



Apeiro Design

FROM RESTORATION TO RESILIENCE

...To Brilliance!



Sustaining Your Historic  
Theatre for the Future



League of Historic  
American Theatres



# Cast of Characters



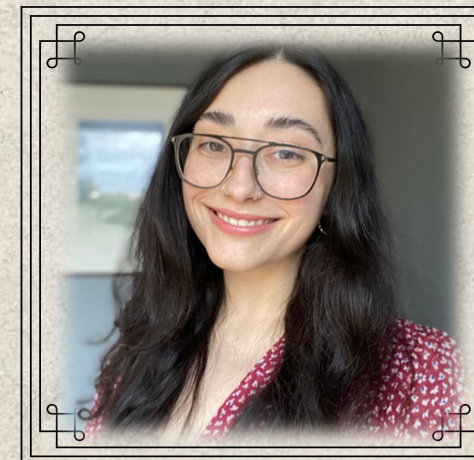
**Joanna Obuzor**  
VP of Venue Operations  
Pittsburgh Cultural Trust  
Pittsburgh, PA



**Kevin Auses**  
Associate Principal  
Apeiro Design  
New York / Pittsburgh



**Wendy Riggs**  
Director, Cultural Arts  
VVA Project & Cost Managers  
New York / Fayetteville, AR



**Katelyn Colwell**  
Director of Operations  
Pittsburgh Cultural Trust  
Pittsburgh, PA

**Moderator**



**Steve Karoly**  
Associate Principal  
GBBN Architects  
Cincinnati / Pittsburgh



**Amy King**  
Business Development  
VVA Project & Cost Managers  
New Jersey / New York  
**Comic Relief**



# Planning for Capital Projects



- ASSESSMENTS
- BUDGETING & PLANNING
- DESIGN
- COMMUNICATION
- IMPLEMENTATION
- CHALLENGES
- Q&A





# ASSESSMENTS

## What is an Assessment?

Assessment vs Feasibility Study



# ASSESSMENTS

## Protecting Facility Investments

Section & Category	What: Project Notes / Scope	Where: Location(s) / reference / space / spec
<b>Architectural</b>		
A Front of House (Basement)		
Lighting Replacement	Repair flickering light	One light - Hall 020
LVT	Deep clean floors	All LVT
Plaster Walls	Patch and paint plaster walls where cracked or worn	Common among plaster walls
Doors	Clean and refinish select doors.	Uncommon in doors
B Front of House		
New Vestibule	Design and construct new interior entry vestibule at front entry. This project would require the involvement of an architect, consultants, and general contractor.	Lobby 109
Historic Wood Doors	Doors require, in many cases, extensive rehabilitation in the form of hardwood infill replacements, hardware repair and replacement. Door rehabilitation may necessitate a partial or complete <u>disassembly of wood door</u>	All historic double wood doors (8 sets in total)
Utility Work	Remove abandoned utility pipes, replace lighting control device	Uncommon in radiators and lighting control
Foors - Marble	Reset loose floor tiles and monitor for continued deterioration.	All stone floors in Lobbies, Main Hall, and Park View
Floors - Wood	Refinish wood floors	Gold and Green Rooms
Lighting - LED Bulbs	Replace LED bulbs with historically-appropriate Edison-style bulbs	All Front of House bulbs
Plaster Walls	Patch and paint plaster walls where cracked or worn	Common among plaster walls
Park View Stone Walls, Ceiling, and Vault	Tier 1: Replace mortar where failing Tier 2: Tuck point entire room	Park View
Wall Trim	Remove paint drips and hazardous objects from wooden picture rails and wainscoting and refinish where needed.	Level 1 Halls
Historic Wood Windows	Patch, repair, and refinish windows and frames on inside and outside, add weatherstripping, paint exterior surfaces	All historic wood windows (including auditorium windows)
C Auditorium & Stage		
AV Patch Panel	Install two (2) new AV patch panels	Stage
Balcony Drips	Fully clean front face of balcony	Balcony
Paint Floors	Paint concrete floors where worn	All auditorium floors
Lighting - LED Bulbs	Replace LED bulbs with historically-appropriate Edison-style bulbs	All auditorium bulbs
Lighting - Proscenium Sockets	Replace socket system in proscenium arch lights	Lights in proscenium arch



Section & Category	What: Project Notes / Scope	Where: Location(s) / reference / space / spec
<b>Architectural</b>		
A Front of House (Basement)		
Lighting Replacement	Repair flickering light	One light - Hall 020
LVT	Deep clean floors	All LVT
Plaster Walls	Patch and paint plaster walls where cracked or worn	Common among plaster walls
Doors	Clean and refinish select doors.	Uncommon in doors
B Front of House		
New Vestibule	Design and construct new interior entry vestibule at front entry. This project would require the involvement of an architect, consultants, and general contractor.	Lobby 109
Historic Wood Doors	Doors require, in many cases, extensive rehabilitation in the form of hardwood infill replacements, hardware repair and placement. Door rehabilitation may necessitate a partial or complete <u>disassembly of wood door</u>	All historic double wood doors (8 sets in total)

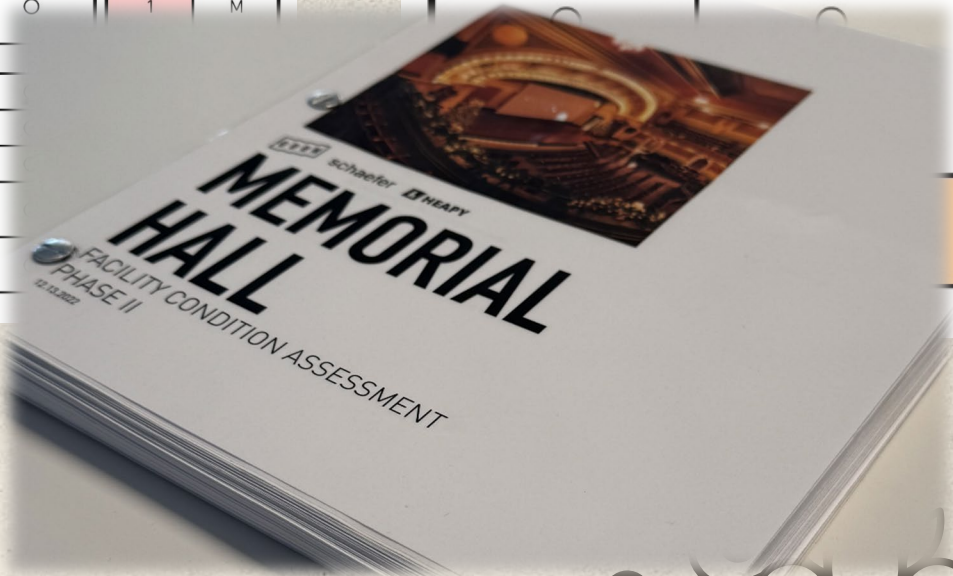


# ASSESSMENTS

## Protecting Facility Investments

Impacts Life Safety	At End of Useful Life Expectancy	Historically Significant Material or Feature	Impacts Operational Cost	Impact on Maintenance and Repair	Impacts Building Program / Functionality	Building Code Compliance	Projected Year	Maintain, Replace, or New
○	●	○	○	●	○	○	1	M
○	○	○	○	●	○	○	3	M
○	○	○	○	●	○	○	3	M
○	○	○	○	●	○	○	3	M
○	○	●	●	○	●	○	10	N
○	○	●	○	○	●	○	3	M/R
●	●	○	○	●	○	○	3	R
○	○	●	○	●	○	○	5	M
○	○	○	○	●	○	○	3	M
○	○	●	●	○	○	○	5	R
○	○	●	○	●	○	○	3	M
○	○	●	○	●	○	○	5	M
○	○	●	○	○	○	○	1	M
○	○	●	●	●	○	○	1	M
○	○	○	○	○	●			
○	○	●	○	●	○			
○	○	○	○	●	○			
○	○	●	●	○	○			
○	●	●	●	○	○			

Impacts Life Safety	At End of Useful Life Expectancy	Historically Significant Material or Feature	Impacts Operational Cost	Impact on Maintenance and Repair	Impacts Building Program / Functionality	Building Code Compliance	Projected Year	Maintain, Replace, or New
○	●	○	○	●	○	○	1	M
○	○	○	○	●	○	○	3	M
○	○	○	○	●	○	○	3	M
○	○	○	○	●	○	○	3	M
○	○	●	●	○	●	○	10	N
		●	○	○	●	○	3	M/R
○	○	○	○	●	○	○	3	R
○	○	○	○	●	○	○	5	M





# ASSESSMENTS

## Cost Estimations Using Escalations



Memorial Hall - South - 3rd Floor

Water damage at a corner where downspout exists on interior  
Investigate downspout to determine the cause and location of the water infiltration. Repair as required.



Memorial Hall - South - 2nd Floor

Water damage at a corner where downspout exists on interior  
Investigate downspout to determine the cause and location of the water infiltration. Repair as required.

SUMMARY:	ESCALATION			
	YEAR 1 8% P.A.	YEAR 3 6% P.A.	YEAR 5 4% P.A.	YEAR 10 4% P.A.
	TOTAL COST \$	TOTAL COST \$	TOTAL COST \$	TOTAL COST \$
C. AUDITORIUM & STAGE				
AV Patch Panel	\$9,000	\$11,000	\$12,000	\$15,000
Balcony Drips	\$3,000	\$4,000	\$5,000	\$7,000
Paint Floors	\$4,000	\$5,000	\$6,000	\$8,000
Lighting - LED Bulbs	\$14,000	\$16,000	\$18,000	\$22,000
Lighting - Proscenium Sockets	\$10,000	\$12,000	\$13,000	\$16,000
Railing	\$25,000	\$29,000	\$32,000	\$39,000
Seating	\$25,000	\$29,000	\$32,000	\$39,000
Speakers	\$54,000	\$61,000	\$66,000	\$81,000
Stage Curb	\$10,000	\$12,000	\$13,000	\$16,000
Stage Floor	\$12,000	\$14,000	\$16,000	\$20,000
Plaster Walls	\$98,000	\$111,000	\$121,000	\$148,000
Storm Windows	\$63,000	\$71,000	\$77,000	\$94,000
D. BACK OF HOUSE (BASEMENT)				
Concrete Cracks	\$33,000	\$38,000	\$42,000	\$52,000
Concrete Floor	\$26,000	\$30,000	\$33,000	\$41,000
Ramp	\$17,000	\$20,000	\$22,000	\$27,000
Walls Scuffs/Damage	\$9,000	\$11,000	\$12,000	\$15,000
Fireproofing	\$11,000	\$13,000	\$15,000	\$19,000
Pipes	\$8,000	\$9,000	\$10,000	\$13,000
E. BACK OF HOUSE				
Floors - Misc	\$17,000	\$20,000	\$22,000	\$27,000
Floors- Marble	\$7,000	\$8,000	\$9,000	\$11,000
Wall Scuffs/Damage	\$11,000	\$13,000	\$15,000	\$19,000
Fireproofing	\$7,000	\$8,000	\$9,000	\$11,000



# ASSESSMENTS

## Cost Estimations Using Escalations



South Carriageway - Roof

Extensive corrosion of existing cooling tower support steel. Steel has painted finish (not galvanized). Remove exist paint and corroded surface steel. Depending on corrosion depth, reinforcement/replacement may be needed. Repaint with rust preventative paint.



South Carriageway - Roof

Extensive corrosion of existing cooling tower support steel. Steel has painted finish (not galvanized). Remove exist paint and corroded surface steel. Depending on corrosion depth, reinforcement/replacement may be needed. Repaint with rust preventative paint.

SUMMARY:	ESCALATION			
	YEAR 1 8% P.A.	YEAR 3 6% P.A.	YEAR 5 4% P.A.	YEAR 10 4% P.A.
	TOTAL COST \$	TOTAL COST \$	TOTAL COST \$	TOTAL COST \$
C. AUDITORIUM & STAGE				
AV Patch Panel	\$9,000	\$11,000	\$12,000	\$15,000
Balcony Drips	\$3,000	\$4,000	\$5,000	\$7,000
Paint Floors	\$4,000	\$5,000	\$6,000	\$8,000
Lighting - LED Bulbs	\$14,000	\$16,000	\$18,000	\$22,000
Lighting - Proscenium Sockets	\$10,000	\$12,000	\$13,000	\$16,000
Railing	\$25,000	\$29,000	\$32,000	\$39,000
Seating	\$25,000	\$29,000	\$32,000	\$39,000
Speakers	\$54,000	\$61,000	\$66,000	\$81,000
Stage Curb	\$10,000	\$12,000	\$13,000	\$16,000
Stage Floor	\$12,000	\$14,000	\$16,000	\$20,000
Plaster Walls	\$98,000	\$111,000	\$121,000	\$148,000
Storm Windows	\$63,000	\$71,000	\$77,000	\$94,000
D. BACK OF HOUSE (BASEMENT)				
Concrete Cracks	\$33,000	\$38,000	\$42,000	\$52,000
Concrete Floor	\$26,000	\$30,000	\$33,000	\$41,000
Ramp	\$17,000	\$20,000	\$22,000	\$27,000
Walls Scuffs/Damage	\$9,000	\$11,000	\$12,000	\$15,000
Fireproofing	\$11,000	\$13,000	\$15,000	\$19,000
Pipes	\$8,000	\$9,000	\$10,000	\$13,000
E. BACK OF HOUSE				
Floors - Misc	\$17,000	\$20,000	\$22,000	\$27,000
Floors- Marble	\$7,000	\$8,000	\$9,000	\$11,000
Wall Scuffs/Damage	\$11,000	\$13,000	\$15,000	\$19,000
Fireproofing	\$7,000	\$8,000	\$9,000	\$11,000





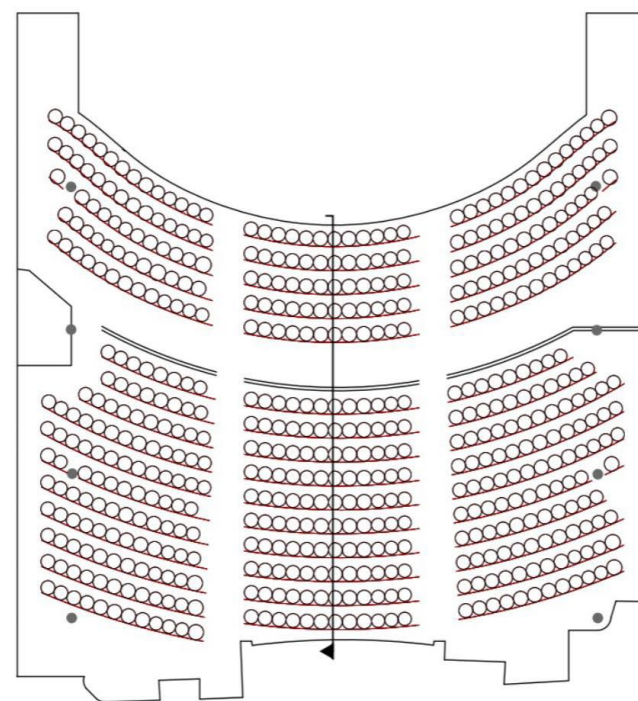
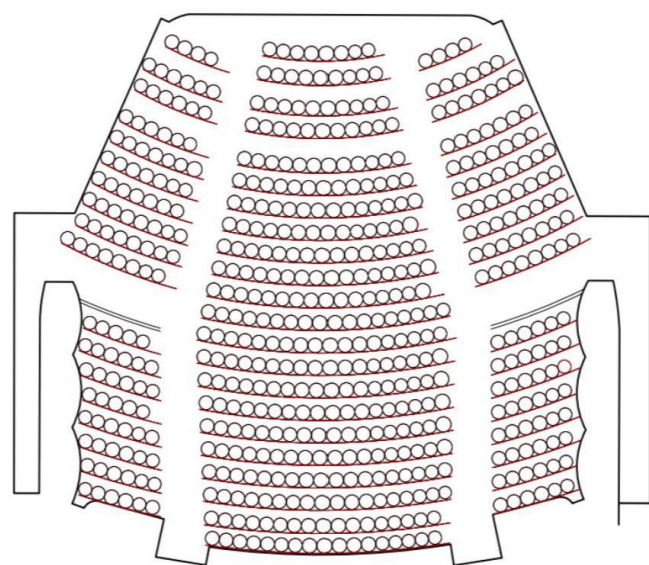
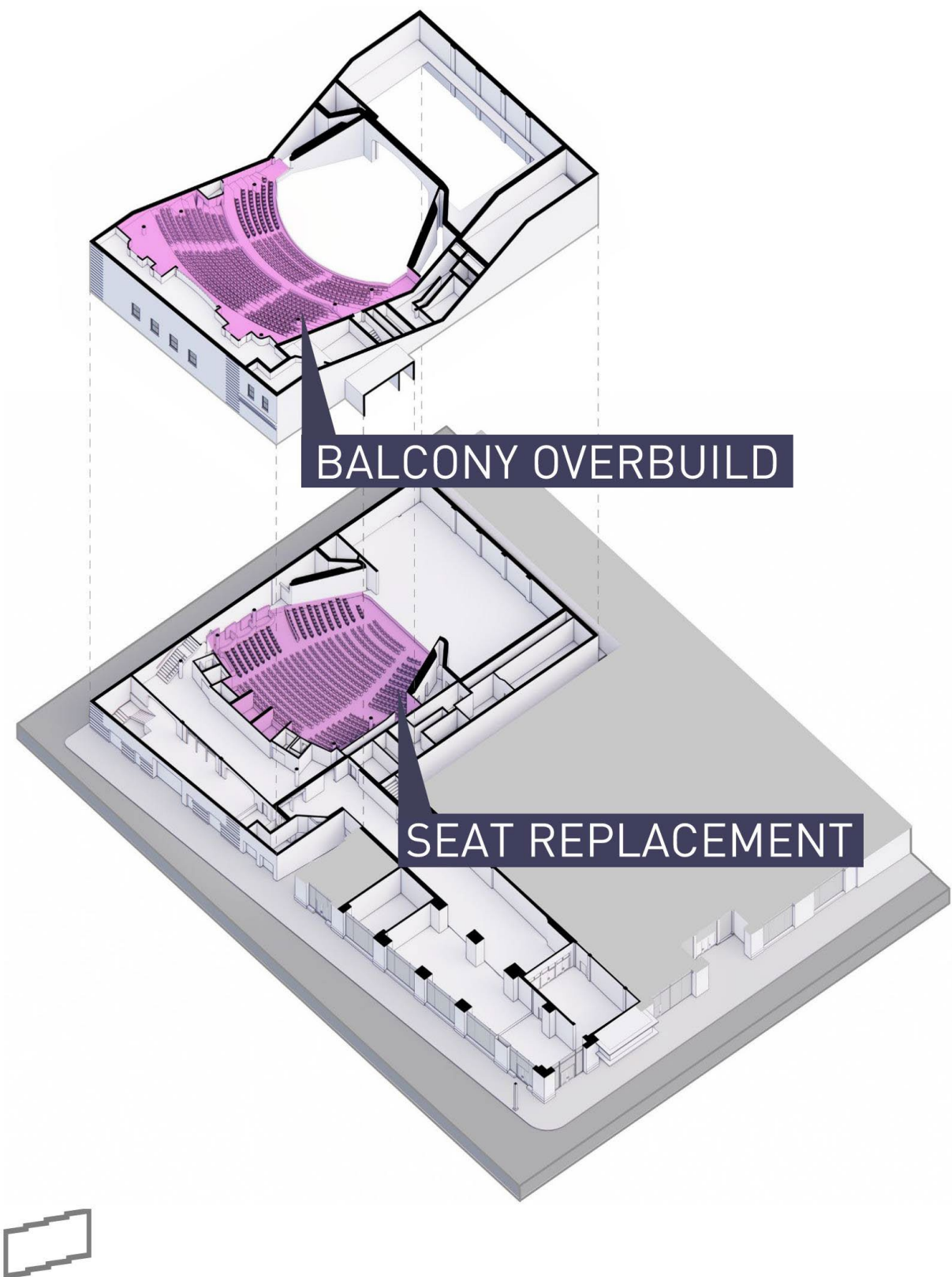
# ASSESSMENTS

## Reserved Study/Feasibility Study for Fundraising Purposes

Fine-tune assessment for fundraising presentation



# Seating Replacement



## PROPOSED SEATING

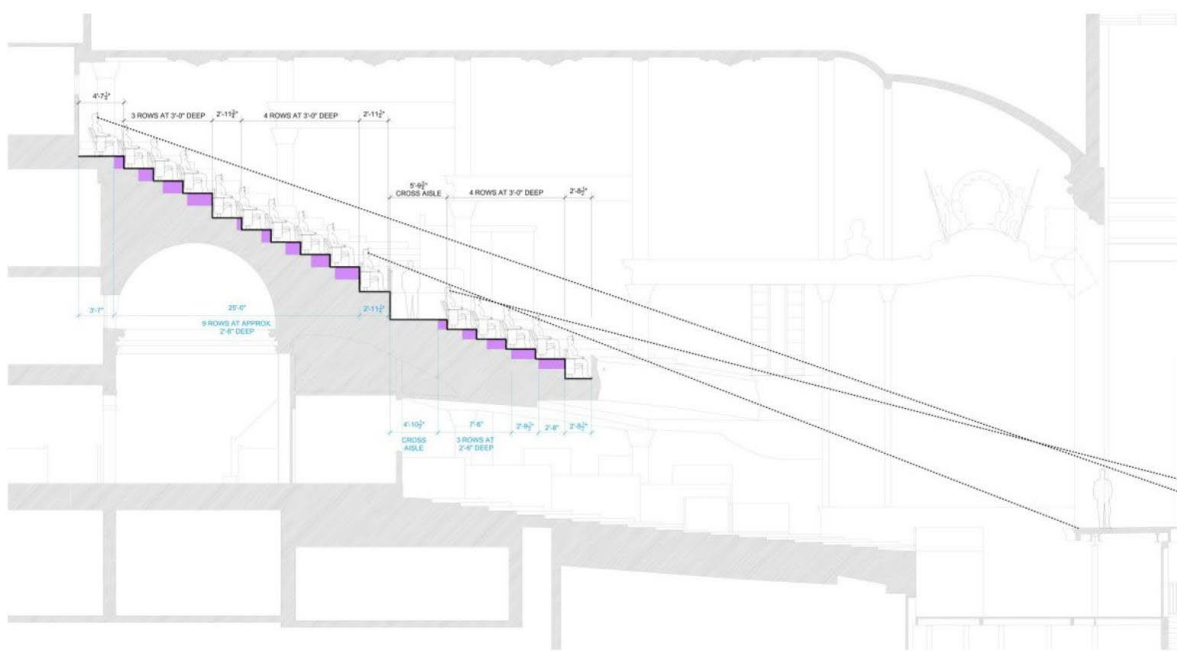
### Lower Level

19" – 1, **0%**  
20" – 163, **29%**  
21" – 207, **37%**  
22" – 185, **33%**  
23" – 10, **2%**  
Total - 566

### Lower Level

19" – 8, **1%**  
20" – 145, **26%**  
21" – 209, **38%**  
22" – 181, **33%**  
23" – 7, **1%**  
Total - 550

**Total Fixed Seats – 1,116**





PITTSBURGH CULTURAL TRUST													
BYHAM THEATER													
RESERVE STUDY - JUNE 30, 2023													
PRIORITY	ITEM	ITEM DESCRIPTION	MANUFACTURER	MODEL	QTY.	USEFUL LIFE	YEARS IN USE	REMAINING LIFE	REPLACEMENT COST	RESERVED PER YEAR	LEFT TO RESERVE	RESERVED TO DATE	NOTES
A: Theatrical Audio Video Sytems													
Main Sound Systems													
1	6	Main PA Replacement	Custom		1	15	20	-5	\$100,000			\$100,000	If Meyer M'elodie is moved over from Benedum Center, cost includes estimate for rigging and electrical upgrades
1	7	DSP Replacement	Various		1	10	25	-15	\$25,000			\$25,000	Cost estimate based on QSC 610i or equivalent new DSP with redundancy and network infrastructure
1	8	Assistive Listening System	Sennheiser	IR	1	15	20	-5	\$25,000			\$25,000	Cost estimate based on Sound Associates headsets with Listen Technologies type head end
Support Systems													
2	2	Signal Distribution	Various		1	10	20	-10	\$75,000			\$75,000	Cost estimate based on new plates and network based signal distribution
2	3	Stage Fill	Various		1	10	25	-15	\$20,000			\$20,000	Cost estimate based on qty (4) 12" two way modern speakers with amplification
2	4	Intercom Update	Cleacom		1	15	20	-5	\$75,000			\$75,000	Cost estimate based on Clearcom Arcadia
Distributed Systems													
2	7	Lobby Infrastructure	Various		1	20	30	-10	\$75,000			\$75,000	Cost estimate for displays, speakers, cabling and infrastructure
2	8	Meeting / Presentation	Various		1	10	20	-10	\$50,000			\$50,000	Cost estimate for projection, screen, laptop interface and associate infrastructure
B: Theatrical Lighting Systems													
Power Distribution													
1	10	Dimmer Rack, 48-module	ETC	Sensor Classic	4	20	28	-8	\$40,000			\$40,000	
1	10	Power Control Modules	ETC	Various	192	20	28	-8	\$200,000			\$200,000	Assumes hybrid dimmed/switched system. Includes house/run/work light power controls
1	10	Dimmer Doubling System	ETC		300	20	28	-8	\$100,000			\$100,000	
1	10	Receptacle Devices, Distribution			344	50	28	22	\$75,000	\$1,500	\$33,000	\$42,000	Quantity indicates total circuits
Control System													
1	11	Control Console	ETC	Ion	1	10	10		\$40,000			\$40,000	Estimated years in use
1	11	Remote Video Interface	ETC	RVI	1	10	10		\$12,000			\$12,000	Estimated years in use
1	11	Network Control Rack and electronics			1	20	10	10	\$36,000	\$1,800	\$18,000	\$18,000	Includes switches, DMX nodes, repeaters, etc.
1	11	Wireless Network			1	20	10	10	\$1,000	\$50	\$500	\$500	
1	11	Receptacle Devices, Control			LOT	20	28	-8	\$45,000			\$45,000	Replacement costs include portable DMX nodes
Theatrical Lighting Fixtures													
2	5	Ellipsoidal Reflector Spotlights	ETC	Source Four	192	20	28	-8	\$875,000			\$875,000	Costs are based on one-for-one replacement of incandescent fixtures with color-changing LEDs.
2	5	Ellipsoidal Reflector Spotlights, Zoom	ETC	Source Four Zoom	60	20	28	-8	\$240,000			\$240,000	Costs are based on one-for-one replacement of incandescent fixtures with color-changing LEDs. Assumes re-use of existing lens tubes.
2	5	PAR fixtures, 550W	ETC	Source 4 PAR	40	20	28	-8	\$140,000			\$140,000	Costs are based on color-changing LED fixtures
2	5	PAR fixtures, 1kW	L&E	PAR 64	12	20	28	-8	\$45,000			\$45,000	Costs are based on color-changing LED fixtures
2	5	Fresnel, 8"	L&E		38	20	28	-8	\$150,000			\$150,000	Costs are based on color-changing LED fixtures
2	5	Cyc Striplight, 6'	L&E	T-3	5	20	28	-8	\$30,000			\$30,000	Costs are based on color-changing LED fixtures
2	5	Cyc Striplight, 7'	L&E	T-3	5	20	28	-8	\$30,000			\$30,000	Costs are based on color-changing LED fixtures
2	5	MR-16 Striplight, 8'	L&E	Mini-strip	4	20	28	-8	\$24,000			\$24,000	Costs are based on color-changing LED fixtures
2	5	Followspots	Lycian	M-2	2	20	28	-8	\$35,000			\$35,000	Costs are based on color-changing LED fixtures
2	5	Hardware	Various		LOT	50	28	22	\$10,000			\$10,000	
2	5	Fixture Accessories	Various		LOT	20	28	-8	\$15,000			\$15,000	
2	5	Portable stage cables	Various		LOT	20	28	-8	\$45,000			\$45,000	
Cue Light System													
2	5	Cue Light Control System			1	30	28	2	\$12,000	\$400	\$800	\$11,200	
2	5	Cue Light Receptacle Devices			LOT	30	28	2	\$3,000	\$100	\$200	\$2,800	
Enhanced Usability													
-	-	208V Relay Panel & Distribution			1	25		25	\$18,000			\$18,000	
-	-	Backup Processor for Control Console			1	10		10	\$18,000			\$18,000	
-	-	As-Built Documentation / Conduit Inventory			1	20		20	\$10,000			\$10,000	



# ASSESSMENTS



Leads to...







# Assessments

## Owners Perspective / Approach

~Decision making process to do study before repairs

~Evaluation of Venues – Scope & Programming

~Funding for the study

~Know the “history” of your historic theatre (Document! Document! Document!) Find them *and* create them.



Documentdocument document!!!

**YES!!!**



**NO!!!**





# Owners Perspective/Approach

Maintaining History  
While Modernizing  
Compromises?





# Decision Making



*“Too many cooks  
spoil the broth.”*

~Jane Austen



# BUDGETING & PLANNING



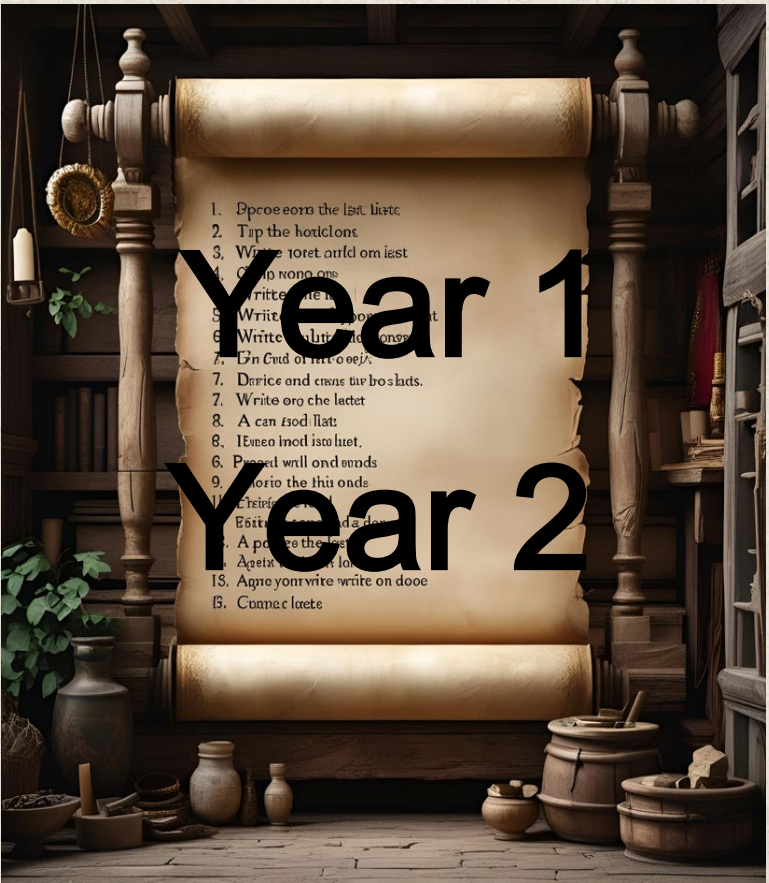
Time and Cost Projections



Priority Lists/Rolling Capital



Planning & Phasing





# BUDGETING & PLANNING

## Planning & Phasing – Simple Spreadsheet

BENEDUM 1-3					Not Started	In Progress	On Hold	Complete	FFE Purchased	Vendor Contracted	TBD					
	PRIORITY 2, 3, 4	TECH COMPONENTS			ON	ON	ON	ON	ON	ON	OFF					
		STAGE														
		</														




# BUDGETING & PLANNING



## Planning & Phasing - Advanced



Real-Time, Data-Driven Project Analytics



### Building Assessments



Building Name	Project Title	Timing	Status	Spotlight	Permit Set	Cost
01.Benedum Theater		Year 2	Construction Completed	Construction	No	\$2,050,300
02.Byham Theater		Year 2	In Progress	Construction	No	\$2,655,200
03.O'Reilly Theater		Year 2	Construction Completed	Construction	No	\$2,558,500
04.Harris Theater						
04.010	1st Floor ADA Bathroom Modifications	Year 2	In Progress	Design	No	\$500
04.009	Accessible Counters	Year 2	In Progress	Design	Yes	\$5,000
04.105-T	CAT6A Cabling Upgrade	Year 2	In Progress	Design	No	\$10,000
04.006-T	Designated Accessible and Companion Seating	Year 2	In Progress	Design	Yes	\$6,000
04.007-T	Designated Aisle Seating	Year 2	In Progress	Design	No	\$6,500
04.104-T	DSP Upgrade	Year 2	In Progress	Design	No	\$20,000
4.139	Infrared Thermoscans (IR)	Year 2	In Progress	Construction	No	\$1,000
04.119a	Investigation Roof Framing and Parapet Wall Structure	Year 2	In Progress	Design	No	\$0
04.118	Liberty Avenue Moisture Intrusion Interior Remediation Work	Year 2	Construction Completed	Operations	No	\$0
04.016-T	Modify/ retrofit armrests to include cup holders for recently added accessibility solutions for closed caption + audio descriptive system	Year 2	In Progress	Design	No	\$6,000
04.110b	Roof Framing and Parapet Wall	Year 2	In Progress	Design	TDN	\$70,000

#### Search Projects

Project Title

Project Number

Building

All

Timing

Year 2

☐ Awaiting Appro...

☐ Byham Renovat...

☐ Future Capital ...

☐ Not Elected/Re...

☐ Year 1

☒ Year 2

☐ Year 2 (Priority)

Status

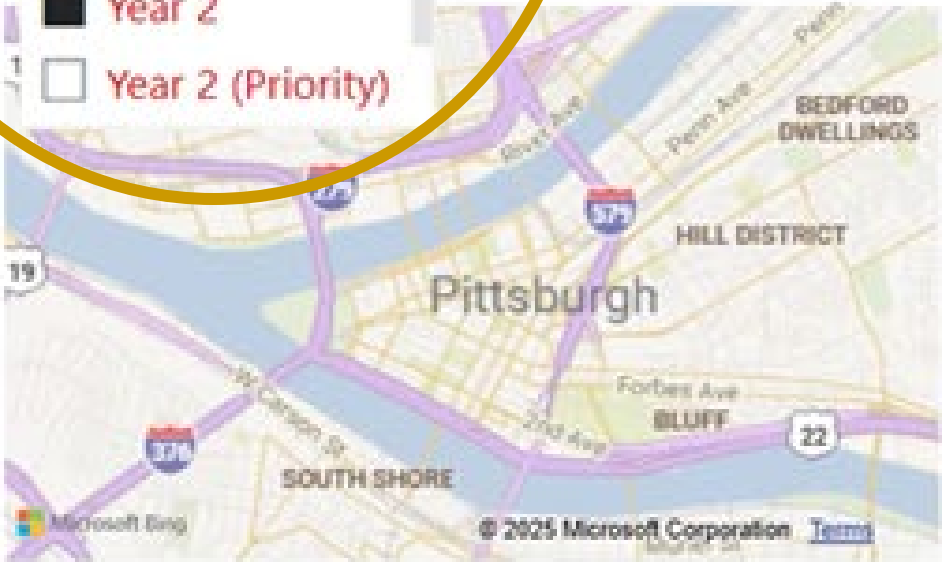
All

In Permit Set

All

Streetscapes

All





# DESIGN





**IF IT AIN'T BAROQUE**

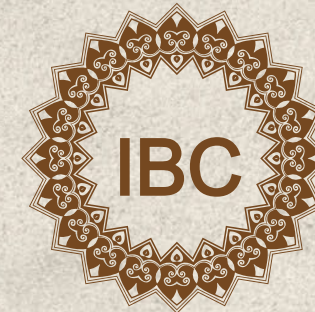


**DON'T FIX IT**

**WRONG!!**



# Design





# 01.02-T: STAGE CURTAIN REPLACEMENT



**Building:** Benedum Theater / Stage / Proscenium Opening

**Priority:** Life Safety / Code

**Existing Conditions:**

The main drape is original to the building and not constructed of inherently flame retardant (IFR) fabric.

- Current building code require all stage draperies to be IFR for safety.
- The back lining of the curtain has dry rotted and was removed. The lining provided/provides opacity to the curtain (light bleed).
- The lining will help to prevent any damage to the face fabric by set pieces that may encounter the back side of the drape. Additionally, a lining will slow the process of the fabric becoming brittle when exposed at proximity to stage lights.

**Supporting Code Reference:**

NFPA 701

**Narratives:**

Architectural / Theatrical:

- Remove existing drapery.
- Furnish and install new drapery constructed of
  - 100% IFR, 32 oz, polyester velour fabric.
  - BOD: Rose Brand, "Royale".
- Line with black IFR lining fabric.
  - BOD: Rose Brand, "Avara Lining".
- Curtain Size: 75' wide x 35' tall
- Match existing curtain style (traveler/bi-parting).
- Match existing fabric color.
- Match existing fullness and pleating.
- Match side finish and bottom finish.
- Match existing bottom tassels.
- Confirm existing motor is adequate for operating new drapery.

**Basis of Design:**

Acceptable manufacturers include:

- Rose Brand
- Stage Decorators & Supplies, Inc.

**Potential /Permits:**

None Anticipated



Figure 1: Main Drapery from Stage Side

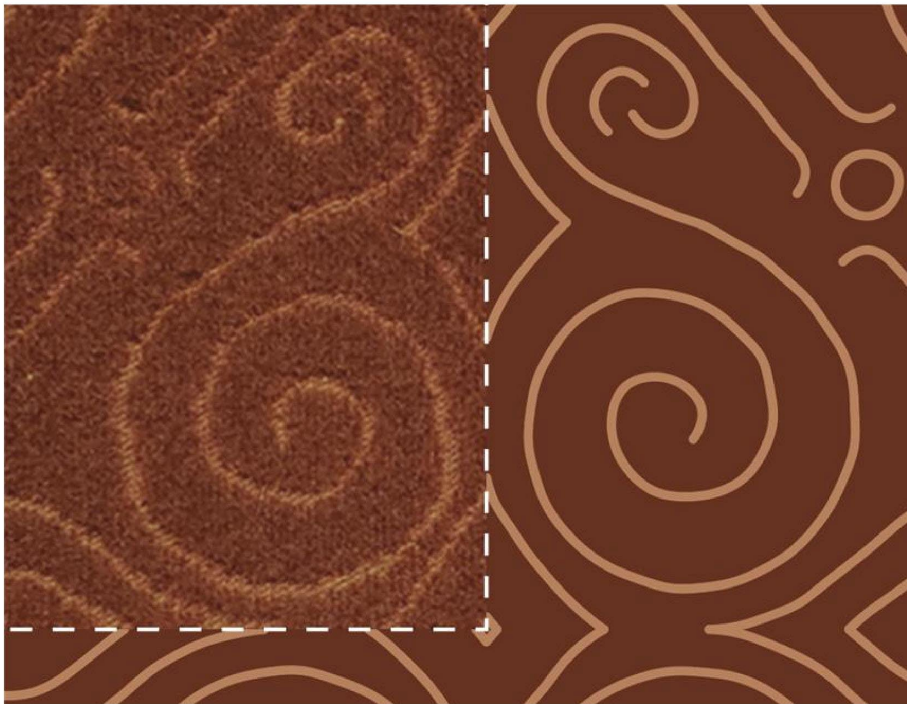
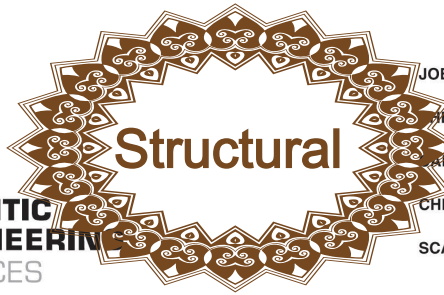


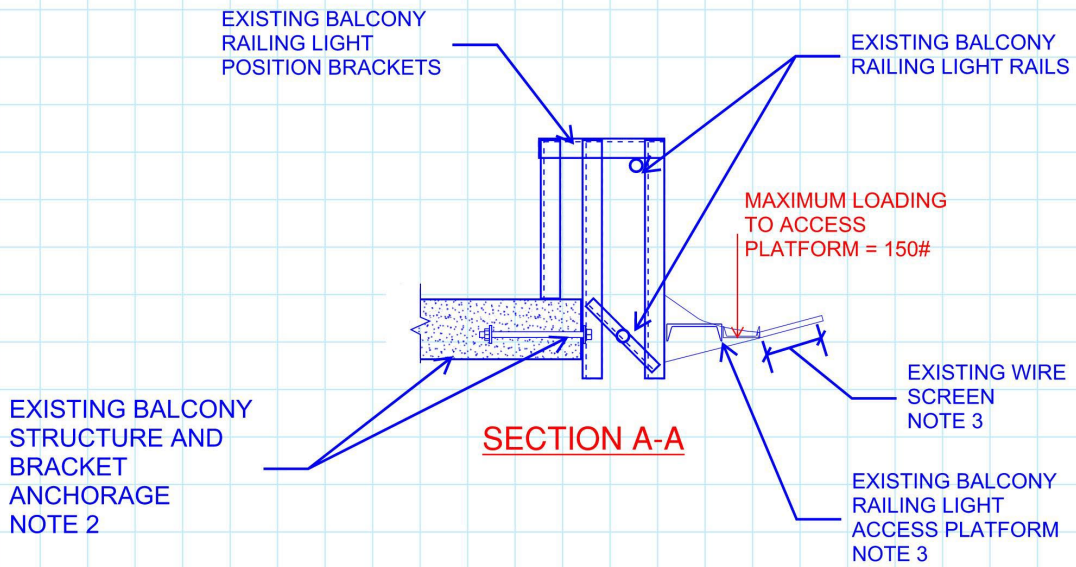
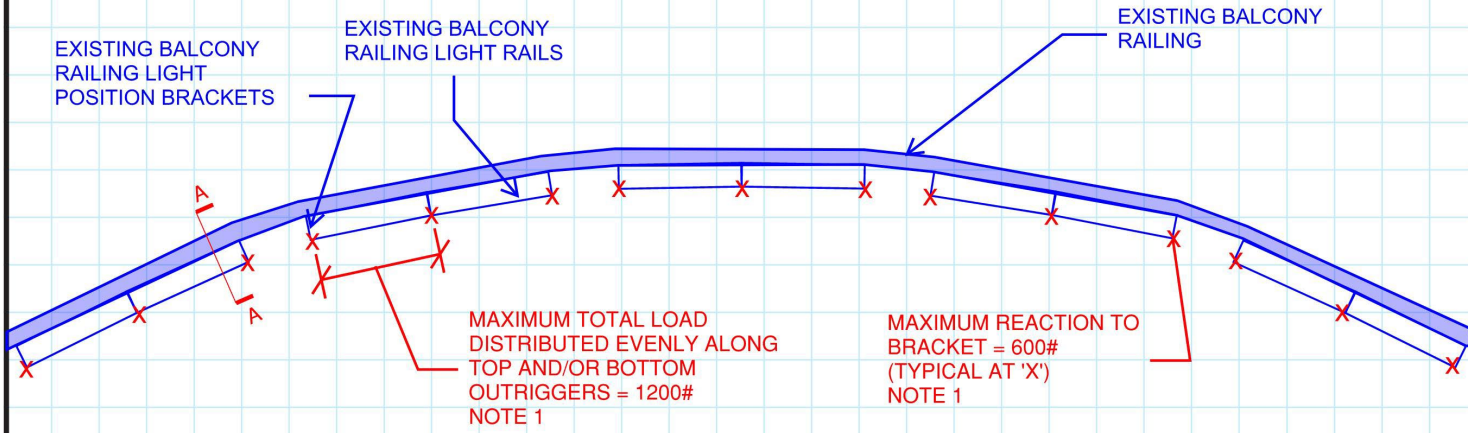
Figure 2: Main Drapery from Audience Chamber







JOB 24-007.04 PCT LIGHT RIGGING - BENEDUM CENTER  
SHEET NO. TASK 01.050-T OF  
CALCULATED BY CLK DATE 12.17.24  
CHECKED BY DATE  
SCALE N.T.S.



### BENEDUM CENTER BALCONY RAIL EQUIPMENT POSITIONS

- NOTES:
1. EQUIPMENT SHALL BE DISTRIBUTED ALONG THE PIPE RAIL SO THAT THE MAXIMUM REACTION TO EACH OUTRIGGER DOES NOT EXCEED 600 LBS. COORDINATE COUNT AND WEIGHT OF VARIOUS FIXTURES. ATTACHMENT OF FIXTURES TO PIPE RAIL SHALL BE PER RIGGING CREW.
  2. LOADING CAPACITIES ARE BASED ON ASSUMED ANCHORAGE TO EXISTING STRUCTURE WHICH IS UNKNOW. OWNER TO CONFIRM ANCHORAGE.
  3. LOADING TO ACCESS PLATFORM LIMITED TO WALKWAY AREAS. NO LOADING SHALL BE IMPOSED TO WIRE SCREEN.

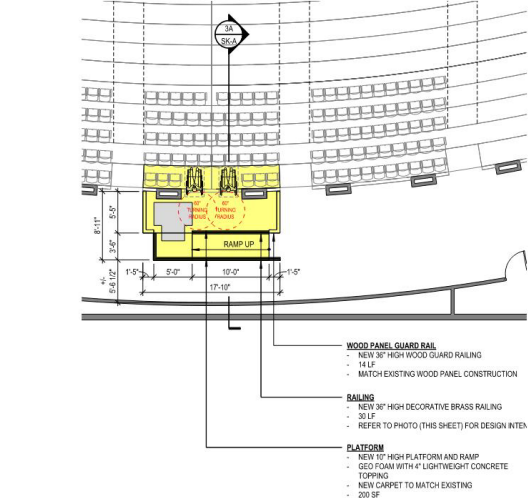


# Design

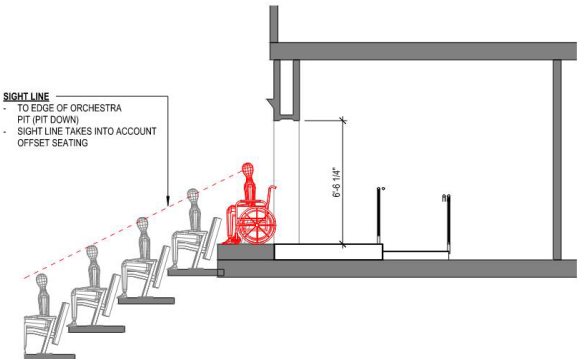
## ACCESSIBLE SEATING



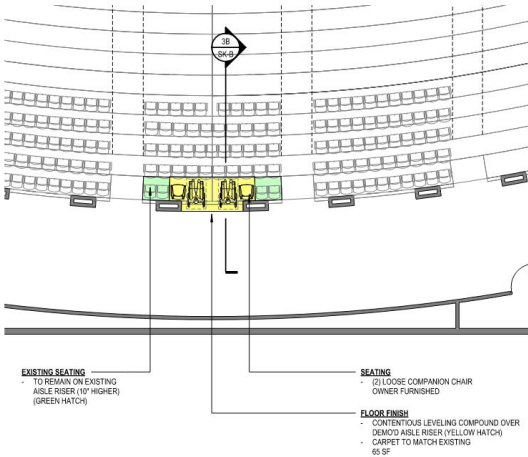
### OPTION "A" ACCESIBLE RAMP IN LOBBY - 1 SEAT



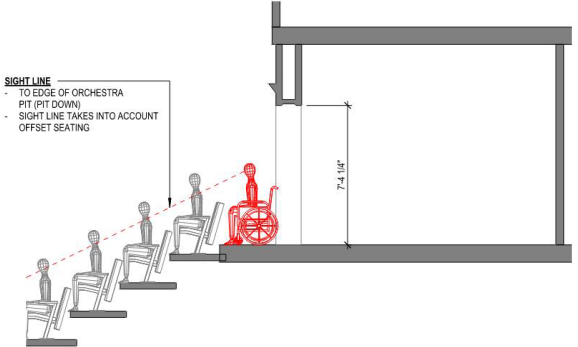
- WOOD PANEL GUARD RAIL
  - NEW 30" HIGH WOOD GUARD RAILING
  - 14 LF
  - MATCH EXISTING WOOD PANEL CONSTRUCTION
- RAILING
  - NEW 30" HIGH DECORATIVE BRASS RAILING
  - 30 LF
  - REFER TO PHOTO (THIS SHEET) FOR DESIGN INTENT
- PLATFORM
  - NEW 10" HIGH PLATFORM AND RAMP
  - GEO FOAM WITH 4" LIGHTWEIGHT CONCRETE TOPPING
  - NEW CARPET TO MATCH EXISTING
  - 200 SF



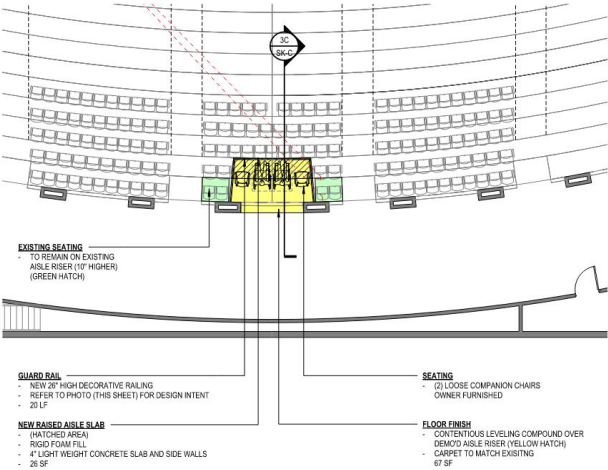
### \*\* OPTION "B" LEVEL ACCESSIBLE SEATING - 3 SEATS



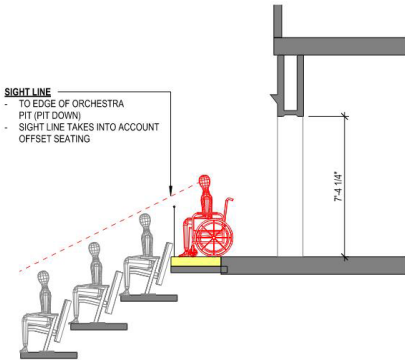
- EXISTING SEATING
  - TO REMAIN ON EXISTING AISLE RISER (10" HIGHER) (GREEN HATCH)
- SEATING
  - (2) LOOSE COMPANION CHAIR OWNER FURNISHED
- FLOOR FINISH
  - CONTINUOUS LEVELING COMPOUND OVER DEMO'D AISLE RISER (YELLOW HATCH)
  - CARPET TO MATCH EXISTING
  - 60 SF



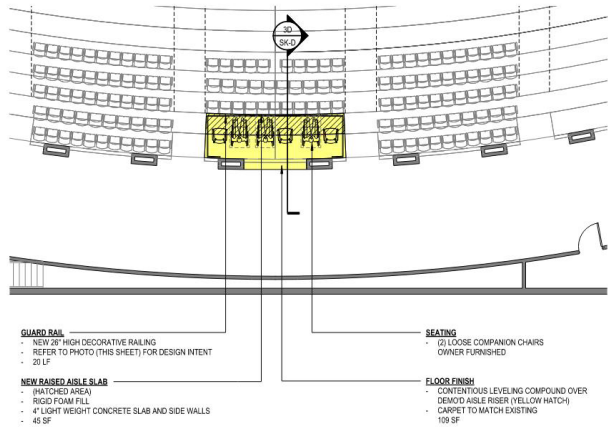
### OPTION "C" PROJECTECTED PLATFORM - 9 SEATS



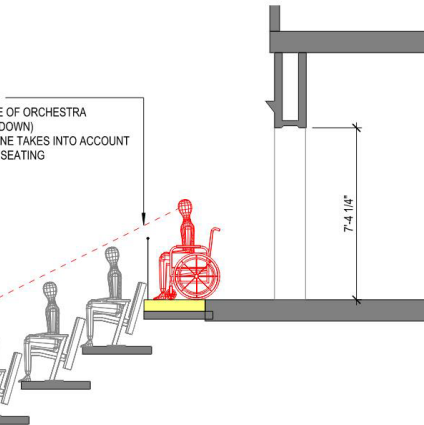
- EXISTING SEATING
  - TO REMAIN ON EXISTING AISLE RISER (10" HIGHER) (GREEN HATCH)
- GUARD RAIL
  - NEW 30" HIGH DECORATIVE RAILING
  - REFER TO PHOTO (THIS SHEET) FOR DESIGN INTENT
  - 20 LF
- SEATING
  - (2) LOOSE COMPANION CHAIRS OWNER FURNISHED
- FLOOR FINISH
  - CONTINUOUS LEVELING COMPOUND OVER DEMO'D AISLE RISER (YELLOW HATCH)
  - CARPET TO MATCH EXISTING
  - 87 SF
- NEW RAISED AISLE SLAB
  - HATCHED AREA
  - RIGID FOAM FILL
  - 4" LIGHT WEIGHT CONCRETE SLAB AND SIDE WALLS
  - 28 SF



### OPTION "D" PROJECTECTED PLATFORM -15 SEATS



- GUARD RAIL
  - NEW 30" HIGH DECORATIVE RAILING
  - REFER TO PHOTO (THIS SHEET) FOR DESIGN INTENT
  - 20 LF
- SEATING
  - (2) LOOSE COMPANION CHAIRS OWNER FURNISHED
- FLOOR FINISH
  - CONTINUOUS LEVELING COMPOUND OVER DEMO'D AISLE RISER (YELLOW HATCH)
  - CARPET TO MATCH EXISTING
  - 109 SF
- NEW RAISED AISLE SLAB
  - HATCHED AREA
  - RIGID FOAM FILL
  - 4" LIGHT WEIGHT CONCRETE SLAB AND SIDE WALLS
  - 45 SF





# Communication





Internal Staff

Audiences

Donors

Vendors

Owner's  
Responsibility

Performers

Business  
Partners

Communication



Don't forget!



Historical Review  
Committee

City Planning  
Committee

PM/Design  
Team

Building  
Permitting

Dept of  
Transportation

Mobility &  
DOMI

Fire Marshalls

Communication



# IMPLEMENTATION

CHALLENGES





# IMPLEMENTATION CHALLENGES

Scheduling/Operations/Shows

Dark Days/Routine Maintenance

Personnel





# IMPLEMENTATION CHALLENGES

Lead Times

Additional Permitting

Unexpected Repairs/Projects

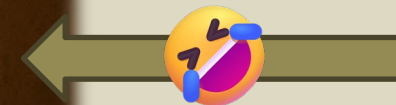
And....



# IMPLEMENTATION CHALLENGES



Unforeseen  
Conditions







In Summary...

BE PREPARED





Prepare for  
these challenges  
ahead of time





# Questions & Discussion



# Reach Out!



**Joanna Obuzor**  
VP of Venue Operations  
[Obuzor@trustarts.org](mailto:Obuzor@trustarts.org)  
412-894-4210

**Katelyn Colwell**  
Director of Operations  
[colwell@trustarts.org](mailto:colwell@trustarts.org)  
412-456-2621

## Apeiro Design

**Kevin Auses**  
Associate Principal  
[kauses@apeirodesign.com](mailto:kauses@apeirodesign.com)  
415-517-3774  
[apeirodesign.com](http://apeirodesign.com)



**Steve Karoly**  
Associate Principal  
[skaroly@gbbn.com](mailto:skaroly@gbbn.com)  
513.378.3855  
[www.gbbn.com](http://www.gbbn.com)



**Wendy Riggs**  
Director, Cultural Arts  
[wriggs@vvalc.com](mailto:wriggs@vvalc.com)  
(205) 657-8666

**Amy King**  
Business Development  
[aking@vvalc.com](mailto:aking@vvalc.com)  
(732) 259-2987

[www.vvalc.com](http://www.vvalc.com)