MILLER HIGH LIFE THEATRE 20-YEAR CAPITAL EXPENDITURE PLAN

Prepared for Wisconsin Center District

SUBMITTED DECEMBER 2025

PC SPORTS
A DIVISION OF PROJECT CONTROL
a kiwa company

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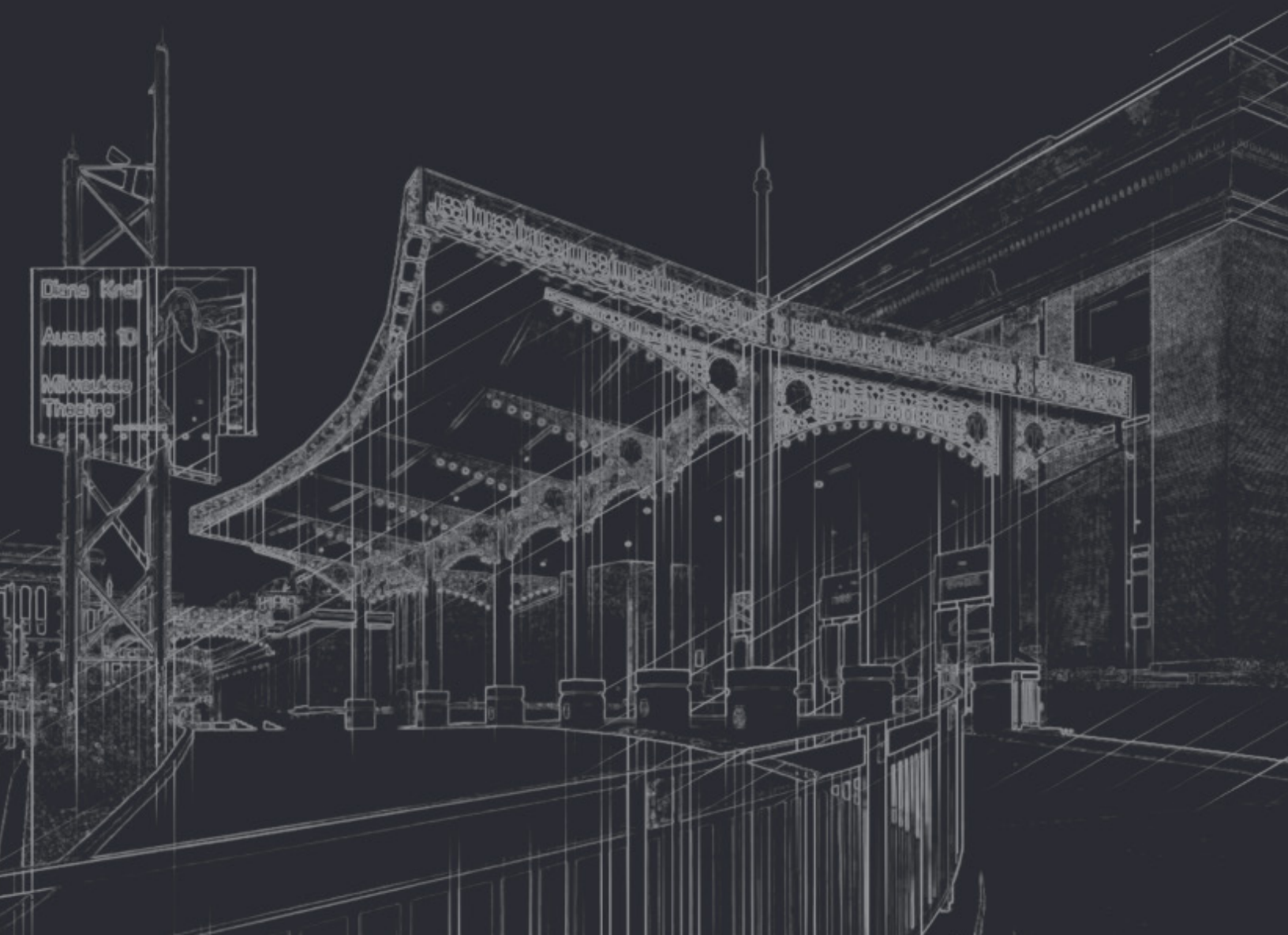


Photo Courtesy of Miller High Life Theatre

SECTION 01 EXECUTIVE SUMMARY AND COMPILED CAPITAL EXPENDITURE BUDGET

Executive Summary

The Miller High Life Theatre 20-Year Capital Expenditure Plan provides a comprehensive roadmap for sustaining and enhancing one of Wisconsin's landmark performance venues. Developed by PC Sports in partnership with the Wisconsin Center District (WCD), through facility assessment, stakeholder input, industry benchmarking, and cost forecasting, the plan's strategic objective is to ensure the Theatre remains safe, operationally sound, and competitive in an evolving technological and regulatory landscape. Spanning six primary focus areas, Structural/Architectural, Mechanical/Electrical/Plumbing/Fire (MEPF), ADA & Code Compliance, Audio/Video/Event Production (AV Systems), Information Technology (IT) Systems, and Security Systems, the plan identifies major deficiencies, outlines targeted upgrade strategies, and delivers clear financial projections.

Purpose and Scope

The plan is designed to address critical lifecycle renewals, system upgrades, and facility enhancements, ensuring continued safety, accessibility, and operational excellence. It excludes routine maintenance and day-to-day operational costs, focusing exclusively on substantial capital investments that will shape the Theatre's future over the next two decades.

Major Findings

Key deficiencies identified include aging roof systems prone to leaks, outdated HVAC and plumbing infrastructure nearing end-of-life, code compliance gaps in emergency hardware and guardrails, obsolete AV and IT equipment, and security vulnerabilities due to legacy cameras and cabling. Each area requires systematic upgrades to mitigate operational risks, maintain regulatory alignment, and support the Theatre's mission as a vibrant public gathering space.

Although the theatre has benefited from ongoing upgrades and maintenance, its age presents significant challenges for both general upkeep and performance. As an older facility, it demands considerable attention to remain operational and to adapt to modern conveniences and expectations. Theatre operators must continually balance the venue's evolving needs with daily operational requirements, making its ongoing maintenance a challenge.

Capital Expenditure Plans

Capital Expenditure Plans have been formulated through discussions with industry professionals and by leveraging recent project experience, as well as obtaining actual estimates from contractors and equipment suppliers. While these figures provide high-level assessments suitable for long-term capital planning, it is inherently challenging to account comprehensively for all related soft costs, such as architectural plans, permit fees, engineering reviews, and project management fees. This is primarily with any major renovations, including MEFP and ADA requirements, or significant structural enhancements. Developing a capital budget for ADA compliance presents additional complexities due to the likelihood of unforeseen issues and significant coordination efforts required to keep pace with evolving codes. Nevertheless, the costs presented here have been carefully considered and serve as a strong foundation for further discussion of these anticipated upgrades.

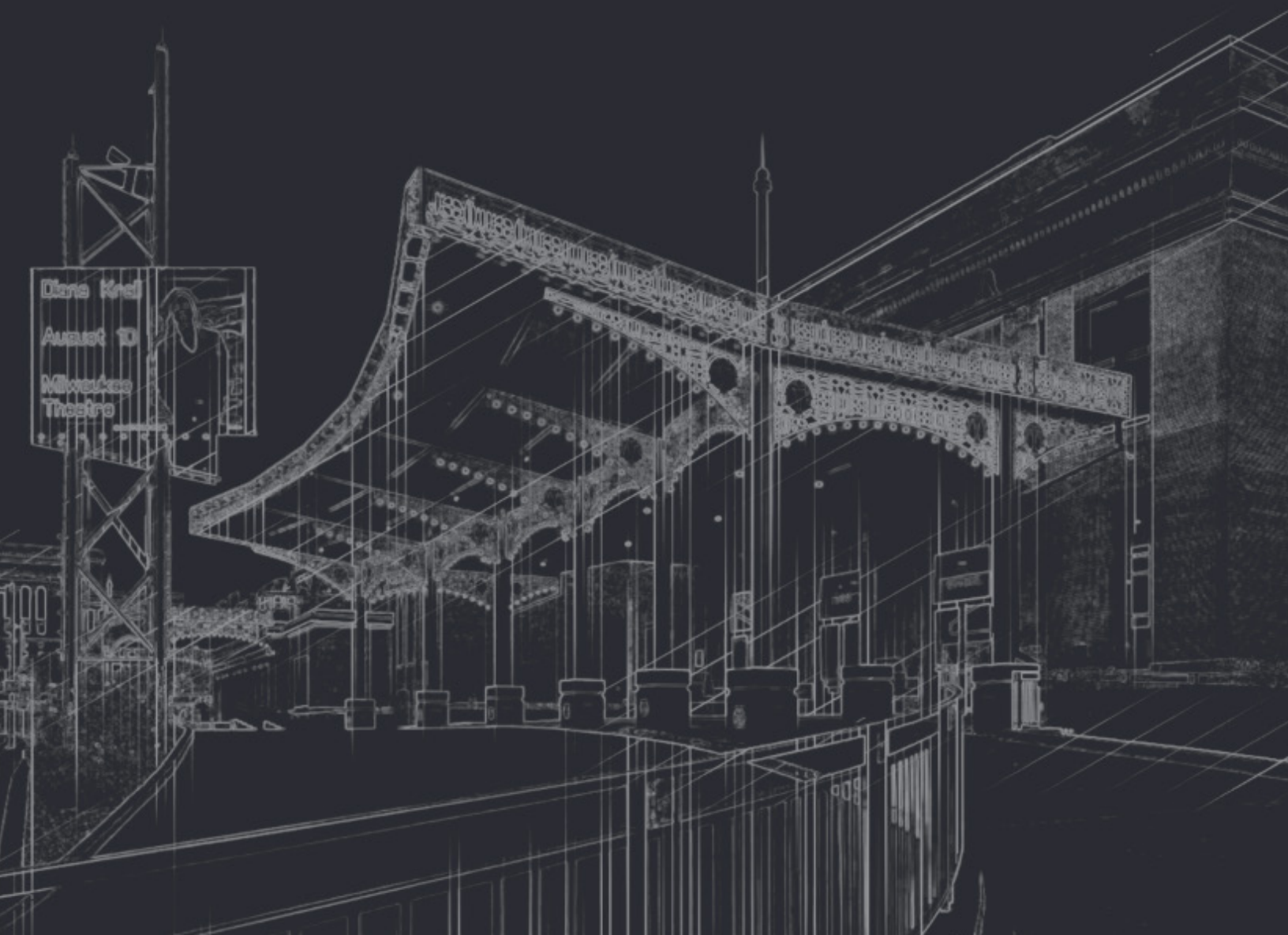
Year-by-Year Capital Expenditure Budget

The following table aggregates all major capital expenditures by year, across all facility systems and focus areas. Each figure represents the combined total of primary investments scheduled for that year, ensuring clarity for budget planning and oversight.

Year	Major Expenditures (Summary)	Estimated Annual Expenditure
2026	Roof replacement, basement crack repair, HVAC upgrades, fire safety, exit hardware, projectors, drapery, rigging, digital signage	$2,009,148
2027	Roof replacement, interior renovations, HVAC recommissioning, plumbing inspection, guardrails, dimmers, UPS batteries, cameras, cabling	$1,268,132
2028	Cornice/metal replacement, exterior upgrades, façade repairs, fire alarm, guardrails, electrical, access points, network switches, VMS, Xtract One detectors	$3,791,586
2029	Façade repairs, roof replacement, seating/FF&E, plumbing remediation, accessibility, intercom, access points, IT cooling, cameras	$2,128,525
2030	Roof replacement, stage/freight elevator repairs, seating refresh, MEPF upgrades, lighting, WiFi, security cabling	$2,022,200
2031	Carpet/tile/window repairs, MEPF upgrades, code compliance audit, dimming processors, screens, access points, NVR analytics	$460,100
2032	Back of house renovation, MEPF upgrades, network upgrades, access points, AI analytics	$2,580,100
2033	Elevator upgrades, fire protection, lighting console, UPS, rigging, cameras	$299,000
2034	Rigging components, Camera replacement	$105,000
2035	Roof replacement, door hardware, lighting control, surveillance refresh	$744,750
2036	Carpet/tile replacement, structural assessment, IPTV, NVR servers	$340,000
2037	HVAC overhaul, technology integration, backstage expansion, UPS batteries, cameras	$1,231,000
2038	LED fixtures, network switches	$166,425
2039	Compliance audit, audio patchbay, camera expansion, AI analytics	$147,000
2040	Video distribution, access points	$235,000
2041	Fire protection upgrade, guardrails, masking curtains	$350,000
2042	Network infrastructure, outdoor digital signs	$519,000
2043	Control consoles (audio, lighting, video)	$75,000
2044	Rigging inspection and repairs	$45,000
2026-2044 Total Expenditure		**$18,517,966**

SECTION 02

Introduction



SECTION 02 INTRODUCTION

The Wisconsin Center District (WCD) engaged PC Sports to develop a comprehensive 20-year capital expenditure plan for the Miller High Life Theatre (Theatre). The primary goal of this plan is to establish a clear, actionable roadmap that will ensure the continued operation, safety, and functionality of the facility. In an era when technology and fan experience expectations are rapidly evolving, the plan also addresses the critical need for the Theatre to remain relevant and competitive for years to come.

To create a robust and realistic capital plan, a multifaceted approach was employed. This included conducting interviews with current WCD facility staff, reviewing previously created capital budgets, analyzing accumulated cost estimates, and examining current budget forecasts. In addition, new estimates were gathered from contractors, and industry standards and insights from previous projects were incorporated, along with input from industry colleagues. Although the projected costs outlined in this report are budgetary estimates, the process employed ensures that the recommendations are supported by both historical data and forward-looking industry trends.

The resulting report is organized into six primary focus areas:

- Structural, Architectural, and General Building Conditions
- Mechanical, Electrical, Plumbing, and Fire (MEPF) Systems
- ADA and Code Compliance
- Audio, Video, and Event Production (A/V)
- Information Technology (IT) Systems
- Security Systems

This plan focuses exclusively on major capital expenditures and lifecycle renewals for the Theatre. It does not include costs associated with day-to-day operations, routine maintenance, or ongoing service agreements, as these items will fluctuate significantly over the 20-year period due to changes in personnel, unit pricing, and service requirements. By focusing the scope of this forecast to substantial investments, such as structural replacements, system upgrades, and major facility enhancements, the plan offers a clear and concise projection, avoiding unnecessary complexity from additional data.

By following this strategic roadmap, the Theatre will be well-positioned to maintain its operational integrity, enhance the experience for all users, and adapt to technological advancements and evolving industry standards over the next two decades.

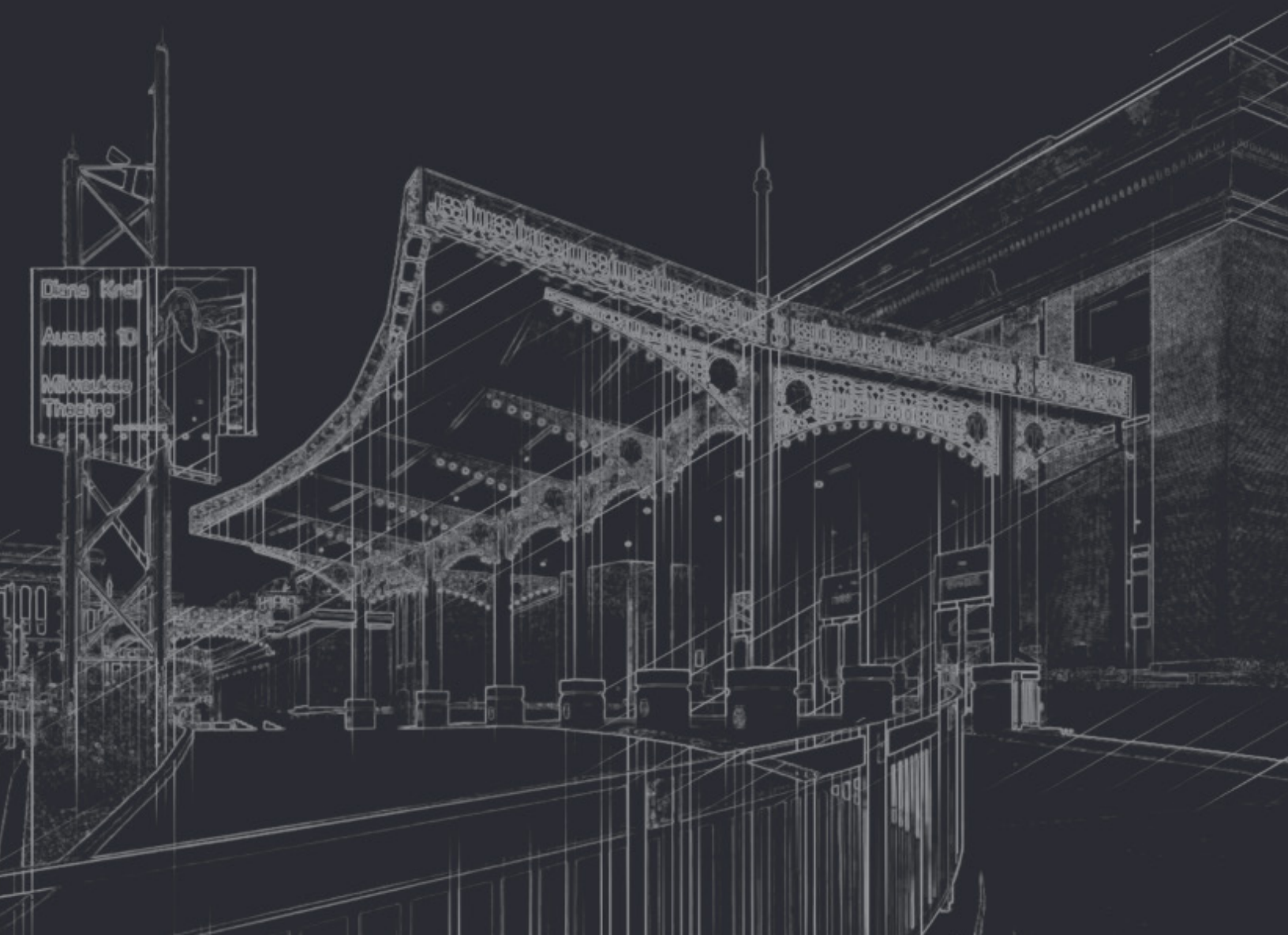
Disclaimer

The cost estimates in this plan are budgetary projections developed using current data and industry expertise. While every effort has been made to provide accurate figures, actual costs over the next 20 years may vary significantly due to a wide range of unpredictable factors. Such as economic changes, inflation, technological advancements, market fluctuations, and regulatory updates. These estimates should be considered as a flexible planning framework to guide decision-making, not as guaranteed or fixed amounts.

It is also important to recognize that the majority of these projects are highly time-intensive and disruptive. Implementation will require significant periods during which the venue cannot host events, resulting in unforeseen losses of event programming and associated revenue. Consequently, the facility will experience extended closures and periods of limited operation while repairs and upgrades are underway.

SECTION 03

Structural, Architectural, and General Building Conditions



SECTION 03 STRUCTURAL, ARCHITECTURAL, AND GENERAL BUILDING CONDITIONS

Executive Summary

This 20-year capital expenditure plan for Structural, Architectural and General Building Conditions provides a comprehensive roadmap for upgrading the Miller High Life Theatre. The plan is designed to ensure the Theatre remains a safe, functional, and vibrant venue for performances and public gatherings. It outlines key deficiencies, prioritizes lifecycle management, and details anticipated investments through 2045.

Current Status Overview

Constructed in 1909 and extensively renovated in 2003/2004, the Theatre is a landmark facility spanning 295,500 square feet, distributed across the basement, main level, mezzanine, and balcony. The venue boasts a 4,086-seat assembly hall designed for flexibility, allowing for various seating arrangements to accommodate diverse performance and event needs.

The building's roof system, predominantly composed of EPDM material installed in 2005, consists of multiple sections, each exhibiting distinct conditions and remaining service lives. While some areas of the roof are still in satisfactory condition, others show signs of deterioration, ponding, and algae growth, indicating that replacement will be necessary in the near future to prevent further damage.

Recent modernization efforts have included the upgrade of elevators in 2021, enhancing accessibility and functionality for patrons and staff. Additionally, ongoing repairs and replacements of carpets and tile floors help maintain the interior environment. Despite these improvements, several critical building systems are nearing the end of their operational life. These issues underscore the importance of continued investment and proactive management to ensure the facility remains safe, attractive, and operational for future generations.

Key Deficiencies and Challenges

The Theatre faces several significant deficiencies and operational challenges that have been identified and addressed in this capital improvement plan. Major concerns include aging and deteriorating roofs, foundation cracks, façade and masonry deterioration, and interior wear and tear. These issues threaten both the structural integrity and aesthetic quality of the building, presenting risks to safety, usability, and long-term performance. Strategic upgrades and repairs should be scheduled to mitigate these risks, modernize facilities, and ensure the theatre remains a safe, functional, and attractive venue for its occupants and visitors.

- **AGING AND DETERIORATING ROOFS:** Multiple roof areas are at or near the end of their service life, resulting in poor drainage, water infiltration, and compromised structural integrity.
- **BASEMENT CRACKS:** Persistent cracks in the foundation pose potential risks to structural stability and water infiltration.
- **MASONRY AND FAÇADE DETERIORATION:** Exterior walls and architectural details are suffering from wear, water intrusion, and aesthetic decline, impacting both appearance and safety.
- **INTERIOR WEAR AND TEAR:** Carpets, tiles, paint, and seating are starting to show signs of heavy use, undermining the building's aesthetics and user safety.
- **OUTDATED ARCHITECTURAL FEATURES AND SIGNAGE:** Both interior and exterior railings, signage, and architectural elements require modernization to enhance usability and visual appeal.
- **STRUCTURAL REPAIRS NEEDED:** Key areas such as the fire tower and stage require repairs to maintain safety and extend their lifespan.

- **ELEVATOR MODERNIZATION:** The freight elevator is approaching end of life, and elevator cabs will require upgrades to improve functionality, safety, and user experience.
- **BACK-OF-HOUSE AND COMMON AREA UPGRADES:** Renovations are required in backstage spaces and common areas to improve overall functionality and aesthetics.
- **MAJOR STRUCTURAL ASSESSMENT:** A comprehensive review is planned to inform future maintenance strategy and risk management.

Upgrade Strategy and Lifecycle Management

The Theatre's capital expenditure plan for structural, architectural, and general building conditions presents a clear strategy to systematically address the facility's most urgent deficiencies while ensuring sustainable, long-term operation. The initial focus is on replacing deteriorated roof sections and implementing comprehensive masonry restoration, including tuckpointing, façade repairs, and cornice work. These efforts are complemented by improvements to drainage systems in problematic roof areas in order to prevent water infiltration and future structural damage.

Over the next decade, the plan calls for phased roof replacements, restoration of exterior masonry, seating refresh, and upgrades to both interior finishes and elevator cabs to enhance aesthetics and user experience. Safety and functionality will also be improved through fire tower structural repairs, modernization of the freight elevator, and upgrades to stage and orchestra pit areas. In addition, enhancements to railings, signage, and architectural features, both inside and out, are intended to boost usability and visual appeal. Major renovations in back-of-house spaces and ongoing structural assessments are scheduled to maintain building integrity and support informed future planning.

Collectively, these efforts aim to address wear and tear, extend the building's lifespan, and create a safer, more attractive environment for all occupants and visitors.

20-Year Capital Expenditure Plan

Structural, Architectural, and General Building Conditions

Year	Major Expenditure	Estimated Cost	Justification	Anticipated Improvement
2026	Roof Replacement (Areas 06, 08, 14, 14A)	$240,500	End-of-life, poor condition, inadequate drainage	Waterproofing, structural integrity, reduced risk
2026	Basement Crack Inspection and Repair	$425,000	Potential structural risk	Stabilized foundation, reduced infiltration
2027	Roof Replacement (Areas 01–04)	$397,500	Service life expiration, fair condition	Improved weather resistance, leak prevention
2027	Exterior and interior railings, architectural features, signage upgrades	$45,000	Refresh, modernize	Functionality, beautification
2027	Paint interior all areas	$270,000	Refresh, modernize	Improved look and feel
2027	Fire Tower Structural Repairs	$195,000	Structural safety	Mitigated risk, extended tower life
2028	Cornice and Metal Replacement, painting	$473,000	Deterioration, water intrusion	Restored architectural detail, durability
2028	Exterior Rails/Signage Upgrades, Exterior wall facades,	$400,000	Visual impact	Safer access, enhanced branding
2028	Masonry Tuckpointing and Façade Repairs	$58,795	Deterioration, aesthetic preservation	Restored exterior, enhanced safety
2029	Masonry Tuckpointing and Façade Repairs	$66,000	Deterioration, aesthetic preservation	Restored exterior, enhanced safety
2029	Roof Replacement (Areas 05, 05A, 10)	$1,330,000	End-of-life, average condition	Long-term roof performance, energy efficiency
2029	Theatre FF&E, folding seat replacement, banquet tables,	$259,500	Wear and tear, user safety	Functionality and aesthetics
2030	Roof Replacement (Areas 09, 13)	$130,000	End-of-life, drainage upgrades	Reduced water infiltration, improved lifespan
2030	Stage repairs, orchestra pit repairs upgrades	$185,000	Wear and tear	Functionality and aesthetics
2030	Freight Elevator modernization	$190,000	Performance upgrade	Useability, functionality, safety
2030	Theatre Seating Refresh	$1,200,000	Wear and tear	Functionality and aesthetics
2031	Carpet, Tile and Window repairs, replacements	$78,000	Wear and tear, units reached end of life	Functionality, aesthetics
2032	Back of house spaces renovation	$2,300,000	Refresh, modernize	Functionality, aesthetics
2033	Elevator Cab Interior/Flooring Upgrades	$50,000	Finish deterioration, user experience	Enhanced accessibility, aesthetics
2035	Roof Replacement (Areas 11, 12, 15A, 15B)	$617,750	Repairs	Roof longevity, weather protection
2036	Carpet and Tile Replacement (Common Areas)	$95,000	Wear and tear, user safety	Improved appearance, slip resistance
2036	Major Structural Assessment	$100,000	Comprehensive review, future planning	Informed strategy, risk management
2026-2044 Structural, Architectural, and General Building Conditions Subtotal		**$8,726,045**		

Justification and Impact

The Theatre requires targeted capital investments to address aging infrastructure and maintain safe, reliable operations. Key priorities include replacing deteriorating roof sections, repairing masonry and exterior elements, improving drainage, and upgrading elevator interiors and the freight elevator. Continued replacement of carpet, tile, and eventual seating refresh are necessary to ensure a clean and comfortable environment for patrons and staff. These investments will reduce risks of structural failure, water damage, and operational disruptions, improve accessibility and comfort, and help control long-term maintenance costs. Proactive management and timely upgrades are essential to sustain the Theatre's viability as a premier event venue.

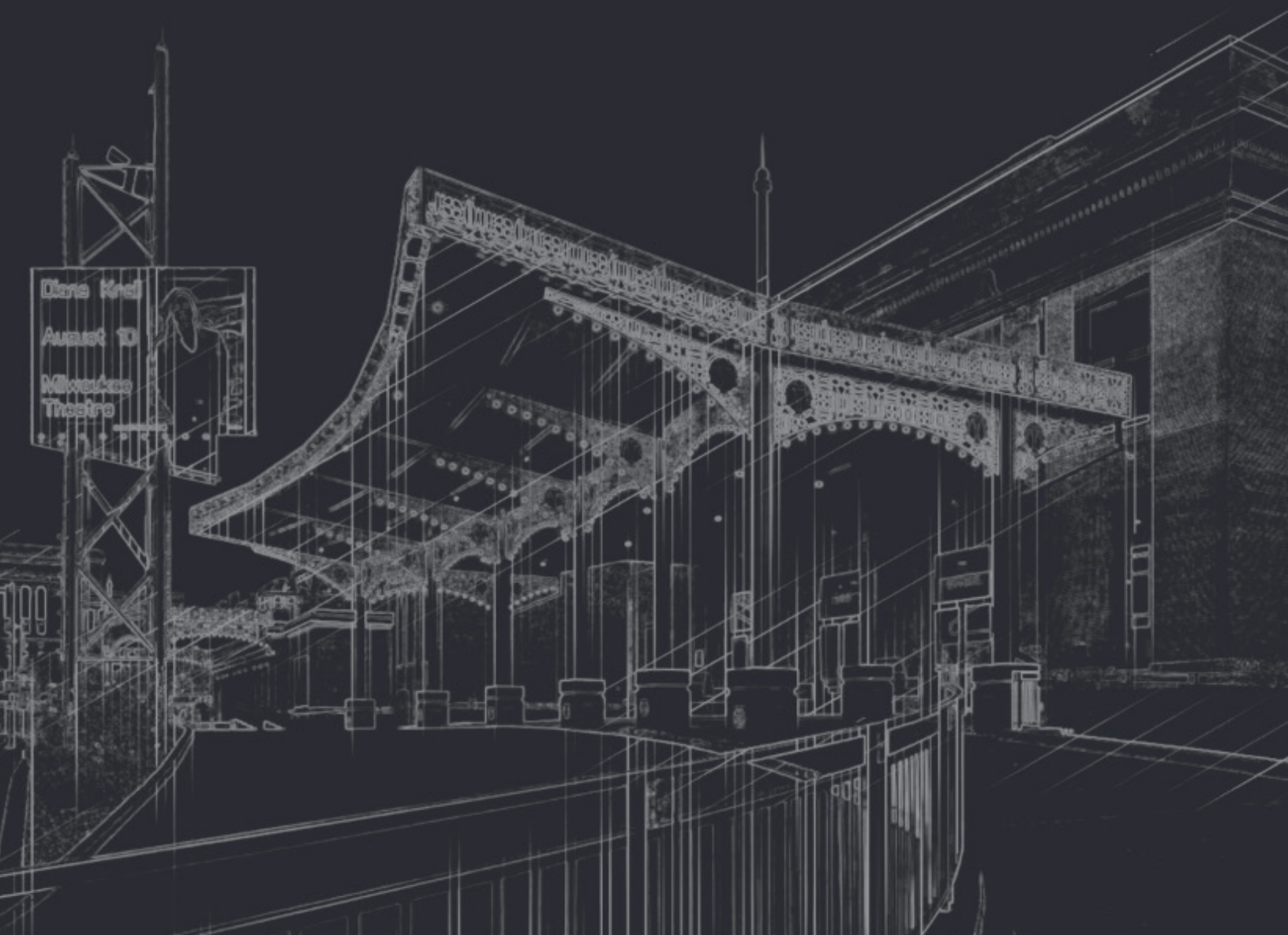
Long-Term Projections

The capital plan is designed to address both present and future needs of the Theatre and the anticipated outcomes include significantly reduced safety and structural risks through regular inspections and timely repairs, as well as improved weather resistance and minimized water infiltration thanks to extensive roof upgrades. The preservation and restoration of architectural features will not only enhance the building's appearance but also its functionality. Modernized interiors and upgraded amenities are expected to elevate user safety, accessibility, and overall visitor experience. Finally, ongoing assessments and evaluations will enable the theatre to strategically plan for future needs, ensuring the venue remains resilient and well-maintained for years to come.

This plan demonstrates a commitment to maintaining a safe, attractive, and resilient venue. Through strategic investment in both visible and behind-the-scenes upgrades, the theatre is positioned to evolve to meet contemporary standards and future challenges.

SECTION 04

Mechanical, Electrical, Plumbing, and Fire Systems (MEPF)



SECTION 04 MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE SYSTEMS (MEPF)

Executive Summary

This report presents a comprehensive 20-year capital expenditure plan for the Theatre's Mechanical, Electrical, Plumbing, and Fire Protection (MEPF) systems. The plan aims to ensure the Theatre's infrastructure remains safe, efficient, and reliable, supporting ongoing operations and future growth. Key objectives include systematic lifecycle management, risk mitigation, and targeted modernization of all critical MEPF components. The strategy aligns with best practices in facility management and is tailored to address the unique operational needs and capital planning requirements of the Theatre.

Current System Status

The Miller High Life Theatre underwent substantial upgrades to its (MEPF) systems during the major renovation from 2001 to 2003, with total investments exceeding $8.9 million. These enhancements addressed critical areas: plumbing, HVAC (heating, ventilation, and air conditioning), fire protection, electrical systems, and the abatement of asbestos-containing materials. As a result, the upgraded systems have provided a solid and reliable infrastructure, enabling the Theatre to support daily operations effectively and maintain safety and comfort for patrons and staff.

Despite the long-term benefits realized from the renovation, most of the MEPF systems are now over 20 years old and are approaching, or have reached, the end of their expected service life. Many components are starting to show signs of deterioration, including reduced performance, increased maintenance needs, and, in some cases, challenges in meeting current regulatory or code compliance. For example, certain HVAC units are nearing obsolescence, and older sections of plumbing and electrical infrastructure may not meet modern efficiency or safety standards.

While the Theatre's current MEPF infrastructure remains in better condition than that of the UWM Panther Arena, thanks to past investments and ongoing maintenance, it is at a pivotal point. Proactive planning for renewal and targeted replacement of aging systems is critical. This approach will help preserve the high standards of safety, efficiency, and reliability established over the past two decades. By prioritizing upgrades before systems fail or become non-compliant, the Theatre can prevent costly disruptions, avoid emergency repairs, and ensure a seamless experience for its visitors.

Key Deficiencies and Challenges

Electrical

The electrical systems at the Theatre do not currently present any major deficiencies. However, to maintain their reliability and safety, it is essential to implement ongoing maintenance routines. Regular cleaning and testing of electrical components are necessary to ensure optimal performance and to prevent unexpected failures. As the system ages, certain parts may require replacement on an as-needed basis. This proactive approach will help minimize downtime and support uninterrupted theatre operations.

Plumbing

The plumbing infrastructure faces more immediate concerns, particularly regarding the underground plumbing system. A collapsed sewer main has necessitated temporary solutions, such as the installation of an affluent pump, to address urgent operational needs. While these measures have been effective in the short term, sustainable functionality depends on more comprehensive upgrades. Specifically, transitioning to grinder pumps would bolster long-term reliability, but it is also crucial to resolve existing power supply limitations to ensure consistent operation of the new system. There may be an opportunity to run power from the arena to the annex area where the grinder pumps would be installed.

Fire Protection

Fire protection for the Theatre currently relies on a wet fire system divided into three separate zones. This system depends on city water pressure, which is not ideal given the building's large size. To mitigate the risk of inadequate fire suppression during emergencies, the addition of a booster pump is recommended. This upgrade would enhance water pressure and provide more robust fire protection, better aligning the system with best practices and code requirements.

Mechanical Systems

The mechanical systems, including HVAC, require attention to support optimal indoor climate and equipment lifespan. The existing HVAC system should undergo comprehensive commissioning to identify and rectify any performance issues. Notably, the annex rooftop unit (RTU) and RTU-1 have reached the end of their useful life and should be replaced to maintain efficiency and comfort. Furthermore, the mechanical room experiences significant condensation due to insufficient ventilation. Converting this space into a conditioned environment with its own dedicated RTU would prevent moisture-related hazards and protect sensitive equipment from damage.

Asbestos Insulation

The presence of asbestos insulation remains a general safety concern within the facility. Management of this material must follow established safety protocols to ensure the health and safety of staff, patrons, and contractors. Proper handling and abatement strategies are essential to mitigate any risks associated with asbestos exposure.

Upgrade Strategy and Lifecycle Management

The upgrade strategy for the Theatre's MEPF systems is designed as a phased and proactive plan to ensure long-term reliability, safety, and operational efficiency. This approach is structured to address both immediate needs and future requirements, supporting continuous improvement and minimizing operational disruptions.

Immediate Actions

- **CRITICAL REPAIRS AND SAFETY MEASURES:** Address urgent issues such as the collapsed sewer main by maintaining temporary solutions like the affluent pump, while planning for permanent upgrades (e.g., grinder pumps). Implement proper asbestos management protocols to ensure staff and patron safety.
- **HVAC COMMISSIONING:** Conduct comprehensive commissioning of existing HVAC systems to identify performance gaps, such as verifying system airflow is adequate and checking damper functions. Then have those adjustments made promptly.
- **REPLACE THE ANNEX ROOFTOP UNIT (RTU) AND RTU-1**, which have reached end-of- life, to restore efficiency and comfort.
- **FIRE PROTECTION ENHANCEMENT:** Add a booster pump to the wet fire system to ensure adequate water pressure for fire suppression, particularly given the building's large size and reliance on city water pressure.

Short-Term Upgrades

- **SCHEDULED EQUIPMENT REPLACEMENT:** Replace major components nearing the end of their useful life, focusing on reliability and energy efficiency. For example, the annex RTU replacement is a priority to maintain HVAC system performance.
- **ROUTINE MAINTENANCE AND INSPECTIONS:** Establish regular cleaning, testing, and inspection routines for electrical and mechanical systems to detect emerging issues early and extend asset lifespan.
- **MECHANICAL ROOM IMPROVEMENTS:** Convert the mechanical room into a conditioned space with a dedicated RTU to prevent condensation, reduce moisture-related hazards, and protect sensitive equipment.

Mid- and Long-Term Actions

- **TARGETED UPGRADES:** Continue phased modernization of MEPF systems to address deficiencies, enhance redundancy, and ensure code compliance as standards evolve.

- **ADVANCED CONTROLS AND MONITORING:** Implement advanced controls and monitoring systems for efficient operation, energy savings, and early fault detection, enabling continuous optimization of system performance.
- **CONTINGENCY PLANNING:** Develop robust contingency plans to manage unforeseen failures or regulatory changes, ensuring the Theatre's resilience and uninterrupted operations.
- Lifecycle management principles will guide the timing and prioritization of capital investments. By regularly scheduling replacements, upgrades, and preventive maintenance, the Theatre will optimize asset value, minimize operational risk, and maintain compliance with safety and regulatory standards.

The budget estimates provided in the following table reflect current costs for equipment, labor, and disposal, with a projected annual increase of 4% to account for rising labor rates and equipment expenses. These figures serve as a reliable foundation for planning future equipment replacements. However, the estimates do not cover costs related to design and engineering, major modifications to piping, masonry, ductwork, or temporary building removal required for equipment installation, nor do they include asbestos abatement. The Theatre is much better equipped for major equipment replacements than the Arena, thanks to its freight elevator, more direct paths of travel, and larger less constrained mechanical spaces. This allows for stacking of modular units. As a result, the time allocated for demolition, removal, and installation is significantly less than at the Arena.

20-Year Capital Expenditure Plan

Mechanical, Electrical, Plumbing, and Fire Systems (MEPF)

Year	Major Expenditure	Estimated Cost	Justification	Anticipated Improvement
2026	Annex RTU Replacement (Greenheck 14,400 CFM)	$153,000	Unit has reached end-of-life; replacement will restore reliability and energy efficiency	Improved climate control, reduced maintenance costs
2026	AHU-1 Replacement (Temtrol 84,000 CFM)	$774,160	Critical air handling unit is aged; replacement avoids failure risk and increases comfort	Enhanced air quality, system reliability
2026	Fire Booster Pump Addition	$56,600	City pressure is insufficient; booster pump ensures adequate fire protection	Improved fire safety and code compliance
2026	RTU for Conditioning 2nd Floor Mechanical Room	$161,486	Condensation hazard; conditioning the space protects equipment and staff	Reduced equipment damage, safer working environment
2027	Recommissioning of BAS and HVAC System (28 Pieces)	$10,816	System commissioning restores performance and identifies latent issues	Lower energy use, improved controls
2027	Plumbing Underground Video Inspection, add grinder pumps to annex restroom pumping station.	$35,816	Assessment of underground piping to confirm integrity and plan remediation	Preventive maintenance, reduced risk of failure
2028	Theatre Fire Alarm System Replacement	$2,025,142	Existing system is outdated; replacement ensures compliance and safety	Modern fire detection, improved occupant safety

Year	Major Expenditure	Estimated Cost	Justification	Anticipated Improvement
2029	Plumbing Remediation Work	$175,000	Perform repairs discovered from underground video inspection	Ensure underground plumbing infrastructure complete and functioning
2030	Routine MEPF Equipment Replacement & Upgrades	$150,000	Ongoing replacement of aging components, including pumps, controls, electrical panels	Consistent reliability, reduced downtime
2031	Routine MEPF Equipment Replacement & Upgrades	$150,000	Ongoing replacement of aging components, including pumps, controls, electrical panels	Consistent reliability, reduced downtime
2032	Routine MEPF Equipment Replacement & Upgrades	$150,000	Ongoing replacement of aging components, including pumps, controls, electrical panels	Consistent reliability, reduced downtime
2033	Fire Protection System Modernization	$180,000	Update sprinkler and alarm systems, per evolving codes	Enhanced fire safety; reduced insurance premiums
2037	Major HVAC System Overhaul, replacing with Carrier Modular AHUs and return fans	$1,000,000	Renewal of HVAC systems	Improved efficiency, updated components
2041	Fire Protection System Upgrade & Expansion	$250,000	Expansion and modernization	Enhanced coverage, future-proofed safety
2026-2044 MEPF Subtotal		**$5,272,020**		

Justification and Impact Analysis

The investments proposed in this plan are driven by multiple critical factors, including the age and current condition of the MEPF systems. Many of these systems are approaching the end of their useful life, making them more prone to breakdowns, inefficiency, and non-compliance with updated regulations. By replacing and upgrading these components, the Theatre can address vulnerabilities before they result in costly emergency repairs or disrupt operations.

The anticipated impact of these investments includes significantly higher system reliability, improved resilience to unforeseen events, and a more strategic allocation of capital resources. By investing now, the Theatre positions itself to adapt seamlessly to future operational demands, regulatory changes, and technological advancements, while delivering ongoing value to stakeholders and ensuring long-term sustainability.

Long-Term Projections

Looking ahead over the next two decades, the Theatre must proactively prepare for a variety of challenges and opportunities. This includes responding to shifting operational requirements, keeping pace with changing regulations, and managing unexpected events such as system failures or rapid technological progress. To address these needs, the following strategies should be central to the Theatre's long-term planning:

- **REGULAR REVIEW AND ADJUSTMENT OF CAPITAL PRIORITIES:** This approach ensures that resources are allocated to areas of greatest need, and that the Theatre's infrastructure remains reliable and compliant as conditions evolve.
- **ADAPTIVE MODERNIZATION STRATEGIES:** Employ a phased approach to upgrades, allowing for gradual integration of modern systems and emerging technologies. This ensures that improvements can be made without interrupting operations and allows the Theatre to remain flexible in the face of new challenges.

- **COLLABORATION AND COMPLIANCE:** Ongoing partnerships with manufacturers, vendors, and regulatory agencies should be prioritized to stay informed of industry best practices and meet all current and future compliance requirements.

These efforts ensure the long-term sustainability and adaptability of the Theatre in a rapidly changing landscape.

MEPF Photos

Mechanical Room Switchboard
Unit was updated in 2002.

Theatre Air Handling Unit (AHU 1)
Unit needs replacing. This is the largest and most used air handler covering inside and outside the main auditorium. Shows signs of extreme wear and condensation due to mechanical room not being conditioned.

Theatre Hot Water System Mechanical
Hot water pumps are good. Can be added for replacement when they fail. As long as they are maintained, they should last 20 more years. Motors will need to be changed first.

Theatre Large Control Center
Updated in 2002, satisfactory condition, ensure that regular maintenance is performed.

Theatre Main Substation
Updated in 2002. Maintained well.

Theatre Domestic Hot Water Boiler
Unit feeds the entire Theatre. Capital Expenditure item to replace when it fails. Routine maintenance currently being performed on unit.

Theatre Hot Water System Mechanical Pump
Unit needs to be cleaned up due to a leak in the seal that was repaired.

Theatre Generator
Generator is in good operating condition, has been upkept with regular maintenance

Theatre Pumps
Pumps are in satisfactory operating condition.

Theatre Small Motor Control Center
Satisfactory condition for its age. Keep up on regular maintenance.

Theatre Mechanical Substation 2nd Floor
Updated in 2002.

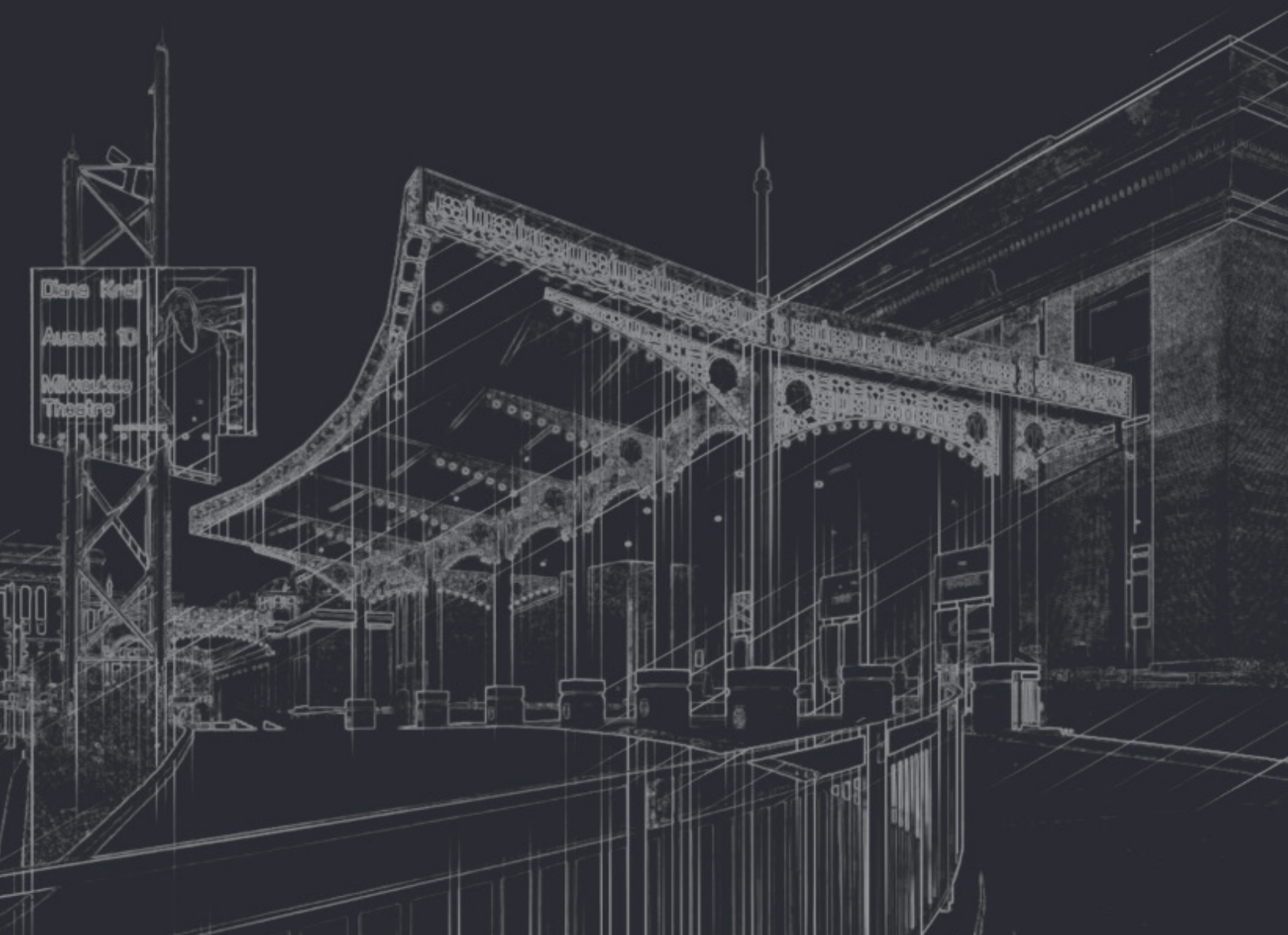
Theatre Sprinkler Incoming Zones
Recommend adding booster pump to this system to provide robust sprinkler coverage.

Theatre Updated AHU
Modular AHU added in 2002. Currently in good operating condition.

Theatre We Energies Incoming Power
We Energies responsible for maintaining.

SECTION 05

The Americans with Disabilities Act (ADA) and Code Compliance



SECTION 05 THE AMERICANS WITH DISABILITIES ACT (ADA) AND CODE COMPLIANCE

Executive Summary

This ADA and Code compliance 20-year capital expenditure plan for the Theatre, focuses on proactively addressing compliance. Although the Theatre which was originally built in 1909 and significantly renovated in 2003 is not mandated to adhere to current ADA or building codes under its existing use, any substantial renovations or major upgrades would likely trigger mandatory compliance projects. Even in the absence of such requirements, it is advisable to pursue accessibility improvements to ensure the Arena's amenities and access are comparable with other similar venues, thereby maintaining a safe and welcoming environment for all guests and staff. A preliminary code review conducted by EUA Architects Identified several ADA deficiencies.

Current Status

Built in 1909 and significantly renovated in 2003, the Theatre's updates were made to meet the building codes and standards in effect at that time, including fire resistance and safety features, The venue now features accessible routes, restrooms and elevators, and efforts have been made to enhance accessibility throughout. However, as an older facility, it does have some compliance issues and poses some accommodation challenges for all guests. Looking ahead, Wisconsin will be adopting new building regulations, and these updated codes bring stricter requirements for life safety and accessibility, which could impact the Theatre during future renovations.

Key Deficiencies and Challenges

The Theatre faces several code compliance challenges that should be addressed, particularly as regulations evolve.

Exit Hardware Non-Compliance

The exit doors in the John Plankinton Room currently do not have panic hardware installed. This is a violation of IBC Section 1010.1.10, which requires panic hardware on exit doors serving assembly areas to facilitate quick and safe egress during emergencies. The absence of compliant hardware presents a potential safety risk for occupants, especially during large public events.

Guardrail Safety Issues

In the upper mezzanine, the glass railings, and in the pre-function area, the ornamental balusters, do not meet current safety standards. Specifically, these barriers allow a four-inch sphere to pass through, which does not comply with IBC Section 1029.16.4. This standard ensures that guardrails prevent children or objects from falling through openings, and non-compliance increases the risk of accidents.

Upgrade Strategy and Lifecycle Management

Immediate Priorities

The first step is to resolve higher-risk code deficiencies, specifically the installation of panic hardware on exit doors and the replacement or modification of non-compliant guardrails. These upgrades directly mitigate the most significant safety risks and are necessary to meet the latest IBC standards. Addressing these issues early helps prevent potential accidents and regulatory violations.

Proactive Planning

After addressing the most important issues, the strategy shifts toward anticipating future code changes, such as the adoption of the 2021 IBC and updated accessibility standards, that may impact the Theatre's compliance.

This includes evaluating building systems and planning upgrades that will keep the facility ahead of regulatory requirements.

Lifecycle Management

Ongoing, scheduled reviews of building systems, technology integration, and routine maintenance are essential to preserve compliance and operational efficiency. This involves periodic audits, regular staff training on safety protocols, and the implementation of robust maintenance schedules to ensure all systems remain up to date.

20-Year Capital Expenditure Plan

The Americans with Disabilities Act (ADA) and Code Compliance

Year	Major Expenditure	Estimated Cost	Justification	Anticipated Improvement
2026	Install Panic Hardware (Exit Doors)	$45,000	Required for assembly occupancy compliance under IBC 2021; addresses immediate life safety risk	Code-compliant exits; reduced liability; enhanced emergency egress
2027	Replace Mezzanine Glass Guardrails	$120,000	Meet IBC 2021 guardrail safety standards; prevent fall hazards	Improved patron safety; regulatory alignment
2028	Upgrade Pre-Function Area Guardrails	$60,000	Eliminate non-compliant baluster spacing; fulfill ADA and IBC requirements	Safer circulation; ADA compliance
2029	Accessibility Enhancements (Entrances, Restrooms)	$90,000	Anticipate ANSI A117.1-2017 adoption; ensure universal access	Barrier-free facility; improved patron experience
2031	Code Compliance Audit	$15,000	Monitor ongoing compliance; identify emerging deficiencies	Proactive issue resolution, regulatory confidence
2033	Fire Protection System Modernization	In MEPF section	Update sprinkler and alarm systems per evolving codes	Enhanced fire safety; reduced insurance premiums
2035	Lifecycle Replacement: Door Hardware	$40,000	Replace aging systems; maintain egress reliability	Continued code compliance; reduced maintenance costs
2037	Technology Integration (Security, Wayfinding)	$80,000	Support ADA wayfinding and emergency communications	Accessible navigation; improved safety response
2039	Code Compliance Audit	$35,000	Ongoing monitoring and documentation	Continuous improvement; risk mitigation
2041	Lifecycle Replacement: Guardrails	$70,000	Maintain structural integrity and safety standards	Long-term durability; sustained compliance
2026-2044 ADA Code Compliance Subtotal		**$550,000**		

Justification and Impact

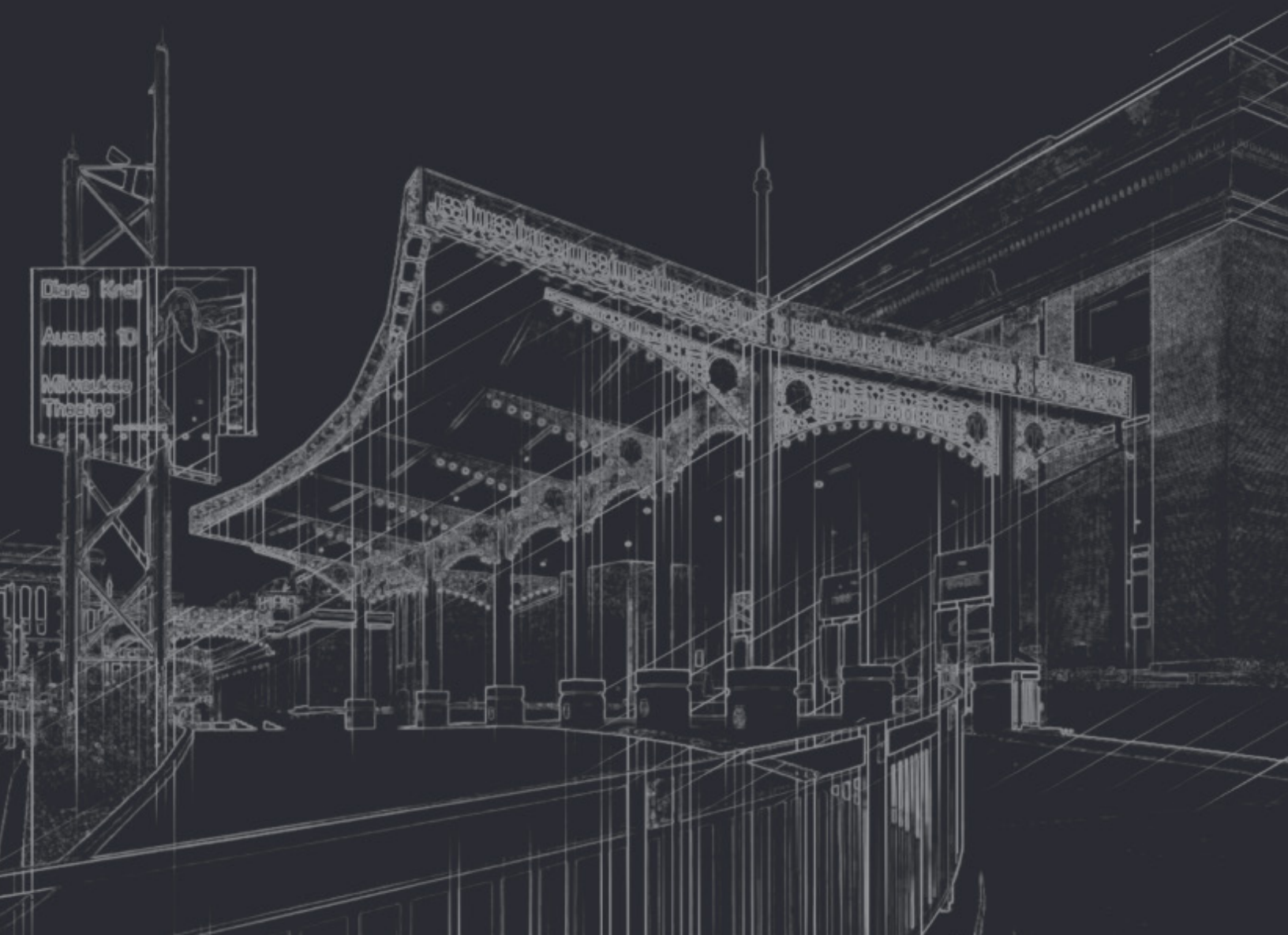
By focusing on urgent code-related enhancements and spreading financial commitments over a 20-year period, the Theatre can minimize the risk of sudden, costly retrofits and emergency repairs. This forward-thinking approach also enhances the Theatre's ability to adapt to evolving standards and ensures that all patrons, including those with disabilities, benefit from a safe and accessible environment. The comprehensive nature of these investments reduces liability for the venue, instills greater confidence among guests and stakeholders, and reinforces the Theatre's standing as a premier public gathering space in the community.

Long-Term Projections

Looking ahead, it is anticipated that the adoption of updated building codes and accessibility standards, will introduce new requirements concerning fire safety, and universal venue accessibility. Annual reviews of capital needs and expenditures will allow budget planners to adjust allocations based on the latest regulatory guidance, facility usage trends, and stakeholder input.

SECTION 06

Audio, Video, & Event Production (AV Systems)



SECTION 06 AUDIO, VIDEO, & EVENT PRODUCTION (AV SYSTEMS)

Executive Summary

This report outlines a detailed, forward-looking 20-year capital expenditure plan for the Theatre's audio, video, and event production systems. The plan's objective is to guide strategic investments, address operational challenges, and ensure the venue remains a premier destination for public, civic, and entertainment events.

Current System Status

Over the past two decades, the Theatre's A/V system's infrastructure has evolved significantly in response to changing programming practices and operational needs. Today, the majority of public ticketed events—estimated at 60–70%—are organized and managed by the Pabst Theatre Group (PTG). This shift has led to most activities occurring outside the direct operational control of the WCD. While this arrangement has helped reduce WCD's operational risks and responsibilities for large-scale events, it has also shaped investment priorities for AV systems as the PTG has worked with the WCD to implement a number of improvements.

Recent investments include:

- Retrofitting house lighting and PAR56 fixtures with energy-efficient LEDs, resulting in improved illumination and reduced maintenance costs.
- Implementing network infrastructure improvements, such as the ETC Net3 system, to enhance control and connectivity across the venue's A/V equipment.
- Acquiring ETC Paradigm architectural lighting control system, offering advanced programming features and greater reliability for venue-wide lighting management.
- Replacing selected conventional lighting fixtures with modern LED alternatives to increase versatility and lower power consumption.
- Purchasing ETC ION XE lighting console in 2019, providing sophisticated control options for a wide range of events.
- Conducting a comprehensive inspection and maintenance of the rigging systems in 2022 to ensure safety and compliance with industry standards.
- Installing new masking curtains made from inherently flame retardant (IFR) fabric in 2023, enhancing stage safety and aesthetics.

WCD-owned A/V equipment is infrequently used for concerts and large touring productions, as those events generally bring their own specialized setups. However, corporate meetings and smaller-scale events consistently depend on the venue's house equipment for reliable performance.

Operationally, the Theatre continues to offer efficient storage solutions and streamlined stage access, supporting quick load-ins and ample space for equipment cases. This infrastructure enables the venue to accommodate a variety of event needs with minimal logistical challenges, supporting external promoters and in-house productions.

Key Deficiencies and Challenges

Outdated Equipment

Several audio, video, and lighting components within the venue have surpassed their expected lifespans. Notably, the ETC Express lighting console and Christie LX1200 projectors are no longer supported by their manufacturers, making maintenance difficult and replacement parts scarce. Some lighting fixtures have remained unused for more than five years, indicating both technological obsolescence and evolving production requirements.

Limited Lighting Inventory

The current selection of lighting fixtures is insufficient for comprehensive stage coverage. This limitation restricts the ability to create multiple lighting washes or accommodate the varied needs of different clients and event types. As a result, the venue faces challenges in delivering dynamic and flexible lighting designs, especially for more complex productions.

Legacy Dimming Systems
The ETC Sensor D20 dimmers were originally designed for incandescent lighting loads. When paired with modern dimmable LED lamps, these dimmers often behave unpredictably, causing flickering or inconsistent dimming. Temporary workarounds are sometimes used, but a full upgrade to compatible dimming systems is needed for reliable performance.

Intercom Deficiencies
The venue's ClearCom intercom system is hampered by missing or broken belt packs and headsets, limiting effective backstage communication during moderate-sized shows. Additionally, there is a growing demand for wireless solutions to support more mobile and complex event operations, which remains unmet.

Rigging and Safety Issues
Recent inspection reports have identified several safety concerns, including loose loft block beam clamps, improperly tied hand lines, and the absence of load limit signage. These deficiencies pose potential risks to crew members and performers and must be addressed to maintain compliance with industry safety standards.

Power Distribution Bottlenecks
The stage right area lacks a permanent 400-amp electrical service, forcing the use of temporary feeder cables for events requiring higher power loads; this adds complexity to event setup and increases risk of electrical issues during large productions.

Video System Obsolescence
The house projectors, specifically the Christie LX1200 models, use outdated 4:3 aspect ratio screens and do not provide adequate brightness for contemporary event needs. It was communicated that discussions are underway regarding suitable replacements that offer improved image quality and compatibility with modern content formats.

Control System Limitations
The ETC Unison architectural lighting control system is outdated. Its programming interface is cumbersome, making adjustments time-consuming, and replacement parts increasingly difficult to source. Upgrading to a newer, more user-friendly system would improve operational efficiency and reliability.

Storage Constraints
Although current storage facilities are sufficient for most needs, ongoing assessment is necessary to ensure that future touring productions and increased equipment inventories can be accommodated without logistical challenges. Proactive planning will help avoid space shortages as event requirements evolve.

Upgrade Strategy and Lifecycle Management

To effectively navigate the Theatre's audio/visual challenges, a carefully planned, phased upgrade strategy should be implemented. This approach centers on lifecycle management and proactive operational efficiency, ensuring the Theatre remains competitive and capable of supporting evolving event production needs.

Systematic Upgrades
Replace obsolete A/V and lighting components in a phased process. The focus is on adopting industry-standard technologies that are scalable and future-proof, such as LED lighting systems for energy efficiency, digital wireless solutions for mobility and reliability, and networked control systems that enable centralized, flexible management of equipment. This systematic approach helps prevent sudden failures, reduces maintenance complexity, and ensures compatibility with emerging production requirements.

Lifecycle Reviews
These reviews include updating equipment inventories to reflect recent acquisitions or retirements, soliciting vendor quotes for replacement or repair, and monitoring technological advancements in the market. The resulting insights will be used to refine cost projections and reprioritize upgrades, ensuring that resources are allocated to the highest-impact needs.

Documentation
It's important that comprehensive documentation is maintained for all assets, including status and inspection reports, maintenance history, and issue logs. This comprehensive organized history allows for informed decision-making, and enhanced analytics.

By following these principles, the venue can address its current deficiencies such as outdated equipment, limited lighting inventory, and control system limitations, while minimizing risks and maximizing the value of investments over the 20-year capital expenditure plan.

20-Year Capital Expenditure Plan

Audio, Video, & Event Production (AV Systems)

Year	Major Expenditure	Estimated Cost	Justification	Anticipated Improvement
2026	Replace house projectors (2x Epson EB-PQ2220B 20,000 Lumen 4K)	$71,782	End-of-life projectors, outdated insufficient brightness, will remain in 4:3 ratio until new screens purchase	Enhanced video capabilities, support for contemporary event requirements
2026	Upgrade masking drapery (10x 12' x 35' black velour legs, IFR fabric)	$28,000	Improve stage masking, meet diverse client needs	Flexible stage configurations, improved aesthetics
2026	Rigging system repairs (loose clamps, hand line corrections, signage)	$45,000	Address safety inspection findings, ensure compliance	Enhanced safety, operational reliability
2027	Replace ETC Sensor D20 dimmers with ETC ArcLamp system or constant power fixtures	$120,000	Erratic LED dimmer behavior, incompatible legacy dimmers	Stable lighting control, reduced maintenance
2028	Upgrade stage right electrical distribution (permanent 400-amp service)	$35,000	Eliminate temporary feeders, improve operational flexibility	Faster load-ins, support for high-demand events
2029	Expand ClearCom intercom inventory (wired/wireless)	$30,000	Support moderate to large shows, address wireless intercom requests	Improved communication, production efficiency
2030	Add LED/moving light fixtures (Chauvet Rogue R2, High End Soloframe 1500, etc.)	$75,000	Broaden lighting offerings, meet client demand for modern fixtures	Greater creative flexibility, energy efficiency
2031	Replace ETC dimming rack processors (upgrade to CEM3 or later)	$55,000	Future-proof lighting control infrastructure	System compatibility, improved reliability
2031	Replace house screens with 16:9 aspect ratio models will also require additional fit out costs with new screen dimensions	$65,000	Align with modern video standards, client expectations	Enhanced presentation capabilities
2032	Fiber and Cat6 network upgrades throughout theatre	$60,000	Support high-bandwidth audio/video, future network needs	Improved connectivity, faster data transmission
2033	Replace ETC ION XE lighting console with advanced model	$28,000	Support complex events, expand control capabilities	Industry-standard control, enhanced event support
2034	Replace/upgrade stage rigging components	$50,000	Maintain compliance, address wear and tear	Long-term safety, reliability

Year	Major Expenditure	Estimated Cost	Justification	Anticipated Improvement
2035	Upgrade architectural lighting control system (next-gen ETC Paradigm)	$40,000	Ensure continued support, integrate new features	Simplified programming, improved system resilience
2037	Expand storage and backstage infrastructure	$65,000	Accommodate larger touring productions	Operational efficiency, competitive advantage
2038	Replace aging LED fixtures, update front-of-house optics	$50,000	Maintain lighting output quality, reduce maintenance	Consistent stage illumination
2039	Upgrade audio patchbay and distribution infrastructure	$40,000	Support next-generation audio systems	Improved audio fidelity, flexibility
2040	Replace/upgrade video distribution system (SDI/BNC to IP)	$75,000	Transition to digital video standards	Streamlined video production, future readiness
2041	Replace masking curtains as needed (wear, compliance)	$30,000	Maintain aesthetics and fire safety	Consistent stage appearance
2042	Replace/upgrade Cat6 network infrastructure	$25,000	Support new AV systems, maintain connectivity	Ongoing operational excellence
2043	Replace/upgrade control consoles (audio, lighting, video)	$75,000	Ensure compatibility, adopt new technologies	Improved workflow, enhanced production quality
2044	Rigging system inspection and repairs	$45,000	Maintain safety compliance, address aging components	Safe operations, reduced liability
2026-2044 A/V Systems Subtotal		**$1,107,782**		

Justification and Impact

Providing reliable technology enables production teams to organize events efficiently and supports the Theatre's position in the market. Regular system checks, scheduled upgrades, and backup strategies help prevent problems from outdated technology. Anticipating industry changes ensures the facility stays adaptable and ready for future needs.

Overall, these targeted investments and strategic upgrades ensure that the Theatre remains a responsive, resilient, and attractive venue for clients and audiences. Reduced long-term maintenance expenses and improved operational transparency contribute to sustained financial health and community engagement, supporting the Theatre's mission for decades to come.

Long-Term Projections

The capital plan for the Theatre emphasizes a proactive and structured approach to maintaining and upgrading A/V production systems over the next two decades. Annual reviews are integral to this process, ensuring that equipment inventories remain current, market trends thoroughly evaluated, and cost estimates accurately adjusted. These yearly assessments help facility managers anticipate emerging technologies and evolving industry standards, allowing the Theatre to remain at the forefront of innovation.

Regular physical inspections and meticulous asset documentation form the backbone of effective risk management. This process involves updating equipment inventories, soliciting vendor quotes for necessary upgrades, and reviewing the event calendar to ensure all systems are prepared for upcoming productions.

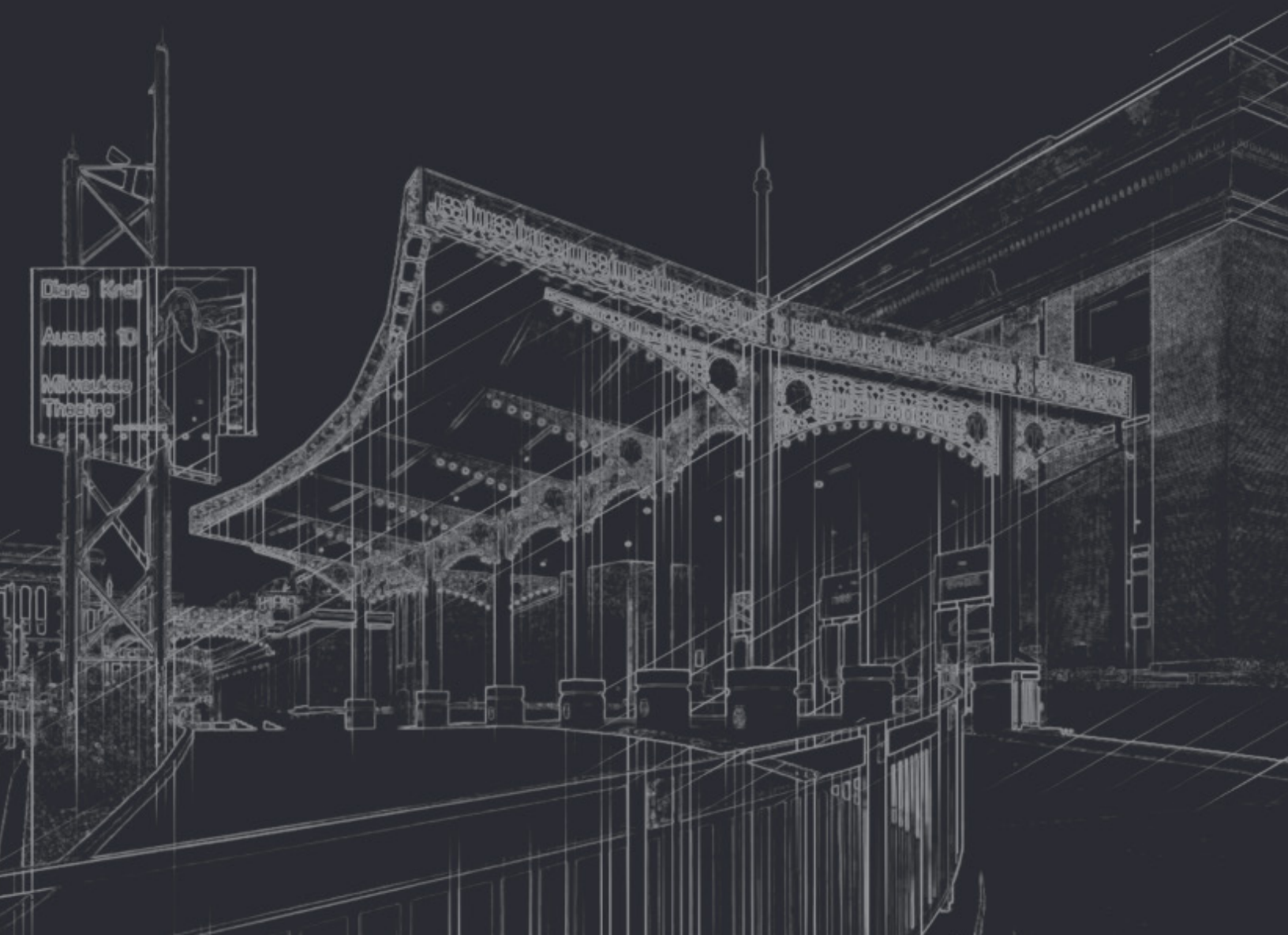
Maintaining detailed records enhances operational transparency and supports informed decision-making.

- **ANNUAL REVIEW CHECKLIST:** Conduct physical equipment inspections, update inventory records, solicit vendor quotes, and assess the upcoming event calendar to identify potential needs and vulnerabilities.
- **STRATEGIC UPGRADES AND EXPANSIONS:** Enable the Theatre to maintain operational excellence, adapt to market changes, and foster ongoing community engagement for the next 20 years.

By integrating these proactive measures into long-term planning, the Theatre is positioned to sustain its competitive edge, deliver exceptional event experiences, and uphold its mission for years to come.

SECTION 07

Information Technology (IT) Systems



SECTION 07 INFORMATION TECHNOLOGY (IT) SYSTEMS

Executive Summary

The Theatre faces evolving technological demands and operational challenges that necessitate a strategic, long-term capital expenditure plan for its Information Technology (IT) Systems. This report outlines a structured 20-year approach to infrastructure investment, ensuring the Theatre maintains reliable, secure, and high-performing IT services. The plan addresses imminent equipment end-of-life cycles, identifies key deficiencies, and provides a phased upgrade and lifecycle management strategy.

Current System Status

The Theatre currently operates a robust and diverse IT infrastructure designed to support its critical operations and enhance the overall user experience. There are 17 Juniper network switches, including EX4300, EX4200, and EX2300 models, strategically distributed throughout the facility. These switches form the backbone of the Theatre's network, ensuring reliable connectivity and data transfer across all areas.

In terms of wireless coverage, the Theatre has installed 92 Extreme Networks access points, comprising numerous models. These access points are positioned in seating areas to deliver comprehensive WiFi service to guests and staff, supporting seamless internet access and operational communications during events.

The IT backbone of the facility was strengthened last year with an upgrade to single-mode fiber, which now links all 10 dedicated IT closets. Each closet is equipped with one to two network switches and houses a total of 13 APC Smart-UPS 1500 units, providing essential backup power to maintain network stability and prevent data loss during outages.

Cooling infrastructure is a notable concern, as only one of the IT closets currently features active air conditioning. This limited cooling capacity poses a risk to system reliability, especially as equipment ages and heat loads increase.

For outdoor digital signage, the Theatre employs both a north wall sign and a marquee sign. However, the marquee sign has reached end-of-life status and no longer receives vendor support, highlighting an urgent need for replacement to maintain effective external communications and venue branding.

The Internet Protocol Television (IPTV) system, utilizing the VITEC Avedia platform, underwent an upgrade in 2023. It now operates on a fully converged network that encompasses all event spaces and the entire WCD campus. This system supports multimedia distribution for events, information displays, and internal communications.

Beyond basic connectivity, the network infrastructure also supports multiple building systems, including ETC lighting controls, Musco lighting, fire suppression, building management, and backup servers. This integrated approach streamlines operations and enhances safety and efficiency throughout the Theatre.

The main distribution frame (MDF) room is located in the basement and is fully equipped with cooling, fire suppression systems, and backup servers. This centralized hub is vital for the protection and continuity of IT services, ensuring the Theatre can withstand operational challenges and maintain services even during emergencies.

Key Deficiencies and Challenges

Aging Network Switches

The Theatre currently relies on 17 Juniper network switches to maintain reliable connectivity across the facility. Many of these switches, including EX4300, EX4200, and EX2300 models, are projected to reach their end-of-life by 2028. As manufacturer support and replacement parts become unavailable, continued operation of these aging devices presents a risk of unexpected failures, network downtime, and potential security vulnerabilities. Timely replacement is essential to sustain performance and avoid disruption to critical

operations.

Access Points Approaching End-of-Life
Wireless connectivity is provided via 92 Extreme Networks access points, with models (AP650X and AP4000) nearing their manufacturer end-of-life dates between 2028 and 2029. As these devices age, they may lack compatibility with newer technologies and become unsupported, leading to reduced WiFi performance and coverage. Proactive replacement is necessary to maintain seamless internet access for guests and staff and support evolving operational requirements.

Insufficient Active Cooling in IT Closets
Of the Theatre's 10 IT closets, only one has active air conditioning. This limited cooling capacity is a significant concern, as IT equipment generates substantial heat. Without adequate cooling, network switches, uninterruptible power supply (UPS) units, and other critical hardware are at higher risk of overheating, which can cause hardware failures and data loss. As equipment ages and heat loads increase, expanding cooling solutions is vital to uphold network reliability and prolong equipment lifespan.

End-of-Life Digital Outdoor Signage
The Theatre's outdoor signage consists of a pylon marquee sign which is located in front of the building on West Kilbourn Avenue and a wall-mounted sign located on the corner of the building at West State and North Sixth Streets. Both signs have reached end of life and are no longer supported with a service agreement. The WCD has received budgetary pricing from Daktronics to replace these signs with newer, more technologically advanced displays, The marquee sign will require two displays with 10'2" x 14'8" dimensions, and the wall mounted corner sign will be replaced with a 9'6" x 39'6" display.

Limited Card Keyscan Access Control Points
Currently, physical security via card keyscan access control is restricted to the basement area. This leaves other parts of the Theatre less secure and potentially vulnerable to unauthorized access. Expanding access control coverage throughout the facility will enhance safety for staff and guests, protect critical IT infrastructure, and support compliance with evolving security standards.

Lack of Outdoor WiFi Coverage
WiFi service is presently limited to the building's interior, with no coverage outside the Theatre's footprint. This restricts operational flexibility for outdoor events, staff activities, and guest experiences in adjacent exterior spaces. Extending wireless coverage outdoors would improve user satisfaction, enable seamless communications, and support a broader range of event types and operational needs. It will also further stagger the onboarding of guests to the facility making for a better overall user experience.

Upgrade Strategy and Lifecycle Management

To ensure the Theatre's technology infrastructure remains robust, secure, and efficient, a phased upgrade strategy should be adopted. This approach focuses on systematically replacing equipment that is approaching or has reached its end-of-life, with particular attention given to systems crucial for safety, security, and the overall user experience. By scheduling upgrades in advance of manufacturer support expiration, the risk of unexpected failures, network downtime, and security vulnerabilities is minimized.

Regular refresh cycles will be established for all major IT systems. Network switches, wireless access points, and digital signage will be proactively replaced to prevent service interruptions and to maintain compatibility with new technologies. Upgrades to cooling systems and access controls will be rolled out gradually, to address growing heat loads and evolving security requirements. This incremental approach allows for budget planning, minimizes operational disruption, and ensures that critical infrastructure is continuously supported.

- **NETWORK SWITCHES (7-YEAR CYCLE):** All switches should be replaced every seven years, ensuring reliable connectivity and up-to-date security features. This pre-emptive replacement schedule addresses the risk posed by aging devices and discontinued manufacturer support.
- **FIBER INFRASTRUCTURE (20-YEAR CYCLE):** The fiber backbone should be assessed and upgraded

every 20 years, reflecting its long lifespan and the importance of maintaining high-capacity data transmission across the venue.

- **WIFI ACCESS POINTS (5-YEAR CYCLE):** Wireless access should be refreshed every five years to ensure optimal coverage, performance, and compatibility with the latest wireless standards. This proactive approach supports seamless internet access for guests and staff.
- **UPS UNITS (7-YEAR CYCLE):** UPS should be replaced every seven years to maintain reliable backup power for critical IT systems and safeguard against data loss due to power outages. UPS batteries should be replaced every 3 years
- **IPTV SYSTEM (10-YEAR CYCLE):** The IPTV platform should be refreshed every 10 years to support evolving multimedia needs and maintain compatibility with new distribution technologies.
- **EXTERIOR SIGNAGE (15-YEAR CYCLE):** Digital outdoor signage should be replaced every 15 years, ensuring reliable external communications and effective event promotion.

By adhering to these defined lifecycle schedules and prioritizing upgrades for high-impact systems, the Theatre will maintain operational continuity, support future technology advancements, and deliver a safe, efficient environment for events, staff, and guests.

20-Year Capital Expenditure Plan

Information Technology System (IT)

Year	Major Expenditure	Estimated Cost	Justification	Anticipated Improvement
2026	Replace North Wall Digital Outdoor Sign	$198,900	End-of-life; vendor support discontinued	Restores external communications, ensures compliance
2026	Replace Marquee Digital Outdoor Sign	$189,720	End-of-life; vendor support discontinued	Enhances visibility, ensures reliability
2027	Replace UPS Batteries	$12,000	End-of-life	Ensure UPS provides enough backup power when required
2028	Replace All AP650X Access Points	$95,509	End-of-life; maintain WiFi coverage	Improved network performance, supports new devices
2028	Replace EOL Network Switches	$89,140	End-of-life; maintain connectivity	Ensures reliability, prevents outages
2029	Replace All AP4000 Access Points	$69,275	End-of-life; maintain coverage	Improved speed and reliability
2029	Upgrade Active Cooling in IT Closets	$68,750	Prevent overheating; improve system longevity	Reduces risk of failure, extends equipment life
2030	Add Outdoor WiFi Access Points	$55,200	Expand coverage beyond building footprint	Supports guest and operational connectivity outdoors
2031	Add Additional Keyscan Access Points	$45,100	Increase physical security	Enhanced access control, improved safety
2032	Add Additional Keyscan Access Points	$45,100	Increase physical security	Enhanced access control, improved safety
2033	Replace MDF Room UPS Systems (shared with Arena)	$41,000	Lifecycle replacement	Ensures uninterrupted power, protects critical systems
2036	Replace IPTV System (shared with Arena)	$85,000	Lifecycle replacement (split cost with arena)	Enhanced Streaming, integration capabilities
2037	Replace UPS Batteries	$16,000	End-of-life	Ensure UPS provides enough backup power when required
2038	Replace Network Switches (next cycle)	$116,425	End-of-life replacement	Maintains network reliability
2040	Replace All Access Points (next cycle)	$160,000	End-of-life replacement	Supports new standards, improved coverage
2042	Replace Outdoor Digital Signs (next cycle)	$494,000	End-of-life, visibility	Ensures continued functionality and sponsorship and advertising opportunities
2026-2044 IT Systems Subtotal		**$1,781,119**		

Justification and Impact

Each planned investment is strategically designed to address essential requirements for system reliability, security, and overall user experience within the Theatre. The replacement of end-of-life network switches and access points is critical for preventing outages, ensuring uninterrupted high-speed connectivity, and supporting the increasing demand for digital services. This proactive approach safeguards operational performance and enhances guest satisfaction.

Upgrading cooling systems and access controls plays a vital role in protecting sensitive IT hardware from overheating and unauthorized access. These improvements help mitigate the risk of equipment failure, reduce maintenance costs, and ensure compliance with regulatory standards. Such measures are indispensable for maintaining a secure and reliable technical environment.

Replacing outdoor signage not only maintains the Theatre's visibility but also ensures that communication with guests and staff remains clear and compliant with current regulations. This investment facilitates effective wayfinding and reinforces the Theatre's brand identity, contributing to a positive visitor experience.

Enhancements to WiFi and IPTV systems reflect the evolving operational requirements and rising expectations of guests. By providing robust, high-quality connectivity and entertainment options, the Theatre can meet modern demands and deliver a superior experience for patrons and staff alike.

Collectively, these planned expenditures reduce operational risks, minimize the likelihood of disruptions, and support continuous business operations. By prioritizing these initiatives, the Theatre strengthens its competitive position, adapts to technological changes, and ensures its long-term success and resilience in a rapidly evolving environment.

Long-Term Projections

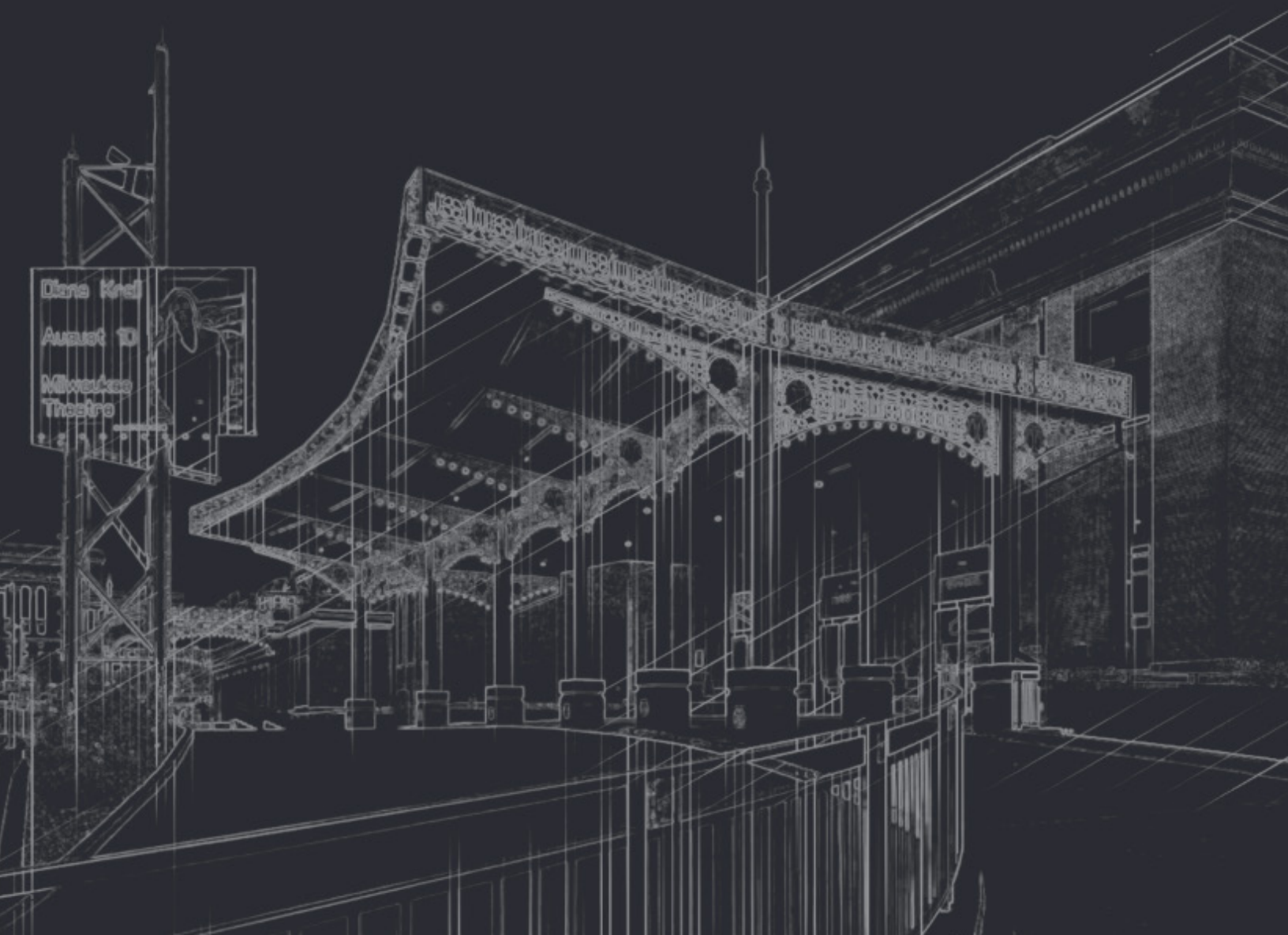
Looking ahead over the next two decades, the rapid pace of technological advancement will necessitate ongoing investment in the Theatre's IT infrastructure. To maintain reliability and security, it is recommended that major upgrades to networking equipment and digital signage occur within industry standards and continue to deliver high-speed connectivity and effective communication.

In addition to these scheduled upgrades, intermediate investments should be planned for essential systems such as cooling, access controls, and UPS. These systems play a critical role in protecting IT assets, maintaining compliance, and preventing hardware failures, which can disrupt operations and impact user experience.

To further safeguard operations, contingency funds should be set aside to address unexpected events. These could include unforeseen equipment failures, emerging cybersecurity threats, or changes in regulatory requirements that demand swift adaptation. By preparing for such contingencies, the Theatre can minimize downtime and reduce the risk of costly disruptions.

SECTION 08

Security Systems



SECTION 08 SECURITY SYSTEMS

Executive Summary

This 20-year capital expenditure plan provides a roadmap for upgrading and maintaining the Theatre's security and surveillance systems. It addresses current infrastructure limitations; outlines phased modernization strategies and presents a detailed financial plan to guide decision-making.

Current System Status

The Theatre utilizes a video management system that incorporates advanced artificial intelligence (AI) analytics, enhancing its ability to monitor and evaluate security footage. The majority of the Theatre's camera inventory comprises AXIS VAPIX models, which vary in technical specifications such as firmware versions, frame rates, and resolution. Most cameras operate at 15 frames per second (fps) and deliver high-definition video at 1920x1080 pixels, while a select few offer an even greater resolution of 2560x1440 pixels. To optimize video storage and transmission, some cameras support the newer H.265 compression standard, which provides improved efficiency over the older H.264 format still used by other units.

Security monitoring for the perimeter is actively managed through door switch monitors that detect unauthorized access or breaches. The Johnson Controls Victor Professional System version 6.2 is installed to provide comprehensive video management and analytics. However, its full functionality is limited by compatibility issues stemming from the broader system infrastructure, preventing the Theatre from leveraging the system's advanced features to their full potential.

The WCD employs multiple ExacqVision A-series NVR's which are now a couple years old and lifecycle replacement is generally three to five years. The WCD has also started a plan to employ Xtract One frictionless walkthrough sensors for entry into all of their public assembly venues, Currently the Convention Center is equipped with these units. It should be part of the capital plan to equip the Theatre with a full fleet of these units as well. These units have a lifespan of 10–20 years with proper maintenance.

The cabling infrastructure primarily consists of legacy coaxial cables that were retrofitted in the early 2000s. This approach, though slightly more modern than the neighboring arena's setup, still presents significant challenges. To interface with newer Cat cable technologies, converters are required, but these introduce bandwidth limitations and compatibility concerns. As a result, video quality and the capability to utilize dual output streams and advanced analytics are negatively impacted. Overall, while the Theatre's security system is more advanced than the neighboring arena, it remains in need of substantial modernization to address these deficiencies and ensure reliable, future-ready operations.

Key Deficiencies and Challenges

Aging Camera Inventory

Many cameras are outdated, providing limited resolution and restricting the effectiveness of advanced analytics.

Coaxial Cabling

Predominant use of coax cables requires converters to interface with modern Cat cable systems, resulting in bandwidth bottlenecks and inability to support dual output streams.

System Compatibility Issues

The need to bridge legacy and modern technologies leads to operational inefficiencies and limits the full capabilities of the video management system and analytics features.

Limited Use of Victor System

The Victor Video management system's utilization is hindered by compatibility constraints with existing infrastructure.

Bandwidth Constraints

Converters introduce significant bandwidth issues, impacting video quality and data transmission required for analytics.

Upgrade Strategy and Lifecycle Management

A carefully structured, phased approach is recommended for upgrading the Theatre's security and surveillance systems. This method is designed to minimize operational disruption, spread costs over manageable time periods, and ensure resources are allocated efficiently. The strategy is divided into four distinct phases over 20 years, each with specific goals and activities.

Initial Modernization

- Replace outdated cameras with advanced, high-resolution models that support the latest analytics capabilities and H.265 video compression for improved image quality and efficient data storage.
- Begin transitioning the cabling infrastructure from legacy coaxial cables to Cat6a/Cat7 Ethernet. This upgrade will significantly enhance bandwidth, ensure compatibility with new devices, and allow for better system performance.
- Prioritize areas with the most critical security needs for early upgrades, ensuring immediate benefits in surveillance quality where it matters most.

System Integration and Expansion

- Complete the replacement of all remaining coaxial cabling with Cat6a/Cat7 Ethernet throughout the facility, eliminating bandwidth bottlenecks and paving the way for future technology upgrades.
- Upgrade analytics software to leverage cutting-edge features such as object recognition, facial identification, and real-time threat alerts.
- Expand camera coverage to include all vital and previously underserved areas, ensuring comprehensive monitoring of the entire facility.
- Fully integrate new cameras with the Victor system and other management platforms, creating a unified, seamless operational environment.
- Refresh Network Video Recorders (NVRs) should be regularly refreshed to prevent hardware deterioration. Proactively maintaining and regularly replacing NVRs helps minimize the risk of system crashes, recording failures, and unreliable performance.

Lifecycle Renewal and Next-Generation Technology

- Initiate regular lifecycle replacements for cameras and system hardware, following manufacturer recommendations and keeping pace with technological advancements.
- Introduce next-generation analytics solutions, such as enhanced video processing and behavior prediction, to further improve security outcomes.
- Upgrade monitoring stations and network infrastructure to support higher data throughput and more sophisticated video management features.

Futureproofing and Advanced Capabilities

- Adopt emerging security technologies to stay ahead of evolving threats. Examples may include AI-driven threat detection, cloud-based video storage, and predictive analytics tools.
- Continue the regular lifecycle replacement of cameras and hardware to ensure optimal system performance and reliability.

This phased upgrade strategy not only addresses current deficiencies but also positions the Theatre for ongoing security excellence, adaptability to new technologies, and sustained operational efficiency over the next two decades.

20-Year Capital Expenditure Plan

Security Systems

Year	Major Expenditure	Estimated Cost	Justification	Anticipated Improvement
2027	Camera Upgrade (First Phase)	$30,000	Modernize camera fleet for higher resolution and analytics	Enhanced image quality, improved AI analytics
2027	Phase 1: Cabling Upgrade (Current and new zones)	$33,000	Transition from coaxial to Cat6a/7 cabling in critical zones; support higher bandwidth and dual-stream	Reduced bandwidth issues, improved reliability, future-proofing
2028	Management System (VMS) Upgrade, replace surveillance components (monitors, FFE)	$40,000	Implement latest Victor Professional system; integrate with access control and alarms	Optimized system operation, expanded features
2028	Purchase dedicated Xtract One walk through detectors for the Theatre	$515,000	Dedicated units for the theatre, stay in place for all events	Additional security screening, improving entry times for guests
2029	Replace Additional Cameras (Second Phase)	$40,000	Continue camera modernization	Consistent coverage, analytics expansion
2030	Phase 2: Cabling Upgrade (Secondary Zones) Current and new zones	$37,000	Eliminate bandwidth and compatibility issues	Full analytic capabilities, future-proof cabling
2031	Upgrade NVR Units, expand AI analytics	$52,000	Upgrade NVRs, Deploy advanced AI modules; enable facial recognition	Improve recording tech, Proactive threat detection, operational insights
2032	Integrate advanced AI Analytics Software/ hardware	$25,000	Increase AI tech, security analytics for breach, follow, insight, detection	Advanced threat detection, operational insights
2034	Lifecycle Replacement of Cameras phased	$55,000	Maintain high system reliability	Consistent image and analytics quality
2035	VMS Software Refresh and replace surveillance components (monitors, FFE)	$47,000	Ensure optimal performance and security	Reduced vulnerabilities, improved efficiency
2036	Replace NVR units and Analytics Servers	$60,000	Support new analytics workloads	Faster processing, scalability
2037	Lifecycle Replacement of Cameras phased	$70,000	Keep system current and reliable	Maintain high standards of coverage
2039	Camera and related Infrastructure Expansion (New Zones)	$42,000	Address evolving security needs	Improved safety, comprehensive monitoring
2039	Integrate advanced AI Analytics Software/ hardware	$30,000	Enhance threat detection capabilities	Proactive incident management
2026-2044 Security Systems Subtotal		**$1,076,000**		

Justification and Impact

The proposed security investments at the Theatre will replace outdated equipment and upgrade cabling, creating a robust system ready for future enhancements. Integrating advanced analytics and AI-driven monitoring improves threat detection accuracy, enables rapid response, and boosts operational efficiency. Upgraded cameras provide high-resolution coverage, supporting thorough investigations and law enforcement collaboration. Newer equipment decreases downtime and maintenance costs, while scalable infrastructure allows for seamless adoption of future technologies. Overall, these upgrades enhance safety for staff, patrons, and property, reinforcing the Theatre's commitment to a secure environment.

Long-Term Projections

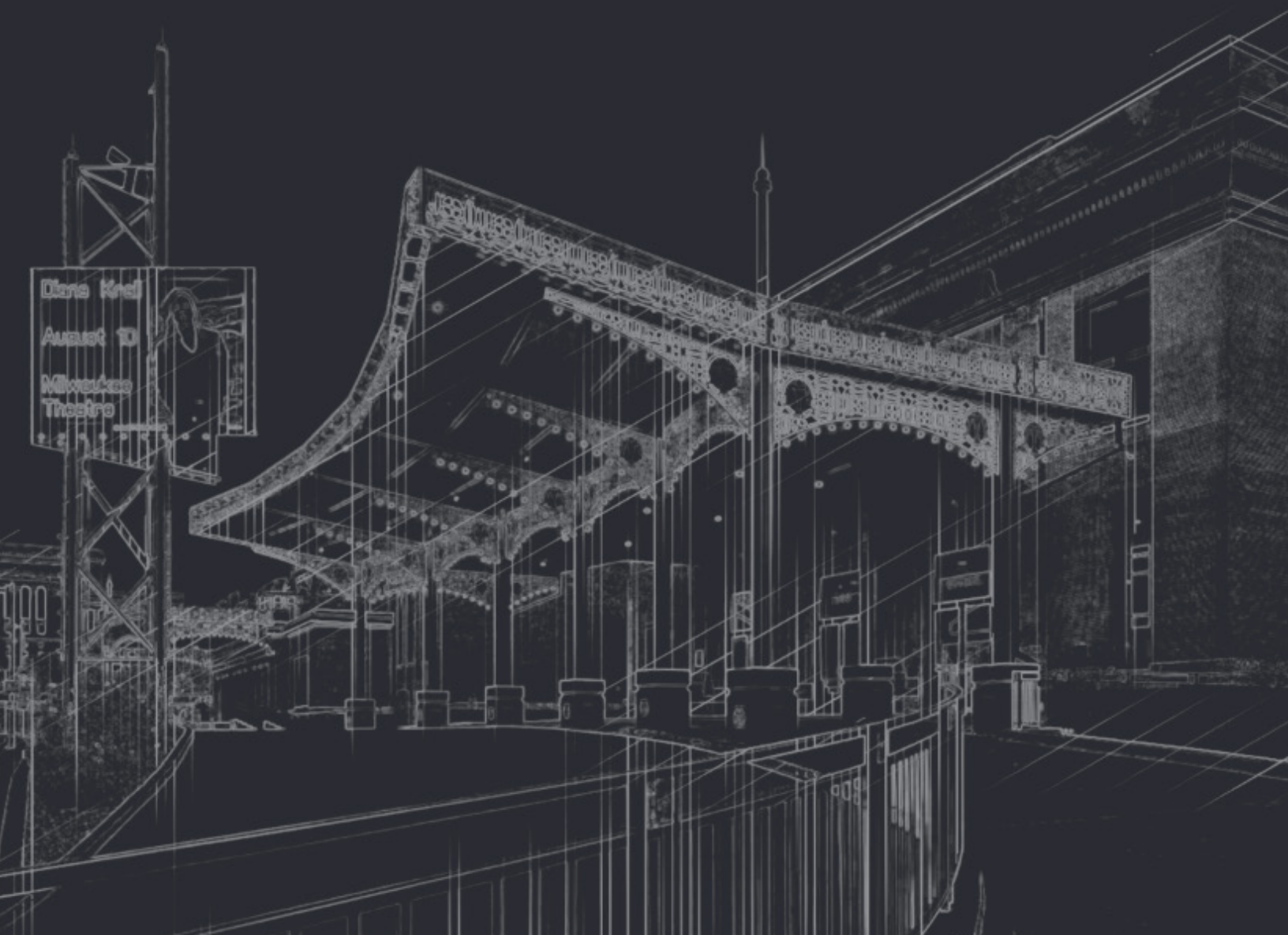
Surveillance technology is evolving rapidly. Remaining up to date with advancements is essential to ensure the Theatre does not lag in meeting future technological developments and adapting to changing security requirements. The WCD should continue proactively evaluating:

- **TECHNOLOGY EVOLUTION:** Annual reviews to assess emerging security solutions, enabling timely adoption of innovations such as AI-driven threat detection and predictive analytics.
- **LIFECYCLE MANAGEMENT:** Scheduled replacements and upgrades ensure system reliability, reduce obsolescence risk, and maintain optimal performance.
- **RISK MITIGATION:** Invest in redundant systems, cybersecurity measures, and hardware resilience to safeguard against failures and breaches.

These strategic upgrades will safeguard ongoing operations, facilitate the integration of future innovations, and ensure resilience and excellence for decades to come.

SECTION 09

Attachments



SECTION 09 ATTACHMENTS

EUA Code Assessment Report

WISCONSIN CENTER DISTRICT

Code Assessment of the Milwaukee Panther Arena and the Miller High Life Theater

milwaukee : madison : green bay : denver : atlanta

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EXECUTIVE SUMMARY

The Miller High Life Theatre, having undergone renovations under modern building codes, generally demonstrates satisfactory compliance with current standards. In contrast, the UWM Panther Arena—originally constructed under earlier, less stringent codes—presents several areas of concern that may require attention to meet today's regulatory expectations.

During the walkthrough, EUA's team conducted visual observations and took select field measurements to inform a general understanding of compliance status. While this report provides a high-level overview of observed conditions, a comprehensive evaluation of all building elements would require additional site visits and more detailed analysis should corrective action be pursued. Photographs were taken to document key findings and support ongoing discussions with the client.

INTRODUCTION

This report presents the findings of a building code assessment conducted by EUA team members at the Miller High Life Theatre and the UWM Panther Arena. The assessment included an on-site walkthrough of publicly accessible areas in both facilities. Since building floor plans and life safety drawings were not shared with EUA, evacuation maps were used as a floor plan reference for this report. The purpose of this study is to evaluate the current condition of building elements in relation to applicable building codes and accessibility standards.

The scope of the assessment focused on the following key areas of code compliance:

- Construction Type (where verifiable)
- Fire-Resistive Requirements
- Means of Egress Components
- Accessibility Standards

MILLER HIGH LIFE THEATER

General Information:

The Miller High Life Theatre was originally constructed in 1909 and underwent significant renovation in 2002. Based on available documentation and observed conditions, it appears the renovation was executed in alignment with a contemporary family of building codes and accessibility standards. Although the renovation drawings do not explicitly reference the code used, it is reasonable to assume the project was designed to comply with the International Building Code (IBC) 2000, which was officially adopted by the State of Wisconsin in July 2002. Prior to this, Wisconsin enforced the Wisconsin Enrolled Building Code.

At the time of this report, Wisconsin operates under IBC 2015. Notably, the state is scheduled to adopt IBC 2021 and ANSI A117.1-2017 as of November 1, 2025. While there are updates and refinements between IBC 2000 and IBC 2015, the core principles—such as occupancy classification, construction type, fire protection, egress, and accessibility—remain largely consistent.

The building's primary functional areas and the routes leading to them are fully accessible, and no significant code deficiencies or non-compliance issues were observed during the walkthrough.

General Building Code Data:

- Occupancy Classification: A-1 (Theater)
- Construction Type: Type IB
    - Roof: 1-hour fire-resistance rating (per existing drawings)
    - Floors: 2-hour fire-resistance rating (per existing drawings)
- Fire Protection: Fully sprinklered throughout

Means of Egress Observations:

1. **John Plankinton Room Exit Doors**
   Exit doors are equipped with lever handles and latching mechanisms but lack panic hardware. Per **IBC Section 1010.1.10**, doors serving assembly occupancies must be equipped with panic hardware. This represents a code compliance issue.

2. **Stepped Aisle Guardrails – Upper Seating Mezzanine**
   At the lower ends of stepped aisles where the landing is more than 30 inches above the adjacent floor, guardrails must meet the following requirements per **IBC Section 1029.16.4**:
   a. Minimum height of 36 inches
   b. Openings must not allow passage of a 4-inch diameter sphere
   c. Alternatively, a diagonal measurement of 42 inches from the nosing of the last tread to the top of the guard may be used

   The existing glass railings in the upper mezzanine seating area reach 36 inches in height but do not meet the required guardrail standards below the glass portion. This condition does not comply with current code requirements.

3. **Pre-Function Guardrail Serving Mezzanine**
In the pre-function area overlooking the east lobby—accessible via the vestibule connecting the Miller High Life Theatre and the Milwaukee Panther Arena—a decorative guardrail with ornamental balusters is installed. The spacing between these balusters allows the passage of a 4-inch sphere, which does not comply with current building code requirements for guardrail safety.

UW-MILWAUKEE PANTHER ARENA

General Information:

The UWM Panther Arena was originally constructed in 1950. While incremental maintenance and localized renovations have been performed over the years, the building has not undergone a comprehensive modernization to align with current building codes and accessibility standards.

All code references in this report are based on the 2015 editions of the International Building Code (IBC), International Existing Building Code (IEBC), and ANSI A117.1-2009. It is important to note that the State of Wisconsin will adopt IBC/IEBC 2021 and ANSI A117.1-2017 effective November 1, 2025. Although there are updates between these code versions, the fundamental principles—such as occupancy classification, construction type, fire protection, egress, and accessibility—remain consistent. However, section numbering and specific language may vary between editions.

Any "code-deficiencies" or "non-compliances" identified in this report are based on standards applicable to new construction and do not imply that the existing building must be altered. Buildings constructed or renovated in accordance with the codes in effect at the time of work are generally considered compliant unless otherwise determined by the Authority Having Jurisdiction (AHJ). Modifications to existing buildings are typically only required when an alteration or addition project is initiated. In such cases, the scope of work must comply with current codes.

Repairs, alterations, and additions to existing buildings are governed by the IEBC, which is designed to promote the continued use and reuse of existing structures while requiring reasonable upgrades. The extent of code compliance required is determined by the level of alteration undertaken.

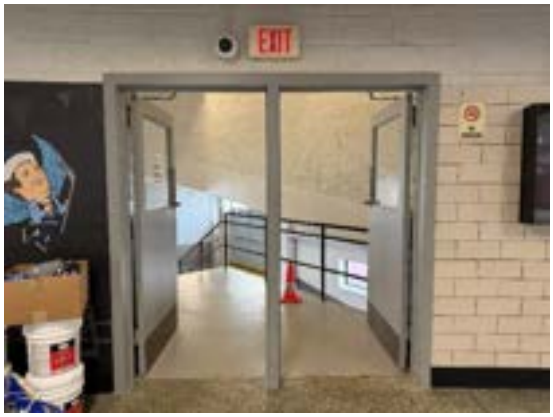
General Building Code Data:

1. Occupancy Classification: A-4 (Arena)
4. Construction Type: IA or IB
    a. The roof structure appears to consist of unprotected steel located within 20 feet of occupied areas (e.g., bowl seating). This condition would not meet the fire-resistance rating requirements for Type IA or IB construction without a variance.
    b. Type IA construction requires a 1½-hour rated roof, while Type IB requires a 1-hour rated roof.
5. Building Height:
    a. Two stories: Ground floor and main concourse
    b. East and west upper concourses are considered mezzanines, not additional stories
6. Fire Protection:
    a. No sprinkler system is present
    b. Sprinklers are required in all new buildings with A-4 occupancy per **IBC 903.2.1.4**
    c. For alteration projects affecting more than 50% of the building's floor area, the work area must be sprinklered per IEBC 804.2.2

Means of Egress Observations:

1. **Northeast Ramped Tunnel Exit:**
   An overhead door at the ramped tunnel exit from the main concourse could obstruct egress if closed. Exits must remain unobstructed at all times. The ramp also exceeds allowable slope and rise limits, as noted in the "Accessible Interior Circulation Route" section.

2. **Exit Doors from Main Concourse to Stairs:**
These doors are equipped with knob handles and latching mechanisms but lack panic hardware. Per **IBC 1010.1.10**, panic hardware is required for doors serving assembly occupancies.



3. **Guardrails at Exit Access Stairs:**
Guardrails at stairs leading from the main concourse to exit discharge points (Pass Gate NW, NE exit, SE exit) do not meet code requirements where the fall hazard exceeds 30 inches (**IBC 1015**).

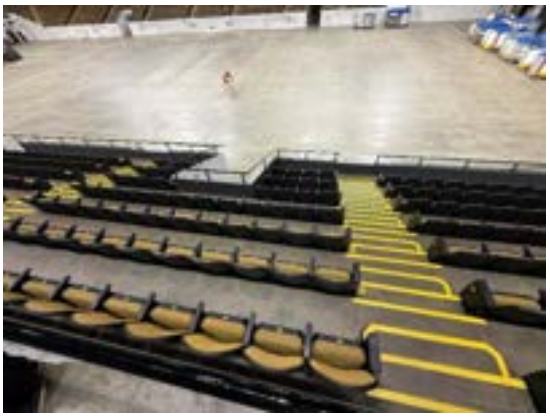
4. **Guardrails at Upper Concourse Ramps:**
Guardrails adjacent to circulation ramps in the upper concourse also fail to meet code requirements for fall protection where elevation changes exceed 30 inches.

5. **Travel Distance:**
In non-sprinklered buildings, the maximum allowable travel distance is 200 feet (**IBC 1029.7**). Because exit access stairways are not enclosed in rated shafts, travel distance must be measured from the furthest seat in the bowl to the exit discharge at grade. Further analysis is needed to confirm compliance from upper seating areas.

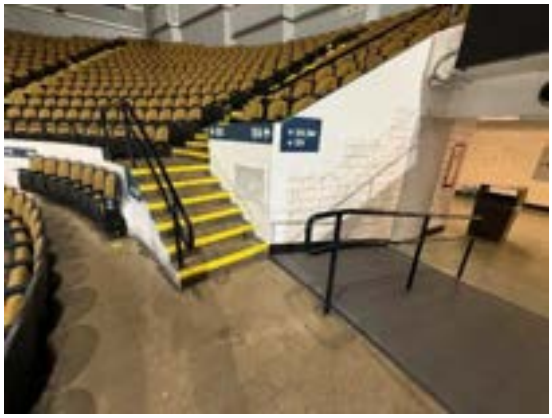
6. **Common Path of Egress Travel:**
The maximum allowable common path of travel is 30 feet from a seat to the point where two distinct egress paths are available (**IBC 1029.8**). Initial observations suggest that some seats in the upper bowl may exceed this limit.

7. **Stair Tread Depths in Seating Bowl:** Stair treads in the seating bowl measure approximately 10 inches in depth. The minimum required tread depth is 11 inches (**IBC 1029.13.2.1**).

8. **Stepped Aisles Without Handrails:** Stepped aisles between seating sections lack handrails. Handrails are required and typically located at the center of the aisle width (**IBC 1029.15**).

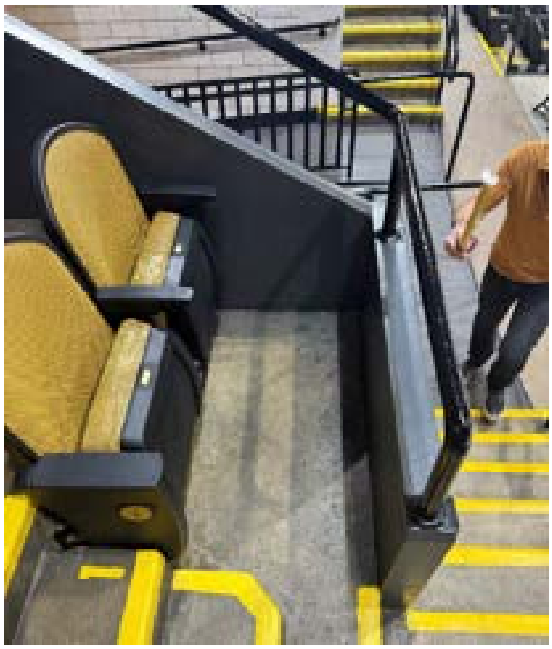


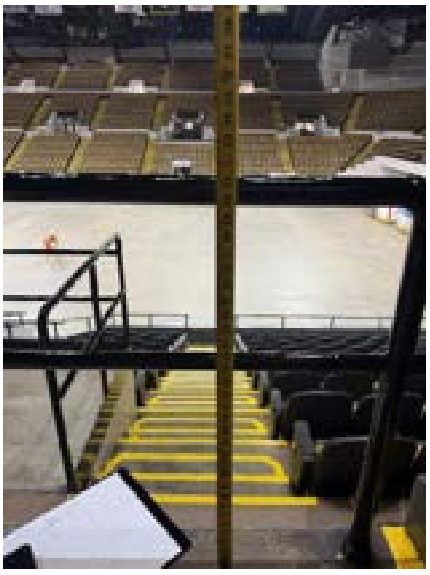
9. **Guards Between Seating and Vomitories:** Where seating areas are elevated more than 30 inches above the vomitory floor, guardrails must be at least 42 inches tall and allow no more than a 4-inch sphere to pass through any opening (**IBC 1029.16.1**). If sightlines are impacted, the guard height may be reduced to 26 inches per **IBC 1029.16.1 Exception 1 / 1029.16.3**.

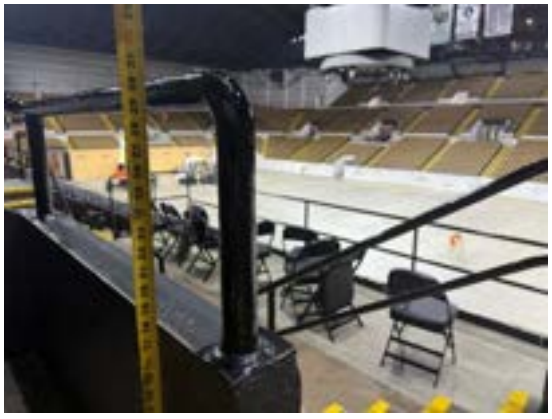


10. **Guards in Front of Seating Areas:** Guardrails are required in multiple locations, including:
    a. In front of ADA seating areas
    b. First-row seating overlooking the arena floor
    c. First-row seating overlooking vomitories
    d. First-row seating forming the upper bowl

    Additionally, guardrails at the bottom of stepped aisles—where the landing is more than 30 inches above the adjacent floor—must be at least 36 inches tall or meet the alternative diagonal measurement of 42 inches from the nosing of the last tread to the top of the guard (**IBC 1029.16.4**). These conditions are not met throughout the facility.







Accessibility Observations:

Site Requirements

1. **Parking**
    a. No on-site parking is available for patrons. Parking is provided through nearby street and structured options in the urban downtown area.
2. **Exterior Accessible Route**
    a. The main entrance on Kilbourn Avenue is accessible via the public sidewalk system.

b. A secondary accessible entrance to the annex (connecting UWM Panther Arena and Miller High Life Theatre) is provided by a ramp. While the ramp meets slope and handrail requirements, the vertical rise between landings exceeds the 30" maximum (IBC 1012.4, ANSI 405.6).

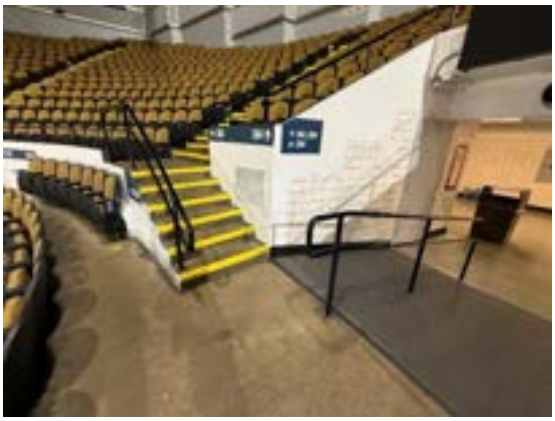
Interior Circulation Routes

1. Horizontal Circulation

a. The main concourse and ground floor are accessible via elevator. However, the east and west upper concourses lack elevator or compliant ramp access.

b. Several doors throughout the facility do not meet required maneuvering clearance (ANSI 404.2.3.2) or lack compliant lever-style hardware (ANSI 404.2.6).

c. Vomitory ramps serving sections 202, 204, 208, 212, 214, 218, 220, 224, 228, and 230 exceed the maximum slope allowed for new (IBC 1012.2) and existing buildings (IEBC 410.8.5/705.1.4).



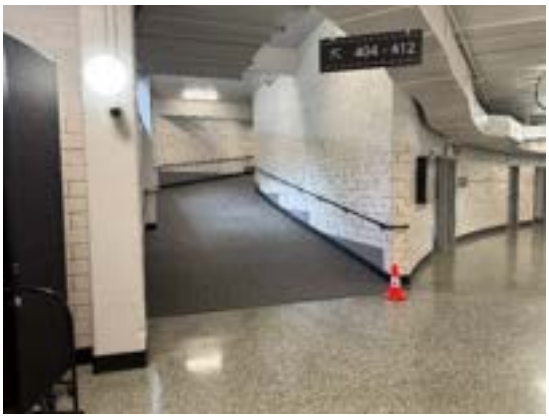
d. Ramps in sections 200, 206, 210, 216, 222, and 226 have been modified with “L”-shaped extensions to reduce slope. These modifications do not meet aisle width and directional change requirements (IBC 1012.5.1/1012.6, ANSI 405.5/405.7), including the minimum 36" clear width between handrails and 60"x60" landing dimensions.

2. Vertical Circulation

a. Entry doors in series must be spaced at least 48" apart plus the width of any door swinging into the space. The current spacing is only 34" (IBC 1010.1.8, ANSI 404.2.5).

b. Handrails on the main entry stairs are mounted at 33", below the required 34"–38" range (IBC 1014.2). Similar conditions exist at the north (State Street) and east (Vel R. Phillips Avenue) egress stairs.
c. The main entry lobby is accessible via elevator.
d. Elevators lack the required two-way communication system at each accessible landing (IBC 1009.8).

e. Ramps connecting the main concourse to upper concourses (four total, one at each corner) and from the ground floor to the main concourse (SW and SE corners) exceed both slope and vertical rise limits (IBC 1012.2, IEBC 410.8.5/705.1.4, IBC 1012.4, ANSI 405.6).



Accessible Elements

1. Drinking Fountains

a. Wall-mounted fountains on the main concourse protrude into circulation paths and must be recessed or equipped with cane-detectable features (IBC 1003.3).

b. Upper concourse fountains are in alcoves, but the alcoves are too shallow, making the fountains protruding objects.
c. Single drinking fountains are installed at upper concourse and ground levels. Each location must provide two (Hi-Low) units (IBC 1109.5).

2. **Signage**
   a. Room signage throughout the building generally complies with requirements for raised text, braille, contrast, and proper mounting location (IBC 1111, ANSI 703).

3. **Fire Detection and Alarm System**
   a. The current alarm system and its compliance status are unknown.

Special Rooms and Spaces:

1. **Toilet Facilities**
   a. Accessible stalls are missing the required 18" vertical grab bar on the side wall (ANSI 604.5.1).
   b. Ambulatory stalls are undersized in both width (<36") and depth (<60") (ANSI 604.10).
   c. Multi-user restrooms (one each for men and women) on the south side of the main concourse are only accessible via stairs and must be made accessible (IBC 1109.2).
   d. No family or assisted-use toilet room was observed. At least one is required in assembly occupancies (IBC 1109.2.1).

2. **Assembly Areas / Seating Bowl**
   a. Wheelchair spaces are provided at the main concourse level and evenly distributed around the bowl. Additional spaces may be added at floor level for specific events. For an 8,000-seat arena, 51 wheelchair spaces are required (IBC 1108.2.2.1), with one companion seat per wheelchair space.
   b. Designated aisle seats with folding armrests and accessibility symbols are present. 5% of aisle seats must meet this requirement (IBC 1108.2.5). Quantity has not been verified.

3. **Dressing and Locker Rooms**
   a. These areas were not included in the current assessment.

4. **Kitchens / Concessions**
    a. Concession areas lack required headroom due to structural elements such as raker beams and ductwork (IBC 1208.2).

5. **Service Counters**
    a. The “Advanced Ticket Sales” counter does not provide the required 36" high accessible surface (IBC 1109.12.3, ANSI 904).

6. **Press Box**
    a. Press boxes must be located on an accessible route. Their location and accessibility status are currently unknown (IBC 1104.3.2).

ACCESSIBILITY AND DISPROPORTIONALITY

While some accessibility-related code deficiencies can be resolved with straightforward, conventional solutions, many require customized design approaches to address the unique conditions of the building and ensure full compliance. As a result, it is difficult to accurately estimate the cost of remediation without first undertaking a more comprehensive building programming and design effort.

For projects within the City of Milwaukee, submission of the form known as ‘Accessibility Analysis – Disproportionality Worksheet’ is required. This document outlines the accessibility upgrade requirements under the IEBC. Specifically, 20% of the total cost of alterations affecting the building’s primary function areas must be allocated toward accessibility improvements.

CONCLUSION

We appreciate the opportunity to conduct this preliminary code assessment of the Miller High Life Theatre and the Milwaukee Panther Arena. Should you have any questions regarding the findings presented in this report, please feel free to contact EUA.

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