THEATRE RIGGING PROPOSAL

(VENUE NAME)

(DATE COMPLETED)

by (author)

A proposal to systematically replace the counter weight rigging system working lines in the GENERIC Theatre.

Abstract:

In an effort to increase the level of safety of operations at the GENERIC Theatre, this proposal outlines the acquisition and procedure to replace the operating rigging lines (ropes) in the GENERIC theatre's counter-weight rigging system. It has been (number) years since the synthetic ropes have been replaced. At that time, in one coordinated effort, all (number) linesets, of (number) ropes each, were replaced. Although this is ideal for operational safety and project efficiency, it is not necessary and a more economically-feasible means to proceed with this process is outlined herein. The implementation of this proposal will be performed in-house by (Name) and (number) additional, as-needed rigger(s). It will not hamper theatre scheduling or operations, nor will it require the replacement of any sub-system to coincide with this operation, or include any third-party assistance. A late summer, early Fall timeline is optimal for the first phase of this project. Although, the new ropes will increase safety, they alone will not upgrade the working load capacity of the theatre's rigging system, which is generally (number) pounds of uniformly distributed load across each batten, with a few exceptions due to damaged head blocks and other loft and head block associated concerns.

(name) Administration should note that this rope replacement project is the (number) of (number) critical rigging projects the GENERIC Theatre requires to provide a safe, reliable, and fully functional counter-weight rigging system. These projects include (SAMPLES - rigging loft and head block replacement, main valance curtain traveler system rebuild and batten replacement, fire curtain system rebuild, and a thorough documented inspection by a third party), with priority being in the order of listing.

Background

(SAMPLE BACKGROUND - In 1920, as part of the Theatre preparations for *Faust*, all the linesets' ropes were replaced in the GENERIC Theatre. A purchase of approximately 36 – 600' spools of Multiline II rope was purchased. Shortly after installation and operations began, it was discovered that the lay (constructed twist) of the rope was defective and caused the lines to twist around each other while under tension. In time, the merchant provided replacement rope which was immediately installed and have been operational ever since. Throughout the counter-weight rigging system, signs of wear are readily apparent, but particularly evident throughout the more commonly used linesets. This can be observed as pilling, reminiscent of that on a sweater, and fraying of fibers. There is no warrantee or guarantee on rope, just a working load limit, which we operate well within the limits of.

From the completion of the most recent replacement, left over rope has been utilized to replace specific lines that exhibited extreme wear. The loft and head blocks guiding this linesets at the grid level are in a state of function that exaggerates the wear on the system ropes. Even the replacement lines are now at the state of wear warranting another replacement.)

Scope of Project

(ESTABLISH DEFINITIONS - In this application, rope is considered an expendable item). The current ropes have served the theatre well, but have surpassed their reliable operational lifespan. It is our hope to keep the Theatre on a 10 year replacement cycle starting with this project's first phase, This plan creates a predictable schedule of expense that coincides with a system wide maintenance schedule, all of which are elements to an overall Rigging Standard we will work to maintain for the direct purpose of operational safety and an indirect purpose of liability management.

Required Materials:

Far far - 70' from floor to grid + 40' across to head block + 35' down to pin rail + 25' slack = 170'
Far - 70' + 28' + 35' + 25' = 158'
Center - 70' + 22' + 35' + 25' = 152'
Near - 70' + 16' + 35' + 25' = 146'
Near near - 70' + 4' + 35' 25' = 134'
Total length of rope needed per lineset = 760' or 1.3 spools of 600'
35 linesets multiplied by 1.3 equals 47 600' Spools

Labor Estimate

Phase 1 (total minute/hour count for both personnel needed)

Preparations	1hr
Lineset B	4hrs
All remaining Linesets (30 minutes each)	24hrs
Phase 1 Total labor (in hours)	29 hours

Phase 2 (total minute/hour count for both personnel needed)

Preparations	1hr
All remaining Linesets (30 minutes each)	26hrs
Clean-up	1hr
Phase 2 Total labor (in hours)	28 hours

Total Project Labor Hours 57 hours

Implementation Plan with Timeline

In order to divide the expense of labor and materials between two budgetary quarters, the project can be divided into two "Phases."

Phase 1 – Replace half of all lineset ropes - Late Summer 2011

- Replace lineset numbers B, 3, 5, 6, 12, 13, 14, 16, 20, 21, 23, 25, 27, 28, 29, 30, and 33.

Phase 2 – Replace remaining half of all lineset ropes – Late Winter 2012

- Replace Lineset numbers 1, 2, 4, 7, 8, 9, 10, 15, 17, 18, 19, 22, 24, 26, 31, 32, and 34.

Phase 1, Day 1 – 2 riggers at 8hrs 9AM to 6PM equals 16 hours

- Remove weight stack and arbor, then lower in Linesets B, 3, 5, 6, 12, 13, 14, 16, and 20.
- Remove old Lines from battens at floor level.
- From SR fly loft, coil old rope as it comes down from grid.
- Clean floor
- Roll out battens, inspect, and document.
- Layout valance header and skirt, vacuum, and inspect/repair, then fold and store.
- Starting down stage, pull spooled lines up to grid and through blocks to established length markers.
- Cut and secure measured rope pieces.
- Fasten to batten, and move on to next lineset.
- After lines are all fastened to battens, up to fly loft to wench out linesets to rail height. Add arbors and weight stacks.
- When all weight stacks have been replaced, lower and level from ground.

Phase 1, Day 2 – 2 riggers at 6.5hrs 10AM to 5:30PM equals 13 hours

- Remove weight stack and arbor, then lower in Linesets 21, 23, 25, 27, 28, 29, 30, and 33.
- Remove old Lines from battens at floor level.
- From SR fly loft, coil old rope as it comes down from grid.
- Roll out battens, inspect, and document.
- Starting down stage, pull spooled lines up to grid and through blocks to established length markers.
- Cut and secure measured rope pieces.
- Fasten to batten, and move on to next lineset.
- After lines are all fastened to battens, up to fly loft to wench out linesets to rail height. Add arbors and weight stacks.
- When all weight stacks have been replaced, lower and level from ground.
- Clean-up fly loft, stack reels on loading dock, and sweep stage.

Phase 2, Day 1 – 2 riggers at 6.5hrs 9AM to 6PM equals 16 hours

- Remove weight stack and arbor, then lower in Linesets 1, 2, 4, 7, 8, 9, 10, 15, 17, and 18.
- Remove old Lines from battens at floor level.
- From SR fly loft, coil old rope as it comes down from grid.
- Roll out battens, inspect, and document.
- Starting down stage, pull spooled lines up to grid and through blocks to established length markers.
- Cut and secure measured rope pieces.
- Fasten to batten, and move on to next lineset.

- After lines are all fastened to battens, up to fly loft to wench out linesets to rail height. Add arbors and weight stacks.
- When all weight stacks have been replaced, lower and level from ground.

Phase 2, Day 2 – 2 riggers at 6.5hrs 10AM to 5PM equals 12 hours

- Remove weight stack and arbor, then lower in Linesets 19, 22, 24, 26, 31, 32, and 34.
- Remove old Lines from battens at floor level.
- From SR fly loft, coil old rope as it comes down from grid.
- Roll out battens, inspect, and document.
- Starting down stage, pull spooled lines up to grid and through blocks to established length markers.
- Cut and secure measured rope pieces.
- Fasten to batten, and move on to next lineset.
- After lines are all fastened to battens, up to fly loft to wench out linesets to rail height. Add arbors and weight stacks.
- When all weight stacks have been replaced, lower and level from ground.
- Clean-up fly loft, stack reels on loading dock, and sweep stage.

Budget

The costs of this project are for materials and labor. There is no foreseeable indirect cost. The source of the materials is

Rope Company A
5 Strand Lane
Towne, IA. 22701
(123) 123-1234
Fax (123) 123-1234

Cost per 600’ spool is $$$, free shipping.
47 600’ Spools are needed.
Materials order is $$$$$$
IA State Sales Tax at % equals $$$
Total Estimated Materials Cost is $$$$$$$$

Cost of labor is for two riggers at the cost of $$ per labor hour.
Phase 1 requires ## labor hours, totaling $$$$.
Phase 2 requires ## labor hours, totaling $$$$.
Total labor required is ## labor hours, totaling $$$$.

Total Cost for this Rope Replacement Project is

Total materials	**=**	**$$$$$$$$**
Total labor	**=**	**$ $$$$$$**
Total Project cost	**=**	**$$$$$$$$**

Although this price reflects the total rope order at the cost of $$$ per 600' spool of rope, prices are estimated to go up between 10 to 40%, after mid-September, as per Rope Company A. Therefore, if the rope order is divided between two purchases, it is anticipated to increase the overall project cost by the difference in the increased cost of the rope.

Evaluation and Maintenance

Immediately following the installation of the new rope, a short period of stretching will take place where the battens will often require being re-leveled. In approximately one month of operation, the need for this "break-in" procedure will cease. The new "hand" of the rope will likely be more rough on the operators and use of gloves should be encouraged.

At the completion point of this project, records should be compiled and a maintenance schedule should be established for daily visual, monthly operational, and annual thorough system, inspections. Outlines for such documentation are already available to the GENERIC theatre Staff.

In association to another priority rigging project for the GENERIC theatre, loft and head block replacement, some labor expense can be reduced if the two projects were to coincide with each other. The replacement of loft and head blocks will require all linesets to be fully removed from both loft and head blocks, but not from the battens. This process can successfully, with some efficiency, be preformed. Therefore, it is beneficial to consider both projects together, but not necessary.

Conclusion

Once completed, the ## newly roped linesets at GENERIC theatre will directly effect the level of safety and indirectly affect the liability (NAME) has in its obligation to both staff and patrons to maintain its theatres' operational rigging systems. The step of replacing the ###, ## year old rigging lines in the GENERIC theatre is a huge step forward in renovating a neglected theatre sub-system that is heavily relied upon, literally.