Economic Analysis and Planning

Chapter 4: MassMutual Center

MASSACHUSETTS CONVENTION CENTER AUTHORITY

Springfield, MA

March 2025

MassMutual Center | Photo Credit: Fontaine Bros

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Executive Statement

Opportunity for Growth

The Mass Mutual Center (MMC), located in downtown Springfield is a unique facility with an incredibly vibrant program. The facility includes an arena to host sporting events along with concerts and other staged performances, a large exhibition hall for trade shows, and ballrooms with meeting spaces for hosting a wide range of events.

The MMC has relationships with key stakeholders within the community of Springfield including MGM, the Springfield Thunderbirds, and a host of high-profile national entertainment shows. These relationships are strong and they help drive the economic vibrancy for Springfield and the region, with much potential for future growth. Continued investment into the Central Massachusetts community is recommended.

Chapter 4 is dedicated to the analysis and future development of the MMC. The Economic Analysis and Planning RFR, established by A&F, outlined key opportunities for growth and development, which served as the framework for this study. Our team has structured the assessment, scope, and recommendations for the MMC into a comprehensive report focused on key areas impacting ongoing operations, sustainability initiatives, capital planning opportunities, and community engagement, particularly within the surrounding areas of downtown Springfield. The report highlights specific opportunities for the MMC to engage with and better serve the diverse community within these neighborhoods as well as the broader Springfield and Massachusetts regions.

Additionally, a market and financial analysis has been developed to support the continued competitive and financial success of the MMC, aiming to both sustain and enhance its inherent aspects. Our findings outline guiding principles for interdisciplinary advancement of the facility, with recommendations that build upon the MCCA's ongoing efforts to maintain and elevate the MMC's success, and the Economic Development objectives for The Commonwealth.

Key Findings:

- Execute the masterplan project recommendations, including but not limited to the signage, food and beverage, premium seating, meeting rooms, and general infrastructure projects. Improve public facing facades and streetscapes in order to create stronger urban connections and subsequent economic impact.
- Improve communications with stakeholders across the City.
- Provide opportunities for small, minority owned, and non-profit MA industries to showcase and participate in the economic upside of the convention business, as well as promoting use of other spaces within the MMC.
- Continue addressing ongoing deferred maintenance projects. Coordinate with sustainability goals.
- Prioritize decarbonization and net carbon neutral operations. Execute energy conservation measures, and fuel switching from gas to electric systems. Implement on-site solar pv, and off-site renewable procurement.
- Align key sales resources to sell new innovation industries for all three facilities.
- Structure reporting with similar platforms between the BCEC, HCC and MMC.
- Integrate Signature Boston for sales support.
- Live Nation initiative – address exMarch 2025clusivity at Mohegan Sun.

MMC | Photo Credit: MMC Website

02

Inventory of Existing Land & Buildings

The MassMutual Center (MMC) was originally built in 1972 as an arena and underwent an expansion in 2005 to include the convention center and meeting spaces. Centrally located in downtown Springfield, the MMC occupies a large block that is adjacent to historic Court Square, a collection of museums known as the Quadrangle, the MGM Springfield Hotel and Casino, and various local hotels and restaurants.

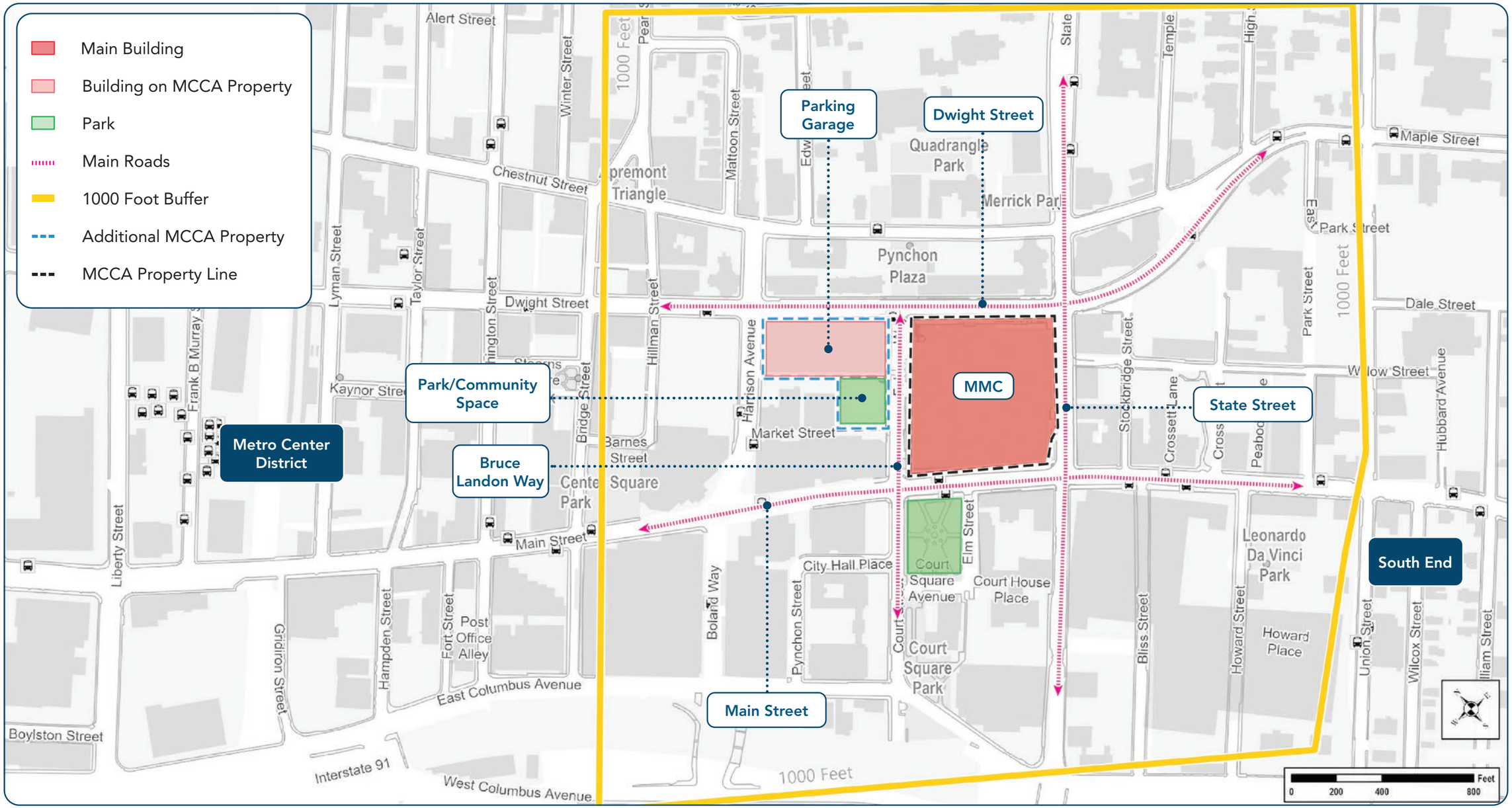
The maps for the MassMutual Center (MMC) differ from those of Boston sites due to the less comprehensive GIS data maintained by the City of Springfield. Unlike Boston, features such as fire hydrants, parking meters, street trees, street lights, crosswalks, and traffic signals are not displayed for the MMC site. Additionally, the maps do not reflect recent improvements along Bruce Landon Way.

The site's existing land use is classified as tax-exempt according to the City of Springfield. Within the study area is a mix of other institutional, tax-exempt uses, as well as commercial and mixed use sites. The site is zoned Business C – Central Business District, which exempts non-residential uses from off-street parking requirements. However, buildings with over 20,000 square feet of floor space must submit a parking accommodation plan to the Planning Department. While the MMC site is not within a FEMA-regulated floodplain, the southwest corner falls within an area designated as having reduced risk due to levee protection. This area, classified as Zone X, is outside the 500-year flood zone and safeguarded from 100-year flooding by levees, indicating a low-risk status. However, it is important to note that FEMA maps rely on historical data and do not account for future climate change impacts. The site could still face future flooding risks, such as if excessive precipitation on the impervious surfaces downtown were to surcharge the storm water systems and cause flood conditions.

The Urban heat island index mapping for Springfield, sourced from the Trust for Public Land using national data, indicates that the area around the MMC is classified as "Severe" on the heat index scale. This is likely due to extensive paving in downtown Springfield. Unlike Boston, Springfield does not have proprietary heat mapping, so this data is based on a relative heat index.

Key Findings:

- The MassMutual Center is a multi-purpose building that consists of an approximately 8,000 seat arena with 19,000 square feet of floor space. It also includes an approximately 100,000 square foot convention center with a 40,000 square foot exhibition hall, 15,000 square foot ballroom and five meeting rooms.
- Prefunction spaces support the meeting rooms, ballroom and exhibition hall.
- The property is managed by MGM Springfield.



Existing Conditions Map | Credit: Touloukian Touloukian Inc.

03

Community Engagement

The City of Springfield is proud of its convention center. Springfield's MassMutual Center has long been a meeting spot for a wide variety of events-both large and small. The MCCA, MGM, and Explore Western MA are critical in showcasing what Springfield has to offer.

Springfield boasts national attractions and international significance, including the Dr. Seuss Museum and the Naismith Memorial Basketball Hall of Fame, reflecting its status as the birthplace of basketball and volleyball. The city is home to a passionate sports community and a growing collaboration of university and professional sports teams, offering opportunities to generate events for the MMC.

MGM has joined the Springfield community, investing in the downtown. The City of Springfield is currently driving a revitalization effort, focused on vibrancy, housing, and public spaces. The diverse community of Greater Springfield should be included in these exciting developments and economic development opportunities that surround the MMCenter.

Key Feedback:

- *"The onsite team has been true partners to us for events over the years... and a diversification of events would benefit both the convention center and the community." - Springfield Business Association*
- *"One thing is certain, there is tremendous promise for the Mass Mutual Center and the City of Springfield." - Springfield Elected Official*

Hockey | Photo Credit: unknown

Communications

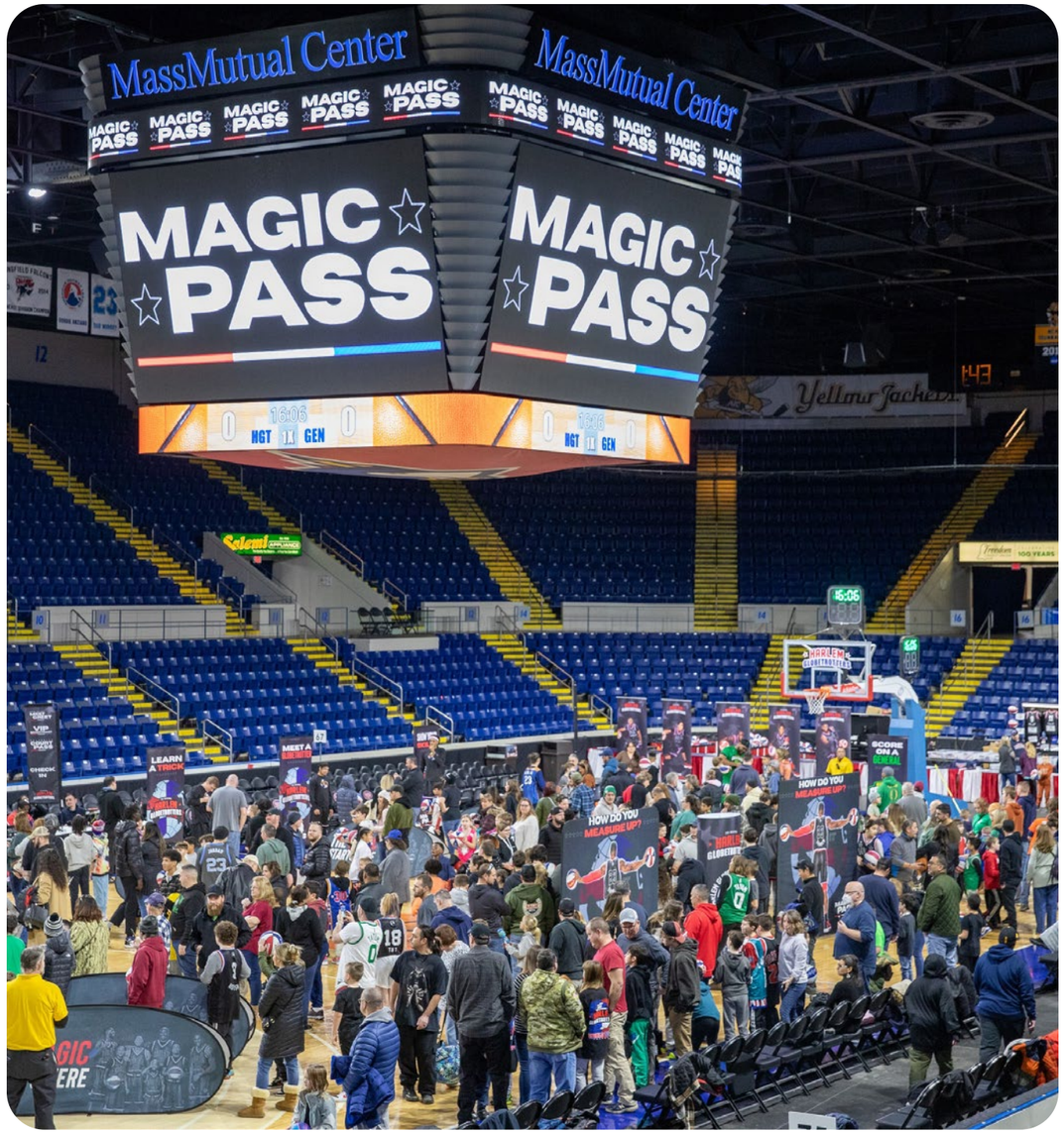
It is important that the MCCA team on the ground in Springfield has diverse members of the community involved in local outreach. A key recommendation for the MassMutual Center includes the creation of a Community Outreach Team and Advisory Committee with appointed members of the community. In addition, new convener spaces would be welcome in the public park next to the new Garage, as well as along the front of the Center, with sliding doors opening up to the sidewalk area to expand the opportunities for showcases and community events. This team can interact directly with residents and local businesses to drive programming inside the Center, by connecting Springfield's local industries to conventions.

A campaign to integrate the MMC and its attendees into the emerging campus downtown could also be an early task of this outreach team. According to local officials, the perimeter of the MMC is a focus of redevelopment by the City. The city is motivated to showcase Springfield with these redevelopment efforts – new housing, a new public park, and added retail and housing. With the addition of the new MMC garage, the district around the MMC will have the space and infrastructure to be programmed and activated on an ongoing basis, both during conventions and also at times when the facility is not used. The MCCA's outreach team could work with the city and the community to ensure participation and involvement of the diverse audiences across the Greater Springfield region to program this space.

This team can ensure that visitors know about Greater Springfield's tourism attractions. The Explore Western MA team believes there are opportunities to further promote the events and attractions in Springfield at the Mass Mutual Center – including local organizations like the Dr. Suess Museum and the Basketball Hall of Fame. There is also untapped potential in showcasing Greater Springfield within the MMC- storytelling through digital boards - and the commitment to new digital assets is an important step to modernize the space but also to share information to both convention/arena attendees and residents. Showcasing local attractions and future convention center events via these channels would be important. In addition, it would be an ideal time to explore naming rights within the convention center to further enhance opportunities.

There is a desire for increased local advertising for upcoming events. Many residents and communities are on social media, and regular updates on upcoming events and opportunities to collaborate is critical to integrating the MMC within the community.

Lastly, Springfield has a seat on the MCCA Board, which is currently vacant and needs to be filled, and it is important to regularly meet with the new Executive Director to ensure alignment with local priorities. In the 'Telling the Massachusetts Story' section, this report dives into the state's assets, including a variety of important destinations across western Massachusetts. The MCCA should continue to promote Western MA and all of its offerings as part of the recommended Art program at all facilities.



MMC Basketball Magic Pass Event | Photo Credit: MMC facebook

Community & Industry Engagement

In the local Discovery Groups, there were discussions around the untapped opportunities to give convention attendees a more culturally diverse experience within the local community, and to include minority-owned business enterprises (MBEs), small businesses, local nonprofits, and others to share in the economic benefits generated by convention centers.

Interestingly, Springfield has a diverse population of potential conference/event attendees with disposable income. They are hungry for culturally relevant events (e.g., a salsa festival) and currently travel to Hartford and Boston for such activities. This underscores the overall impression that Springfield's MassMutual Center caters far more to an outside audience than local consumers. Some Springfield community members remembered going to the civic center to see hip hop artists in the 90s. Others talked about Latino events not being culturally relevant to Puerto Ricans and Dominicans. It's important to understand that while Latinos share a common language, their heritage spans 21 countries, making the culture of each demographic nuanced. Targeting Caribbean culture may be a more successful route.

This can be done in a variety of ways, coordinated through the recommended Community Engagement staff:

- Develop a local Springfield Public Market within the convention center to help provide local food options for residents and support local farms and growers. This market might offer cooking classes there for residents and could be held inside during inclement weather, and next to the new Garage in warmer months.
- Diversification of events would benefit both the convention center and the community – Ex: Include more local performing arts events, sports events, fairs, holiday markets, monster trucks, basketball. NCAA hockey playoffs were hugely successful.
- Use local and ethnic restaurants, stores, kiosks, marketplaces, and pop-ups: MCCA could offer space (outdoor and indoor) for local retailers and other members of the creative economy. One possibility is securing space in vacant storefronts near convention centers for 1-2 months to house pop-ups that provide diverse shopping experiences to visitors, while also exposing local people to retailers from less familiar neighborhoods. It is important to note that there is not enough foot traffic on a daily basis to warrant a permanent retail space.
- The MMC should be open to more residents a few days a month. Earlier in the report, a key recommendation for each MCCA facility includes a 'convener space' that can host community gatherings and industry events outside of convention dates, and also compliment conventions when they are in town.
- Springfield is the birthplace of basketball – Creating space for a smaller version of the Basketball Hall of Fame to showcase and partner with MMC would be a tremendous addition and help brand Springfield and MA with its well-known sports history.
- UMASS athletics is interested in more exposure within Springfield market- the playoffs with local colleges and schools could be hosted here.
- The 413 Elite professional basketball team would both benefit from the exposure and be an attraction. By offering a home court –basketball could be more accessible to under-served communities in Western MA.
- Focus on the new pedestrian plaza via community engagement to activate the space.
- Host local business events i.e. highlighting the local military economy, or promoting regional transportation.
- Build upon the recent selfie wall inside the convention center. Because the nature of the convention center designs are big boxes, there needs to be pockets of authenticity – for example, an Instagram-able moment outside. Use art to bring people to the site and to help disseminate our messages. Ex: At the Arizona Convention Center the exterior artwork is unique and a large draw.
- Expand upon sporting events to reach the large youth fan base – there are opportunities to create a weekend long event around these games and activities.

Throughout each MCCA facility, the recommendation is to include a local 'convener space' - branded for its respective convention center and community. This dynamic, multi-use community space within each of the facility campuses serves as a hub for collaboration, community connection, and cultural exchange. Leveraging the Massachusetts Economic & Cultural Network Resource Directory, this space connects local businesses, nonprofits, arts organizations, and industry leaders to the broader community, offering a unique platform for knowledge sharing, networking, and creative expression.

Women's Leadership Conference | Photo Credit: MMC facebook

04

Usage & Demand

This section aims to assess the current usage and future demand for the Mass Mutual Center, located in Springfield Massachusetts.

Understanding the patterns of usage and the market demand is essential for optimizing operations, capital planning, and identifying potential market segments for growth. By analyzing historical trends and future patterns, strategic insights can be formed to optimize the convention center's usage and ensuring long-term sustainability.

Key Findings:

- Integrate Signature Boston for sales support.
- Consider facility fee increases.
- Implement parking fees for MMC events.
- Implement a formalized reporting structure to the MCCA Executive Board.
- Add a Sales Manager/Coordinator to boost annual sales and allow the Director of Sales to focus on strategic decisions.
- Align operations with Economic Development Plan.
- Maintain and further strengthen relationships with local organizations, including the GSCVB and Springfield BID.
- Strengthen partnership with MGM and leverage their marketing / PR resources.

Springfield Hotel Market

Overview

There are 38 hotels totaling 3,920 rooms and over 100,000 square feet of meeting space (not including event space unaffiliated with hotels) within a 15-minute drive of the MassMutual Center ("MMC"). The closest hotels to the MMC are the 98-room Holiday Inn Express, the 325-room Sheraton Monarch Place, the 266-room Marriott Springfield Downtown, and the 240-room MGM Springfield, all within a 10-minute walk of the center. While these nearby hotels provide support for the MMC, none are directly connected.

2024 Springfield Hotel Market
15-Min Drive from MMC in No Traffic

Inventory
38 Hotels
3,920 Rooms
100,008 SF Meeting Space

Largest Hotel
Sheraton Hotel Springfield Monarch Place
325 Rooms

Hotel Pipeline
188 Rooms
Planned to enter the market by 2029

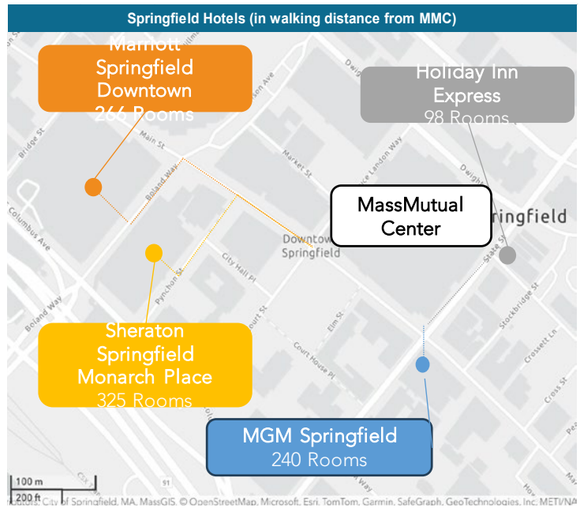
Occupancy Rate
60%

Average Daily Rate (ADR)
$142

Revenue Per Available Room (RevPAR)
$85

Source: CoStar, Johnson Consulting

The 266-room Marriott Springfield Downtown is a 7-minute walk from the MMC. The largest of the four hotels, the 325-room Sheraton Springfield Monarch Place is just across from the Marriott Springfield Downtown and is a short 6-minute walk from the MMC. The 240-room MGM Springfield is just a 1-minute walk away. However, despite its proximity, securing room blocks at the MGM can be challenging, especially on weekends, as the hotel prefers to reserve as many rooms as possible for its gaming customers.



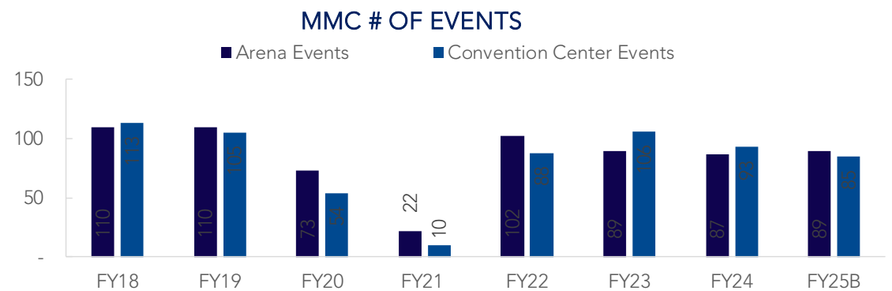
In the 12 months preceding September 2024, hotels in the market reported an average occupancy rate of 60%, an average daily rate (ADR) of $142, and a revenue per available room (RevPAR) of $85. These figures show significant growth compared to pre-pandemic levels; in 2019, average occupancy was 57%, ADR was $119, and RevPAR was $68.

This improvement indicates that the Springfield market has fully recovered from COVID, with occupancy rates exceeding pre-pandemic levels and annual rate growth of over 3%. In terms of its own performance, Springfield has emerged stronger post-pandemic than it was before; however, current performance data still reflects a relatively weak market overall, reflective of the destination challenges faced by the MMC and Springfield in general.

MMC Historical Events

MMC Number of Events

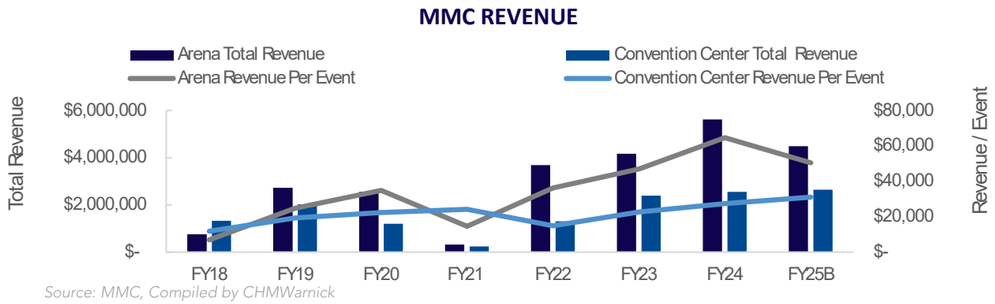
In FY24, the MMC hosted a total of 180 events, with 87 at the Arena and 93 at the Convention Center. This represents 15 fewer events than the previous year, primarily due to 13 fewer events at the Convention Center.
The Arena's event calendar is largely dominated by Thunderbird and AIC hockey games. An agreement with the Thunderbirds governs merchandising, sponsorship, and ticketing fees. Additionally, concerts at the MMC are limited due to a blackout imposed by LiveNation, which controls the majority of available concerts/artists.



Source: MMC, Compiled by CHMWarnick

MMC Revenue

Total Convention Center revenues in FY24 were the highest ever generated by the MMC, exceeding over $2.5M, with an average Revenue Per Event of $27,000. Convention Center Revenues have grown considerably since FY18, with average per event revenues increasing by 15% annually. This growth is due to the facility's efforts to replace lower-spending groups with higher-spending ones.



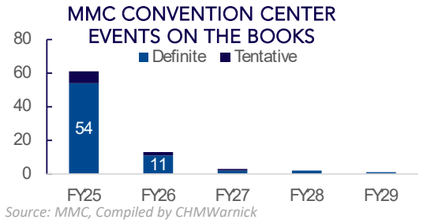
Source: MMC, Compiled by CHMWarnick

Although the total number of events in FY24 was lower than the previous year, the facility saw larger attendance and longer event durations, which increased revenue. The sales team has become more selective in its booking process, strategically evaluating potential business based on group type, mix, and profile. Additionally, they implemented a new tiered rental pricing structure, with planned increases over the coming years. As events are booked for future years, this new pricing scheme is applied. The team also reduced rental offsets, leading to higher revenue per event, without negatively impacting overall business loss.

MMC Future Events

Overview

Unlike the Hynes and the BCEC, the MMC has a much shorter booking lead time. Typically, lead time is 18 to 24 months, though in recent years bookings have extended up to 30 to 36 months. With shorter lead times, the majority of future events on the books (OTB) are scheduled for FY25, including 54 definite events and 7 tentative ones, for a total of 61 events. The MMC Sales Team is focusing on securing larger events to build base for future years. The team noted there is a lot of activity in the market as New England is up for rotation. The second half of 2026 and 2027 remains active for booking.



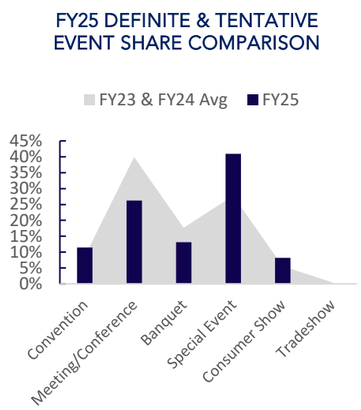
Source: MMC, Compiled by CHMWarnick

FY25 Insights

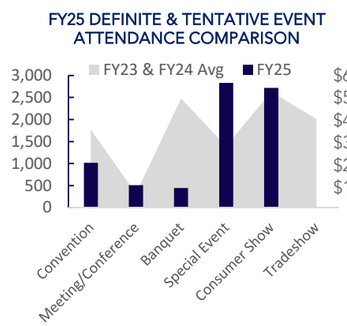
The majority of definite and tentative events OTBs are considered Special Events, with 25 events / 41% share, followed by Meeting/Conference with 16 events / 26% share. Compared to the prior two-year average, Special Events comprises a much larger share of total events OTB. Historically, Meeting/Conference represented the largest share of events at 40%.

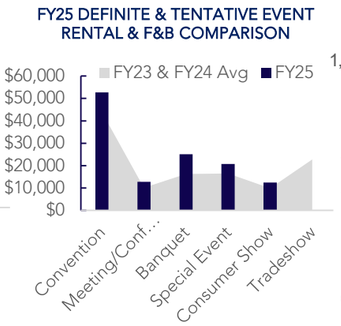
Overall, average event attendance is growing driven by increases in average event attendance in Special Events and Consumer Shows. FY25 banquet attendance is considerably below the average, however, total revenue contribution per banquet is above the prior two-year average. This indicates that while banquet sizes are smaller, the spend per attendee is higher. Total average rental revenue per event is up $5,000, while F&B spend is up $1,100 compared to historical averages.

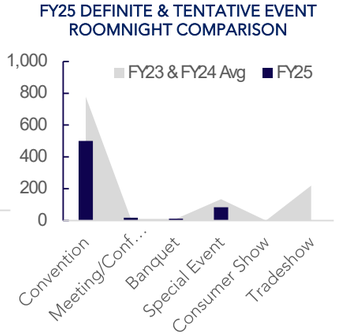
Total spend per event OTB ($22K) is 39% greater than the prior two-year average of $16K per event. All event categories saw increases, most notably Banquets which increased its average revenue per event by almost 54% compared to its prior average. Total RNs per event total 98, slightly lower than the 111 historical average. Conventions typically hold the highest RNs per event, generating 500 RNs per event in 2025, below its prior average of 778. The lack of trade shows also decreases the average RN capture of events.



Source: MMC, Compiled by CHMWarnick





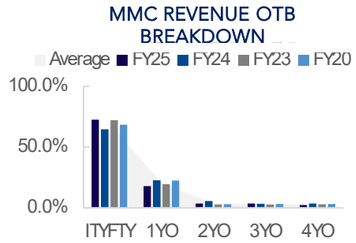


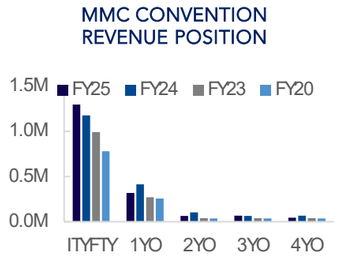
Source: MMC, Compiled by CHMWarnick

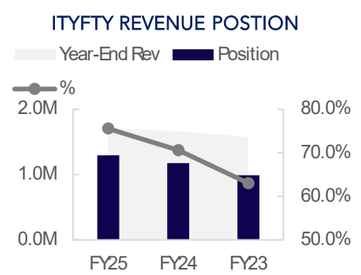
MMC Convention Center Pace & Booking Goals

Convention Center Pace

The MMC historically has a short lead time, with an average of 69% of OTB revenue coming from the current year and 21% from the following year. As of August 2024, trends for FY25 are consistent with FY23 and FY20. Despite weaker production compared to the same time last year (STLY), the MMC has OTB revenues of $1.3M for the current year, the highest total position across the periods analyzed. They are already at 76% of their budget, compared to a prior average of 71% for actual production. Therefore, despite weaker in-the-year, for-the-year (ITYFTY) production, there could be some upside in terms of actualized revenue. However, it's worth noting that an open sales position may impact outcomes. FY25's ITYFTY position is pacing ahead of all other years. FY26 and FY27 are trailing by $100K but still ahead of FY23's position. The sales team has introduced a short-term meeting incentive for events booked through the end of the fiscal year, along with a focused partnership with Madden Media and GSCVB to attract new conventions to the area.



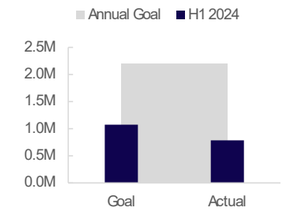




Source: MMC, Compiled by CHMWarnick

Booking Goals

For CY24, the sales team, consisting of three individuals, has a collective goal of $2.2 million and 10,500 room nights (RNs), which translates to an average of $733,000 and 3,500 RNs per person. Although the team had three members at the completion of FY24, there is currently a vacancy as of July 2024. This vacancy will impact the team's booking production for the year. For H1 24, the team has produced $785,000 in revenues, which represents 73% of their H1 goal and 36% of their goal for the year. While the team is behind on revenues, they are ahead of their H1 goal in terms of total RNs (6,200 RNs vs a goal of 6,000 RNs). Compared to LY, through H1, the team is behind production by ($488,000) in revenue and above RNs by over 700. From July to September, the sales team noted they exceeded their three-person team goal, as a team of two, and has closed the annual gap to goal.



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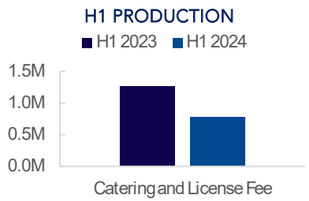
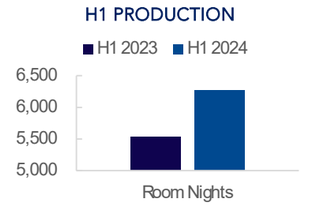




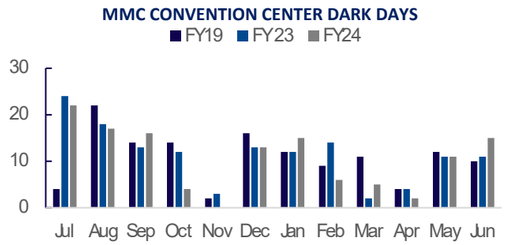
Source: MMC, Compiled by CHMWarnick

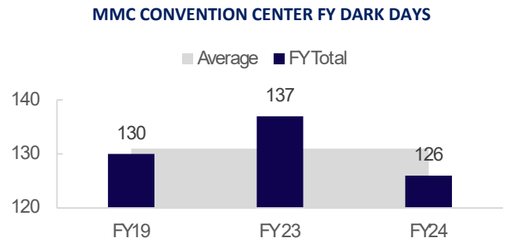
In recent years, the sales team's achievements (increasing revenue, bringing in higher-value events, booking events further into the future, etc.) are impressive in light of a) the pandemic, b) a challenging market and facility, and c) the recent short-staffed operation. The facility is looking to add a team member focused on solicitation and lead research to better optimize the types/spend profile of the groups. The addition of a salesperson could increase efficiency while improving booking results.

Convention Center Dark Days & Occupancy

Convention Center Dark Days

Between FY19, FY23, and FY24, the MMC Convention Center averaged approximately 131 dark days per year, representing 36% of the total year. FY24 recorded the fewest dark days at 126 driven by comparatively lower dark days during the softer months of February, March, and April. The peak "dark" season typically occurs in July and August, a common trend among group facilities as summer travel and school recess reduces the travel for group and corporate customers. During these two months, the Convention Center is dark for over half the month. September ranked third in FY24 in total number of dark days at 16, with an average of 14. The Big E, an annual fair in West Springfield, opens the second Friday after Labor Day and runs for 17 days, which limits hotel inventory in the area and makes it challenging to secure bookings during this period. The fewest dark days were recorded in November, March, and April.

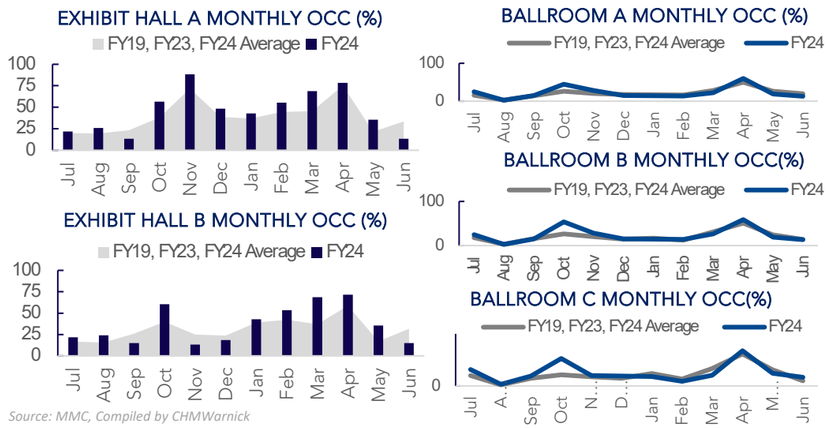




Source: MMC, Compiled by CHMWarnick

Convention Center Occupancy

Occupancy for the convention center was analyzed between the exhibit hall and ballroom. Overall, the exhibit hall experiences higher levels of occupancy, even surpassing 70% twice in 2024. The ballroom, however, yielded much lower levels of occupancy. Monthly occupancy maxed out at roughly 60% for Ballroom A and B. In general, total occupancies in FY24 were higher than the prior average. The MMC was growing its business during its busy season of November and April, and particularly for the Ballroom, had a very strong October. The Exhibit Hall saw strong positive variances in FY24 occupancy compared to average, with exception of September and June. Overall, the ballroom saw more months of minor negative occupancy variances compared to average.



Source: MMC, Compiled by CHMWarnick

Lost Business

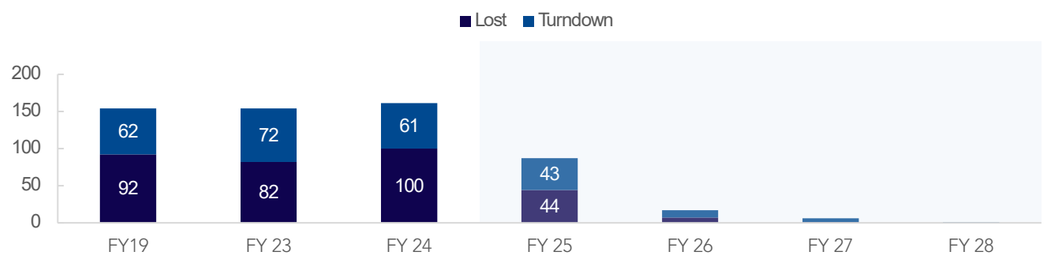
Summary

Between FY19, FY23, and FY24, the MMC lost or turned away an average of 156 events per year. The majority of these events were categorized as lost business rather than turndowns. The primary reasons for lost business were financial constraints, unavailability of the venue on desired dates, and preferences for alternate venues offering lower prices or preferred facilities.

Since FY19, lost business has increased (100 events in FY24 compared to an average of 87 in FY19/23), while the number of turndowns has remained relatively stable. The most frequently cited reason for lost business was the unavailability of the venue on requested dates or the inability to provide sufficient space to meet clients' needs. Many clients required specific dates that were already booked or needed more space than the venue could offer at the time.

Budget and pricing concerns were also common reasons for lost business. Many clients indicated that costs were too high, particularly for space rental, food and beverage services, and additional fees such as parking, ushers, insurance certificates, and staffing. Several clients explicitly mentioned finding alternative venues that offered complimentary room rentals or more competitive pricing packages.

Some clients sought specific features that the MMC could not provide, such as attached hotel rooms, free parking, permission to bring in their own food and alcohol, or having all event spaces in a single building.
Unlike in Boston, the MMC faces competition from local hotels, including the Sheraton Springfield, MGM Springfield, and Marriott Springfield. Clients often chose these venues due to better pricing, venue features (like attached hotel rooms), free parking, or availability on their desired dates.



Source: MMC, Compiled by CHMWarnick

Dog Grooming Convention | Photo Credit: Instagram

External Synergies

Overview

There are a number of external organizations that could coordinate with the MMC to optimize performance.

MCCA / Signature Boston

Like the two facilities in Boston, the MMC is owned by the MCCA. However, the Boston facilities report directly to the Executive Board through the Executive Director of the BCMC. In contrast, there is no formal, organized direct board representation from the MMC. Establishing official communication and representation channels could provide additional insights into different industries and sectors while signaling a stronger commitment from the organization. While MGM is a separate entity responsible for the sale of the space at the MMC, there are opportunities for collaboration with the BCMC, including:

- Official tracking of lead transfers and added incentives for referring business
- Reoccurring meetings with sales staff focused on the New England Region

In addition to the above, the MMC should have access to the incentive fund set aside by the MCCA to attract groups and events to Springfield. The events in Springfield are typically smaller than the events in Boston, and therefore, even modest incentives can drive substantial returns to economic impact and performance.

Springfield Business Improvement District / Chamber

There is a negative perception around the safety of downtown Springfield. The revitalization of the downtown area is pivotal to the long-term success of the MMC. The City is actively underway on addressing the needs of the downtown community. Recent improvements include additional housing, the new parking garage at MMC, and the Court Square rehabilitation.

The MassMutual Center actively engages with community stakeholders and fosters relationships with key local organizations which in turn helps them promote events. The MMC continues to play a role in revitalizing downtown Springfield.

Greater Springfield Convention & Visitors Bureau / Explore Western Mass

The effectiveness of a local convention and visitors bureau (CVB) can significantly impact the performance of a convention center, as CVBs are often responsible for marketing the destination and event facilities and bringing in new business.

Explore Western Mass, the MMC's local Convention and Visitors Bureau (CVB), operates with a budget below that of its primary and secondary competitors. In contrast, the Rhode Island Convention Center benefits from the significant budget of the Providence Warwick CVB, which sources indicated is a major factor in the RICC's success. Although Explore Western Mass is run by a passionate and effective team, its role is primarily as a regional marketing organization and a liaison between the MMC and local hotels, rather than serving as an active sales or marketing agent for the MMC itself. This is atypical for markets with convention centers and places considerable pressure on the MMC's sales staff to compete with other facilities in the region without similar CVB support. Additionally, Explore Western Mass's limited budget constrains its ability to market Springfield effectively as a destination, posing challenges for the region's tourism assets, including the MMC.

The MassMutual Center recognizes Explore Western Mass as a key partner, particularly in marketing efforts through trade shows, client events, and their website. Additional opportunities for collaboration include Search Engine Optimization (SEO), Search Engine Marketing (SEM), and geo-fencing, which was initiated in September.
Recently, the MMC partnered with the Greater Springfield Convention & Visitors Bureau (GSCVB), funded by the MCCA. This one-year program aims to attract new conventions to Springfield and the MMC by targeting specific group profiles. Through email campaigns, geo-fencing, and banner placements, the MMC and GSCVB hope to raise regional awareness and generate new leads and RFP submissions.

Aerial View of Springfield | Photo Credit: Adobe Stock

Benchmarking

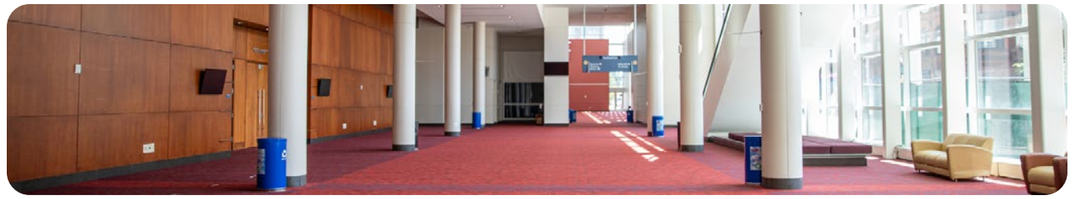
Convention Center

On the convention center side, the MMC is average compared to its competitors in terms of market and some locational attributes but faces challenges with its hotel market. While there are plenty of rooms within a 10-minute walk of the facility, there is no attached hotel, which is a key criterion for meeting planners when securing room blocks. Additionally, hotel rates in downtown Springfield are relatively high, and the nearest hotel, MGM Springfield, tends to prioritize gaming-focused guests, making it difficult to secure room blocks for conventions.

These factors, combined with Springfield's limited destination appeal and the MMC's functional space limitations—it has significantly less space than its main competitors, including the Rhode Island Convention Center, Connecticut Convention Center, and DCU Center, and ties for last in meeting room availability among benchmarked facilities—result in relatively low revenue for the MMC's convention center.

Overcoming these challenges is not simple, but can be accomplished. Though dramatically expanding the building would be difficult given the lack of available adjacent land, re-orienting interior space to add more meeting rooms could help bring the MMC more in line with competitors. Additionally, doing more to maximize existing pre-function space, potentially using the strategies observed at the Overland Park Convention Center and Rhode Island Convention Center such as integrating public art and using the space for food and beverage service, could help improve customer experience and improve the MMC's flexibility. The MMC's operating team has less control over Springfield's destination appeal, but continuing to work with the City, County, and State as they make strategic investments in downtown could significantly improve convention demand in the long run. The convention center side of the MMC performs adequately as it stands today, and these improvements would help bring it to the top of its competitive cohort.

ComicCon at MMC | Credit: MMC Facebook



Convention Center | Photo Credit: MMC website

MassMutual Center
Rankings Amongst Benchmark Convention Centers

	Value	Ranking
Hotel Market With 15-Minute Walk		
Hotel Inventory (Rooms)	1,016	5 out of 12
12-Month Occupancy	54.7%	12 out of 12
12-Month Average Daily Rate	$169	6 out of 12
12-Month Revenue per Available Room	$93	9 out of 12
Location Attributes		
Retail Businesses (15-Minute Walk)	90	3 out of 12
Daytime Population (15-Minute Walk)	26,002	5 out of 12
Distance From Nearest Major Airport (Miles)	18.3	8 out of 12
Enplanements Nearest Major Airport (2022)	2,844,713	4 out of 12
Facility Attributes		
Exhibit Space (SF)	59,650	5 out of 12
Ballroom Space (SF)	14,880	10 out of 12
Meeting Space (SF)	8,352	10 out of 12
Total Function Space (SF)	82,882	7 out of 12
Largest Space (SF)	40,650	9 out of 12
Meeting Rooms	5	11 out of 11
Demand (Most Recent Year Available)		
Number of Events	94	7 out of 7
Total Attendance	79,050	4 out of 5
Average Attendance per Event	841	4 out of 4
Revenue & Expenses (Most Recent Year Available)		
Total Operating Revenue	$1,874,909	8 out of 9
Total Operating Expenses	-	- - -
Net Operating Income	-	- - -
Revenue per Total Function Space SF	$23	7 out of 9

**Compound annual growth rate*

Source: Relevant Facilities, Placer.ai, Federal Aviation Administration, CoStar, Esri, Johnson Consulting

Benchmarking (continued)

Arena

The MMC performs adequately in terms of market and location attributes compared to benchmark arenas. However, the arena itself is clearly lacking in facility quality. It is the oldest of the benchmark facilities and falls well below average in terms of seating capacity and premium seating. Anecdotally, the arena appears visibly old and outdated, lacking many of the modern amenities that today's fans expect, particularly in its food and beverage offerings. As a result, despite the MMC hosting a steady mix of tenant events, concerts, and other entertainment, it struggles to generate significant revenue; its revenue per attendee is notably low compared to benchmark facilities.

A key part of solving this issue will involve renovating the arena. Recent successful renovations of two other 1970s-era arenas, the Amica Mutual Pavilion in Providence and the XL Center in Hartford, highlight how adding premium spaces such as suites, loge boxes, and lounges can drive substantial revenue from corporate groups and affluent fans, who are willing to pay much more for better views, enhanced comfort, and high-quality dining and drinking options. However, these premium spaces must be carefully designed to ensure a good return on investment, and the MMC must be cautious not to overbuild them, as selling suites for AHL games can be particularly challenging.

In addition to physical improvements, there are operational changes that could significantly enhance the MMC's bottom line. One option observed in the case study facilities would be increasing the facility fee charged for events. The $3 facility fee charged at the nearby XL Center for its tenant events is more than triple the $0.75 fee charged at the MMC for Thunderbirds games (for other events, the MMC charges $3-$4), and facility management indicated that they have seen little to no price sensitivity when changing it. Another would be charging for parking at the MMC's events. These small changes could bring in significant annual revenue, and have been demonstrated to be successful at other, comparable facilities.

An overhaul of the MMC's concessions is also a strong opportunity. Converting some traditional concessions stands to more unique or novelty offerings can create additional interest in purchasing concessions, while moving towards more "grab-and-go" style kiosks and canned beer rather than beer on tap can help improve throughput, reduce congestion in the concourse, reduce labor costs, and improve fan experience.

Though the MMC's age and lack of amenities present a significant challenge, the comparable facilities described in this section demonstrate that the right investments can significantly improve fan experience, increase revenue, and even cut down on expenses.

AEW event in the Arena | Photo Credit: MMC website

MassMutual Center
Rankings Amongst Benchmark Arenas

	Value	Ranking
Hotel Market With 15-Minute Walk		
Hotel Inventory (Rooms)	1,016	5 out of 14
12-Month Occupancy	54.7%	10 out of 13
12-Month Average Daily Rate	$169	5 out of 13
12-Month Revenue per Available Room	$93	10 out of 13
Location Attributes		
Retail Businesses (15-Minute Walk)	90	5 out of 16
Daytime Population (15-Minute Walk)	26,002	8 out of 16
Distance From Nearest Major Airport (Miles)	18.3	10 out of 16
Enplanements Nearest Major Airport (2022)	2,844,713	3 out of 16
Facility Attributes		
Hockey Capacity	6,800	11 out of 15
Basketball Capacity	7,300	9 out of 11
Concert Capacity - Center Stage	8,300	15 out of 16
Concert Capacity - End Stage	5,500	5 out of 5
Number of Suites	2	14 out of 16
Number of Loges	0	7 out of 7
Number of Lounges / Clubs	1	9 out of 15
Demand (Most Recent Year Available)		
Total Events	92	3 out of 16
Tenant Events	58	2 out of 16
Concerts/Other Events	34	2 out of 16
Total Attendance	291,379	8 out of 16
Tenant Event Attendance	189,200	7 out of 16
Concert/Other Event Attendance	102,179	7 out of 16
Average Attendance per Event	3,167	14 out of 16
Average Event Capacity (%)	43%	12 out of 16
Revenue & Expenses (Most Recent Year Available)		
Total Operating Revenue	$3,120,337	5 out of 7
Total Operating Expenses	-	- - -
Net Operating Income	-	- - -
Revenue per Attendee	$11	6 out of 7

**Compound annual growth rate*

Source: Relevant Facilities, Placer.ai, Federal Aviation Administration, CoStar, Esri, Johnson Consulting

MMC Economic Impact

Summary

In FY 2024, the MMC Convention Center hosted 172 total events between the arena and convention center, attracting over 389,000 attendees. In addition to attendees, other participants such as exhibitors and show managers also contributed to the economic impact through their use of local accommodations and services. We estimate that these events resulted in approximately 27,752 room nights during FYE 2024. Note that this lower ratio of room nights to overall attendance at the MMC relative to the BCEC and Hynes reflects the former facility's smaller size and role as more of a community asset than a tourism asset, particularly on the arena size.

The economic contribution of attendees, exhibitors, and event managers varies due to differences in their spending habits. Based on our analysis of daily spending and visit length estimates, events at the MMC in FY 2024 are estimated to have generated $90 million in total direct spending, including operational costs.

This activity has broader economic effects, boosting earnings, employment, and tax revenues. In FY 2024, events at the MMC are estimated to have contributed $143 million in total spending, $69 million in increased earnings, and 1,420 jobs, along with $5.1 million in tax revenue from hotel, sales, and food and beverage taxes. These figures are projected to grow over the next decade, with total spending reaching $243 million in FY 2034.

MassMutual Center
Historical and Projected Economic Impact

Events and Visitation	FYE 2018	FYE 2019	FYE 2023	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028	FYE 2029	FYE 2030	FYE 2031	FYE 2032	FYE 2033	FYE 2034
# of Events	221	215	186	172	182	192	201	211	221	221	221	221	221	221
Event Attendance	399,152	393,363	326,379	389,047	413,026	435,844	458,237	481,490	506,375	506,375	506,375	506,375	506,375	506,375
Total Visitor-Days*	472,655	463,341	430,265	505,662	540,068	568,799	602,032	631,333	667,010	667,010	667,010	667,010	667,010	667,010
Total Room Nights*	18,355	17,537	19,577	27,752	30,167	31,336	33,583	34,778	37,275	37,275	37,275	37,275	37,275	37,275
Direct Spending ($Million)	**FYE 2018**	**FYE 2019**	**FYE 2023**	**FYE 2024**	**FYE 2025**	**FYE 2026**	**FYE 2027**	**FYE 2028**	**FYE 2029**	**FYE 2030**	**FYE 2031**	**FYE 2032**	**FYE 2033**	**FYE 2034**
Hotel	$5	$5	$6	$9	$9	$10	$11	$11	$13	$13	$13	$14	$14	$15
Food and Beverage	20	20	21	26	28	30	33	36	39	40	42	43	44	45
Transportation	8	8	9	11	12	13	14	15	17	17	18	18	19	20
Attraction	9	10	10	12	13	14	16	17	18	19	19	20	21	21
Shopping	13	13	14	17	19	20	22	24	26	27	27	28	29	30
Other Industries	3	2	4	6	5	6	6	7	7	8	8	8	8	9
Subtotal	**$58**	**$57**	**$64**	**$80**	**$86**	**$93**	**$102**	**$110**	**$120**	**$123**	**$127**	**$131**	**$135**	**$139**
Operational Spending	$7	$8	$8	$10	$10	$10	$11	$11	$11	$12	$12	$12	$13	$13
Total Direct Spending	**$65**	**$65**	**$72**	**$90**	**$96**	**$103**	**$112**	**$121**	**$131**	**$135**	**$139**	**$143**	**$148**	**$152**
Indirect and Induced Spending	$39	$39	$43	$54	$57	$62	$67	$72	$78	$81	$83	$86	$88	$91
TOTAL SPENDING	**$104**	**$104**	**$115**	**$143**	**$153**	**$165**	**$179**	**$193**	**$209**	**$216**	**$222**	**$229**	**$236**	**$243**

Direct Earnings and Employment	FYE 2018	FYE 2019	FYE 2023	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028	FYE 2029	FYE 2030	FYE 2031	FYE 2032	FYE 2033	FYE 2034
Earnings ($Million)	$31	$31	$35	$43	$46	$50	$54	$58	$63	$65	$67	$69	$71	$73
Employment (FTE Jobs)	645	646	714	889	921	964	1,017	1,060	1,117	1,117	1,117	1,117	1,117	1,117
Earnings and Employment based on TOTAL Spending	**FYE 2018**	**FYE 2019**	**FYE 2023**	**FYE 2024**	**FYE 2025**	**FYE 2026**	**FYE 2027**	**FYE 2028**	**FYE 2029**	**FYE 2030**	**FYE 2031**	**FYE 2032**	**FYE 2033**	**FYE 2034**
Earnings ($Million)	$50	$50	$55	$69	$73	$79	$86	$92	$100	$104	$107	$110	$113	$117
Employment (FTE Jobs)	1,030	1,032	1,140	1,420	1,471	1,539	1,623	1,692	1,784	1,784	1,784	1,784	1,784	1,784
Fiscal Impact ($Million) *Tax Rate*	**FYE 2018**	**FYE 2019**	**FYE 2023**	**FYE 2024**	**FYE 2025**	**FYE 2026**	**FYE 2027**	**FYE 2028**	**FYE 2029**	**FYE 2030**	**FYE 2031**	**FYE 2032**	**FYE 2033**	**FYE 2034**
By Types of Taxes														
Hotel Tax *13.45%*	$0.6	$0.6	$0.8	$1.1	$1.2	$1.3	$1.4	$1.5	$1.7	$1.7	$1.8	$1.8	$1.9	$2.0
Meals Tax *7.00%*	1.4	1.4	1.5	1.8	2.0	2.1	2.3	2.5	2.7	2.8	2.9	3.0	3.1	3.2
Sales and Use Tax *6.25%*	1.6	1.5	1.7	2.2	2.3	2.5	2.7	2.9	3.2	3.3	3.4	3.5	3.6	3.7
Total	**$3.6**	**$3.5**	**$4.0**	**$5.1**	**$5.5**	**$5.9**	**$6.5**	**$7.0**	**$7.6**	**$7.9**	**$8.1**	**$8.4**	**$8.6**	**$8.9**
By Jurisdiction														
State Taxes	$3.2	$3.2	$3.5	$4.5	$4.8	$5.2	$5.7	$6.1	$6.7	$6.9	$7.1	$7.4	$7.6	$7.8
Local Taxes	0.4	0.4	0.5	0.6	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.0	1.0	1.1
Special Authority Taxes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**$3.6**	**$3.5**	**$4.0**	**$5.1**	**$5.5**	**$5.9**	**$6.5**	**$7.0**	**$7.6**	**$7.9**	**$8.1**	**$8.4**	**$8.6**	**$8.9**

**Including visitor-days and room nights from attendees, exhibitors, event organizers, etc.*
Source: Massachusetts Convention Center Authority, Johnson Consulting

Overall Findings

- Consider increasing facility fees and implementing parking fees for MMC events.
- Integrate Signature Boston for additional sales support.
- Establish a formal reporting structure to the MCCA Executive Board.
- Add a Sales Manager/Coordinator to boost annual sales, allowing the Director of Sales to focus on strategic decisions.
- Align with the Economic Development Plan.
- Continue to nurture and strengthen relationships with local organizations, including the GSCVB and Springfield BID.
- Strengthen the partnership with MGM and leverage their marketing and PR resources.
- Consider physical improvements or reconfiguration of space in future capital plans.
- Convert some traditional concession stands to more unique or novelty offerings to generate additional interest. Moving towards more "grab-and-go" style kiosks and offering canned beer instead of beer on tap can help improve throughput, reduce concourse congestion, lower labor costs, and enhance the fan experience.

Graduation in the Arena | Credit: MMC Facebook

Graduation in the Arena | Credit: MMC Facebook

Concert | Photo Credit: MMC Facebook

05

Financial Analysis

This section of the report provides an analysis of the financial performance and capital requirements of the MassMutual Center.

The Mission of MassMutual Center is to generate significant economic impact for the residents of Western Massachusetts by providing high-quality facilities and services, recruiting and retaining the best staff, and creating a mix of entertainment and tourism activity that inspires residents and visitors to experience and enjoy downtown Springfield and Western Massachusetts.

The MassMutual Center has experienced an increase in revenue in recent years but continues to operate at a loss. Completion of strategic capital projects (as outlined in the Master Plan), opening of the parking garage, adjusting mix of business, implementing pricing increases, and targeted sales support are needed to improve profitability.

Key Findings:

- Execute the Master Plan recently completed by the Touloukian & Touloukian Project Team (2024.)
- Expand Meeting Space.
- Initiate a project to address the expired naming rights for the MMC.
- Integrate Signature Boston for additional sales support.
- Build the concert business and special events.
- Pursue market-based pricing increases and fee adjustments in various areas.
- Develop the garage operation as a profit center.

MassMutual Center Overview

MMC Overview

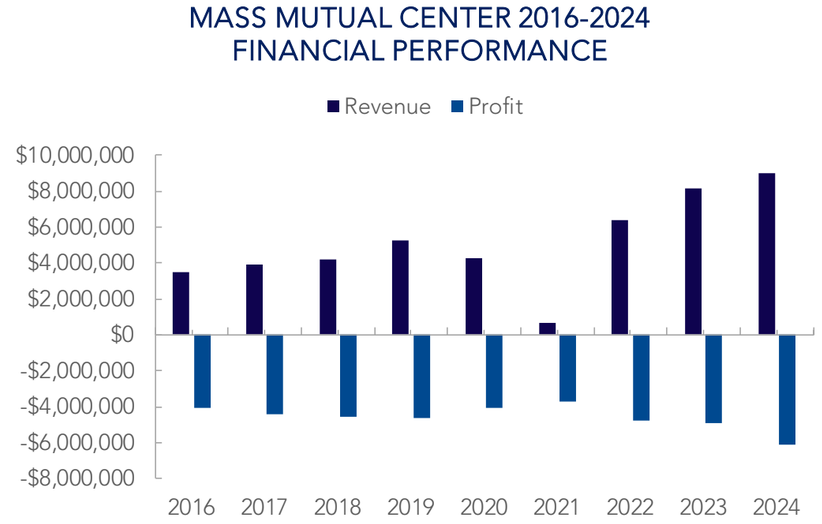
Featuring 100,000 square feet of flexible meeting space and an 8,000-seat arena, MassMutual Center (MMC) is owned by the Massachusetts Convention Center Authority (MCCA) and managed by MGM Springfield.

MGM Springfield covers three city blocks in the heart of downtown Springfield and is responsible for generating 3,000 permanent jobs and igniting a cultural and economic renaissance in this historic New England city. The Resort, which combines new construction with revived historic buildings, offers more than 125,000 square feet of gaming space, a 240-room boutique hotel on Main Street, superior spa services, diverse retail and inspired dining headlined by award-winning Chef Michael Mina's Cal Mare. MGM Springfield also features the seven-screen Regal luxury cinema complex, bowling lanes, a seasonal skating rink and outdoor marketplace displaying local art, events and talent. MGM Springfield opened on August 24, 2018.

The Springfield Thunderbirds are in their sixth season of play in the American Hockey League and their third season as the primary affiliate for the National Hockey League's St. Louis Blues. The 2021-22 season was a history-making campaign for the T-Birds. On the ice, Springfield captured the Eastern Conference Championship. The club also reached the first Calder Cup Finals in the City of Springfield in 31 years. In addition to the team accolades, the club was also recognized at the AHL level as the Team of the Year for overall excellence on and off the ice, setting franchise records in average attendance, as well as corporate and ticket sales revenues.

Revenue and Profit Trends

Revenues have increased steadily in recent years, attributed to improved performance of both the arena and the convention center. Despite revenue growth, the management team has not been able to reverse profit losses as they contend with higher labor and operational costs. There is an intense focus on shifting sales to business that is more profitable, in addition to initiatives recommended for future capital investments that will impact the trajectory of the profit performance.



Source: MMC, Compiled by CHMWarnick

MMC Revenues & Expenses Per Square Foot

Revenue Per Square Foot – MMC, BCEC, & Hynes

The revenue per square foot (PSF) for MMC has historically showed steady growth, increasing from $42 in 2016 to $63 in 2019. This growth was driven by convention services income and a notable contribution from food and beverage (F&B) sales. The MMC started to recover post COVID in 2022, with revenue PSF of $77, followed by significant growth to approximately $109 PSF in 2024. Revenue PSF is projected to continue to increase, reaching nearly $158 PSF by 2035. This growth reflects increased contributions across all revenue categories, particularly from F&B, which is anticipated to have the highest revenue PSF of $58 by 2035. Compared to other MCCA facilities, including the BCEC and Hynes, the MMC has consistently achieved higher revenue PSF metrics in the past and is projected to continue this trend in the future.

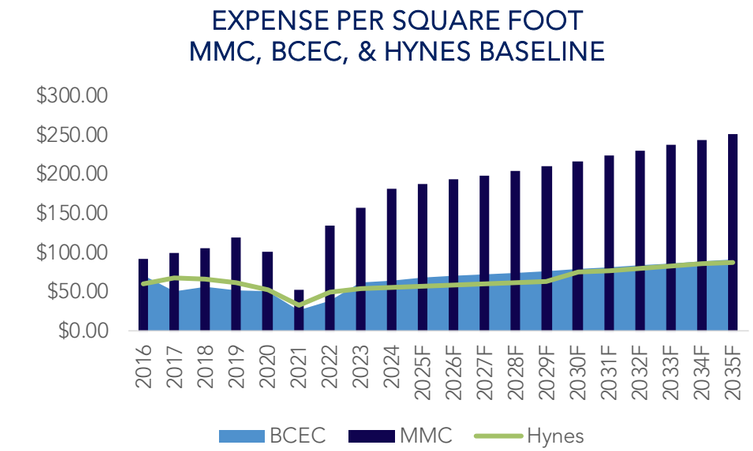
Revenue Per Square Foot	2019	2024	2030F	2035F
MMC	$63.49	$108.56	$136.10	$157.78
BCEC	$60.10	$65.79	$79.03	$86.93
Hynes	$65.29	$48.69	$71.87	$89.19

F&B Revenue Per Square Foot	2019	2024	2030F	2035F
MMC	$21.61	$39.91	$50.04	$58.01
BCEC	$9.87	$10.89	$13.43	$15.08
Hynes	$15.71	$4.47	$11.36	$14.37

Source: MMC, Compiled by CHMWarnick

Expense Per Square Foot – MMC, BCEC, & Hynes

Historical expenses at the MMC increased from $91 in 2016 to $119 in 2019. Post-COVID, MMC experienced a significant increase in expenses, attributed to rising operating costs, contracted services, and utilities. Expenses are forecasted to continue to rise, with projected expenses reaching $252 PSF by 2035, more than doubling from pre-COVID levels. This increase reflects anticipated growth across all major expense categories. The MMC has consistently operated with higher expense PSF metrics compared to the BCEC and Hynes. In 2019, MMC's expenses PSF were 128% higher than those of the BCEC and 92% higher than Hynes. By 2035, these differences are projected to widen, with MMC's expenses PSF anticipated to be 178% higher than the BCEC and 186% higher than Hynes. Developing cost reduction strategies should be a priority.



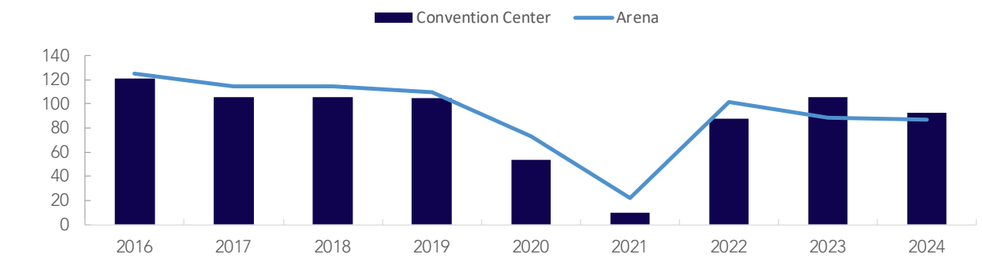
Source: MMC, Compiled by CHMWarnick

MMC Events & Financial Projections

Convention Center & Arena Events

Number of events between 2016 and 2018 represented peak performance periods, as they coincided with the development and opening of the MGM Springfield. During that time, MMC was used for a significant number of meetings and events that are considered one-time and non-recurring, impacting benchmarking against these periods. Both the Convention Center and the Arena have not yet returned to pre-COVID levels in terms of number of events, but this has largely been a strategic decision, as the team has shifted away from unprofitable events. The sales team is confident that the numbers will continue to improve, with even greater potential following the proposed capital investment projects.

MMC CONVENTION CENTER & ARENA EVENTS

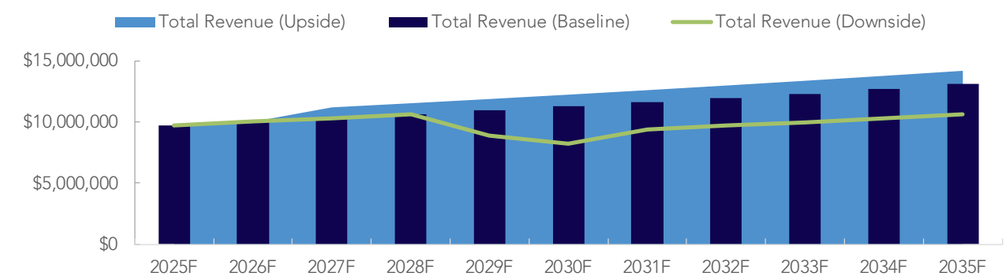


Source: MMC, Compiled by CHMWarnick

Projected Revenues; Baseline, Upside, & Downside

Revenues for MMC are projected to grow year-over-year. It should be noted, however, that the forecast does not take into consideration anticipated improvement in parking revenue related to the new 800-space garage scheduled to open in May 2025. The parking agreement structure between the MCCA and Executive Parking is still being finalized, but it is expected to positively impact financial performance beyond the current forecast. The city of Worcester, a major competitor to Springfield, is losing hotel inventory to University dorm conversions in 2025, which should allow Springfield to benefit given available lodging inventory in the market. Downtown improvements to the parks, wayfinding, retail and commercial development are scheduled to be completed in late 2024. This beautification and improvement to the neighborhood should benefit the operation and potentially the perception of this critical downtown district.

MMC TOTAL REVENUE FORECAST: BASELINE, UPSIDE, DOWNSIDE



Source: MMC, Compiled by CHMWarnick

MMC Projected Profit & Capital Spend

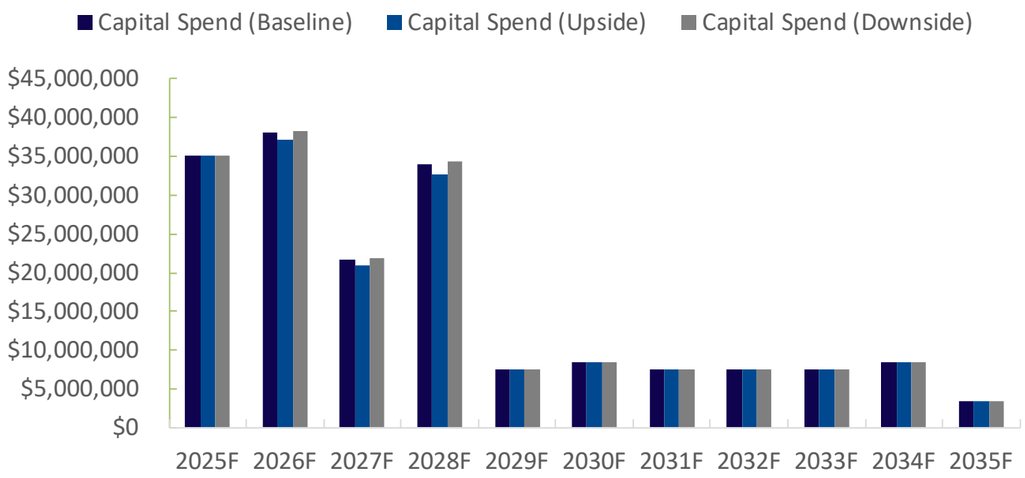
Projected Profit; Baseline, Upside, & Downside

Projected losses continue to rise year-over-year, but they can be reversed through the necessary investments outlined in the Master Plan. Shifting business strategies, pricing more competitively, and enhancing facilities for concerts and special events will all contribute to the facility's improved performance. Additionally, integrating Signature Boston to further support the sales organization in Springfield will be significantly beneficial, particularly for booking high-demand periods and off-season dates.

Projected Capital Spend; Baseline, Upside, & Downside

The schedule of capital spend over the 11-year period between 2025 and 2035 is front loaded due to the emphasis of implementing Master Plan projects that will position the facility to be more competitive and to address some critical needs related to the infrastructure. Capital from FY 2029 through FY 2035 is primarily scheduled to address ongoing needs of the property.

PROJECTED CAPITAL SPEND: BASELINE, UPSIDE, DOWNSIDE



Source: MMC, Compiled by CHMWarnick

MassMutual Master Plan

Master Plan & Incremental Cash Flow

High Priority Projects represent 29% of the ROI Master Plan Project Cost and 71% of potential incremental cash flow. The cash yields for these projects range from 7% to 43%. The majority of these High Priority Projects represent significant F&B upside, predominately in the Arena, but also on the convention center side with the additional air walls. The Arena Video Board Nest represents the project with the single largest additional incremental cash flow as with this upgrade, the MMC can accommodate additional events lost due to sight-line issues. There are approximately $23.3 million in other identified master-planned ROI projects, as well as $26.6 million in projects that do not have an identified ROI component. While these projects may not add to the bottom line, they can improve convenience for employees, fans, and guests, improving the overall experience. These projects, combined with the ROI projects, will position MMC to shift share and drive more profitable business with greater spend, in turn generating greater economic impact by driving higher spend downtown and through increased visitation.

High Priority Projects	Escalated Project Cost [1]	Annual Incremental Cash Flow [2]	Cash Yield
Concession Stand Upgrade	$2,140,099	$191,917	9%
Center Grille Club Room	$633,112	$270,287	43%
Integrated Fan Bar & Main Entrance to Arena Portal	$3,399,645	$229,514	7%
Loge Seating	$268,121	$59,425	22%
Arena Video Board Nest	$1,943,437	$309,543	16%
Additional Air Walls	$1,196,202	$180,886	15%
Total High Priority Projects	**$9,580,616**	**$1,241,573**	**13%**
All Other Projects			
Breakaway Lounge	$846,774	$83,992	10%
Breakaway Kitchen	$3,287,266	$55,399	2%
Premium Seating Overlook	$5,180,977	$147,534	3%
Infill of Existing Vomitory at Original Arena Entrance	$1,101,842	$52,246	5%
Arena Ribbon Board Signage	$6,870,589	$73,746	1%
Additional Ballroom Level Space Over Ex-Hall Pre-function	$5,671,078	$49,302	1%
Green Room Addition	$352,813	$50,268	14%
Total Other Projects	**$23,311,339**	**$512,487**	**2%**
Non-ROI Master Plan Projects	$26,565,887	$0	0%
TOTAL MASTERPLAN PROJECTS	**$59,457,842**	**$1,754,061**	**3%**

[1] Costs provided by PM&C. Projected escalation rates commence on FY date 01 July 2024. Escalation rates are based on an initial period beginning 01 July 2024.

[3.8% to FY 2025 | 7.79% to FY 2026 11.78% to FY 2027 |15.78 % to FY 2028 | 19.77% to FY 2029

[2] Inflated Cash Flow based on 5-Year ROI analysis provided by MGM

Consolidated Findings

General

- Execute the Master Plan recently completed by the Touloukian & Touloukian Project Team (2024).
- Expand Meeting Space.
- Integrate Signature Boston for sales support.
- Live Nation initiative – addressing exclusivity at Mohegan Sun.
- Negotiate with key tenant terms of their agreement aligning with Master Plan investment.
- Improve Food and Beverage offerings and facilities with focus on the Arena.
- Address Master Plan recommendations to enhance concerts/special events, improving the experience for artists and attendees.
- Add a Sales Manager/Coordinator to boost annual sales and relieve the Director of Sales, allowing them to focus on strategic decisions.
- Benchmark and reset pricing to be market competitive with hotel offerings.
- Undertake project to address naming rights for MMC that have expired.

Pricing & Fee Adjustments

- Increase overall FMF Fees for events to between $4 and $5 per ticket.
- Implement modest F&B price increases based on competitive survey.
- Competitive reviews support a 5% increase in Concession and Banquet pricing + Current 22% Administrative Fee to be increased in 2024 to 23%.
- Rental Fees to increase based on competitive survey.

Additional Revenue Opportunity from Hosting Approximately Four Additional Concerts per Year

- After identifying key Master Plan projects, consider renegotiating key agreements to maximize marketing and advertising revenue.
- MMC to dedicate increased efforts by the Marketing Team to drive short and long-term sponsorships outside the Arena to maximize revenues – implement incentive plan to maintain focus on initiative.

Operational Enhancements

- Cashless payment system allows for separating tax from concession product pricing (2024).
- Food costs to be better managed based on pricing and improved procurement.
- OVG (F&B operator) to be held accountable to target % performance.
- Update website with photography and other enhancements to improve online engagement.
- Certain Management Salaries are currently not market competitive and should adjusted upward.
- Conduct an Energy Audit to identify energy reduction opportunities within the existing operations.
- Financial reporting systems to be restructured to improve departmental oversight and tracking.

06

Deferred Maintenance

Since its expansion in 2005, the facility has implemented miscellaneous improvements, but in the last 10 years no meaningful improvements or upgrades have been completed. Optimizing performance of the operations are constrained by aging arena food and beverage services, outdated signage and digital technology, minimal premium seating, and limited meeting rooms and breakout spaces. All have stressed operational recourses as well as revenue growth.

In addition, the MMC's deficient and outdated infrastructure, and underperforming energy systems have extended deferred maintenance programs; while the age and condition of the building has also not met current accessibility standards, posing challenges for its future longevity as well as equity within the community.

A third party study performed in 2015, and again updated in 2020, included a summary of projected needs and costs for the facility. Additional deferred maintenance items and costs were identified within this study and the previous MMC masterplan study performed by our Design Team. Together, a list of key items are included with overall approximate deferred maintenance costs. Our design team evaluated these documents, along with a collection of other existing condition documents and on-site reviews, to provide an overall list of key deferred maintenance priorities. Recommendations for future repair/ replacement require consistent on-site evaluation in order to meet continued operation requirements.

General recommendations include the replacement of major mechanical, electrical, plumbing and fire protection components, according to the individual manufacturer's recommended "useful life" cycle, in order to maintain reliable performance and building safety. The MCCA should continue to perform regular preventive maintenance, timely upgrades, and testing to support and ensure the full extent of the "useful life" cycle. The deferred maintenance list shown on the next page represents a consolidated view of the key deferred maintenance items from SGH and our Design Team.

Key Findings:

Mechanical + Plumbing + Fire Protection

- Inspect the fire water service entrance and replace any piping showing signs of internal corrosion.
- Consider replacing all fire valves throughout within the next 10 years.
- Replace existing gas-fired hot water heaters.
- Replace domestic water distribution system corroded piping and install a new thermostatic mixing valve.
- Replace the two (2) arena dehumidification units.
- The existing pneumatic controls system is antiquated. Upgrade all building controls with new direct digital controls (DDC).
- Consider replacing existing gas-fired / packaged DX rooftop units (RTUs) with new heat pump RTUs.

Electrical + Fire Alarm

- Replace the existing Fire Alarm System.
- Update the existing Lighting Control Systems.

Lobby | Photo Credit: Stadium and Arena Visits

List of New Deferred Maintenance Projects

Item #	SGH Report CRP #	Cap Invest. List #	Asset Title	Location	Description	Total Project Cost (3)	Permit Cost (4)
DF-01	N/A	N/A	**Water Service**	Facility	The water service entrance is showing signs of corrosion and should be evaluated for replacement.	$194,830	$119,820
DF-02	N/A	N/A	**Thermostatic Mixing Valve**	Facility	On-site observations showed very heavy water damage to the 140°F hot water supply piping and on the domestic cold water supply piping to the mixing valve. IMEG recommends replacing the corroded piping and installing a new thermostatic mixing valve in order to avoid any possible future issues such as a water leak.	$827,467	$508,892
					Grand Total:	**$1,022,297**	**$628,712**

List of Current & Ongoing Deferred Maintenance Projects (see note #2)

Item #	SGH Report CRP #	Cap Invest. List #	Asset Title	Location	Description	Total Project Cost (3)	Permit Cost (4)
DF-03	3.2	N/A	**Roof Area D PVC Roof**	Facility	Carry full depth replace glued seam 0.60 PVC on coverboard on 4" sloped polyiso on VB. Metal deck remains, carry 10% metal deck repairs, assume no concrete roofdeck fill or repair, assume 1 LF of perimeter flashing/blocking per 500 SF. HVAC & lightning rem/reset NIC.	See Note #1	See Note #1
DF-04	3.3	N/A	**Remaining PVC Roofs**	Facility	Carry full depth replace glued seam 0.60 PVC on coverboard on 4" sloped polyiso on VB. Metal deck remains, carry 10% metal deck repairs, assume no concrete roofdeck fill or repair, assume 1 LF of perimeter flashing/blocking per 20 SF. HVAC & lightning rem/reset NIC.	See Note #1	See Note #1
DF-05	3.4	N/A	**Plaza Waterproofing**	Facility	Dig up/demolish surface walks or earth, pressure wash substrate, remove membrane WP, scarify concrete deck, new membrane WP, replace surface items.	See Note #1	See Note #1
DF-06	5.6	N/A	**Boiler B-1 Hot Water**	Facility	250 BHP / 8,369 MBH asumed gas fired	See Note #1	See Note #1
DF-07	5.7	N/A	**Boiler B-2 Hot Water**	Facility	251 BHP / 8,369 BTUH NO mbtu	See Note #1	See Note #1
DF-08	5.8	N/A	**Boiler B-3 Hot Water**	Facility	251 BHP / 8,369 BTUH NO mbtu	See Note #1	See Note #1
DF-09	5.9a	N/A	**Cooling Towers Evaporative CT-1 Ice Plant - 90 HP 2360 gpm**	Facility	incl trim, safety sw, vfd	See Note #1	See Note #1
DF-10	5.9b	N/A	**Cooling Towers Evaporative CT-2 Ice Plant - 90 HP 2360 gpm**	Facility	incl trim, safety sw, vfd	See Note #1	See Note #1
DF-11	6.8	N/A	**Emergency Distribution System - Main Switchboard**	Facility	800A	See Note #1	See Note #1
DF-12	6.9	N/A	**Emergency Distribution System - 277/480V Distribution Panels**	Facility	277/480V Distribution Panels 400A and 600A ATSs, two 112.5kVA transformers 1-400A, 1-600A and 10-100A panelboards.	See Note #1	See Note #1
DF-13	6.10	N/A	**Emergency Distribution System - Transformers and 120/208V Panel Boards**	Facility	Transformers and 120/208V Panel Boards: 5-45kVA transformers, 14-100-225A panelboards.	See Note #1	See Note #1
DF-14	10.9	N/A	**Command and Control Center Equipment**	Facility	Recently Work Station was upgraded. Other equipment are old.	See Note #1	See Note #1

List of Current & Ongoing Deferred Maintenance Projects (see note #2) (continued)

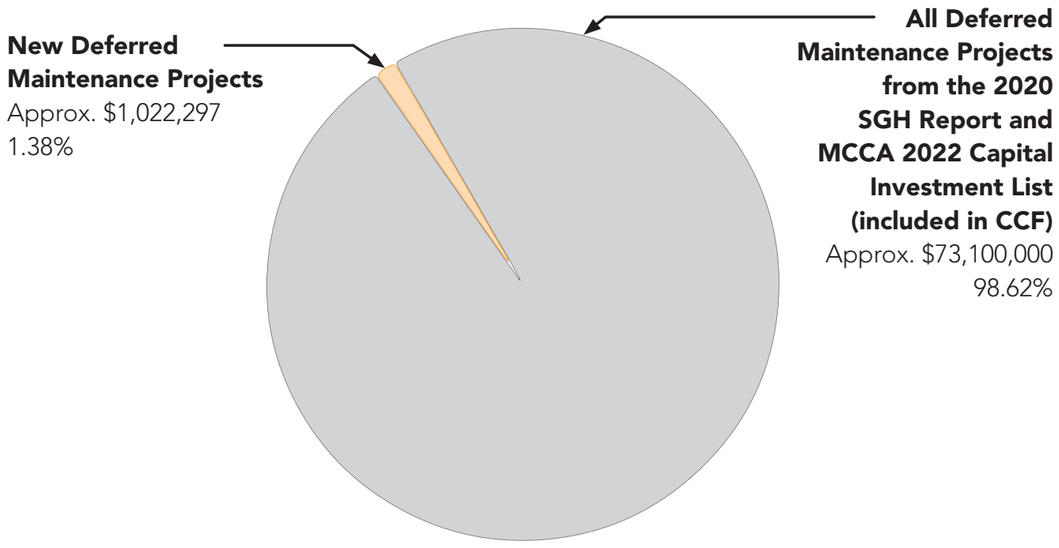
Item #	SGH Report CRP #	Cap Invest. List #	Asset Title	Location	Description	Total Project Cost (3)	Permit Cost (4)
DF-15	10.4	N/A	**Wi-Fi System**	Facility	N/A	See Note #1	See Note #1
DF-16	N/A	N/A	**Convention Center Carpet Replacement**	Facility	None Provided	See Note #1	See Note #1
DF-17	10.6	#22	**CCTV Surveillance Assessment & Adds**	Facility	Update the MMC's video surveillance system. Replace all camera's currently at their end of life stage. This also includes the installation of 25 new camera locations.	See Note #1	See Note #1
DF-18	N/A	#6	**Colosseo/Control Upgrade & DNR Project**	Facility	Upgrade the currently past useful life production room system that feeds the center-hung video board, concourse tv's, etc. This project is currently ongoing as a capital project that was previously approved.	See Note #1	See Note #1
DF-19	10.13	#3	**Marquee**	Facility	Installation of new exterior digital marquee. Will allow for event advertisements, community support, etc. This project is currently ongoing as a capital project that was previously approved.	See Note #1	See Note #1
DF-20	N/A	N/A	**F&B Upgrades**	Facility	None Provided	See Note #1	See Note #1
DF-21	N/A	#7	**Portable Radio Infrastructure Upgrade**	Facility	Upgrades to the "currently past useful life" radio system. This project is currently ongoing as a capital project that was previously approved.	See Note #1	See Note #1
DF-22	N/A	#14	**BMS Replacement**	Facility	New building management system.	See Note #1	See Note #1
DF-23	N/A	#32	**Locker Room Upgrades**	Facility	Modernize the locker room spaces with newer finishes, stalls, flooring, ceilings, etc.	See Note #1	See Note #1
DF-24	N/A	#25	**Old ADA Repurposing**	Facility	Repurpose old ada restrooms into a storage room and janitors closet. This has been included in the Masterplan Projects Scope (P23).	See Note #1	See Note #1
DF-25	N/A	#13	**Lutron Replacement**	Facility	New lighting control system.	See Note #1	See Note #1
DF-26	N/A	#19	**Cimco System Replacement**	Facility	None Provided	See Note #1	See Note #1
DF-27	N/A	#20	**Cimco Chiller Replacement**	Facility	Replacement of arena ice plant chillers nearing end of life per the 2014 SGH Capital asset plan.	See Note #1	See Note #1
DF-28	N/A	#37	**Exterior Façade Lighting**	Facility	Replace current flexible uplights with integrated/fixed plight system that covers all window facades on Main Street & Bruce Landon Way.	See Note #1	See Note #1
DF-29	6.17	N/A	**Fire Alarm System**	Facility	2015 Facility Inspection Report notes four (4) years remaining useful life of the Edwards EST fire alarm system and components. with a replacement scheduled for 2025	See Note #1	See Note #1
DF-30	6.7	N/A	**Emergency Generator**	Facility	2015 Facility Inspection Report notes fourteen (14) years of useful life remaining for the emergency generator. No replacement is scheduled at this time.	See Note #1	See Note #1
DF-31	5.24a/b	N/A	**Dehumidification Units**	Facility	These units are well beyond their useful life span and were reported by facility staff to be in poor condition. These units are included on the SGH spreadsheet and are highlighted as an "identified project"	See Note #1	See Note #1
DF-32	5.25a-f	N/A	**Replace RTU's 3-10**	Facility	Replace with heat pumps (currently gas)	See Note #1	See Note #1
DF-33	8.1	N/A	**Fire Valves**	Facility	Consider replacement of all Fire Valves throughout within the next 10 years.	See Note #1	See Note #1

Hockey | Photo Credit: MMC/MCCA

Deferred Maintenance Costs

Total Project Costs

- Approx. **$1,022,297** of New Deferred Maintenance Projects. Escalated to FY 2026 (July 1, 2025).
- Approx. **$73,100,000** of All Deferred Maintenance Projects from the 2020 SGH Report and MCCA 2022 Capital Investment List. (See Notes).



Total Deferred Maintenance Costs:
Approx. $74,122,297

New Deferred Maintenance Projects

All Deferred Maintenance Projects from the 2020 SGH Report and MCCA 2022 Capital Investment List (included in CCF)

Monster Truck Event in the Arena | Photo Credit: MMC Instagram

(1) SGH Report: Provided by the MCCA, a Capital Replacement Program outlining deferred maintencance projects scheduled through fiscal year 2029.

(2) MCCA FY2025 Capital Projects Budget: Provided by the MCCA, a running list of Capital Projects including facility improvements, technology upgrades, and equipment purchases for fiscal year 2025.

(3) Total Project Cost: Hard costs as determined by a cost estimator plus a 30% mark-up for soft costs.

(4) Permit Cost: inclusive to total costs, this is 61.5% of the Total Project Cost. This number should be used for determining MAAB upgrade requirements per the 30% threshold set fourth by the State of MA.

Note #1: Costs are to be identified from the 2020 SGH Report and/or the MCCA Capital Investment Report provided by the MCCA. Project costs have already been captured in the CCF as per CHMW coordination with MCCA and A&F.

Note #2: See the 2020 SGH Deferred Maintenance Project List for a full list of additional project costs. These costs have already been captured in the CCF as per CHMW coordination with the MCCA and A&F. List of Key Deferred Maintenance Projects is a snapshot of the SGH and Capital Projects reports provided by the MCCA. These are highlighted as the more important projects which should be undertaken.

Note #3: The 2020 SGH Costs have been escalated to July 1st 2025 (FY 2026).

07

Sustainability & Decarbonization

The MCCA can serve as a leader in the realm of sustainability while also fulfilling its economic mission. Holistic sustainability, energy efficiency, operational decarbonization, embodied carbon reduction, the creation of healthy, equitable spaces, and community stewardship are at the heart of MCCA's sustainability initiatives.

Sustainable design and operations of all facilities is a core goal of MCCA's mission. As the facility is currently not yet net carbon neutral operations, the MCCA staff is currently developing ongoing energy conservation measures, fuel switching options, and opportunities to implement on site renewable energy generation (solar) and off-site renewable energy procurement (VPPA). Although a comprehensive plan is not yet fully coordinated, a comprehensive sustainability framework, path for operational decarbonization, and embodied carbon reduction strategy will help MCCA quantify and track the extensive sustainability and carbon neutral initiatives already underway at the MMC.

Establishing a well-developed sustainability framework is valuable for informing many aspects of the MCCA's buildings and operations – from policy and procurement decisions to facility design requirements. Identifying pathways for net carbon neutral operations is critical for any future renovation of MCCA facilities. Benchmarking of present-day energy usage and emissions provides a valuable metric by which to assess the strategies available to achieve operational carbon neutrality.

Lastly, with regard to embodied carbon, key considerations for both the existing systems and major renovations have also been highlighted. For major renovations and interior fit-outs, prioritizing embodied carbon reduction is of utmost importance. Minimizing embodied carbon should be a priority for new capital projects, vendors, and event operations.

Key Findings:

- Develop holistic sustainability guidelines tailored to MCCA's priorities should be applied across all facilities. Establish a formal energy emissions baseline.
- Develop an investment-grade ASHRAE Level 3 Audit, before implementing energy conservation measures. Ensure all measures implemented align with the long-term decarbonization goals.
- Conduct further analysis to refine the optimal pathway for fuel switching. Natural Gas is currently used in space heating, arena dehumidification, domestic hot water heaters, and various cooking equipment.
- Conduct further analysis for solar PV on the Convention Center, Arena, and parking garage roofs.
- Conduct further analysis to replace the existing chillers which use R22 refrigerant, a potent greenhouse gas that has been discontinued from manufacturing.
- Review and select the cost-optimal blend of off-site renewable electricity procurement options to eliminate all MMC Scope 2 emissions. Coordinate and refine with future electricity projections.
- Identify work plan to make the MMC net carbon neutral operations to align with a format that is compatible with BERDO emission standards (so all four facilities are compared equally).
- Expand advanced energy metering and submetering to internally track energy performance.
- Develop a tailored and formally adopted embodied carbon reduction strategy to deploy on future projects and ongoing operations.

Sustainability & Decarbonization

- Sustainability Framework
- Operational Carbon
- Embodied Carbon
- Energy Efficiency

Sustainability Framework

Sustainable design and operation of MCCA facilities is a core driver for this organization. A structured sustainability framework that provides guidelines and quantifiable metrics can enable MCCA to track progress, set goals and targets, and measure success.

Goals

Sustainability touches on every aspect of building, operations, and events at MCCA facilities. Currently, the MCCA does not have a comprehensive document to guide, track, and report sustainability progress. A holistic framework can provide sustainable guidance for built projects and vertical development, horizontal site and infrastructure projects, vendor services and operations, and event management. While numerous state and local regulations, policy drivers, codes, and priorities are in place, a consistent, comprehensive, and holistic framework to guide all four facilities does not exist. Further, there are many sustainability best practices that reach beyond minimum regulations and policies: energy efficiency, operational and embodied carbon, water conservation, waste management, health and wellbeing of building occupants, stormwater management, and biodiversity-- that enhance MCCA's investments and provide co-benefits in MCCA's role as a community steward.

Objectives

- Understand, align, and meet or exceed MCCA's sustainability goals and metrics with current energy codes, regulations, public agency requirements, reporting frameworks and local/regional goals.
- Develop holistic, streamlined processes and consistent metrics for tracking, quantifying, and implementing sustainability initiatives, measures, and data collection and tracking across all MCCA facilities.

Recommendations

- Continue to meet all requirements of the MA Energy Code and the MA Stretch Code.
- Elect to design new construction, major renovation, and interior fit out projects to LEED Silver certifiable (in line with Executive Order 594 requirements) and elect to pursue full certification on all projects.
- Although optional for MCCA and not required in Springfield, consider tracking existing building performance in line with BERDO for consistency across MCCA facilities.
- Elect to establish formal sustainability guidelines and requirements for all MCCA facilities.
    a. Benchmark the MCCA's sustainability initiatives against peer institutions and organizations.
    b. Identify project-appropriate certification opportunities for building, site, and infrastructure projects.
    c. Establish flexible, but measurable "good, better, best" guidelines for vendors and events management that target sustainability goals that are meaningful and aligned with MCCA's mission.
- Elect to create a clear messaging platform/strategy for communicating MCCA's "good work" and community stewardship in the form of a comprehensive website, tracking tools, and/or yearly sustainability reports.

Focus Areas

A holistic sustainability framework should establish strategies, metrics, and set goals in the following areas:

Energy Efficiency and Operational Carbon: Increasing energy efficiency and reducing operational carbon with the goal of fully decarbonizing building systems is a primary goal for all MCCA facilities. An in-depth analysis of existing conditions and identification of high-level strategies is included in this report.

Embodied Carbon: Prioritizing tangible strategies for reducing embodied carbon in interior fit-outs, major renovations and vendor activities is also a goal for MCCA. While strategies will be unique to each condition and are often project specific, high-level strategies, metrics and targets are recommended.

Water Conservation and Rainwater Reuse: The conservation of potable water use (both inside and outside the facility) is also identified a priority for MCCA facilities. Reductions in potable water inside the building can be achieved via use of low-flow plumbing fixtures. Reductions in potable water consumption outside the building can be achieved with site design strategies that include the use of drought-resistant native vegetation. Rainwater reclamation, water sub-metering, and leak detection systems should also be considered with each project.

Waste Management: Construction waste reduction and waste diversion should be made a priority for any building and site related projects. From an operational waste perspective, the greatest source of waste at the convention centers and exposition halls is the waste generated by events. Targeting strategic opportunities for waste diversion, composting, and tracking of waste are ongoing measures at the MMC facility which can further be optimized and quantified.

Health and Wellbeing of Building Occupants: Enhancing the health and wellbeing of building occupants can be addressed in a variety of ways, focusing on providing access to daylight, provision of high-quality water and air, good acoustics, opportunities for socialization, access to healthy food, and the creation of outdoor spaces for recreation and enjoyment. Healthy material selections for building projects and vendors should be considered not only for embodied carbon considerations, but also with regard to the health and well-being of people who come into contact with these materials at all points and ethical sourcing considerations.

Landscape, Stormwater Management, Biodiversity, and Biophilia: The incorporation of landscape and low-impact development strategies can provide aesthetic enhancements and help mitigate stormwater management issues while also supporting biodiversity, providing recreational space, reducing the urban heat island effect, and elevating connections to nature and biophilia. Opportunities for urban farming, bee apiaries, or hydroponics should also be considered. Bringing biophilic elements into the building can enhance occupants' happiness levels, reduce anxiety, and contribute to wayfinding.

MMC | Photo Credit: JHVEPhoto Adobe Stock

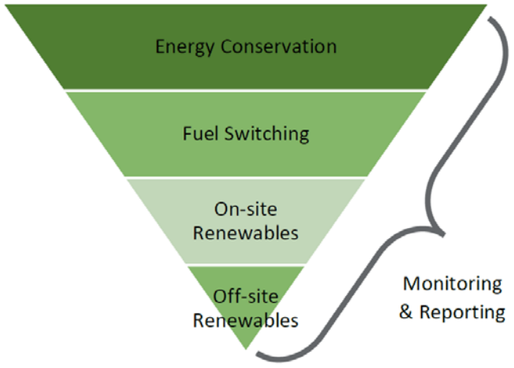
Operational Carbon

A top priority for the MCCA is to achieve Operational Carbon Neutrality by 2030 for all four facilities.

Goals

Set within a broader sustainability framework, a top priority for the MCCA is to achieve **carbon neutral operations**. Carbon neutral operations means all energy used on-site comes from carbon-free sources. This differs from Net Zero Energy operations (on-site energy demand equals on-site energy supply) in that it requires all purchased energy to come from carbon-free sources and does not require all energy to be generated on-site. Carbon neutral operations can be achieved by the following steps:

1. **Energy Conservation** to save money and reduce electricity and natural usage.
2. **Fuel Switching** to eliminate all remaining on-site natural gas usage (i.e., Scope 1 emissions).
3. **On-Site Renewable Energy Generation** to save money and reduce demand for purchased electricity.
4. **Off-Site Renewable Energy Procurement** to eliminate remaining energy-related GHG emissions.
5. **Monitor And Report** progress toward carbon neutral operations to maintain accountability and serve as a leader for the Commonwealth of Massachusetts and the events industry.



Four-Tiered Approach to Decarbonize Existing Buildings

Objectives

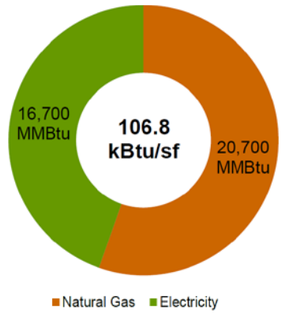
- Refine, develop, and implement cost-effective Energy Conservation Measures for each site.
- Upgrade or retrofit all appropriate systems from natural gas to electric alternatives.
- Upgrade or retrofit all heat pump equipment to use low global warming potential (GWP) refrigerants.
- Maximize the cost-effective installation of on-site renewable energy.
- Procure carbon-free energy sources for all remaining purchased energy.
- Monitor and report decarbonization process.

Existing Conditions

The existing assessment for operational carbon can be divided into **energy uses** and **energy supply**.

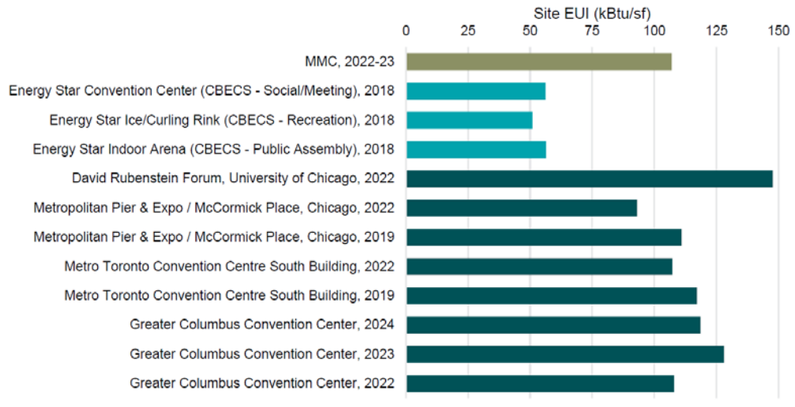
Energy Usage: Electricity is used for lighting and plug loads throughout the facility, ventilation, centralized cooling, ice production for the rink, and localized cooling through numerous rooftop units (RTUs). A large portion of the facility, the Arena Event Level, uses electricity for both heating and cooling through localized heat pumps. Natural Gas is used for space heating through both centralized boilers and distributed gas-fired RTUs, centralized domestic hot water (DHW) heaters, dehumidification, and for various cooking and catering equipment in the two kitchens.

For the 12 month period September 2022 – August 2023, the MMC consumed approximately 16,700 million British thermal units (MMBtu) or 4,900 Megawatt hours (MWh) of electricity and approximately 20,700 MMBtu or 207,000 therms of natural gas, totaling 37,400 MMBtu per year. As a 350,000 square foot (sf) facility, 37,400 MMBtu translates to a site energy use intensity (EUI) of 106.8 thousand British thermal units per square foot (kBtu/sf).



Annual Energy Usage at MMC

Energy Usage Benchmark: Benchmarking energy usage against peer facilities is a challenge because public data is limited for convention center and arena facility types across North America (and statistically significant trends are challenging due to the wide variability of energy uses). That said, when compared against a sampling of similar facility types located in similar climates that all publicly report energy performance, the MMC uses roughly 20% less energy per square foot than the average EUI of these facilities.

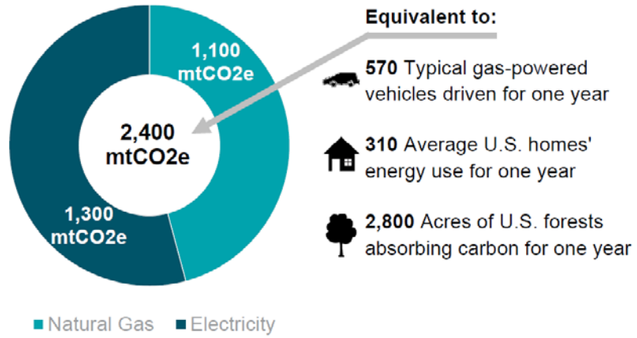


Existing Energy Usage Benchmark Against Peer Facilities

Operational Carbon (continued)

Existing Conditions (continued)

Energy Sources: Electricity and natural gas are delivered to the site by Eversource. Based on the greenhouse gas (GHG) emissions factors of 720 kilograms of carbon dioxide equivalent ($kgCO_2e$) per MWh for electricity (ISO New England 2022; 263 $kgCO_2e$/MWh for ISO New England 2023) and 53.1 $kgCO_2e$ per MMBtu for natural gas (US EPA, national average) current MMC energy usage equates to approximately 2,400 metric tons of CO_2 equivalent ($mtCO_2e$) per year.



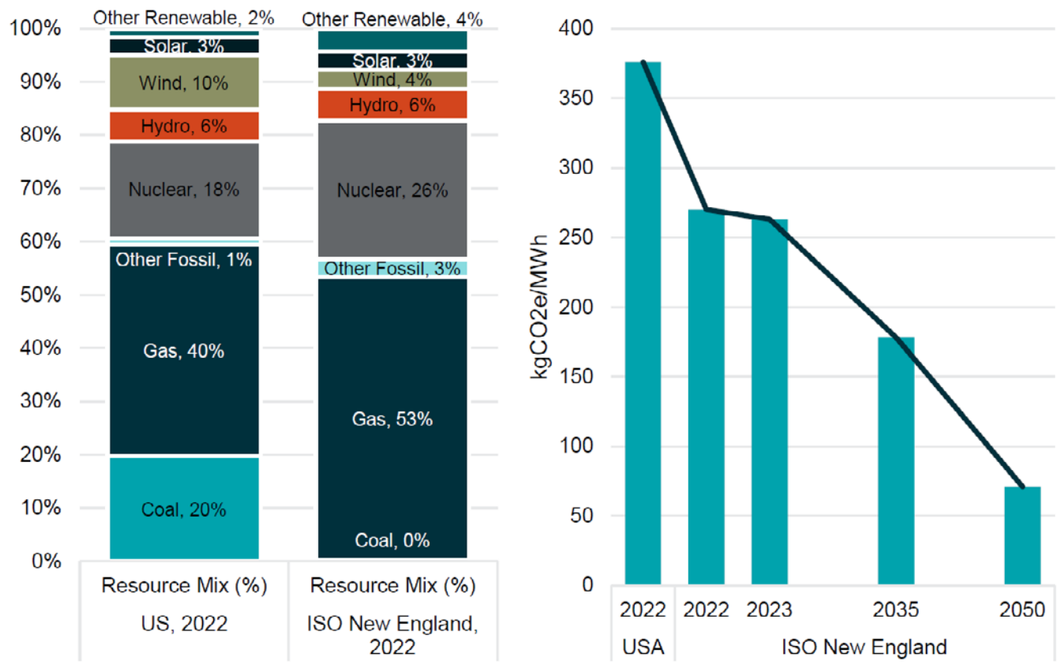
Equivalent to:

570 Typical gas-powered vehicles driven for one year

310 Average U.S. homes' energy use for one year

2,800 Acres of U.S. forests absorbing carbon for one year

Annual Operational GHG Emissions at MMC



Comparison of ISO New England Energy Mix and Emissions Factor to US Average

Convention | Photo Credit: Instagram

Energy Sources Benchmark: Currently, the MMC does not procure any renewable electricity beyond what is served by the ISO New England grid on average. For context, the 2023 emissions factor for ISO New England is about 30% less than the national average emissions factor of 376 $kgCO_2e$/MWh (eGRID, 2022). As more renewable energy is added to the grid, the ISO New England emissions factor is projected to drop to 178 $kgCO_2e$/MWh by 2035 and 71 $kgCO_2e$/MWh by 2050 (BERDO, 2024). Natural gas emissions factors are not expected to change through the planning horizon.

Operational Carbon (continued)

Recent and Ongoing Efforts

To reduce energy usage and supply energy from lower carbon sources, the MCCA has been implementing many efforts at the MMC.

Lighting Retrofits and Controls Upgrades: The facility has upgraaded all lighting fixtures to LED. A small refrigeration controls upgrade has been completed, and discussions with the facility operator are ongoing to implement further upgrades.

Solar Photovoltaics (PV): The new Springfield Garage across Bruce Landon Way from the MCC is under construction with a "solar ready" top floor design. The interconnection of any system in downtown Springfield cannot exceed 50 kW due to Eversource distribution infrastructure constraints. If this obstacle is resolved and if load sharing is permitted between the garage and the MMC, then the garage may become a strong opportunity for future solar capacity at the MMC complex.

Virtual Power Purchase Agreement (VPPA): A VPPA is a type of contract for off-site energy procurement. The MCCA has finalized a contract worth 19,500 MWh per year of renewable electricity for a period of fifteen years. Although primarily intended to mitigate Scope 2 emissions from the BCEC, the VPPA is expected to exceed BCEC demand with some remaining supply to potentially offset other MCCA facilities. Additionally, the MCCA Board has authorized a second VPPA worth 20,000 MWh per year for fifteen years which is expected to further reduce Scope 2 emissions across all MCCA facilities.

Demand Response: As an energy cost savings measure, the MMC participates in the Eversource demand response program. When called to, the MMC can opt to shed non-critical loads during periods of high grid demand. This indirectly contributes to GHG reduction by supporting grid flexibility which reduces supports GHG reduction by mitigating demand for natural gas "peaker plant" generating stations.

Recommendations

Energy Conservation Measures (ECMs) beyond recent and ongoing efforts at the MMC are identified in the recent ASHRAE Level 1 Audit Report (February 2024). Key ECMs include:

1. Completing the remaining lighting upgrades.
2. Upgrading, resetting or retro-commissioning various temperature and equipment controls.
3. Installing energy recovery, variable flow and occupancy/demand control capabilities to existing or replacement ventilation and pumping equipment.
4. Install heat recovery capabilities at the ice rink refrigeration system.
5. Replace the gas-fired dehumidification units with new units using condenser heat.
    a. Note: this overlaps with a key fuel switching strategy described below.
6. Replacing existing gas-fired DHW water heaters with heat pump water heaters.
    a. Note: this overlaps with a key fuel switching strategy described in the table to the right.

When a lifecycle cost optimized solution to decarbonize space heating and cooking/catering equipment is identified, assuming air source heat pumps comprise most of the space heating solution, demand for natural gas is estimated to reduce by approximately 10,000 MMBtu per year with a corresponding increase of electricity demand by approximately 1,300 MWh per year. (The effect of dehumidification and DHW decarbonization is already captured within Energy Conservation.)

Combined, the identified ECMs have the potential to conserve approximately 420 MWh of electricity and 10,000 MMBtu of natural gas per year. Refer to the ASHRAE Level 1 Audit Report for more details.

Fuel Switching from natural gas to electric alternatives falls under three categories of natural gas use:

Natural Gas Use	Recommendation	Considerations
Space heating is provided by three gas-fired boilers in the central mechanical room serving eleven AHUs throughout the facility; and ten gas-fired RTUs distributed across the Arena Event Level, Arena and Loading Dock areas.	Two approaches are recommended to decarbonize space heating: 1. Replace all gas-fired RTUs with heat pump equivalents. 2. Evaluate the potential to install air-source heat pumps to meet the majority of heating hot water demand; retain one or two existing boilers to meet peak demand; and site new equipment in the mechanical room and on the mechanical room roof.	A focused engineering study is required to validate the recommended solution and refine a lifecycle cost optimized decarbonization pathway. Geothermal heat pumps at the park adjacent to the new parking structure may be an option.
Dehumidification for the Arena is provided by two desiccant dehumidification units with reactive gas burners and DX post cooling.	To decarbonize dehumidification, it is recommended to replace the existing units with new units that use condenser heat to reactivate the desiccant wheels. This has been reviewed at a preliminary level during the ASHRAE Level 1 audit.	Further study is required to select new dehumidification units with adequate capacity and verify installation feasibility.
DHW for is provided by two gas-fired condensing boilers in the central mechanical room.	To decarbonize DHW, it is recommended to evaluate the potential to replace the gas-fired water heaters with heat pump water heaters. This has been reviewed at a preliminary level during the ASHRAE Level 1 audit.	Further study is required to select a heat pump water heat with adequate capacity, design the supply and return connection to the existing hydronic system, and validate constructability considering structural and space constraints.
Cooking and catering include various electrical and natural gas equipment located in the two kitchens.	To decarbonize cooking and catering, it is recommended to replace the natural gas equipment with electric alternatives.	Further study is required to compile an inventory of existing gas-using equipment, identify like-for-like electric alternatives, and verify the local electric circuit capacity in the locations where the equipment would be installed.

Operational Carbon (continued)

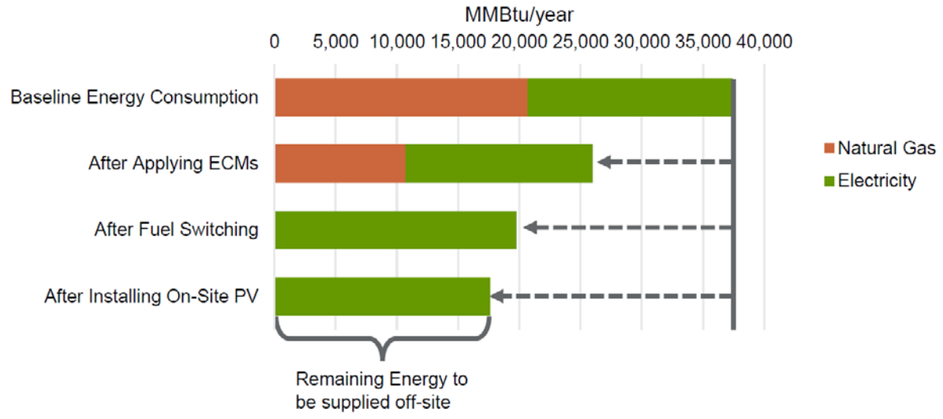
Recommendations (continued)

On-site Renewables have been evaluated in two areas:

1. The new Springfield Garage across Bruce Landon Way from the MMC is designed to be "solar ready," but utility has not granted an interconnection agreement (possibly due to limitations in the existing transformer capacity). If this PV array were approved, and if the power it generated could be applied to the MMC electrical load, it could potentially offset up to 20% of present-day electricity demand.

2. On the roof of the MMC, due to some reported structural capacity constraints on the Arena Roof, rooftop PV generation may be limited to the Convention Center roof. If the Convention Center roof is verified structurally able to support PV, then potentially up to 500 kilowatts (kW) of capacity may be installed, enough to generate approximately 10% of present-day electricity demand at the MMC.

The combined effect of implementing the recommended strategies for energy conservation, fuel switching, and on-site renewable energy generation is a meaningful reduction in demand for off-site energy sources and the associated GHG emissions. Additional study is required to work out the details of some recommendations such as resolving constructability and refining the most life cycle cost effective pathway. Assuming all recommendations are implemented, the MMC may experience up to a 50% reduction in demand for off-site purchased energy and associated GHG emissions.



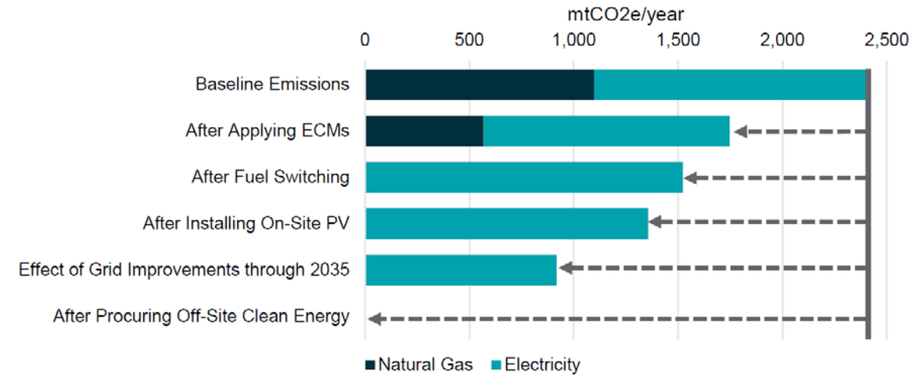
Projected Impact of Recommended Strategies on Off-Site Energy Demand

Carbon-free Energy Procurement is necessary for carbon neutral operations. As illustrated above, the combination of ECMs, fuel switching and on-site renewable energy generation can have a substantial impact on net energy demand, but there still is expected to be demand for approximately 17,500 MMBtu (5,200 MWh) of off-site purchased electricity. With the purchase of off-site electricity comes associated GHG emissions. Over time, some of these annual emissions will reduce as the electric grid continues to get cleaner, but current projections show the electric grid will not be fully carbon-free within the timeframe of the MCCA's carbon neutrality target. Therefore, supplemental clean energy procurement is required.

To do this at the MMC, the MCCA may consider either the two pathways established by BERDO (which the MCCA is not required to follow, but is recommended for consistent implementation of GHG reduction strategies):

1. Buying and retiring Mass Class I Renewable Energy Certificates, either unbundled or bundled as part of a PPA inside ISO New England.
2. Signing additional VPPAs outside ISO New England.

Procuring carbon-free energy in addition to implementing all site-level recommendations results in a clear pathway to carbon neutral operations at the MMC.



Projected Reduction in GHG Emissions from Recommended Strategies

Underscoring all this effort, Monitoring and Reporting progress toward carbon neutral operations through established and transparent channels builds trust and accountability for the MCCA to follow through on its goals. Being in Springfield, MA, the MMC cannot report to BERDO like the other MCCA facilities. As an alternative, it is recommended to consider reporting energy and emissions trend data through a similar platform such as Portfolio Manager. This will allow the MCCA to continue demonstrating local leadership while using an established and straightforward reporting process.

Beyond Portfolio Manager, there may be additional opportunities to explore more granular energy data monitoring and reporting, such as timeseries data and submetering, through other platforms which may benefit the MCCA through greater insight into energy usage trends.

The combined effect of bringing together these five types of operational carbon recommendations is a clear pathway to carbon neutral operations at the MMC. Additional study is required to work out the details of some of these projects including resolving constructability, phasing, and determining the most lifecycle cost effective solution set, but at an early-stage planning level the result of these projects shows a clear reduction on both operational energy demand and the associate GHG emissions.

Operational Carbon (continued)

Conclusion

In summary, the MMC has a viable pathway to achieve carbon neutral operations by implementing a combination of energy conservation, natural gas fuel switching (for space heating, dehumidification, DHW and cooking), on-site renewable energy generation, off-site renewable energy procurement, and ongoing monitoring and reporting.

The greatest potential obstacle to achieving carbon neutral operations is decarbonizing space heating. The potential constraints for space, electrical capacity and structural capacity may render decarbonization space heating cost prohibitive. Further study is required to refine the constraints analysis and develop a life cycle cost optimized implementation plan.

Howdy Ballroom Event | Photo Credit: MMC Facebook

Embodied Carbon

Understanding, measuring and quantifying embodied carbon baselines will enable MCCA to establish reduction targets for all qualifying projects.

Goals

When considering full carbon neutrality, embodied carbon – the GHG emissions associated with the production, transportation and installation of materials – is an essential yet historically underemphasized element however an increasing number of institutions and jurisdictions are starting to take embodied carbon measuring into account. There are many opportunities to effectively assess and reduce the embodied carbon of materials at all scales of facility design and operation. Prioritizing tangible strategies for reducing embodied carbon in interior fit-outs, renovations, new construction projects, and vendor activities is a goal for MCCA. While the specific strategies will be unique to each condition and project, establishing high-level strategies, metrics and targets for vertical development, horizontal development, and event management are recommended.

Objectives

- Require whole project LCAs for all significant capital projects.
- Quantify embodied carbon for key materials.
- Require all significant capital projects to demonstrate a 10% reduction in embodied carbon.
- Calculate embodied carbon for all MEP and interior fit-out projects.
- Reduce embodied carbon for key materials.
- Understand additional embodied carbon impacts.

Recommendations

- For major renovations, interior fit-out projects, new construction, or MEP upgrades more then $1M: require a baseline and proposed LCA to be run.
- Identify a target **Embodied Carbon Reduction** (potentially 10% from baseline) as project goals.
- For all projects requiring more than 10 yards of concrete, require EPDs for each mix.
- For all projects with key interior materials (ACT, carpet, or drywall), require EPDs for each product type.
- Require teams to evaluate the embodied carbon of at least three different structural systems and explore a variety of bay sizes prior to the completion of SD.
- Explore opportunities for key uses of alternate materials, such as mass timber, in projects.
- Consider providing pre-vetted standard products which comply with EC reduction targets.
- Require each project team to identify opportunities for end of life product reuse.
- Require construction teams to track onsite utility and fuel use related to construction.

BusinessWest Ballroom Event | Photo Credit: Instagram

Energy Efficiency Summary Outline

DMI has completed an ASHRAE Level 1 energy audit for the Mass Mutual Center (MMC) to help determine the building's current energy performance and to identify energy savings measures to reduce operating costs. The audit is based on:

- 2003 arena renovation and convention center construction drawings;
- Two years of 15-minute electric use data and 18 months of monthly gas bill data;
- A site visit to meet with facility operations staff and tour the facility to gain an understanding of how the building's HVAC&R systems operate; and,
- EMS screenshots of the HVAC&R systems.

The audit has focused on HVAC&R systems. The building envelope is expected to be the original construction and associated U-value, but due to the capital cost of upgrading the envelope, ECMs have not been included.

A summary of utility consumption and costs from September 2022 through August 2023 is below.

This energy usage corresponds to an energy use intensity of 106.8 kBTU/ft²/year, which is in line with the average EUI of 105 kBtu/ft2/year for arenas in climate zone 5A according to the DOE's Building Performance Database.

Area ft²	Billing Period	Electric			Gas			Total	
		kWh	$	kBTU/ft²	Therms	$	kBTU/ft²	kBTU/ft²	$
350,000	9/22 - 8/23	4,902,579	1,524,702	47.8	206,691	327,399	59.1	106.8	1,852,101

The audit has identified a total of 26 energy conservation measures. The identified measures include HVAC controls modifications, HVAC equipment replacement to include energy recovery, and modification of the ice rink refrigeration system. The annual electric, gas, carbon and cost savings for each measure are estimated and shown in the following table.

DMI recommends the next steps following MCCA's and MGM's review of this audit:

1. DMI to present the energy audit findings to MCCA and MGM.
2. MCCA and MGM to identify next steps for any measures they are interested in pursuing.
3. DMI to engage Eversource to determine the incentive program path for any measures that MCCA/MGM are interested in pursuing.
4. MCCA/MGM to engage with design engineers as necessary to move forward with implementation of desired measures.
5. DMI to prepare a proposal for a technical assistance (TA) / ASHRAE Level 2 study to analyze the savings for select measures. This study will provide MCCA/6. 6. MGM with more detailed savings estimates and will meet the needs of the Mass Save incentive program documentation requirements.
7. DMI and MCCA/MEG to coordinate with Eversource representatives about developing applications for measures that do not require follow-on TA studies.

MMC | Photo Credit: MMC website

Energy Efficiency Recommendations

Building Location		Energy Efficiency Measure	Annual Savings Estimates				Cost Estimate ($)	Simple Payback (years)
			kWh	therms	$	CO_2 (tons)		
Arena Back of House	**1**	Occupancy Based Space Temperature Setback	9,800	3,300	$8,275	19	$15,017	1.8
Arena Back of House	**2**	Variable Flow Condenser Water Loop	39,600	0	$12,316	7	$28,922	2.3
Arena Back of House	**3**	Condenser Water Loop Temperature Optimization	0	3,300	$5,227	18	$4,005	0.8
Arena Back of House	**4**	RTUs 1 & 2 DCV	5,300	2,000	$4,816	12	$4,004†	0.8
Arena Back of House	**5a**	Replace RTUs 1&2 with Energy Recovery Units	3,300	6,600	$11,481	36	-†	-†
Arena Back of House	**5b**	Energy Recovery Heat Pump Units	-27,700	10,200	$7,542	49	-†	-†
Arena	**6**	Concourse Lighting	49,000	0	$15,239	9	-†	-†
Ice Rink	**7**	Refrigeration Heat Recovery	-4,200	4,500	$5,822	23	$111,240	19.1
Ice Rink	**8**	Ice Sensor Recalibration	5,000	0	$1,555	1	$2,002	1.3
Ice Rink	**9**	Glycol Pumps Controls	59,900	0	$18,629	11	$20,858	1.1
Ice Rink	**10**	Automatic Condensing Pressure Reset	19,400	0	$6,033	4	$20,858	3.5
Ice Rink	**11**	Real Ice Resurfacing	0	2,000	$3,168	11	$41,715	13.2
Ice Rink	**12**	Dehumidification Units	0	8,000	$12,672	42	-†	-†
Loading Dock	**13**	Replace Loading Dock RTUs with Energy Recovery Units	12,100	24,200	$42,096	131	-†	-†
Convention Center	**14**	Replace AHUs 1&2 with ERUs	0	13,600	$21,542	72	-†	-†
Convention Center	**15**	AHUs 1&2 Variable Flow Control	36,900	0	$11,476	7	$4,005†	0.3
Convention Center	**16**	AHU-3 VAV Box Occupancy Based Control	4,100	500	$2,067	3	$10,012	4.8
Convention Center	**17**	AHU-3 Static Pressure Reset	4,100	0	$1,275	1	$3,003†	2.4
Convention Center	**18**	AHU-4 RCx	4,100	500	$2,067	3	$8,009†	3.9
Convention Center	**19**	Replace AHU-5 with ERU	0	14,200	$22,493	75	-†	-†
Convention Center	**20**	AHU-5 RCx	3,900	500	$2,005	3	$8,009†	4.0
Convention Center	**21**	Walk in Cooler/Freezer EC Motors & Fan Cycling	25,600	0	$7,962	5	$28,199	3.5
Convention Center	**22**	Kitchen Hood DCV	5,200	2,000	$4,785	12	$38,239	8.0
Water Side Systems	**23**	CHW DP Reset	11,900	0	$3,701	2	$3,003	0.8
Water Side Systems	**24**	Condensing Boilers	0	7,100	$11,246	38	-†	-†
Water Side Systems	**25a**	Condensing Water Heater	0	7,300	$11,563	39	-†	-†
Water Side Systems	**25b**	Heat Pump Water Heater	-437,800	65,400	**($32,562)**	265	-†	-†
Building	**26**	Unoccupied Building Demand	126,000	0	$39,186	24	$54,488	1.4
		Total (w/5a & 25a)	**421,000**	**99,600**	**$288,697**	**607**	**$405,589**	**3.4‡**
						Total Project Cost(3)	**$527,265**	

Fuel Switching Recommendations

Item #	Title	Location	Description		Total Project Cost (3)	Permit Cost (4)
DC-01	Kitchen Electrification	All Kitchen Space	Kitchen Electrification (conversion of all gas appliances to electric alternatives).		$1,560,000	$959,400
DC-02	Fuel Switching	Facility	Replace kitchen gas DHW water heaters with electric heat pump water heaters. Replace space heating gas boilers at the central heating plant with hydronic air cooled heat pumps. Provide additional supplemental electric service to meet new loads.		$61,434,867	$37,782,443
				Grand Total:	**$62,994,867**	**$38,741,843**

Renewable Generation Recommendations

Item #	Title	Location	Description		Total Project Cost (3)	Permit Cost (4)
DC-03	Convention Center Rooftops	Facility	Add 500 kW PV rooftop solar pv's to west roof & arena roof . See sustainability report for scope.		$4,846,328	$2,980,491
DC-04	VPPA	Facility	To be procured in 2026		See Note #4	See Note #4
				Grand Total:	**$4,846,328**	**$2,980,491**

Concert in the Arena | Photo Credit: MMC website

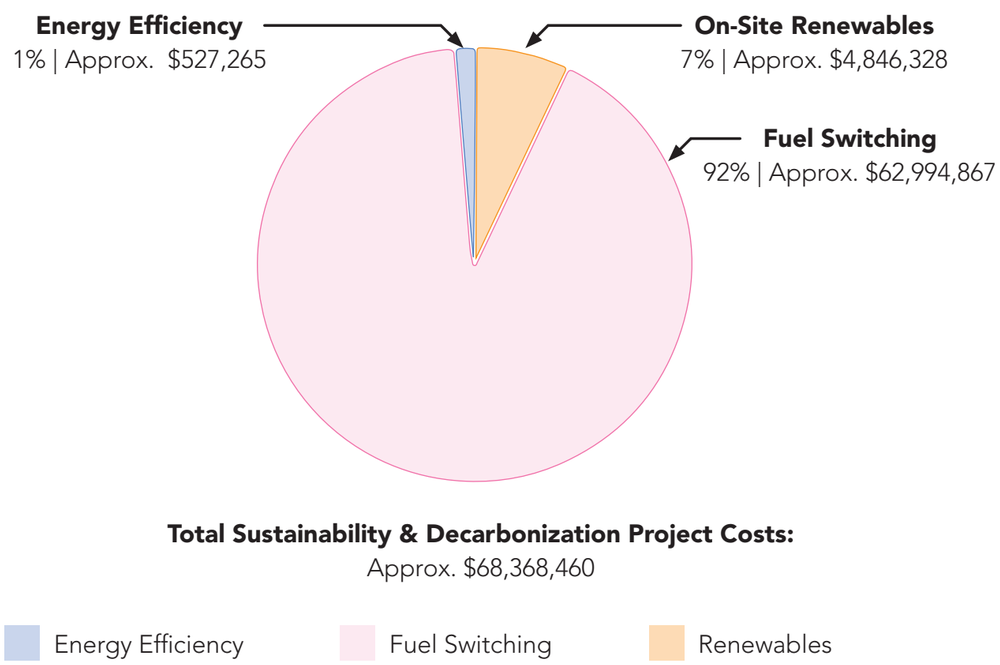
Lego Convention Event | Photo Credit: Instagram

Themed Concert Event | Photo Credit: Instagram

Sustainability & Decarbonization Capital Costs

Total Project Costs

- Approx. **$527,265** of Energy Efficiency Recommendations. From ASHRAE Level 1 Review. Escalated to FY 2026 (July 1, 2025).
- Approx. **$62,994,867** of Fuel Switching Recommendations. Escalated to FY 2026 (July 1, 2025).
- Approx. **$4,846,328** of Renewable Generation Recommendations. Escalated to FY 2026 (July 1, 2025).
- Off-site VPPA operation costs are not included.



Hockey in the Arena | Photo Credit: MMC Instagram

(1) SGH Report: Provided by the MCCA, a Capital Replacement Program outlining deferred maintencance projects scheduled through fiscal year 2029.

(2) MCCA FY2025 Capital Projects Budget: Provided by the MCCA, a running list of Capital Projects including facility improvements, technology upgrades, and equipment purchases for fiscal year 2025.

(3) Total Project Cost: Hard costs as determined by a cost estimator plus a 30% mark-up for soft costs.

(4) Permit Cost: inclusive to total costs, this is 61.5% of the Total Project Cost. This number should be used for determining MAAB upgrade requirements per the 30% threshold set fourth by the State of MA.

Note #1: Costs are to be identified from the 2020 SGH Report and/or the MCCA Capital Investment Report provided by the MCCA. Project costs have already been captured in the CCF as per CHMW coordination with MCCA and A&F.

Note #2: See the 2020 SGH Deferred Maintenance Project List for a full list of additional project costs. These costs have already been captured in the CCF as per CHMW coordination with the MCCA and A&F. List of Key Deferred Maintenance Projects is a snapshot of the SGH and Capital Projects reports provided by the MCCA. These are highlighted as the more important projects which should be undertaken.

Note #3: The 2020 SGH Costs have been escalated to July 1st 2025 (FY 2026).

Note #4: Operational budget adjustment.

Note #5: Fuel switching costs could partially overlap with certain deferred maintenance measures. This should be reviewed in a further study.

08

Climate Resilience

Understanding and addressing the climate risks facing the MassMutual Center (MMC) is essential for ensuring its long-term resilience and operational continuity. Our review of the MMC's exposure to climate risk and resilience allows us to evaluate current and future climate-related hazards and provide recommendations to enhance the long-term resilience of these facilities, integrating protective measures into the facility's design and operations.

A comprehensive analysis was conducted to evaluate the MMC's climate implications and how its operations intersect with broader environmental factors. The facility's contributions to climate change were examined, focusing on topics such as greenhouse gas emissions, urban heat island effects, and impacts on local biodiversity.

An in-depth hazards review was also performed, considering extreme temperatures, winter weather, hail, seismic, extreme wind, and various types of flooding. This review identified stormwater flooding and extreme temperatures (both heat and cold) as the most critical risks. The risk of stormwater flooding is high due to increasing precipitation levels projected for the region, which may intensify by up to 20% by the 2050s according to the City of Springfield's Local Natural Hazards Mitigation Plan (2022). Climate projections indicate that the number of days exceeding 90°F in Springfield is expected to double by the 2050s, placing additional strain on cooling systems during heatwaves and affecting occupant comfort.

Our findings underscore the necessity for immediate and long-term actions to mitigate these vulnerabilities, enhance the MMC's resilience to climate change, and align its operations with sustainability goals. By addressing these challenges proactively, the MMC can not only safeguard its operations but also serve as a model for sustainable facility management in the region.

Key Findings:

- Upgrade stormwater management systems by regularly inspecting and maintaining drainage systems to ensure effective operation during storm events. Enhance stormwater drainage and trench systems, including expanding trench and storage systems at the Dwight Truck Ramp and incorporating detention basins or bioswales in vegetated areas along the northeast side of the facility.
- Implement floodproofing measures by providing floodproofing or deployable flood protection for entrances along Dwight Street and State Street to protect the facility from high-risk stormwater flooding events.
- Modernize HVAC systems by investing in equipment capable of simultaneous heating and cooling operations to enhance occupant comfort and energy efficiency during unpredictable temperature swings.
- Enhance building envelope and insulation by improving insulation in the arena roof to minimize heat gain during summer and heat loss during winter.
- Consider adding green roofs to utility areas that can structurally support additional loads to provide insulation, reduce the urban heat island effect, and improve biodiversity.

Climate Implications

The MMC's operations have several climate implications, including contributions to greenhouse gas emissions, urban heat island effects, and impacts on local biodiversity. Addressing these implications is essential for reducing the facility's environmental footprint and enhancing its resilience to climate change.

Biodiversity

The MMC has extensive hardscape on-site, which limits the presence of vegetation and reduces habitat for local flora and fauna. This lack of green space contributes to ecological degradation and diminishes the area's biodiversity. By incorporating green roofs and planting native vegetation, the facility can support local ecosystems, improve air quality, and enhance the aesthetic appeal of the area.

Recommendations:

- Increase green roofs on utility areas that can structurally support additional load, providing habitats for local species and improving ecological health.

- Plant native vegetation around the facility to support local biodiversity and create green corridors.

Urban Heat Island Effect

The extensive hardscape and lack of vegetation contribute to higher ambient temperatures around the MMC. This not only increases energy demand for cooling but also impacts occupant comfort and can pose health risks during heatwaves. The MMC does have a reflective white roof which helps to reduce its contribution to the Urban Heat Island, but lack of shading and vegetation prevent it from being a high performance facility in this area.

Recommendations:

- Add green roofs to structurally capable mechanical roofs and add vegetation to reduce heat absorption, lower ambient temperatures, and improve energy efficiency.

- Improve roof insulation to reduce heat gain and lower the cooling load during hot periods

Greenhouse Gas Emissions

The MMC contributes to greenhouse gas emissions through energy consumption for heating, cooling, and lighting, as well as waste generation. Reducing these emissions is important for mitigating climate change impacts (see Sustainability chapter for detailed emissions and decarbonization discussion).

Review of Hazards

An assessment of climate risks specific to the MMC was conducted, considering past events, current hazard levels, and future projections influenced by climate change. The highest risks identified are associated with stormwater flooding and extreme heat. Groundwater flooding poses a low risk, while low risk flooding and extreme winter weather present moderate risks.

Given their high-risk levels, stormwater flooding and extreme temperatures are the priority hazards requiring immediate attention.

In addition to these, riverine flooding presents a low risk; while the facility is not immediately adjacent to major rivers, increased rainfall and potential overflow of nearby water bodies could lead to flooding in surrounding areas, potentially affecting access routes and peripheral infrastructure. Extreme winter weather also poses a moderate risk, with heavy snowfall and ice storms potentially impacting structural integrity, particularly concerning snow accumulation on the arena roof, which has required manual removal in the past to prevent damage. Groundwater flooding, though currently a low risk, could become more significant over time due to rising groundwater levels associated with increased precipitation and changes in land use, potentially affecting the facility's foundations and underground utilities. By acknowledging and monitoring these additional hazards, the MMC can develop comprehensive strategies to enhance its overall resilience to a range of climate-related risks.

Climate Risk	MMC
Riverine Flooding	Low
Coastal and Tidal Flooding	---
Stormwater Flooding	High
Groundwater Flooding	Low
Extreme Heat	High
Extreme Winter Weather	Moderate
Extreme Wind	Moderate
Seismic	Low
Hail	Low

Summary of Climate Risks at MMC
Source: Climate Resilience Design Standards Tool (Resilient MA Action Team), FEMA National Risk Index

Priority Hazards

Stormwater Flooding

The MMC faces a high risk of stormwater flooding due to increasing precipitation, projected to intensify by up to 20% by the 2050s according to the City of Springfield Local Natural Hazards Mitigation Plan (2022). The facility's aging stormwater infrastructure is often overwhelmed during intense rainfall events, leading to localized flooding, particularly along Dwight Street and State Street entrances. The lowest elevation on-site is approximately 36.9 feet at entry grade on Bruce Landon Way, making these areas particularly susceptible to flooding.

Challenges

- The facility has experienced flooding damage in the past, and deferred maintenance reports indicate the need for waterproofing and drainage improvements. The existing drainage systems are insufficient to handle the projected increases in stormwater volume, posing risks to facility operations and structural integrity.

Recommendations

- Regularly inspect and maintain existing site drains and catch basins to ensure they are clear of debris and functioning properly, reducing the risk of blockage during storm events.
- Provide floodproofing or deployable flood protection for entrances along Dwight Street and State Street, using options like rhino walls, tiger dams, or deployable flood barriers to prevent water ingress during heavy rainfall.
- Upgrade stormwater drainage and trench systems, such as increasing piping sizes or pump capacity. Expand trench and storage systems at the Dwight Truck Ramp and consider installing detention basins or bioswales in vegetated areas to manage excess stormwater.
- Implement green infrastructure solutions, including permeable pavements and rain gardens, to enhance stormwater infiltration and reduce surface runoff.

Extreme Temperatures

Climate projections indicate that Springfield will experience an increase in both average temperatures and the frequency of extreme heat events. By the 2050s, the number of days exceeding 90°F is expected to double (First Street Foundation). The existing HVAC system is limited, as it cannot operate simultaneously in heating and cooling modes and struggles to meet current cooling demands during heatwaves. Additionally, the facility has faced structural concerns due to significant snow accumulation on the arena roof during extreme winter weather, necessitating manual removal to prevent damage.

Challenges

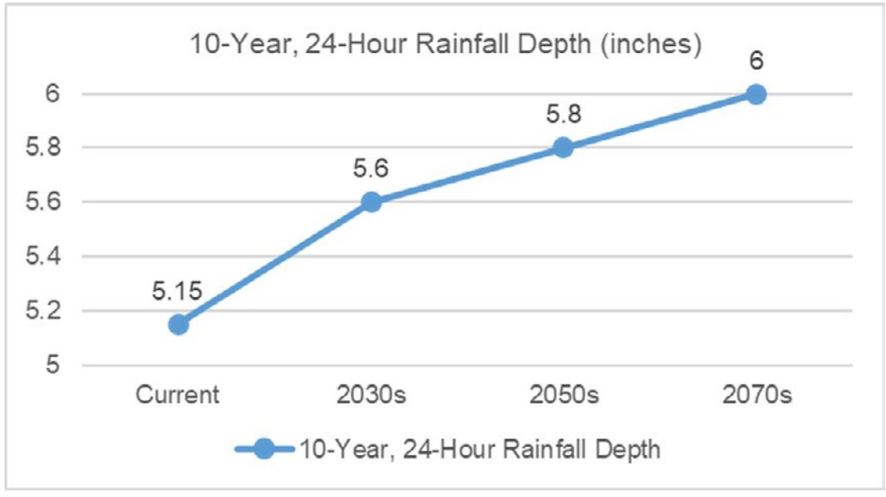
- The inability of the HVAC system to switch quickly between heating and cooling modes poses significant challenges during shoulder seasons with erratic temperature swings, affecting occupant comfort and increasing energy consumption. The manual removal of snow from the roof presents safety risks and operational challenges.
-

Recommendations

- Invest in a modern HVAC system capable of simultaneous heating and cooling operations. This will allow different zones within the building to be heated or cooled as needed, enhancing occupant comfort and energy efficiency during unpredictable temperature swings.
- Upgrade heating systems to ensure they can meet future demands, including extended periods of extreme cold, while operating efficiently.
- Improve insulation in the arena roof to minimize heat gain during summer and heat loss during winter, reducing reliance on mechanical heating and cooling systems.
- Add green roofs to utility areas that can structurally support additional load. Green roofs provide insulation, reduce the urban heat island effect, and manage stormwater runoff.
- Implement a proactive monitoring system for snow accumulation on the roof, using technology such as snow sensors or structural health monitoring systems to provide real-time data and early warnings, reducing the need for manual snow removal.

Return Period (Year)	Current (in) Springfield	Codes and Design Standards	248 CMR 10.00 - Uniform State Plumbing Code (in/hr)
10-	5.07in	4.5in Current stormwater drainage design standard.	4in/hr – Code-required design for horizontal and vertical storm drains.
50-	6.27in	-	
100-	8.12in	-	

Current 24-Hour Storm Precipitation Depth and Stormwater Related Design Criteria.
1. Current (baseline) estimates (the column) are middle-confidence values by NOAA ATLAS 14, Springfield, MA.
2. Springfield uses Cornell Atlas for design of stormwater collection and management systems.



Boston Extreme Precipitation Event Projections Considering the Middle Range Scenario
Source: City of Boston Climate Vulnerability Assessment, 2016

Conclusion

The climate risk and resilience assessment for the MassMutual Center has identified significant risks, particularly from stormwater flooding and extreme temperatures. By implementing the recommended strategies, the facility can enhance its resilience, ensuring operational continuity, occupant safety, and alignment with sustainability goals. Addressing these risks proactively will also position the MMC as a leader in sustainable facility management within the region.

Next Steps

- Prioritize actions by focusing on high-risk areas, especially upgrading the stormwater management systems and modernizing the HVAC system to handle extreme temperatures effectively.
- Integrate resilience strategies into planning by incorporating them into capital improvement plans and maintenance schedules, ensuring that upgrades are systematically planned and budgeted.
- Monitor and update risk assessments and strategies based on the latest climate projections and technological advancements to remain adaptive to changing conditions.
-
- Engage stakeholders by collaborating with local authorities, stakeholders, and the community to support broader climate resilience efforts and share best practices.

By proactively addressing these climate risks, the MassMutual Center can safeguard its operations and infrastructure, contribute to a sustainable and resilient future, and set an example for similar facilities in the region.

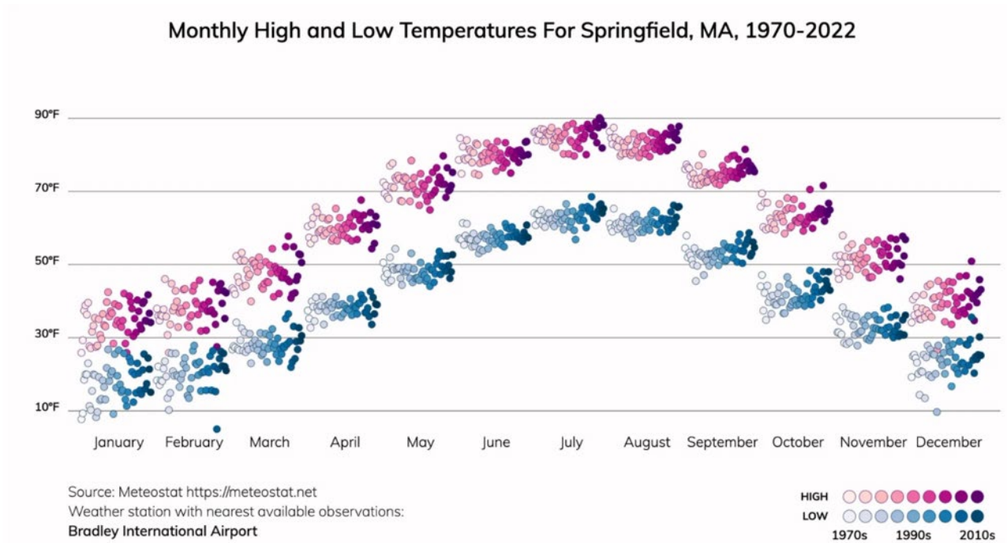


Figure X. Monthly high and low temperatures in Springfield from 1970-2022. Source: ClimateCheck

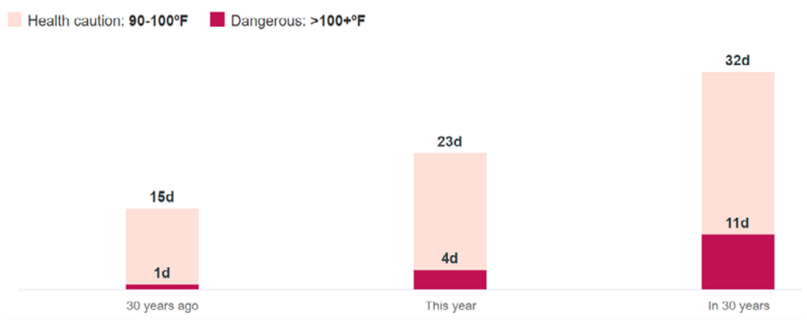


Figure x: number of hot days per year. Source: First Street database

MMC | Photo Credit: Wikimedia Commons

09

Emergency Response

The MMC is a key facility in Springfield's economic ecosystem. This review identifies key opportunities to enhance the MMC's emergency response and highlights gaps that need to be addressed to ensure it can effectively support the community during critical times.

The MMC has demonstrated flexibility in supporting emergency response, notably when it provided emergency shelter for Springfield residents affected by the 2011 tornado. As a versatile convention center with extensive infrastructure and a central location, the MMC is well-suited for several emergency response roles such as:

1. Emergency Shelter

The MMC's spacious arena and exhibition halls can accommodate large numbers of evacuees during disasters. Its on-site amenities, including restrooms and shower facilities, support extended stays, making it ideal for temporary housing during emergencies.

2. Heating or Cooling Center

With its existing HVAC systems and large indoor spaces, the MMC can serve as a climate-controlled refuge during extreme weather conditions like heatwaves or cold spells, providing comfort and safety for vulnerable populations.

3. Emergency Distribution Hub

The MMC's extensive loading docks and central location make it ideal for storing and distributing emergency supplies, medical equipment, and other resources on a city or regional level. Its location is accessible for the public.

Key Findings:

- Existing HVAC systems have limited capacity to handle extreme temperature events. Upgrading these systems to increase capacity and allow rapid transitions between heating and cooling modes will enable the MMC to function effectively as a heating or cooling center during extreme weather conditions.
- The facility currently has limited backup power capabilities. Expanding backup generator capacity and fuel storage is critical to ensuring the MMC can maintain essential operations during power outages, including lighting, HVAC systems, and communication networks.
- Staff members are not currently trained for atypical emergency roles such as managing shelters or distribution centers. Providing specialized training will ensure that personnel are equipped to effectively support emergency operations.

MMC Emergency Response Context

While the Massachusetts Convention Center Authority (MCCA) operates the MassMutual Center (MMC) and possesses significant infrastructure, it does not have a formal emergency response mandate. The designation of specific emergency response roles and responsibilities for the MMC would be determined by state agencies responsible for emergency management and planning, such as the Massachusetts Emergency Management Agency (MEMA). Moreover, in the Commonwealth, oversight of shelter operations would be governed by the city, State, or Federal government, and managing these activities would not be the responsibility of the MCCA. Emergency services would be provided by operational organizations like the American Red Cross or National Guard. This assessment focuses on the material and operational capacities of the MMC, recognizing that any expansion into emergency roles would require coordination with external authorities, and the need for external parties to establish the any formal emergency response designation and work closely with the MCCA to ensure organization alignment and preparedness. This study did not review current MCCA's operational emergency procedures. The MCCA is particularly well-equipped for logistical support and command center functions but faces challenges in roles that involve providing direct care and services to crisis-affected populations due to contractual and operational constraints.

Identified Gaps in Emergency Response Capacity

While the MMC has significant potential to serve in various emergency response roles, several critical gaps limit its ability to fully realize this potential:

Emergency Response Gaps

- The facility has limited backup power systems. During grid outages, essential operations like lighting, HVAC, and communications would be disrupted, hindering the MMC's ability to serve as a shelter or hub during emergencies.
- The MMC's primary operational focus on hosting events requires careful alignment with emergency response roles. The current staff are not trained for emergency roles beyond their typical responsibilities. Alternative staffing plans, external personnel, and specialized training would be required for designated emergency response roles. MCCA staff would support external agencies in response efforts, and not lead or provide front line roles in a emergency response scenario.
- The existing heating and cooling systems may not have the capacity to handle extreme temperature events or to quickly transition between heating and cooling modes, limiting the facility's effectiveness as a climate-controlled refuge.
- The MMC is at high risk of stormwater flooding due to frequent heavy rain events overwhelming the city's drainage infrastructure. Without significant flood-proofing measures, its operational capacity during flood events could be severely impacted.
- Based on current business practices, there are some circumstances which the MMC could not to be used as a shelter given contracts with clients or labor contracts.

Recommendations for Enhancing Emergency Preparedness

To fully align the MMC's emergency response capabilities with the facility's potential roles, the following key actions have been outlined.

Recommended Actions

- Conduct a critical load study to identify essential systems that require backup power (HVAC, lighting, communication systems), and plan for the installation of additional generators and fuel storage. This will allow the facility to function effectively during extended power outages, ensuring continuity of essential services.
- In the event that the facility is designated for a emergency response role, it may be necessary to provide specialized training for staff in preparation for emergency scenarios. Cross-training among staff will ensure operational flexibility during emergencies.
- Increase the capacity of heating and cooling systems to handle extreme weather conditions, and modify them to allow rapid transitions between heating and cooling modes. This will enable the MMC to serve effectively as a heating or cooling center during extreme temperature events.
- Install flood-proofing measures such as barriers, improved drainage systems, and sealing of potential water ingress points to protect against stormwater flooding. Regular maintenance of these systems is essential to ensure their effectiveness.

Limitations for Certain Emergency Roles

While the MMC can play an important role in many emergency response scenarios, it is less suited for use as a storm refuge during severe weather events like hurricanes or significant flooding. Its vulnerability to stormwater flooding and limitations in backup power make it less ideal for such roles without significant infrastructure upgrades. Additionally, the facility's urban location may pose challenges for accessibility during widespread emergencies.

Conclusion

The MMC holds significant potential to serve as a critical asset in the Commonwealth’s emergency response efforts, especially in areas such as emergency sheltering, climate-controlled refuge, and resource distribution. However, to fully realize this potential, the facility must address key infrastructure limitations—particularly in energy resilience and HVAC capacity. By implementing these findings, the MCCA can ensure that the MMC remains a resilient and adaptable resource for Springfield and the Commonwealth during future emergencies.

10

Transportation

The MMC transportation infrastructure requires development to enhance accessibility, efficiency, and convenience. Key recommendations include ADA-compliant pedestrian ramps, upgraded bike infrastructure, better signage, transit improvements, safety measures, and collaboration with Springfield and PVPC for high-crash area safety enhancements.

The transportation infrastructure near and on-site of the MMC has several areas for future development aimed at enhancing accessibility, efficiency, and convenience for all users. Key recommendations for pedestrian infrastructure include collaborating with the City of Springfield to ensure that nearby ramps and crosswalks are in ADA compliance, including the addition of detectable warning panels where necessary.

Regarding bike infrastructure, the MCCA can work with the City of Springfield to explore upgraded bike infrastructure surrounding the site. Promoting cycling as a viable commuting and access option through increased awareness about available bike parking and integrating it with main entrances, as well as enhancing signage and developing better access routes for cyclists, will improve safety and usability.

Collaboration with the PVTA to improve transit service and amenities will encourage employees and event attendees to reduce driving. And finally, a more coordinated effort with the city and PVPC on additional safety measures, such as sight line improvements, enhanced signage, elimination of conflict zones, etc. – should be evaluated and implementation should be coordinated.

Key Findings:

- Consider working with the City of Springfield to monitor loading in tow zones or formalize a 30-min loading zone near entrances.
- Consider working with the PVTA and City of Springfield to upgrade bus stop infrastructure near the MMC to include shelters and benches.
- Formalize pick-up/drop-off operations and replacing the zone previously provided on Bruce Landon Way.
- Limited improvements to Dwight Street sidewalk could benefit the public realm.
- Consider installing a ValleyBike station closer to the Site, to allow an alternate commute mode for its employees and visitors in the future.
- Increasing awareness and visibility of bike parking areas, improving signage and access routes, and promoting cycling as a feasible commuting option.
- Consider installing additional short-term bike racks closer to main entrances.
- Collaborate with the City of Springfield and PVPC to enhance safety near MMC, especially for vulnerable roadway users, by evaluating and implementing additional safety measures in high-crash areas.

Downtown Springfield | Photo Credit: Adobe Stock

1. Pedestrian Infrastructure

Summary

- The sidewalks near the MMC are in relatively good condition and are able to accommodate pedestrian volumes.
- Crosswalks and ramps are provided at intersections abutting the site and are generally in good condition. Further study is needed to assess whether existing ramps are ADA-compliant

Findings & Recommendations

- Limited improvements to Dwight Street sidewalk could benefit the public realm.
- MCCA to evaluate feasibility of replacing existing jersey barrier along State Street with bollards for increased safety and crowd control during events.

2. Bike Infrastructure

Summary

- The area around the MMC includes a mix of on-street bike lanes and sharrow markings on roadways.
- ValleyBike stations are located within 0.25-mi of the MMC providing 16 bike docks
- The MCC will offer secure, weather-protected bike parking with long-term spaces in a cage in the new MMC Car park and outdoor spaces for short-term use will be scattered throughout the new plaza

Findings & Recommendations

- The MCCA could explore ways to install a ValleyBike station closer to the Site, to allow an alternate commute mode for its employees and visitors in the future
- MCCA to increasing awareness and visibility of bike parking areas, improving signage and access routes, and promoting cycling as a feasible commuting option.
- The MCCA should consider installing additional short-term bike racks closer to main entrances.

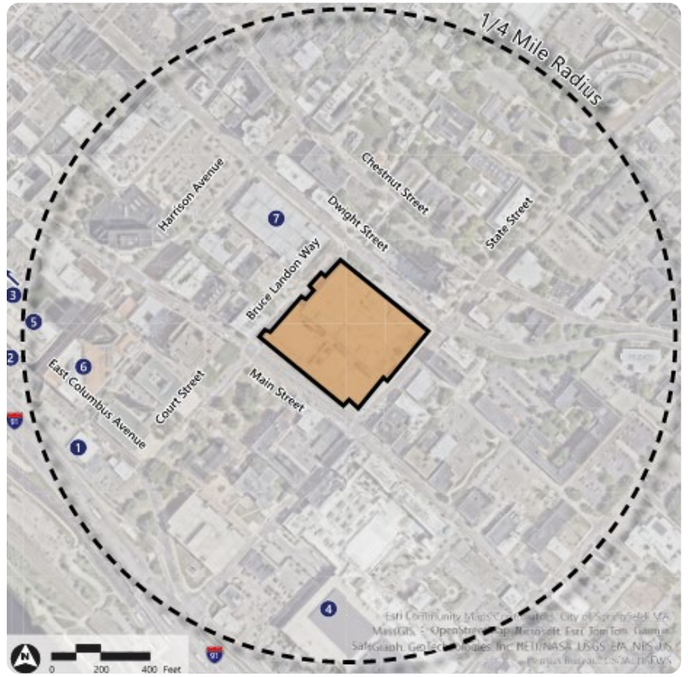
3. Passenger Vehicle Access and Parking

Summary

- The MMC does not have a detailed plan for pick-up/drop-off operations or any dedicated pick-up/drop-off area. Sports team shuttles are the only vehicles that are able to utilize an unofficial drop off zone within the sidewalk on Dwight Street.
- The MMC relies on off-site parking garages, mainly the nearby MGM garage, for guest and employee parking.
- The MMC Carpark and Plaza is currently under construction and is anticipated to provide 818 new vehicle parking spaces, some of which are dedicated to hybrid vehicles and EV charging stations. The Carpark is assumed to open in summer of 2025.

Findings & Recommendations

- The MCCA should consider formalizing pick-up/drop-off operations and replacing the zone previously provided on Bruce Landon Way.



	Name
1	I-91 South Garage
2	I-91 North Garage
3	Columbus Center Garage
4	MGM Springfield Garage
5	Tower Square Garage
6	Sheraton Hotel Garage
7	MMC Carpark Garage (Under Construction)

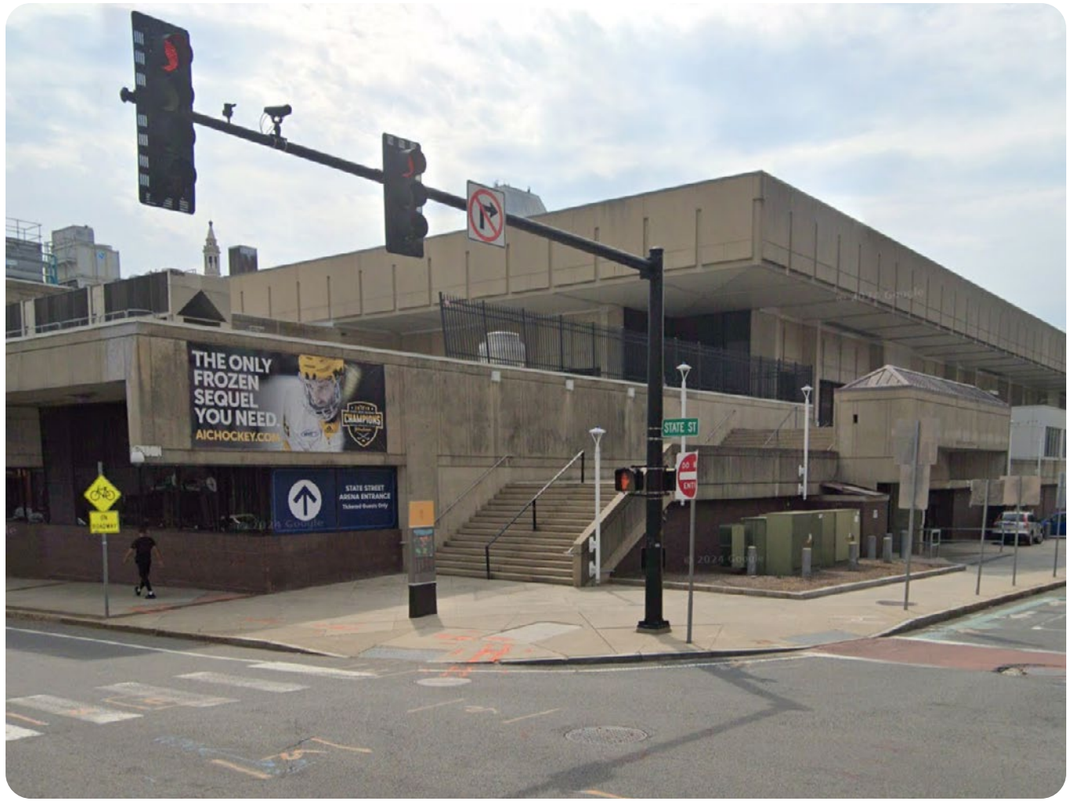
4. Transit Service

Summary

- The MMC is well-served by multiple PVTA public transit bus routes.

Findings & Recommendations

- The MCCA should consider working with the PVTA and City of Springfield to upgrade bus stop infrastructure near the MMC to include shelters and benches.



MMC | Photo Credit: Google Earth

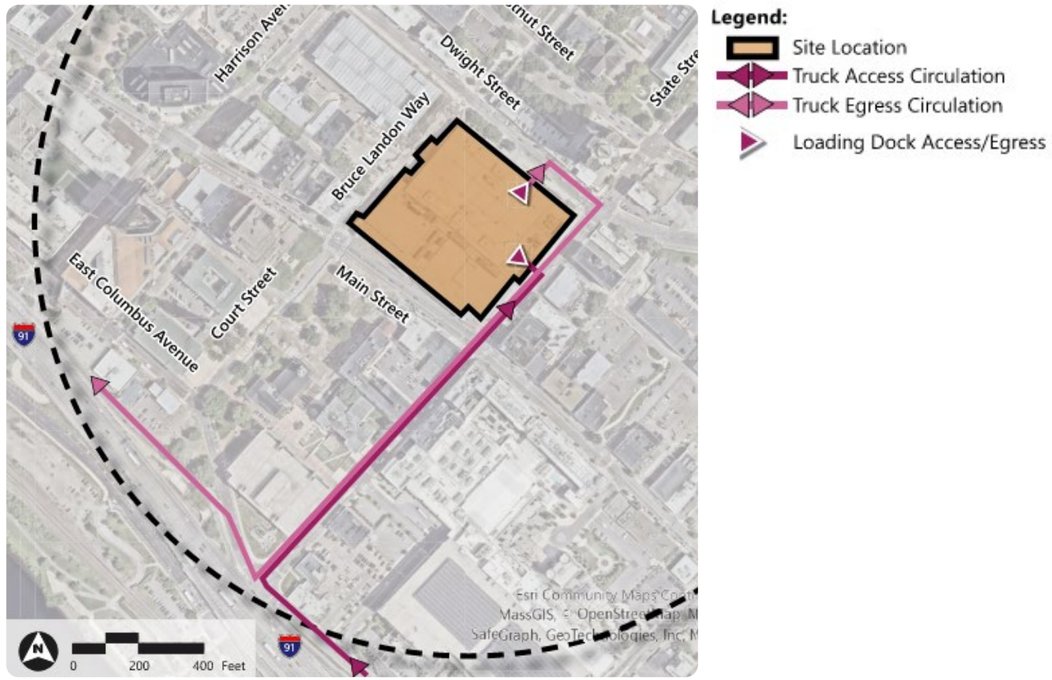
5. Trucks / Service & Loading

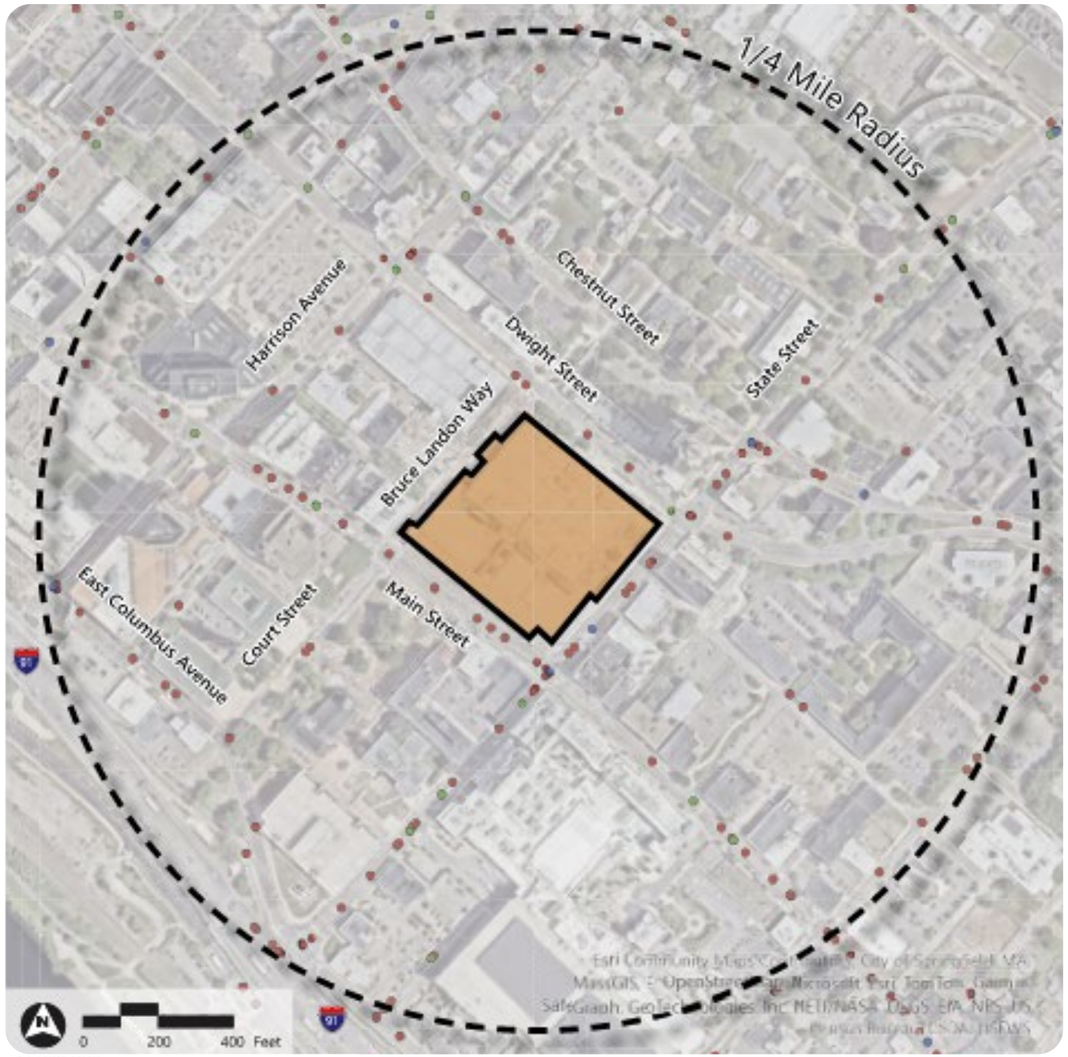
Summary

- The MMC's off-street loading facility efficiently manages event logistics with 4 loading docks, actively supervised by a dock manager.
- Loading docks are accessed from State Street, which provides a quick connection to Interstate 91, helping to minimize conflicts between trucks, pedestrians, and cyclists.
- Various service trucks were observed on Main Street servicing the MMC.
- The MMC uses an off-site marshaling facility in West Springfield during large events, and only if the site is available. Short term bus and truck parking is also available through a broader relationship with Eastern States Exposition.

Findings & Recommendations

- The MCCA should work with the City of Springfield to monitor loading in tow zones or formalize a 30-min loading zone near entrances.





Roadway Safety and Crash Analysis

Summary

- Within the study area, there were 357 crashes reported over a 3-year period. 27 of the crashes involved vulnerable roadway users (cyclists and pedestrians).

Findings & Recommendations

- A notable number of crashes involving vulnerable roadway users occurred on State Street near the Site. According to the MassDOT there are several Highway Safety Improvement Program ("HSIP") clusters within the study area, including intersection of Main St and State St, Main St from State St to Winthrop St, intersection of State Street and Dwight St, intersections of Main St and State St and Main St at Falcon Way. The Pioneer Valley planning Commission (PVPC) conducted 30 roadway safety audits between 2015-2019, 15 of which were conducted in Springfield as part of the Regional Transportation Plan (2019). The plan included safety enhancements, multimodal roadway network and environmental justice considerations. Various other safety assessments are being conducted by the City of Springfield and supporting consultants to improve safety in the area. The MCCA should consider working with the City of Springfield and PVPC on various initiatives to enhance safety near the MMC, especially for vulnerable roadway users. Any requests from the City for additional safety measures, such as sight line improvements, enhanced signage, elimination of conflict zones, etc. – should be evaluated and implementation should be coordinated.

MMC | Photo Credit: Google Earth

Transportation Demand Management (TDM)

Transportation Demand Management (TDM) strategies aim to reduce vehicle miles traveled, increase travel choices, improve sustainability, and support economic development by enhancing transportation system efficiency.

MMC Transportation Programs

- MMC employee and visitor auto mode share ranges between 90% to 100%, depending on event type (local/regional draw vs. national/international draw).
- MMC does not currently provide any direct TDM programs to its employees or staff.
- Additional TDM strategies are available to MCCA to help reduce reliance by MMC visitors and employees on single occupancy vehicles.
- Massachusetts has committed to achieving net-zero greenhouse gas (GHG) emissions by 2050. Aligned with these policies in decarbonizing the statewide transportation sector, the MCCA is required to incorporate or may choose to voluntarily commit to Executive Order 594, Fleet conversion, EV charging, Base energy code – as well as city of Boston policies and regulations on EV readiness and NetZero code. Additionally, third party guidance such as USGBC/LEED and GBCI parksmart may also be appropriate to pursue.

Bus Stop | Photo Credit: VHB

Best Practices in TDM

TDM as a practice supports actions to reduce single occupancy vehicle trips, with the goal of encouraging carpooling/vanpooling, commuting by bicycle and walking, as well as increased use of area's public transportation system and other sustainable modes by employees and visitors.

Best practices in TDM employed locally with Boston area agencies, institutions and private developers, and available to MCCA for consideration, are summarized into the following groupings:

TDM Resources/Support Services

- Designation of an on-site Employee Transportation Coordinators (ETC
- Joining a Transportation Management Associations (TMA)
- Marketing and Promotion Materials

Public Transportation Strategies

- Setting aside pre-tax funds for purchase of transit passes
- Subsidizing monthly transit passes

Parking Strategies

- Charing market rates for parking
- Limiting parking supply at destination
- Providing preferential parking spaces for carpools/vanpools
- Access to Ridematching programs

Bicycle and Pedestrian Amenities and Incentives

- Long-term and short term bike parking on site
- On-site showers, lockers and changing rooms
- Bicycle repair station
- Bikeshare station (such as Valleybike)
- Subsidized bikeshare membership
- Emergency ride home
- E-bicycle / e-cargo bike program
- Multimodal transportation subsidy
- Subsidized carshare

Flexible Work Schedules and Telecommuting

11

Capital Planning

Capital planning for the MMC focuses primarily around programmatic and facility upgrades. The MMC went through a previous master planning effort culminating in a document which highlights five key areas in which the facility can improve as identified below. This report summarizes the initial Masterplan with some added community driven projects.

Main Street Improvements
Main Street adjacent to the Mass Mutual Center is becoming a location for local vendors to set up shops, sell goods, and provide services to the community. Opening up the MMC space for local use will help reinforce Main Street as a destination and provide connections to the park opposite the MMC.

State Street Improvements
In an effort to create a better connection to MGM, a new lobby and entrance on State Street has been designed, enabling quicker and more convenient access from the MGM casino.

The MMC Masterplan
The MMC Masterplan, provided as an appendix to this report, calls for improvements to be made across five key areas: updated digital signage, modernized food and beverage, increased premium seating, additional and right-sized meeting space, and general infrastructure upgrades. Completing these projects will enable the MMC to improve user experience, increase ROI, and ultimately maintain its competitiveness with local and regional like-facilities.

Key Findings:

- Open up the Exhibit Hall prefunction space to Main Street by installing large bi-folding doors and allow local vendors to utilize the space to sell goods.
- Complete the Stair-7 Lobby Renovations along State Street.
- Follow-through with the MMC Masterplan projects as outlined in the MMC Masterplan report provided as an appendix.

MMC | Photo Credit: Google Earth

List of Projects and Cost Estimates

Item #	Title	Location	Description	Investment (1)	Experience (2)	Complexity (3)	Impact (4)	Priority (5)	Total Project Cost (6)	Permit Cost (7)
Signage									**$28,581,942**	**$17,577,894**
P13	**Concourse Finishes**	Arena	Complete overhaul and modernization of the current arena concourse.	$$$	♡♡♡	^^	High	1	$4,264,251	$2,622,514
P14	**Concourse Signage**	Arena	Update arena signage to a digital and more modern look – including section signage, directional signage, and portal advertisements, etc.	$$$	♡♡♡	^^^	High	1	$6,154,023	$3,784,724
P16	**Video Board Nest**	Arena	Add a "nest" for the current and/or future video board to avoid needing to continuously dis-assemble the video board.	$$$	♡♡♡	^^^	High	1	$2,526,468	$1,553,777
P17	**Arena Video Board**	Arena	Replace arena video board with higher resolution video board and state of the art processing.	$$$	♡♡♡	^^	High	2	$6,500,000	$3,997,500
P20	**Arena Ribbon Board**	Arena	Add digital signage to all arena portals and banner locations in upper arena.	$$$	♡♡♡	^^	High	2	$8,931,766	$5,493,036
P53	**Additional Signage**	Arena	Add additional signage and wayfinding throughout the convention center. See AV Report.	$$$	♡♡♡	^^	High	2	$205,434	$126,341
Food and Beverage									**$14,462,206**	**$8,894,256**
P03	**Breakaway Lounge**	Arena	Make upgrades to the Breakaway Lounge furnishings and aesthetics of the bar to include the removal of the doors to the concourse and create an open space entry to make the lounge more inviting.	$	♡♡♡	^^	High	1	$1,100,806	$676,995
P08	**New Trash Room**	Arena	Convert the old bathroom on the State Street side of the concourse behind the tap wall into a trash staging area.	$	♡	^	Medium	1	$389,918	$239,799
P09	**Concession Stands**	Arena	Upgrade eight concession stands with standard equipment replacement and complete re-brand. Upgrade 2 concession stands with vent-less flat cooktop capability complete and re-brand.	$$$	♡♡♡	^^^	High	1	$2,782,129	$1,711,009
P15	**Integrated Fan Bar**	Arena	Add an integrated fan bar on the concourse near the current main entrance.	$$	♡♡♡	^^	High	2	$4,419,539	$2,718,016
P28	**Main Entrance Portal**	Arena	Open up a new entrance "portal" to create a visual connection between the fan bar and arena. The new portal can provide space for additional table seating supported by the P15 Integrated Fan Bar.	$$$	♡♡♡	^^^	High	2		
P29	**Stair 7 Portal**	Arena	Open up a new portal at the stair 7 entry to create a visual connection from the entry and concourse to the arena. The space can be used for flexible table seating or other program.	$	♡♡♡	^^	High	2	$673,322	$414,093
P42	**Center Grille Club**	Arena	Upgrade the Center Grille kitchen and restaurant aesthetics to allow for additional cooking capacity for food service to the Breakaway Lounge. New entries to have glass garage doors installed to replace existing windows.	$	♡♡♡	^^	High	1	$823,046	$506,173
P43	**Breakaway Kitchen**	Arena	Extend the Breakaway Lounge to accommodate a kitchen space, a bar, and a dining space.	$$$	♡♡♡	^^^	High	2	$4,273,446	$2,628,169
Premium Seating									**$9,109,001**	**$5,602,035**
P01	**Loge Seating**	Arena	Add new loge boxes or traditional premium seating to the inner concourse.	$	♡♡♡	^	High	1	$348,557	$214,362
P31	**Press Box Corridor**	Arena	Improve the lighting and finishes of the corridor running behind the press box as this is used as a main access route for the existing premium seating and should reflect a higher level of finish.	$	♡♡	^	Medium	1	$592,803	$364,573
P33	**Premium Overlook**	Arena	Infill the gap above the main entry roof and below the arena overhang to create new interior space used for premium arena seating.	$$$	♡♡♡	^^^	High	2	$6,735,270	$4,142,191
P34	**Vomitory Infill**	Arena	Infill existing main entry Vormitory with new seating, standard or premium.	$$	♡♡♡	^^	Medium	2	$1,432,371	$880,908

Project Priority & Total Cost

In order to help prioritize the list of capital projects, the Team created a series of categories which culminate in a priotization level of 1-3 where (1) is the highest priority and (3) is of a lower priority.

Priority is determined by cross referencing four categories:

(1) Investment: how much the project will cost.
(2) Experience: level of improvement for user experience.
(3) Complexity: how disruptive the project would be to ongoing operations.
(4) Impact: how effective the project will be, derived by cross refencing ROI and User Experience.

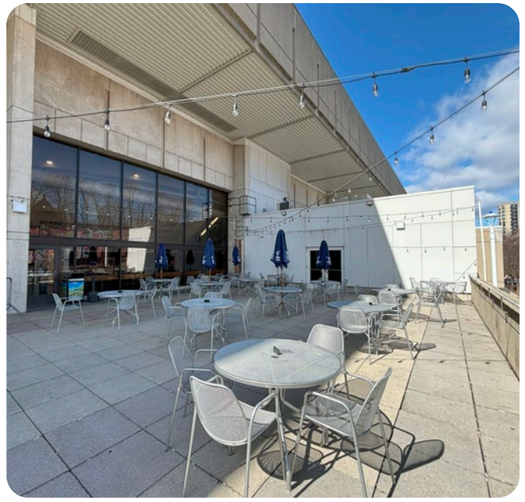
(5) Priority: by cross referencing the above categories across the listed projects, a prioritization level is determined with the intent of framing future planning studies, schedules, and budgets.

(6) Total Project Cost: Hard costs as determined by a cost estimator plus a 30% mark-up for soft costs.

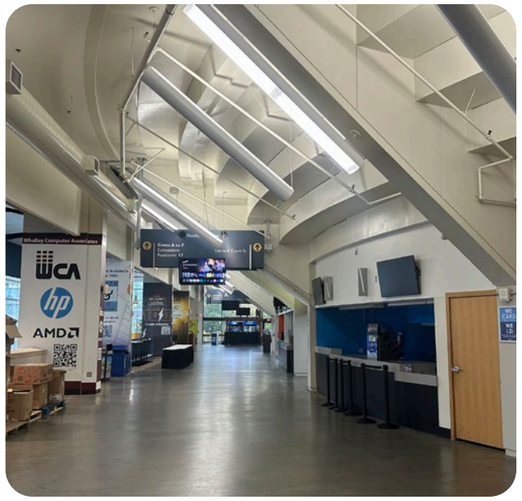
(7) Permit Cost: inclusive to total costs, this is 61.5% of the Total Project Cost. This number should be used for determining MAAB upgrade requirements per the 30% threshold per the state of MA.

Existing Photos

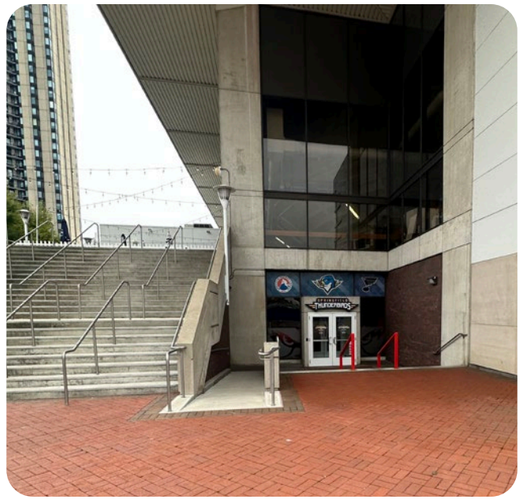
Main St Entrance | Photo Credit: Touloukian Touloukian



Outdoor Patio | Photo Credit: Touloukian Touloukian



Concourse | Photo Credit: Touloukian Touloukian



Dwight St Entrance | Photo Credit: Touloukian Touloukian

State St | Photo Credit: Touloukian Touloukian

Meeting Room | Photo Credit: Touloukian Touloukian

List of Projects and Cost Estimates

Note #1: These projects are highlighted from a Capital Projects report provided by the MCCA and are already captured in the CCF as per CHMW coordination with MCCA and A&F. Some projects are already approved and underway and any future capital planning should be coordinated as necessary.

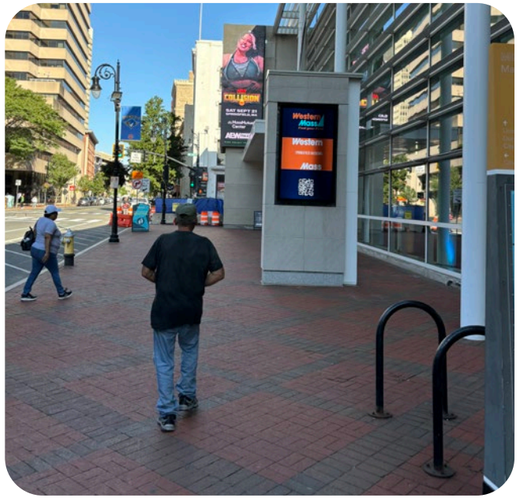
Item #	Title	Location	Description	Investment (1)	Experience (2)	Complexity (3)	Impact (4)	Priority (5)	Total Project Cost (6)	Permit Cost (7)
Meeting Rooms									**$11,720,233**	**$7,207,943**
P11	**Additional Air Walls**	Convention	Replace and add new air walls that will allow for the segmenting of ex halls, ballrooms, and meeting rooms into smaller spaces for clients. Updated to air walls in meeting rooms on ground floor level.	$$	♡♡	^^^	High	1	$1,555,063	$956,363
P12	**New Meeting Space**	Convention	Add sellable space by adding in a second level of 6000sqft over the Ex Hall pre-function areas.	$$$	♡♡	^^^	High	1	$7,372,402	$4,534,027
P40	**Ballroom Egress**	Convention	A new egress stair will be required for P12 - Additional Ballroom Level. In addition, modify the existing egress stair so patrons can exit the stair without needing to leave the building on the ground floor.	$	♡	^^	Medium	1	$562,251	$345,784
P41	**Ballroom Finishes**	Convention	Updated paint, carpet, and other finishes throughout the convention center side of the building.	$$	♡♡	^	Medium	1	$2,230,517	$1,371,767
General Infrastructure									**$34,216,937**	**$21,043,416**
P02	**Green Room**	Arena	Addition of an "A" level green room to help attract bigger stars to the facility current amenities. Green room to include private powder room, mini-bar, cabinetry, fridge, and closet space.	$	♡	^	High	1	$458,657	$282,074
P18	**Arena Lighting**	Arena	Upgrade arena lighting to allow for color changes to ice surface through the use of RGB lighting.	$$$	♡♡♡	^^^	High	2	$4,793,328	$2,947,896
P21	**Audio System**	Facility	Update the audio system in the convention center.	$$$	♡♡	^	High	1	$4,072,303	$2,504,466
P23	**Lav Repurpose**	Arena	Repurpose the old ADA restrooms into a storage and janitor closet for arena housekeeping.	$	♡	^	Medium	1	$117,202	$72,079
P38	**Trash Niches**	Arena	Locate trash storage options at existing niches around the perimeter of the concourse.	$	♡	^	Medium	1	$81,835	$50,328
P44	**Overlook Expansion**	Arena	Addition of a kitchen space to accommodate the food service requirements of the premium seating overlook.	$$	♡♡	^^^	Medium	2	$1,217,856	$748,981
P45	**Elevator Extension**	Arena	Addition of a service elevator to help with the food sypply to the premium overlook.	$$	♡♡	^^^	Medium	2	$2,368,357	$1,456,539
P46	**Arena Bathrooms**	Arena	Build new arena bathrooms for the additional occupant load.	$$	♡	^	Medium	2	$517,689	$318,378
P47	**Main Street Doors**	Convention	Add large overhead doors to the ground level pre-function space on Main Street. See engineering narrative for structural scope.	$$	♡♡♡	^	High	1	$1,880,202	$1,156,324
P52	**Landscape Improvements**	Facility	Provide landscape improvments along Main Street adjacent to the prefunction space. See landscape report for scope.	$$	♡♡♡	^^	Medium	1	$209,508	$128,847
P54	**Stair 7 Lobby**	Facility	Create a new lobby and entrance on State Street to provide more convenient access from the MGM Casino.	$$$	♡♡♡	^^^	High	1	$18,500,000	$11,377,500
P55	**Concession Stand Upgrades**	Arena	Upgrade three concession stands with standard equipment replacement and complete re-brand.	$	♡♡	^^	Medium	2	See Note #1	See Note #1
P56	**Locker Room Upgrades**	Arena	Upgrade and renovate the dressing rooms and visitor locker rooms.	$	♡	^	Low	3	See Note #1	See Note #1
							Grand Total:		**$98,090,319**	**$60,325,546**

Existing Photos

Security | Photo Credit: Touloukian Touloukian

Bruce Landon Way | Photo Credit: Touloukian Touloukian

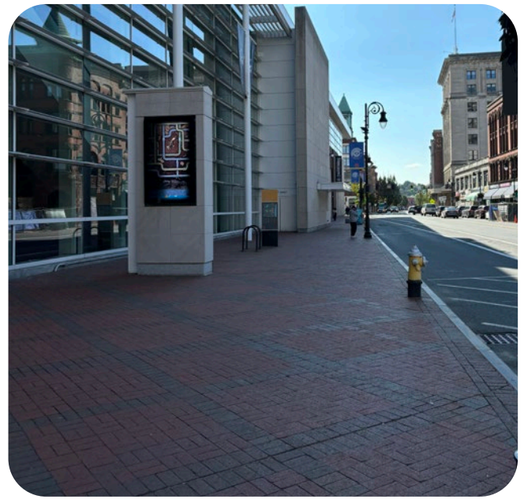
Food Concourse | Photo Credit: Touloukian Touloukian



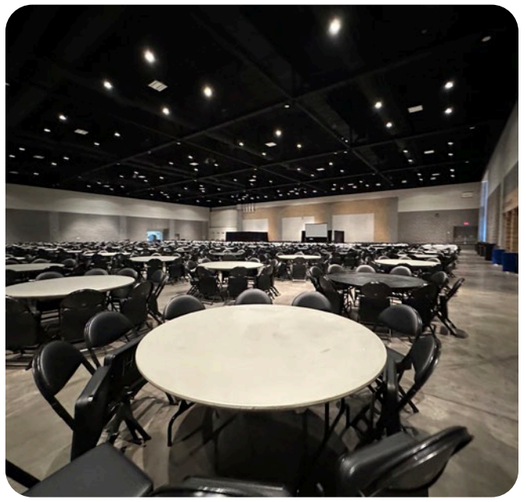
Main Street Facing Northwest | Photo Credit: KMDG

Bruce Landon Way | Photo Credit: Touloukian Touloukian

Main St | Photo Credit: Touloukian Touloukian



Main Street Facing Southeast | Photo CreditW: KMDG

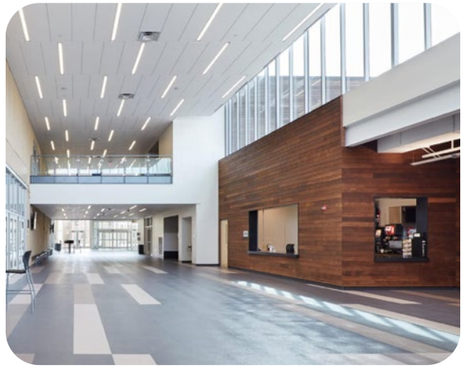


Exhibition Hall | Photo Credit: Touloukian Touloukian

Capital Projects Overview

Folding Glass Garage Doors | Photo Credit: unknown

P47 | Main Street Garage Doors: the garage doors will open up on Main Street providing access and flow during high pedestrian traffic periods. The garage doors also connect the building to the park across the street.



Shakopee Ice Arena Lobby | Photo Credit: JLG Architects

P54 | Stair 7 Lobby: The new lobby is an ongoing capital project that activates the State Street entrance. The project includes new landscaping, escalators, and a high definition wall display.

Premium Seating | Photo Credit: TD Garden

P33 | Premium Seating: This space will provide additional premium seating which can be used during all events. The space can be treated as if it were one large open space, or broken down into smaller spaces for multiple parties.

Solar Panels | Photo Credit: unknown

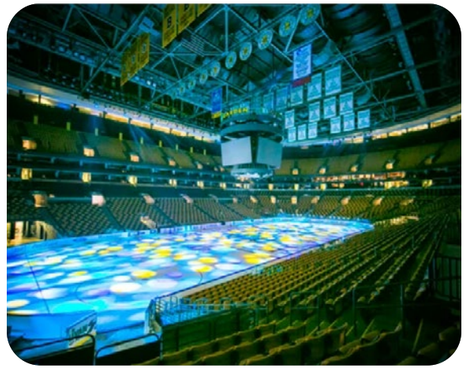
DC-03 | Solar Panels: This project includes the installation of solar panels on the rooftop of the facility, not including the arena. Square Footage is approximately 47,900 sf on the roof of the MMC.

American Dream Meadowlands, NJ | Photo credit: SNA Displays

P14 / P53 | Digital Signage: The entire facility would benefit from new state-of-the-art digital signage. Arena upgrades include digital signage at portals, around the concourse, and ribbon signage around the outside walls of the arena. The convention center would include improved wayfinding.

Streetlife Love Tub Planter | Photo Credit: Streetlife

P52 | Main Street Planters: The proposed improvements to the Main Street entrance at the MMC will be ten moveable planters planted with native canopy trees. The planters will continue the green edge established on the other side of Main Street in Court Square and provide a visual link to the green space of Pynchon Plaza.

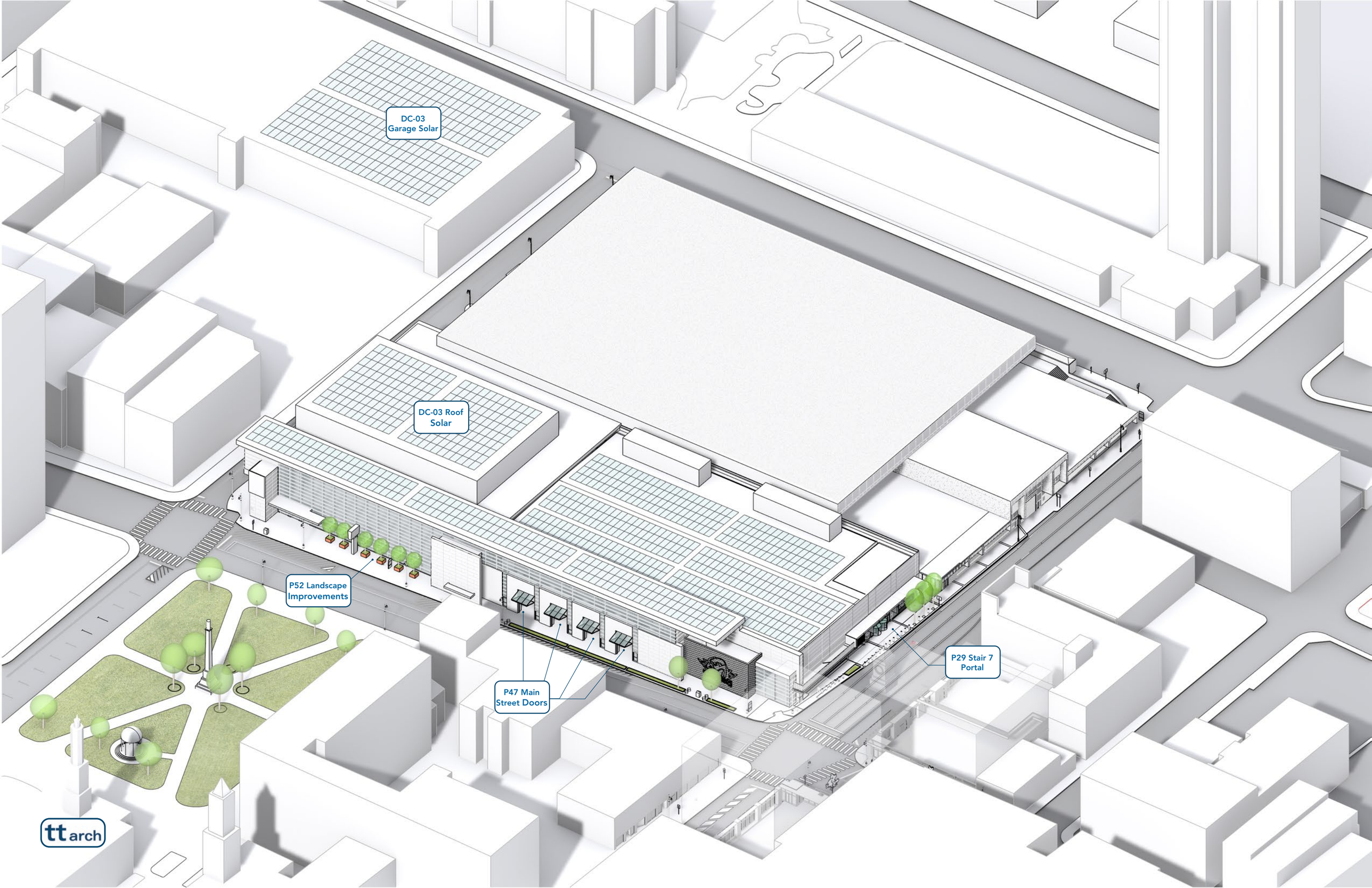


Arena Lighting | Photo Credit: Port Lighting

P18 | Arena Lighting: Upgrade arena lighting to allow for color changes to ice surface through the use of RGB lighting. Scope of arena lighting to also include lighting for arena portals. Lighting to sync with digital displays on the portals, main video board, and ribbon screen.

CapitalOne Arena Washington DC | Photo Credit: unknown

P17 | Modernized Jumbotron: Replace arena video board with higher resolution video board and state of the art processing. The existing center-hung video board, installed in 2015, consists of 4-sided rectangular direct-view LED video walls with smaller ribbon displays at the top and bottom.


DC-03
Garage Solar
DC-03 Roof
Solar
P52 Landscape
Improvements
P47 Main
Street Doors
P29 Stair 7
Portal
tt arch

P02 Green Room
P11 Additional Air Walls
P40 Meeting Room Egress
P41 Ballroom Finishes
P45 Elevator Extension
P47 Main Street Doors
P52 Landscape Improvements
P53 Digital Signage
P54 Stair 7 Lobby
P56 Locker Room Upgrades

0 10 20 40 ft

Credit: Touloukian Touloukian Inc.

Proposed Level 1 Plan

N

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Parking Garage

Primary Arena Entry

Dwight Street Entry

Dwight Street

Dwight Street Loading

Arena

Meeting Rooms

Bruce Landon Way

Main Street Entry

Loading

Exhibition Hall

Stair 7 Lobby

State Street Loading

Stair 7

Main Street

State Street

State Street

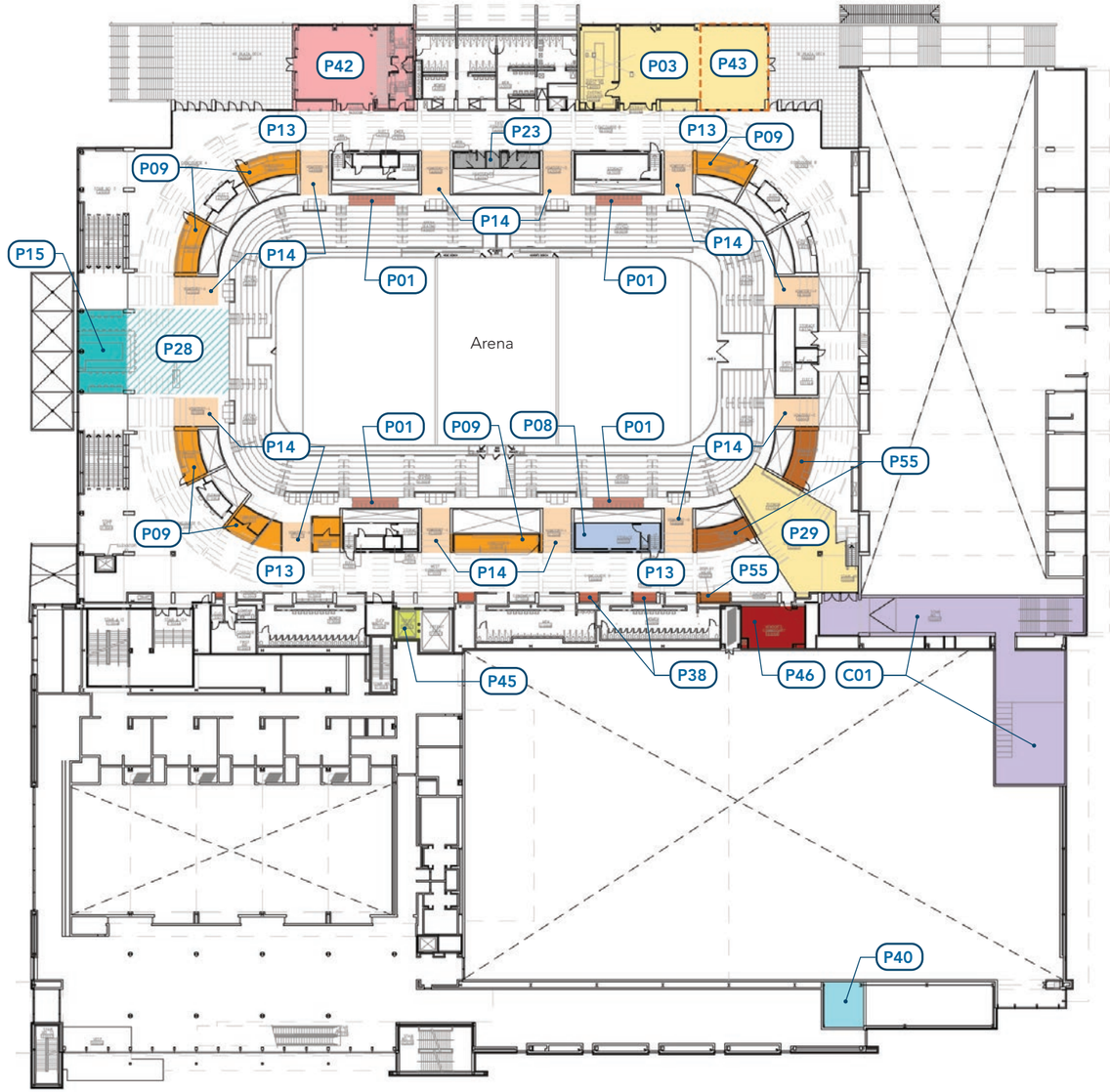
Main Street

MGM Casino Entry

Street-Level Program

- Active Retail/Commercial
- Inactive at Street Level
- Active MMC
- MGM Casino Entry
- Parks and Public Space

P01 Loge Seating
P03 Breakaway Lounge
P08 New Trash Room
P09 Concession Stands
P13 Concourse Aesthetics
P14 Concourse Signage
P15 Integrated Fan Bar
P23 Lav Re-purposing
P28 Main Entrance Portal
P29 Stair 7 Portal
P38 Trash Niches
P40 Meeting Room Egress
P42 Center Grill Club
P43 Breakaway Lounge Extension
P45 Elevator Extension
P46 Arena Bathrooms
P54 Stair 7 Lobby
P55 Concession Stand Upgrades



0 10 20 ft 40

Credit: Touloukian Touloukian Inc.

Proposed Level 2 Plan

N


#FLY FLIGHT WITH
PLOVERS
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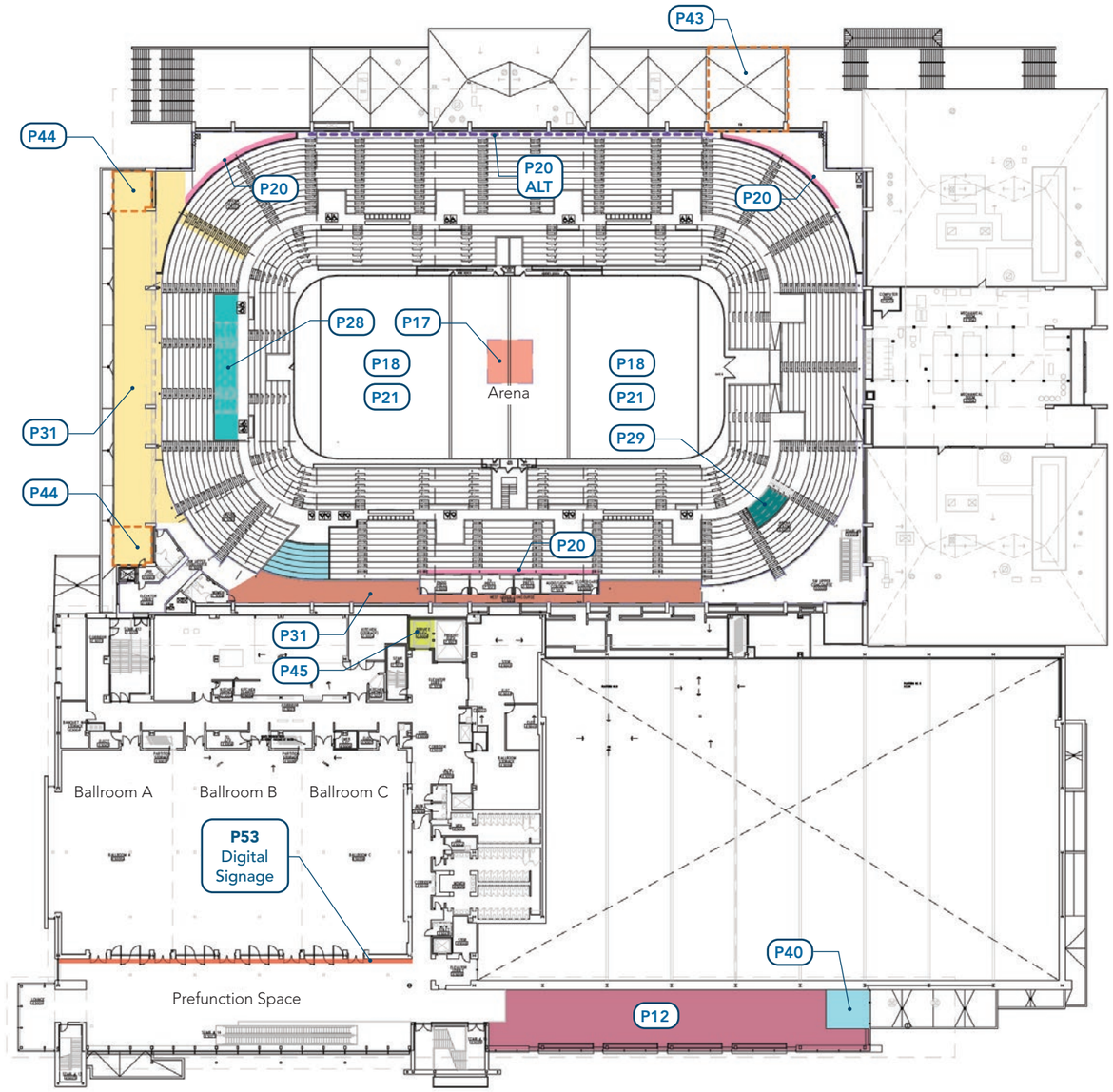
P12 New Meeting Rooms
P17 Arena Video Board
P18 Arena Lighting
P20 Arena Ribbon Board
P21 Audio System Upgrade
P28 Main Entrance Portal
P29 Stair 7 Portal
P31 Press-box Corridor
P33 Premium Overlook
P34 Vomitory Infill
P40 Meeting Room Egress
P43 Breakaway Lounge Extension
P44 Premium Overlook Extension
P45 Elevator Extension
P53 Digital Signage



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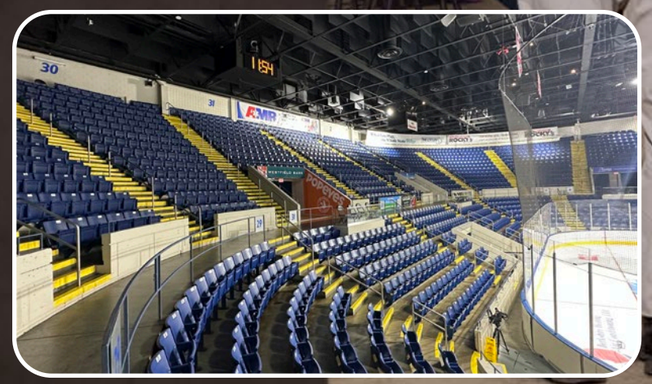
Credit: Touloukian Touloukian Inc.

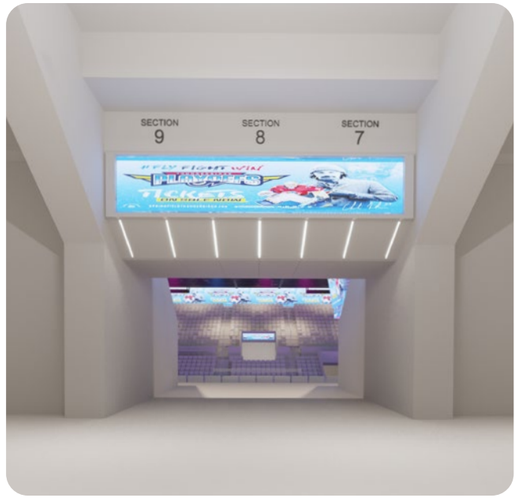
Proposed Level 3 Plan

N


SECTION 9
SECTION 8
SECTION 7



Proposed Capital Project Renderings

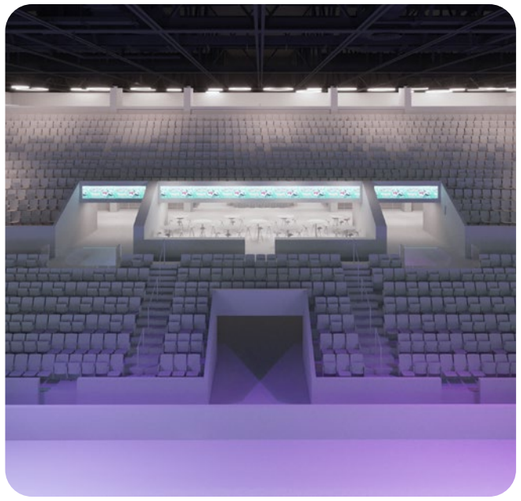


New Portal | Credit: Touloukian Touloukian

Digital Signage | Credit: Touloukian Touloukian

Upper Premium Seating | Credit: Touloukian Touloukian

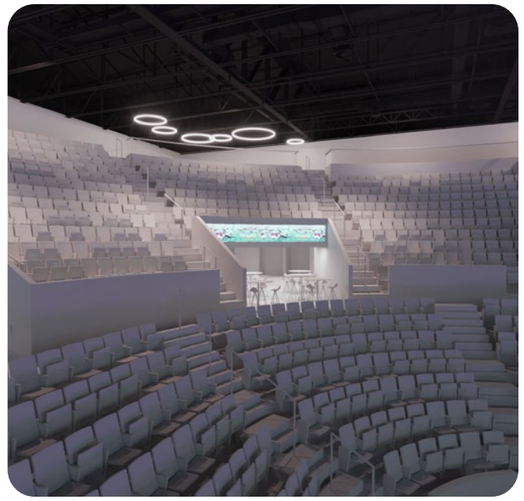
Digital Signage | Credit: Touloukian Touloukian



Lower Premium Seating | Credit: Touloukian Touloukian

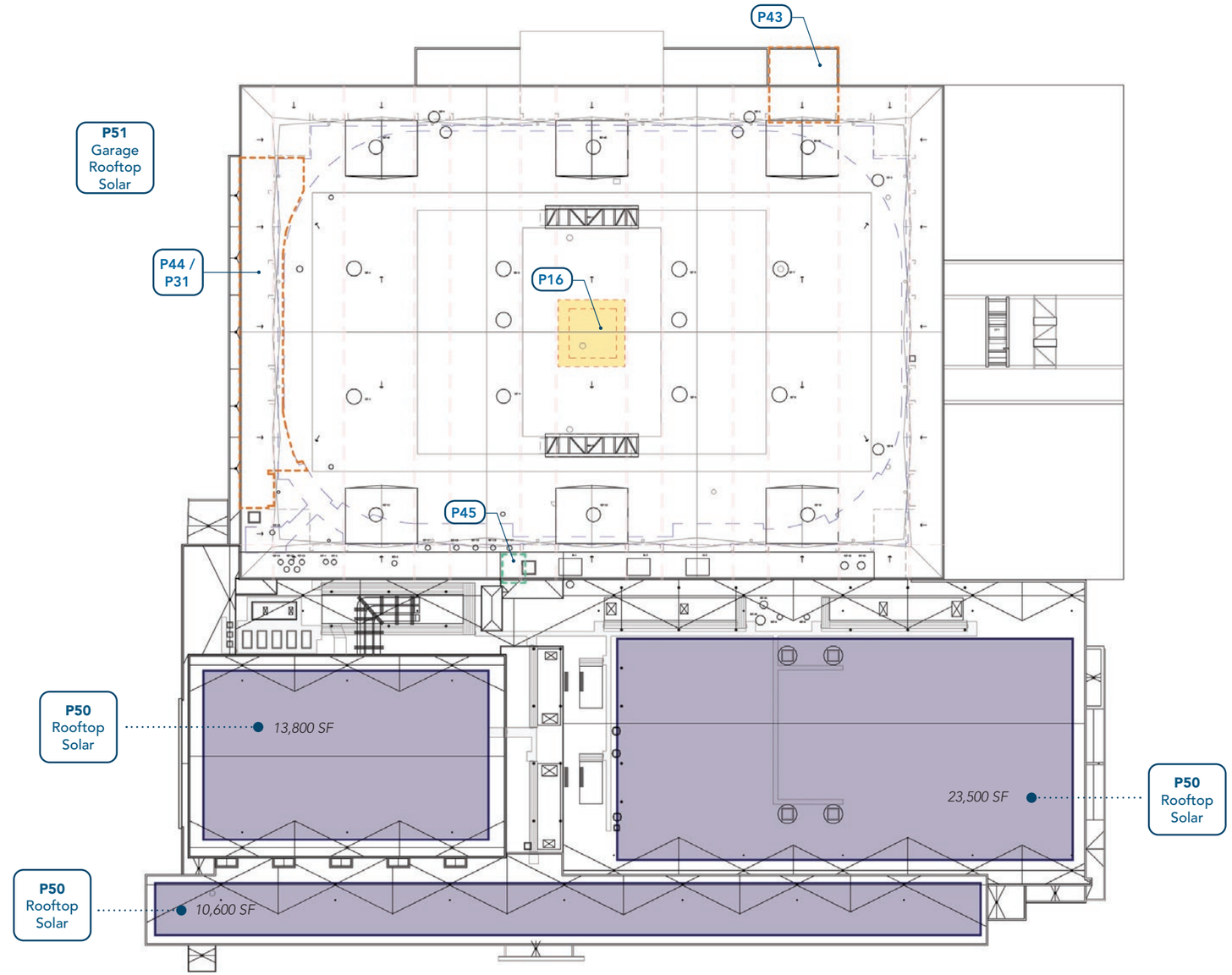
Lower Premium Seating | Credit: Touloukian Touloukian

Upper Premium Seating | Credit: Touloukian Touloukian



New Stair 7 Portal | Credit: Touloukian Touloukian

P16 Arena Video Board Nest
P31 Premium Overlook
P43 Breakaway Lounge Extension
P44 Premium Overlook Extension
P45 Elevator Extension
P50 Rooftop Solar
P51 Garage Solar



Credit: Touloukian Touloukian Inc.

Proposed Level 4 Plan

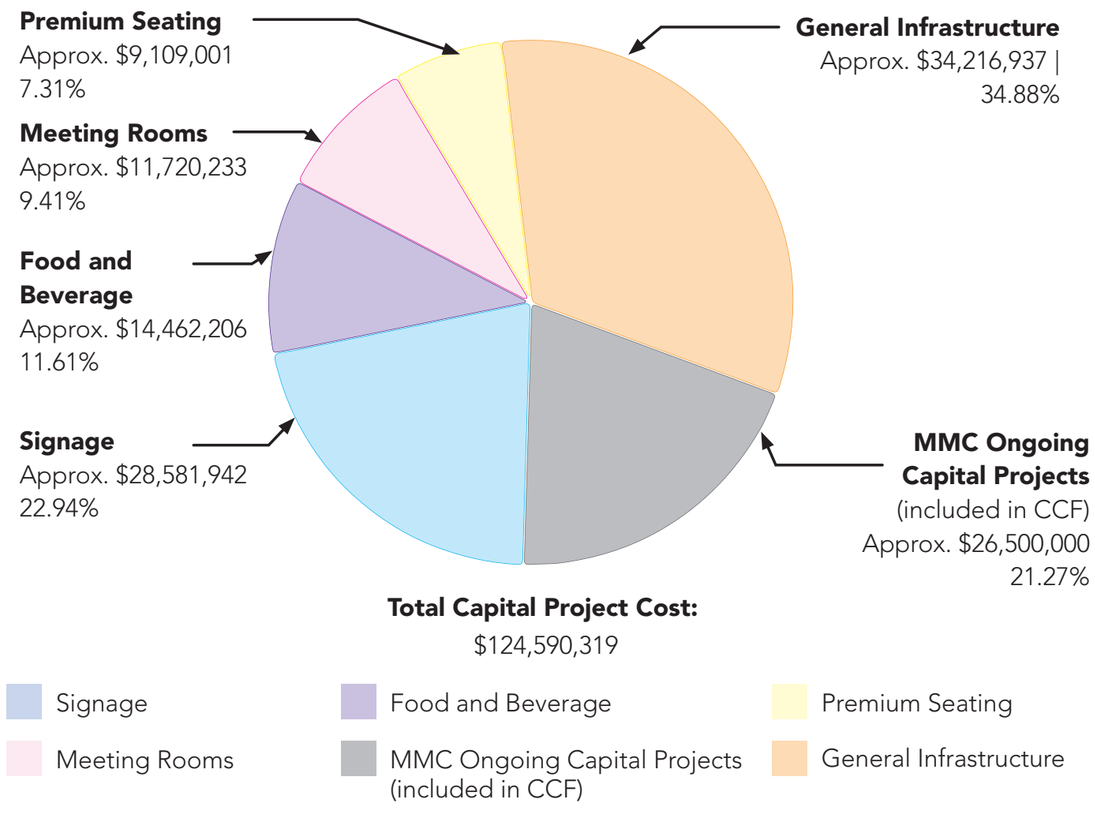

PLAYOFFS
PLAYOFFS

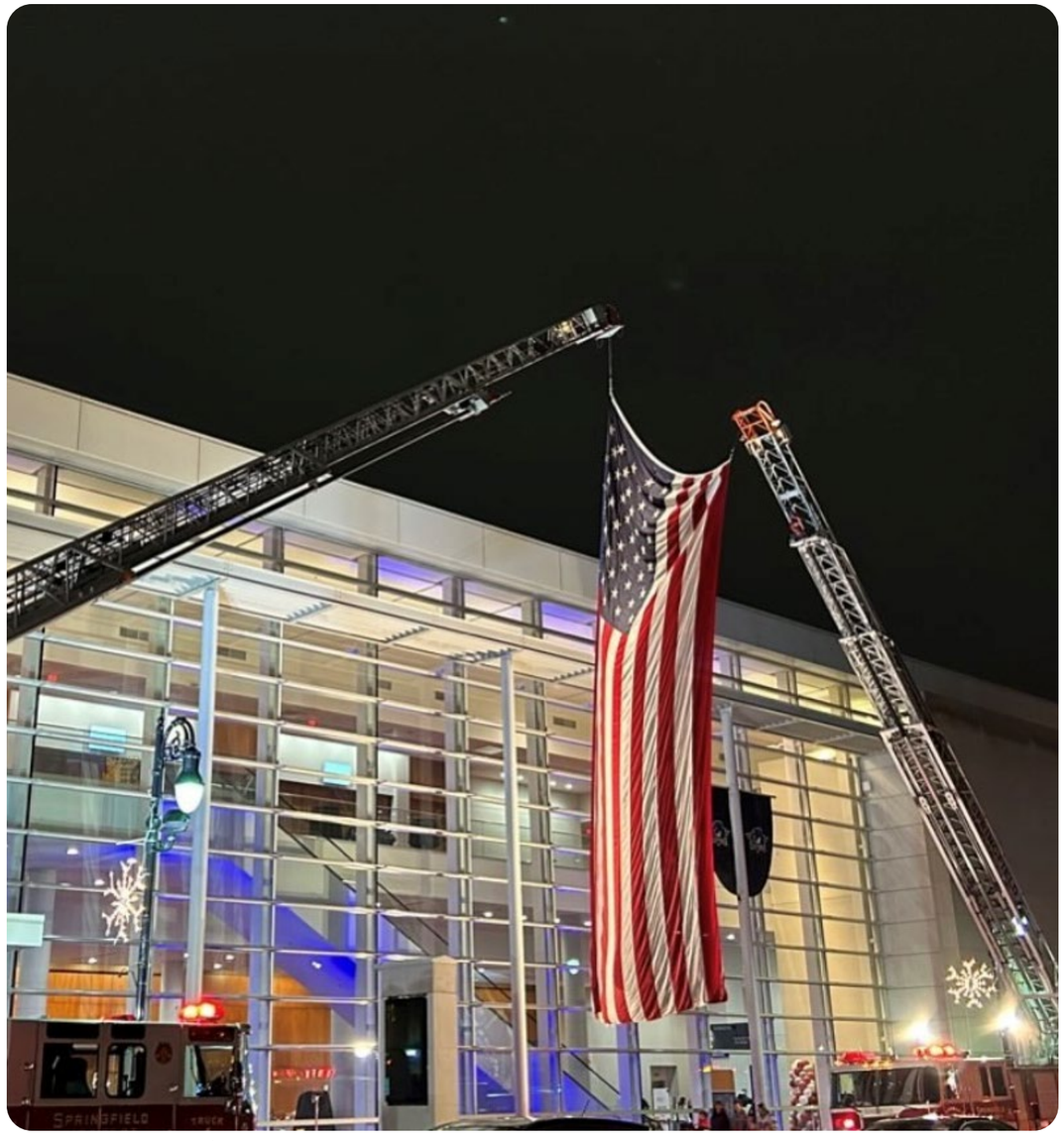

PLAYOFFS ON
TICKETS

Capital Project Costs

Total Project Costs

- Approx. **$28,581,942** of Signage Recommendations. Escalated to FY 2026 (July 1, 2025).
- Approx. **$14,462,206** of Food and Beverage Recommendations: Escalated to FY 2026 (July 1, 2025).
- Approx. **$9,109,001** of Premium Seating Recommendations: Escalated to FY 2026 (July 1, 2025).
- Approx. **$11,720,233** of Meeting Rooms Recommendations: Escalated to FY 2026 (July 1, 2025).
- Approx. **$34,216,937** of General Infrastructure Recommendations: Escalated to FY 2026 (July 1, 2025).
- Approx. **$26,500,000** of MMC ongoing Capital Projects (included in CCF).





Outside Event at the MMC | Photo Credit: Instagram