



# MARKET AND FEASIBILITY STUDY FOR THE KNOXVILLE CIVIC AUDITORIUM & COLISEUM

DECEMBER 17, 2015

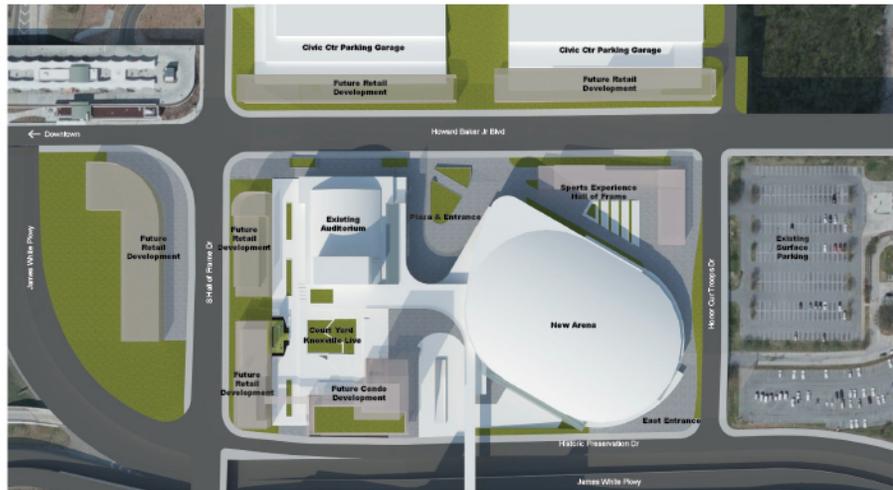


CITY OF KNOXVILLE



POPULOUS

# COLISEUM





December 17, 2015

Mayor Madeline Rogero  
City of Knoxville  
P.O. Box 1631  
Knoxville, Tennessee 37901

Dear Mayor:

Conventions, Sports & Leisure International (CSL), in conjunction with Venue Solutions Group (VSG), Populous, McCarty Holsaple McCarty Architects (MHM), Smith Seckman Reid, Inc. (SSR) and Dayenesi, Inc. (Dayenesi), has completed a report related to a market and feasibility analysis for the Knoxville Civic Auditorium and Coliseum (KCAC). The attached report presents our research, analysis and findings and is intended to assist the City of Knoxville (City) and other related project stakeholders with the information necessary to make informed decisions regarding the future of the KCAC.

The analysis presented in this report is based on estimates, assumptions and other information developed from industry research, data provided by the City and other local project stakeholders, surveys of existing and potential facility users, discussions with industry participants, and analysis of competitive/comparable facilities and communities. The sources of information, the methods employed, and the basis of significant estimates and assumptions are stated in this report. Some assumptions inevitably will not materialize and unanticipated events and circumstances may occur. Therefore, actual results achieved will vary from those described and the variations may be material.

The findings presented herein are based on analysis of present and near-term conditions in the Knoxville area as well as existing interest levels by the potential base of users for new/improved event facility product. Any significant future changes in the characteristics of the local community, such as growth in population, corporate inventory, competitive inventory and visitor amenities/attractions, could materially impact the key market conclusions developed as a part of this study. As in all studies of this type, the estimated results are based on competent and efficient management of the potential facility (or facilities) and assume that no significant changes in the event markets or assumed immediate and local area market conditions will occur beyond those set forth in this report. Furthermore, all information provided to us by others was not audited or verified and was assumed to be correct. All assessment and primary market research completed for this assignment was completed by June 2015.

This report has been prepared for the internal use of the City and should not be relied upon by any other party. The report has been structured to provide the City with a foundation of research and analysis to provide decision makers with the information necessary to strategically plan for Knoxville's future in the events and public assembly industries and should not be used for any other purpose. This report, its findings or references to CSL or its subcontracted team members may not be included or reproduced in any public offering statement or other financing document.

We sincerely appreciate the assistance and cooperation we have been provided in the compilation of this report and would be pleased to be of further assistance in the interpretation and application of our findings.

Very truly yours,

CSL International

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# EXECUTIVE SUMMARY

Conventions, Sports and Leisure International (CSL), in conjunction with Venue Solutions Group (VSG), Populous, McCarty Holsaple McCarty Architects (MHM), Smith Seckman Reid, Inc. (SSR) and Dayenesi, Inc. (Dayenesi), was retained by the City of Knoxville to conduct a market and feasibility study of the Knoxville Civic Auditorium and Coliseum (KCAC). This summary outlines the key findings associated with the study. The full written report should be reviewed in its entirety to gain an understanding of the study's methods, limitations and implications.

## Introduction and Methods

Since its opening in 1961, the KCAC has served a very important role in the Knoxville community, hosting a wide variety of entertainment, sports, arts, cultural, educational, and civic event activity. However, after more than a half century of service, the KCAC's space now is clearly substandard in industry terms and is significantly challenged with its marketability and functionality. As found through this study and past research, existing and past users cite a number of critical deficiencies pertaining to functionality, event logistics, space levels and apportionment, aesthetics and marketability to exhibitors/attendees.

The Knoxville Civic Auditorium and Coliseum is a City-owned multicomponent event facility. In terms of common event industry vernacular, the KCAC primarily consists of an arena (Coliseum) and a performing arts theater (Auditorium). The KCAC also integrates some smaller flat floor space for meetings, banquets and other types of activities, but these spaces are secondary to its function/role as an arena and theater venue. Specifically, the KCAC consists of a 6,540-seat Coliseum (4,790 seats for hockey or ice shows), a 2,500-seat Auditorium, a 4,800-square foot ballroom, 10,000 square feet of exhibit space and an outdoor plaza with a capacity of 10,000.

The primary objective of the study is to provide an analysis of the KCAC, assessing the market for potential programming at the facility and maximizing KCAC's suitability, either by renovation or a new facility, to better serve those programming purposes. The study process consisted of detailed research and analysis, including a comprehensive set of market-specific information derived from the following:

- ✓ Experience garnered through more than 500 event facility projects throughout the country.
- ✓ Local market visit at the outset of the project, including community and site tours.
- ✓ Detailed physical facility condition assessment of the KCAC.
- ✓ In-person interviews, meetings and public forums with Knoxville area individuals, including representatives of municipal government, visitor and event industries, local companies, event producing organizations, and community groups.
- ✓ Research and analysis of local market conditions and regional and national trends as they relate to the spectator, entertainment, convention, and exhibition industries.
- ✓ Analysis of facility data obtained from over 32 competitive and/or comparable multipurpose center facilities and an assessment of competitive/regional facilities.
- ✓ Comparative analysis of socioeconomic data from competitive/regional and comparable facility markets.
- ✓ Completed telephone surveys of representatives of organizations and groups that represent potential users of multipurpose event facility space in Knoxville. Surveys and their respective target groups included planners and promoters of state, regional and national events and shows.

VSG provided a physical assessment of the KCAC that benchmarks the current condition of the facility. As part of the assessment, VSG, in partnership with their consultant team including SSR and Dayenesi, have developed a 20-year capital expense matrix to assist CSL and the City of Knoxville to establish priorities for major repairs, potential upgrades and maintaining the facility in a way that extends the usable life of its assets. The matrix is intended to be a planning tool for the KCAC and should be updated periodically depending on owner, operator and tenant priorities and funding availability. Further analysis, discussion and detail pertaining to facility conditions, findings and recommendations associated with the KCAC physical facility assessment can be found in the body of the report and in Appendices A through E.

## Facility Assessment and Market Analysis Conclusions

In addition to the physical facility assessment of the KCAC, a detailed market demand analysis was conducted for similar sports, entertainment and performing arts event facilities in Knoxville. Market analysis conclusions indicate that demand exists for both a City-owned arena and performing arts theater in Knoxville. These types of facilities would be expected to continue to have important roles in the Knoxville marketplace into the foreseeable future. The KCAC has long served this role in Knoxville, accommodating a significant portion of Knoxville's sports, entertainment and performing arts event demand, including certain events, activities and uses that other local Knoxville event facilities could not, or would not, accommodate. Important events, entertainment opportunities, attendance, and community exposure would be lost and negatively impacted without either of these types of facilities. Should the KCAC be decommissioned and no other facilities are developed, remaining event venues that presently exist in Knoxville would not be able to sufficiently accommodate KCAC's displaced activity.

Further, the market analysis indicates that a distinct opportunity exists for Knoxville to capture new sports, entertainment and performing arts events with a new/improved event facility product—specifically, through an arena venue that is consistent with state-of-the-industry standards.

Key market analysis conclusions include:

- The Coliseum has exceeded its practical life and should be brought up to state-of-the-industry standards to be able to continue accommodating existing event activity and grow future market share. Failure to do so will result in continued erosion of market share and diminishing event, performance and attendance levels at the KCAC.
- Greatest areas of need for the Coliseum include improved rigging capacities, expanded floor space, increased seating capacity and improved sight lines. Other areas of need include improvements to ingress/egress, attendee flow and ancillary revenue generating potential.
- While the "other areas of need" could likely be addressed through a renovation of the existing structure, replacement of the roof and expansion of the floor space and capacity, while improving sight lines likely will require a redevelopment of the facility.
- The Auditorium continues to serve the market demand for fixed-seating venue space with requirements for seating capacity in excess of the 1,600 seats available at the Tennessee Theatre.
- Improvements to the Auditorium are not expected to significantly increase market share or attendance; however, failure to bring the facilities up to state-of-the-industry standards may result in the eventual erosion of attendance.
- Consideration should be given to updating the seats, décor, food and beverage provision, back of house and other such functional measures within the facility.
- It is anticipated that these improvements could be accomplished while largely leaving the existing Auditorium structure intact.

## Development Options and Concepts

Pursuant to direction provided by the City and building on the conclusions of the facility assessment and market analysis, three development scenarios were identified, with an emphasis on options relating to the KCAC and the existing KCAC site, involving varying levels of investment and physical facility renovation, expansion and/or redevelopment.

It is the Project Team's conclusion that it would not be viable to undertake a major renovation of the existing Coliseum for the purpose of creating a state-of-the-industry sports and entertainment arena venue. In order to appropriately rectify/address the Coliseum's numerous existing physical challenges and limitations, any renovation scenario involving retention of significant Coliseum structural elements would not be advantageous relative to new build scenarios. Issues related to the existing Coliseum's structural foundation, layout and design would effectively fully negate the benefit of retaining significant structural elements via a major renovation of a near obsolete facility.

In particular, achieving state-of-the-industry standards for seating and playing surface size/layout (specifically relating to hockey) would not be able to be met through any practical renovation scenario, as the physical dimensions of key interior and exterior facility spaces and load-bearing architecture of adjacent walls and support structures would prevent reaching state-of-the-industry dimensions and sightline quality without a full or near full demolish of the Coliseum itself. Therefore, it is the Team's conclusion that a major renovation of the Coliseum would not be feasible. A new arena (at the KCAC site or elsewhere in Knoxville) would be required to meet the market supportable facility program.

Conversely, the Project Team believes that that the market supportable facility program for a performing arts theater could be attained through a renovation of the KCAC's Auditorium. There are not believed to be the same types of physical design/architectural "fatal flaw" constraints preventing the contemplation of a renovation of the Auditorium that are present with a theoretical Coliseum renovation scenario.

Therefore, based on these market and program analysis conclusions, along with collaboration among the project team and the City, three primary facility scenarios were identified for additional analysis:

- Scenario 1: Retain Existing KCAC
- Scenario 2: Renovated/Redeveloped KCAC
- Scenario 3: Full Replacement

From a site perspective, the existing KCAC location has a number of positive attributes, including but not limited to:

1. 2,500 total control parking spaces among three connected/adjacent garages, plus additional nearby parking opportunities (in terms of industry context, this is a very significant supply of controlled spaces in an urban environment that is often difficult/expensive to build and/or assemble for modern new-build comparable event facility projects).
2. 378-room, full service hotel already attached (largest hotel property in Knoxville). Additional nearby hotels are future possibilities and have been discussed.
3. Location in downtown on the periphery of Knoxville's central business district (and within practical walking proximity of a number of key visitor amenities and attractions).
4. Strong interstate accessibility and visibility from roadways and from downtown.
5. Available land directly adjacent to the KCAC building structure itself that would theoretically allow for a new build project (i.e., arena) without entailing the closure of the existing commensurate facility (i.e., Coliseum) during the construction period.

6. Additional adjacent and proximate land parcels that could also be developed (i.e., mixed use) as part of a larger strategy or master plan to strengthen the sub-district (i.e., entertainment corridor) with public and private sector investment.
7. A site and associated parking assets that are already owned by the City. A commensurate or better site in terms of location, size and proximity to key amenities would likely be difficult to assemble and would represent a large acquisition expense for the City.

However, some of the challenges associated with the current KCAC site include:

1. Despite its downtown location, there is a prevalent local perception of a disconnect between the KCAC's location and the downtown core, in terms of accessibility, walkability, amenity limitations (i.e., bars, restaurants, cafes, nightlife, retail, etc.), safety, and other such issues. It is believed that this could be mitigated and improved through an entertainment/mixed-use master plan strategy leveraging both public and private investment.
2. Adjacent land uses (such as the medical office and the KPD facilities) are not synergistic with an event facility at this time. A master planned district approach would improve this.
3. Given the aim to retain the Auditorium, it would be difficult to optimally orient a new arena facility at the KCAC site to maximize visibility via view corridors into/out of the downtown core.

### Scenario 1: Retain Existing KCAC

The first scenario explores renovation to the facility with no major redevelopment or expansion of square footage. This scenario would be assumed to represent the effective minimum required to keep the KCAC operating "as-is" for the foreseeable future. It does not include upgrades such as expanded concessions, enlarged lobbies, increased rigging capacity, etc.

The logic behind this scenario is that just enough will be done to the venue in order to minimally enhance the guest experience, minimize the possibility of a sudden breakdown of equipment (which can lead to canceled events), repair items that could lead to safety hazards, and prevent a significant (expensive) amount of work that could be triggered to meet the American with Disabilities Act.

As a part of the facility condition assessment, we have compiled a 20-year capital expense matrix that provides order-of-magnitude costs for items that will be required to keep the building properly maintained. These costs, as mentioned above, do not provide for building expansions or material upgrades; they simply allow the building to properly function in its current state. The costs in the capital expense matrix represent the replacement cost of the associated equipment only. They do not include any demolition or installation (some installs could be handled in-house, others by contractor), architectural, contractor or other professional fees, taxes, insurance, any product mark-ups, permits or licenses. The full capital expense matrix can be found in Appendix H at the conclusion of this report.

Beyond these "base" items, the City could opt to pursue select, additional renovations/improvements to further improve certain facility and operational aspects, while still not representing a full redevelopment course of action. These additional discretionary items could include a new rigging system for the Coliseum and enhanced concessions (such as new signage graphics, menu boards, new carts and points of sale, etc.). Therefore, for purposes of this report, two sub-options were developed—a Base Option and an Enhanced Option.

## Scenario 2: Renovated/Redeveloped KCAC

The second scenario assumes a major renovation and redevelopment of the KCAC. Populous developed two potential options for consideration—both focusing on connecting the multi-purpose “arena district” with the revitalized downtown area to cohesively create an energetic event destination: Scenario 2a (Nest Option) and Scenario 2b (Gateway Option).

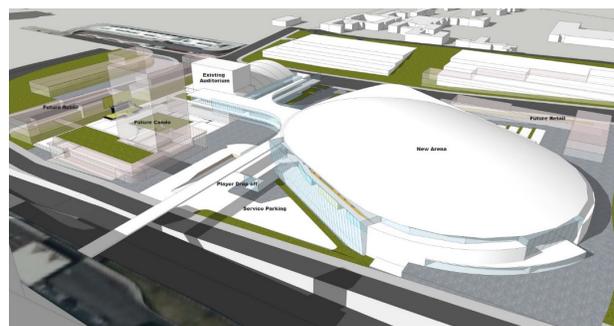
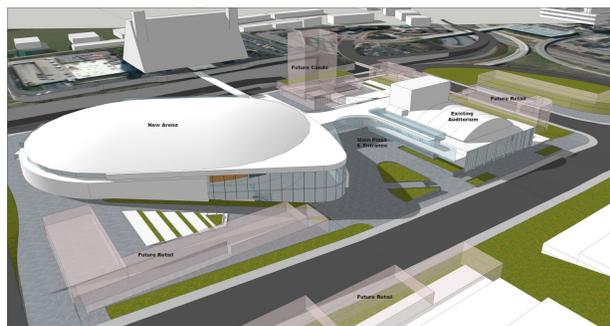
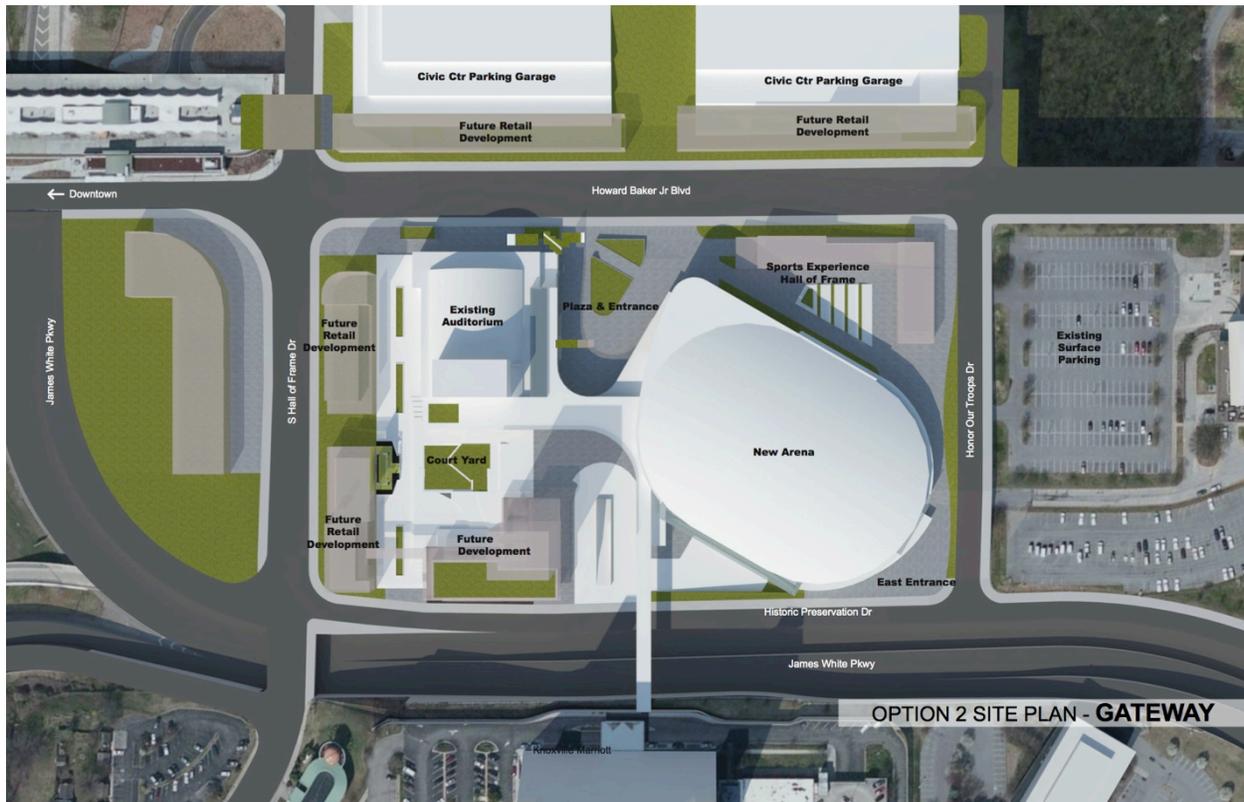
Scenario 2a (Nest Option) renovates the existing auditorium, leaves the current existing parking garage on site, and nests a new area between the two. A glass multi-purpose connector that could be home to a restaurant or meeting spaces connects both facilities and hovers above the arena entry plaza. The existing garage could be used for VIP parking as it will have direct access to the arena.

**Exhibit 1**  
**Scenario 2a (Nest Option) Site & Concept Rendering**



Shown in Exhibit 2, Scenario 2b (Gateway Option) removes the existing parking garage on site and allows the area to rotate, and have more views towards various parts of the city. Adjacent parking garages and surface parking will help offset the elimination of the garage, as this option encourages residents to park downtown and walk over the bridge, as well as use various public transportation options. This option also includes the glass multi-purpose connector.

**Exhibit 2  
Scenario 2b (Gateway Option) Site & Concept Rendering**



The study of the Knoxville auditorium renovation and creation of a new multi-purpose arena focuses on how to activate the site and create a premiere arena district for the city. This "arena district" would connect the auditorium/arena site to the downtown area – as well as the city as a whole. It is not just about building a new arena, it is about creating an energetic destination that could include events, retail and residential. This would represent a cohesive approach that parallels the revitalization already happening throughout Knoxville.

Both Scenario 2 options include a re-thinking of the entire site. Potential retail, condos and courtyard/amphitheater areas could surround the auditorium and arena and become very important for pre-event and post-event functions. Outdoor movies, public gatherings and other similar events could take place in the courtyard area. Potential retail and condos help create anchors around the facilities and start to enlarge and connect to the downtown area.

The new multi-purpose arena with approximately 10,000 seats would be home to various events like hockey, basketball, concerts, trade shows, ice shows and the circus. State-of-the-art rigging and amenities allow for top tier concerts and shows. Twenty suites also allow for premium seating and additional generated revenue. Under Scenario 2, in addition to the new arena attached to the KCAC Auditorium, it has been assumed that a full-scale renovation of the Auditorium would be undertaken to elevate it to modern, state-of-the-industry standards for the performing arts. However, it is possible that Scenario 2 could be undertaken without a full-scale renovation of the Auditorium, and instead, the base renovation (as discussed under Scenario 1) could be targeted instead (referred to as the Base Option).

Additional conceptual renderings of the facility site, site massing, and interiors can be found at the conclusion of this report in Appendix I.

### Scenario 3: Full Replacement

Scenario 3 represents the development of a completely new arena and performing arts center. This scenario is not dependent on the existing KCAC site and could theoretically occur at a new site elsewhere in Knoxville. While there are some construction and operating efficiencies that could be realized by physically combining a new arena with a new performing arts center, these types of new facilities often are not physically integrated and co-located on a common site, particularly given scarce land availability that is typical of most urban cores.

### **Cost / Benefit Comparison**

As a starting point for the cost/benefit comparison, a preliminary order-of-magnitude construction cost analysis was performed by the Project Team. Construction costs tend to vary widely among comparable event facility projects. Many variables exist that influence actual realized construction costs, including type of facility, size, components, level of finish, integrated amenities, costs of goods and services in the local market, location and topography of the site, ingress/egress issues, costs implications related to the existing KCAC site and integration with existing facilities and infrastructure, and other such aspects. Additional architectural costing analysis would be required to refine these estimates, particularly those related to demolition, infrastructure and renovation aspects.

A comparison of preliminary estimated order-of-magnitude hard and soft construction costs for each of the three identified scenarios was developed. These figures are presented in 2015 dollars. Scenario 1 is a simple sum (not considering time value of money) of 20 years of expenditures identified through the 20-year Cap Ex matrix completed for this study. Further, it is also important to recognize that construction costs have historically risen at a higher rate than standard cost of living based inflation. For instance, Populous typically assumes between 3.0 to 5.0 percent annual increase in construction costs for planning purposes (as compared to approximately 3.0 percent in typical annual cost of living inflation).

**Exhibit 3  
Preliminary Cost Construction Cost Comparison  
(Order-of-Magnitude, 2015 dollars)**

	Scenario 1: Retain Existing KCAC		Scenario 2: Redeveloped KCAC		Scenario 3: Full Replacement	
	Base Option	Enhanced Option	Base Option	Enhanced Option	Base Option	Enhanced Option
Hard Construction Costs	\$26,000,000	\$33,000,000	\$108,500,000	\$158,000,000	\$170,000,000	\$215,000,000
Soft Construction Costs	--	--	<u>32,550,000</u>	<u>47,400,000</u>	<u>51,000,000</u>	<u>64,500,000</u>
Total Construction	\$26,000,000	\$33,000,000	\$141,050,000	\$205,400,000	\$221,000,000	\$279,500,000

As shown in Exhibit 3, based on comparable facility data adjusted for estimated Knoxville conditions and the identified facility program, total order-of-magnitude hard and soft construction costs for Scenario 1 (representing the minimum required to sustain KCAC operations into the foreseeable future) approximates between \$26 million and \$33 million in 2015 dollars. Total hypothetical construction costs associated with Scenario 2 is estimated at between approximately \$141 million and \$205 million, while total costs for Scenario 3 are estimated at between \$221 million and \$280 million. The higher cost attributed to Scenario 3 is due to the assumption of a new \$70 million to \$90 million (hard costs) performing arts theater, rather than a lower cost renovated Auditorium as assumed under Scenario 2.

Exhibit 4 below presents a summary comparison of the key estimated use metrics associated with the three facility scenarios analyzed for this study effort. Estimates reflect a stabilized year of operation, assumed to occur by the fourth full year of operation. As a baseline, event use levels under Scenario 1 would be expected to remain consistent or slightly lower than existing KCAC levels. Under Scenarios 2 and 3, event levels and attendance are estimated to nearly double upon stabilization. These levels are supported by the findings of the market analysis completed for this study and are consistent with comparable facility averages. These estimates assume the Enhanced Option for the three scenarios.

**Exhibit 4  
Comparison of Event and Attendance Estimates by Scenario  
(Stabilized Year of Operations, Assumed Fourth Year)**

	Scenario 1: Retain Existing KCAC	Scenario 2: Redeveloped KCAC	Scenario 3: Full Replacement
Arena:			
Event Days/Performances	85	125	125
Attendance	180,000	350,000	350,000
Theater:			
Event Days/Performances	45	75	90
Attendance	60,000	110,000	150,000
Combined:			
Event Days/Performances	130	200	215
Attendance	240,000	460,000	500,000

An analysis of the estimated financial operations of the three Knoxville facility scenarios was conducted. The project team worked closely with KCAC management and conducted an analysis of historical KCAC operations, including consideration of historical and current event levels, utilization, occupancy, attendance, operating revenues, operating expenses, and other such items. Exhibit 5 presents a

summary of the estimated financial operating results for the three facility scenarios, presented in 2015 dollars. These figures only represent the annual operations of the facilities and do not include construction debt service payments, capital repair/replacement reserve funding obligations, or other non-operating expenses. Estimates are presented in terms of a stabilized year of operation, assumed to be the fourth full year of operation.

**Exhibit 5  
Comparison of Estimated Financial Operating Results by Scenario  
(Stabilized Year of Operations, Assumed Fourth Year, in 2015 dollars)**

	<b>Scenario 1:</b> Retain Existing KCAC	<b>Scenario 2:</b> Redeveloped KCAC	<b>Scenario 3:</b> Full Replacement
Combined:			
Operating Revenue	\$1,550,000	\$4,260,000	\$4,600,000
Operating Expenses	<u>2,650,000</u>	<u>5,100,000</u>	<u>4,950,000</u>
Net Operating Profit/Loss	<b>-\$1,100,000</b>	<b>-\$840,000</b>	<b>-\$350,000</b>

As shown, under Scenario 1, financial operating performance for the KCAC four years into the future will be expected to slightly deteriorate over current year performance, yet still remain roughly consistent with historical levels. Operating revenues and expenses are estimated to be significantly higher under Scenarios 2 and 3, which is attributed to a number of factors, including elevated event and attendance volumes, significantly greater sponsorship and premium seating income opportunities, more prominent sports tenants and associated revenue sharing/lease arrangements, greater food and beverage and merchandise points of sales and per capita spending, and other such positive income influencing factors. Despite enhanced energy efficiencies and lower per square foot maintenance costs, total operating expenses would also be expected to be significantly higher, largely a function of significantly higher staffing requirements, higher quality of required service, and other such items. Overall, the annual operating deficit under Scenario 2 and 3 is estimated at \$840,000 and \$350,000, respectively. The lower deficit under Scenario 3 is largely a function of the slightly higher sponsorship/premium seating revenue that would be assumed with a brand new performing arts center (as compared to a renovated Auditorium).

Often, the primary “benefits” associated with event facilities relate to the quantifiable, incremental economic impacts generated in a local community and economy through their construction and ongoing operation. In terms of ongoing impacts, facilities such as convention centers tend to have some of the largest measured incremental impacts on local economies due to their emphasis on attracting nonlocal conventions, conferences, tradeshow and meetings (i.e., events with the large majority of their attendance bases that do not reside in the greater local marketplace—most of which require hotel rooms during their stays). Conversely, arena and theater facilities tend to attract event attendance that is largely “local”, in that most attendees reside in the greater local market area and do not require overnight accommodations.

As such, when attempting to quantify “incremental” economic impact from event facility operations, it is normal industry practice to only attribute impacts to spending associated with “visitors” to a given market (i.e., persons that do not reside in the local area), rather than including spending by “locals” (i.e., persons that reside in the local area) in the calculation. The theory is that a facility attendee that is a local resident would likely have otherwise spent their disposable income on some other discretionary purchase in the local market anyway. This results in a more conservative estimation of economic impact, as the focus is on spending by visitors who would have not even been in the local market if it were not for the subject event facility that was host to the event they chose to travel to and attend.



Therefore, the breadth and amount of net new economic impact generated by any facility project is initially dependent on what the definition of "local" is. If we define "local" as any event attendee, exhibitor, or participant that resides in the "greater" Knoxville metro area (i.e., city of Knoxville, adjacent suburban areas, and nearby driving areas), then the majority of attendance at the KCAC under all scenarios would qualify as "local", and therefore, would not be included in the calculation of net new economic impact. However, if we only consider any person that is drawn to the KCAC as a "local" attendee if they reside within the city of Knoxville itself (rather than in suburban areas just outside the city), then a much larger percentage of attendance would qualify as "nonlocal" and their spending and associated impacts could be quantified (even if they do not require a hotel for an overnight stay—i.e., daytripper). For instance, if a family living in a Rockford or Maryville neighborhood drives in to attend a concert or sporting event at the KCAC, their attendance would be considered "local" under the Knoxville area definition, but a "nonlocal" under the narrower city of Knoxville definition.

Further, sometimes economic impacts are measured for even more localized areas. For instance, the economic impact effect of more people attracted to the immediate downtown district in and around the KCAC site associated with Scenarios 2 and 3 will effectively correlate one-to-one to the incremental attendance estimated over existing KCAC levels (i.e., Scenario 1). The increased density of traffic to the localized area can importantly have positive ancillary effects in terms of increasing the attractiveness of the area around the site for future private sector development and increased property values.

Beyond annual impacts resulting from operations, the primary economic impacts that would be quantifiable for the KCAC (as they are for most arena and theater facilities) would largely relate to construction period impacts. Net new construction period economic impacts generally represent a subset of the overall construction expenditures (labor and materials) that is assumed to be spent in Knoxville and that is "net new" to the local economy (calculating to between 55 to 65 percent of total construction expenditures for other similar projects).

Assuming the subject geographic area of focus is the Knoxville area (i.e., city of Knoxville, adjacent suburban areas, and nearby driving areas), the following ongoing net new economic impacts have been estimated, as shown in Exhibit 6.

**Exhibit 6**  
**Comparison of Estimated Ongoing & One-Time Economic Impacts by Scenario**  
**(Net New to the Knoxville Area, in 2015 dollars)**

	<b>Scenario 1:</b> Retain Existing KCAC	<b>Scenario 2:</b> Redeveloped KCAC	<b>Scenario 3:</b> Full Replacement
<b>Operations (Annual):</b>			
Direct Spending	\$1,200,000	\$2,300,000	\$2,500,000
Total Output	\$1,920,000	\$3,680,000	\$4,000,000
Direct Spending (incremental)	--	\$1,100,000	\$1,300,000
Total Output (incremental)	--	\$1,760,000	\$2,080,000
<b>Construction (One-time):</b>			
Direct Spending	\$14,300,000	\$112,970,000	\$153,725,000
Total Output	\$22,880,000	\$180,752,000	\$245,960,000

As shown, in terms of net new impact in the Knoxville area, total output (direct spending plus indirect and induced spending) resulting from operations of the KCAC under Scenario 1 (or base case) is



estimated to approximate \$1.9 million per annum. During the construction period, total output from construction expenditures is estimated to approximate \$22.9 million within the Knoxville area.

Under Scenarios 2 and 3, the estimated total net new output resulting from KCAC operations is estimated to increase to \$3.7 million and \$4.0 million, respectively. During the construction period, total output from construction expenditures is estimated to approximate \$180.8 million and \$246.0 million, respectively, within the Knoxville area.

Assuming the subject geographic area of focus is more narrowly defined as the city of Knoxville (i.e., impacts generated from attendees that do not reside within the boundaries of the city of Knoxville), the following ongoing net new economic impacts have been estimated, as shown in Exhibit 7.

**Exhibit 7**  
**Comparison of Estimated Ongoing & One-Time Economic Impacts by Scenario**  
**(Net New to the city of Knoxville, in 2015 dollars)**

	Scenario 1: Retain Existing KCAC	Scenario 2: Redeveloped KCAC	Scenario 3: Full Replacement
<b>Operations (Annual):</b>			
Direct Spending	\$4,200,000	\$8,050,000	\$8,750,000
Total Output	\$5,880,000	\$11,270,000	\$12,250,000
Direct Spending (incremental)	--	\$3,850,000	\$4,550,000
Total Output (incremental)	--	\$5,390,000	\$6,370,000
<b>Construction (One-time):</b>			
Direct Spending	\$16,900,000	\$133,510,000	\$181,675,000
Total Output	\$23,660,000	\$186,914,000	\$254,345,000

As shown, in terms of net new impact in the city of Knoxville, total output (direct spending plus indirect and induced spending) resulting from operations of the KCAC under Scenario 1 (or base case) is estimated to approximate \$5.9 million per annum. During the construction period, total output from construction expenditures is estimated to approximate \$23.7 million within the city of Knoxville.

Under Scenarios 2 and 3, the estimated total net new output resulting from KCAC operations is estimated to increase to \$11.3 million and \$12.3 million, respectively. During the construction period, total output from construction expenditures is estimated to approximate \$186.9 million and \$254.3 million, respectively, within the city of Knoxville.

Beyond these direct, quantifiable benefits, a number of benefits related to the construction and operations of the new, renovated and redeveloped event facilities (such as arena and performing arts venues) cannot be quantitatively measured. Beyond the economic activity and jobs indirectly provided, these types of non-quantifiable impacts of a project of this nature and scope can serve to elevate Knoxville's profile and brand as a visitor destination and as a quality place to live, work, learn and play.

In fact, these qualitative benefits tend to be the most critical factors in the consideration of public and private investment in projects of this nature, particularly those involving existing venues with a long history of service in the local community. These include issues pertaining to quality of life (through attracting entertainment events that would not otherwise travel to the area and hosting civic and private events), ancillary economic development facilitation, employment opportunities, community pride and other such issues.

## Assessment of Funding Alternatives

An analysis was conducted concerning the sources of funding that have been used within the event facility industries and their potential for use in the possible renovation/redevelopment of the KCAC. The intent of the analysis is not to produce a financing plan for facility development, but rather to discuss certain financing vehicles, as well as public and private revenue sources that could be utilized to fund the project.

Based on the analysis of potential funding opportunities, the following funding vehicles and sources may hold potential and should be further explored and considered as an opportunity for the new/redeveloped KCAC project:

- Based on an industry benchmarking effort, nearly half of all comparable event facility projects are wholly funded by the public sector (normally one municipal government entity). For the remaining half of comparable facilities, the public sector has still contributed the majority of project development funding, while receiving a minority share of private sector dollars that work to partially defray total public sector funding obligations.
- Based on conversations with local representatives and a review of prevalent comparable facility funding structures, the most viable option for financing the renovation/redevelopment of the KCAC may be through General Obligation Bonds, which would require a simple majority approval by local government council, as well as an approval by the State Director of Local Finance.
- Revenue bonds would be expected to be less viable of an option than general obligation bonds to finance construction costs for a new/redeveloped KCAC project.
- Hotel/motel taxes are frequently used to fund public facility projects, as the tax is borne by visitors and public facilities similar to the KCAC can be considered visitor industry investment projects. Currently, City Hotel/Motel tax collections may only be used for debt service on the Knoxville Convention Center. There are also a number of restrictions with regard to the County Hotel/Motel tax use; however conversations with representatives indicate there may be some potential flexibility with the allocation of a portion of County Hotel/Motel tax revenues.
- The City has the capacity to increase the local option sales tax rate up to an additional 0.5 percent. As it relates to the potential for servicing debt for this project, a 0.5 percent rate increase would net 0.25 percent (as 50 percent would be directed to Knox County Schools). A small increase in the local option sales tax rate could cover all the debt obligations for a KCAC project; however, these types of initiatives are often the most difficult to generate support for among constituents. Of those successful sales tax supported facility projects undertaken throughout the country, many involve a packaging of multiple municipal facility and infrastructure initiatives including numerous individual projects as part of a citywide investment strategy.
- An amusement tax of 5.0 percent is currently assessed on gross ticket receipts pertaining to spectator events in the City of Knoxville, 4.5 percent of which is distributed to the City of Knoxville, the remaining 0.5 percent to Knox County. A number of facilities, including downtown and City-owned facilities, are presently exempt from this tax. It is possible that a simple majority vote by the City and County Council to change the law to incorporate the tax in downtown Knoxville and/or extend it more equitably to other facilities throughout the county could allow for the potential to access funding dollars for the renovation/redevelopment of the KCAC.
- Tax increment financing (TIF) essentially involves capturing assessed valuation growth within a specific area (i.e., TIF district) related to a particular development. The KCAC is not currently in a TIF district, but potential exists to create one and should be considered. Should additional

adjacent parcels of land around the KCAC be vacated (for example, if the Police Station is relocated), the feasibility of using TIF as a partial funding mechanism would be increased.

- In addition to property tax increases through TIF, programs such as Tourism Development Zone (TDZ), which currently encompasses the downtown area and is used for Convention Center debt services funding, could be considered. However, the State's recent moratorium on TDZ authorization and the original TDZ legislation's criteria of a minimum of \$25 million in secured private sector contribution (which may be a difficult benchmark to meet for this proposed project) will likely limit the viability of this option. Nevertheless, certain private sector opportunities should be explored and vetted per the legislation to determine qualification. For instance, a long-term naming rights/sponsorship agreement with a local corporation could potentially contribute a significant level of contractually-obligated dollars, along with funds stemming from opportunities for development rights in adjacent City-owned parcels.
- In addition to public sector funding sources, private sector revenue sources are often used to defray public sector funding obligations for development or renovations of municipally-owned facilities comparable to the KCAC. Based on a review of local facility and comparable facility funding sources, the most likely potential sources of private sector funding for the proposed project could include but are not limited to:
  - Ticket surcharges;
  - Contractually-obligated income;
  - Naming rights;
  - Concessionaire/Vendor Rights;
  - Private Donations/Endowments and,
  - Other sources.



# 1.0. INTRODUCTION

Conventions, Sports and Leisure International (CSL), in conjunction with Venue Solutions Group (VSG), Populous, McCarty Holsaple McCarty Architects (MHM), Smith Seckman Reid, Inc. (SSR) and Dayenesi, Inc. (Dayenesi), was retained by the City of Knoxville to conduct a market and feasibility study of the Knoxville Civic Auditorium and Coliseum (KCAC).

Since its opening in 1961, the KCAC has served a very important role in the Knoxville community, hosting a wide variety of entertainment, sports, arts, cultural, educational, and civic event activity. However, after more than a half century of service, the KCAC's space now is clearly substandard in industry terms and is significantly challenged with its marketability and functionality. As found through this study and past research, existing and past users cite a number of critical deficiencies pertaining to functionality, event logistics, space levels and apportionment, aesthetics and marketability to exhibitors/attendees.

The Knoxville Civic Auditorium and Coliseum is a City-owned multicomponent event facility. In terms of common event industry vernacular, the KCAC primarily consists of an arena (Coliseum) and a performing arts theater (Auditorium). The KCAC also integrates some smaller flat floor space for meetings, banquets and other types of activities, but these spaces are secondary to its function/role as an arena and theater venue. Specifically, the KCAC consists of a 6,540-seat Coliseum (4,790 seats for hockey or ice shows), a 2,500-seat Auditorium, a 4,800-square foot ballroom, 10,000 square feet of exhibit space and an outdoor plaza with a capacity of 10,000.

Over its lifespan, the KCAC has served the Knoxville community and surrounding region as a site of thousands of sporting events, concerts, theatrical presentations, political gatherings, circuses, family shows, ice shows, civic events, religious events, and other such events.



The primary objective of the study is to provide an analysis of the KCAC, assessing the market for potential programming at the facility and maximizing KCAC's suitability, either by renovation or a new facility, to better serve those programming purposes.

Conclusions of a particular event facility project's feasibility can be assessed in various ways, including:

- Market feasibility – the facility's ability to attract and support levels of event activity and patronization that are consistent with or in excess of industry standards. 
- Financial feasibility – the ability of the facility to "break-even" or generate an operating profit focusing only on direct facility-related operating revenues and expenses. 
- Economic spending – the facility's ability to generate new spending activity in the local community (i.e., direct and indirect spending that is attributable to out-of-town visitors that would not otherwise occur in the local area). 
- Tax generation – the ability of the facility to generate new tax revenue for the local area (i.e., tax revenue resulting from direct, indirect and induced spending that is attributable to out-of-town visitors that would not otherwise occur in the local area). 
- Costs/benefits/return on investment – the facility's ability to generate new revenues (i.e., from taxes, operating income and ancillary facility-related revenues, etc.) in excess of quantifiable facility-related costs (i.e., construction costs, operating costs, marketing costs, public sector contribution, etc.).
- Intangible benefits/public good – the ability of the facility to represent an important resource for the local community, regardless of financial or economic concerns. These types of benefits add to the local community's "quality of life" in the same way that libraries, museums and recreational parks do, without consideration of the economic impacts that the facility might generate.

When evaluating the feasibility of a public assembly facility, such as multipurpose event facilities, communities throughout the country have differed in the specific criteria that best reflects the definition of "feasible" for their community. For instance, one community may focus more on the ability of the project to be operationally self-supportive or require below a certain threshold of public sector contribution, rather than the intangible "public good" aspects the project would provide local residents.

The research, data, information and analysis provided through this study is intended to allow the City and other community constituents to draw their own informed conclusions concerning the “feasibility” of public sector investment in the KCAC.

This market and economic assessment provides a foundation of research to give the City and other decision-makers the information necessary to strategically plan for Knoxville’s future in the event facility industry. Importantly, this research provides direction not only as to the facility components that may be supportable from a market demand perspective, but also the visitor amenities surrounding Knoxville’s primary public assembly facility, including hotel support.

The study process consisted of detailed research and analysis, including a comprehensive set of market-specific information derived from the following:

- ✓ Experience garnered through more than 500 event facility projects throughout the country.
- ✓ Local market visit at the outset of the project, including community and site tours.
- ✓ Detailed physical facility condition assessment of the KCAC.
- ✓ In-person interviews, meetings and public forums with Knoxville area individuals, including representatives of municipal government, visitor and event industries, local companies, event producing organizations, and community groups.
- ✓ Research and analysis of local market conditions and regional and national trends as they relate to the spectator, entertainment, convention, and exhibition industries.
- ✓ Analysis of facility data obtained from over 32 competitive and/or comparable multipurpose center facilities and an assessment of competitive/regional facilities.
- ✓ Comparative analysis of socioeconomic data from competitive/regional and comparable facility markets.
- ✓ Completed telephone surveys of representatives of organizations and groups that represent potential users of multipurpose event facility space in Knoxville. Surveys and their respective target groups included planners and promoters of state, regional and national events and shows.



## 2.0. KCAC FACILITY CONDITION ASSESSMENT

Venue Solutions Group (VSG) provided a physical assessment of the Knoxville Civic Auditorium and Coliseum (KCAC) that benchmarks the current condition of the facility. As part of the assessment, VSG, in partnership with their consultant team including Smith Seckman Reid, Inc. (SSR) and Dayenesi, have developed a 20-year capital expense matrix to assist CSL and the City of Knoxville establish priorities for major repairs, potential upgrades and maintaining the facility in a way that extends the usable life of its assets. The matrix is intended to be a planning tool for the KCAC and should be updated periodically depending on owner, operator and tenant priorities and funding availability.

Since VSG has no control over construction costs or contractor prices, any equipment or infrastructure cost estimates are made on the basis of the consultants' experience and judgment, but it cannot and does not warrant or guarantee that future contractors' proposals, bids or costs will not vary from its estimates. The costs in the Capital Expense Matrix represent the replacement cost of the associated equipment only. They do not include any demolition or installation (some installs could be handled in-house, others by contractor), architectural, contractor or other professional fees, taxes, insurance, any product mark-ups, permits or licenses. Before undertaking a project involving items in the Capital Expense Matrix, we recommend a full vetting and identification of all costs prior to allocating or requesting funding.

Further analysis, discussion and detail pertaining to facility conditions, findings and recommendations associated with the KCAC physical facility assessment can be found in Appendices A through E.

### Architecture

The KCAC's design was modern and functional when first conceptualized and built more than 50 years ago. However, as would be expected, many of its architectural attributes (pertaining to both aesthetics and functionality) are now substandard and significantly outdated relative to the state-of-the-industry.

The seating in the Coliseum is original, and while it may evoke a level of nostalgia, does not offer the same comfort and acoustical ability as what is incorporated into public assembly venues today. The seating in the Auditorium is somewhat better, but still many seats have ripped and stained fabric. The seats are functional, but not necessarily aesthetically pleasing. In the Auditorium, the carpet has several stains and is worn, and we observed a potential safety issue behind the lower section of seats where there is no rail to prevent someone from falling into the last row of seats.





The finishes of the KCAC are all outdated and are either currently in need of replacement or soon will be. Countertops, carpeting, bathroom partitions, and wall tiles are in varying states of disrepair and do not match current design trends. Much of the facility is not accessible from an ADA standpoint, including some door widths, toilet count, and general paths of travel; any significant renovations will have to take this into account. In the Auditorium lobby, the ceiling has multiple stains that are the result of past leaks. These stains are highly visible to patrons and should be repaired.

The exterior enclosure of the venue must remain properly maintained, water tight, and efficient if it is to be in continued service in the coming years. The curtain wall and storefront glazing are single glazed systems, and is in need of general maintenance including re-sealing/gasketing of glazing panels in several locations. The glazing itself is in differing amounts of disrepair.

The wayfinding and other signage appear to have been added over many years; that is, there are different “looks” throughout the building, including paper signs that have been installed as a permanent solution. During a renovation, we suggest a complete overhaul of all signage in the building so that a uniform look can be achieved. This will also provide an opportunity to enlarge some signs and font sizes, which will provide a greater level of customer service.



The loge/box seating along the hockey glass in the Coliseum is of concern. We understand why the platforms were installed, and appreciate creating premium seating with limited resources. However, there are multiple issues with this – the materials are combustible (wood), there are no safety rails (only short pipe & drape), and there are a variety of floor coverings that are torn, stained, and creating trip hazards. When funds are available, we suggest utilizing a commercial staging system (similar to the risers in the end zone by the Exhibit Hall) and creating new boxes as well as ADA seating along the glass.

## Structure

Dayenesi conducted an exterior and interior visual inspection of KCAC in December 2014, with the associated garages inspected on separate occasions in December and January of this fiscal year. In addition to the walk-throughs, we examined multiple sets of building plans, related reports, and conducted discussions with building staff. Despite KCAC's advanced age, we found the overall structure to be very sound and in good condition; there are no immediate safety concerns related that we observed.



As expected in a venue that is more than 50 years old, there are elements of deterioration virtually everywhere, inside and out. While nothing is critical, in the absence of significant renovations we recommend the City make as many repairs over the next one to two years as possible.



The most common observations are spalling, cracking, exposed and/or rusting rebar, CMU wall settlement, corroded concrete, water infiltration, erosion, excessive gaps, and mineral deposits. The highest priority should be the service garage, since it is underground and any significant activities at this location create the greatest potential for harm. We also recommend removing any cracked granite slab partitions from restrooms; since patrons are in such close proximity to these elements, removing them eliminates the liability if they deteriorate to the point of falling.

The three adjacent parking garages were field visited, but since they were not part of the original scope and related fee, our analysis is only cursory. Our observations include excessive cracking, exposed and rusted rebar, and water seepage. Some of the crack patterns and location of cracks were identical on all floors, and we believe something unusual is occurring to create this. We also noticed rusting of unexposed rebar at several locations. Based on the field visit we strongly recommend that a full and complete structural assessment of the three garages be undertaken as soon as possible.

During our site visit, the City and KCAC staff acknowledged concerns with rigging in the Coliseum. Since the venue was designed and constructed prior to the rigging required of today's touring shows, the capabilities of KCAC are limited. There are multiple ways that rigging capacity can be increased, from strengthening the roof steel to creating an independent structure over the stage. Other venues who have sought to improve their rigging steel have spent anywhere from \$1.0 million to over \$3.0 million, depending on the final design. Should the market study indicate a need for increased rigging (due to new event activity), we would recommend a full rigging study be undertaken that would include multiple options for achieving this end.



The fly system in the Auditorium is original to the building's construction, and over the years, ropes and cables have been replaced as needed. Currently, the system functions correctly and with minimal problems; the union riggers conduct visual inspections on a regular basis. Replacing the system with an exact duplicate would not increase the number of events or reduce the labor necessary to operate the system, however a fully automated system with an increase in weight from 750 pounds to 2,000 pounds per line could indeed do both of those things. The market study should be the driver in considering an upgraded fly system, and for the purposes of our capital expense matrix, we have included a simple, exact replacement five years from now.

Regarding rigging in both the Coliseum and Auditorium, we recommend an annual inspection from a licensed and qualified firm. These types of firms can detect wear and tear, potential problems, and recommend solutions before serious issues arise.

## Mechanical, Electrical and Plumbing

In general, the KCAC mechanical, electrical and fire protection systems have been well maintained over the years. However, due to their age, a significant portion of the MEP equipment has reached the end of their overall life expectancy, requiring replacement or upgrade in order to mitigate any unexpected breakdowns.

After approximately 50 years of usage, it appears to Smith Seckman Reid, Inc. (SSR) that the facility utilizes a manual preventative maintenance and commissioning program to keep the mechanical, electrical, and plumbing systems running properly and as efficiently as possible based on the age of the equipment. Evidence of this program is demonstrated throughout the facility, with equipment operating effectively well past the industry standard for service life.

The Building Automation System (BAS) is an Andover system and was added in the energy upgrade project approximately five years ago. It is in good condition and should continue to perform well for another decade, but management should consider upgrades such as demand control ventilation (DCV) control for some air handling units, and single zone VAV control for all constant volume single zone systems, including the Coliseum bowl AHU's. These upgrades are not required for the system to be operational, but should the KCAC decide to consider them, we suggest a budget of \$50,000.

The chiller plant is comprised of three chillers of various ages and capacities. They have all been maintained properly, but again, due to simple age, a phased replacement should be considered. The earliest replacement would be within the next couple of years, and the latest would be 17 years from now. The ice floor is serviced by two water-cooled reciprocating chillers, and these have also been maintained well. The older of the two should be considered for replacement in approximately eight years, with the other one lasting another 16 years. These are not hard dates, as it is likely they will function past those times; however, as time passes, the chillers will become less energy efficient even under the most proactive maintenance. The associated cooling towers are in fair condition but have reached the end of their useful life and should be considered for replacement in the next two to four years.



The steam boilers appear to be in good working condition, and we believe they have another decade of life; however, the condensate feed water unit appears to be well past its serviceable life and we recommend its replacement. Also needing replacing in the short term (three to five years) are the hot water pumps, which while in fair condition for their age, are fast approaching the end of their service life.

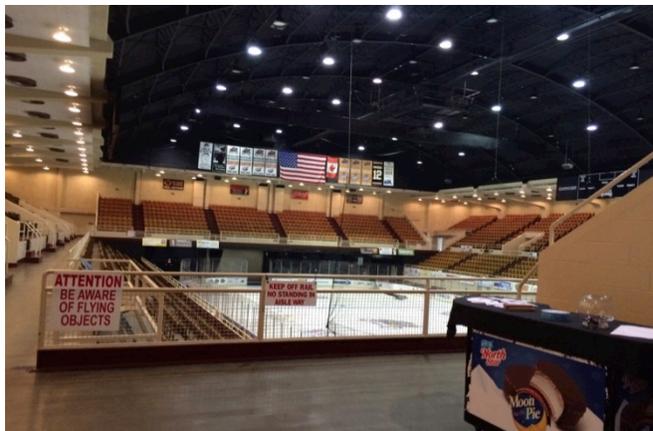
The air handling units (AHU) for KCAC are original to the facility and in working order, although a number of controls and motor upgrades have occurred through the years. We observed cooling coils to be relatively clean and several of the units have added UV lights to maintain cleanliness. Condensate drain pans had little signs of biological growth and motors were in good condition. Due to their age and inefficiency, though, we recommend KCAC consider a phased replacement of all AHU's over a multi-year period. Also, there are air exhaust systems in both the Coliseum and Auditorium; however, the one servicing the Auditorium is in poor condition and in need of replacing in the near future. In fact, because some of the covers do not close properly, venue management has placed weights on top of them to keep out rainwater. These specific units do not function anyway, so the immediate need would be to replace them within the next year.

Currently, the electrical service to the venue appears to be sufficient, but should be evaluated in the face of any sizeable renovation. The main switchgear appears to be in good condition, especially considering its age. In its current location, the switchgear does not meet NEC 116.26, so in the event it had to be replaced, it would not be able to go back to the current location without some major modifications of the room and its current space configuration.

Many electrical panel enclosures are showing signs of fatigue and are in need of replacing.

The event/show power in the Auditorium has been sufficient, according to building staff, but at the Coliseum additional power has been needed at times. Only one show power disconnect has cam-lock connections (in Auditorium), and the majority of panels are aged and showing wear.

Emergency power for the venue is provided by one natural gas engine generator installed indoors, and it serves basic life safety emergency lighting. It was installed a few years ago and is in good condition.



Lighting in and around KCAC consists of a variety of types – recessed and surface mount fixtures with incandescent as well as fluorescent bulbs. Areas that have been renovated have the more energy efficient fixtures, and all the lighting appears to be in generally good condition, offering sufficient illumination. To provide for the long term, we recommend a complete lighting evaluation in order to continue to change the building over to using LED technology. The sports lights in the Coliseum consist of 1000W metal halide fixtures, and overall the system is in fair condition.

There is no building-wide lighting control system, and the Coliseum is still using the original control console utilizing contactors to operate lights for events. Since many hours of labor are expended in manually turning on and off lights, we recommend KCAC consider installing a lighting control system that is capable of scheduling (for events), with local area control by occupancy sensors. The viability of the

KCAC is not dependent on such a system, and as such it is not listed in the capital expense matrix. However, it is important to note the benefits of such a system.

The fire alarm system was installed a few years ago and is in good working order. The typical life span of this type of system is 20 years, so the one in KCAC should be viable for at least another decade.

Due to a ruptured water main in 2007 or 2008, a new single 4" high pressure water service with pressure reducing valve and backflow preventer, along with a new 8" fire service main, was installed in KCAC. The system is operational without any leaks noted.

Some of the pipe insulation is original to the building's construction, and based on a study in 2014, it is likely that the insulation contains asbestos. Prior to any renovation, this situation should be reviewed to determine impacts to budgets and project schedules.

Regarding pipe, the condition of the galvanized screw waste and vent piping is a concern. Although it appears to be in good condition outside, it is likely this type of galvanized pipe will corrode from the inside out, causing a reduced internal diameter, which then causes reduced flow issues and leaks. The piping will need to be replaced to maintain operation of the facility for the next 5-15 years. It could not be verified if it was installed below the floor slab, but observation indicates it is.



A majority of plumbing fixtures were replaced in 2010, with the biggest exception being the freestanding urinals that were cast into the raised floor during construction. Flush valves have been updated, there are metering faucets in place, there are some photo eye models, and all fixtures tested were functional. We do recommend replacing the freestanding urinals in the near future, so that they can meet ADA standards as well as facilitate general comfort with privacy panels.

Domestic hot water is provided by two gas-fired hot water heaters that were installed in 2004 and are in good condition. Though there are several areas serviced by localized storage or instant type water heaters, these vary in age and condition but in general are operating properly.

One plumbing recommendation that relates to operations is the consideration to add a second reduced pressure backflow preventer to the cold water service main in the crawl space. If the one existing unit fails during an event the facility would be out of water until it is repaired.

We estimate that approximately 20 percent of the facility contains fire sprinkler coverage, with the Auditorium stage and lower dressing room areas receiving this coverage. There are also fire hose cabinets with fire extinguishers and hoses on several levels. The standpipes have newer piping (after the 2008 main break). Water pressure is very good and in the 125 psi range in the street, and the system is generally in compliance with NFPA standards.

## Roof

The current roof was installed in 2005, covers approximately 103,150 square feet and is comprised of three distinct areas—a barrel roof, a flat roof, and a roof over the stage/flyspace. All three roofs are covered by a rubber membrane. Our observation was visual only, performed by an experienced public assembly venue manager (not a licensed roofing contractor). We noted a few minor areas of repair, and overall the roofs appeared to be in fair condition; however we have been informed of two previous instances of hail damage and resulting leaks, and that assessment should take precedent over ours. We did observe several locations of ponding water, and this should be remedied soon to minimize deterioration of the membrane. The most critical issue we observed is the presence of weights on exhaust vent covers located on the flyspace roof. While this doesn't pose an immediate danger, as not all the vents are weighted down, KCAC management should make the necessary repairs in order to remove the weights and make the covers and related exhaust system functional.



There is a significant amount of dirt on the membrane, and this does not pose any problems unless the local soil contains elements that can degrade the membrane (the City should consider a soil test to verify). Most importantly, the roof should be inspected annually by a qualified roofing consultant and repairs made based on report recommendations.

## Foodservice

Ovations is a national foodservice operator that provides all such services at KCAC. All equipment was found to be in good to very good condition, and almost all equipment has been replaced since 2000 (a detailed list was provided by Ovations). Due to the space available, there is very limited cooking in the stands, and only one location has fryers and a griddle. Similarly, the venues were outfitted with nothing more than a warming kitchen, so preparing fully catered meals on site is very difficult. Also due to space limitations, the ratio of points-of-sale (POS) to number of guests is lower than what is found in today's designs; any future renovation should include improving this ratio for better and faster customer service.



One capital item for consideration is the purchase of a computerized POS system. Such a system could provide inventory control, better drawer reconciliations, full credit card acceptance, and access to sales data that can then be used to improve offerings. This item is not listed in the capital expense matrix

because it is not a requirement to operate foodservice, but if interested, such a system with 25 POS terminals would cost in the range of \$125,000 - \$150,000.

## Technology

Given the advanced age of the KCAC, the technology in the venue is relatively new. The video and scoreboards in the Coliseum are seven years old and in very good condition, the exterior marquee video board is less than a year old and in top operating condition, and the sound systems in the Coliseum and Auditorium are 10 years old and two years old, respectively. The sound systems are in good working order, although the sound coverage on the floor of the Coliseum is not sufficient and should be taken into account when a replacement is deemed necessary.

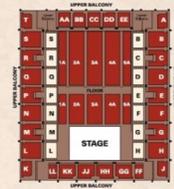
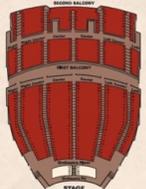


Further analysis, discussion and detail pertaining to facility conditions, findings and recommendations associated with the KCAC physical facility assessment can be found in Appendices A through E.

### 3.0. ANALYSIS OF HISTORICAL KCAC OPERATIONS

The purpose of this chapter is to inventory and analyze key elements of the historical operations of the Knoxville Civic Auditorium and Coliseum (KCAC). Understanding utilization levels, event mix and other such characteristics of the facility is important to provide a basis from which to evaluate short and long-term market demand characteristics for Knoxville and the KCAC, and to help make informed decisions regarding the optimal business plan for the future of the Complex.

The Knoxville Civic Auditorium and Coliseum has served the community as a site of sporting events, concerts, major theatrical presentations, political gatherings, circuses, family shows and ice shows and other events since 1961. The facility consists of a 6,540-seat Coliseum (4,790 seats for hockey or ice shows), a 2,500-seat Auditorium, a 4,800-square foot ballroom, 10,000 square feet of exhibit space and an outdoor plaza with a capacity of 10,000.

COLISEUM		AUDITORIUM		OTHER EVENT SPACE	
					
					
					
Hockey Capacity:	4,787	Total Capacity:	2,500	Ballroom:	4,800 sf
Total Capacity:	6,539	Lower level:	1,344	Exhibit Space:	10,000 sf
Floor space:	20,988 sf	Balcony:	1,014	Plaza:	10,000 cap.
		Other:	142	Parking:	3 garages, 2,500 spaces

We begin our analysis with a Complex-wide summary of annual performances, utilization days and attendance for the years 2007 through 2014, followed by a detailed analysis, by event space, as presented in Exhibits 1 through 4 on the following pages.

**Exhibit 1  
Historical KCAC Operations Analysis –  
Summary (2007 – 2014)**

	2014	2013	2012	2011	2010	2009	2008	2007
Performances	161	184	199	184	182	168	186	166
Utilization Days	178	201	205	169	167	158	178	161
Calendar Days Utilized	150	155	162	164	158	150	167	151
<b>KCAC Calendar Day Utilization</b>	<b>41.1%</b>	<b>42.5%</b>	<b>44.3%</b>	<b>44.9%</b>	<b>43.2%</b>	<b>41.1%</b>	<b>45.6%</b>	<b>41.4%</b>
Attendance	248,265	313,132	307,477	292,256	272,228	245,700	320,310	293,482

**Exhibit 2  
Historical KCAC Operations Analysis –  
Coliseum Annual Performances and Attendance (2007 – 2014)**

Coliseum Performances	2014	2013	2012	2011	2010	2009	2008	2007
Tenant Sports	45	56	71	80	76	68	66	32
Concerts	7	6	5	10	7	9	10	6
Family/Ice Shows	18	16	20	16	26	14	22	18
Non-Tenant Sports	3	2	7	4	2	2	1	12
Community/Religious	8	16	13	7	7	6	9	12
Other	2	2	2	2	3	2	7	6
<b>Total</b>	<b>83</b>	<b>98</b>	<b>118</b>	<b>119</b>	<b>121</b>	<b>101</b>	<b>115</b>	<b>86</b>

Coliseum Attendance	2014	2013	2012	2011	2010	2009	2008	2007
Tenant Sports	77,296	85,501	96,259	98,616	74,740	75,470	87,890	31,738
Concerts	23,251	19,290	15,333	34,814	21,396	27,570	33,433	24,403
Family/Ice Shows	47,098	44,719	45,660	44,425	39,579	32,167	44,593	43,186
Non-Tenant Sports	6,936	5,983	13,414	9,138	6,848	2,109	753	22,822
Community/Religious	16,716	42,527	37,665	29,473	37,050	26,112	44,324	41,898
Other	1,052	1,186	1,075	1,347	11,669	1,306	13,482	19,173
<b>Total</b>	<b>172,349</b>	<b>199,206</b>	<b>209,406</b>	<b>217,813</b>	<b>191,282</b>	<b>164,734</b>	<b>224,475</b>	<b>183,220</b>

**Exhibit 3  
Historical KCAC Operations Analysis –  
Auditorium Annual Performances and Attendance (2007 – 2014)**

Auditorium Performances	2014	2013	2012	2011	2010	2009	2008	2007
Tenant Performance	27	30	27	28	30	30	35	42
Concerts	2	8	7	4	4	10	11	11
Non-Tenant Performance	11	12	19	11	6	8	9	11
Other	7	6	1	6	7	8	5	8
<b>Total</b>	<b>47</b>	<b>56</b>	<b>54</b>	<b>49</b>	<b>47</b>	<b>56</b>	<b>60</b>	<b>72</b>

Auditorium Attendance	2014	2013	2012	2011	2010	2009	2008	2007
Tenant Performance	35,740	50,473	45,336	36,215	45,700	42,265	56,404	60,477
Concerts	3,048	11,531	11,315	6,734	8,172	7,714	11,887	22,003
Non-Tenant Performance	15,539	15,364	24,603	10,595	6,458	11,180	9,052	15,005
Other	9,460	10,826	1,652	5,510	7,606	34,596	5,527	28,015
<b>Total</b>	<b>63,787</b>	<b>88,194</b>	<b>82,906</b>	<b>59,054</b>	<b>67,936</b>	<b>95,755</b>	<b>82,870</b>	<b>125,500</b>

**Exhibit 4**  
**Historical KCAC Operations Analysis –**  
**Other Annual Performances and Attendance (2007 – 2014)**

Other Event Activity	2014	2013	2012	2011	2010	2009	2008	2007
Community Event - Rent Free	18	16	12	0	0	0	0	0
Community/Religious	2	6	4	4	3	3	1	1
Meetings/Banquets/Seminars	4	9	11	10	9	8	9	6
Other	8	2	2	1	1	1	0	0
<b>Total</b>	<b>32</b>	<b>33</b>	<b>29</b>	<b>15</b>	<b>13</b>	<b>12</b>	<b>10</b>	<b>7</b>

Other Event Attendance	2014	2013	2012	2011	2010	2009	2008	2007
Community Event - Rent Free	2,403	1,513	1,038	0	0	0	0	0
Community/Religious	6,704	20,173	9,078	4,143	3,005	2,633	358	318
Meetings/Banquets/Seminars	2,177	5,298	5,161	3,722	2,306	900	2,020	423
Other	2,195	1,440	1,648	152	146	475	0	0
<b>Total</b>	<b>13,479</b>	<b>28,424</b>	<b>16,925</b>	<b>8,017</b>	<b>5,457</b>	<b>4,008</b>	<b>2,378</b>	<b>741</b>

Exhibit 1, on the previous page, presents the number of performances (e.g., games, concert performances, ballroom events) that took place within event space at the KCAC on an annual basis. Utilization days represent the total number of days that event space was occupied at the KCAC, including move-in/out and event days. Calendar Days Utilized represents the total number of days some event space was utilized at the KCAC, removing duplicative counting for days in which multiple event spaces were used. Calendar Day Utilization is then calculated by dividing the number of Calendar Days Utilized by the total number of days in a given year.

Between 2007 and 2014, overall event activity at the KCAC varied very little, ranging from a low of 161 performances in 2014 to a high of 199 performances in 2012. Furthermore, Calendar Day Utilization percentages fluctuated between 41.1 percent (in 2009 and again in 2014) and 45.6 percent (in 2008), suggesting a mature event facility product.

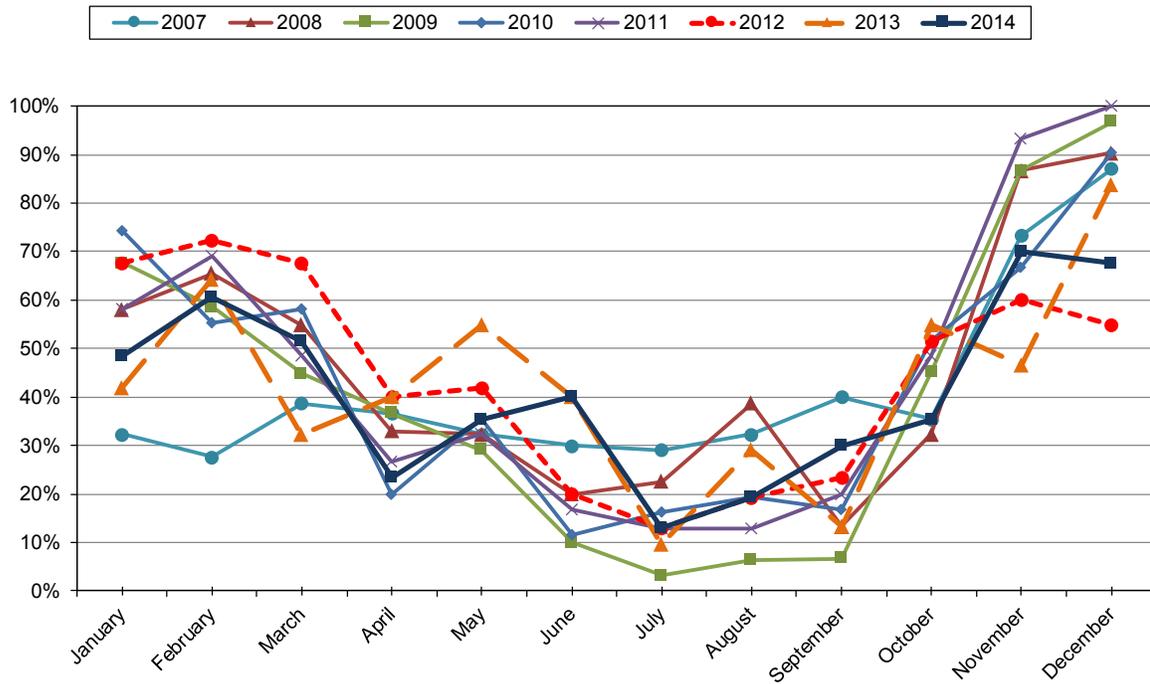
As shown in Exhibit 2, the Coliseum has hosted the most events annually with an average of 105 events per year over the eight-year period analyzed. Tenant sports have accounted for the most total performances and the most total annual attendance (with the exception of 2007), followed by Family/Ice Shows, Community/Religious events and Concerts, respectively. Coliseum performances and attendance levels peaked between 2010 and 2012, then declined in 2013 and 2014 due to the loss of the Professional Indoor Football League team the Knight Hawks.

As presented in Exhibit 3, the Auditorium has hosted an average of 55 performances, annually, between 2007 and 2014. Since 2007, the number of performances and attendance has decreased in part due to the development/redevelopment of the Tennessee Theatre, Bijou Theatre and Thompson-Boling Arena, as will be discussed in the subsequent chapter, with event and attendance levels appearing to have stabilized in recent years.

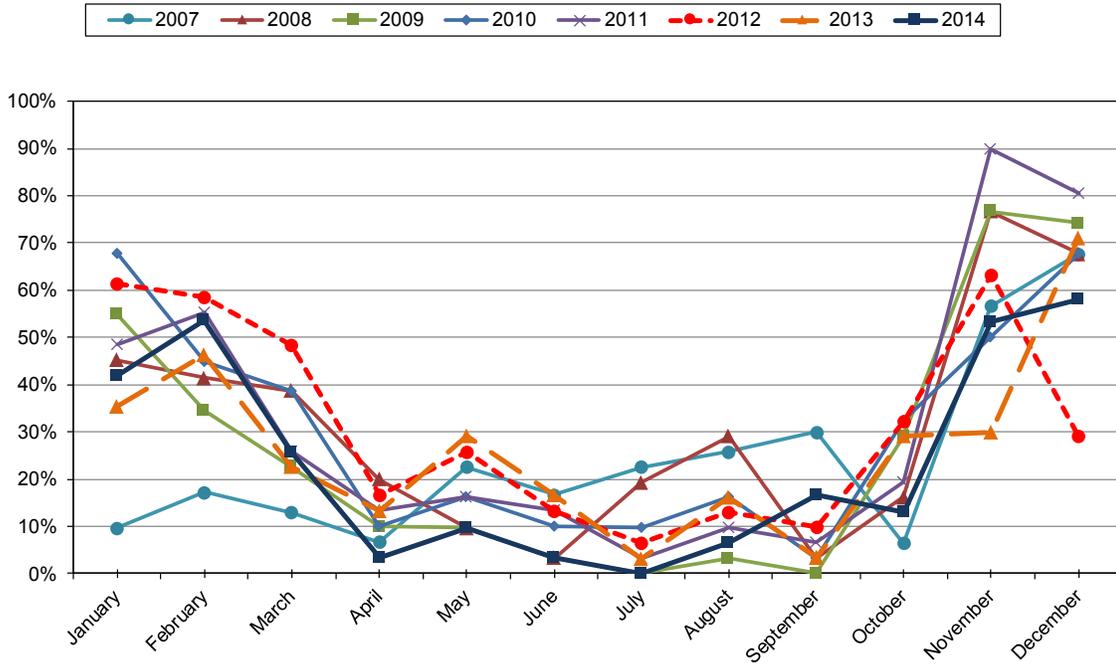
Event and attendance levels within other event spaces (the ballroom, plaza and/or exhibit hall), as shown in Exhibit 4, has increased nearly 80 percent since 2007. This increase can, in part, be attributed to the increased level of focus of existing facility management. However, even in the most recent years the performance and attendance levels among events within other event space account for less than twenty percent of total KCAC event activity.

We have further summarized Calendar Day Utilization percentage within the entire KCAC and individually within the Coliseum and Auditorium, by month, for the eight-year period spanning 2007 through 2014, as presented in Exhibits 5 through 7 below and on the following page.

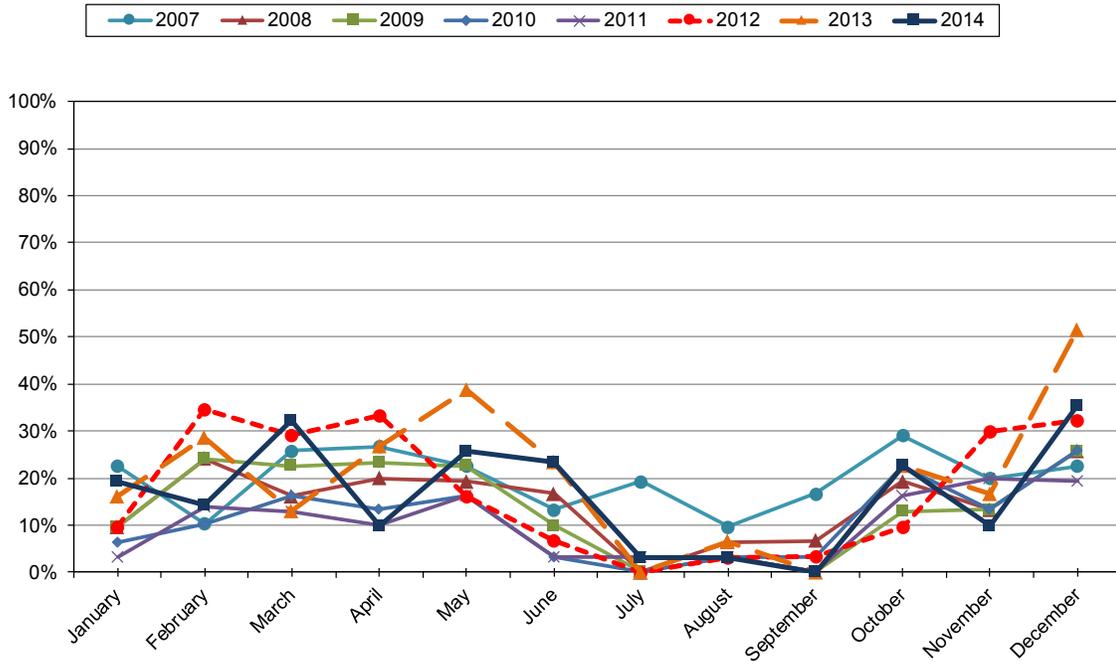
**Exhibit 5  
Historical KCAC Operations Analysis –  
Monthly Occupancy of the KCAC (2007 – 2014)**



**Exhibit 6  
Historical KCAC Operations Analysis –  
Monthly Occupancy of the Coliseum (2007 – 2014)**



**Exhibit 7  
Historical KCAC Operations Analysis –  
Monthly Occupancy of the Auditorium (2007 – 2014)**



Collectively, all three charts follow a similar pattern of relatively consistent utilization from October through March, December being the most utilized month of the year. Additionally, the data presents a drop in occupancy during the summer months, July being the least utilized month of the year with occupancy ranging from 3.2 percent in 2009 to 29 percent in 2007. The entire facility showing higher occupancy percentages while taking into account both the Civic Auditorium and Coliseums monthly utilization.

While annual KCAC Calendar Day Utilization percentages have hovered around 40 to 45 percent over the past eight years, looking more closely at these data, we note that monthly KCAC Calendar Day Utilization levels are significantly higher during many of the winter and spring months. This is particularly evident within the Coliseum, as utilization percentages from November through February closely mirror those of the KCAC as a whole. As shown in Exhibit 7, the Auditorium’s monthly Calendar Day Utilization remains relatively steady from October through June, with limited usage from July through August. These seasonal pattern are relatively consistent with similar Coliseum and Auditorium complexes throughout the country.

In addition to analyzing historical event activity, we have analyzed the historical financial operations of the KCAC. Exhibit 8 below presents a summary of KCAC operating revenues, expenses and resultant net operating deficit for each of the past seven full fiscal years.

**Exhibit 8**  
**Historical KCAC Operations Analysis –**  
**Financial Operating Results (FY 2008 – 2014)**

Fiscal Year	Operating Revenue	% Change	Operating Expenses	% Change	Net Operating Deficit	% Change
2014	\$1,657,730	0.8%	\$2,458,431	6.2%	-\$800,701	19.4%
2013	\$1,645,167	-2.6%	\$2,315,965	-7.8%	-\$670,798	-18.5%
2012	\$1,688,746	11.0%	\$2,511,810	-3.3%	-\$823,064	-23.5%
2011	\$1,521,965	12.2%	\$2,597,263	10.2%	-\$1,075,298	7.4%
2010	\$1,356,185	-15.1%	\$2,356,942	-7.7%	-\$1,000,757	4.6%
2009	\$1,597,735	-13.8%	\$2,554,585	-9.3%	-\$956,850	-0.5%
2008	\$1,853,542	--	\$2,815,405	--	-\$961,863	--

As presented, the KCAC has operated at an annual deficit ranging from approximately \$671,000 in FY2013 to nearly \$1.1 million in FY2011. Like the KCAC, the large majority of publicly-owned arena, theater, convention center, and civic center facilities located throughout the country generate an annual financial operating deficit. On a per square foot and per seat basis, the KCAC’s annual financial operating deficit is consistent with or slightly better than the average comparable facility located in similar markets, which is an indication of management’s emphasis on operating cost containment and/or City budget mandates. However, the KCAC is attracting a lower than average level of event activity in both the Auditorium and Coliseum relative to comparable facility averages, which would be expected, given the KCAC’s age, substandard physical product, accommodated event mix, and functional/marketability challenges.



## 4.0. ANALYSIS OF LOCAL MARKET CONDITIONS

The strength of the local market, in terms of its socioeconomic and demographic attributes, can provide an indication of a community's ability to draw and accommodate large numbers of sports, entertainment, convention, arts, cultural, civic and other spectator event attendees. A community's hospitality infrastructure in terms of hotels, restaurants, entertainment and other such factors contribute heavily to the potential success of event facilities. An analysis of these attributes was conducted as they relate to the market potential for event facilities in Knoxville.

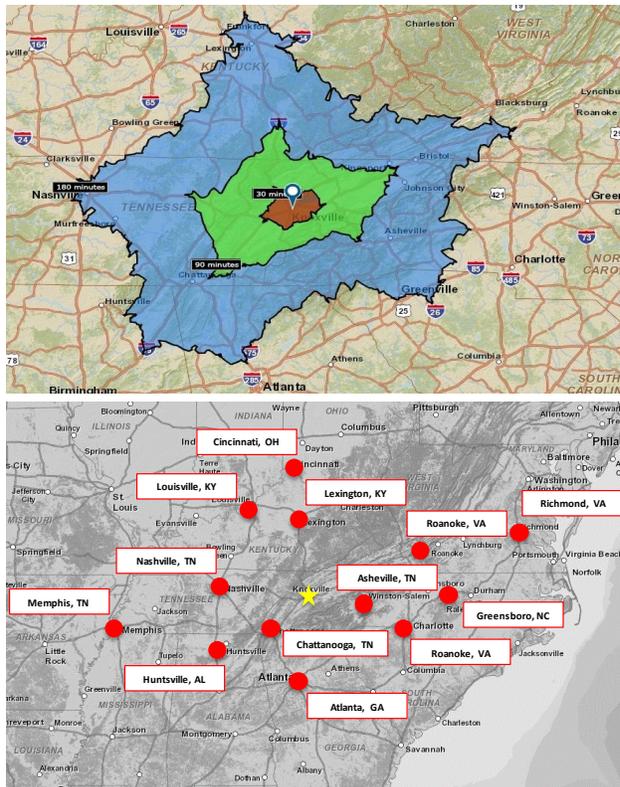
### Location and Transportation

Exhibit 1 illustrates the location of Knoxville and its regional markets, the approximate drive time and the market population. Additionally, the exhibit demonstrates the markets and land area captured within 30-, 90- and 180-minute estimated driving distances. These rings will be utilized throughout the report while analyzing and comparing demographic and socioeconomic variables.

**Exhibit 1**  
**Location & Transportation – Driving Distance to Regional Cities**

City	State	Miles From Knoxville	Approximate Drive Time	Market Population
Chattanooga	TN	113	1:49	539,389
Asheville	NC	116	1:56	433,801
Greenville	SC	168	2:50	659,598
Lexington	KY	171	2:40	487,591
Nashville	TN	178	2:43	1,649,030
Atlanta	GA	192	3:29	5,464,971
Huntsville	AL	211	3:18	434,703
Charlotte	NC	215	3:49	1,839,539
Louisville	KY	238	3:43	1,307,758
Winston-Salem	NC	238	4:01	486,973
Cincinnati	OH	248	3:44	2,146,509
Birmingham	AL	252	3:45	1,136,700
Roanoke	VA	260	3:51	310,076
Columbia	SC	263	4:04	788,170
Greensboro	NC	286	4:25	739,216
Evansville	IN	329	4:56	361,153
Raleigh	NC	333	5:37	1,202,574
Columbus	OH	340	5:26	1,883,901
Montgomery	AL	343	4:58	383,294
Indianapolis	IN	357	5:22	1,804,523
Memphis	TN	388	5:45	1,336,400
Savannah	GA	416	6:15	364,947
Richmond	VA	420	6:24	1,284,147
Tallahassee	FL	481	7:28	376,058
St. Louis	MO	485	7:06	2,821,397
Pittsburgh	PA	493	7:44	2,362,773

Source: Google Maps, Esri Demographics Report, 2015



As shown on the previous page, Knoxville is located at the confluence of Interstates 75 and 40, connecting the city to Nashville and Memphis to the west, Chattanooga to the southwest, Atlanta to the south, Lexington to the north and Asheville and Greensboro to the east. Other population centers located within 350 include Louisville, Cincinnati, Birmingham, Evansville, Raleigh, Columbus and Montgomery.

Exhibit 1 additionally demonstrates the markets and land area captured within the 30-, 90-, and 180-minute drive time rings around the Knoxville area. These rings will be utilized in depth in the section to follow, as well throughout the report while analyzing and comparing demographic and socioeconomic variables.

## Demographics

An important component in assessing the success of a potentially renovated/redeveloped KCAC is the demographic and socioeconomic profile of the local market. Specific demographic and socioeconomic information that can provide an indication of the ability of a market to support a multipurpose event facility includes population, age, household income and corporate base. Promoters/planners of spectator events (and other events that tend to draw largely from the local driving area) often consider these factors when selecting the appropriate markets for their events. Additional key Knoxville area metrics can be found in Appendix G.

Exhibit 2 provides a summary of key demographic characteristics estimated for the city of Knoxville, Knox County, markets captured in 30-, 90-, and 180-minute drive time rings around the city of Knoxville, the state of Tennessee, and a United States benchmark.

**Exhibit 2  
Demographics – Knoxville Area Summary**

Demographic Variable	City of	Knox				State of	U.S.
	Knoxville	County	30-minute	90-minute	180-minute	Tennessee	
Population (2000)	173,027	382,032	511,244	1,414,681	6,645,312	5,689,283	281,421,906
Population (2010)	178,874	432,226	581,507	1,579,852	7,494,672	6,346,105	308,745,538
Population (2014 est.)	181,520	443,903	597,834	1,617,861	7,712,032	6,539,407	316,296,988
% Change (2000-2014)	4.9%	16.2%	16.9%	14.4%	16.1%	14.9%	12.4%
Population (2019 est.)	186,164	460,725	620,659	1,664,013	8,005,057	6,802,862	327,981,317
% Change (2014-2019)	2.6%	3.8%	3.8%	2.9%	3.8%	4.0%	3.7%
Average Household Inc. (2014 est.)	\$47,319	\$66,810	\$64,313	\$55,076	\$57,081	\$60,809	\$72,809
Average Household Inc. (2019 est.)	\$54,612	\$76,660	\$73,392	\$62,266	\$64,703	\$69,308	\$83,937
% Change (2014-2019)	15.4%	14.7%	14.1%	13.1%	13.4%	14.0%	15.3%
Median Age (2014, in years)	33.8	38.0	39.0	41.6	39.9	28.8	37.7
Businesses (2014 est.)	15,648	31,959	41,502	99,164	524,188	432,472	24,262,035
Employees (2014 est.)	154,977	233,072	300,679	644,056	3,113,790	2,772,312	141,523,742
Employee/Residential Population Ratio	0.85:1	0.53:1	0.5:1	0.4:1	0.4:1	0.42:1	0.45:1

The population of the city of Knoxville is approximately 181,500, while future projections based on U.S. Census data estimate Knoxville's population to be approximately 186,200 in 2019.

The estimated population within a 30 minute drive of Knoxville is approximately 597,800 in 2014, which is an estimated 16.9 percent increase over 2000 population within that radius. This growth is slightly higher than the estimated 14.9 increase throughout the state of Tennessee and 12.4 percent increase in the United States. The population base within the 90- and 180-minute drive time rings is estimated at 1.6 and 7.7 million, respectively.

As highlighted in Exhibit 2 on the previous page, average household income among Knoxville residents approximates \$47,300, which is approximately 35 percent (approximately \$25,500) less than the national average, 22 percent (approximately \$13,500) less than the state average, and 30 percent (approximately \$19,500) less than the average in Knox County.

### Corporate Base

The number of corporations in a market is an important characteristic to evaluate when determining the viability of an event center, as it would be expected that some events would represent local event activity such as corporate meetings, banquets, conferences and training, as well as through the purchase of tickets to facility events, and addition to the facility's premium seating, advertising and sponsorships. Indirectly, the size of a local corporate base also tends to be correlated with the level and breadth of supporting community amenities (i.e., hotels, restaurants, transportation infrastructure, etc.), which are relevant when considering non-local events.

Exhibit 3 outlines the top private sector employers in Knox County with 100 or more total full-time employees.

**Exhibit 3  
Demographics - Top Knoxville Area Employers**

Top Knoxville Employers	# of Employees	Top Knoxville Employers	# of Employees
U.S. Department of Energy	11,877	City of Knoxville	1,656
Covenant Health	9,122	Tennessee Valley Authority	1,538
Knox County Schools	7,066	CVS Caremark Corporation	1,524
University of Tennessee	6,550	Pilot Flying J	1,451
Wal-Mart Stores, Inc.	5,776	United Parcel Service (UPS)	1,450
McGhee Tyson	4,897	E.W. Scripps Company	1,450
University Health System	4,061	Team Health, Inc.	1,442
K-VA-T Food Stores	3,857	Summit Medical Group	1,360
DENSO Manufacturing Tennessee	3,400	Copper Cellar Corporation	1,253
Tennova Healthcare	3,124	Lowe's Companies	1,250
Knox County Government	2,991	U.S. Bancorp	1,245
State of Tennessee	2,808	Home Depot, Inc.	1,213
Clayton Homes, Inc.	2,631	Alcoa, Inc. - TN Operation	1,207
The Kroger Company	2,555	Jewelry Television	1,150
Dollywood Company	2,521	Pellissippi State College	1,104
Blount Memorial Hospital	2,441	Anderson County Schools	1,100
Sevier County Schools	2,423	Shoney's of Knoxville, Inc.	1,095
McDonald's Corporation	2,416	Darden Restaurants	1,080
E.TN Children's Hospital	1,992	U.S. Postal Service	1,067
Yum! Brands RSC	1,806	Choice Hotels International, Inc.	1,057
Blount County Schools	1,800	Target Corporation	1,045
Cracker Barrel	1,758	Hilton Worldwide, Inc.	1,038

Note: Knoxville area includes: Anderson, Blount, Grainger, Jefferson, Knox, Loudon, Monroe, Roane, Sevier & Union Counties  
Source: Major Employers in the Knoxville Area, Knoxville Oak Ridge Innovation Valley, 2014

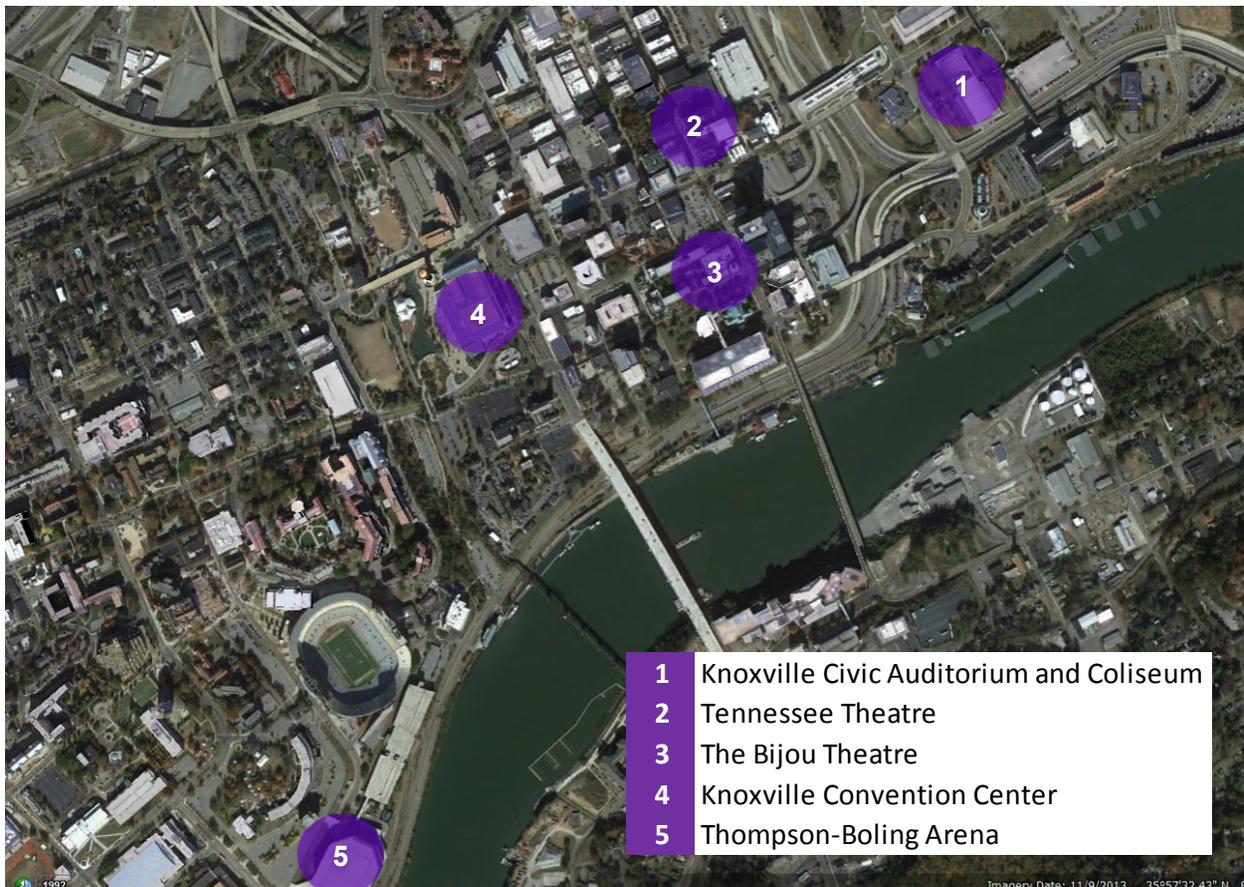


There are approximately 44 employers in the Knoxville area employing 1,000 people or more. Collectively, these top companies and organizations provide nearly 115,500 local jobs. U.S. Department of Energy is the largest employer with nearly 11,900 employees. The University of Tennessee employs just over 6,500 employees. Other large employers include Covenant Health, Knox County Schools, Wal-Mart Stores, Inc., McGhee Tyson and University Health System.

## Local Event Facility and Hotel/Lodging Inventory

The number of potentially competitive event facilities in the local market area is an important consideration with respect to the overall viability of the potentially renovated/redeveloped KCAC. Exhibit 4 outlines the key existing conditions within downtown Knoxville.

**Exhibit 4**  
**Downtown Knoxville – Key Existing Event Facilities**





### Thompson-Boling Arena

Thompson-Boling Arena serves not only as the home to the Tennessee Volunteers men’s and women’s basketball and women’s volleyball, but is the primary venue for large concerts and events in Knoxville hosting approximately 40 to 50 events annually. The facility offers 18,400 square feet of flat floor space, 21,678 seats and 32 suites. It has the rigging capabilities to accommodate approximately 200,000 pounds and a curtaining system that can reduce the venue capacity to roughly 10,000 seats. Although it can structurally handle large events, its limited date availability with University athletics requirements and no alcohol policy have somewhat limited its ability to accommodate all of the concert and touring show demand that exists in Knoxville.



### Tennessee Theatre

The Tennessee Theatre opened in 1928. In 2005, it underwent a year and a half, approximately \$24.5 million renovation and expansion to the interior of the facility. Maintaining and enhancing its original character has created a state-of-the-art performing art center serving the city, county and Eastern Tennessee.

Annually, the theater hosts an estimated 45 to 50 events including an additional 25 to 35 Broadway shows. Rental rates vary from \$3,000 to \$4,000 per performance day with an additional \$1,250 per same-day performance.

Its location near Market Square in the downtown area has made it a popular destination as a spectator event venue while also limiting its parking availability. The theater’s capacity of approximately 1,638 as well as back-of-house support has made it difficult at times to accommodate large performances.



### Bijou Theatre

The Bijou Theatre opened in 1909, but was originally built in 1818. The theater is in the National Register of Historic Places and is currently the fourth oldest building in the city of Knoxville. Throughout the years, the facility has been faced with the threat of closing its doors and being torn down for different reasons including mortgage default. Luckily, the community and local investors prevailed in maintaining the theatre as a historic establishment. In 2006, The Bijou re-opened after a \$2.1 million renovation, rejuvenating the facility's interior.



The facility is under the same management as the Tennessee Theatre, A.C. Entertainment. Annually, The Bijou hosts an average of 60 to 65 performances presenting operas, musicals, concerts and comedy shows.

The theatre capacity of approximately 750 provides for an intimate event setting.



### Knoxville Convention Center

Opened in 2002 and offers approximately 167,100 square feet of total sellable space with 119,900 contiguous space. Additionally there is 19,900 square feet of meeting space and the largest ballroom in Eastern Tennessee with approximately 27,300 square feet.

While these venues present the most direct level of competition to the KCAC for hosting promoted concerts and other touring events in Knoxville, there are a number of other venues capable of hosting these types of events as presented in Exhibit 5, on the following page.

**Exhibit 5  
Local Facilities – Downtown Knoxville Spectator Event Facilities**

Key	Venue	Capacity
1	Neyland Stadium	102,455
2	Thompson-Boling Arena	21,678
3	Tennessee Theatre	1,630
4	The International	1,200
5	The Bijou Theatre	750



Note: Figures represent seating capacity. Only facilities with capacities of 750 or greater that regularly book talent.  
Source: Industry publications, facility management and websites, 2015

As shown above, there are five primary existing spectator event facilities in the downtown Knoxville area that offer total capacities of 750 or greater. The largest two facilities are they Neyland Stadium (102,455 capacity) and Thompson-Boling Arena (21,678 capacity). Both facilities are home to University of Tennessee, Knoxville sports teams and located on the campus, just southwest of downtown along the Tennessee River. The primary two spectator event venues in the downtown area are the Tennessee Theatre (1,630 capacity) and The Bijou Theatre (750 capacity) both facilities are managed by local event promoter, AC Entertainment.

Exhibit 6 summarizes the number of ticketed events and shows reported to Pollstar, a trade publication for the concert tour industry for the primary spectator event venues in Knoxville for the year 2014. Additionally, the average number of tickets sold per event and the average gross revenue per event in the same year.

**Exhibit 6  
Local Facilities – Pollstar Tracked Ticketed Events, 2014**

Facility	Shows	Avg. Tickets Sold	Avg. Gross Revenue
Bijou Theatre	69	492	\$11,250
Tennessee Theatre	63	1,228	\$62,559
Thompson-Boling Arena	18	7,612	\$338,931
<b>Knoxville Coliseum</b>	<b>14</b>	<b>3,497</b>	<b>\$143,996</b>
<b>Knoxville Auditorium</b>	<b>3</b>	<b>1,931</b>	<b>\$108,528</b>
<b>Total</b>	<b>167</b>	<b>14,760</b>	<b>\$665,264</b>

Note: Only represent ticketed events/shows reported to Pollstar  
Source: Pollstar.com, 2015

As shown above, Knoxville Civic Auditorium and Coliseum rank last in the total number of shows for the year 2014. The largest number of shows reported to Pollstar were at the Bijou Theatre (69 shows) and

the Tennessee Theatre (63 shows). However, the average gross revenue per event place the Coliseum second and the Auditorium third in ranking.

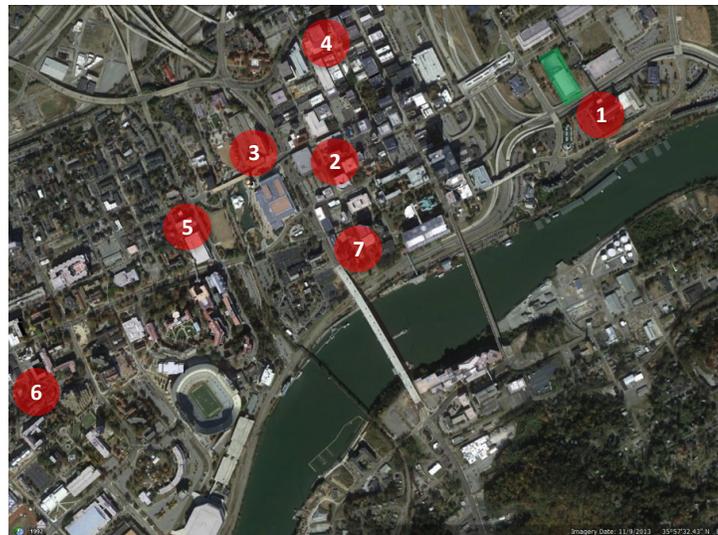
When comparing the average number of tickets sold by total capacity, Knoxville Auditorium ranks highest with 77 percent, closely followed by the Tennessee Theatre with approximately 75 percent. The Bijou Theatre ranks third with roughly 66 percent of average tickets sold per total capacity and Knoxville Coliseum fourth with 53 percent. Thompson-Boling Arena sold an average of only 35 percent of its total capacity for 2014 events.

A community’s hospitality infrastructure, in terms of hotels, restaurants, entertainment and other such factors, contributes heavily to the potential success of an event facility. The marketability of any event facility increases when there exists the support of amenities and infrastructure within close proximity.

This supporting hospitality infrastructure also plays a key role in generating the desired economic impact of added event space, particularly when considering an events center project. A paramount component of this hospitality infrastructure is the local inventory of quality hotel properties. As such, the primary hospitality infrastructure within the downtown Knoxville area is outlined in Exhibit 7.

**Exhibit 7  
Lodging – Downtown Knoxville Area Hotels**

Key Hotel	Rooms
1 Knoxville Marriott	378
2 Hilton Knoxville	320
3 Holiday Inn Worlds Fair Park	286
4 Crowne Plaza	197
5 Four Points by Sheraton Knoxville Hotel	129
6 Hilton Garden Inn Knoxville/University	112
7 Hampton Inn & Suites Downtown Knoxville	85



**Total Downtown Knoxville Hotel Room  
Inventory = 1,500 Approximate Guestrooms  
8,500 Approximate Guestrooms in Greater  
Knoxville Area**

Note: Only hotels with more than 50 guestrooms are listed  
Source: Visit Knoxville, 2015

As shown, there are seven lodging properties in the downtown Knoxville area with 50 or more sleeping rooms, six of which offer more than 100 guestrooms. Overall, it is estimated that the downtown Knoxville area offers nearly 1,500 total hotel guestrooms.

Although it is the largest downtown hotel, Knoxville Marriott (378 rooms), connected via sky walk to the KCAC, the majority of the remaining hotel properties are concentrated in the core of the downtown Knoxville area. The Hilton Knoxville (320 rooms), Holiday Inn Worlds Fair Park (286 rooms), Four Points by Sheraton Knoxville Hotel (129 rooms) and the Hampton Inn & Suites Downtown Knoxville (85 rooms) are all across James White Parkway which creates a significant physical barrier for housing potential KCAC event attendees.

The number of potentially competitive event facilities in the local market area is also an important consideration with respect to the overall viability of the KCAC. The downtown Knoxville area currently offers a number of meeting facilities, including meeting space within hotel facilities and event space at specialized area facilities that would compete for conventions, meetings, sporting events, concerts and other events. Exhibit 8 presents a listing of the primary downtown Knoxville area facilities that offer flat floor meeting space for rental.

**Exhibit 8  
Local Facilities – Downtown Knoxville Area Meeting Facilities**

Key	Facility	Total Space (sf)
1	Knoxville Convention Center	167,100
2	Chilhowee Park Jacob Building	57,000
3	Marriott Knoxville Downtown	18,600
4	Holiday Inn World's Fair Park	16,500
5	Hilton Knoxville	13,800
6	Crowne Plaza Downtown Knoxville	12,800
7	The Standard Knoxville	10,000

Note: Figures represent square feet of sellable event space. Only facilities with 10,000 square feet or more of total sellable space  
 Source: Industry publications, facility management and websites, 2015



As presented, there are seven primary meeting facilities that exist in the downtown Knoxville market that offer more than 10,000 total square feet of flat floor space. The Knoxville Convention Center is the largest facility in the market, offering approximately 167,100 square feet of total sellable space and the largest space with 119,900 square feet of contiguous space. Overall, the downtown Knoxville market offers nearly 300,000 square feet of meeting and flat floor event space.

## 5.0. COMPETITIVE AND COMPARABLE FACILITIES AND MARKETS

This chapter provides an analysis of various physical characteristics and resources of both competitive and comparable facilities and communities. The data helps place the Knoxville Civic Auditorium (i.e., theater) and Coliseum (i.e., arena) within a competitive and comparable market context with respect to facility space and other related community features. A set of comparable arena and performing arts theater facilities throughout the country were identified and analyzed to obtain insight into the physical and operational characteristics of facilities located in comparable communities. The research and analysis presented in this chapter is divided into the following sections:

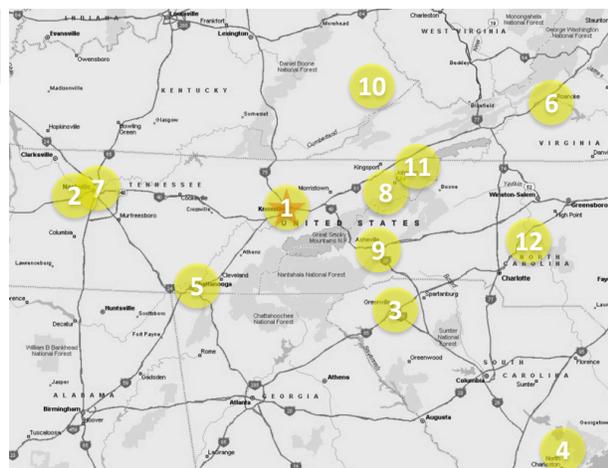
- Competitive Facilities
- Comparable Arena Facilities
- Comparable Performing Arts Theater Facilities
- Comparison of Market-wide Facilities

### Competitive Facilities

The market potential of the KCAC is affected by the number and type of facilities competing for the finite supply of events, spectators and participants within the marketplace. In order to better understand the competition faced by Knoxville and the KCAC, information was collected on the physical and operational characteristics of select venues in the greater Tennessee region that may compete with the KCAC for non-local events to varying degrees. Exhibit 1 presents the 12 regional arena facilities identified as competitors, their total seating capacity and their location relative to the KCAC.

**Exhibit 1  
Competitive State/Regional Arena Facilities**

Map Key	Facility	Market	Total Capacity
1	Thompson-Boling Arena	Knoxville, TN	21,678
2	Bridgestone Arena	Nashville, TN	20,000
3	Bon Secours Wellness Arena	Greenville, SC	15,951
4	North Charleston Coliseum	N. Charleston, SC	13,295
5	McKenzie Arena	Chattanooga, TN	11,557
6	Berglund Special Events Center	Roanoke, VA	10,600
7	Nashville Municipal Auditorium	Nashville, TN	9,700
8	Freedom Hall Civic Center	Johnson City, TN	8,500
9	ExploreAsheville.com Arena	Asheville, NC	7,654
10	East Kentucky Expo Center Arena	Pikeville, KY	7,000
11	Viking Hall Civic Center	Bristol, TN	6,500
12	Cabarrus Arena and Events Center	Concord, NC	5,000



Source: Figures represent seating capacity. Industry publications, facility management and websites, 2015

Exhibit 2 presents a summary of the 2014, event level performance as tracked by Pollstar, of the primary competitive state and regional arena facilities identified relative to the Knoxville Coliseum. It is important to note that only data reported to Pollstar is presented below.

**Exhibit 2**  
**Competitive State/Regional Arena Facilities – Pollstar Tracked Ticketed Events, 2014**

Facility	Market	Shows	Avg.	Avg.
			Tickets Sold	Gross Revenue
Bridgestone Arena	Nashville, TN	41	8,894	\$570,109
Bon Secours Wellness Arena	Greenville, SC	25	7,275	\$328,589
Thompson-Boling Arena	Knoxville, TN	18	7,612	\$338,931
<b>Knoxville Coliseum</b>	<b>Knoxville, TN</b>	<b>14</b>	<b>3,497</b>	<b>\$143,996</b>
ExploreAsheville.com Arena	Asheville, NC	11	7,200	\$157,689
East Kentucky Expo Center Arena	Pikeville, KY	9	3,183	\$121,484
Berglund Special Events Center	Roanoke, VA	8	3,919	\$197,195
McKenzie Arena	Chattanooga, TN	7	6,183	\$154,121
Freedom Hall Civic Center	Johnson City, TN	7	3,262	\$100,659
Nashville Municipal Auditorium	Nashville, TN	5	3,770	\$190,816
Cabarrus Arena and Events Center	Concord, NC	2	4,287	\$122,383
Viking Hall Civic Center	Bristol, TN	1	2,675	\$78,312

Note: Only represent ticketed events/shows reported to Pollstar  
Source: Pollstar.com, 2015

Of the 12 identified arena facilities, Bridgestone Arena in Nashville ranks first in terms of total number of reported shows, average number of tickets sold and average gross revenue per event. The Coliseum ranks favorably, above the average of 12 shows and placing fourth with approximately 14 shows reported in the year 2014. However the Coliseum ranks towards the bottom in average number of tickets sold per event (ninth with approximately 3,497) and average gross revenue per event (eighth with approximately \$143,996).

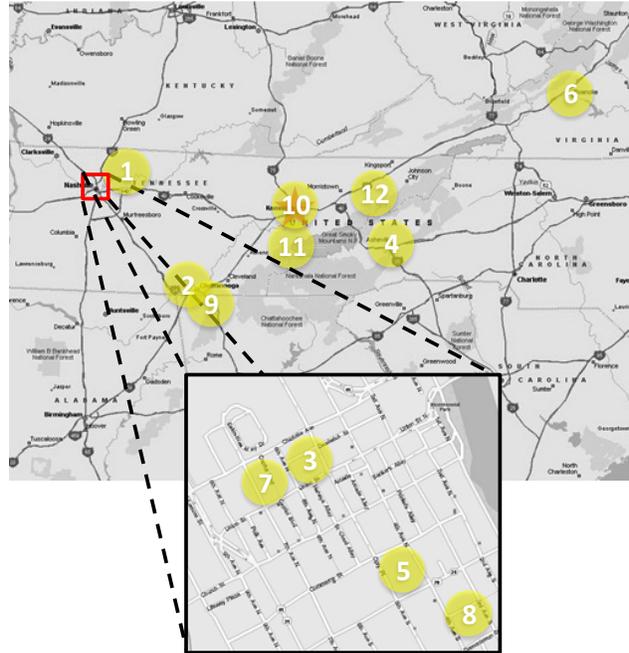
The Coliseum at the KCAC reported hosting the fourth most shows among the competitive regional facilities analyzed; however, they rank near the bottom in terms of average tickets sold per show (ninth overall) with approximately 3,500 tickets per event.

Exhibit 3 identifies the 12 facilities located within the state of Tennessee and the southeast region with similar market and/or facility characteristics offering some level of competition to the Knoxville Auditorium, their capacities and location.



### Exhibit 3 Competitive State/Regional Theater Facilities

Map Key	Facility	Market	Total Capacity
1	Grand Ole Opry House	Nashville, TN	4,373
2	Soldiers & Sailors Memorial Auditorium	Chattanooga, TN	3,866
3	Tennessee Performing Arts Center	Nashville, TN	2,472
4	Thomas Wolfe Auditorium	Asheville, TN	2,431
5	Ryman Auditorium	Nashville, TN	2,362
6	Berglund Performing Arts Theatre	Roanoke, VA	2,148
7	War Memorial Auditorium	Nashville, TN	2,044
8	Schermerhorn Symphony Center	Nashville, TN	1,860
9	Tivoli Theatre	Chattanooga, TN	1,762
10	Tennessee Theatre	Knoxville, TN	1,630
11	Clayton Center for The Arts	Maryville, TN	1,196
12	Niswonger Performing Arts Center	Greeneville, TN	1,146



Note: Figures represent seating capacity.  
Source: Industry publications, facility management and websites, 2015

Exhibit 4 presents a summary of the event level performance in the year 2014, as tracked by Pollstar, of the primary competitive state and regional theater facilities identified. It is important to note that only data reported to Pollstar is presented below.

### Exhibit 4 Competitive State/Regional Theater Facilities - Pollstar Tracked Ticketed Events, 2014

Facility	Market	Shows	Avg.	
			Tickets Sold	Gross Revenue
Ryman Auditorium	Nashville, TN	130	1,977	\$94,384
Schermerhorn Symphony Center	Nashville, TN	98	1,375	\$78,761
Bijou Theatre	Knoxville, TN	69	492	\$11,250
Tennessee Theatre	Knoxville, TN	63	1,228	\$62,559
Grand Ole Opry House	Nashville, TN	57	2,433	\$137,949
Andrew Jackson Hall at TPAC	Nashville, TN	33	1,661	\$90,292
Niswonger Performing Arts Center	Greeneville, TN	27	924	\$16,602
War Memorial Auditorium	Nashville, TN	19	1,026	\$35,080
Thomas Wolfe Auditorium	Asheville, TN	10	1,571	\$68,775
Berglund Performing Arts Theatre	Roanoke, VA	9	1,515	\$79,062
Tivoli Theatre	Chattanooga, TN	9	1,503	\$73,153
<b>Knoxville Auditorium</b>	<b>Knoxville, TN</b>	<b>3</b>	<b>1,931</b>	<b>\$108,528</b>
Soldiers & Sailors Memorial Auditorium	Chattanooga, TN	2	1,983	\$82,132

Note: Only represent ticketed events/shows reported to Pollstar  
Source: Pollstar.com, 2015

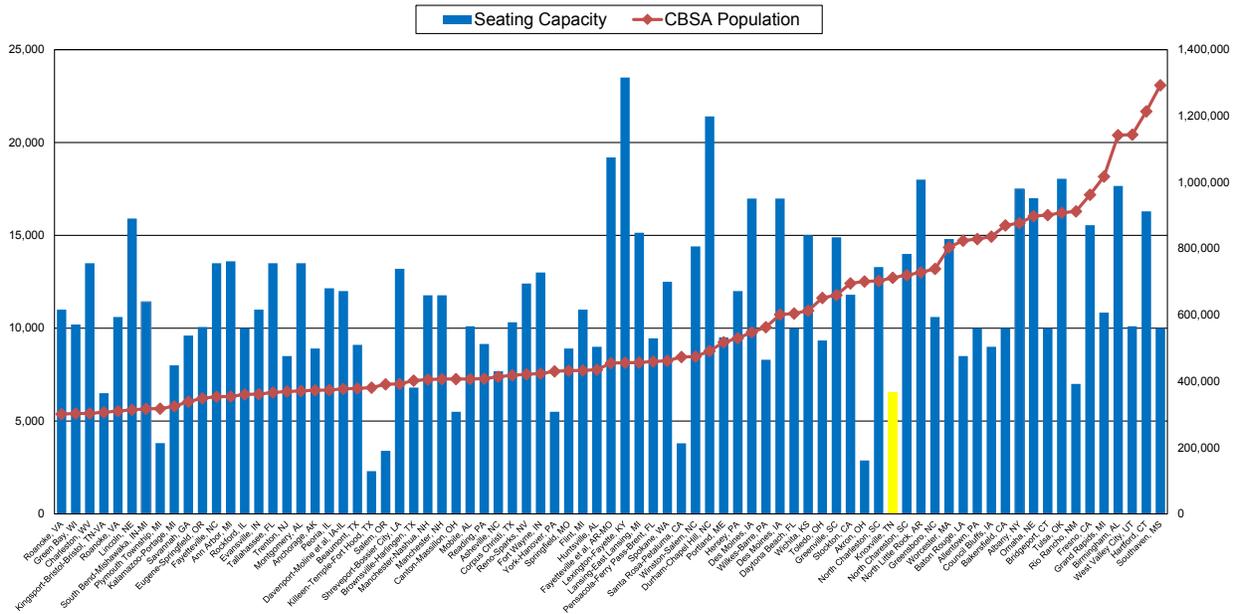
As shown, the number and size of shows at the competitive regional theater facilities varied widely from 130 at the Ryman Auditorium in Nashville to the two shows reported at Soldiers and Sailors Memorial Auditorium in Chattanooga. While the total number of shows held at competitive venues, as reported by

Pollstar, provides an incomplete picture, as a number of competitive theater facilities do not comprehensively report their activity, the average number of tickets sold metric can provide some context. Overall, the Civic Auditorium ranks fourth among competitive regional venues with approximately 1,930 tickets sold per show, which compares favorably to the competitive regional facilities reviewed for which the weighted average number of tickets sold per show approximates 1,500 tickets.

### Comparable Facilities Analysis

In order to identify comparable facilities throughout the country, it is useful to understand the seating capacities of arenas currently operating in markets of a similar size to Knoxville. Exhibit 5 summarizes the capacities of arenas located in markets with CBSA populations ranging in size from 300,000 to 1,300,000. Knoxville and the capacity of the Knoxville Coliseum are plotted and highlighted in the chart below.

**Exhibit 5  
Seating Capacity vs. Population**



The total average seating capacity among the markets presented in above is approximately 11,400. Of the 79 markets and facilities plotted, Knoxville ranks 21<sup>st</sup> in terms of CBSA population size. However, when organized by seating capacity, Knoxville ranks 71<sup>st</sup>. Although there are several examples of large coliseums in smaller cities, as well as small coliseums in metropolitan areas, there is a general trend to have larger capacity venues in more densely populated areas. Relative to comparable markets throughout the country, the seating capacity of the Knoxville Coliseum ranks at the very low end of the spectrum based on the market’s CBSA population.

When identifying comparable facilities throughout the country, as shown in Exhibit 6, four types of facilities were considered for the purpose of providing an analysis of the current conditions of the KCAC as well as potential scenarios of the facility.

**Exhibit 6  
Selected Comparable Facilities**

AUDITORIUMS		COLISEUM/AUDITORIUM COMPLEXES	
City, State	Facility	City, State	Facility
Athens, GA	The Classic Center	Augusta, GA	Augusta Entertainment Complex
Columbia, SC	Township Auditorium	Duluth, GA	Gwinnett Center
Durham, NC	Durham PAC	Greensboro, NC	Greensboro Coliseum Complex
Greenville, SC	The Peace Center	Huntsville, AL	Von Braun Center
Louisville, KY	Whittney Hall - Kentucky Center	North Charleston, SC	N. Charleston Coliseum & Perf. Arts Center
		Reading, PA	Santander Arena & Perf. Arts Center

RECENTLY CONSTRUCTED COLISEUMS		RECENTLY RENOVATED COLISEUMS	
City, State	Facility	City, State	Facility
Allentown, PA	PPL Center	Fort Wayne, IN	Allen County War Memorial Coliseum
Evansville, IN	Ford Center	Greenville, SC	Bon Secours Wellness Arena
Lincoln, NE	Pinnacle Bank Arena	Huntington, WV	Big Sandy Superstore Arena
Manchester, NH	Verizon Wireless Arena	Indianapolis, IN	Indiana Farmers Coliseum
Rio Rancho, NM	Santa Ana Star Center	Portland, ME	Cross Insurance Arena
Sioux Falls, SD	Denny Sanford Premier Center	Worcester, MA	DCU Center Arena
Toledo, OH	Huntington Center		
Tulsa, OK	BOK Center		
Wichita, KS	Intrust Bank Arena		

## Comparable Arena Facilities

Certain inferences can be made by reviewing arena facilities operating in markets throughout the country of a similar size or geographic positioning. Each of the 21 listed facilities is located in a market that is similar to the Knoxville area, with respect to population size, geographic proximity to other metropolitan areas, and/or facility size/characteristics. As available, physical facility and operational data was obtained and analyzed from these facilities. Exhibit 7 summarizes key characteristics of each comparable facility.

**Exhibit 7  
Comparable Arena Facilities - Summary**

Facility	City, State	Year Opnd	Owner	Operator	Tenants	Seating Capacity (Hockey)	Seating Capacity (Total)
PPL Center	Allentown, PA	2014	City	Global Spectrum	AHL, PIFL	8,600	10,000
James Brown Arena	Augusta, GA	1974	City	Global Spectrum	N/A	6,557	9,167
Arena at Gwinnett Center	Duluth, GA	2003	GCCVB	GCCVB	ECHL, LFL	11,500	13,000
Ford Center	Evansville, IN	2011	City	VenuWorks	NCAA, ECHL	9,000	11,000
Allen County War Memorial Coliseum	Fort Wayne, IN	1953	County	County	ECHL	10,480	13,000
Greensboro Coliseum	Greensboro, NC	1958	City	City	SoCon, ACC	22,000	23,500
Bon Secours Wellness Arena	Greenville, SC	1977	City	SMG	N/A	13,707	15,951
Big Sandy Superstore Arena	Huntington, WV	1977	County	Global Spectrum	AHL	6,733	9,500
Propst Arena at Von Braun Center	Huntsville, AL	1975	VBC Cntrl Bd	VBC Cntrl Bd	PIFL, WFTDA, SPHL	6,602	9,000
Indiana Farmers Coliseum	Indianapolis, IN	1982	City	SMG	AHL	12,239	14,800
Pinnacle Bank Arena	Lincoln, NE	2013	City	SMG	NCAA	12,700	15,900
Verizon Wireless Arena	Manchester, NH	2001	City	SMG	AHL	10,092	11,770
North Charleston Coliseum	N. Charleston, SC	1993	City	SMG	ECHL	10,537	13,295
Cross Insurance Arena	Portland, ME	1939	State	IN St Fair Comm	WFTDA, ECHL	6,733	9,998
Santander Arena	Reading, PA	2001	BCCCA	SMG	ECHL, AIF	7,083	9,146
Santa Ana Star Center	Rio Rancho, NM	2006	City	Global Spectrum	IFL	6,000	7,000
Denny Sanford Premier Center	Sioux Falls, SD	2014	City	SMG	USHL, IFL	10,450	12,000
Huntington Center	Toledo, OH	2009	County	SMG	ECHL	7,389	9,341
BOK Center	Tulsa, OK	2008	City	SMG	CHL, WNBA	17,096	19,100
Intrust Bank Arena	Wichita, KS	2010	County	SMG	CHL	13,450	15,750
DCU Center Arena	Worcester, MA	1982	City	SMG	AHL	12,239	14,800

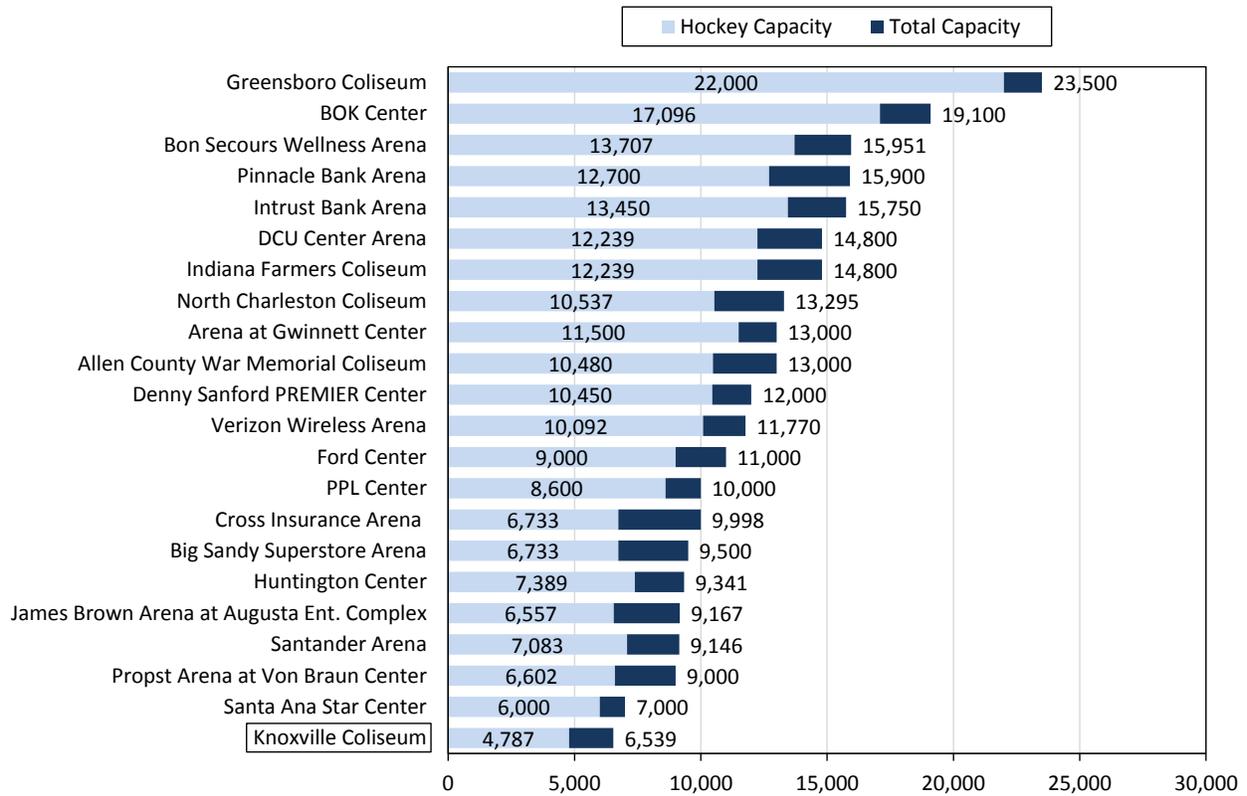
Source: Industry publications, facility management and websites, 2015

As shown above, each facility displays the location, owner/operator, tenants, and seating capacities for hockey and concerts. Nearly every facility has at least one primary sports tenant that drives a large segment of their operations. Seating capacities for each facility range from just over 6,000 for hockey and 7,000 for concerts at the Santa Ana Star Center in Rio Rancho, New Mexico, to over 22,000 for hockey and over 23,500 for concerts at the Greensboro Coliseum in Greensboro, North Carolina. With the exception of four, all of the comparable venues have opened or have undergone substantial renovations since 2000.

Case study information pertaining to a selection of these facilities is provided at the conclusion of this report in the Appendix F.

Exhibit 8 presents the hockey and total capacities of the identified comparable arena facilities relative to the Knoxville Coliseum.

**Exhibit 8  
Comparable Coliseum Facilities – Capacity Comparison**



As shown in Exhibit 8, the Knoxville Coliseum ranks last amongst the identified comparable facilities in terms of seating capacity offered.

## Demographic Benchmarking

A primary component in assessing the current success of the Coliseum as well as the potential success of a renovated/redeveloped Coliseum in Knoxville is the demographic and socioeconomic profile of the local market. To gain an understanding of the relative strength of the Knoxville market area, it is useful to compare various demographic and socioeconomic characteristics among the comparable markets supporting similar coliseum venues.

Exhibit 9 summarizes the population, average household income, median age and corporate base present within the city, 30-minute drive time, 90-minute drive time and 180-minute drive time of the venues in the 21 comparable markets, as well as where Knoxville fits in relative to those comparable markets.

**Exhibit 9  
Comparable Arena Facilities – Demographics Summary**

	Comparable Markets				Knoxville, TN		
	Low	High	Average	Median	Estimate	% of Avg.	Rank (out of 22)
<b>Population</b>							
City	27,790	830,580	201,140	125,930	102,221	51%	11
30-Minute Drive	225,970	1,821,120	586,170	512,400	603,764	103%	9
90-Minute Drive	637,850	9,285,430	3,286,050	1,602,160	1,031,944	31%	11
180-Minute Drive	1,410,690	35,011,720	12,169,220	11,790,110	4,944,093	41%	14
<b>Average Household Income</b>							
City	\$36,850	\$77,690	\$57,150	\$59,560	\$59,561	104%	19
30-Minute Drive	\$53,610	\$89,800	\$69,760	\$69,330	\$88,322	127%	17
90-Minute Drive	\$53,120	\$88,950	\$66,080	\$64,480	\$88,946	135%	21
180-Minute Drive	\$57,080	\$90,970	\$68,340	\$65,100	\$90,970	133%	22
<b>Median Age</b>							
City	29.2	37.7	34.7	34.5	33.8	97%	18
30-Minute Drive	33.6	41.6	37.6	37.5	39.0	104%	6
90-Minute Drive	35.5	42.9	38.5	38.3	41.6	108%	2
180-Minute Drive	36.2	40.5	38.1	37.9	39.9	105%	4
<b>Corporate Base</b>							
City	3,410	56,840	15,190	13,030	15,648	103%	7
30-Minute Drive	14,130	221,010	47,910	39,340	41,502	87%	9
90-Minute Drive	57,210	699,100	247,290	124,820	99,164	40%	13
180-Minute Drive	91,100	2,553,300	886,510	802,230	524,188	59%	15

As shown, the average population within a 30-minute drive of the comparable arena facility markets is just below 600,000. Knoxville has a population of approximately 603,800 within a 30-minute drive. Additionally, Knoxville ranks near the middle for city, 30-, 90- and 180-minute drive times based on population size among comparable markets. Average household incomes, median age and corporate base are also displayed to help better demonstrate the market conditions of Knoxville relative to the 21 other comparable facility markets.

## Event Level Benchmarking

In addition to the surrounding market demographics, it is also useful to analyze event and attendance levels of comparable arena facilities. Exhibit 10 presents the event and attendance levels at 13 different comparable facilities.

**Exhibit 10**  
**Comparable Arena Facilities – Recent Year Event and Attendance Levels**

Facility	City, State	Tenant Sports	Concerts	Family/ Ice Shows	Non-Tenant Sports	Community/ Religious	Other	Total Events	Total Attendance
Pinnacle Bank Arena	Lincoln, NE	39	17	2	25	71	55	209	685,200
BOK Center	Tulsa, OK	57	23	16	22	45	9	172	675,686
North Charleston Coliseum	N. Charleston, SC	38	50	19	0	0	24	131	334,305
Intrust Bank Arena	Wichita, KS	36	13	17	8	39	3	116	297,647
Santander Arena	Reading, PA	40	9	6	15	19	23	112	326,127
Ford Center Evansville	Evansville, IN	0	20	7	72	5	0	107	441,251
Denny Sanford Premier Center	Sioux Falls, SD	33	12	11	17	10	20	103	383,300
Verizon Wireless Arena	Manchester, NH	42	14	17	5	12	11	101	357,881
Arena at Gwinnett Center	Duluth, GA	45	17	3	6	21	8	100	826,289
Bon Secours Wellness Arena	Greenville, SC	38	16	23	7	4	11	99	384,521
Propst Arena at Von Braun Center	Huntsville, AL	54	13	8	3	9	8	95	362,909
Santa Ana Star Center	Rio Rancho, NM	5	7	20	20	15	26	93	215,113
<b>Knoxville Coliseum</b>	<b>Knoxville, TN</b>	<b>45</b>	<b>7</b>	<b>18</b>	<b>3</b>	<b>8</b>	<b>2</b>	<b>83</b>	<b>172,349</b>
Huntington Center	Toledo, OH	36	12	1	5	0	1	55	328,407
<b>Average</b>		<b>36</b>	<b>16</b>	<b>12</b>	<b>15</b>	<b>18</b>	<b>14</b>	<b>113</b>	<b>413,642</b>

Among the comparable facilities reviewed, there was an average of approximately 113 events each year, of which, approximately 32 percent were Tenant Sports, 15 percent were Concerts, 11 percent were Family/Ice Shows, 13 percent were Non-Tenant Sports, 16 percent were Civic/Religious events and 13 percent were Other events. Knoxville Coliseum in comparison to the other facilities ranks near the bottom in total number of events.

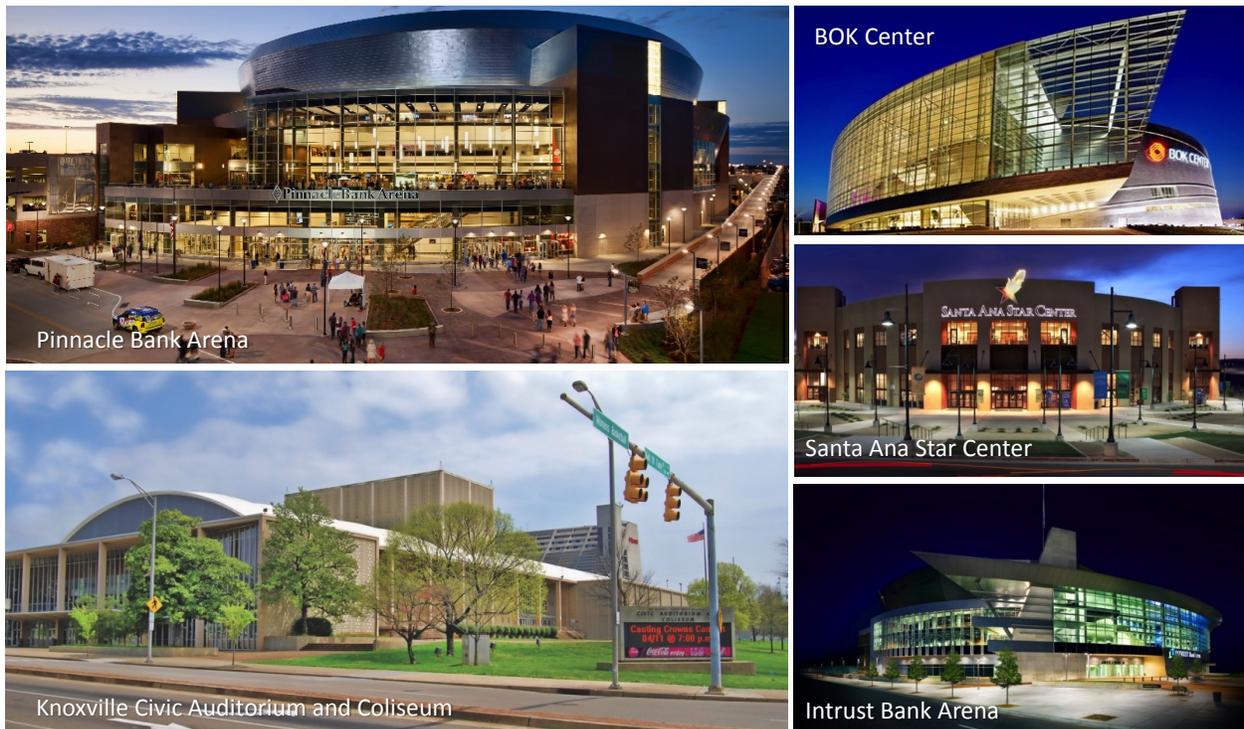
The comparable venues analyzed generated an average of approximately 3,670 attendees per event, resulting in approximately 413,600 attendees annually. The Coliseum in comparison generated an average of approximately 2,080 per event (43 percent less) and approximately 172,350 total attendees, which ranks last among compared arena facilities.

## State-of-the-Industry Facilities

### Entry

In today's design, facility entries are more than mere portals to exit the elements. They are showpieces that tell a fan "you've arrived." They are identifiable at a significant distance so that fans are not left wondering where they should enter the building; entries typically include significant glass elements that permit significant lighting for the interior, but also provide those outside with glimpses of the exciting activities going on inside. There should always be ample plaza space for fan gathering and queuing, and ideally there exists a vestibule to help in maintaining the interior temperature and humidity levels. Below in Exhibit 11, examples of state-of-the industry entries, in comparison to the current KCAC entry, are provided.

#### Exhibit 11 Comparable Arena Facilities – State of the Industry Comparison – Entry

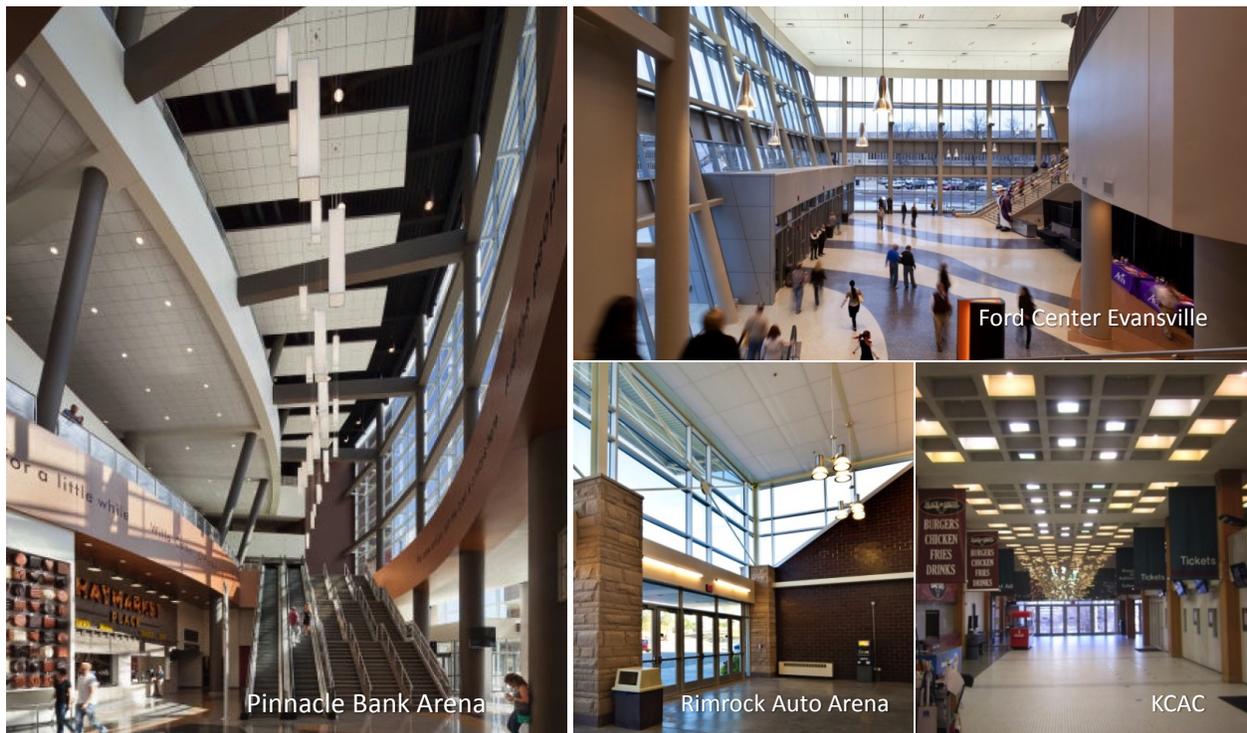


As shown above, the current entries for the Coliseum are unidentifiable, as they are in the middle of the structure with no noticeable signage. The entries consist simply of aging storefront glass with no architectural or lighting enhancements. Additionally, with only one set of doors on each side, there is no ability to maintain the environmental condition just inside the entry, which creates a comfort issue for fans as well as any staff who are positioned here (e.g., security, ticket takers/scanners).

## Entry/Lobby

Modern lobby design includes areas that are spacious, well appointed, well lit with natural light as well as LED fixtures, and display informative and visually pleasing signage. Finishes are more upscale nowadays, and the generous amount of space provides for not only significant gatherings, but also can double as its own event space, offer areas for sponsor displays (revenue generation), and provide enough space for event producers to host their own sponsors, merchandise sales, or other promotional activities. Exhibit 12 provides examples of these designs as well as the KCAC lobby.

### Exhibit 12 Comparable Arena Facilities – State of the Industry Comparison – Entry/Lobby

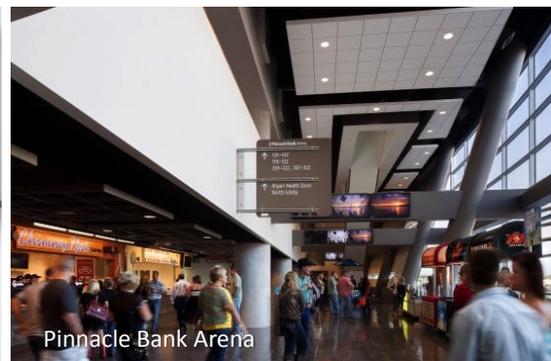


The lobby of the Coliseum is moderately spacious, but is significantly smaller than comparable arenas throughout the country. Furthermore, the finishes and fixtures are very dated and in need of refreshing, and there is only a minimum of natural light provided.

## Concourse

Concourses in today's arena facilities are ever evolving in order to meet the current and future expectations of the guest. In new venues you will find concourses that are very wide, have taller ceilings, durable yet varied and attractive finishes, and access to natural lighting. Exhibit 13 provides examples of state of the industry concourses among comparable facilities relative to the KCAC.

### Exhibit 13 Comparable Arena Facilities – State of the Industry Comparison – Concourse



The concourses of the Coliseum are narrow, the finishes are industrial (concrete floor, CMU walls) with a consistent bland color palette. The current width of the concourse limits space where management could position concession portables or other sponsor/promotional activities (both revenue generating functions). A positive feature, however, is the amount of natural light that is provided via the glass storefront.

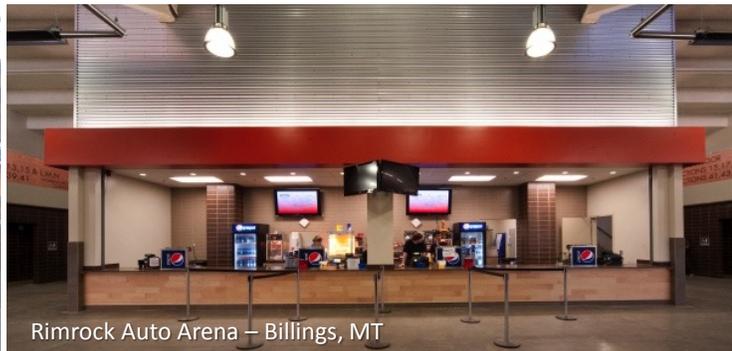
## Concessions

Food service is continually evolving. All-inclusive pricing that includes admission ticket, parking and food and beverage is gaining traction, necessitating the design of buildings that create neighborhoods or zones conducive to facilitating different levels of seating, price points and amenities. Mobile apps are being used to order food and beverage from your seat that may be either delivered by the arena staff or picked-up in a special line, bypassing the general concession crowds. Digitized menu boards are being used to employ dynamic pricing and/or food offering depending on demand. The fare being offered at sports and entertainment arenas has expanded considerably from hot dogs, hamburgers, popcorn, nachos, sodas and beer. Today, sports and entertainment arenas are offering a much more diverse food and beverage menu that offers farm-to-table concepts, local craft beers, partnerships with famous chefs and other concepts to drive value for the food and beverage experience. Exhibit 14 displays some examples below. It is important to note that not every arena should feel compelled to do everything mentioned here, but should consider what would work best in their particular marketplace given the event activity, tenant partnership, and available resources.

### Exhibit 14 Comparable Arena Facilities – State of the Industry Comparison – Concessions



KFC Yum! Center



Rimrock Auto Arena – Billings, MT



Denny Sanford Premier Center



Knoxville Civic Auditorium and Coliseum

Due to space limitations, the menu at the Coliseum consists of basic fare such as hot dogs, hamburgers, popcorn and pizza. The concession stands are in cramped quarters with no room for expansion, most are too small even to add new ventless cooking equipment. Only one stand serves grilled chicken, hamburgers, and French fries, limiting the potential number of fans served at any one given event. The current stands are also very simple with regards to décor and signage, as compared to modern designs, and there are no digital menu boards. Furthermore, while some of the counters have sections designed for wheelchair access, today's concession stands include ADA counter height for all counters.

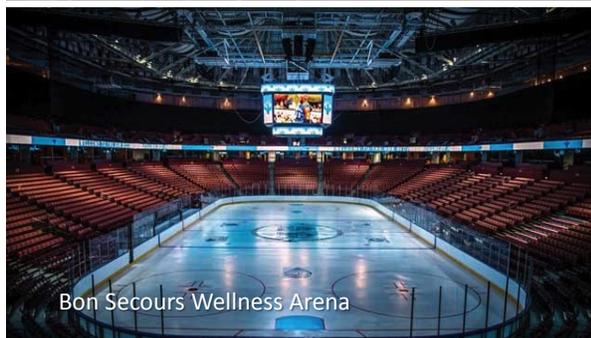
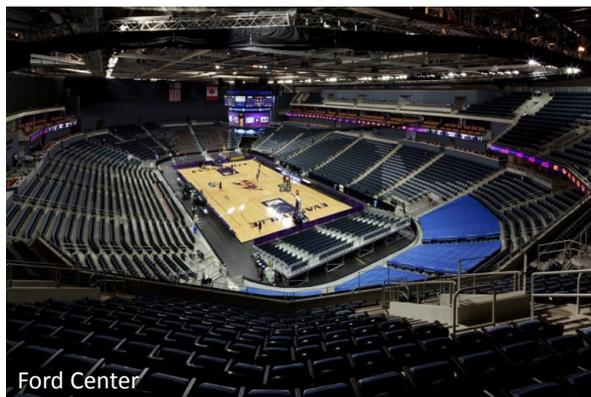
## Capacity/Seating

Many arenas are being designed with state-of-the-art retractable seating in the lower bowl to provide flexibility to provide larger floor space for certain events such as motor sports, equestrian events, consumer shows and youth athletic sport tournaments. Many acts in the concert industry are moving towards a general admission floor seating model for small to mid-sized acts. Retractable seating that can expand the general admission floor capacity on an arena floor increases the marketability of the venue for additional concerts. Retractable and fixed seating is also cushioned with cup holders for each seat.

Newer and renovated venues are typically designed to include state-of-the-art curtaining systems that allow arena management to effectively reduce seating capacity of the venue by curtaining off the upper bowl or providing half-house or theater-style configurations within a larger arena.

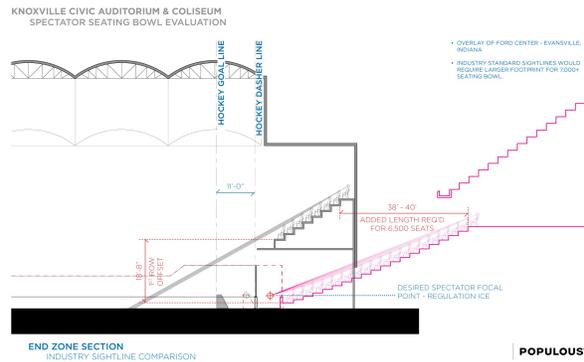
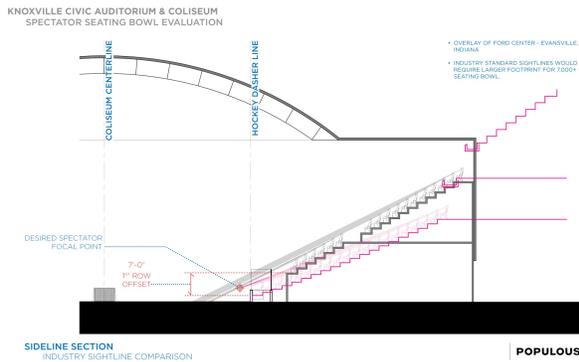
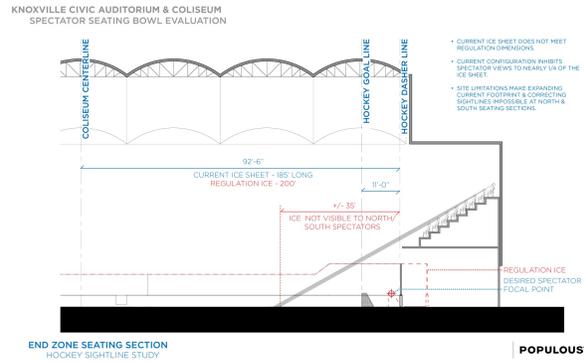
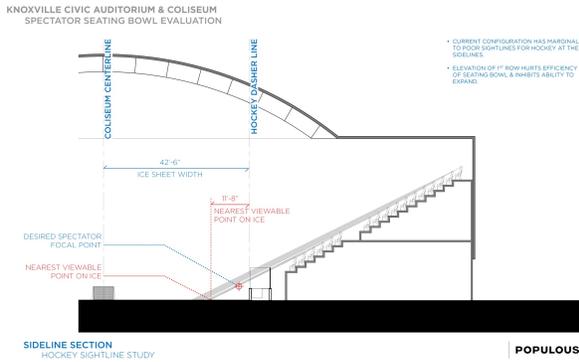
The rigging capacity requirements for sports and entertainment venues are increasing as concert and other entertainment event shows become more elaborate, requiring more sound and lighting equipment to be hung from the structural support. Modern arenas typically have rigging capacities often exceeding 100,000 to 125,000 lbs. Exhibit 15 shows multiple examples of state-of-the-art seating bowls as well as the KCAC Coliseum to provide a basis of comparison.

### Exhibit 15 Comparable Arena Facilities – State of the Industry Comparison – Capacity/Seating



The Coliseum at KCAC has wooden seating (which can hurt the sound quality during concerts), no cup holders, and due to the initial design, does not have the ability to utilize any retractable seating at the hockey glass. There is removable seating on one end, with chairs positioned on tiered staging. This suffices for hockey games, but is labor intensive when having to be removed for non-hockey events.

As part of their assessment of the KCAC, Populous conducted a sightline study and produced the following illustrations comparing the deficiency of the KCAC's Coliseum's sightlines with modern, state-of-the-industry arena venues. As shown, there are significant sightline limitations in the existing KCAC Coliseum due to the design and layout of its seating areas and playing surface. As will be discussed in the subsequent chapter, it is the Project Team's conclusion that the Coliseum's seating limitations would not be able to be corrected through any practical renovation scenario, as the physical dimensions of key interior and exterior facility spaces and load-bearing architecture of adjacent walls and support structures would prevent achieving state-of-the-industry dimensions and sightline quality without a full or near full demolish of the Coliseum itself.



There is a limited curtaining system at the Coliseum, which does not allow the upper bowl to be closed off. While there is a half-house curtain system, this system is not considered to be state-of-the-industry due to the high ratio of upper deck seats to lower deck preferred/premium seating options. This limited curtaining system limits the appeal of the venue to smaller events.

The rigging in the Coliseum has been verified by a structural engineering firm to have a capacity of 85,000 pounds, which is less than what is required by many touring events. Again, the nature of this situation limits the appeal of KCAC to certain shows.

## Premium Seating & Premium Areas

Diversification of premium seating products from more traditional suites and club seats to include loge boxes, theater boxes, ledge tables, courtside clubs and other products that provide a broader spectrum of experiences and price points to more effectively penetrate the market and maximize revenues.

Past conventional wisdom designed premium seating on an exclusive mezzanine-level seating area. Now premium seating patrons are demanding the best seats in the house and premium inventory is being designed in the lower seating bowl and at courtside/on-ice locations. Bunker suites, courtside clubs, and clubs seats in the lower bowl are all designed to bring the highest-paying customers closest to the on-court or on-ice action. Exhibit 16 gives a comparison of premium seating options in newly built coliseum facilities to the current offerings at the KCAC.

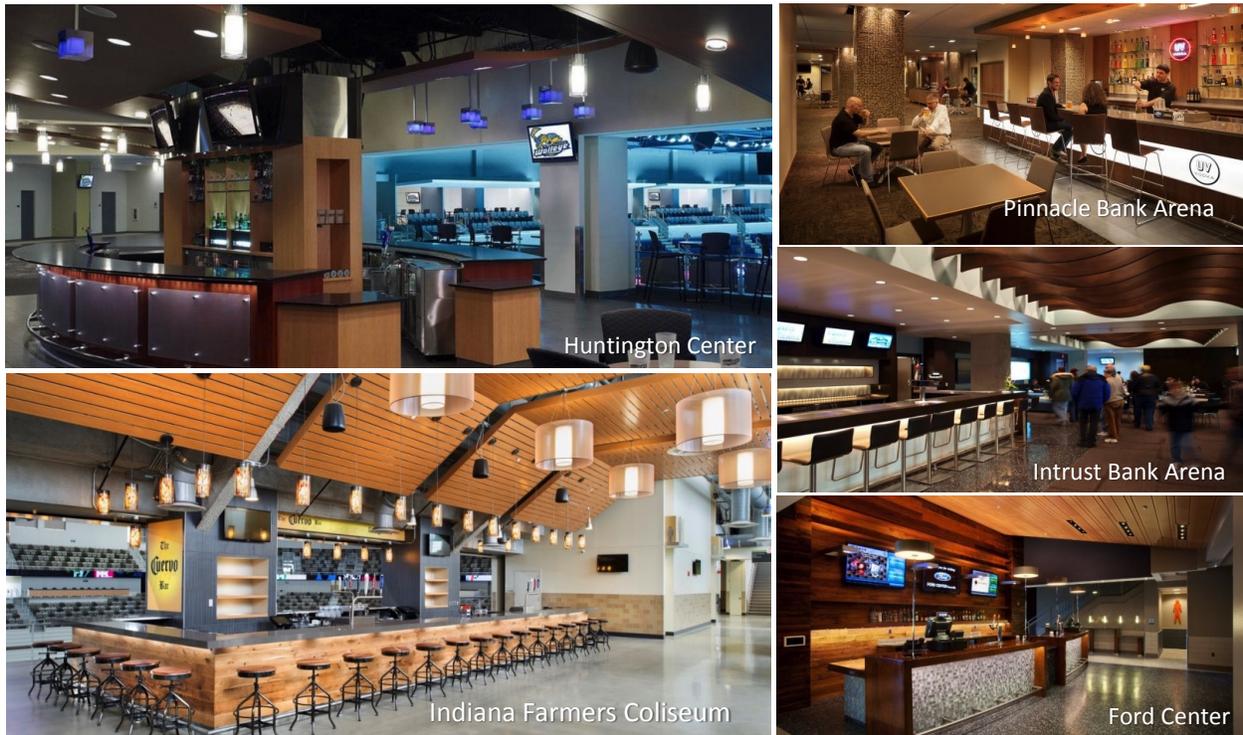
### **Exhibit 16 Comparable Arena Facilities – State of the Industry Comparison – Premium Seating**



The Coliseum offers a premium-seat type option only for hockey games, as shown in the image on the previous page. These temporary boxes are located at the dasher boards and constructed with wooden platforms, pipe and drape, and folding chairs. While making do with the materials available, these seats do not compare with today's premium seating design. Our observations are that there are trip hazards amongst the boxes, the pipe and drape could easily be mistaken for a solid rail, and the chairs and waste receptacles are dated and worn.

Incorporating a founder's suite program or building signature partners into the design of a facility is being done to maximize private revenues raised to fund the construction of public assembly facilities. Even on a more simple note, having a club or other entertainment space for the highest paying ticket holders is now the standard in modern arena designs, a few examples are shown below in Exhibit 17. These areas will have upscale finishes, restrooms, food and beverage offerings, multiple television screens, and well attired and engaging wait staff. Ideally there is a view to the bowl, but in a situation when this is not possible due to design or space constraints, this club or entertainment space is within a short walk of the premium seats.

**Exhibit 17**  
**Comparable Arena Facilities –**  
**State of the Industry Comparison – Premium Areas**



The Coliseum has no such offering, but given the limited premium seating, it is unlikely the lack of this particular amenity has been troublesome. The ballroom has adequate space where something could be created; however, it is too far a walk (and up a flight of stairs) to positively affect any premium seat holders or club members who attend events in the seating bowl. Even if some fixed seats in the bowl were to be designated as premium (midcourt) with appropriate services (special parking, designated entrance, in-seat wait service, etc.), there simply is no nearby space to create a club. Expanding the footprint of the Coliseum would be necessary to create a state-of-the-industry club experience.

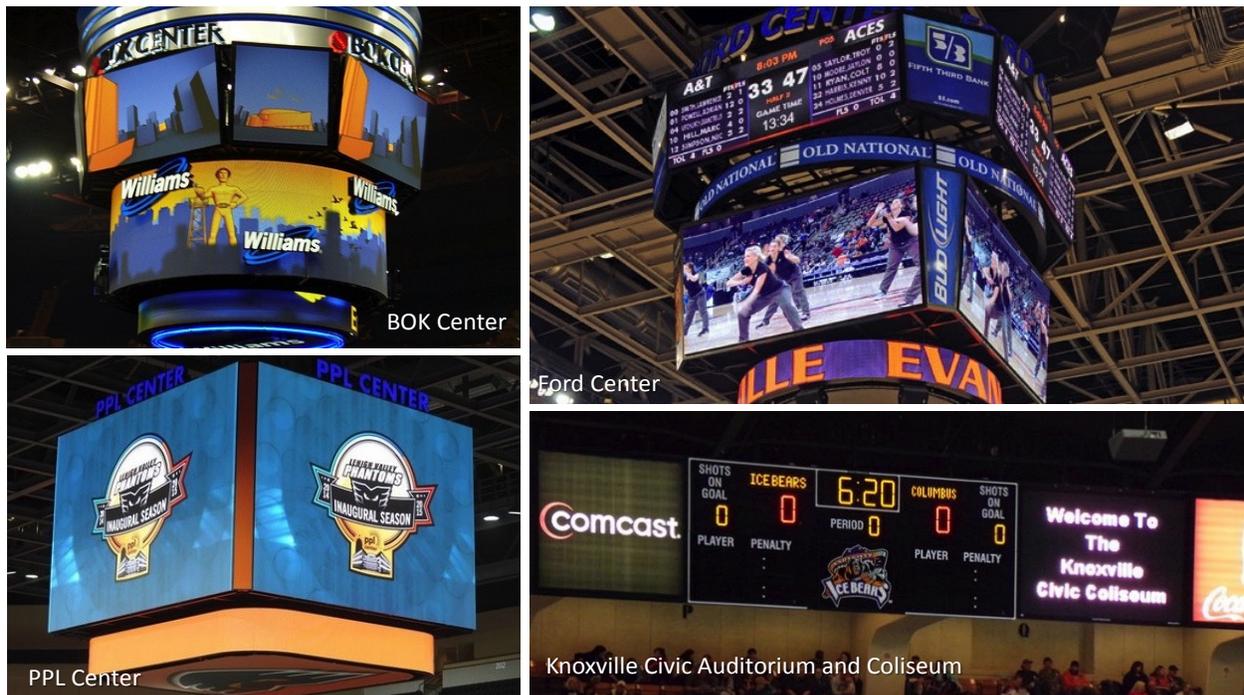
## Technology

Technology is evolving at sports and entertainment venues. Expanded and reliable cellular and WiFi service are becoming standard requirements to entice customers to experience live sporting events instead of staying home and watching it on TV in the comforts of their own home.

As Exhibit 18 below presents, arenas are including bigger scoreboards, ribbon boards, digital menu boards, increased digital advertising including Internet Protocol Television (IPTV) to allow sponsors to “own” moments of exclusivity as well as enhance the game and event day experience. High definition televisions are found on the concourses, in the restrooms, and in the elevators, all connected and able to display the action in the bowl, advertisements, or both simultaneously. And with IPTV and the proper software, management can send specific advertisements or messages to specific televisions. Premium clubs may see advertisements for Mercedes or Lexus vehicles, while the main concourse TV’s may receive ads for Ford or Chevy. HD TV’s are also being used solely for advertisements and wayfinding in certain locations.

Arena technology also includes the trends of teams using 3D mapping on the arena floor or ice, new methods of ticket sales, re-sales and transfers, the use of systems like YinzCam that allows on-site fans multi-angle replays on demand and the most recent player statistics, use of iBeacons, and improved communications methods with venue management via text messaging programs.

### Exhibit 18 Comparable Arena Facilities – State of the Industry Comparison – Technology



The Coliseum has a simple scoreboard on each side that displays basic information (score, time, period, player penalty info) and has a small video component (standard definition) as shown above. There are also some televisions on the main concourse, but they do not display activities in the bowl and are used only to promote upcoming shows.

## Back of House/Locker Rooms

In today's modern arena, the back-of-house areas (storage, walkways) are well lit, organized, and have finishes that can be maintained with minimal cost. Dressing rooms have finishes more akin to a hotel room – carpet, wall coverings, modern restrooms/showers, dimmable lighting, plush furniture. They are also all ADA compliant. Since artists may spend considerable time in their dressing room, this space can have a material impact on the artist's perception of the venue and the marketplace. Locker rooms have more elaborate lockers (power, lockable compartments, ID signage individualized for each player), large scale wall graphics, player lounges, kitchenettes/hydration stations, restrooms with individual shower stalls, multiple televisions, team meeting rooms, adequate ceiling height, and proper environmental controls (temperature and humidity) which can be seen below in Exhibit 19.

### **Exhibit 19 Comparable Arena Facilities – State of the Industry Comparison – Back of House/Locker Rooms**



As shown above, the locker rooms in the Coliseum are simple rooms with lockers installed, limited environmental controls (especially problematic for hockey and all the wet gear that is present), dated and worn finishes, narrow doorways, and low ceiling height.

Furthermore, the dressing rooms in the KCAC have very dated and worn finishes (some rather industrial like CMU walls), cramped restroom facilities, and not much in the way of furniture.

## Comparable Theater Facilities

Additionally, certain inferences can be made by reviewing theater (auditorium) facilities operating in similar-sized markets throughout the country. The facilities reviewed were selected based on their characteristics, mission/market orientation, total seating, and the size and location of the markets in which they are located. Exhibit 20 summarizes the key characteristics of the 11 selected comparable facilities and markets analyzed.

**Exhibit 20**  
**Comparable Theater Facilities – Summary**

Facility	City, State	Year Opnd	Owner	Operator	Theater Capacity
The Classic Center	Athens, GA	1996	Classic Cntr Auth	Classic Cntr Auth	2,056
Bell Auditorium at Augusta Ent. Complex	Augusta, GA	1974	City	Global Spectrum (2)	2,882
Township Auditorium	Columbia, SC	1930	Richland Cty	Township Fdn	3,099
Gwinnett Performing Arts Center	Duluth, GA	2003	GCCVB	GCCVB	708
Durham Performing Arts Center	Durham, NC	2008	City	Nederlander/PFM	2,712
Steven B. Tanger Performing Arts Center (1)	Greensboro, NC	2017	TBD	TBD	3,000
The Peace Center	Greenville, SC	1990	Peace Cntr Fdn	Peace Cntr Fdn	2,103
Mark C. Smith Concert Hall at VBC	Huntsville, AL	1975	VBC Cntrl Bd	VBC Cntrl Bd	1,955
Whitney Hall at The Kentucky Center	Louisville, KY	1983	City	KY Arts Fdn	2,377
North Charleston Performing Arts Center	N. Charleston, SC	1993	City	SMG	2,341
Santander Performing Arts Center	Reading, PA	1921	City	Global Spectrum	1,800

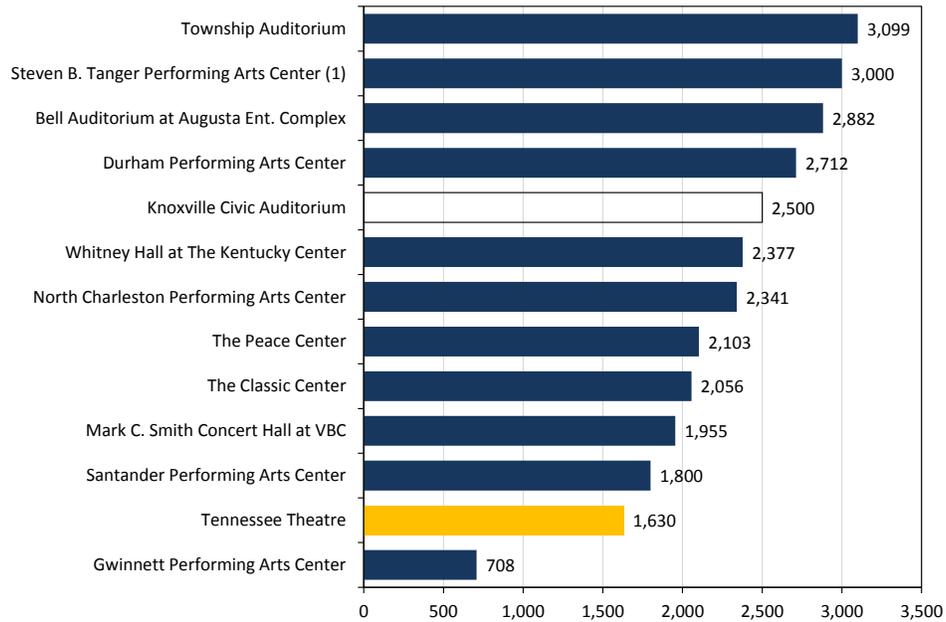
(1) Steven B. Tanger PAC is set to open in 2017

(2) Broadway shows are booked by I.A.E.

The facilities listed above provide a broad range of recently constructed to recently renovated theater facilities that also share a facility with an adjoining arena venue. These theater facilities are analyzed to help benchmark the operations, event levels and financials of the current and potential future scenarios of the Knoxville Auditorium.

Exhibit 21 presents a comparison of total capacity amongst comparable theaters in relation to the Knoxville Auditorium.

**Exhibit 21  
Comparable Theater Facilities – Capacity Comparison**



(1) Proposed capacity for Steven B. Tanger PAC, facility to be completed in 2017  
 (2) Source: Industry publications, facility management and websites, 2015

The total seating capacity ranges from 708 in the Gwinnett Performing Arts Center to 3,099 in the Township Auditorium in Columbia, South Carolina. The average total capacity is approximately 2,276 (excluding the Tennessee Theatre) and approximately 2,433 when additionally excluding capacities less than 1,000. The Knoxville Civic Auditorium ranks favorably relative to the comparable set of facilities reviewed.

## Demographic Benchmarking

A primary component in assessing the current success of the Civic Auditorium as well as the potential success of a newly constructed/renovated Auditorium in Knoxville is the demographic and socioeconomic profile of the local market. To gain an understanding of the relative strength of the Knoxville market area, it is again useful to compare various demographic and socioeconomic characteristics among the comparable markets supporting similar theaters. Exhibit 22 summarizes the population, average household income, median age and corporate base present within the city, 30-minute drive time, 90-minute drive time and 180-minute drive time of the PAC facilities in the 11 comparable markets, as well as where Knoxville fits in relation to those comparable markets.

**Exhibit 22  
Comparable Theater Facilities – Demographics Summary**

	Comparable Markets				Knoxville, TN		
	Low	High	Average	Median	Estimate	% of Avg.	Rank (out of 12)
<b>Population</b>							
City	27,790	601,850	195,930	181,520	102,221	52%	6
30-Minute Drive	262,790	1,821,120	728,580	603,760	603,764	83%	8
90-Minute Drive	1,031,940	7,817,640	3,455,280	2,709,780	1,031,944	30%	9
180-Minute Drive	4,944,090	34,327,410	12,662,270	11,598,100	4,944,093	39%	11
<b>Average Household Income</b>							
City	\$36,850	\$77,690	\$57,020	\$61,090	\$59,561	104%	11
30-Minute Drive	\$58,330	\$89,800	\$69,180	\$67,010	\$88,322	128%	9
90-Minute Drive	\$55,080	\$77,760	\$66,370	\$66,320	\$88,946	134%	12
180-Minute Drive	\$57,080	\$86,760	\$65,060	\$63,880	\$90,970	140%	12
<b>Median Age</b>							
City	29.2	37.7	34.8	34.8	33.8	97%	7
30-Minute Drive	33.6	41.6	37.5	37.5	39.0	104%	1
90-Minute Drive	35.5	42.8	38.4	38.3	41.6	108%	1
180-Minute Drive	36.2	41.1	38.1	37.8	39.9	105%	1
<b>Corporate Base</b>							
City	3,890	42,350	13,080	9,410	15,648	120%	4
30-Minute Drive	18,560	221,010	59,060	41,250	41,502	70%	6
90-Minute Drive	64,890	592,940	252,310	162,970	99,164	39%	9
180-Minute Drive	300,780	2,492,470	940,400	829,970	524,188	56%	11

Source: Esri, 2015

As shown, the average population within a 30-minute drive of the 11 comparable theater facility markets is just above 700,000. Knoxville's population of approximately 603,764 within a 30-minute drive of the Knoxville area is at the midpoint of comparable markets. Additionally, Knoxville ranks near the middle to top for city, 30-, 90- and 180-minute drive times based on population size among comparable markets. Average household incomes, median age and corporate base are also displayed to help better demonstrate the market conditions of Knoxville relative to the 11 other comparable facility markets.

## Event Level Benchmarking

In addition to the surrounding market demographics of the selected theater facilities, it is also useful to analyze event and attendance levels of each venue. Exhibit 23 presents the event and attendance levels at eight different comparable theaters relative to the Knoxville Civic Auditorium in a recent year.

**Exhibit 23  
Comparable Auditorium Facilities – Recent Year Event and Attendance Levels**

Facility	City, State	Tenant Performance	Concerts	Non-Tenant Performance	Other	Total Events	Total Attendance
Durham Performing Arts Center	Durham, NC	7	39	66	29	141	412,000
Santander Performing Arts Center	Reading, PA	20	28	5	31	84	65,711
Mark C. Smith Concert Hall at VBC	Huntsville, AL	24	32	16	6	78	174,594
Gwinnett Performing Arts Center	Duluth, GA	-	-	-	-	74	66,667
Township Auditorium	Columbia, SC	4	21	12	24	61	77,313
The Peace Center	Greenville, SC	25	21	9	1	56	100,000
<b>Knoxville Civic Auditorium</b>	<b>Knoxville, TN</b>	<b>27</b>	<b>2</b>	<b>11</b>	<b>7</b>	<b>47</b>	<b>63,787</b>
Bell Auditorium at Augusta Ent. Complex	Augusta, GA	20	11	6	-	37	60,814
North Charleston Performing Arts Center	N.Charleston, SC	-	-	-	-	25	30,387
<b>Average</b>		<b>18</b>	<b>22</b>	<b>18</b>	<b>16</b>	<b>67</b>	<b>116,808</b>

Among the comparable facilities reviewed, there was an average of approximately 67 events each year, of which, approximately 27 percent were Tenant Performances, 33 percent were Concerts, 27 percent were Non-Tenant Performances and approximately 24 percent were Other events. Knoxville Civic Auditorium in comparison to the other facilities ranks seventh in total number of events, a total of 20 less events than the average or 30 percent less.

The comparable venues analyzed generated an average of approximately 1,740 attendees per event, resulting in approximately 116,810 attendees annually. The Civic Auditorium generated an average of approximately 1,360 per event with a total attendance of 63,790, approximately 55 percent less than the average of comparable theater facilities.

## State-of-the-Industry Facilities

### Entry

In today's theater design, facility entries are not simply doors through which their guests pass. They are signature pieces that are visible from a distance, clearly indicating to the arriving guest where to go. Exhibit 24 displays a few examples of this. They may be large, modernistic glass edifices, or they could be a stone façade with arched openings leading to the entry doors. There are many times canopies protect arriving guests from the elements, while a marquee above the entrance both informs patrons and acts as a beacon for arriving guests. There may even be lighting elements that highlight the area, indicating to guests their destination. Ideally there will be a vestibule at the entry that will allow better control of interior environmental conditions.

#### Exhibit 24 Comparable Theater Facilities – State of the Industry Comparison – Entry



Currently, the entries for the Auditorium are at the north end, and the doors are relatively visible if one approaches from that direction. There are multiple doors, but with no signage, a guest might randomly try to open doors until they find one that is open and staffed. There is a canopy over the middle sets of doors, but again, there is no marquee, signage, or architectural feature that strongly indicates this is where guests should enter the Auditorium. The entries consist simply of aging storefront glass with some of the doors leading into a vestibule.

## Entry/Lobby

Modern lobby design includes areas that are spacious, well appointed, well lit with natural light as well as LED fixtures, and display informative and visually pleasing signage. Finishes are more upscale (carpeting, glass, stone), and the generous amount of space allocated provides for not only significant gatherings, but also can serve as an event space, offer areas (either wall space or floor space) for sponsor/donor recognition, and provide enough space for circulation to restrooms, concession stands and bars. Examples of this in comparison to the current offerings at the KCAC can be seen below in Exhibit 25.

### Exhibit 25 Comparable Theater Facilities – State of the Industry Comparison – Entry/Lobby



The lobby of the Auditorium is relatively spacious given the capacity, but the finishes, fixtures and furniture are all very worn and/or dated. Because of the storefront glazing and large curtain wall, there is an abundance of natural light – a plus for this lobby. There are also maintenance issues identified, such as areas of stained ceiling on the 2nd level balcony, which detracts from the guest experience.

## Box Office

Box office and ticket window design today includes constructing windows that are easily accessible from a parking area (even if short term parking), that are located such that guests cannot enter the building without authorization from the ticket window area, that are protected from the elements, that have windows ADA height with appropriate communication devices, and are secured from possible theft (e.g. bullet proof glass). Additionally, there is electronic signage that can easily change from event to event. Exhibit 26 displays state-of-the-art box office offerings at comparable theater facilities in respect to the box office of the KCAC.

### Exhibit 26 Comparable Theater Facilities – State of the Industry Comparison – Box Office



The box office at the Auditorium is not convenient to a parking (or temporary parking) area, as guests must park across the street in a large garage. However, the ticket windows are in a conditioned space that does not allow unauthorized access to the rest of the building. The windows themselves have permanent holes for communication and ticket/money transfer, and therefore are not very secure (it is unknown if the glass is bullet proof). The finishes (flooring, wall covering, light fixtures) in the lobby mirror those in the rest of the building—very dated and somewhat worn. There is also a lack of attractive signage, electronic or other.

## Concessions

In theaters, foodservice has typically included a very limited and basic menu, due to the fact that events are not “come and go” like one would find in sporting events (with breaks between periods) or concerts (breaks between acts and intermissions). Also, since many venues do not permit food and drinks in the theater, items must be consumed quickly. Therefore, we have found offerings to include beverages, prepackaged foods, and items requiring limited cooking requirements like popcorn or pretzels. Today’s foodservice design includes the acceptance of credit cards at all points-of-sale, and many venues of this type offer a pre-order option so that guests do not have to wait in line. Also, it is preferable to offer something of local flavor. Exhibit 27 presents examples of modern concessions within comparable theater facilities in comparison to the KCAC concessions.

### **Exhibit 27 Comparable Theater Facilities – State of the Industry Comparison – Concessions**

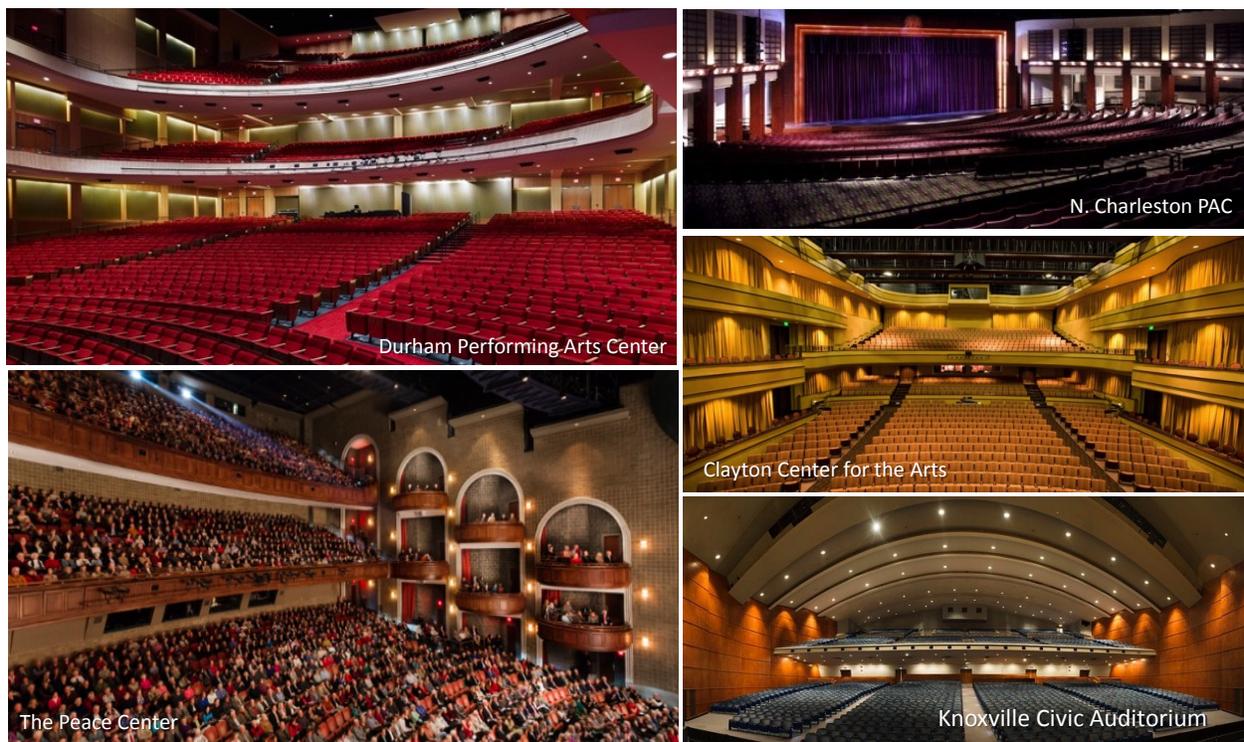


The KCAC’s Auditorium has two concession stands, one on each level, and they serve a limited menu of prepackaged snacks and beverages. The décor of the stands is dated, and the 1st level stand has a section for wheelchair users (the counter is lower). Today’s design standards dictate all counters would be at ADA height so as not to highlight the difference in patrons’ physical abilities, as well as be able to serve all patrons at all points of sale.

## Capacity/Seating

Seating in performing arts facilities is designed to be cushioned and upholstered, set on a slope that offers ideal sightlines, is constructed with reliable seat lift mechanisms, maintains adequate legroom between rows, and offers some degree of flexibility by having some seats closer to the stage be removable. Also, there are premium seats in box-type settings in order to accommodate sponsor, donors, or others who have the resources to pay a premium for private seats and access to other amenities, as shown below in Exhibit 28. The premium seats become more critical when there is a regular tenant, such as a symphony, where guests may seek to attend every performance.

### Exhibit 28 Comparable Theater Facilities – State of the Industry Comparison – Capacity/Seating

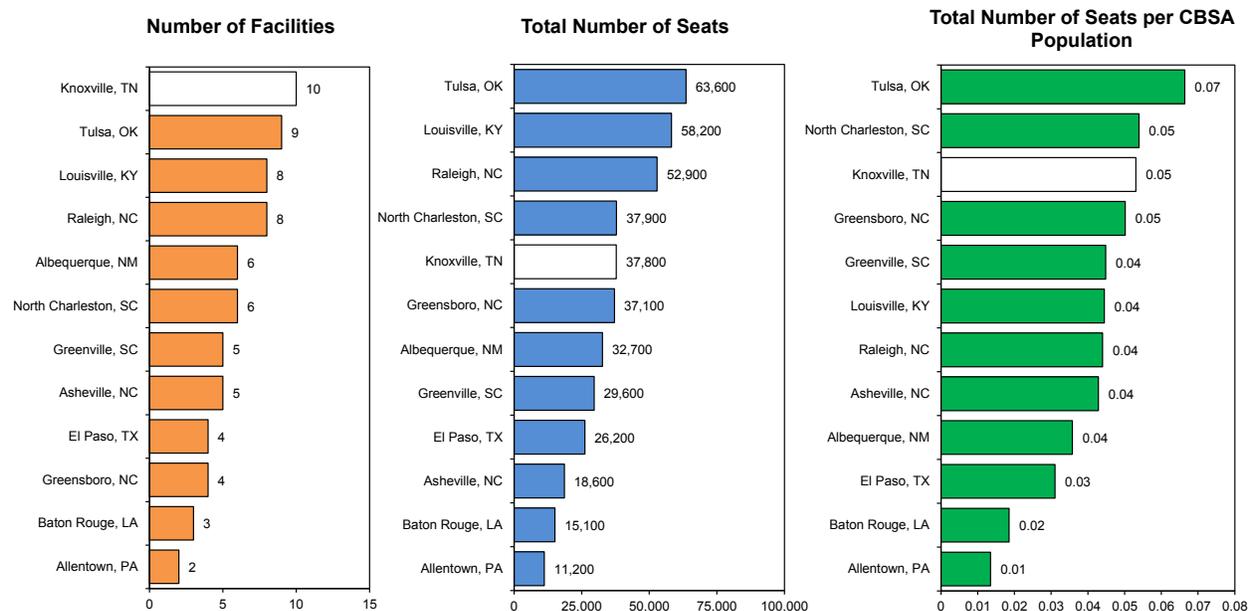


Although the seats in the Auditorium have some age and wear, they are cushioned, upholstered, and offer good sightlines. There is a noticeable absence of premium seats or boxes, however, which represents the potential for lost revenue.

## Comparison of Market-wide Facilities

Since two different event facility types have been addressed throughout our research, the following Exhibits depict the conditions in Knoxville relative to 11 similar markets in terms of their indoor spectator/entertainment facilities considering both University and Non-University facilities. A summary of the number of spectator/entertainment facilities, total seating capacities and total seats per core base statistical area (CBSA) population in Knoxville relative to 11 comparable markets is presented in the charts below. It is important to note that only indoor, seated facilities with capacities larger than 500 are included in the following analysis.

**Exhibit 29**  
**Market-wide Inventory – Total Indoor Spectator/Entertainment Venues**  
**(Including University Facilities)**



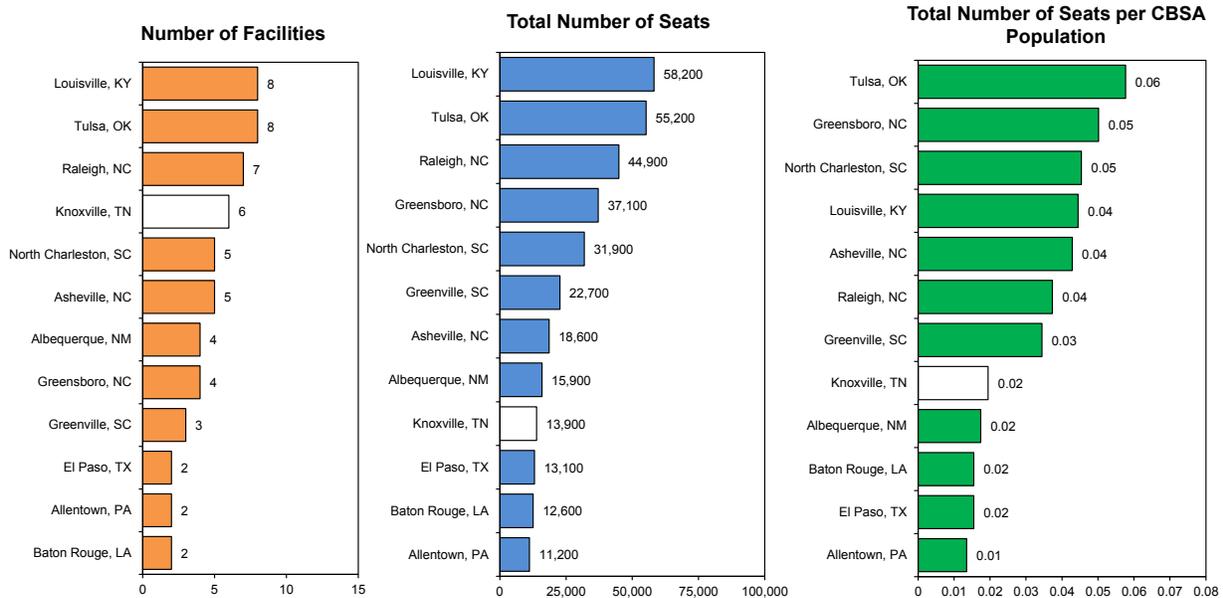
Note: Only includes indoor arenas and seated venues within market with capacities over 500.  
 Source: Industry publications, facility management and websites, 2014

As shown, the number of arena facilities in Knoxville and the 11 comparable markets ranges from 2 in Allentown to 10 in Knoxville when considering all indoor, seated spectator/entertainment venues. Total seating capacities range from 11,200 in Allentown to 63,600 in Tulsa.

Importantly, although they may account for a large portion of market-wide facilities and capacities, University venues are in most cases not built to serve the local community, as their primary function is to serve the University, specifically the athletic programs and events of University and its students, faculty and alumni.

To further analyze and better compare the market-wide facilities, Exhibit 30 presents a summary of the number of indoor spectator/entertainment facilities, total seating capacities and total seats per CBSA population in Knoxville relative to the same markets, excluding University facilities.

**Exhibit 30  
Market-wide Inventory – Total Indoor Spectator/Entertainment Venues  
(Not Including University Facilities)**



Note: Only includes non-university owned/operated indoor arenas and seated venues within market with capacities over 500.  
Source: Industry publications, facility management and websites, 2014

When considering total indoor spectator and entertainment venues, including university facilities, Knoxville ranks at or about the midpoint in terms of total facilities, total number of seats and the ratio of seats per population. When eliminating university-based facilities, Knoxville’s ranking drops among the comparable markets. Specifically, Knoxville falls from having the most to the third most venues, from fifth to ninth in the total seating and from third to eighth in seats per population. This indicates that Knoxville has an undersupply of available indoor seats relative to the average comparable market.

Another important measure of a market’s seating venue capacity and position is a market penetration analysis of select comparable facilities and their capacities in relation to their market. The exhibits on the following pages present each selected comparable facility and total capacity relative to their market size within a 30- and 90-minute drive time compared to the KCAC and Knoxville market.

**Exhibit 31  
Market Penetration Analysis – Comparable Arena Facilities**

Market	Facility	Arena Capacity	30-Minute Drive		90-Minute Drive	
			Population	Ratio of Population to Capacity	Population	Ratio of Population to Capacity
Duluth, GA	Arena at Gwinnett Center	13,000	1,821,118	140	6,289,143	484
Indianapolis, IN	Indiana Farmers Coliseum	14,800	1,363,074	92	3,361,261	227
Greensboro, NC	Greensboro Coliseum	23,500	811,626	35	2,169,577	92
Tulsa, OK	BOK Center	19,100	789,437	41	1,589,492	83
Toledo, OH	Huntington Center	9,341	653,291	70	5,737,817	614
Worcester, MA	DCU Center	14,800	225,970	15	637,853	43
Allentown, PA	PPL Center	10,000	634,459	63	9,132,033	913
North Charleston, SC	North Charleston Coliseum	13,295	603,764	45	1,031,944	78
<b>Knoxville, TN</b>	<b>Knoxville Coliseum</b>	<b>6,539</b>	<b>597,834</b>	<b>91</b>	<b>1,617,861</b>	<b>247</b>
Wichita, KS	Intrust Bank Arena	17,500	558,290	32	959,615	55
Greenville, SC	Bon Secours Wellness Arena	9,000	526,467	58	2,169,577	241
Manchester, NH	Verizon Wireless Arena	11,770	512,404	44	5,635,048	479
Augusta, GA	James Brown Arena at Augusta Ent. Complex	9,167	475,730	52	1,602,164	175
Fort Wayne, IN	Allen County War Memorial Coliseum	13,000	436,617	34	1,915,955	147
Reading, PA	Santander Arena	9,146	435,604	48	7,817,639	855
Huntsville, AL	Propst Arena at Von Braun Center	9,000	403,746	45	1,559,997	173
Rio Rancho, NM	Santa Ana Star Center	7,000	321,858	46	1,085,357	155
Lincoln, NE	Pinnacle Bank Arena	15,900	308,648	19	1,419,210	89
Evansville, IN	Ford Center	11,000	301,905	27	972,384	88
Portland, ME	Cross Insurance Arena	8,000	252,805	32	1,300,529	163
Huntington, WV	Big Sandy Superstore Arena	9,500	226,890	24	1,000,479	105
Sioux Falls, SD	Denny Sanford PREMIER Center	12,000	225,970	19	637,853	53
<b>Average (1)</b>		<b>12,370</b>	<b>566,170</b>	<b>50</b>	<b>2,763,090</b>	<b>250</b>
<b>Average (2)</b>		<b>13,410</b>	<b>518,260</b>	<b>40</b>	<b>1,497,750</b>	<b>130</b>
<b>30-Minute Market Penetration (1)</b>		<b>11,960</b>				
<b>30-Minute Market Penetration (2)</b>		<b>14,950</b>				
<b>90-Minute Market Penetration (1)</b>		<b>6,470</b>				
<b>90-Minute Market Penetration (2)</b>		<b>12,450</b>				
<b>AVERAGE</b>		<b>11,460</b>				

Note: Ratios indicate the ratio of population to seating capacity. The 30-minute and 90-minute radii represent concentric rings from each market's event facility.  
(1) Excludes KCAC  
(2) Excluding KCAC and markets with a 30-minute drive population over 1,300,000 or under 300,000 and/or 90-minute drive population over 5,000,000.  
Source: Esri demographics report, 2015; facility publications

As shown, the average arena capacity among comparable markets approximates 12,370, and 12,410 when excluding markets with a 30-minute drive population of over 1.3 million or less than 300,000 and/or 90-minute drive population over 5.0 million. Utilizing the ratio of population to capacity among markets reviewed and applying this to Knoxville's 30- and 90-minute drive populations respectively, it is estimated that an arena venue in Knoxville could support a total capacity ranging from 6,470 to 14,950. Importantly, the analyses in Exhibits 31 and 32 do not take into consideration demand specific to the Knoxville market, local or regional competition for events or other such factors, and is purely presented here to provide context for a discussion on potential supportable capacities at an arena and theater facility in Knoxville.

Exhibit 32 presents a market penetration analysis of the selected comparable theater facilities in relation to the Civic Auditorium and Knoxville market.

**Exhibit 32  
Market Penetration Analysis – Comparable Theater Facilities**

Market	Facility	Theater Capacity	30-Minute Drive		90-Minute Drive	
			Population	Ratio of Population to Capacity	Population	Ratio of Population to Capacity
Duluth, GA	Gwinnett Performing Arts Center	708	1,821,118	2,572	6,289,143	8,883
Louisville, KY	Whitney Hall at The Kentucky Center	2,377	1,053,154	443	2,687,747	1,131
Durham, NC	Durham Performing Arts Center	2,712	988,469	364	4,093,042	1,509
Greensboro, NC	Steven B. Tanger Performing Arts Center (1)	3,000	744,896	248	4,376,205	1,459
Columbia, SC	Township Auditorium	3,099	627,270	202	2,709,779	874
Greenville, SC	The Peace Center	2,103	626,385	298	2,388,185	1,136
North Charleston, SC	North Charleston Performing Arts Center	2,341	603,764	258	1,031,944	441
<b>Knoxville, TN</b>	<b>Knoxville Civic Auditorium</b>	<b>2,500</b>	<b>597,834</b>	<b>239</b>	<b>1,617,861</b>	<b>647</b>
Augusta, GA	Bell Auditorium at Augusta Ent. Complex	2,882	475,730	165	1,602,164	556
Reading, PA	Santander Performing Arts Center	1,800	435,604	242	7,817,639	4,343
Huntsville, AL	Mark C. Smith Concert Hall at VBC	1,955	403,746	207	1,559,997	798
Athens, GA	The Classic Center	2,056	262,785	128	4,222,550	2,054
<b>Average (2)</b>		<b>2,280</b>	<b>731,170</b>	<b>470</b>	<b>3,525,310</b>	<b>2,110</b>
<b>Average (3)</b>		<b>2,470</b>	<b>662,110</b>	<b>270</b>	<b>3,140,740</b>	<b>1,360</b>
<b>30-Minute Market Penetration (2)</b>		<b>1,270</b>				
<b>30-Minute Market Penetration (3)</b>		<b>2,210</b>				
<b>90-Minute Market Penetration (2)</b>		<b>770</b>				
<b>90-Minute Market Penetration (3)</b>		<b>1,190</b>				
	<b>AVERAGE</b>	<b>1,360</b>				

Note: Ratios indicate the ratio of population to seating capacity. The 30-minute and 90-minute radii represent concentric rings from each market's event facility.  
 (1) Proposed capacity for Steven B. Tanger PAC, facility opening in 2017.  
 (2) Excludes KCAC  
 (3) Excluding KCAC and markets with a 30-minute drive population over 1,300,000 or under 300,000 and/or 90-minute drive population over 5,000,000.  
 Source: Esri demographics report, 2015; facility publications

As shown, average facility capacity is approximately 2,280 excluding Knoxville Auditorium and 2,470 when excluding Knoxville Auditorium as well as markets with a 30-minute drive population over 1.3 million and less than 300,000 and/or a 90-minute drive population over 5 million. The overall average facility capacity of the 30- and 90-minute market penetration is approximately 1,360.

Similar to the arena facility analysis, the ratio of population to capacity among comparable theater markets suggests that the population within 30- and 90-minute drive times of Knoxville could support a theater facility with a total capacity ranging from 770 to 2,210 seats.



## 6.0. MARKET DEMAND ANALYSIS

The purpose of this chapter is to provide an analysis of the estimated market demand for a potentially renovated/redeveloped KCAC facility. To form a basis for the analysis, a variety of techniques were used including meetings with local groups and individuals, telephone interviews with event planners and promoters, and an evaluation of potential facility tenants. The survey was instrumental in evaluating demand for these types of major events for the KCAC. This survey-based technique provides a detailed understanding of potential user needs, their willingness to use the KCAC in its current and potential future state, as well as overall perceptions of Knoxville as a potential host community for their event.

### Spectator and Entertainment Events

Market-driven events are defined as those events that are affected by local market forces and characteristics. The number of market-driven events in a given community is typically a function of the size of the marketplace and the number of available facilities to host these events. Promoted and touring shows such as concerts, comedy acts, family shows, rodeos, sporting events and competitions, motor sports, and other ticketed events were analyzed as part of this research effort.

#### *Concerts*

Concerts often represent some of the most highly visible and well-attended events at arena facilities and in certain cases, theater facilities. The region currently features several venues capable of hosting mid-to-large sized concerts including Thompson-Boling Arena, Bridgestone Arena, The Gwinnett Center, Bon Secours Wellness Arena, North Charleston Coliseum, Berglund Special Events Center and the Nashville Municipal Auditorium, among other venues.

In order to gauge the market potential for concerts to be hosted at a new or renovated KCAC, interviews were conducted with concert promoters representing a wide range of music and live entertainment genres. In general, concert and live entertainment promoters indicated that the Knoxville market is a viable concert/touring entertainment market based off of area population, student-population base, socioeconomic characteristics and successful history of promoted shows at the various venues throughout the market.

Respondents familiar with the KCAC indicated that the Auditorium is somewhat dated and needs a face-lift including enhancements to the concession facilities as well as ADA Accessibility. However, the seating capacity and functional capabilities of the venue largely meet the needs of promoters and touring acts. In contrast, a myriad of issues exist within the Coliseum such as up to 50 percent increased costs due to rigging issues, poor seating configuration, poor acoustics, inhibiting ingress/egress and limiting ancillary revenue generation potential.

Many concerts and touring acts require in excess of 5,000 seats skip over the Knoxville market due to limiting conditions of some of the existing Knoxville event venues. Thompson-Boling arena is limited in terms of availability due to basketball season, which usually conflicts with large tour kick-off dates. While there is a curtaining system that is capable of reducing the capacity down to approximately 10,000 it still does not create the most attendee/user-friendly atmosphere. And perhaps the biggest issue for concert and live entertainment promoters at Thompson-Boling is that alcohol sales and consumption is prohibited. The Tennessee Theatre, although state-of-the-industry and well known, also has limited availability in terms of booking as well as seating capacity.

Based on interviews with concert promoters, local competition and concert activity typically hosted at other comparable venues in similar markets, there is a need for a new or renovated facility that offers a seating capacity between 8,000 and 12,000. It is estimated that either a new or renovated Coliseum offering a seating capacity of 8,000 to 12,000 with a sufficient rigging and curtaining system has the potential to increase performance activity and attendance at existing shows by 30 to 50 percent.

### *Family Shows*

Family shows cater to spectators of all ages and include events such as the Harlem Globetrotters, Ringling Brothers and Barnum & Bailey Circus, Sesame Street Live, Marvel Universe Live and Disney on Ice (i.e., Frozen, Princesses and Heroes, among others). These events are usually held over consecutive days, averaging two to six performances per stop. Family show touring seasons often run between October and May and depending on the market and facility capacity/availability, generally draw a few thousand spectators per performance.

In order to understand the market potential for attracting additional family shows to the KCAC, several leading family show promoters were contacted. Based on discussions with these promoters, the Civic Auditorium is well situated to accommodate a portion of the Family Show demand with a potential to draw more attendees with an updated venue and increased capacity. Currently, Family Show productions that outgrow the Auditorium transition to the Coliseum. However, the Coliseum only has the ability to accommodate a portion of the overall Family Show demand in the market due to facility size and rigging limitations. Specifically, the Circus had to be scaled back from a three-ring to a one-ring circus due to poor rigging in the Coliseum and limited seating capacity available. The limited seating has also forced promoters to increase the number of performances to accommodate the market, which negatively affects performers.

Overall, with the lack of available venues to accommodate the Family Show demand, the KCAC has the potential to host 10 to 15 additional performances in Knoxville with up to 20 to 30 percent greater attendance if improvements were made to the rigging system to support the events and seating capacity was increased between 10,000 and 12,000 in the Coliseum.

### *Other Promoted Events*

Other promoted events typically hosted at arenas include a variety of events including, but not limited to motorsports, professional wrestling and the rodeo, among other events that on average draw from 30 to 50 miles away. While events such as wrestling are generally one-time performances, other events such as rodeos and motocross events have the potential to conduct ticketed performances over several days at each tour stop. These types of events often find success in niche markets and other events may have the ability to draw non-local patrons, and therefore may not have the same population or demographic requirements of certain other events. If a rodeo or motorsports event finds success in a market one year, they are more likely to return the following year and potentially include additional event days.

Particularly with motorsports, due to safety reasons, many lower level seats are often removed from circulation for events. The lack of seating capacity within the Coliseum, exacerbated by the removal of this inventory, likely limits the market share for the KCAC in its current condition. Additionally, the limited Coliseum floor space (specifically the length) limits the potential for motorsports requiring a minimum safe distance to perform.

With regard to wrestling, it has been an event type that has historically utilized either the Coliseum and/or the KCAC's ballroom. Improvements to the Coliseum would be expected to increase attendance levels' however, added event days is not likely unless the market/facility is able to demonstrate increased drawing power.

### *Local/Regional Arts Organizations*

Currently, Knoxville is served by a number of performing arts organizations and related groups. In general, the number of arts organizations active in the Knoxville area is moderate to strong, relative to the area's population. A variety of local and regional arts organizations were interviewed. Such organizations included those presenting orchestral productions, musicals, plays, concerts, recitals, ballet, dance, opera and other live performances.

Seating capacity available within the Civic Auditorium is largely viewed as a favorable alternative to the Tennessee Theatre, and that there is a need for an Auditorium/Performing Arts Center in the Knoxville market with a seating capacity between 2,000 and 3,000 seats. However, relative to the Tennessee Theatre's attendee experience and ambiance, the KCAC is significantly deficient by comparison.

Interviews suggested that in order to improve both user group and attendee experience base capital repairs and improvements within the Auditorium are necessary. With the essential state-of-the industry upgrades, potential exists to not only grow attendance levels at existing events by approximately 10 to 15 percent, but also the opportunity to attract Broadway series productions.

### *Tenant Sports*

The KCAC has been home to two minor league sports teams within the past five years; The Knoxville Icebears of the Southern Professional Hockey League (SPHL) and formerly (2011/12 and 2012/13 seasons) the Knoxville Night Hawks of the Professional Indoor Football League (PIFL). Minor league sports tenants benefit the coliseum by bringing in additional recurring events of a permanent tenant. For purposes of this study, an analysis of the SPHL, American Hockey League, ECHL, Professional Indoor Football League and the NBA-D League were conducted to assess the Coliseum's ability to serve as a suitable venue and market in its current state. Additionally, interviews were conducted with representatives of professional minor leagues to determine the facility requirements for league expansion and whether the Knoxville market could support a franchise.

The following exhibits summarize the seating capacities and attendance of various minor leagues that either currently exist or could potentially expand into the Knoxville market based on discussions with league officials. This data is then used to estimate the seating capacity needed if a minor league team were brought to the Knoxville market. It is important to note that the following exhibits (Exhibits 1 through 5) do not take into consideration demand specific to the Knoxville market, local or regional competition for events or other such factors and is purely presented below to provide context for a discussion on potential supportable capacity at a coliseum facility in Knoxville.

A summary of SPHL arenas and their corresponding market penetration (including Knoxville and the Coliseum) is presented in Exhibit 1.

**Exhibit 1  
Market Penetration Analysis for the SPHL**

Team	City	Capacity	CBSA Population	Average Attendance	Ratio of Avg. Attendance to Population
Mississippi RiverKings	Southaven, MS	8,400	1,336,400	2,535	0.19%
<b>Knoxville Ice Bears</b>	<b>Knoxville, TN</b>	<b>4,787</b>	<b>711,936</b>	<b>3,412</b>	<b>0.48%</b>
Pensacola Ice Flyers	Pensacola, FL	8,150	463,691	4,090	0.88%
Huntsville Havoc	Huntsville, AL	6,200	434,703	3,714	0.85%
Fayetteville FireAntz	Fayetteville, NC	9,500	383,306	3,165	0.83%
Peoria Rivermen	Peoria, IL	9,919	379,928	3,506	0.92%
Columbus Cottonmouths	Columbus, GA	7,500	309,174	2,736	0.88%
Louisiana IceGators	Lafayette, LA	11,433	281,485	2,372	0.84%
Macon Mayhem	Macon, GA	7,100	233,553	N/A	N/A
<b>Average</b>		<b>8,525</b>	<b>477,780</b>	<b>3,160</b>	<b>0.77%</b>
<b>Average (Similar Markets <sup>(1)</sup>)</b>		<b>8,254</b>	<b>394,160</b>	<b>3,442</b>	<b>0.87%</b>
<b>Knoxville w/Avg. Penetration (All Markets)</b>			<b>711,900</b>	<b>5,500</b>	<b>0.77%</b>
<b>Knoxville w/Avg. Penetration (Similar Markets)</b>			<b>711,900</b>	<b>6,200</b>	<b>0.87%</b>

(1) Markets with CBSA population between 300,000 and 1,300,000  
Source: ESRI, Official AHL website, 2015

As shown above, the Coliseum has the smallest hockey capacity amongst other facilities in the SPHL. The Coliseum also is the only arena without a NHL regulation size ice sheet. In the SPHL, the average market penetration among markets with a team is 0.77 percent. This means that, on average, less than one person out of every 100 residents in the markets attends an SPHL game. Using this ratio relative to Knoxville’s CBSA population, it is estimated that a coliseum facility in Knoxville could support the operations of a SPHL team in a venue with a seating capacity ranging from 5,500 to 6,200 seats.

A similar analysis was conducted for the AHL facilities and their respective markets and is presented in Exhibit 2 on the following page.



**Exhibit 2  
Market Penetration Analysis for the AHL**

Team	City	Capacity	CBSA Population	Average Attendance	Ratio of Avg. Attendance to Population
Chicago Wolves	Rosemont, IL	17,000	9,552,628	7,665	0.08%
Toronto Marlies	Toronto, ON	9,200	5,132,800	4,199	0.08%
San Antonio Rampage	San Antonio, TX	13,400	2,256,780	5,692	0.25%
Lake Erie Monsters	Cleveland, OH	20,056	2,056,582	8,178	0.40%
Texas Stars	Cedar Park, TX	6,863	1,863,311	5,090	0.27%
Charlotte Checkers	Charlotte, NC	14,100	1,839,539	5,529	0.30%
Norfolk Admirals	Norfolk, VA	8,846	1,695,181	4,353	0.26%
Providence Bruins	Providence, RI	11,940	1,598,733	7,945	0.50%
Milwaukee Admirals	Milwaukee, WI	17,800	1,569,035	4,043	0.26%
Oklahoma City Barons	Oklahoma City, OK	13,400	1,306,816	3,443	0.26%
Hartford Wolf Pack	Hartford, CT	14,660	1,213,746	3,489	0.29%
Rochester Americans	Rochester, NY	12,500	1,055,927	5,896	0.56%
Bridgeport Sound Tigers	Bridgeport, CT	10,000	936,341	4,358	0.47%
Albany Devils	Albany, NY	14,000	871,996	2,966	0.34%
Lehigh Valley Phantoms	Allentown, PA	8,918	829,018	8,036	0.97%
Worcester Sharks	Worcester, MA	12,239	804,075	3,341	0.42%
Grand Rapids Griffins	Grand Rapids, MI	10,835	785,776	7,214	0.92%
Springfield Falcons	Springfield, MA	7,442	693,194	2,869	0.41%
Hamilton Bulldogs	Hamilton, ON	17,500	670,600	3,891	0.58%
Syracuse Crunch	Syracuse, NY	6,200	662,215	6,522	0.98%
Iowa Wild	Des Moines, IA	15,181	592,732	5,686	0.96%
W-B/Scranton Penguins	Wilkes-Barre, PA	8,600	562,468	5,059	0.90%
Hershey Bears	Hershey, PA	10,500	556,770	9,413	1.69%
Portland Pirates	Portland, ME	6,746	517,619	2,740	0.53%
Manchester Monarchs	Manchester, NH	10,019	402,677	5,571	1.38%
Rockford Ice Hogs	Rockford, IL	5,767	346,918	4,387	1.26%
Binghamton Senators	Binghamton, NY	4,643	247,976	3,645	1.47%
St. John's IceCaps	St. John's, NF	6,287	165,300	5,875	3.55%
Adirondack Phantoms	Glens Falls, NY	4,806	130,000	3,552	2.73%
Utica Comets	Utica, NY	3,815	46,540	3,713	7.98%
<b>Average</b>		<b>10,775</b>	<b>1,365,443</b>	<b>5,145</b>	<b>1.04%</b>
<b>Average (Similar Markets <sup>(1)</sup>)</b>		<b>10,694</b>	<b>718,880</b>	<b>5,090</b>	<b>0.79%</b>
<b>Knoxville w/Ave. Penetration (All Markets)</b>			<b>711,900</b>	<b>7,400</b>	<b>1.04%</b>
<b>Knoxville w/Ave. Penetration (Similar Markets)</b>			<b>711,900</b>	<b>5,600</b>	<b>0.79%</b>

(1) Markets with CBSA population between 300,000 and 1,300,000  
Source: ESRI; Official AHL website, 2015

Current AHL franchise facilities have an average capacity of approximately 10,775 and 10,700 which is significantly larger than the current capacity at the Coliseum. Average attendance levels range from 2,740 for the Portland Pirates to over 9,410 for the Hershey Bears with an average attendance to population ratio of 0.79 or 1.04 percent. Using this ratio, Knoxville would need a coliseum with the seating capacity between 5,600 and 7,400 seats to support a local AHL team.

Although current facility characteristics cannot support an American Hockey League franchise, the Knoxville market due to its proximity to approximately five professional NHL franchises, future potential exists with the necessary infrastructure to serve as a feeder organization.

Additionally, analyzing the ECHL (formerly the East Coast Hockey League), another minor hockey league one tier below the AHL was necessary and is presented below

**Exhibit 3  
Market Penetration for the ECHL**

Team	City	Capacity	CBSA Population	Average Attendance	Ratio of Avg. Attendance to Population
Allen Americans	Allen, TX	6,200	6,709,155	4,014	0.06%
Ontario Reign	Ontario, CA	9,395	3,921,400	7,272	0.19%
Gwinnett Gladiators	Duluth, GA	11,355	2,999,000	4,526	0.15%
Orlando Solar Bears	Orlando, FL	9,555	2,216,459	6,041	0.27%
Cincinnati Cyclones	Cincinnati, OH	6,955	2,146,509	4,193	0.20%
Missouri Mavericks	Independence, MO	5,800	2,072,528	5,146	0.25%
Las Vegas Wranglers	Las Vegas, NV	20,000	1,990,244	N/A	N/A
Indy Fuel	Indianapolis, IN	6,488	1,804,523	3,751	0.21%
Utah Grizzlies	West Valley City, UT	10,207	1,489,500	4,644	0.31%
Florida Everblades	Esteros, FL	7,186	960,100	4,944	0.51%
Tulsa Oilers	Tulsa, OK	17,096	957,382	4,688	0.49%
Bakersfield Condors	Bakersfield, CA	8,782	865,044	4,705	0.54%
Stockton Thunder	Stockton, CA	9,737	708,269	4,131	0.58%
South Carolina Stingrays	Charleston, SC	6,712	702,802	3,304	0.47%
Greenville Road Warriors	Greenville, SC	7,044	659,598	3,410	0.52%
Toledo Walleye	Toledo, OH	7,431	648,562	6,527	1.01%
Idaho Steelheads	Boise, ID	5,006	640,691	3,887	0.61%
Wichita Thunder	Wichita, KS	13,400	628,196	4,631	0.74%
Fort Wayne Komets	Fort Wayne, IN	10,500	423,091	7,304	1.73%
Reading Royals	Reading, PA	7,160	414,193	3,797	0.92%
Alaska Aces	Anchorage, AK	6,399	396,043	4,205	1.06%
Quad City Mallards	Moline, IL	9,000	383,147	3,917	1.02%
Evansville IceMen	Evansville, IN	9,100	361,153	5,155	1.43%
Kalamazoo Wings	Kalamazoo, MI	5,113	329,988	2,622	0.79%
Colorado Eagles	Loveland, CO	5,289	312,458	5,289	1.69%
Elmira Jackals	Elmira, NY	3,784	212,700	2,404	1.13%
Wheeling Nailers	Wheeling, WV	5,406	146,227	2,440	1.67%
Rapid City Rush	Rapid City, SD	5,119	130,675	3,865	2.96%
Brampton Beast	Brampton, ON	5,000	N/A	2,499	N/A
<b>Average</b>		<b>8,283</b>	<b>1,258,201</b>	<b>4,404</b>	<b>0.80%</b>
<b>Average (Similar Markets (1))</b>		<b>8,435</b>	<b>586,920</b>	<b>4,532</b>	<b>0.88%</b>
<b>Knoxville w/Avg. Penetration (All Markets)</b>			<b>711,900</b>	<b>5,700</b>	<b>0.80%</b>
<b>Knoxville w/Avg. Penetration (Similar Markets)</b>			<b>711,900</b>	<b>6,300</b>	<b>0.88%</b>

(1) Markets with CBSA population between 300,000 and 1,300,000  
Source: ESRI; Official ECHL website, 2015

The ECHL is a tier below the AHL, but offers more attractive economics than the SPHL and also acts as an affiliate of the NHL. With 24 percent smaller building capacities and lower franchise expenses, travel costs and player salaries, the ECHL provides team owners with lower costs of operations relative to an AHL franchise. After speaking with representatives from the ECHL, if Knoxville wanted to grow from a SPHL team into an ECHL team it is necessary that they offer an arena with NHL regulation sized ice sheet and a hockey capacity between 5,000 and 7,500 as well as 12 to 20 suites. As shown above, the average seating among current franchise facilities is approximately 8,300 or 8,400. Using the ratio of average attendance among current franchise facilities is approximately 8,300 or 8,400. Using the ratio of average attendance to CBSA population, in order for the Knoxville market to support an ECHL franchise, the coliseum would need to have a seating capacity between 5,700 and 6,300. Additional amenities such as state of the art and appropriate amount of dressing facilities, a medical care/treatment room and an on-site fitness facility are required.

In the short term, the ECHL is looking to expand from their current 28 team league to 30 teams and cap the amount there, which they expect to reach within the next 12 to 18 months. However, with ECHL teams moving up to the AHL, there is future potential for Knoxville to have their own ECHL franchise.

A market penetration analysis of the Professional Indoor Football League's (PIFL) current franchise facilities can be found below in Exhibit 4. When looking at capacities of current PIFL facilities the average is approximately 8,200 and 8,400 when averaging only markets with a CBSA population between 300,000 and 1.3 million. As illustrated, fan base following for PIFL franchises are relatively lower than other sports analyzed with average attendance ranging between 1,120 and 3,678 and average attendance to population of 0.36 and 0.41 percent. Using this ratio, a coliseum in Knoxville would need a seating capacity between 2,600 and 2,900 to support a local PIFL team.

**Exhibit 4  
Market Penetration Analysis for the PIFL**

Team	City	Capacity	CBSA Population	Average Attendance	Ratio of Avg. Attendance to Population
Nashville Venom	Nashville, TN	9,654	1,649,030	1,655	0.10%
Richmond Raiders	Richmond, VA	11,088	1,284,147	3,678	0.29%
Lehigh Valley Steelhawks	Allentown, PA	8,918	829,018	2,281	0.28%
Alabama Hammers	Huntsville, AL	6,602	434,703	2,168	0.50%
Trenton Freedom	Trenton, NJ	8,100	367,555	1,122	0.31%
Columbus Lions	Columbus, GA	7,604	309,174	2,152	0.70%
Erie Explosion	Erie, PA	5,486	281,352	N/A	N/A
<b>Average</b>		<b>8,207</b>	<b>736,426</b>	<b>2,176</b>	<b>0.36%</b>
<b>Average (Similar Markets (1))</b>		<b>8,462</b>	<b>644,919</b>	<b>2,280</b>	<b>0.41%</b>
<b>Knoxville w/Avg. Penetration (All Markets)</b>			<b>711,900</b>	<b>2,600</b>	<b>0.36%</b>
<b>Knoxville w/Avg. Penetration (Similar Markets)</b>			<b>711,900</b>	<b>2,900</b>	<b>0.41%</b>

(1) Markets with CBSA population between 300,000 and 1,300,000  
Source: ESR: Official PIFL website, 2015

In Exhibit 5, a market penetration analysis of the NBA D-League is presented.

**Exhibit 5  
Market Penetration Analysis for the NBA D-League**

Team	City	Capacity	CBSA Population	Average Attendance	Ratio of Avg. Attendance to Population
Los Angeles D-Fenders	Los Angeles, CA	300	13,075,064	220	0.00%
Texas Legends	Frisco, TX	4,500	6,709,155	4,400	0.07%
Delaware 87ers	Newark, DE	5,000	6,022,170	N/A	N/A
Austin Spurs	Austin, TX	6,800	1,863,311	3,800	0.20%
Oklahoma City Blue	Oklahoma City, OK	2,610	1,306,816	N/A	N/A
Bakersfield Jam	Bakersfield, CA	500	865,044	500	0.06%
Rio Grande Valley Vipers	Hidalgo, TX	5,500	825,073	4,800	0.58%
Grand Rapids Drive	Grand Rapids, MI	4,500	785,776	N/A	N/A
Idaho Stampede	Boise, ID	5,700	640,691	2,700	0.42%
Iowa Energy	Des Moines, IA	16,100	592,732	4,300	0.73%
Maine Red Claws	Portland, ME	3,100	517,619	3,000	0.58%
Reno Bighorns	Reno, NV	7,000	430,588	2,400	0.56%
Fort Wayne Mad Ants	Fort Wayne, IN	13,000	423,091	2,900	0.69%
Canton Charge	Canton, OH	5,200	403,023	2,700	0.67%
Erie BayHawks	Erie, PA	6,800	281,352	3,000	1.07%
Santa Cruz Warriors	Santa Cruz, CA	2,500	267,922	2,300	0.86%
Sioux Falls Skyforce	Sioux Falls, SD	3,000	237,330	2,800	1.18%
Westchester Knicks	White Plains, NY	5,000	35,614	N/A	N/A
<b>Average</b>		<b>5,395</b>	<b>1,960,132</b>	<b>2,844</b>	<b>0.55%</b>
<b>Average (Similar Markets (1))</b>		<b>6,733</b>	<b>609,293</b>	<b>2,913</b>	<b>0.53%</b>
<b>Knoxville w/Avg. Penetration (All Markets)</b>			<b>711,900</b>	<b>3,900</b>	<b>0.55%</b>
<b>Knoxville w/Avg. Penetration (Similar Markets)</b>			<b>711,900</b>	<b>3,800</b>	<b>0.53%</b>

(1) Markets with CBSA population between 300,000 and 1,300,000  
Source: ESR: Official NBA D League website, 2015



As shown on the previous page, the average capacity of a NBA D-League franchise facility is approximately 5,400 or 6,700 when considering markets with a CBSA population of more than 300,000 and less than 1.3 million. Although these averages are most similar to the existing capacities found in the Knoxville Coliseum, its location and the market are likely not suitable for a NBA D-League franchise in Knoxville.

### *Comparison of KCAC Auditorium and Tennessee Theatre*

Given the relatively similar capacity and functional capabilities between the KCAC Auditorium and the Tennessee Theatre, a comparative analysis was conducted of the market positioning of each facility in the Knoxville marketplace and how the Tennessee Theatre might or might not be able to absorb additional demand should the Civic Auditorium be decommissioned. Key results of the comparison include the following:

- Seating
  - Approximately 40 percent of the Civic Auditorium's events would be too large to fit within the Tennessee Theater
- Staging/Production
  - Stage dimension at the Tennessee Theatre are 54' wide, 26' high and 45'3" deep. At the Civic Auditorium stage dimensions measure 57' wide, 27' high and 62' deep.
  - Wing space within Tennessee Theatre is 16' to the stage right and 25'6" to the stage left. At Civic Auditorium, wing space is 24' to both the left and right of the stage.
  - Tennessee Theatre offers 50 line sets with max 1,600 lbs. each with 75,000 lbs. total weight. Civic Auditorium has 50 lines at 600 lbs. each.
- Scheduling
  - Due to lack of availability in dates at Tennessee Theatre, it would not be expected that more than 20 percent of the Civic Auditorium's events could theoretically transition over to the Tennessee Theatre, should the Civic Auditorium be removed from service.
- Pricing
  - Published rental rates at Tennessee Theatre are approximately 20 to 60 percent higher than Civic Auditorium depending on the performance day.

## Conclusions

A detailed market demand analysis was conducted with respect to the KCAC, as well as for similar sports, entertainment and performing arts event facilities throughout Knoxville. Market analysis conclusions indicate that demand exists for both a City-owned arena and performing arts theater in Knoxville. These types of facilities would be expected to continue to have important roles in the Knoxville marketplace into the foreseeable future. The KCAC has long served this role in Knoxville, accommodating a significant portion of Knoxville's sports, entertainment and performing arts event demand, including certain events, activities and uses that other local Knoxville event facilities could not, or would not, accommodate. Important events, entertainment opportunities, attendance, and community exposure would be lost and negatively impacted without either of these types of facilities. Should the KCAC be decommissioned and no other facilities are developed, remaining event venues that presently exist in Knoxville would not be able to sufficiently accommodate KCAC's displaced activity.

Further, the market analysis indicates that a distinct opportunity exists for Knoxville to capture new sports, entertainment and performing arts events with a new/improved event facility product—specifically, through an arena venue that is consistent with state-of-the-industry standards.

Key market analysis conclusions include:

- The Coliseum has exceeded its practical life and should be brought up to state-of-the-industry standards to be able to continue accommodating existing event activity and grow future market share. Failure to do so will result in continued erosion of market share and diminishing event, performance and attendance levels at the KCAC.
- Greatest areas of need for the Coliseum include improved rigging capacities, expanded floor space, increased seating capacity and improved sight lines. Other areas of need include improvements to ingress/egress, attendee flow and ancillary revenue generating potential.
- While the "other areas of need" could likely be addressed through a renovation of the existing structure, replacement of the roof and expansion of the floor space and capacity, while improving sight lines likely will require a redevelopment of the facility.
- The Auditorium continues to serve the market demand for fixed-seating venue space with requirements for seating capacity in excess of the 1,600 seats available at the Tennessee Theatre.
- Improvements to the Auditorium are not expected to significantly increase market share or attendance; however, failure to bring the facilities up to state-of-the-industry standards may result in the eventual erosion of attendance.
- Consideration should be given to updating the seats, décor, food and beverage provision, back of house and other such functional measures within the facility.
- It is anticipated that these improvements could be accomplished while largely leaving the existing Auditorium structure intact.

## 7.0. PROGRAM, DEVELOPMENT OPTIONS AND CONCEPTS

The purpose of this section is to build on conclusions reached with regard to market demand to analyze a targeted event facility product that is market supportable in Knoxville and to identify and evaluate several development options and scenarios pursuant to a market supportable project. Pursuant to direction provided by the City, these scenarios are to include an emphasis on options relating to the KCAC and the existing KCAC site, involving varying levels of investment and physical facility renovation, expansion and/or redevelopment, for the purpose of comparison.

A market supportable program of the physical KCAC facility product is outlined herein, based on industry best practices for arena and performing arts theater complexes and market demand that is unique to Knoxville. This program is translated and adjusted as required for the size, location and geographical constraints imposed by, or likely for, each scenario, to be subsequently discussed. Potential construction costs and site issues are also assessed for the scenarios.

### Market Supportable Program

The Knoxville Civic Auditorium and Coliseum is a City-owned multicomponent event facility. In terms of common event industry vernacular, the KCAC primarily consists of an arena (Coliseum) and a performing arts theater (Auditorium). Both components accommodate and serve various types of entertainment, spectator and participatory events. The KCAC also integrates some smaller flat floor space for meetings, banquets and other types of activities, but these spaces are secondary to its function/role as an arena and theater venue.

Based on the previous analyses undertaken, key attributes of a market supportable facility program for a multipurpose spectator/entertainment arena in Knoxville include:

- State-of-the-industry, multipurpose spectator arena.
- Emphasis of accommodation of top tier minor league hockey tenant.
- NHL-size ice surface (200' by 85').
- Concert seating capacity of 10,000.
- Hockey seating capacity of 8,200.
- Flexible seating to maximize flat floor space.
- Premium seating (20 to 30 private suites, club area, other).
- Approximately 2,000 parking spaces.

Based on the previous analyses undertaken, key attributes of a market supportable facility program for a performing arts theater in Knoxville include:

- A flexible, proscenium stage theater.
- Approximately 2,000 seats.
- Stage with a minimum of 60-foot width and 45-foot depth.
- A minimum 50' x 30' proscenium opening.

- Plentiful fly space and wing space with a minimum of 20 feet (left and right).
- Inclusion of a full-sized orchestra pit (able to accommodate 70 or more musicians).
- Inclusion of between five and 10 dressing rooms.
- Limited space to accommodate pre- and post-performance functions, member events, speaker forums, corporate, civic and other local organizational meetings and banquets.

## Analysis of Development Scenarios

It is the Project Team’s conclusion that it would not be viable to undertake a major renovation of the existing Coliseum for the purpose of creating a state-of-the-industry sports and entertainment arena venue. In order to appropriately rectify/address the Coliseum’s numerous existing physical challenges and limitations, any renovation scenario involving retention of significant Coliseum structural elements would not be advantageous relative to new build scenarios. Issues related to the existing Coliseum’s structural foundation, layout and design would effectively fully negate the benefit of retaining significant structural elements via a major renovation of a near obsolete facility.

In particular, achieving state-of-the-industry standards for seating and playing surface size/layout (specifically relating to hockey) would not be able to be met through any practical renovation scenario, as the physical dimensions of key interior and exterior facility spaces and load-bearing architecture of adjacent walls and support structures would prevent reaching state-of-the-industry dimensions and sightline quality without a full or near full demolish of the Coliseum itself. Therefore, it is the Team’s conclusion that a major renovation of the Coliseum would not be feasible. A new arena development (at the KCAC site or elsewhere in Knoxville) would be required to meet the market supportable facility program.

Conversely, the Project Team believes that that the market supportable facility program for a performing arts theater could be attained through a renovation of the KCAC’s Auditorium. There are not believed to be the same types of physical design/architectural “fatal flaw” constraints preventing the contemplation of a renovation of the Auditorium that are present with a theoretical Coliseum renovation scenario.

Therefore, based on these market and program analysis conclusions, along with collaboration among the project team and the City, three primary facility scenarios were identified for additional analysis. Scenario 3 is not dependent on the existing KCAC site and could theoretically occur at a new site elsewhere in Knoxville.

- Scenario 1: Retain Existing KCAC
- Scenario 2: Renovated/Redeveloped KCAC
- Scenario 3: Full Replacement

From a site perspective, the existing KCAC location has a large number of positive attributes, including but not limited to:

1. 2,500 total control parking spaces among three connected/adjacent garages, plus additional nearby parking opportunities (in terms of industry context, this is a very significant supply of controlled spaces in an urban environment that is often difficult/expensive to build and/or assemble for modern new-build comparable event facility projects).
2. 378-room, full service hotel already attached (largest hotel property in Knoxville). Additional nearby hotels are future possibilities and have been discussed.
3. Location in downtown on the periphery of Knoxville’s central business district (and within practical walking proximity of a number of key visitor amenities and attractions).

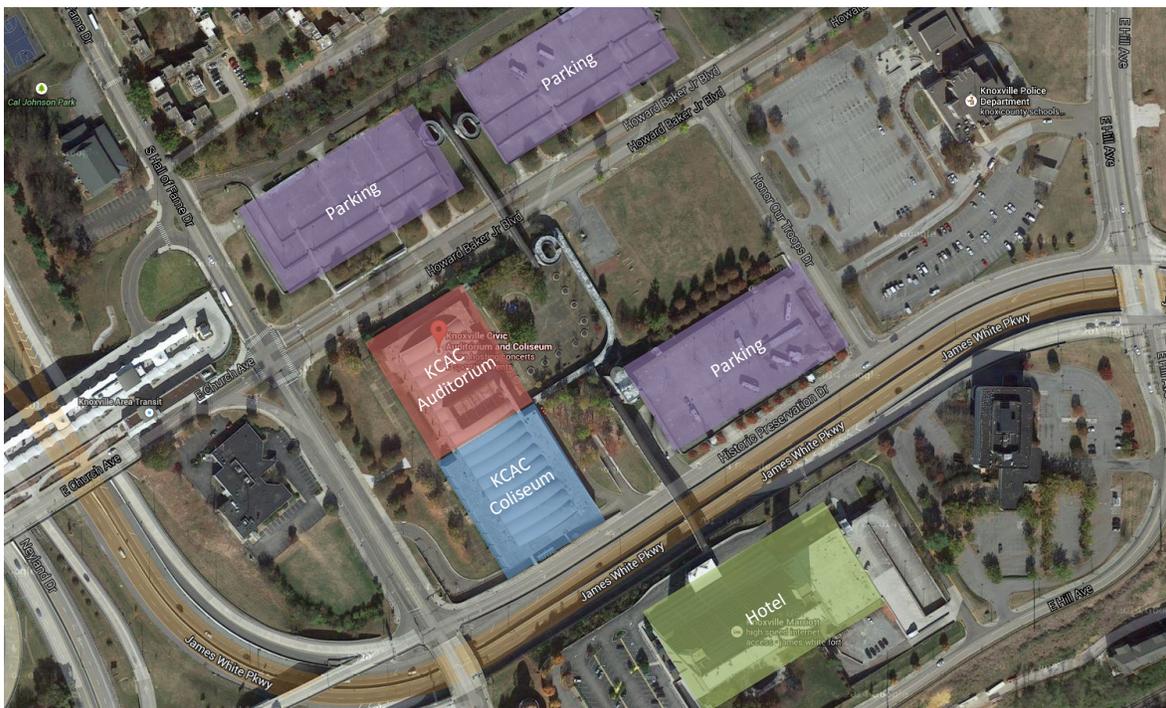
4. Strong interstate accessibility and visibility from roadways and from downtown.
5. Available land directly adjacent to the KCAC building structure itself that would theoretically allow for a new build project (i.e., arena) without entailing the closure of the existing commensurate facility (i.e., Coliseum) during the construction period.
6. Additional adjacent and proximate land parcels that could also be developed (i.e., mixed use) as part of a larger strategy or master plan to strengthen the sub-district (i.e., entertainment corridor) with public and private sector investment.
7. A site and associated parking assets that are already owned by the City. A commensurate or better site in terms of location, size and proximity to key amenities would likely be difficult to assemble and would represent a large acquisition expense for the City.

However, some of the challenges associated with the current KCAC site include:

1. Despite its downtown location, there is a prevalent local perception of a disconnect between the KCAC's location and the downtown core, in terms of accessibility, walkability, amenity limitations (i.e., bars, restaurants, cafes, nightlife, retail, etc.), safety, and other such issues. It is believed that this could be mitigated and improved through an entertainment/mixed-use master plan strategy leveraging both public and private investment.
2. Adjacent land uses (such as the medical office and the KPD facilities) are not synergistic with an event facility at this time. A master planned district approach would improve this.
3. Given the aim to retain the Auditorium, it would be difficult to optimally orient a new arena facility at the KCAC site to maximize visibility via view corridors into/out of the downtown core.

Exhibit 1 below illustrates the site layout, infrastructure and roadways proximate to the existing KCAC.

**Exhibit 1  
Existing KCAC Site Layout and Proximate Infrastructure**



Each of the three development scenarios are presented and analyzed below and on the following pages.

### Scenario 1: Retain Existing KCAC

For this project, we are defining “renovation” as simple repair and replacement of equipment, systems, and structure that have reached or surpassed the expected usable life. This scenario is to keep the KCAC operating “as-is” for the foreseeable future. It does not include upgrades such as expanded concessions, enlarged lobbies, increased rigging capacity, etc., nor does it include Plaza improvements. The logic behind this scenario is that just enough will be done to the venue in order to minimally enhance the guest experience, minimize the possibility of a sudden breakdown of equipment (which can lead to canceled events), repair items that could lead to safety hazards, and prevent a significant (expensive) amount of work that could be triggered to meet the American with Disabilities Act.

As part of the facility condition assessment, we have compiled a 20-year capital expense matrix that provides order-of-magnitude costs for items that will be required to keep the building properly maintained. These costs, as mentioned above, do not provide for building expansions or material upgrades; they simply allow the building to properly function in its current state. The costs in the capital expense matrix represent the replacement cost of the associated equipment only. They do not include any demolition or installation (some installs could be handled in-house, others by contractor), architectural, contractor or other professional fees, taxes, insurance, any product mark-ups, permits or licenses.

Based on the full capital expense matrix provided, an order of magnitude summary for a renovation of both the Coliseum and Auditorium can be found at the end of this narrative. We have applied the following assumptions to the numbers:

1. The glazing portion of the architecture/interiors was split 70 percent to Coliseum and 30 percent to Auditorium.
2. Major Systems was split 70 percent Coliseum and 30 percent Auditorium.
3. Roof costs were split evenly between Coliseum and Auditorium.
4. Foodservice equipment was split 85 percent Coliseum and 15 percent Auditorium.
5. The numbers do not include “soft costs”, such as architectural or other design fees, permits, testing and inspections, etc., as these can vary among the different categories.
6. The costs are in today’s dollars with an escalation factor of 3.0 percent per year for items beyond Year 1 of the matrix.

To more easily understand the detail behind each of the six categories (architecture/interiors, major systems, roofs, technology, structure, and foodservice), please note the following:

#### *COLISEUM*

Architecture/Interiors includes fixing basement water leaks, refurbishment of dressing/locker rooms and restrooms, storefront/curtainwall glazing, floor coverings, bowl seating, and doors/door hardware during years 1-5, updating of floor coverings during years 11-15, and another round of dressing/locker room refurbishments in years 16-20.

Major systems include the ice floor, chillers, pumps, cooling towers, air handling units, insulation, electrical distribution, non-sports lighting, lighting controls, plumbing fixtures, booster pumps,

and various piping during years 1-5. From years 6-10 the systems to be addressed include boilers, chillers, fans/relief vents, sports lighting, and fire alarm system. Years 11-15 are building automation system, chillers, and pumps. Finally, years 16-20 would include a chiller and a domestic water booster pump. For the purposes of separating major systems between the Coliseum and Auditorium, we have estimated that 70% of these costs would reside with the Coliseum.

Roofs would be addressed in year 8 only, assuming that the current roof is in such a condition that it's life has not been abnormally accelerated.

Technology in the Coliseum is relatively new, so year 6 is the earliest we expect the City to expend funds. In this year, it would be for a new sound system. Then, in year 14, we estimate needing to replace the scoreboards.

Structure is the category with some of the greatest needs. In Years 1-5 we recommend repairs with regards to exposed rebar, erosion, cracking, expansion joints, gratings and railings, CMU block, seepage, and wall tiles. All other repairs after this would fall into the normal operating budget as repair and maintenance items. There are no other major expenses that we estimate for years 6-20.

Foodservice equipment includes cooking items, counters, refrigeration, merchandisers, credit card terminals, and keg boxes. Due to the fact this type of equipment has been purchased regularly over the last 15 years, the capital expense matrix identifies purchases based on dates of purchase, not specific items. Most of the next round of costs would occur between years 6 and 10, with the remaining in years 11 through 15. For the purposes of separating foodservice equipment between the Coliseum and Auditorium, we have estimated that 85% of the foodservice costs would reside with the Coliseum.

## *AUDITORIUM*

Architecture/Interiors includes refurbishment of dressing/locker rooms and restrooms, storefront/curtainwall glazing, floor coverings, auditorium seating, and doors/door hardware during years 1-5, updating of floor coverings during years 11-15, and another round of dressing/locker room refurbishments in years 16-20..

Major systems include chillers, pumps, cooling towers, air handling units, insulation, electrical distribution, lighting, lighting controls, plumbing fixtures, booster pumps, and various piping. Due to the fact the major systems components are spread amongst the entire physical structure (comprised of the Coliseum and Auditorium), the information in the Coliseum Major Systems narrative above is intended to apply to both the Coliseum and Auditorium, and will not be duplicated here. For the purposes of budget separation of major systems between the Coliseum and Auditorium, we have estimated that 30% of these costs would reside with the Auditorium.

Roofs would be addressed in year 8 only, assuming that the current roof is in such a condition that its life has not been abnormally accelerated.

Technology in the Auditorium is relatively new, so year 13 is the earliest we expect the City to expend funds. In this year, it would be for a new outdoor marquee. Then, in year 14, we estimate replacement of the sound system.

Structure is the category with the greatest needs. In Years 1-5 we recommend repairs with regards to exposed rebar, erosion, cracking, expansion joints, gratings and railings, CMU block, seepage, and wall tiles. All other repairs after this would fall into the normal operating budget as repair and maintenance items. There are no other major expenses that we estimate for years 6-20.

Foodservice equipment includes cooking items, counters, refrigeration, merchandisers, credit card terminals, and keg boxes. Due to the fact this type of equipment has been purchased regularly over the last 15 years, the capital expense matrix identifies purchases based on dates of purchase, not specific items. Most of the next round of costs would occur between years 6 and 10, with the remaining in years 11 through 15. For the purposes of separating foodservice equipment between the Coliseum and Auditorium, we have estimated that 15% of the foodservice costs would reside with the Auditorium.

Based on the full capital expense matrix developed, an order-of-magnitude summary for a renovation of both the Coliseum and Auditorium are shown below in Exhibit 2.

**Exhibit 2**  
**Scenario 1 – Recommended 20-Year Capital Investment by Category**

**Coliseum**

	Years 1-5	Years 6-10	Years 11-15	Years 16-20
Architecture/Interiors	\$ 3,129,537	\$ -	\$ 29,835	\$ 741,761
Major Systems	6,432,575	1,316,657	631,366	673,935
Roofs	-	411,131	-	-
Technology	-	927,419	173,287	-
Structure	720,000	-	-	-
Foodservice	-	224,408	94,880	-
Contingency (10%)	1,028,211	287,962	92,937	141,570
	<u>\$ 11,310,323</u>	<u>\$ 3,167,577</u>	<u>\$ 1,022,305</u>	<u>\$ 1,557,266</u>
			Total for Coliseum	<u>\$ 17,057,472</u>

**Auditorium**

	Years 1-5	Years 6-10	Years 11-15	Years 16-20
Architecture/Interiors	\$ 1,694,362	\$ -	\$ 71,658	\$ 860,706
Major Systems	2,756,818	564,282	270,586	288,829
Roofs	-	411,131	-	-
Technology	-	-	654,424	-
Structure	1,280,443	-	-	-
Foodservice	-	39,601	16,744	-
Contingency (10%)	573,162	101,501	101,341	114,954
	<u>\$ 6,304,785</u>	<u>\$ 1,116,516</u>	<u>\$ 1,114,752</u>	<u>\$ 1,264,489</u>
			Total for Auditorium	<u>\$ 9,800,541</u>
			Grand Total over the course of 20 years	<u>\$ 26,858,013</u>

As previously mentioned, these core capital needs are considered to be the minimum required items under a “renovation” scenario. These items are expected to be necessary to keep the KCAC operating “as-is” for the foreseeable future. They do not include upgrades such as expanded concessions, enlarged lobbies, increased rigging capacity, and other such items. Beyond these “base” items, the City could opt to pursue select, additional renovations/improvements to further improve certain facility and operational aspects, while still not representing a full redevelopment course of action. These additional discretionary items could include a new rigging system for the Coliseum and enhanced concessions (such as new signage graphics, menu boards, new carts and points of sale, etc.).

The cost of installing a new rigging system for the Coliseum would need to be investigated more thoroughly under a specific rigging study, as costs tend to vary considerably depending on approach/systems necessary for retrofitting older venues such as the KCAC. For this study effort, several structural engineering firms were contacted to discuss how to strengthen the rigging grid in the Coliseum. Past efforts throughout the country to increase rigging capacity have ranged from \$1.1 million to \$3.0 million. Depending on the conclusions of a dedicated rigging study, several options could exist beyond just strengthening the existing roof structure (which is the most expensive option), including the creation of a free standing structure that has its own support columns, or the creation of a grid that is cabled off to all the roof supports located around the perimeter of the seating bowl.

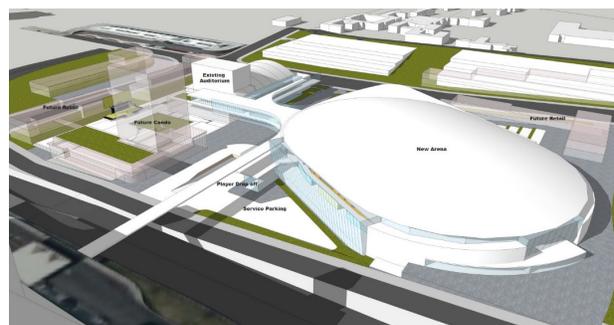
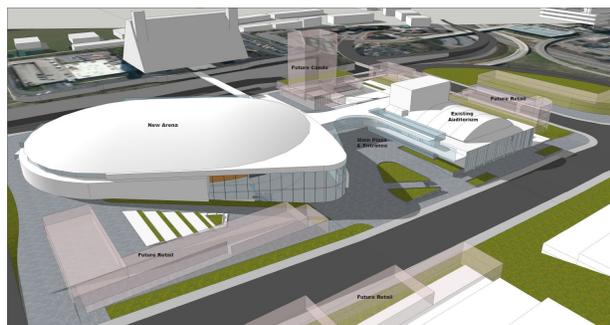
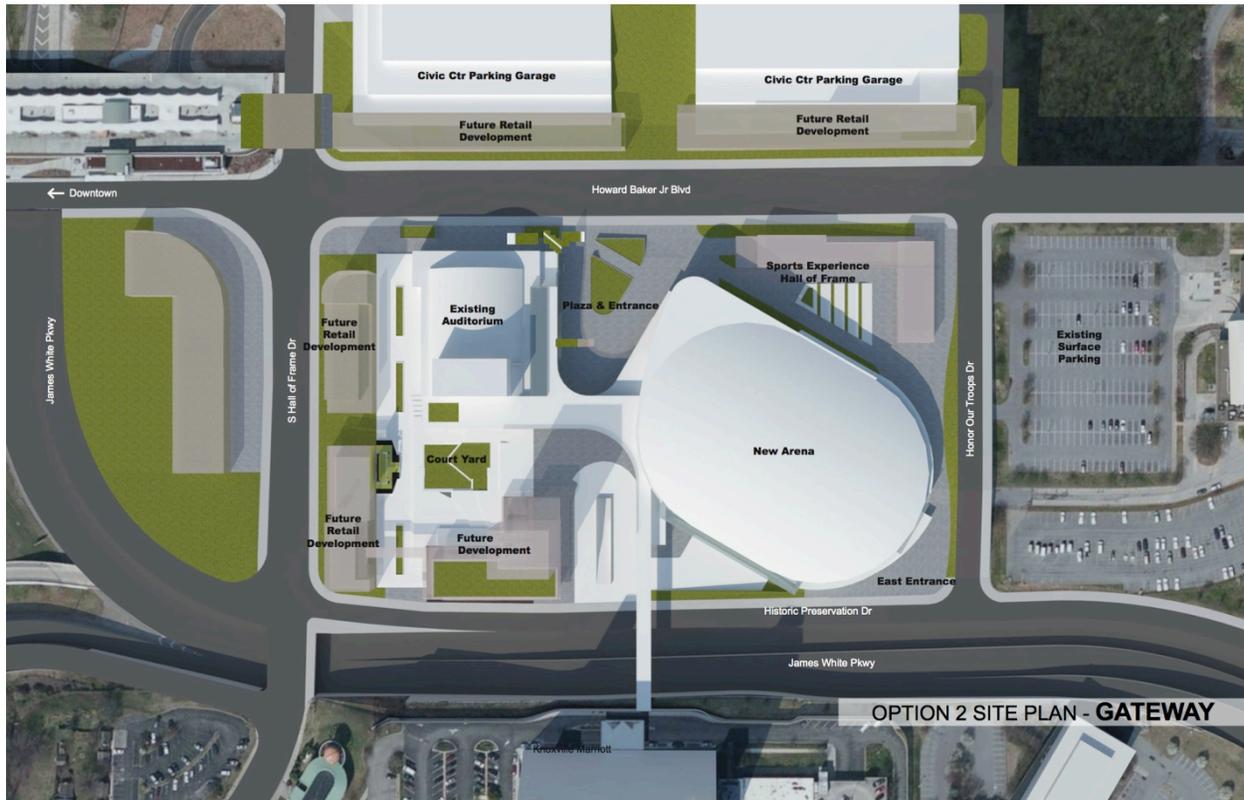
It is estimated that these “enhanced” items could add between \$1.5 million and \$5.0 million in costs to Scenario 1. Should the “enhanced” items be pursued (including a new Coliseum rigging system), some of the 20-year capital items could be shifted to a single, upfront project (for instance, if a major rigging system was put in, roof replacement could occur at the same time). For purposes of this analysis, it is assumed that Scenario 1 Base Option would cost approximately \$26.9 million over 20 years, while Scenario 1 Enhanced Option could cost \$33.0 million (with approximately \$23 million that might be considered “upfront”—or that which could be undertaken initially, as they would fall within Years 1-5 of the cap ex timeframe).





Scenario 2b (Gateway Option) removes the existing parking garage on site and allows the arena to rotate, and have move views towards various parts of the city. Adjacent parking garages and surface parking will help offset these elimination of the garage, as this option encourages residents to park downtown and walk over the bridge, as well as use various public transportation options. This option also includes the glass multi-purpose connector.

**Exhibit 4  
Scenario 2b (Gateway Option) Site & Concept Rendering**



The study of the Knoxville auditorium renovation and creation of a new multi-purpose arena focuses on how to activate the site and create a premiere arena district for the city. This “arena district” would connect the auditorium/arena site to the downtown area – as well as the city as a whole. It is not just about building a new arena, it is about creating an energetic destination that could include events, retail and residential. This would represent a cohesive approach that parallels the revitalization already happening throughout Knoxville.

Both Scenario 2 options include a re-thinking of the entire site. Potential retail, condos and courtyard/amphitheater areas could surround the auditorium and arena and become very important for pre-event and post-event functions. Outdoor movies, public gatherings, and watch parties could take place in the courtyard area. Potential retail and condos help create anchors around the facilities and start to enlarge and connect to the downtown arena.

The new multi-purpose arena with approximately 10,000 seats would be home to various events like hockey, basketball, concerts, trade shows, ice shows and the circus. State-of-the-art rigging and amenities allow for top tier concerts and shows. Twenty suites also allow for premium seating and additional generated revenue.

Additional conceptual renderings of the facility site, site massing, and interiors can be found at the conclusion of this report in Appendix I.

A preliminary order-of-magnitude construction cost analysis was performed by the Project Team. Construction costs tend to vary widely among comparable event facility projects. Many variables exist that influence actual realized construction costs, including type of facility, size, components, level of finish, integrated amenities, costs of goods and services in the local market, location and topography of the site, ingress/egress issues, costs implications related to the existing KCAC site and integration with existing facilities and infrastructure, and other such aspects. Additional architectural costing analysis would be required to refine these estimates, particularly those related to demolition, infrastructure and renovation aspects.

Based on comparable facility data adjusted for estimated Knoxville conditions and the identified facility program, total order-of-magnitude hard construction costs for a new arena could approximate between \$100 million and \$125 million in 2015 dollars, with the variation depending on the level of finish, amenities and capabilities designed into the project. For preliminary planning purposes, this would be applicable to both Scenario 2 variations (as well as for Scenario 3).

Under Scenario 2, in addition to the cost to construct a new arena attached to the KCAC Auditorium, it has been assumed that a full-scale renovation of the Auditorium would be required. It is preliminarily estimated that total Auditorium renovation costs could approximate \$33 million in 2015 dollars, as shown in Exhibit 5.

**Exhibit 5  
Estimated Costs for Full-Scale Renovation of Auditorium (Scenario 2)**

	Area SF	Escalated \$	Current \$
Auditorium House	20,617	\$7,706,475	\$7,005,886
Auditorium Stagehouse	21,684	8,319,451	7,563,138
Auditorium Stagehouse Alt Add	21,684	2,796,257	2,542,052
Auditorium Remainder	40,931	14,705,202	13,368,366
Auditorium Additions	3,595	2,415,840	2,157,000
<b>Auditorium Total</b>	<b>86,827</b>	<b>\$35,943,225</b>	<b>\$32,636,442</b>

However, it is possible that Scenario 2 could be undertaken without a full-scale renovation of the Auditorium, and instead, the base renovation (as discussed under Scenario 1) could be targeted. Scenario 1 items related to the Auditorium are estimated to total \$9.8 million over 20 years; however, for

purposes of a Base Option for Scenario 2, most of these items could be packaged and executed "upfront", resulting in hard costs of approximately \$8.5 million.

As shown, renovations of the Auditorium House (the seating bowl and balcony areas) are estimated at just over \$7.0 million. Demolition and reconstruction of a new Stagehouse and all spaces now below the stage (including, but not limited to dressing rooms, chorus rooms, etc.) would cost nearly \$7.6 million, while additional Stagehouse costs (if deep foundations are required) are estimated at \$2.5 million. Renovations of all other support spaces, such as lobby, circulation and storage space, are estimated at just under \$13.4 million, with added concession space in the lobby nearing \$2.2 million. It is important to note that the "Current \$" costs represent 2015 dollars, while the "Escalated \$" represents estimates if the project were to be undertaken in the second quarter of 2017.

This Auditorium renovation scheme goes beyond the minimal renovations outlined under Scenario 1 and is one that elevates the Auditorium to more modern standards and, importantly, fixes the problems with the Stage House. The interior finishes would be upgraded respecting the original architecture but at the same time bringing a fresh new look to the facility. This option basically rebuilds the Stage House, replaces all systems, solves all code issues including a new ADA elevator to the stage and increases the Lobby and concessions area by 3,600 square feet. The "Alt Add" line item includes cost to demo the stage and put in new columns and foundations if the existing structure cannot accommodate the raised grid. All Systems would be updated as done in the basic renovation described under Scenario 1.

Therefore, total order-of-magnitude hard construction costs related to Scenario 2 are estimated to total approximately \$108.5 million under the Base Option and \$158.0 million under the Enhanced Option. These figures do not include any soft costs or site/infrastructure costs that will also be required for such a construction project.

### Scenario 3: Full Replacement

Scenario 3 represents the development of a completely new arena and performing arts center. This scenario is not dependent on the existing KCAC site and could theoretically occur at a new site elsewhere in Knoxville. While there are some construction and operating efficiencies that could be realized by physically combining a new arena with a new performing arts center, these types of new facilities often are not physically integrated and co-located on a common site, particularly given scarce land availability that is typical of most urban cores.

Based on comparable facility data adjusted for estimated Knoxville conditions and the identified facility program, total order-of-magnitude hard construction costs under Scenario 3 could approximate between \$170 million and \$215 million (\$100 million arena and \$70 million theater under the Base Option and \$125 million arena and \$90 million theater under the Enhanced Option). These figures do not include any soft costs, site acquisition, site preparation/relocation, or infrastructure costs that will also be required for such a construction project.

## 8.0. COMPARATIVE COST / BENEFIT EVALUATION

The purpose of this chapter is to present a summary comparison of the key estimated costs, benefits and other performance metrics associated with each of the three evaluated facility scenarios.

### Comparison of Construction Costs

As mentioned in the previous chapter, a preliminary order-of-magnitude construction cost analysis was performed by the Project Team. Construction costs tend to vary widely among comparable event facility projects. Many variables exist that influence actual realized construction costs, including type of facility, size, components, level of finish, integrated amenities, costs of goods and services in the local market, location and topography of the site, ingress/egress issues, costs implications related to the existing KCAC site and integration with existing facilities and infrastructure, and other such aspects. Additional architectural costing analysis would be required to refine these estimates, particularly those related to demolition, infrastructure and renovation aspects.

Preliminary hard construction costs were discussed in the previous chapter. At this early stage of planning, in order to more comprehensively represent cost implications of each of the renovation and redevelopment scenarios, an order-of-magnitude assumption was added to Scenarios 2 and 3 to account for potential soft costs (30 percent of total hard construction costs). Exhibit 1 presents a comparison of preliminary order-of-magnitude hard and soft construction costs for each of the three identified scenarios. These figures are presented in 2015 dollars. Scenario 1 is a simple sum (not considering time value of money) of 20 years of expenditures identified through the 20-year Cap Ex matrix completed for this study. Further, it is also important to recognize that construction costs have historically risen at a higher rate than standard cost of living based inflation. For instance, Populous typically assumes between 3.0 to 5.0 percent annual increase in construction costs for planning purposes (as compared to approximately 3.0 percent in typical annual cost of living inflation).

**Exhibit 1**  
**Preliminary Cost Construction Cost Comparison**  
**(Order-of-Magnitude, 2015 dollars)**

	Scenario 1: Retain Existing KCAC		Scenario 2: Redeveloped KCAC		Scenario 3: Full Replacement	
	Base Option	Enhanced Option	Base Option	Enhanced Option	Base Option	Enhanced Option
Hard Construction Costs	\$26,000,000	\$33,000,000	\$108,500,000	\$158,000,000	\$170,000,000	\$215,000,000
Soft Construction Costs	--	--	<u>32,550,000</u>	<u>47,400,000</u>	<u>51,000,000</u>	<u>64,500,000</u>
Total Construction	\$26,000,000	\$33,000,000	\$141,050,000	\$205,400,000	\$221,000,000	\$279,500,000

Based on comparable facility data adjusted for estimated Knoxville conditions and the identified facility program, total order-of-magnitude hard and soft construction costs for Scenario 1 (representing the minimum required to sustain KCAC operations into the foreseeable future) approximates between \$26 million and \$33 million in 2015 dollars. Total hypothetical construction costs associated with Scenario 2 is estimated at between approximately \$141 million and \$205 million, while total costs for Scenario 3 are estimated at between \$221 million and \$280 million. The higher cost attributed to Scenario 3 is due to the assumption of a new \$70 million to \$90 million (hard costs) performing arts theater, rather than a lower cost renovated Auditorium as assumed under Scenario 2.

## Comparison of Estimated Use

Exhibit 2 presents a summary comparison of the key estimated use metrics associated with the three facility scenarios analyzed for this study effort. Estimates reflect a stabilized year of operation, assumed to occur by the fourth full year of operation. These estimates assume the Enhanced Option for the three scenarios.

**Exhibit 2  
Comparison of Event and Attendance Estimates by Scenario  
(Stabilized Year of Operations, Assumed Fourth Year)**

	<b>Scenario 1:</b> Retain Existing KCAC	<b>Scenario 2:</b> Redeveloped KCAC	<b>Scenario 3:</b> Full Replacement
<b>Arena:</b>			
Event Days/Performances	85	125	125
Attendance	180,000	350,000	350,000
<b>Theater:</b>			
Event Days/Performances	45	75	90
Attendance	60,000	110,000	150,000
<b>Combined:</b>			
Event Days/Performances	130	200	215
Attendance	240,000	460,000	500,000

As a baseline, event use levels under Scenario 1 would be expected to remain consistent or slightly lower than existing KCAC levels. Under Scenarios 2 and 3, event levels and attendance are estimated to nearly double upon stabilization. These levels are supported by the findings of the market analysis completed for this study and are consistent with comparable facility averages.

## Comparison of Estimated Financial Performance

An analysis of the estimated financial operations of the three Knoxville facility scenarios was conducted. The project team worked closely with KCAC management and conducted an analysis of historical KCAC operations, including consideration of historical and current event levels, utilization, occupancy, attendance, operating revenues, operating expenses, and other such items. Exhibit 3, on the following page, presents a summary of the estimated financial operating results for the three facility scenarios, presented in 2015 dollars. These figures only represent the annual operations of the facilities and do not include construction debt service payments, capital repair/replacement reserve funding obligations, or other non-operating expenses. Estimates are presented in terms of a stabilized year of operation, assumed to be the fourth full year of operation.

**Exhibit 3**  
**Comparison of Estimated Financial Operating Results by Scenario**  
**(Stabilized Year of Operations, Assumed Fourth Year, in 2015 dollars)**

	<b>Scenario 1:</b> Retain Existing KCAC	<b>Scenario 2:</b> Redeveloped KCAC	<b>Scenario 3:</b> Full Replacement
Combined:			
Operating Revenue	\$1,550,000	\$4,260,000	\$4,600,000
Operating Expenses	<u>2,650,000</u>	<u>5,100,000</u>	<u>4,950,000</u>
Net Operating Profit/Loss	<b>-\$1,100,000</b>	<b>-\$840,000</b>	<b>-\$350,000</b>

As shown, under Scenario 1, financial operating performance for the KCAC four years into the future will be expected to slightly deteriorate over current year performance, yet still remain roughly consistent with historical levels. Operating revenues and expenses are estimated to be significantly higher under Scenarios 2 and 3, which is attributed to a number of factors, including elevated event and attendance volumes, significantly greater sponsorship and premium seating income opportunities, more prominent sports tenants and associated revenue sharing/lease arrangements, greater food and beverage and merchandise points of sales and per capita spending, and other such positive income influencing factors. Despite enhanced energy efficiencies and lower per square foot maintenance costs, total operating expenses would also be expected to be significantly higher, largely a function of significantly higher staffing requirements, higher quality of required service, and other such items. Overall, the annual operating deficit under Scenario 2 and 3 is estimated at \$840,000 and \$350,000, respectively. The lower deficit under Scenario 3 is largely a function of the slightly higher sponsorship and premium seating revenue that would be assumed with a brand new performing arts center (as compared to a renovated Auditorium).

**Summary of Benefits**

Often, the primary “benefits” associated with event facilities relate to the quantifiable, incremental economic impacts generated in a local community and economy through their construction and ongoing operation. In terms of ongoing impacts, facilities such as convention centers tend to have some of the largest measured incremental impacts on local economies due to their emphasis on attracting nonlocal conventions, conferences, tradeshow and meetings (i.e., events with the large majority of their attendance bases that do not reside in the greater local marketplace—most of which require hotel rooms during their stays). Conversely, arena and theater facilities tend to attract event attendance that is largely “local”, in that most attendees reside in the greater local market area and do not require overnight accommodations.

As such, when attempting to quantify “incremental” economic impact from event facility operations, it is normal industry practice to only attribute impacts to spending associated with “visitors” to a given market (i.e., persons that do not reside in the local area), rather than including spending by “locals” (i.e., persons that reside in the local area) in the calculation. The theory is that a facility attendee that is a local resident would likely have otherwise spent their disposable income on some other discretionary purchase in the local market anyway. This results in a more conservative estimation of economic impact, as the focus is on spending by visitors who would have not even been in the local market if it were not for the subject event facility that was host to the event they chose to travel to and attend.

Therefore, the breadth and amount of net new economic impact generated by any facility project is initially dependent on what the definition of “local” is. If we define “local” as any event attendee, exhibitor, or participant that resides in the “greater” Knoxville metro area (i.e., city of Knoxville, adjacent



suburban areas, and nearby driving areas), then the majority of attendance at the KCAC under all scenarios would qualify as "local", and therefore, would not be included in the calculation of net new economic impact. However, if we only consider any person that is drawn to the KCAC as a "local" attendee if they reside within the city of Knoxville itself (rather than in suburban areas just outside the city), then a much larger percentage of attendance would qualify as "nonlocal" and their spending and associated impacts could be quantified (even if they do not require a hotel for an overnight stay—i.e., daytripper). For instance, if a family living in a Rockford or Maryville neighborhood drives in to attend a concert or sporting event at the KCAC, their attendance would be considered "local" under the Knoxville area definition, but a "nonlocal" under the narrower city of Knoxville definition.

Further, sometimes economic impacts are measured for even more localized areas. For instance, the economic impact effect of more people attracted to the immediate downtown district in and around the KCAC site associated with Scenarios 2 and 3 will effectively correlate one-to-one to the incremental attendance estimated over existing KCAC levels (i.e., Scenario 1). The increased density of traffic to the localized area can importantly have positive ancillary effects in terms of increasing the attractiveness of the area around the site for future private sector development and increased property values.

Beyond annual impacts resulting from operations, the primary economic impacts that would be quantifiable for the KCAC (as they are for most arena and theater facilities) would largely relate to construction period impacts. Net new construction period economic impacts generally represent a subset of the overall construction expenditures (labor and materials) that is assumed to be spent in Knoxville and that is "net new" to the local economy (calculating to between 55 to 65 percent of total construction expenditures for other similar projects).

Assuming the subject geographic area of focus is the Knoxville area (i.e., city of Knoxville, adjacent suburban areas, and nearby driving areas), the following ongoing net new economic impacts have been estimated, as shown in Exhibit 4.

**Exhibit 4**  
**Comparison of Estimated Ongoing & One-Time Economic Impacts by Scenario**  
**(Net New to the Knoxville Area, in 2015 dollars)**

	<b>Scenario 1:</b> Retain Existing KCAC	<b>Scenario 2:</b> Redeveloped KCAC	<b>Scenario 3:</b> Full Replacement
<b>Operations (Annual):</b>			
Direct Spending	\$1,200,000	\$2,300,000	\$2,500,000
Total Output	\$1,920,000	\$3,680,000	\$4,000,000
Direct Spending (incremental)	--	\$1,100,000	\$1,300,000
Total Output (incremental)	--	\$1,760,000	\$2,080,000
<b>Construction (One-time):</b>			
Direct Spending	\$14,300,000	\$112,970,000	\$153,725,000
Total Output	\$22,880,000	\$180,752,000	\$245,960,000

As shown, in terms of net new impact in the Knoxville area, total output (direct spending plus indirect and induced spending) resulting from operations of the KCAC under Scenario 1 (or base case) is estimated to approximate \$1.9 million per annum. During the construction period, total output from construction expenditures is estimated to approximate \$22.9 million within the Knoxville area.

Under Scenarios 2 and 3, the estimated total net new output resulting from KCAC operations is estimated to increase to \$3.7 million and \$4.0 million, respectively. During the construction period, total output from construction expenditures is estimated to approximate \$180.8 million and \$246.0 million, respectively, within the Knoxville area.

Assuming the subject geographic area of focus is more narrowly defined as the city of Knoxville (i.e., impacts generated from attendees that do not reside within the boundaries of the city of Knoxville), the following ongoing net new economic impacts have been estimated, as shown in Exhibit 5.

**Exhibit 5**  
**Comparison of Estimated Ongoing & One-Time Economic Impacts by Scenario**  
**(Net New to the city of Knoxville, in 2015 dollars)**

	<b>Scenario 1:</b> Retain Existing KCAC	<b>Scenario 2:</b> Redeveloped KCAC	<b>Scenario 3:</b> Full Replacement
<b>Operations (Annual):</b>			
Direct Spending	\$4,200,000	\$8,050,000	\$8,750,000
Total Output	\$5,880,000	\$11,270,000	\$12,250,000
Direct Spending (incremental)	--	\$3,850,000	\$4,550,000
Total Output (incremental)	--	\$5,390,000	\$6,370,000
<b>Construction (One-time):</b>			
Direct Spending	\$16,900,000	\$133,510,000	\$181,675,000
Total Output	\$23,660,000	\$186,914,000	\$254,345,000

As shown, in terms of net new impact in the city of Knoxville, total output (direct spending plus indirect and induced spending) resulting from operations of the KCAC under Scenario 1 (or base case) is estimated to approximate \$5.9 million per annum. During the construction period, total output from construction expenditures is estimated to approximate \$23.7 million within the city of Knoxville.

Under Scenarios 2 and 3, the estimated total net new output resulting from KCAC operations is estimated to increase to \$11.3 million and \$12.3 million, respectively. During the construction period, total output from construction expenditures is estimated to approximate \$186.9 million and \$254.3 million, respectively, within the city of Knoxville.

Beyond these direct, quantifiable benefits, a number of benefits related to the construction and operations of the new, renovated and redeveloped event facilities (such as arena and performing arts venues) cannot be quantitatively measured. Beyond the economic activity and jobs indirectly provided, these types of non-quantifiable impacts of a project of this nature and scope can serve to elevate Knoxville’s profile and brand as a visitor destination and as a quality place to live, work, learn and play.

In fact, these qualitative benefits tend to be the most critical factors in the consideration of public and private investment in projects of this nature, particularly those involving existing venues with a long history of service in the local community. These include issues pertaining to quality of life (through attracting entertainment events that would not otherwise travel to the area and hosting civic and private events), ancillary economic development facilitation, employment opportunities, community pride and other such issues.



Potential non-quantifiable benefits could include:

- *Potential Transformative and Iconic Effects* – High profile, state-of-the-industry arena and arts/entertainment facility projects like those outlined herein can have extensive, long-lasting transformative impacts on the Knoxville community and destination, in terms of quality of life, community prestige, perception by visitors, and other such effects.
- *Quality of Life for Residents* – New/enhanced public assembly facilities provide diversified activities for local residents and families, which can make Knoxville a more attractive and enjoyable place to reside. Quality public assembly facilities can contribute to enhancing community pride, self-image, exposure and reputation. All these items can assist in retaining and attracting an educated workforce, particularly younger adults who often desire quality entertainment, cultural, leisure and recreational amenities.
- *New Visitation* – New visitors will be attracted to the area because of an event in the new/enhanced arena, civic and performing arts facility products. These attendees, in turn, may elect to return to the area later with their families, etc. for a vacation after visiting the area for the first time.
- *Spin-Off Development* – New retail/business tend to invariably sprout up near event facilities, such as arena and performing arts centers, spurred by the operations and activities associated with the event facilities, representing additions to the local tax base. Enhanced economic growth and ancillary private sector development surrounding the new, renovated and redeveloped performing arts and arena facilities in Knoxville’s downtown and waterfront spurred by the operation of project.
- *Anchor for Revitalization* – Arena and performing arts facility development can oftentimes be the base of community-wide master development plans to enhance and revitalize markets.
- *Other Benefits* – Increased synergy with the other local entertainment, sports and convention facilities can lead to increased tourism activity to Knoxville. Likewise, the proposed facility investment would be expected to enhance affordable entertainment, cultural, educational and leisure alternatives for families in the Knoxville area.



## 9.0 ASSESSMENT OF FUNDING ALTERNATIVES

The purpose of this chapter is to provide a summary of the sources of funding that have been used within the event facility industries and to discuss their potential for use in the possible renovation/redevelopment of the KCAC. The intent of the analysis is not to produce a financing plan for facility development, but rather to discuss certain financing vehicles, as well as public and private revenue sources that could be utilized to fund the project.

### Comparable Facility Funding Benchmarks

As the largest cost component of the outlined KCAC scenarios, and the focus of two of the three potential scenarios, the following exhibit presents an overview of the estimated construction costs associated with a selection of comparable arena facilities that have been built in recent years throughout the country.

**Exhibit 1**  
**Summary of Comparable Arena Construction Costs & Funding Participation (dollars in millions)**

Arena	Market	Seating Capacity	Original Const. Cost (in \$millions)	Public \$	Private \$	Public %	Private %	Year Opened	Inflation Adj. Const. Cost (in \$millions)
1 Allen Event Center	Allen, TX	8,600	\$52.6	\$47.3	\$5.3	90%	10%	2009	\$66.6
2 American Bank Center	Corpus Christi, TX	10,323	\$49.6	\$49.6	\$0.0	100%	0%	2004	\$76.4
3 Arena at Gwinnett Center	Duluth, GA	13,000	\$91.0	\$91.0	\$0.0	100%	0%	2003	\$145.7
4 BOK Center	Tulsa, OK	18,041	\$178.0	\$146.0	\$32.0	82%	18%	2008	\$234.2
5 Bon Secours Wellness Arena	Greenville, SC	15,951	\$63.0	\$30.0	\$33.0	48%	52%	1998	\$122.7
6 CenturyLink Center Omaha	Omaha, NE	17,000	\$75.0	\$75.0	\$0.0	100%	0%	2003	\$120.1
7 CenturyLink Center	Bossier City, LA	14,000	\$60.0	\$28.0	\$32.0	47%	53%	2000	\$108.1
8 Chesapeake Energy Arena	Oklahoma City, OK	18,203	\$101.0	\$101.0	\$0.0	100%	0%	2002	\$168.2
9 Citizens Business Bank Arena	Ontario, CA	11,089	\$150.0	\$150.0	\$0.0	100%	0%	2008	\$197.4
10 Covelli Center	Youngstown, OH	7,000	\$45.0	\$44.5	\$0.5	99%	1%	2005	\$66.6
11 Denny Sanford Premier Center	Sioux Falls, SD	12,000	\$117.0	\$117.0	\$0.0	100%	0%	2014	\$121.7
13 Ford Center	Evansville, IN	11,000	\$127.5	\$127.5	\$0.0	100%	0%	2011	\$149.2
15 Giant Center	Hersey, PA	12,000	\$85.0	\$50.0	\$35.0	59%	41%	2002	\$141.5
16 Huntington Center	Toledo, OH	9,341	\$100.0	\$100.0	\$0.0	100%	0%	2009	\$126.5
17 Intrust Bank Arena	Wichita, KS	15,004	\$206.5	\$206.5	\$0.0	100%	0%	2010	\$251.2
18 Landers Center	Southaven, MS	10,000	\$27.5	\$27.5	\$0.0	100%	0%	2000	\$49.5
19 Laredo Energy Arena	Laredo, TX	9,622	\$35.5	\$35.5	\$0.0	100%	0%	2002	\$59.1
20 Mid-America Center	Council Bluffs, IA	9,000	\$75.0	\$38.3	\$36.8	51%	49%	2002	\$124.9
21 Pinnacle Bank Arena	Lincoln, NE	15,900	\$173.0	\$100.3	\$72.7	58%	42%	2013	\$187.1
22 Reno Events Center	Reno, NV	7,500	\$69.4	\$69.4	\$0.0	100%	0%	2005	\$102.7
23 Resch Center	Green Bay, WI	10,200	\$50.4	\$45.3	\$5.1	90%	10%	2002	\$83.9
24 Santander Center	Reading, PA	9,146	\$36.5	\$34.6	\$1.9	95%	5%	2001	\$63.2
25 Sears Centre	Hoffman Estates, IL	11,800	\$62.0	\$37.2	\$24.8	60%	40%	2006	\$88.2
26 Stockton Arena	Stockton, CA	11,800	\$64.0	\$64.0	\$0.0	100%	0%	2005	\$94.7
27 Tyson Event Center	Sioux City, IA	10,000	\$47.4	\$35.0	\$12.4	74%	26%	2003	\$75.9
30 Verizon Wireless Arena	Manchester, NH	11,770	\$65.0	\$55.0	\$10.0	85%	15%	2001	\$112.6
31 Webster Bank Arena	Bridgeport, CT	10,000	\$60.0	\$52.0	\$8.0	87%	13%	2001	\$103.9
32 Wells Fargo Arena	Des Moines, IA	16,980	\$90.7	\$90.7	\$0.0	100%	0%	2005	\$134.3
33 XFINITY Arena at Everett	Everett, WA	10,000	\$71.5	\$37.6	\$33.9	53%	47%	2003	\$114.5
<b>Average</b>		<b>11,900</b>	<b>\$83.8</b>	<b>\$71.9</b>	<b>\$11.8</b>	<b>85%</b>	<b>15%</b>	<b>2005</b>	<b>\$120.4</b>

As depicted in the exhibit, in current dollars, the average comparable arena facility project costs an average of \$120.4 million to develop with project costs ranging from a low of \$49.5 million for the Landers Center in Southaven, Mississippi to a high of approximately \$251.2 million for the construction cost of Intrust Bank Arena in Wichita, Kansas.

The public sector contributed a significant amount of funding towards the development of the arena in each of these comparable markets, ranging from 47 percent to 100 percent of total costs. Approximately half of the projects were funded 100 percent by the public sector.

The following is a summary of the specific funding sources for some of the comparable arenas.

#### American Bank Center – Corpus Christi, TX

Opened in 2004 in Corpus Christi, Texas, the American Bank Center was constructed at a cost of approximately \$49.6 million. To fund the construction of the facility, the City issued \$49.6 million in general obligation bonds. Debt repayment for the facility is derived from the revenue generated from a 0.0125 percent sales tax increase, which was approved by voters in 2000.

#### Allen Event Center – Allen, TX

The Allen Event Center, located in Allen, Texas, opened in 2009. The Arena's development was the result of a private/public partnership between the City of Allen and the MGHerring Group, a Dallas-based developer. Development costs totaled \$70 million, which included infrastructure costs such as a parking garage and street signage. The City of Allen funded \$47 million of the project via a bond issue backed by sales tax revenues. MGHerring, who was the developer responsible for the larger 'The Village at Allen' project, contributed \$23 million to the arena construction. The City of Allen, however, agreed to use additional sales tax revenues to reimburse MGHerring for up to 75 percent of their upfront payment.

#### BOK Center – Oklahoma City, OK

The \$198 million BOK Center opened in 2008 in downtown Tulsa, Oklahoma. Approximately \$166 million of the BOK Center development costs were funded through Tulsa's Vision 2025 initiative, which is supported by a one percent sales tax increase in Tulsa County for 13 years to fund various projects. Approximately \$32 million in private arena funding was secured through corporate sponsorships and premium seating sales, including the sale of naming rights to Bank of Oklahoma for \$11 million over 20 years.

#### Covelli Centre – Youngstown, OH

Located in Youngstown, Ohio, the Covelli Centre was developed at a cost of approximately \$45.0 million. The majority of the funding came from a \$26.8 million federal Housing and Urban Development (HUD) grant. The State of Ohio contributed \$2.0 million, while Ohio Edison contributed a \$550,000 energy grant. The City also paid approximately \$4.0 million for infrastructure improvements. To complete the funding of the facility, the City borrowed \$11.9 million, which is offset annually by the operating surplus of the arena, food and beverage tax revenue and a 5.5 percent admissions tax the City charges on tickets sold at the facility.

#### Denny Sanford Premier Center – Sioux Falls, SD

The Denny Sanford Premier Center opened in September 2014 at a total cost of approximately \$117 million financed through four sources. The city issued \$102 million in tax-exempt bonds to be paid over 22 years at a 3.21 percent interest and \$12.5 million in taxable bonds to be paid over 11 years at 1.87 percent interest. The bonds will be paid off with second penny sales tax funds, which is estimated to generate more than \$50 million annually. The City of Sioux Falls is

expected to pay an average of \$7.9 million in principal and interest per year. The city also contributed \$500,000 of sales tax fund cash from the city's budget in 2012. The fourth source of financing came from a \$2 million donation from Sanford Health.

### Ford Arena – Beaumont, TX

Ford Arena in Beaumont, Texas was developed as part of Ford Park, a \$55.0 million sports and entertainment complex, which also includes an amphitheater, festival grounds and a softball/baseball field complex. Arena construction accounted for approximately \$32.0 million of the total development cost. The entire project was funded by Certificates of Obligation issued by Jefferson County. The Certificates are backed by general County revenue, not by a specific tax or revenue stream. County representatives indicated that, while a referendum would have been required to issue general obligation bonds, they did not need a referendum to approve the COO issuance.

### Ford Center – Evansville, IN

Located in Evansville, Indiana, the Ford Center was built in 2011 at a cost of approximately \$127.5 million. The City of Evansville issued bonds to pay for the facility, which are to be repaid through the City's share of casino (riverboat) funds, Downtown Tax Increment Finance District (TIF) funds and food and beverage taxes. In 2013, the Center's debt service was paid from \$3.4 million in riverboat funds, \$3.4 million from Downtown Tax Increment Financing and \$1.2 million in food and beverage tax revenues.

### Intrust Bank Arena – Wichita, KS

The 15,750-seat Intrust Bank Arena opened in 2010 and serves the Wichita region with concerts, family shows and various sporting events. Located in downtown Wichita, the \$206.5 million project was funded without debt through a tax bill authorizing Sedgwick County to collect a one cent sales tax for 30 months while the arena was being constructed.

### PPL Center – Allentown, PA

The \$177 million PPL Center opened in September of 2014 in downtown Allentown, Pennsylvania. The PPL Center was funded through the issuance of municipal bonds, which are backed by tax revenues from the Neighborhood Improvement Zone ("NIZ"). A 10-year naming rights agreement with utilities provider PPL was secured prior to the arena opening.

### Reno Events Center – Reno, NV

Located in Reno, Nevada, the Reno Events Center opened in 2005 at a cost of approximately \$65.0 million. To fund the facility, the City of Reno issued \$120.0 million in 30-year bonds, which are backed by 15 percent of the City's consolidated tax revenues. Of that, \$43.0 million was used to retire the National Bowling Stadium debt, \$7.6 million was used repay the city for the land the Bowling Stadium sits on and approximately \$69.4 million was used to pay for the Reno Events Center.

### Resch Center – Green Bay, WI

The 10,000-seat Resch Center is located in Green Bay, Wisconsin and was built at a cost of \$50.4 million. Approximately \$35.8 million of the project cost is supported through 30-year tax revenue bonds issued through the Community Development Authority of the Village of Ashwaubenon, backed by Brown County. The revenue bonds are backed by a room tax on hotels. The room tax was two percent prior to the project but was increased to eight percent to fund construction of the arena as well as a new convention center in Green Bay.

In 2012, Brown County reached a 15-year agreement with PMI Entertainment Group to continue managing the Resch Center. The deal guarantees an additional \$5.0 million more in capital improvements for the facility. PMI pays for all of the operating costs and utility expenses. In turn, PMI keeps all of the revenue generated from the facility including parking fees. Under the agreement, PMI pays more than \$355,000 annually in rental fees. PMI funded the Convention and Visitors Bureau until 2011 when a two percent increase (now 10 percent) in hotel room taxes was passed to fund the CVB. The money that PWI used to fund the CVB is now used to pay the increased rent to the county to run the facility.

### Sanford Center – Bemidji, MN

Opened in 2010, the Sanford Center and George W. Neilson Convention Center is a 193,000-square foot event center that is part of the 140-acre South Shore mixed-use development in Bemidji, Minnesota. The event center includes the 4,700-seat Sanford Center arena, which serves as the home of the Bemidji State men's and women's hockey teams of the NCAA Division I Western Collegiate Hockey Association. The complex also includes the George W. Neilson Convention Center, which offers 10,000 square feet of ballroom space, divisible into three separate rooms, and 4,000 square feet of meeting space.

Construction of the Sanford Center cost approximately \$78.3 million and was funded entirely by the public sector. Funding of the facility included approximately \$45 million from the extension of a half cent City sales tax, \$20.0 million in state construction bonds, \$3.0 million in state planning funds, approximately \$5.0 million from a Tax Increment Financing district established at the South Shore development, approximately \$4.1 million from the sale of City land, and a \$1.2 million grant from the Department of Employment and Economic Development. In 2010, the City agreed to a 10-year, \$2.0 million naming rights agreement with Sanford Health Systems that will pay the City \$200,000 annually. In 2012, the Sanford Center generated revenues of \$2.3 million and incurred expenses of \$2.8 million, resulting in a net operating loss of approximately \$417,000.

### SRC Arena – Syracuse, NY

Located in Syracuse, New York, SRC Arena opened in 2011 on the campus of Onondaga Community College at a cost of approximately \$12.4 million. To fund the arena, the State of New York contributed approximately \$6.2 million, which is more than half of the overall cost. County taxpayers contributed an additional \$2.9 million, for which the County issued bonds. For the remaining \$3.3 million, the County loaned money to OCC and the school's Foundation will repay the loan with a fundraising campaign and through a \$500,000 cash donation from the Onondaga Community College Association.

### Verizon Wireless Arena – Manchester, NH

The Verizon Wireless Arena in Manchester, New Hampshire opened in 2001 and was constructed at a cost of \$65.0 million, including \$2.8 million in land acquisition. The majority of the project's funding consisted of \$50.0 million in bonds issued by the Manchester Housing Authority on behalf of the City. The City leases the arena from the Authority with the bonds backed by the City's lease payments to the Authority.

The City's lease payments are derived from the City's share of a state-wide tax on hotel/motel rooms and prepared meals. These taxes had been in place for many years prior to the arena's construction. However, due to changes in the way the State allocates the tax revenues back to local municipalities, the City of Manchester experienced an increase in its annual allocation. The City decided to use this incremental tax revenue to fund arena construction. The City's annual rent payment is based on the anticipated incremental revenue that will be received in each year of the lease, starting with \$1.8 million in year one and increasing by approximately \$450,000 per year thereafter, eventually peaking at \$5.6 million per year. Along with these annual rent payments, an additional \$3.0 million in cash from tax collections prior to and during the construction period and \$2.0 million in interest earnings were contributed toward arena funding.

Private funding for the arena consisted of \$10.0 million in private debt issued by four local banks and backed exclusively by arena cash flows. The arena's management company receives all revenues from arena operations but also pays all event and operating costs. The management fee was \$600,000 plus \$150,000 in potential incentives in year one of the management agreement, increasing at an annual rate of two percent in subsequent years. After the management fee has been paid, the remaining revenue goes to pay off the private bank debt. If there is money left over after the debt payment, it funds a capital reserve or is allocated to other debt payments.

Additionally, with respect to performing arts theaters, the following is a summary of the specific funding sources for some comparable theater projects.

### Christopher Cohan Center – San Luis Obispo, CA

The Christopher Cohan Center opened on the Christopher Cohan Center opened on September 27, 1996 in San Luis Obispo, California. Total development costs for the project reached \$30 million. The Center was developed under a joint agreement between California Polytechnic State University, the City of San Luis Obispo and the Center's Foundation. The Partnership became a 501(c)3 with weighted representation. Agreement terms included: (1) \$20 million was paid for by the State of California for the University through G.O. Bonds as it qualifies as a State-owned instructional building; (2) \$5 million came from the City's General Fund; and (3) \$5 million was secured against the Foundations' assets, with repayment scheduled to come through ticket surcharges earmarked for debt service.

### Kentucky Center for the Performing Arts – Louisville, KY

The Kentucky Center for the Performing Arts (KCPA) opened on November 19, 1983 after more than ten years of planning and three years of construction. The KCPA was developed through a unique partnership between the state, county, city and private sectors. The \$34.5 million final

construction cost was partly funded by \$23.5 million from the Commonwealth of Kentucky and the use of the site and a parking garage (a \$2.5 million benefit) from the City of Louisville. A \$13 million endowment fund was raised almost entirely from local private sources to cover the remaining construction costs and to provide future operating funds.

KCPA underwent a \$4.1 million renovation in 2000 that included adding 3,500 square feet to the north and south lobbies and a reconfiguration of the Main Entrance. In 2009, an \$8.9 million renovation included updating the stage floor and the rigging system in Whitney Hall, as well as installing new lighting and dimming systems in its three main venues.

### Gaillard Center – Charleston, SC

The Gaillard Center, located in Charleston, originally opened in 1968 for approximately \$6 million. The 1,800 seat municipal auditorium has been undergoing renovations for the past three years with plans to open in October 2015. The \$142 million total renovation costs were funded through both public and private investments. Approximately \$71 million was raised by the Gaillard Performance Hall Foundation from private donors. Public funding through the City of Charleston included approximately \$32 million in revenues from a Tax Increment Financing District; \$29 million in accommodations and hospitality taxes and New Market Tax Credits; and \$19 million in general obligation bonds.

### Smith Center for the Performing Arts – Las Vegas, NV

The Smith Center for the Performing Arts opened in 2012 and is owned by the City of Las Vegas. The \$320 million Center was financed by 53 percent public and 47 percent private funding. The Donald W. Reynolds Foundation donated \$100 million through a grant and \$50 million through a lead gift. The City of Las Vegas funded \$105 million via a City/County/State rental car tax and \$65 million through City land, infrastructure and environmental cleanup.

### Fox Theatre Detroit – Detroit, MI

Opened in 1928, Fox Theatre Detroit is a 5,174-seat venue located within the Detroit Theater District in downtown Detroit, Michigan. Listed on the National Register of Historic Places in 1985, the theatre was designated a National Historical Landmark in 1989 following a \$12 million renovation in 1988 that was funded by facility owner/operator Olympia Entertainment, which also owns the NHL Detroit Red Wings and the MLB Detroit Tigers.

### Broward Center for the Performing Arts – Ft. Lauderdale, FL

The Broward Center for the Performing Arts opened in 1991 and is located in Fort Lauderdale, Florida. The Broward Center's presenters include Broadway Across America, the Florida Grand Opera, the Gold Coast Jazz Society, the Miami City Ballet and the Symphony of the Americas. The facility is owned by the Performing Arts Center Authority and has a capacity of 2,700 in its main theater. In 2012, the Center underwent a renovation to add new seating and carpeting, upgrade the light and sound systems, construct a new Club Level and build a pavilion and terraced lounge on the exterior of the building. The Broward Center launched a \$56 million capital campaign to raise funds for the renovation.

## The Tobin Center – San Antonio, TX

The Tobin Center opened in September 2014, consisting of a 1,740 seat performance hall, 240-seat studio theatre as well as an outdoor performance plaza connected to the River Walk in San Antonio, TX. Totalling approximately \$203 million, the funding for the Center was a public-private partnership between the City of San Antonio, Bexar County, and the Bexar County Performing Arts Center Foundation.

A 65 percent majority of voters in Bexar County approved a \$100 million bond initiative in 2008 to provide the public funding through an extension of the hotel and car rental tax as well as \$41 million from the City of San Antonio in land and building donations. The remaining \$54 million was raised through private donations, including a \$10 million reserve fund.

## Dr. Phillips Center for the Performing Arts – Orlando, FL

The Dr. Phillips Center for the Performing Arts began construction in 2011 at an estimated cost of approximately \$514 million. Phase 1 of the project opened in November 2014 and consists of the 2,700-seat Walt Disney Theater, 300-seat Alexis & Jim Pugh Theater, Seneff Arts Plaza, the Dr. Phillips Center Florida Hospital School of Arts in addition to other ancillary spaces. The cost of Phase I was approximately \$348 million. Phase II of development includes a 1,700-seat performance hall built specifically for music, ballet, dance and other performing arts that depend on the purity of sound, additional work to the Plaza, and rehearsal, classroom and office space. The anticipated completion date for Phase II of the project is set for 2019, at a total estimated cost of approximately \$166 million.

Funding for the performing arts center is a public-private partnership including:

- \$134 million in corporate, private and philanthropic contributions
- \$155 million from the Tourist Development Tax, a 6.0 percent resort tax
- \$129 million from Community Redevelopment Agency bonds secured by pledged tax increment revenues on downtown Orlando district properties
- \$81 million in City contributions
- \$15 million in State contributions

Approximately \$443 million of the total project budget is being used for gross construction with the remaining \$71 million allocated to land acquisition and site improvement costs.

## **Potential Financing Techniques and Vehicles**

The development and financing of sports and entertainment facilities throughout the country in recent years has largely relied on a combination of both public and private sector financing. The enhanced revenue-generating capabilities of new and/or renovated facilities have encouraged more public/private partnerships whereby public sector financing vehicles are supplemented with private sector revenue streams. In many cases, a public sector entity will issue some form of bond to wholly or partially finance the construction of the facility. The annual debt service required to retire the bonds is then sourced from a general fund and/or from various tax revenues including sales, hotel/motel, restaurant, entertainment and other taxes, as well as other revenue sources such as facility-related revenues. The types of financing mechanisms typically used in funding sports and entertainment facilities are summarized on the following pages.

*General Obligation (GO) Bonds*

General obligation bonds are backed by the full faith and credit of the local government and paid for through general fund property taxes. This pledge is generally supported by a commitment from the issuer to repay the principal and interest through whatever means may be necessary, including levying additional taxes. The advantages associated with general obligations bonds revolve around the strength of the credit. It typically results in a simple financing that lowers the cost of issuance and reduces the bond size, since a debt service reserve fund is often not required. Also, the strength of the pledge provides a higher credit rating and, therefore, a lower cost of financing the project. General obligation bonds are the most common method of primary financing for comparable municipally-owned and operated sports and entertainment facilities such as the KCAC.

In 2014, Knoxville had their highest credit ratings ever from three major credit rating agencies. Fitch Ratings affirmed its AAA rating on two series of outstanding general obligations bonds of the City totaling approximately \$87 million. Additionally, Knoxville received a rating of Aa1 from Moody's and AA+ from Standard & Poor. Solid financial reserves and cash balances in conjunction with strong fiscal management and policies with the history of conservative budgeting practices have given the City financial flexibility and have resulted in high credit ratings. Other factors such as Knoxville's regionally important tax base and economy also have attributed to the ratings. Exhibit 2 presents Knoxville's general bonded debt outstanding on a rolling basis over the last ten years.

**Exhibit 2  
City of Knoxville's General Bonded Debt Outstanding (2005 – 2014) (in thousands)**

Fiscal Year	General Obligation Bonds	Less:		% of Est. Taxable Value of Property	Per Capita
		Available in Debt Service Fund	Total		
2005	257,434	28,722	228,712	7.66%	1,282.02
2006	241,696	30,572	211,124	6.32%	1,182.77
2007	228,654	32,941	195,713	5.76%	1,095.82
2008	216,759	34,623	182,136	5.20%	1,019.23
2009	212,589	36,259	176,330	4.88%	986.19
2010	211,444	36,397	175,047	4.18%	978.61
2011	202,475	42,532	159,943	3.83%	894.17
2012	194,452	40,732	153,720	3.62%	850.40
2013	176,201	45,811	130,390	3.03%	721.34
2014	166,049	46,833	119,216	2.65%	650.49

General obligation bond financing may also be structured with a lower variable interest rate in the early years of the project with conversion to a fixed rate in later years; however, this could require legislation to be enacted. The primary disadvantage associated with general obligation indebtedness is that the bonding capacity for other capital needs is reduced.

Based on conversations with local representatives and a review of prevalent comparable facility funding structures, the most viable option for financing the renovation/redevelopment of the KCAC may be through General Obligation Bonds, which would require a simple majority approval by local government council, as well as an approval by the State Director of Local Finance.



## *Revenue Bonds*

Another frequently used method of sports and entertainment facility financing is the issuance of revenue bonds. Revenue bonds are special obligations issued by the respective governmental agency for which payment is dependent upon a particular source of funds, such as revenues generated by the project, to provide the amount needed for bond repayment. The issuer of the bonds pledges to the bondholders the revenues generated by the project being financed. No pledge of state or local ad valorem tax revenues is required; however, other taxes may be assessed and/or pledged in whole or in part by a municipality or by the state, often with legislative approval, to provide funds necessary to pay off the revenue bond offering. It may be the case, however, that any change in tax rates or allocation would have to be approved by public referendum.

The major disadvantage associated with revenue bonds relates to interest rates that are typically higher than those associated with general obligation bonds. This is largely due to the fact that revenue bonds are not backed by the full faith and credit of the issuing entity. In addition, funding of a debt service reserve and other credit enhancement out of bond proceeds makes the required bond size larger with higher annual debt service payments.

Revenue bond financing may be structured in such a way that payments may be tied to a lower variable rate in the initial years of operation and converted to a higher fixed rate in later years. This is often advantageous in situations where the particular revenue stream or streams that are pledged to bond debt service are expected to increase annually.

Based on discussions with City officials, revenue bonds would be expected to be less viable of an option than general obligation bonds to finance construction costs for a new/redeveloped KCAC project.

## *Certificates of Participation*

Certificates of Participation (COPs) represent another financial instrument that has been used to finance sports facilities. COP holders are repaid through an annual lease appropriation by a sponsoring governmental agency. COPs do not legally commit the governmental entity to repay the certificate holder beyond the annual appropriations, and therefore do not typically require voter approval. Further, this type of instrument is not subject to many of the limitations and restrictions typically associated with general obligation bonds. As COPs generally offer the issuing authority less financial risk and more flexibility than other financing instruments, they tend to be more cumbersome due to the reliance of the trustee for appropriations while typically carrying a higher coupon rate relative to traditional general obligation bonds.

COPs could allow a municipal government to enhance a revenue source with a pledge to make up any revenue deficiencies from other funds. This issue would be subject to annual appropriation. The certificates usually imply that some other security, such as revenue from operations or a sales tax, will be relied on as the primary source of credit worthiness.

The primary advantage associated with certificates of participation is that the obligation enhances the issue, resulting in an interest rate more favorable than a standard revenue bond issue. The disadvantage associated with COPs is that primary credit must still be established.

Based on discussions with City officials, COPs have not historically been used by the City for project funding and would not be expected to be a viable option to finance construction costs for a new/redeveloped KCAC project.

## Potential Funding Sources

The purpose of this section is to present a summary of the estimated funding potential of various private and public sector revenue sources that could represent potential sources of project funding. The funding analysis presented herein is not intended to be an exhaustive review of all potential funding sources, but rather a review of the more common funding sources that may be available specific to this project.

### Public Sources

In addition to private sector funding sources, public sector revenue sources are often used to fund development or renovations of municipally-owned facilities comparable to the KCAC. Based on a review of comparable facility funding sources and discussions with local officials, the most likely sources of public sector funding for the renovation/redevelopment of the KCAC could include, but is not limited to:

- Hotel / Motel taxes
- Sales and use taxes
- Amusement / Admissions taxes
- TIF and TDZ funds
- General funds
- Other public sources

### Hotel / Motel Tax

Hotel/motel taxes are frequently used to fund public facility projects, as the tax is borne by visitors and public facilities similar to the KCAC are normally considered visitor industry investment projects. Currently, the total effective hotel/motel tax in Knoxville is 17.25 percent. This includes a 9.25 percent sales tax which consists of a 7.0 percent State tax, a 1.625 percent tax allocated to the Knox County Schools and a 0.625 percent City of Knoxville Tax. In addition to the sales tax, there is a 5.0 percent County Hotel/Motel tax and a 3.0 percent City Hotel/Motel Tax that applies only to hotels within the Knoxville city limits. Exhibit 3 below presents the nominal amount of hotel / motel tax collected by category in the most recent two fiscal years.

**Exhibit 3  
Hotel / Motel Tax Collections (FY 2013/14 – 2014/15)**

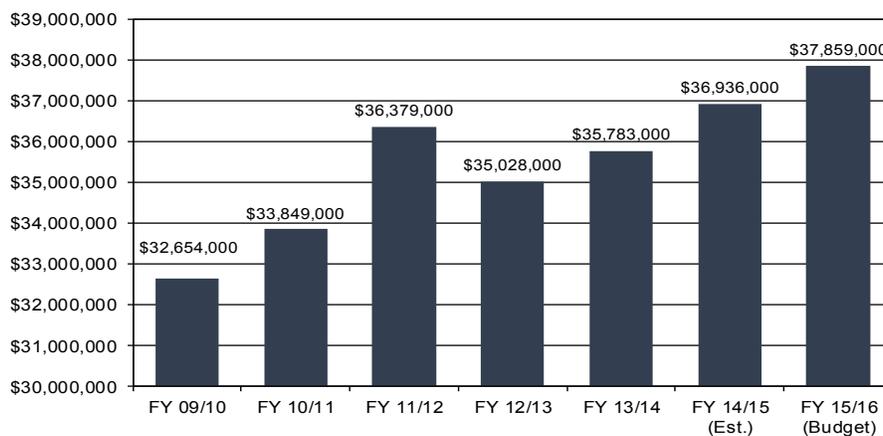
Hotel/Motel (TOT) Tax		FY 13/14 Collections	FY 14/15 Collections
Sales Tax	9.25%	\$8,433,625	\$9,499,770
County TOT Tax (within Knoxville)	5.00%	\$4,558,716	\$5,135,011
City TOT Tax	3.00%	\$2,735,230	\$3,081,007
<b>Total</b>	<b>17.25%</b>	<b>\$15,727,570</b>	<b>\$17,715,787</b>

Currently, City Hotel/Motel tax collections may only be used for debt service on the Knoxville Convention Center. There are also a number of restrictions with regard to the County Hotel/Motel tax use; however conversations with representatives indicate there may be some potential flexibility with the allocation of a portion of County Hotel/Motel tax revenues. Based on these collections, and assuming 30-year bonded debt repayable at a 3.0 percent interest rate, it is estimated that one percentage point of TOT collections (through a redirection of funds or increase in rate) could support approximately \$20.1 million in construction debt service.

## Sales and Use Tax

The Tennessee sales tax is a general privilege tax levied on the gross receipts from sales at retail of tangible personal property or on its lease or rental. The Tennessee sales and use tax rate is seven percent. In Tennessee, like in many states, communities receive a portion of the state sales tax and local governments can add a local option tax. The local sales taxes within Knoxville apply only to sales within the city limits and is 2.25 percent. Approximately 74 percent of which, or 1.625 percent of the total sales tax, is earmarked for Knox County Schools. The remaining dollars, 0.625 of the total sales tax is collected by the City of Knoxville. Exhibit 4 presents the historical local sales tax collected for the City.

**Exhibit 4**  
**City of Knoxville Historical Local Sales Tax Collection (FY 2009/10 – FY 2015/16)**



As shown, local sales taxes collected have been increasing since fiscal year 2012/13 and are forecasted to increase by two and a half percent in fiscal year 2015/16. These revenues generated from sales tax collections are the second largest source of revenue for the City within the tax category. It is understood that under Tennessee State law, the City has the capacity to increase the local option sales tax rate but up to an additional 0.5 percent. As it relates to the potential for servicing debt for this project, a 0.5 percent rate increase would net 0.25 percent (as 50 percent would be directed to Knox County Schools). Assuming 30-year bonded debt repayable at a 3.0 percent interest rate, it is estimated that 0.25 percent of additional city sales tax collections could support approximately \$289.6 million in overall construction debt service. A small increase in the local option sales tax rate could cover all the debt obligations for a KCAC project; however, these types of initiatives are often the most difficult to generate support for among constituents. Of those successful sales tax supported facility projects undertaken throughout the country, many involve a packaging of multiple municipal facility and infrastructure initiatives including numerous individual projects as part of a citywide investment strategy.

## Amusement / Admissions Tax

An amusement tax of 5.0 percent is currently assessed on gross ticket receipts pertaining to spectator events in the City of Knoxville, 4.5 percent of which is distributed to the City of Knoxville, the remaining 0.5 percent to Knox County. A number of facilities, including downtown and City-owned facilities, are presently exempt from this tax. Presently, University of Tennessee sporting events are the most notable events in the local market that are impacted by this tax. It is possible that a simple majority vote by the

City and County Council to change the law to incorporate the tax in downtown Knoxville and/or extend it more equitably to other facilities throughout the county could allow for the potential to access funding dollars for the renovation/redevelopment of the KCAC.

As an order-of-magnitude illustration, if we were to assume 400,000 annual paid tickets sold at a new/renovated KCAC and an average effective ticket price of \$10.00, a potential amusement tax would theoretically generate \$180,000 annually for the City of Knoxville (associated with its 4.5 percent share of the 5.0 percent). Additionally, if the tax was more broadly applied to other currently-exempt facilities, a significant amount of additional funds could be raised.

It is suggested that this potential opportunity be further explored and considered as an opportunity for the KCAC project.

### TIF and TDZ Funds

Tax increment financing (TIF) essentially involves capturing assessed valuation growth within a specific area (i.e. TIF district) related to a particular development. TIF often requires enactment of legislation by the State Legislature, however in most cases, this is not required in the State of Tennessee. Typically, a redevelopment agency delineates a project area and declares a base year. The existing base-assessed valuation is taxed as before by each overlapping taxing entity covering a portion of the project area. The additional assessed valuation, added to the tax rolls over the base, is taxed at the same rate as the base valuation. However, the tax revenues attributed to the new incremental assessed valuation are remitted to the redevelopment agency and used to pay debt service.

TIF is primarily used to help local government's jumpstart improvements in declining or underperforming urban areas where development would not otherwise occur. The "but for" test is often used to describe TIF-funded projects. "But for" the TIF-funded public improvements, development would not occur. A local development area can be established for 20 years or more. At the end of the term, all new tax revenues belong to the usual taxing districts. It is important to note that the state of Tennessee does not require the "but for" test, and instead allows local housing development agencies to create TIF projects on a finding of or in order to remove, prevent or reduce blight, blighting factors, or the causes of blight.

Many states have successfully used tax increment financing to promote redevelopment through public/private partnerships. Tennessee's tax increment financing statutes establish guidelines for creation of development areas eligible for both local and state tax increments. Most projects in the State of Tennessee do not require State approval for TIF, and are handled by the County and City in which they occur. In the City of Knoxville, recent projects such as the Cumberland Avenue, Downtown North, Jackson Avenue, Magnolia Avenue and the South Waterfront have implemented TIF districts to cover redevelopment costs. Exhibit 5 presents a chart of the TIF project status for the City.

## Exhibit 5 City of Knoxville TIF Project Status

**City of Knoxville  
Tax Increment Financing  
Project Status**

	Property Assessment			Yearly Increase in County Taxes		Yearly Increase in City Taxes		Yearly Increase in City & County Taxes	
	Base	Post Project	Increment	TIF Period	Post TIF	TIF Period	Post TIF	TIF Period	Post TIF
<b>Substantially Completed Projects*</b>									
Fire Street Lofts	\$279,575	\$2,644,570	\$2,364,995	\$11,352	\$54,868	\$17,264	\$64,564	\$28,616	\$119,432
Mast General & Gallery Lofts	\$299,080	\$3,001,115	\$2,702,035	\$12,970	\$62,687	\$19,725	\$73,766	\$32,695	\$136,453
Holston Building	\$364,400	\$4,503,580	\$4,139,180	\$19,868	\$96,029	\$30,216	\$113,000	\$50,084	\$209,029
Burwell Building	\$200,800	\$2,134,310	\$1,933,510	\$9,281	\$44,857	\$14,115	\$52,785	\$23,395	\$97,642
Candy Factory	\$0	\$3,198,385	\$3,091,495	\$14,839	\$71,723	\$22,568	\$84,398	\$37,407	\$156,120
North Central Village	\$26,400	\$598,225	\$571,825	\$2,745	\$13,266	\$4,174	\$15,611	\$6,919	\$28,877
Commerce Building	\$369,480	\$1,702,420	\$1,332,940	\$6,398	\$30,924	\$9,730	\$36,389	\$16,129	\$67,313
Brownlow School	\$100,840	\$1,028,225	\$927,385	\$4,451	\$21,515	\$6,770	\$25,318	\$11,221	\$46,833
Crimson Building/300 Building	\$69,915	\$1,228,150	\$1,158,235	\$5,560	\$26,871	\$8,455	\$31,520	\$14,015	\$58,491
500 Block	\$0	\$1,740,600	\$1,740,600	\$8,355	\$40,382	\$12,706	\$47,518	\$21,061	\$87,900
Downtown N. - Malisse	\$398,500	\$727,245	\$328,745	\$1,578	\$7,627	\$2,400	\$8,975	\$3,978	\$16,602
JFG	\$182,480	\$1,589,800	\$1,407,320	\$6,755	\$32,650	\$10,273	\$38,420	\$17,029	\$71,070
SE Glass	\$54,720	\$1,059,145	\$1,004,425	\$4,821	\$23,303	\$7,332	\$27,421	\$12,154	\$50,723
129 W. Jackson	\$65,080	\$1,048,615	\$983,535	\$4,721	\$22,818	\$7,180	\$26,851	\$11,901	\$49,669
Arnstein Building	\$435,120	\$863,520	\$428,400	\$2,056	\$9,939	\$3,127	\$11,695	\$5,184	\$21,634
Daylight Building	\$207,760	\$1,067,320	\$859,560	\$4,126	\$19,942	\$6,275	\$23,466	\$10,401	\$43,408
Harold's	\$21,760	\$159,080	\$137,320	\$1,116	\$9,099	\$2,537	\$9,505	\$3,653	\$18,603
The Landings	\$0	\$5,058,320	\$5,058,320	\$24,280	\$117,353	\$36,926	\$138,092	\$61,206	\$255,445
Victorian Houses	\$0	\$716,985	\$716,985	\$3,442	\$16,634	\$5,234	\$19,574	\$8,676	\$36,208
City View Riverwalk	\$356,400	\$5,283,225	\$4,926,825	\$23,649	\$114,302	\$35,966	\$134,502	\$59,615	\$248,805
University Commons	\$305,640	\$9,337,960	\$9,032,320	\$43,355	\$209,550	\$65,936	\$246,582	\$109,291	\$456,132

<b>Total - Substantially Completed</b>	<b>\$3,737,950</b>	<b>\$48,690,795</b>	<b>\$44,845,955</b>	<b>\$215,717</b>	<b>\$1,046,339</b>	<b>\$328,910</b>	<b>\$1,230,051</b>	<b>\$544,627</b>	<b>\$2,276,389</b>
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The above figures are from 2014 property appraisals

Baptist Hospital	\$12,169,600	\$8,784,480	(\$3,385,120)
MUSE1/Mag Urban Village	\$67,120	\$67,120	\$0

\* The values in each category for this section of projects represent actual appraisals from completed projects.

\*\*These projects have been given the "in progress" designation due to the fact that they have not yet been reappraised. Therefore, the dollar figures in this section are estimated. *Sentinel Tower Project is delayed and is not included.*

All projects are evaluated to meet both "Public Interest" and "But for\*\*\*" analysis prior to presentation to KCDC, City, and County legislative bodies.

\*\*\* Project would not occur without TIF financing. Review by bankers not involved in project assists in decision. No City or County appropriated funds used in TIF projects

In addition to property tax increases through TIF, it is possible that TDZ funding could be a possibility for the project; however, it is understood that legislation regarding TDZ has recently changed and the State is not presently authorizing any new TDZs. While the use of TDZ funding is not impossible, it may now require some changes in legislation in order to be successful (this was done in the case of Nashville recently).

Originally, TDZ (Tourist Development Zone) funding was enacted by the T.C.A., Title 7, Chapter 88, Convention Center and Tourism Development Financing Act of 1988, which provides special sales tax distributions to cities making investments in qualified public use facilities. The definition of a "qualified public use facility" as "any building, complex, center, facility or any two adjacent buildings, complexes, centers or facilities containing at least 250,000 square feet, in the aggregate, inclusive of exhibit halls, ballrooms, meeting rooms, lobbies, corridors, seating areas, service areas and other building areas enclosed thereby, constructed, leased, equipped, renovated, or acquired or expanded after January 1, 1998, as a project meeting the requirements of Title 9, Chapter 21, Title 12, Chapter 10 or Title 7, Chapter 53 by a public authority or municipality for purpose of furnishing economic development centers, renovated or new or expanded community facilities for conventions, meetings, exhibitions, trade shows, sporting events or other events for educational, entertainment, business, association, cultural, public

interest, public service and common interest groups, organizations and entities". Further, such facility must require on or after January 1, 1998 a local investment of public funds in excess of \$75 million, and is reasonably anticipated to attract private investment in the tourism development zone of more than \$25 million after such date. The same definition also includes any "privately owned or operated tourism attraction involving an aggregate investment of public and private funds in excess of \$200 million" designed to attract tourists to the State of Tennessee, which includes "a recreation or entertainment facility" or "other tourism amenities constructed or acquired as a part of such attraction", among others. Projects meeting the qualifications and approved by the County and City can levy an additional one percent increase to the sales tax throughout the County or only within a tourist development zone created within such County.

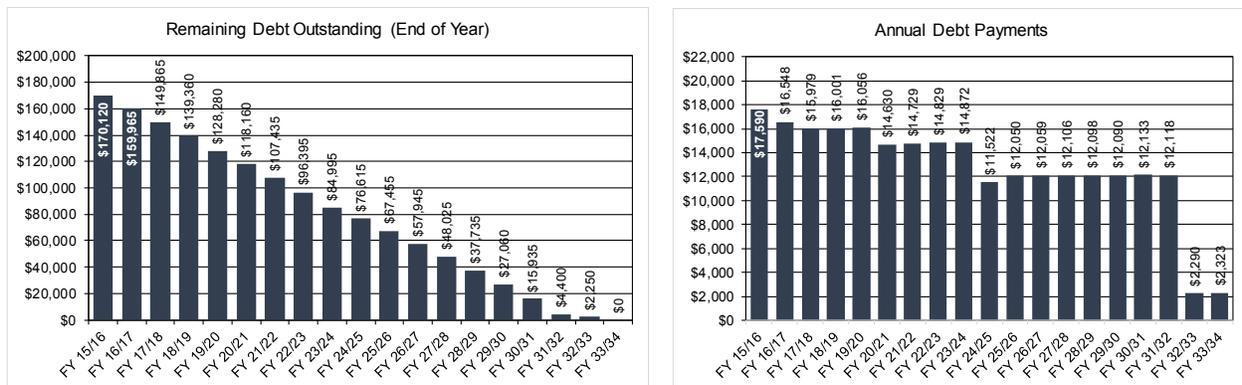
The KCAC is not currently in a TIF district, but potential exists to create one and should be considered. Should additional adjacent parcels of land around the KCAC be vacated (for example, if the Police Station is relocated), the feasibility of using TIF as a partial funding mechanism would be increased.

Additionally, programs such as Tourism Development Zone, which currently encompasses the downtown area and is used for Convention Center debt services funding, should be considered. However, the State's current moratorium on TDZ authorization and the original TDZ legislation's criteria of a minimum of \$25 million in secured private sector contribution may be a difficult benchmark to meet for this proposed project. Nevertheless, certain private sector opportunities should be explored and vetted per the legislation to determine qualification. For instance, a long-term naming rights/sponsorship agreement with a local corporation could potentially contribute a significant level of contractually-obligated dollars, along with funds stemming from opportunities for development rights in adjacent City-owned parcels.

### General Funds

According to the proposed 2015-16 budget, the City of Knoxville currently manages a budgeted amount of approximately \$206 million in General Funds. As of 2015, the City had an outstanding debt on General Funds of approximately \$170 million, representing an annual debt service payment of nearly \$18 million per year. Exhibit 6 below presents the remaining debt outstanding and annual debt payments for the City of Knoxville through fiscal year 2033/34.

**Exhibit 6  
Comparison of Remaining Debt Outstanding and Annual Debt Payments  
For the City of Knoxville (FY 2015/16 – FY 2033/34)**



As previously stated, the City of Knoxville's bond rating from Fitch is AAA, Moody's Investors Service is Aa1 and Standard and Poor's AA+. The high ratings are in part attributed to the City's strong fiscal management and policies and history of conservative budgeting practices, as presented in the previous chart.

### Other Public Sources

Other taxes that generate revenues, either locally or at the state level, include restaurant, car rental, property, personal income, corporate income, gasoline, insurance, cigarette, liquor, beverage, estate and lottery taxes, among others. Certain taxes such as lottery and gasoline taxes are earmarked for certain uses such as the Education Fund or the Transportation Fund. Others do not generate significant levels of revenue relative to other taxes and would not result in meaningful funding levels if incremental taxes were imposed specifically for the KCAC project. As a result, proceeds from increases in these taxes have not been estimated as part of this analysis.

### *Private Sources*

In addition to public sector funding sources, private sector revenue sources are often used to defray public sector funding obligations for development or renovations of municipally owned facilities comparable to the KCAC. Based on a review of local facility and comparable facility funding sources, the most likely potential sources of private sector funding for the proposed project could include but are not limited to:

- Ticket surcharges;
- Contractually-obligated income;
- Naming rights;
- Concessionaire/Vendor Rights;
- Private Donations/Endowments and,
- Other sources.

### Ticket Surcharges

A ticket surcharge could be implemented at the renovated/redeveloped KCAC, with the proceeds dedicated to service construction debt. Typical surcharges range from \$0 to \$4 per ticket sold. Exhibit 7 on the following page presents a summary of the estimated funding potential of various ticket surcharge amounts that could be levied and applied toward debt service retirement for each of the three renovation/redevelopment scenarios and the respective estimated annual paid attendance. It should be noted that the ticket surcharges assumed in the exhibit on the following page would be in addition to any facility fees, ticket taxes (including a potential Amusement Tax), convenience or handling charges. The estimated paid attendance figures used for this calculation are slightly lower than the total attendance figures highlighted in a previous chapter, as the ticket surcharge would not be assessed on non-ticketed and complementary ticketed events. For purposes of this analysis, the estimated funding potential calculation assumes a 30-year term and a 3.0 percent tax exempt interest rate.

**Exhibit 7  
Funding Potential of Ticket Surcharges**

Operating Scenario	Annual Paid Attendance	Annual Revenue	Estimated Funding Potential
<b>\$1.00 Surcharge</b>			
Scenario 1 - Retain Existing KCAC	200,000	\$200,000	<b>\$3,920,000</b>
Scenario 2 - Renovated/Redeveloped KCAC	400,000	\$400,000	<b>\$7,840,000</b>
Scenario 3 - Full Replacement	450,000	\$450,000	<b>\$8,820,000</b>
<b>\$1.50 Surcharge</b>			
Scenario 1 - Retain Existing KCAC	200,000	\$300,000	<b>\$5,880,000</b>
Scenario 2 - Renovated/Redeveloped KCAC	400,000	\$600,000	<b>\$11,760,000</b>
Scenario 3 - Full Replacement	450,000	\$675,000	<b>\$13,230,000</b>
<b>\$2.00 Surcharge</b>			
Scenario 1 - Retain Existing KCAC	200,000	\$400,000	<b>\$7,840,000</b>
Scenario 2 - Renovated/Redeveloped KCAC	400,000	\$800,000	<b>\$15,680,000</b>
Scenario 3 - Full Replacement	450,000	\$900,000	<b>\$17,640,000</b>

Assumes 30-year bonds, a 3.0% interest rate.

As a result, potential funding for Scenario 1 could generate approximately \$3.9 to \$7.8 million, \$7.8 million to \$15.7 million under Scenario 2 and estimated attendance given Scenario 3 could potentially generate between \$8.8 million and \$17.6 million in project funding, depending upon the surcharge applied. It should be noted that increases in the cost to attend events, even through ticket surcharges, could have negative implications on demand.

Examples of ticket surcharges implemented by comparable arena facilities as a funding source include:

- CenturyLink Center in Omaha, Nebraska implemented a \$1.50 ticket surcharge set for three years that can be adjusted thereafter.
- Ford Center in Evansville, Indiana imposes a \$2.00 ticket surcharge for all Evansville events.
- Pinnacle Bank Arena in Lincoln, Nebraska has a \$1.00 ticket surcharge that can be increased up to \$3.00 per ticket if deemed "financially necessary".

Any consideration of a new ticket surcharge would need to weigh the total effective impact on the arena event consumer (spectator/attendee) and promoter. For instance, it would likely be too onerous to enact both a new Amusement Tax of 5.0 percent and a higher end ticket surcharge (i.e., \$1.50 to \$2.00). It is possible that only one of the ticket-based fee/tax methods (i.e., either a Ticket Surcharge or an Amusement Tax) would be realistic and appropriate for the project without negatively impacting the KCAC's event and attendance performance.

Contractually-Obligated Income

Contractually-obligated income has become a popular source of private funding participation. Contractually-obligated income refers to those revenue streams that are secured through multi-year contracts and include revenue sources such as naming rights, advertising/sponsorship agreements, and private boxes. However, given a new/redeveloped KCAC would be expected to continue to be City-owned and operated, and its estimated financial operating characteristics do not anticipate regular

financial operating profitability, it is unlikely that traditional contractually-obligated income streams (other than potentially naming rights and other related sponsorships that were not assumed during the financial operating analysis conducted for this study) would be available to assist in defraying public sector project costs.

### Naming Rights

Naming rights and other unique sponsorships have been increasingly used in the public assembly industry in recent years. Naming rights agreements typically consist of a local corporation paying a fee upfront and/or over a series of consecutive years in exchange for the use of their company's name for the entire facility or various components of it. Naming rights agreements are much more prevalent with professional sports facilities than with municipally owned arenas, performing arts centers, convention, conference and multipurpose event facilities. This is primarily attributable to typically much greater exposure potential at professional sports facilities (i.e., national broadcast coverage of events, exposure through other forms of media, millions of annual spectators, etc.).

However, there have been some municipal event facilities that have sold naming rights for the entire facility, complex or components of it. These transactions tend to succeed to the extent target companies can identify long-term benefits. These benefits can include: a revenue return, visual exposure for the sponsor, access to the attendees at the facility, sponsorship opportunities with events at the facility and other tangible benefits.

It is suggested that this potential opportunity be further explored and considered as an opportunity for the KCAC project.

### Concessionaire / Vendor Rights

The operation of concession and novelty sales is generally performed by outside contractors. A significant trend in public assembly facility financing is the sale of the rights to a facility's concessions operations. Concessionaire fees provide a concessionaire the right to the concession profits for a specified period of time. The concessionaire fee represents a portion of the capitalized revenue streams that are anticipated to be received by the concessionaire over the term of the agreement.

Should a concessionaire rights agreement be reached which provides upfront funds, it could lower the annual concession revenue contained by the facility in this report. Another example of a right that could be sold is facility pouring rights. Total funding potential from these types of rights would be in the range of several hundred thousand dollars to a few million dollars. No potential funding from concessionaire/vendor rights are included in this analysis. Beyond naming rights and concessionaire/vendor rights, there are various other categories of sponsors that facilities comparable to the KCAC are utilizing and/or considering:

- Technology and telecommunications.
- Facility control systems.
- Energy systems.
- Security systems.
- Food service.

For each of these and other such areas, a highly qualified company is selected to provide the service in the facility in exchange for exclusive sponsorship recognition and a percentage of the revenue generated

from the service. It appears that sponsorship alone does not drive significant financial participation; rather, it must be combined with a revenue stream.

### Private Donations/Endowments

Particularly with respect to performing arts facilities, certain communities have succeeded in historical fundraising efforts for various public projects. In these instances, a few high-profile, community-oriented wealthy individuals have provided private donations of capital and/or land to help defray public sector development costs.

Private donations from philanthropic individuals and organizations are often critical in the fundraising efforts for performing arts centers. Local capital campaigns (many times via the establishment of a dedicated endowment fund) tend to be instrumental in establishing seed money and demonstrating local interest in a project. The fact that any redeveloped KCAC will ostensibly continue to be owned and operated by the City (rather than a nonprofit arts organization) will potentially pose challenges for a capital campaign. Nevertheless, attempts should be made to identify seed money of this nature if a determination is made to pursue a major new/renovation project that involves a substantially upgraded performing arts facility.

### Other Sources

Other potential private sources of revenues could come from local foundations, contributions from a primary tenant, other major facility users, parking surcharges, facility operating profits, sale of brick pavers, investment income and other such sources.

## **Conclusions**

An analysis was conducted concerning the sources of funding that have been used within the event facility industries and their potential for use in the possible renovation/redevelopment of the KCAC. The intent of the analysis is not to produce a financing plan for facility development, but rather to discuss certain financing vehicles, as well as public and private revenue sources that could be utilized to fund the project.

Based on the analysis of potential funding opportunities, the following funding vehicles and sources may hold potential and should be further explored and considered as an opportunity for the new/redeveloped KCAC project:

- Based on an industry benchmarking effort, nearly half of all comparable event facility projects are wholly funded by the public sector (normally one municipal government entity). For the remaining half of comparable facilities, the public sector has still contributed the majority of project development funding, while receiving a minority share of private sector dollars that work to partially defray total public sector funding obligations.
- Based on conversations with local representatives and a review of prevalent comparable facility funding structures, the most viable option for financing the renovation/redevelopment of the KCAC may be through General Obligation Bonds, which would require a simple majority approval by local government council, as well as an approval by the State Director of Local Finance.
- Revenue bonds would be expected to be less viable of an option than general obligation bonds to finance construction costs for a new/redeveloped KCAC project.

- Hotel/motel taxes are frequently used to fund public facility projects, as the tax is borne by visitors and public facilities similar to the KCAC can be considered visitor industry investment projects. Currently, City Hotel/Motel tax collections may only be used for debt service on the Knoxville Convention Center. There are also a number of restrictions with regard to the County Hotel/Motel tax use; however conversations with representatives indicate there may be some potential flexibility with the allocation of a portion of County Hotel/Motel tax revenues.
- The City has the capacity to increase the local option sales tax rate up to an additional 0.5 percent. As it relates to the potential for servicing debt for this project, a 0.5 percent rate increase would net 0.25 percent (as 50 percent would be directed to Knox County Schools). A small increase in the local option sales tax rate could cover all the debt obligations for a KCAC project; however, these types of initiatives are often the most difficult to generate support for among constituents. Of those successful sales tax supported facility projects undertaken throughout the country, many involve a packaging of multiple municipal facility and infrastructure initiatives including numerous individual projects as part of a citywide investment strategy.
- An amusement tax of 5.0 percent is currently assessed on gross ticket receipts pertaining to spectator events in the City of Knoxville, 4.5 percent of which is distributed to the City of Knoxville, the remaining 0.5 percent to Knox County. A number of facilities, including downtown and City-owned facilities, are presently exempt from this tax. It is possible that a simple majority vote by the City and County Council to change the law to incorporate the tax in downtown Knoxville and/or extend it more equitably to other facilities throughout the county could allow for the potential to access funding dollars for the renovation/redevelopment of the KCAC.
- Tax increment financing (TIF) essentially involves capturing assessed valuation growth within a specific area (i.e., TIF district) related to a particular development. The KCAC is not currently in a TIF district, but potential exists to create one and should be considered. Should additional adjacent parcels of land around the KCAC be vacated (for example, if the Police Station is relocated), the feasibility of using TIF as a partial funding mechanism would be increased.
- In addition to property tax increases through TIF, programs such as Tourism Development Zone (TDZ), which currently encompasses the downtown area and is used for Convention Center debt services funding, could be considered. However, the State's recent moratorium on TDZ authorization and the original TDZ legislation's criteria of a minimum of \$25 million in secured private sector contribution (which may be a difficult benchmark to meet for this proposed project) will likely limit the viability of this option. Nevertheless, certain private sector opportunities should be explored and vetted per the legislation to determine qualification. For instance, a long-term naming rights/sponsorship agreement with a local corporation could potentially contribute a significant level of contractually-obligated dollars, along with funds stemming from opportunities for development rights in adjacent City-owned parcels.
- In addition to public sector funding sources, private sector revenue sources are often used to defray public sector funding obligations for development or renovations of municipally-owned facilities comparable to the KCAC. Based on a review of local facility and comparable facility funding sources, the most likely potential sources of private sector funding for the proposed project could include but are not limited to:
  - Ticket surcharges;
  - Contractually-obligated income;
  - Naming rights;
  - Concessionaire/Vendor Rights;
  - Private Donations/Endowments and,
  - Other sources.