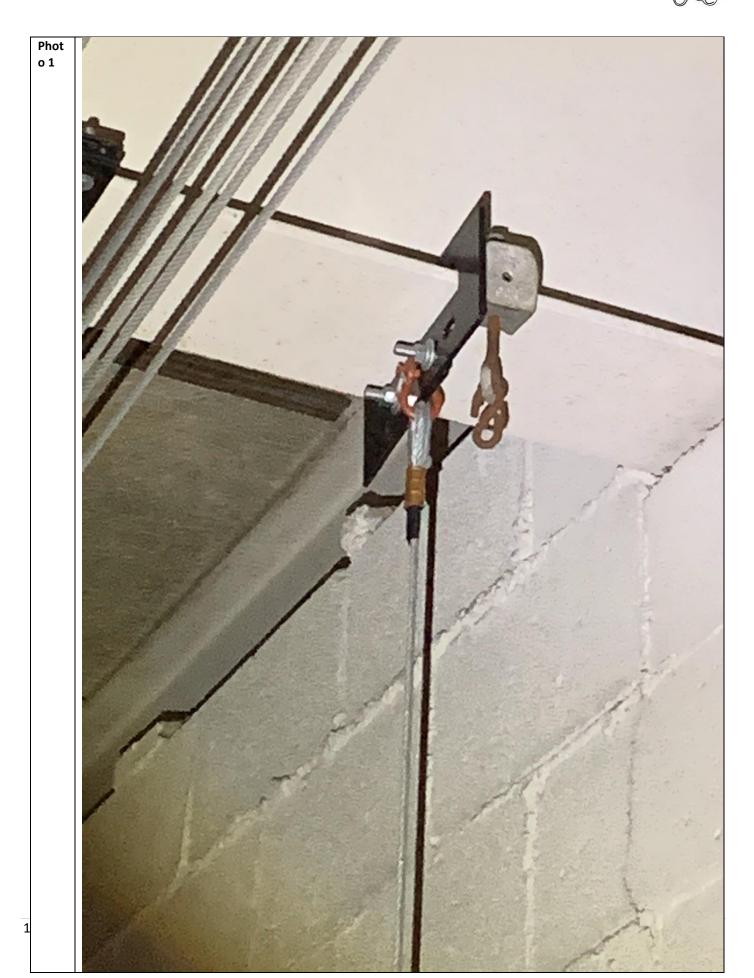
2.	DH Battens		(Condition?		Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
А	Battens		\boxtimes					
В	Splices		\boxtimes			Bolted together		
С	Pipe width		\square			58'6"		

3.	DH Electrics		(Condition?		Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
	ļ			Attention	Attention			
А	Which sets	\boxtimes						
В	S/O Power Cable	\boxtimes						
С	Connector Strip	\boxtimes						
D	Cable management	\boxtimes						
Е	Safety cables	\boxtimes						

4. Additional Comments

Enter additional comments.







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Counterweight System

1.	Counterweight System	Condition?				Comments	Photo	Line set#
		NA	Good	Needs Attention	Immediate Attention			
A	Single or double purchase?					Single		
В	Loading bridge? Where?		\square			Stage right		
С	Proper hand rails?					OSHA 1910.23 €(1) top rail 36"-44" with mid rail		
D	Strait ladders?			\boxtimes		Should have a gate at the top of ladder	Y	

2.	Counterweight Locking Rail			Condition?		Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
A	Fasteners/properly secured							
В	Stanchions		\boxtimes					
С	Rail		\boxtimes					
D	Index light		\boxtimes			Could not find switch		

3.	Counterweight Tension Block			Condition)	Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
А	Housing		\boxtimes					
В	Sheave		\boxtimes					
С	Bearings/shaft		\boxtimes					
D	Guides/shoes		\boxtimes					
Е	Floating			\boxtimes		About half where sitting on the floor		

4.	Counterweight Rope Locks			Condition		Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
А	Housing		\square					
В	Jaws		\square					
С	Handle		\square					
D	Attachment		\boxtimes					
Е	Adjustment			\boxtimes		Should be reset		

5.	Counterweight			Condition?		Comments	Photo	Line Set#
		NA	Good	Needs	Immediate			
				Attention	Attention			
А	Size		\boxtimes			14" x 4"		
В	Properly stored			\boxtimes		Stacked in cage at the bottom of the		
						ladder		



6.	Counterweight Arbors	Condition?				Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
А	Arbor top		\square					
В	Arbor bottom		\square					
С	Arbor rods		\square					
D	Back bone		\square					
Е	Spreader plates		\square					
F	Locking collars		\square					
Е	Guides/shoes			\boxtimes		Someone sprayed lithium grease on t-	Y	
						guide and shoes		

7.	Counterweight Arbor Guide System			Condition		Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
А	J Guide	\boxtimes						
В	T Guide		\boxtimes					
С	Wire guides	\boxtimes						
D	Wall battens		\boxtimes					
Е	Knee brace		\boxtimes					
F	Crash bars		\boxtimes					
G	Fasteners		\boxtimes					
Н	U-clips		\boxtimes					

NA Good Needs Attention Immediate Attention A Durshees Line Immediate	8.	Counterweight Purchase Lines		1	Condition?	Comments	Photo	Line Set#
			NA	Good				
A Purchase Line III 🛛 III III IIII Need to retie about hair	А	Purchase Line		\boxtimes		Need to retie about half		

9.	Counterweight Wire Rope / Terminations			Condition	?	Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
А	Wire rope		\boxtimes					
В	Terminations		\square			Pass go no go		
С	Pipe side adjustment devices					Trim chain		
D	Alignment/fleet angles							
Е	Pipe clamps	\boxtimes						
F	Distance between lift lines					12'		



10.	Counterweight Head Blocks			Condition?	•	Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
A	Mounting assembly (clips & bolts)							
В	Housing (side plates & base angles)							
С	Sheave			\square				
D	Bearing/shaft			\square		Just about all are making noise	Y	
Е	Alignment		\square					

11.	Counterweight Loft Blocks			Condition		Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
A	Mounting assembly (clips & bolts)		\square					
В	Housing (side plates & base angles)		\square			22 ½"L x 10" w		
С	Sheave			\boxtimes		Rusty	Y	
D	Bearing/shaft		\boxtimes					
Е	Alignment		\boxtimes					

12.	Counterweight Battens			Condition?)	Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
А	Battens		\boxtimes					
В	Splices		\boxtimes			Bolted together		
С	Pipe width		\boxtimes			58'6″		

13.	Counterweight Electrics			Condition	?	Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
А	Which sets		\square			#3 #8 #13		
В	S/O power cable		\square					
С	Connector strip			\boxtimes		Brackets are to big for raceways	Y	
D	Cable management		\square					
Е	Safety cables		\square					

14.	Counterweight Signage			Condition?		Comments	Photo	Line Set#
		NA	Good	Needs Attention	Immediate Attention			
A	Safe operation signage		\square					

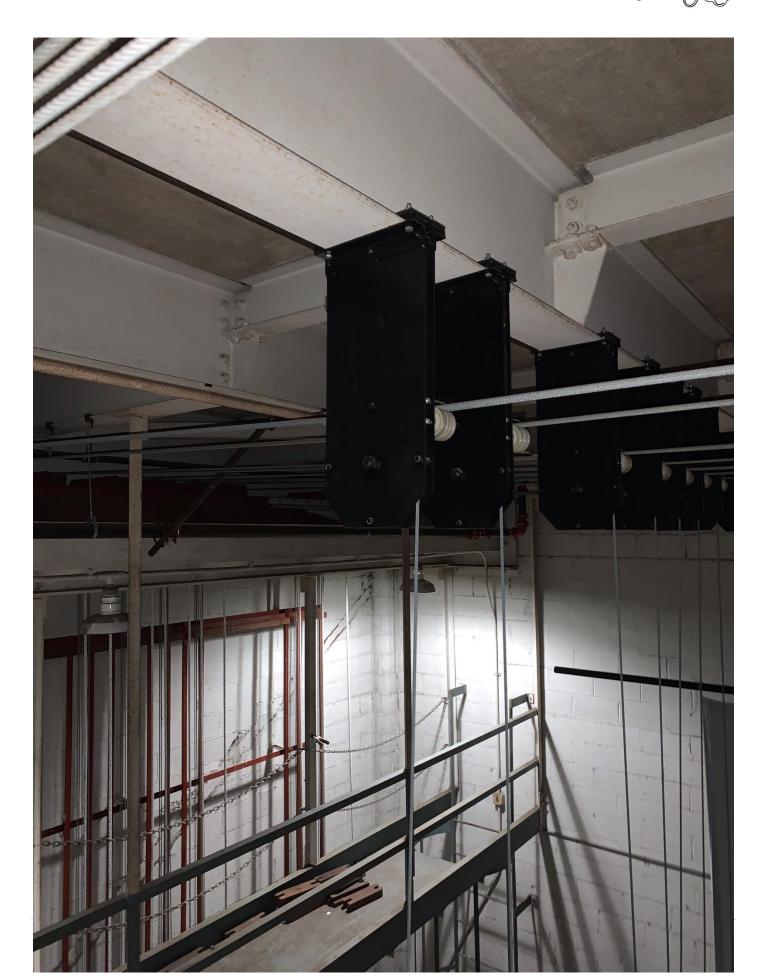
15. Additional Comments

There are mull blocks on line set #5 and #6

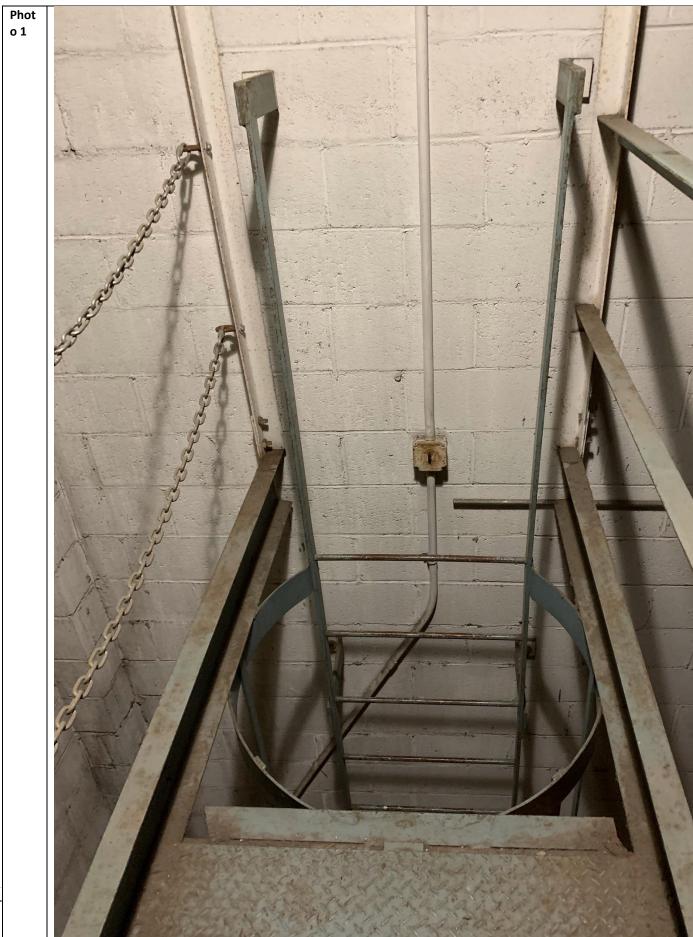
Most of the arbors are hard to move not sure if this is do to the bad head blocks are the grease on the t-guides and shoes



1

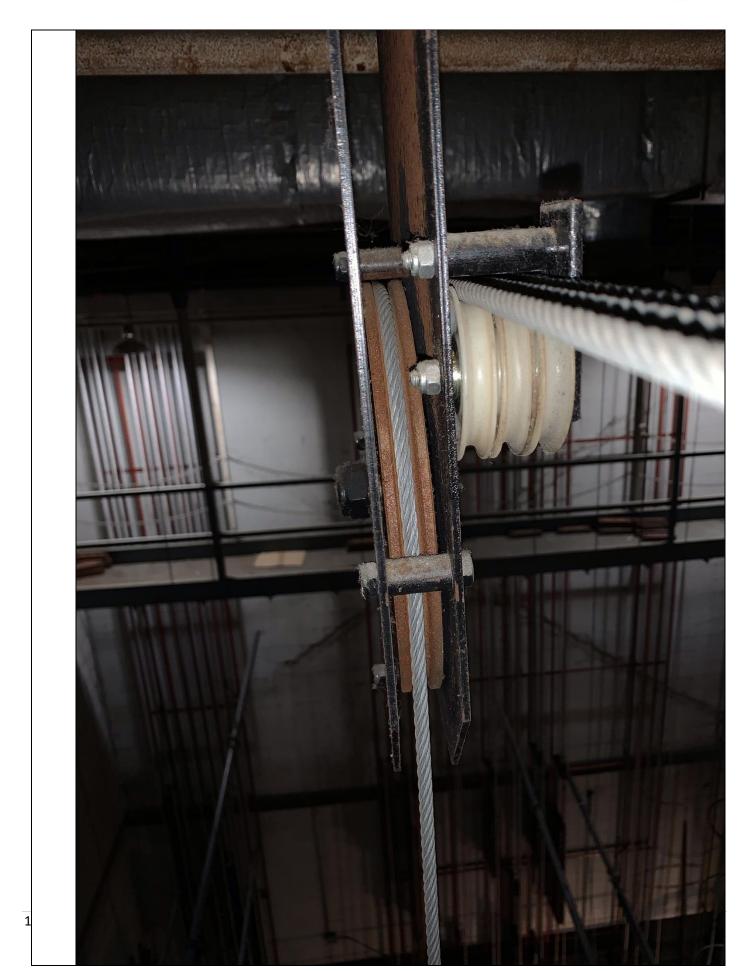






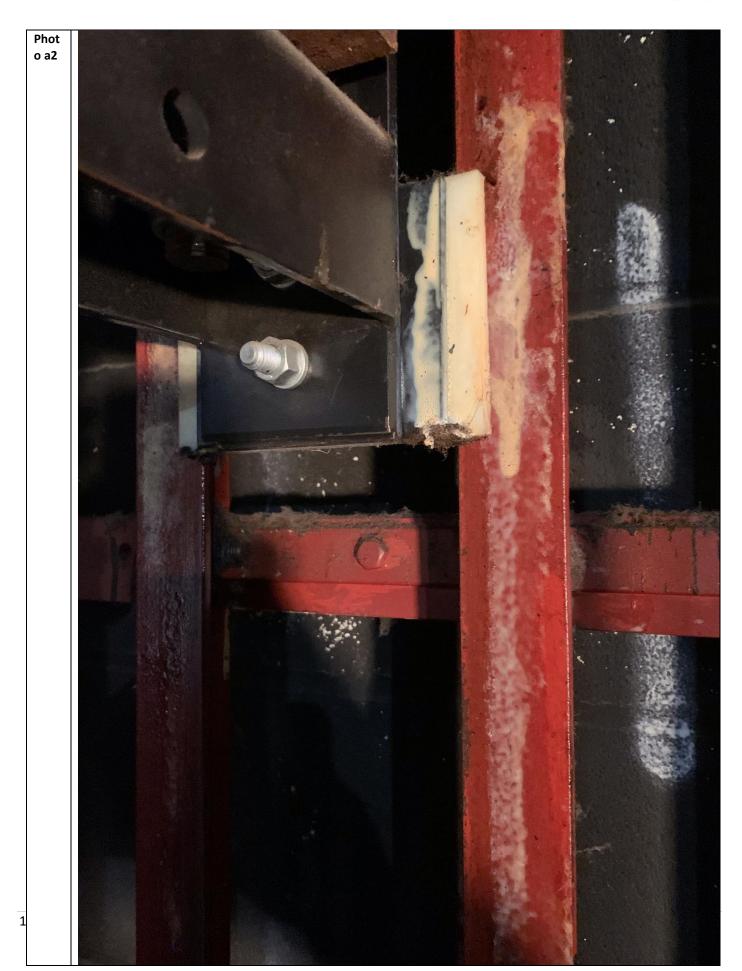






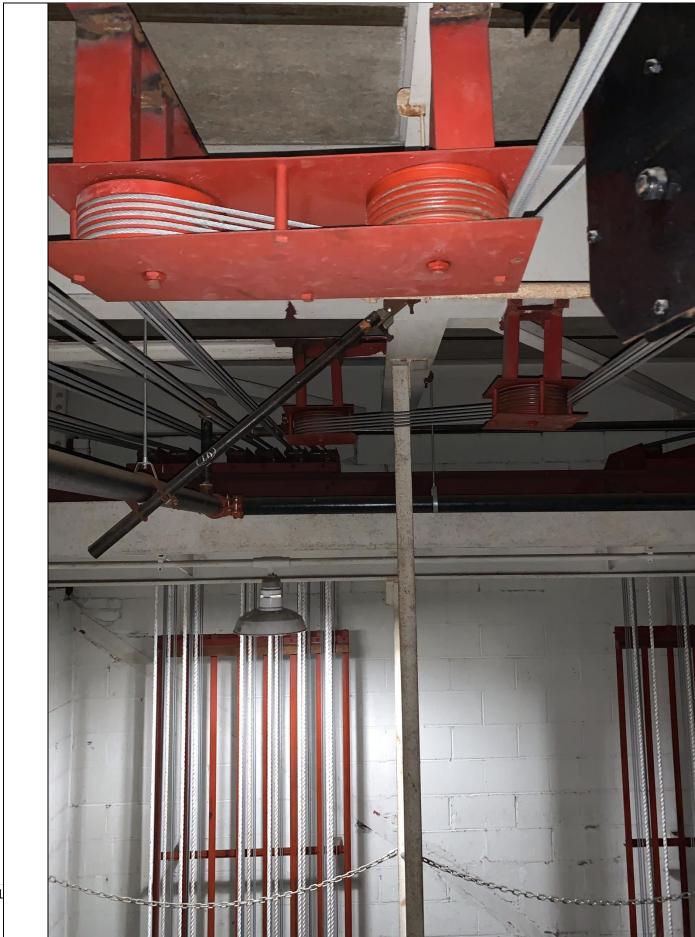






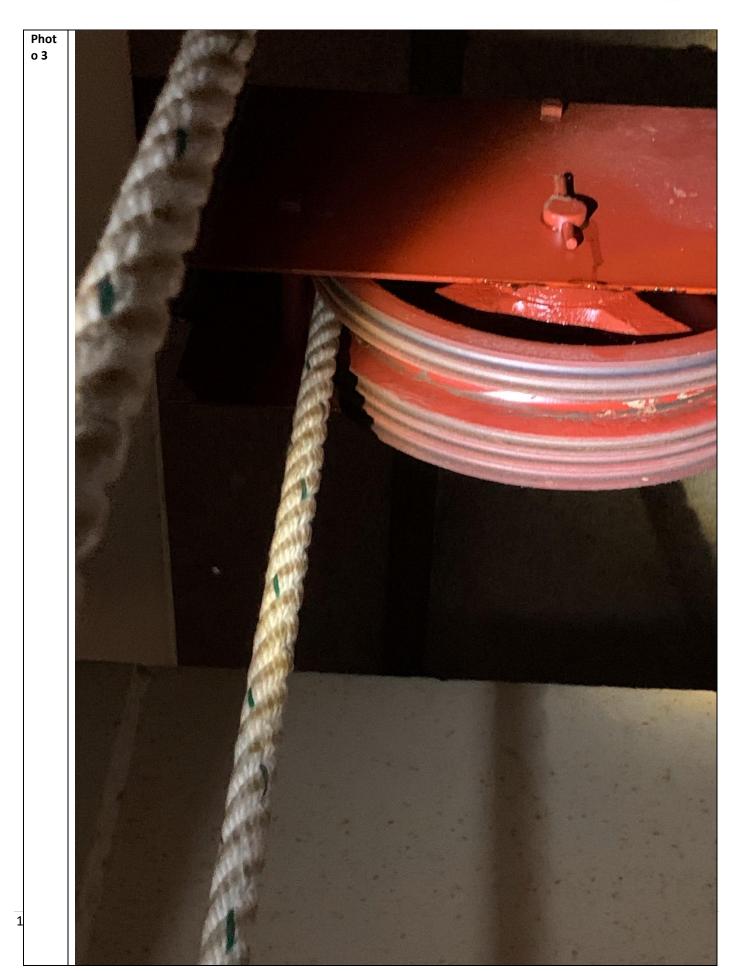




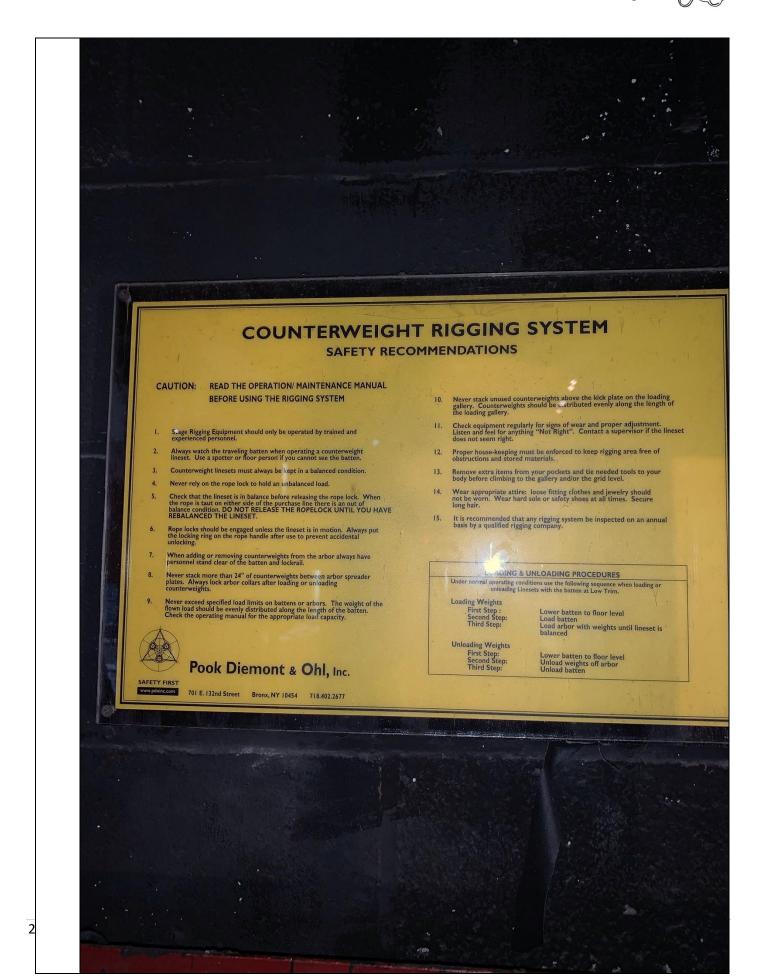




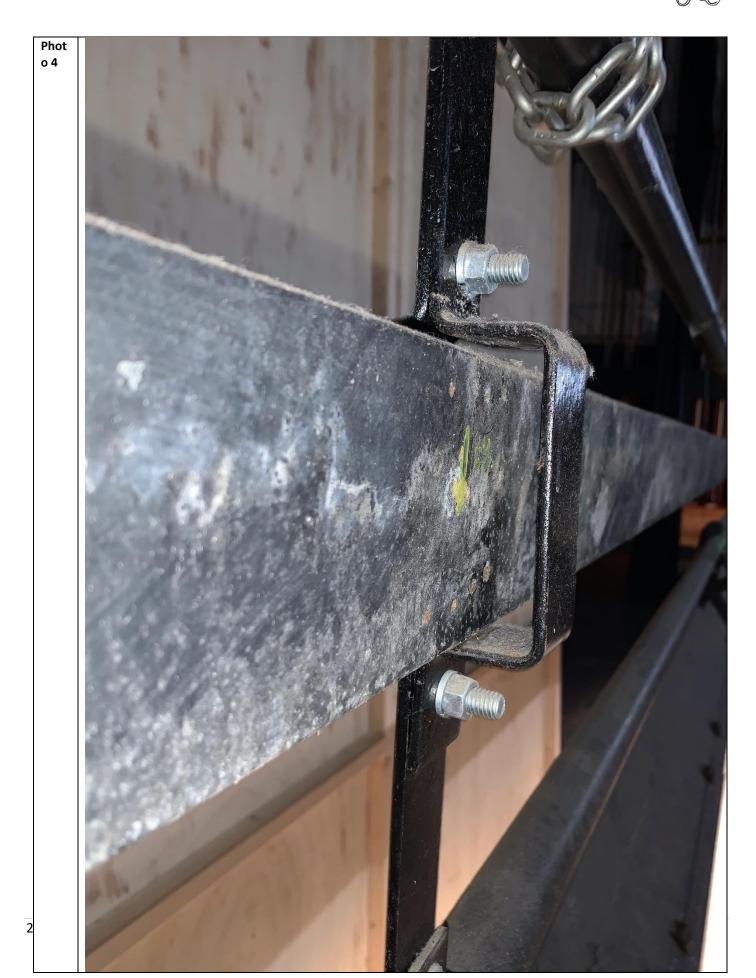














Smoke Hatch Elements

1.	Smoke Hatch Diverter Pulleys		С	ondition?		Comments	Photo
		NA	Good	Needs Attention	Immediate Attention		
A	Mounting assembly (clips & bolts)	\square					
В	Housing (side plates & base angles)	\boxtimes					
С	Sheave	\boxtimes					
D	Bearing/shaft	\boxtimes					
E	Alignment/fleet angle	\square					

2.	Smoke Hatch Wire Rope / Terminations		C	ondition?		Comments	Photo
		NA	Good	Needs Attention	Immediate Attention		
А	Wire rope	\boxtimes					
В	Terminations	\square					
С	Pipe side adjustment devices	\boxtimes					
D	Alignment/fleet angles	\boxtimes					

3.	Smoke Hatch Release Mechanisms		C	ondition?		Comments	Photo
		NA	Good	Needs Attention	Immediate Attention		
А	Operating Winch	\boxtimes					
В	Motor/gear box	\boxtimes					
С	Fusible links	\boxtimes					
D	Electro-thermal		\square				

4.	Smoke Hatch Other	Condition?				Comments	Photo
		NA	Good	Needs Attention	Immediate Attention		
•	<u>Ciana an</u>			Attention			
А	Signage	\boxtimes					
В	Type of doors		\boxtimes			double	
С	Additional acoustic					Doors open up	
	doors						

4. Additional Comments

There is no way to close them in less you get on roof to shut them

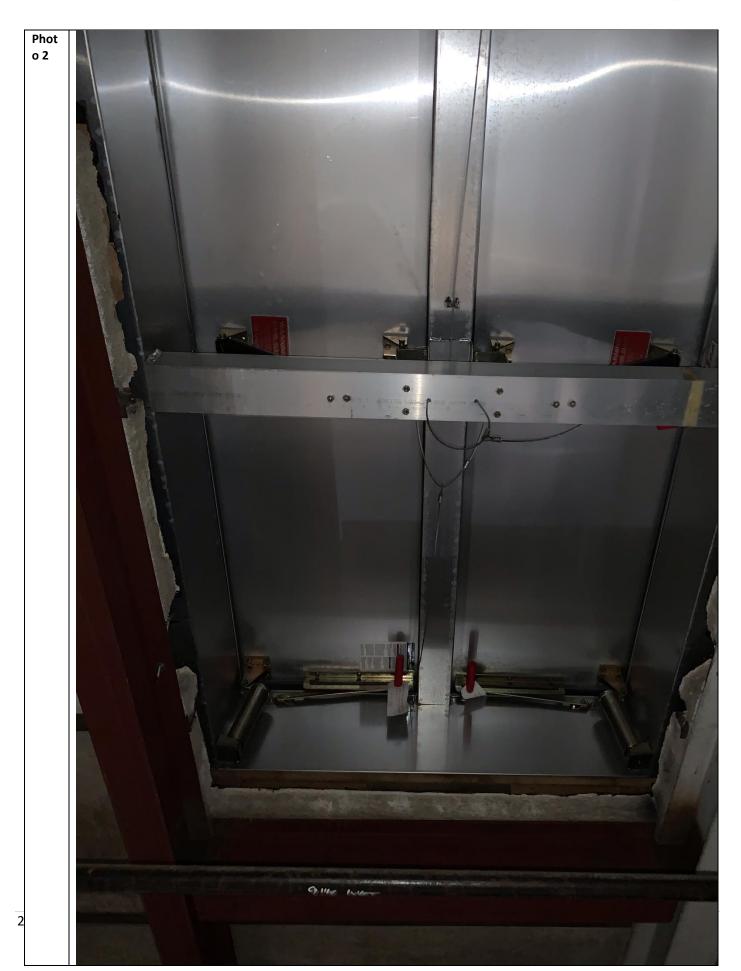
There are 4 smoke hatch's













MAINTENANCE AND INSPECTION LOG

Use this log to keep track of required annual inspections and any service performed on your motorized rigging equipment. Keep this in a binder along with other service information such as inspection reports.

DATE	SET #	SERVICE PERFORMED	SERVICE PROVIDER	INITIALS
09/14/20	All	Rigging safety inspection	Northeast Stage	CA



FIRE CURTAIN TESTING LOG

Use this log to keep track of when you test your fire curtain.

Note: We recommend testing once every 30 days, and at least every 90 days depending on usage. Note: Should be tested once with smoke vents open and once with vents closed Note: Always deploy (close) your fire curtain when not in use

DATE	PERSON	SPEED	INITIALS
<u> </u>			
<u> </u>			



OBSERVATION SUMMARY AND RECOMMENDATIONS

Summary

There are quite a few issues to be resolved. Some appear to be as a result of moisture: some issues related to lithium grease.

Priority (H-M-L)	ltem #	Recommendation	By Whom (Staff or Rigging Contractor)
Н	1	Replace head blocks	NES
Н	2	Remove grease from t-guides	NES
Н	3	Replace arbor shoes	NES
L	4	Replace cyclorama (dry rot)	NES
Μ	5	Add end stop to main curtain and switch curtain positions (stage right move to stage left)	NES
L	6	Fix curtains so they overlap properly at centerline	NES
Μ	7	Adjust tension blocks	NES
Μ	8	Replace raceway brackets with properly sized	NES
Н	9	Install winches to manual close smoke hatch's	NES
L	10	Add end caps to all battens	NES
Н	11	Install safety gate at top of strait ladder	NES
Μ	12	Adjust rope locks tension/ dogs	NES
Μ	13	Replace purchase lines as needed	NES





REFERENCE MATERIAL

Practical Health and Safety Guidelines for School Theater Operations Dr. Randal W. A. Davidson Risk International Publishing, Littleton, Colorado Stage Rigging Handbook, second edition Jay O. Glerum Southern Illinois University Press Backstage Handbook Paul Carter Broadway Press, Louisville, Kentucky J.R. Clancy Website-Allowable Batten Loads Design Manufacture & Installations of Theatrical Equipment Worldwide

Wire Rope Users Manual Wire Rope Technical Board

The Morrow Guide to Knots Mario Bigon and Guido Regazzoni Quill/William Morrow/ New York



End of Report

Respectfully submitted,

Bob Kress On behalf of Northeast Stage, Inc.

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