

APPENDIX E: CAPITAL COST ESTIMATES

APPENDIX E: Capital Cost Estimates

Comparison of Estimated Capital Construction, Repair & Replacement Costs over 15-Yr Projection Period

(All figures are shown in current 2018 dollars)

Scenario 1: Status Quo with Deferred Maintenance

ID	Issue	Space	Proposed Solution	Cost	15-Year Total Cost
A Expansion/Construction					
1	Site Acquisition	Site	Purchase of convenience store	\$0	\$0
2	Site Construction	Site	Store demolition	\$0	\$0
3	Site Construction	Site	Sitework/ utility relocation	\$0	\$0
4	Construction	Arena	FFC Demolition	\$0	\$0
5	Construction	Arena	FFC Interior Renovation	\$0	\$0
6	Construction	Arena	Roof Replacement	\$0	\$0
7	Construction	Arena	Construction of 6000 seat arena and support areas	\$0	\$0
8	Construction	Theatre	General interior renovation	\$0	\$0
A - Subtotal					\$0
B Deferred Maintenance					
1	Improve building signage	Arena	Replace existing marquee- Project has been funded	\$100,000	\$200,000
2	Improve building efficiency	Arena	Replace rooftop package HVAC unit and upgrade system	\$800,000	\$1,600,000
3	Improve building efficiency	Arena	Replace arena lighting with dimmable LED fixtures	\$300,000	\$600,000
4	Improve building efficiency	Arena	Replace hard wired dimming system	\$48,000	\$48,000
5	Improve building envelope	Arena	Replace arena roof	\$300,000	\$600,000
6	Improve building efficiency	Arena	Replace emergency generator w/ natural gas equipm't in 10 years	\$125,000	\$125,000
7	Improve building efficiency	Arena	Remove existing fuel oil tank in 10 years	\$200,000	\$200,000
8	Improve building envelope	Arena	Tuck point brick on arena	\$400,000	\$700,000
9	Improve building envelope	Arena	Insulate walls and roof	\$400,000	\$400,000
10	Improve building envelope	Arena	Add gutter and drains at entry	\$30,000	\$60,000
11	Improve building circulation	Arena	Replace elevator to bring up to code and to increase load capacity	\$150,000	\$200,000
12	Improve finishes	Arena	Paint interior of arena	\$300,000	\$600,000
13	Improve finishes	Arena	Repair concrete on arena floor	\$60,000	\$120,000
14	Improve finishes	Arena	Replace stage curtains	\$30,000	\$30,000
15	Improve building signage	Theatre	Install marquee/ awning at exterior entrance	\$60,000	\$60,000
16	Improve building efficiency	Theatre	Replace original flyrail	\$300,000	\$450,000
17	Improve building efficiency	Theatre	Prepare structural grid study	\$7,000	\$7,000
18	Improve building envelope	Theatre	Repair basement stone on theatre	\$50,000	\$50,000
19	Improve building envelope	Theatre	Tuck point brick on theatre within 10 years	\$300,000	\$300,000
20	Improve building envelope	Theatre	Replace theatre roof	\$75,000	\$150,000
21	Improve building efficiency	Theatre	Replace stage lighting and provide LED fixtures in theatre lobby	\$400,000	\$550,000
22	Improve building efficiency	Theatre	Replace rooftop package HVAC unit and upgrade system	\$100,000	\$100,000
23	Improve building efficiency	Theatre	Replace stage lighting dimmers	\$100,000	\$140,000
24	Improve finishes	Theatre	Replace window woodwork and wood structure	\$50,000	\$75,000
25	Improve finishes	Theatre	Replace stage curtains	\$50,000	\$80,000
26	Improve finishes	Theatre	Replace stage wood floor	\$25,000	\$25,000
27	Improve finishes	Theatre	Paint interior of theatre and repair plaster	\$60,000	\$120,000
B - Subtotal					\$7,590,000
C Life Safety / Code Compliance					
1	Increase space on sidewalk	Arena	Remove entry vestibule and rework entrance	\$0	\$0
2	Provide added safety devices	Arena	Add defibrulators and oxygen recharging stations	\$0	\$0
3	Increase access to seating	Arena	Move dressing rooms to open up eastern entrance - No solution	\$0	\$0
4	Increase entrance/ exit capacity	Arena	Add doors to exterior walls	\$0	\$0
5	Increase entrance/ exit capacity	Arena	Provide added exits in north wall	\$0	\$0
6	Improve fall protection in theatre	Theater	Provide fall protection and roof rails	\$0	\$0
7	Need EMS access to balconies	Theater	Provide new elevator with access to all levels with new platforms	\$0	\$0
C - Subtotal					\$0
D Security					
1	Increase limited visual surveillance	Arena	Provide video camera system and security office for arena/theatre	\$0	\$0
2	Need protective barriers at exterior	Arena	Add precast concrete bollards at entrances (24)	\$0	\$0
3	Need detention area	Arena	Provide security office	\$0	\$0
4	Improve poor box office security	Arena	Relocate box office with up to date systems	\$0	\$0
5	Improve poor box office security	Theater	Provide safe alarm for box offices	\$0	\$0
D - Subtotal					\$0

APPENDIX E: Capital Cost Estimates

Comparison of Estimated Capital Construction, Repair & Replacement Costs over 15-Yr Projection Period

(All figures are shown in current 2018 dollars)

Scenario 1: Status Quo with Deferred Maintenance

ID	Issue	Space	Proposed Solution	Cost	15-Year Total Cost
E Event Marketability					
1	Improve building access	Arena	Adjust mailing address to agree with main entrance	\$0	\$0
2	Improve building access	Arena	Replace ADA ramps to reduce slope	\$0	\$0
3	Reduce pull weight of entrance door	Arena	Replace exterior door closers (22)	\$0	\$0
4	Premium seating	Arena	Provide club seating	\$0	\$0
5	Premium seating	Arena	Provide private and party suites	\$0	\$0
6	Cannot use dressing rooms in sun	Arena	Provide air conditioning and heat in locker/ dressing rooms	\$0	\$0
7	Increase dressing room capacity	Arena	Provide 6 large and 2 small dressing rooms	\$0	\$0
8	Improve sound seal at Blue wall	Arena	Replace operable wall and add east/west walls	\$0	\$0
9	Need increased arena seating capacity	Arena	No solution	\$0	\$0
10	Need increased arena seating capacity	Arena	Add seating sections to to the north and east	\$0	\$0
11	Improve inadequate exhaust system	Arena	Provide smoke exhaust system	\$0	\$0
12	Cannot create ice in warm weather	Arena	No solution	\$0	\$0
13	Cannot create ice in warm weather	Arena	Provide new ice floor	\$0	\$0
13	Provide flexible seating arrangements	Arena	Replace telescopic seating with seating in separate sections	\$0	\$0
14	Increase rigging capacity and capacity	Arena	Provide expanded rigging grid and provide 150,000 pound capacity	\$0	\$0
15	Increase height to bottom of structure	Arena	No solution	\$0	\$0
16	Provide better identification of entrance	Arena	Provide enhanced exterior entrance design	\$0	\$0
17	Need increased catering capacity	Arena	Provide catering kitchen - No solution	\$0	\$0
18	Improve event capability	Arena	Provide portable staging and risers	\$0	\$0
19	Improve event capability	Arena	Provide folding tables	\$0	\$0
20	Need adequate wing space for storage	Theater	No solution	\$0	\$0
21	Need adequate dressing rooms	Theater	Renovate basement area to provide new dressing rooms	\$0	\$0
22	Increase rigging for sound system	Theater	Provide rigging points above the stage in the fly loft	\$0	\$0
23	Need adequate space in orchestra	Theater	Rework orchestra pit floor and add lift	\$0	\$0
24	Improve event capability	Theater	Provide concert grand piano for theatre and arena	\$0	\$0
25	Improve event capability	Theater	Provide upright piano	\$0	\$0
26	Improve event capability	Theater	Provide folding tables	\$0	\$0
27	Improve event capability	Theater	Provide Street Level offices for the Symphony	\$0	\$0
28	Improve small theatre facility	Theater	Provide upgrades for black box theatre (Allowance)	\$0	\$0
29	Increase theatre seating capacity	Theater	Renovate third floor balcony (Allowance) in 10 years	\$0	\$0
E - Subtotal					\$0
F Patron Amenities					
1	Improve poor wi-fi access	Arena	Provide updated wi-fi system	\$0	\$0
2	Provide weather cover at entrance	Arena	Add entrance canopy	\$0	\$0
3	Improve ADA and box office access	Arena	Provide drop-off at new entrance (See Life Safety item above)	\$0	\$0
4	Need improved ADA access	Arena	Renovate existing toilets	\$0	\$0
5	Need improved concession service	Arena	Replace concession equipment	\$0	\$0
6	Need improved concession service	Arena	Renovate concession stands and provide mobile carts	\$0	\$0
7	Need improved concession service	Arena	Provide additional concession stands	\$0	\$0
8	Improve concourse finishes/ acoustics	Arena	Replace concourse carpet and floor tile without grout joints	\$0	\$0
9	Provide stroller and wheelchair storage	Arena	Provide new closet in concourse	\$0	\$0
10	Limited hospitality and concourse	Arena	Provide hospitality area and party suites - No solution	\$0	\$0
11	Improve poor theatre acoustics	Arena	Provide added sound absorption and reflective clouds	\$0	\$0
12	Improve patron comfort	Arena	Replace 1500 fixed seats	\$0	\$0
13	Improve patron comfort	Arena	Replace 2400 riser seats	\$0	\$0
14	Improve room acoustics	Arena	Replace arena sound system	\$0	\$0
15	Need increased toilet capacity	Theater	Renovate back existing toilet not being used	\$0	\$0
16	Improve finishes in theatre	Theater	Replace concourse carpet and floor tile without grout joints	\$0	\$0
17	Need larger theatre lobby	Theater	Renovate arena concourse to serve as expanded theatre lobby	\$0	\$0
18	Improve patron comfort	Theater	Renovate theatre historic seating	\$0	\$0
19	Improve room acoustics	Theater	Replace sound system	\$0	\$0
F - Subtotal					\$0
G Operations					
1	Need 2" deck under telescopic seating	Arena	Provide 2" concrete fill under west telescopic risers	\$0	\$0

APPENDIX E: Capital Cost Estimates

Comparison of Estimated Capital Construction, Repair & Replacement Costs over 15-Yr Projection Period

(All figures are shown in current 2018 dollars)

Scenario 1: Status Quo with Deferred Maintenance				
ID	Issue	Space	Proposed Solution	15-Year Total Cost
2	Improve inefficient electrical system	Arena	Increase electrical capacity (1200 amps) and provide shore power	\$0
3	Improve inefficient electrical system	Arena	Replace feeder cable with 4/0, 5 wire cable	\$5,000
4	Improve inadequate loading areas	Arena	Provide loading dock with 3 service bays and compactor	\$0
5	Improve number and image of office	Arena	Renovate existing administrative office area	\$0
6	Upgrade production capabilities	Arena	Remodel press box as a production area	\$0
7	Upgrade production capabilities	Arena	Provide arena curtain trussing	\$0
8	Upgrade production capabilities	Arena	Provide 21 chain hoists	\$0
9	Upgrade production capabilities	Arena	Provide 2 chain hoist motor controls and control cable	\$0
10	Upgrade production capabilities	Arena	Provide double hung lighting truss	\$0
11	Need more space for snow removal	Arena	Improve access to exterior plaza and sidewalk areas (Allowance)	\$0
12	Improve limited grease trap capacity	Arena	Provide additional under counter traps in concession stands	\$0
13	Need upgraded equipment	Arena	Replace follower spotlights (4)	\$0
14	Need upgraded equipment	Arena	Provide basketball floor with new finish and storage carts	\$0
15	Need upgraded equipment	Arena	Remove existing goals from structure and replace basketball goals	\$0
16	Improve inefficient electrical system	Theatre	Provide shore power at theatre	\$0
17	Improve inefficient mechanical system	Theatre	Replace steam HVAC system with ducted air system in theatre	\$0
18	Need upgraded equipment	Theatre	Replace theatre follower spotlights (2)	\$0
18	Need increased theatre rigging capacity	Theatre	Provide structural modifications for front of stage rigging system	\$0
19	Improve inadequate office areas	Theatre	Upgrade theatre office and production areas	\$0
G - Subtotal				\$5,000
CONSTRUCTION COST				\$7,595,000
FEES, FF&E, SOFT COSTS, CONTINGENCY				\$1,139,250
TOTAL - SCENARIO 1				\$8,734,250

APPENDIX E: Capital Cost Estimates

Comparison of Estimated Capital Construction, Repair & Replacement Costs over 15-Yr Projection Period

(All figures are shown in current 2018 dollars)

Scenario 2: Deferred Maintenance and Limited Renovation

ID	Issue	Space	Proposed Solution	Cost	15-Year Total Cost
A Expansion/Construction					
1	Site Acquisition	Site	Purchase of convenience store	\$0	\$0
2	Site Construction	Site	Store demolition	\$0	\$0
3	Site Construction	Site	Sitework/ utility relocation	\$0	\$0
4	Construction	Arena	FFC Demolition	\$0	\$0
5	Construction	Arena	FFC Interior Renovation	\$0	\$0
6	Construction	Arena	Roof Replacement	\$0	\$0
7	Construction	Arena	Construction of 6000 seat arena and support areas	\$0	\$0
8	Construction	Theatre	General interior renovation	\$0	\$0
A - Subtotal					\$0
B Deferred Maintenance					
1	Improve building signage	Arena	Replace existing marquee- Project has been funded	\$100,000	\$200,000
2	Improve building efficiency	Arena	Replace rooftop package HVAC unit and upgrade system	\$800,000	\$1,600,000
3	Improve building efficiency	Arena	Replace arena lighting with dimmable LED fixtures	\$300,000	\$600,000
4	Improve building efficiency	Arena	Replace hard wired dimming system	\$48,000	\$48,000
5	Improve building envelope	Arena	Replace arena roof	\$300,000	\$600,000
6	Improve building efficiency	Arena	Replace emergency generator w/ natural gas equipm't in 10 years	\$125,000	\$125,000
7	Improve building efficiency	Arena	Remove existing fuel oil tank in 10 years	\$200,000	\$200,000
8	Improve building envelope	Arena	Tuck point brick on arena	\$400,000	\$700,000
9	Improve building envelope	Arena	Insulate walls and roof	\$400,000	\$400,000
10	Improve building envelope	Arena	Add gutter and drains at entry	\$30,000	\$60,000
11	Improve building circulation	Arena	Replace elevator to bring up to code and to increase load capacity	\$150,000	\$200,000
12	Improve finishes	Arena	Paint interior of arena	\$300,000	\$600,000
13	Improve finishes	Arena	Repair concrete on arena floor	\$60,000	\$120,000
14	Improve finishes	Arena	Replace stage curtains	\$30,000	\$30,000
15	Improve building signage	Theatre	Install marquee/ awning at exterior entrance	\$60,000	\$60,000
16	Improve building efficiency	Theatre	Replace original flyrail	\$300,000	\$450,000
17	Improve building efficiency	Theatre	Prepare structural grid study	\$7,000	\$7,000
18	Improve building envelope	Theatre	Repair basement stone on theatre	\$50,000	\$50,000
19	Improve building envelope	Theatre	Tuck point brick on theatre within 10 years	\$300,000	\$75,000
20	Improve building envelope	Theatre	Replace theatre roof	\$75,000	\$375,000
21	Improve building efficiency	Theatre	Replace stage lighting and provide LED fixtures in theatre lobby	\$400,000	\$550,000
22	Improve building efficiency	Theatre	Replace rooftop package HVAC unit and upgrade system	\$100,000	\$100,000
23	Improve building efficiency	Theatre	Replace stage lighting dimmers	\$100,000	\$140,000
24	Improve finishes	Theatre	Replace window woodwork and wood structure	\$50,000	\$75,000
25	Improve finishes	Theatre	Replace stage curtains	\$50,000	\$80,000
26	Improve finishes	Theatre	Replace stage wood floor	\$25,000	\$25,000
27	Improve finishes	Theatre	Paint interior of theatre and repair plaster	\$60,000	\$120,000
B - Subtotal					\$7,590,000
C Life Safety / Code Compliance					
1	Increase space on sidewalk	Arena	Remove entry vestibule and rework entrance	\$110,000	\$110,000
2	Provide added safety devices	Arena	Add defibrulators and oxygen recharging stations	\$15,000	\$15,000
3	Increase access to seating	Arena	Move dressing rooms to open up eastern entrance - No solution	\$0	\$0
4	Increase entrance/ exit capacity	Arena	Add doors to exterior walls	\$24,000	\$48,000
5	Increase entrance/ exit capacity	Arena	Provide added exits in north wall - No solution	\$0	\$0
6	Improve fall protection in theatre	Theater	Provide fall protection and roof rails	\$85,000	\$125,000
7	Need EMS access to balconies	Theater	Provide new elevator with access to all levels with new platforms	\$250,000	\$285,000
C - Subtotal					\$583,000
D Security					
1	Increase limited visual surveillance	Arena	Provide video camera system and security office for arena/theatre	\$250,000	\$350,000
2	Need protective barriers at exterior	Arena	Add precast concrete bollards at entrances (24)	\$50,000	\$50,000
3	Need detention area	Arena	Provide security office	\$35,000	\$35,000
4	Improve poor box office security	Arena	Relocate box office with up to date systems	\$85,000	\$130,000
5	Improve poor box office security	Theater	Provide safe alarm for box offices	\$15,000	\$15,000
D - Subtotal					\$580,000
E Event Marketability					

APPENDIX E: Capital Cost Estimates

Comparison of Estimated Capital Construction, Repair & Replacement Costs over 15-Yr Projection Period

(All figures are shown in current 2018 dollars)

Scenario 2: Deferred Maintenance and Limited Renovation

ID	Issue	Space	Proposed Solution	Cost	15-Year Total Cost
1	Improve building access	Arena	Adjust mailing address to agree with main entrance	\$0	\$0
2	Improve building access	Arena	Replace ADA ramps to reduce slope	\$17,500	\$17,500
3	Reduce pull weight of entrance doors	Arena	Replace exterior door closers (22)	\$5,500	\$5,500
4	Premium seating	Arena	Provide club seating	\$150,000	\$150,000
5	Premium seating	Arena	Provide private and party suites - No solution	\$0	\$0
6	Cannot use dressing rooms in summer	Arena	Provide air conditioning and heat in locker/ dressing rooms	\$300,000	\$400,000
7	Increase dressing room capacity	Arena	Provide 6 large and 2 small dressing rooms - No solution	\$0	\$0
8	Improve sound seal at Blue wall	Arena	Replace operable wall and add east/west walls	\$505,000	\$505,000
9	Need increased arena seating capacity	Arena	No solution	\$0	\$0
10	Need increased arena seating capacity	Arena	Add seating sections to the north and east	\$0	\$0
11	Improve inadequate exhaust system	Arena	Provide smoke exhaust system	\$250,000	\$250,000
12	Cannot create ice in warm weather	Arena	No solution	\$0	\$0
13	Cannot create ice in warm weather	Arena	Provide new ice floor	\$0	\$0
13	Provide flexible seating arrangements	Arena	Replace telescopic seating with seating in separate sections	\$1,300,000	\$1,300,000
14	Increase rigging capacity and capability	Arena	Provide expanded rigging grid and provide 150,000 pound capacity	\$80,000	\$80,000
15	Increase height to bottom of structure	Arena	No solution	\$0	\$0
16	Provide better identification of entrances	Arena	Provide enhanced exterior entrance design	\$250,000	\$350,000
17	Need increased catering capacity	Arena	Provide catering kitchen - No solution	\$0	\$0
18	Improve event capability	Arena	Provide portable staging and risers	\$85,000	\$85,000
19	Improve event capability	Arena	Provide folding tables	\$25,000	\$25,000
20	Need adequate wing space for stage	Theater	No solution	\$0	\$0
21	Need adequate dressing rooms	Theater	Renovate basement area to provide new dressing rooms	\$150,000	\$150,000
22	Increase rigging for sound system	Theater	Provide rigging points above the stage in the fly loft	\$35,000	\$35,000
23	Need adequate space in orchestra pit	Theater	Rework orchestra pit floor and add lift	\$300,000	\$300,000
24	Improve event capability	Theater	Provide concert grand piano for theatre and arena	\$180,000	\$180,000
25	Improve event capability	Theater	Provide upright piano	\$17,500	\$17,500
26	Improve event capability	Theater	Provide folding tables	\$15,000	\$15,000
27	Improve event capability	Theater	Provide Street Level offices for the Symphony	\$0	\$0
28	Improve small theatre facility	Theater	Provide upgrades for black box theatre (Allowance)	\$150,000	\$225,000
29	Increase theatre seating capacity	Theater	Renovate third floor balcony (Allowance) in 10 years	\$350,000	\$350,000
E - Subtotal					\$4,440,500
F Patron Amenities					
1	Improve poor wi-fi access	Arena	Provide updated wi-fi system	\$250,000	\$450,000
2	Provide weather cover at entrance	Arena	Add entrance canopy	\$75,000	\$75,000
3	Improve ADA and box office access	Arena	Provide drop-off at new entrance (See Life Safety item above)	\$0	\$0
4	Need improved ADA access	Arena	Renovate existing toilets	\$1,000,000	\$1,000,000
5	Need improved concession service	Arena	Replace concession equipment	\$60,000	\$250,000
6	Need improved concession service	Arena	Renovate concession stands and provide mobile carts	\$800,000	\$1,300,000
7	Need improved concession service	Arena	Provide additional concession stands	\$0	\$0
8	Improve concourse finishes/ acoustics	Arena	Replace concourse carpet and floor tile without grout joints	\$150,000	\$210,000
9	Provide stroller and wheelchair storage	Arena	Provide new closet in concourse	\$15,000	\$15,000
10	Limited hospitality and concourse areas	Arena	Provide hospitality area and party suites - No solution	\$0	\$0
11	Improve poor theatre acoustics	Arena	Provide added sound absorption and reflective clouds	\$65,000	\$65,000
12	Improve patron comfort	Arena	Replace 1500 fixed seats	\$300,000	\$300,000
13	Improve patron comfort	Arena	Replace 2400 riser seats	\$1,560,000	\$1,560,000
14	Improve room acoustics	Arena	Replace arena sound system	\$550,000	\$825,000
15	Need increased toilet capacity	Theater	Renovate back existing toilet not being used	\$75,000	\$75,000
16	Improve finishes in theatre	Theater	Replace concourse carpet and floor tile without grout joints	\$45,000	\$65,000
17	Need larger theatre lobby	Theater	Renovate arena concourse to serve as expanded theatre lobby	\$65,000	\$65,000
18	Improve patron comfort	Theater	Renovate theatre historic seating	\$187,500	\$375,000
19	Improve room acoustics	Theater	Replace sound system	\$100,000	\$170,000
F - Subtotal					\$6,800,000
G Operations					
1	Need 2" deck under telescopic seating	Arena	Provide 2" concrete fill under west telescopic risers	\$27,500	\$27,500
2	Improve inefficient electrical systems	Arena	Increase electrical capacity (1200 amps) and provide shore power	\$175,000	\$175,000
3	Improve inefficient electrical systems	Arena	Replace feeder cable with 4/0, 5 wire cable	\$5,000	\$5,000
4	Improve inadequate loading areas	Arena	Provide loading dock with 3 service bays and compactor	\$75,000	\$75,000
5	Improve number and image of offices	Arena	Renovate existing administrative office area	\$210,000	\$210,000
6	Upgrade production capabilities	Arena	Remodel press box as a production area	\$75,000	\$75,000
7	Upgrade production capabilities	Arena	Provide arena curtain trussing	\$50,000	\$50,000

APPENDIX E: Capital Cost Estimates
Comparison of Estimated Capital Construction, Repair & Replacement Costs over 15-Yr Projection Period
 (All figures are shown in current 2018 dollars)

Scenario 2: Deferred Maintenance and Limited Renovation					
ID	Issue	Space	Proposed Solution	Cost	15-Year Total Cost
8	Upgrade production capabilities	Arena	Provide 21 chain hoists	\$85,000	\$170,000
9	Upgrade production capabilities	Arena	Provide 2 chain hoist motor controls and control cable	\$20,000	\$40,000
10	Upgrade production capabilities	Arena	Provide double hung lighting truss	\$0	\$100,000
11	Need more space for snow removal	Arena	Improve access to exterior plaza and sidewalk areas (Allowance)	\$0	\$25,000
12	Improve limited grease trap capacity	Arena	Provide additional under counter traps in concession stands	\$0	\$40,000
13	Need upgraded equipment	Arena	Replace follower spotlights (4)	\$0	\$100,000
14	Need upgraded equipment	Arena	Provide basketball floor with new finish and storage carts	\$0	\$300,000
15	Need upgraded equipment	Arena	Remove existing goals from structure and replace basketball goals	\$0	\$100,000
16	Improve inefficient electrical systems	Theatre	Provide shore power at theatre	\$0	\$75,000
17	Improve inefficient mechanical systems	Theatre	Replace steam HVAC system with ducted air system in theatre	\$0	\$500,000
18	Need upgraded equipment	Theatre	Replace theatre follower spotlights (2)	\$0	\$50,000
18	Need increased theatre rigging capacity	Theatre	Provide structural modifications for front of stage rigging system	\$0	\$300,000
19	Improve inadequate office areas	Theatre	Upgrade theatre office and production areas	\$0	\$50,000
G - Subtotal					\$2,467,500
CONSTRUCTION COST					\$22,461,000
FEES, FF&E, SOFT COSTS, CONTINGENCY					\$3,369,150
TOTAL - SCENARIO 2					\$25,830,150

APPENDIX E: Capital Cost Estimates

Comparison of Estimated Capital Construction, Repair & Replacement Costs over 15-Yr Projection Period

(All figures are shown in current 2018 dollars)

Scenario 3: Deferred Maintenance, Interior Theatre Renovation, and Addition to Existing Five Flags Center

ID	Issue	Space	Proposed Solution	Cost	15-Year Total Cost
A Expansion/Construction					
1	Site Acquisition	Site	Purchase of convenience store	\$1,000,000	\$1,000,000
2	Site Construction	Site	Store demolition	\$125,000	\$125,000
3	Site Construction	Site	Sitework/ utility relocation	\$2,500,000	\$2,500,000
4	Construction	Arena	FFC Demolition	\$0	\$0
5	Construction	Arena	FFC Interior Renovation	\$5,920,685	\$5,920,585
6	Construction	Arena	Roof Replacement	\$3,100,800	\$3,100,800
7	Construction	Arena	Construction of 6000 seat arena addition and support areas	\$20,145,550	\$20,145,550
8	Construction	Theatre	General interior renovation	\$1,190,930	\$1,190,930
A - Subtotal					\$33,982,865
B Deferred Maintenance					
1	Improve building signage	Arena	Replace existing marquee- Project has been funded	\$100,000	\$100,000
2	Improve building efficiency	Arena	Replace rooftop package HVAC unit and upgrade system	\$0	\$0
3	Improve building efficiency	Arena	Replace arena lighting with dimmable LED fixtures	\$0	\$0
4	Improve building efficiency	Arena	Replace hard wired dimming system	\$0	\$0
5	Improve building envelope	Arena	Replace arena roof	\$0	\$0
6	Improve building efficiency	Arena	Replace emergency generator w/ natural gas equipm't in 10 years	\$0	\$0
7	Improve building efficiency	Arena	Remove existing fuel oil tank in 10 years	\$0	\$0
8	Improve building envelope	Arena	Tuck point brick on arena	\$400,000	\$700,000
9	Improve building envelope	Arena	Insulate walls and roof	\$0	\$0
10	Improve building envelope	Arena	Add gutter and drains at entry	\$0	\$0
11	Improve building circulation	Arena	Replace elevator to bring up to code - In construction cost	\$0	\$0
12	Improve finishes	Arena	Paint interior of arena	\$0	\$0
13	Improve finishes	Arena	Repair concrete on arena floor	\$60,000	\$120,000
14	Improve finishes	Arena	Replace stage curtains - In construction cost	\$0	\$0
15	Improve building signage	Theatre	Install marquee/ awning at exterior entrance	\$60,000	\$60,000
16	Improve building efficiency	Theatre	Replace original flyrail	\$300,000	\$450,000
17	Improve building efficiency	Theatre	Prepare structural grid study	\$7,000	\$7,000
18	Improve building envelope	Theatre	Repair basement stone on theatre	\$50,000	\$50,000
19	Improve building envelope	Theatre	Tuck point brick on theatre within 10 years	\$300,000	\$300,000
20	Improve building envelope	Theatre	Replace theatre roof	\$75,000	\$150,000
21	Improve building efficiency	Theatre	Replace stage lighting and provide LED fixtures in theatre lobby	\$400,000	\$550,000
22	Improve building efficiency	Theatre	Replace rooftop package HVAC unit and upgrade system	\$100,000	\$100,000
23	Improve building efficiency	Theatre	Replace stage lighting dimmers	\$100,000	\$140,000
24	Improve finishes	Theatre	Replace window woodwork and wood structure	\$50,000	\$75,000
25	Improve finishes	Theatre	Replace stage curtains	\$50,000	\$80,000
26	Improve finishes	Theatre	Replace stage wood floor	\$25,000	\$25,000
27	Improve finishes	Theatre	Paint interior of theatre and repair plaster	\$60,000	\$120,000
B - Subtotal					\$3,027,000
C Life Safety / Code Compliance					
1	Increase space on sidewalk	Arena	Remove entry vestibule and rework entrance	\$0	\$0
2	Provide added safety devices	Arena	Add defibrillators and oxygen recharging stations	\$15,000	\$15,000
3	Increase access to seating	Arena	Move dressing rooms at eastern entrance - In construction cost	\$0	\$0
4	Increase entrance/ exit capacity	Arena	Add doors to exterior walls	\$0	\$0
5	Increase entrance/ exit capacity	Arena	Provide added exits in north wall - In construction cost	\$0	\$0
6	Improve fall protection in theatre	Theater	Provide fall protection and roof rails	\$85,000	\$125,000
7	Need EMS access to balconies	Theater	Provide new elevator with access to all levels with new platforms	\$250,000	\$285,000
C - Subtotal					\$425,000
D Security					
1	Increase limited visual surveillance	Arena	Provide video camera system and security office for arena/theatre	\$250,000	\$350,000
2	Need protective barriers at exterior	Arena	Add precast concrete bollards at entrances (24)	\$50,000	\$50,000
3	Need detention area	Arena	Provide security office - In construction cost	\$0	\$0
4	Improve poor box office security	Arena	Relocate box office with up to date systems - In construction cost	\$0	\$0
5	Improve poor box office security	Theater	Provide safe alarm for box offices - In construction cost	\$0	\$0
D - Subtotal					\$400,000

APPENDIX E: Capital Cost Estimates

Comparison of Estimated Capital Construction, Repair & Replacement Costs over 15-Yr Projection Period
(All figures are shown in current 2018 dollars)

Scenario 3: Deferred Maintenance, Interior Theatre Renovation, and Addition to Existing Five Flags Center

ID	Issue	Space	Proposed Solution	15-Year	
				Cost	Total Cost
E Event Marketability					
1	Improve building access	Arena	Adjust mailing address to agree with main entrance	\$0	\$0
2	Improve building access	Arena	Replace ADA ramps to reduce slope	\$0	\$0
3	Reduce pull weight of entrance doors	Arena	Replace exterior door closers (22)	\$0	\$0
4	Premium seating	Arena	Provide club seating	\$0	\$0
5	Premium seating	Arena	Provide private and party suites - In construction cost	\$0	\$0
6	Cannot use dressing rooms in summer	Arena	Provide HVAC to locker/ dressing rooms- In construction cost	\$0	\$0
7	Increase dressing room capacity	Arena	Provide 6 large and 2 small dressing rooms- In construction cost	\$0	\$0
8	Improve sound seal at Blue wall	Arena	Replace operable wall - In construction cost	\$0	\$0
9	Need increased arena seating capacity	Arena	Add seating sections to the north and east - In construction cost	\$0	\$0
10	Improve inadequate exhaust system	Arena	Provide smoke exhaust system- In construction cost	\$0	\$0
11	Cannot create ice in warm weather	Arena	Provide new ice floor - In construction cost	\$0	\$0
12	Provide flexible seating arrangements	Arena	Replace telescopic seating with seating in separate sections	\$1,300,000	\$1,300,000
13	Increase rigging capacity and capability	Arena	Provide 150,000 pound rigging grid - In construction cost	\$0	\$0
14	Increase height to bottom of structure	Arena	Remove existing structure and raise roof - In construction cost	\$0	\$0
15	Provide better identification of entrances	Arena	Provide enhanced exterior entrance design - In construction cost	\$0	\$0
16	Need increased catering capacity	Arena	Provide catering kitchen - In construction cost	\$0	\$0
17	Improve event capability	Arena	Provide portable staging and risers - In FF&E	\$0	\$0
18	Improve event capability	Arena	Provide folding tables - In FF&E	\$0	\$0
19	Need adequate wing space for stage	Theater	No solution	\$0	\$0
20	Need adequate dressing rooms	Theater	Renovate Street Level for new dressing rooms - In construction cost	\$0	\$0
21	Increase rigging for sound system	Theater	Provide rigging points above the stage in the fly loft	\$35,000	\$35,000
22	Need adequate space in orchestra pit	Theater	Rework orchestra pit floor and add lift	\$300,000	\$300,000
23	Improve event capability	Theater	Provide upright piano	\$17,500	\$17,500
24	Improve event capability	Theater	Provide concert grand piano for theatre and arena	\$180,000	\$180,000
25	Improve event capability	Theater	Provide folding tables - In FF&E	\$0	\$0
26	Improve event capability	Theater	Provide Street Level offices for Symphony - In construction cost	\$0	\$0
27	Improve small theatre facility	Theater	Provide upgrades for black box theatre (Allowance)	\$150,000	\$225,000
28	Increase theatre seating capacity	Theater	Renovate third floor balcony (Allowance) in 10 years	\$350,000	\$350,000
E - Subtotal					\$2,407,500
F Patron Amenities					
1	Improve poor wi-fi access	Arena	Provide updated wi-fi system - In construction cost	\$0	\$0
2	Provide weather cover at entrance	Arena	Add entrance canopy - In construction cost	\$0	\$0
3	Improve ADA and box office access	Arena	Provide drop-off at new entrance (See Life Safety item above)	\$0	\$0
4	Need improved ADA access	Arena	Renovate existing toilets and add fixtures - In construction cost	\$0	\$0
5	Need improved concession service	Arena	Replace concession equipment	\$60,000	\$250,000
6	Need improved concession service	Arena	Renovate concession stands and add mobile carts - In construction cost	\$0	\$0
7	Need improved concession service	Arena	Add concession stands and merchandising - In construction cost	\$0	\$0
8	Improve concourse finishes/ acoustics	Arena	Replace concourse carpet and floor tile without grout joints - In construction cost	\$0	\$0
9	Provide stroller and wheelchair storage	Arena	Provide new closet in concourse - In construction cost	\$0	\$0
10	Limited hospitality and concourse areas	Arena	Provide hospitality area and party suites - In construction cost	\$0	\$0
11	Improve poor theatre acoustics	Arena	Provide added sound absorption and reflective clouds	\$65,000	\$65,000
12	Improve patron comfort	Arena	Replace 1500 fixed seats	\$337,500	\$337,500
13	Improve patron comfort	Arena	Replace 2400 riser seats	\$0	\$0
14	Improve room acoustics	Arena	Replace arena sound system - In construction cost	\$0	\$0
15	Need increased toilet capacity	Theater	Provide new Street Level toilets - In construction cost	\$0	\$0
16	Improve finishes in theatre	Theater	Replace concourse carpet and floor tile without grout joints	\$45,000	\$65,000
17	Need larger theatre lobby	Theater	Renovate Street Level as expanded theatre lobby - In construction cost	\$0	\$0
18	Improve patron comfort	Theater	Renovate theatre historic seating	\$187,500	\$375,000
19	Improve room acoustics	Theater	Replace sound system	\$100,000	\$170,000
F - Subtotal					\$1,262,500
G Operations					
1	Need 2" deck under telescopic seating	Arena	Provide 2" concrete fill under west telescopic risers - In construction cost	\$0	\$0
2	Improve inefficient electrical systems	Arena	Increase electrical capacity (1200 amps) and provide shore power - In construction cost	\$0	\$0
3	Improve inefficient electrical systems	Arena	Replace feeder cable with 4/0, 5 wire cable - In construction cost	\$0	\$0
4	Improve inadequate loading areas	Arena	Provide loading dock with 3 service bays and compactor - In construction cost	\$0	\$0
5	Improve number and image of offices	Arena	Renovate existing administrative office area - In construction cost	\$0	\$0

APPENDIX E: Capital Cost Estimates

Comparison of Estimated Capital Construction, Repair & Replacement Costs over 15-Yr Projection Period

(All figures are shown in current 2018 dollars)

Scenario 3: Deferred Maintenance, Interior Theatre Renovation, and Addition to Existing Five Flags Center					15-Year		
ID	Issue	Space	Proposed Solution	Cost	Total Cost		
6	Upgrade production capabilities	Arena	Remodel press box as a production area - In construction cost	\$0	\$0		
7	Upgrade production capabilities	Arena	Provide arena curtain trussing - In construction cost	\$0	\$0		
8	Upgrade production capabilities	Arena	Provide 21 chain hoists	\$85,000	\$170,000		
9	Upgrade production capabilities	Arena	Provide 2 chain hoist motor controls and control cable	\$20,000	\$40,000		
10	Upgrade production capabilities	Arena	Provide double hung lighting truss - In construction cost	\$0	\$0		
11	Need more space for snow removal	Arena	Improve access to exterior plaza and sidewalk areas - In construction c	\$0	\$0		
12	Improve limited grease trap capacity	Arena	Provide additional under counter traps in concession stands - In constrn	\$0	\$0		
13	Need upgraded equipment	Arena	Replace follower spotlights (4) - In FF&E	\$0	\$0		
14	Need upgraded equipment	Arena	Provide basketball floor with new finish and storage carts - In FF&E	\$0	\$0		
15	Need upgraded equipment	Arena	Remove existing goals from structure and replace basketball goals - In	\$0	\$0		
16	Improve staff efficiency	Arena	Provide 2 production offices - In Construction Cost	\$0	\$0		
17	Eliminate circulation conflicts	Arena	Provide new dressing rooms on north side - In Construction Cost	\$0	\$0		
18	Eliminate circulation conflicts	Arena	Provide storage space on north side - In Construction Cost	\$0	\$0		
19	Need storage space	Arena	Provide staging space in the back-of-house - In Construction Cost	\$0	\$0		
20	Improve proximity of concession storage	Arena	Provide centrally located commissary - In Construction Cost	\$0	\$0		
21	Need cold concession storage	Arena	Provide cold storage in each new stand - In Construction Cost	\$0	\$0		
22	Need more food prep space for catering	Arena	Provide catering kitchen - In Construction Cost	\$0	\$0		
23	Need more space for tomado protection	Arena	Provide added safe areas - In Construction Cost	\$0	\$0		
24	Need space for scene shop and storage	Theatre	Renovate Street Level to create space - In Construction Cost	\$0	\$0		
25	Improve inefficient electrical systems	Theatre	Provide shore power at theatre	\$75,000	\$75,000		
26	Improve inefficient mechanical systems	Theatre	Replace steam HVAC system with ducted air system in theatre	\$500,000	\$500,000		
27	Need upgraded equipment	Theatre	Replace theatre follower spotlights (2)	\$30,000	\$50,000		
28	Need increased theatre rigging capacity	Theatre	Provide structural modifications for front of stage rigging system	\$300,000	\$300,000		
29	Improve inadequate office areas	Theatre	Upgrade theatre office and production areas - In construction cost	\$0	\$0		
G - Subtotal						\$1,135,000	
CONSTRUCTION COST						\$42,639,865	
FEES, FF&E, SOFT COSTS, CONTINGENCY						\$6,395,980	
TOTAL - SCENARIO 3						\$49,035,845	

APPENDIX E: Capital Cost Estimates

Comparison of Estimated Capital Construction, Repair & Replacement Costs over 15-Yr Projection Period

(All figures are shown in current 2018 dollars)

Scenario 4: Deferred Maintenance, Interior Theatre Renovation, and New Arena Construction

ID	Issue	Space	Proposed Solution	Cost	15-Year Total Cost
A Expansion/Construction					
1	Site Acquisition	Site	Purchase of convenience store	\$1,000,000	\$1,000,000
2	Site Construction	Site	Store demolition	\$125,000	\$125,000
3	Site Construction	Site	Sitework/ utility relocation	\$2,750,000	\$2,750,000
4	Construction	Arena	FFC Demolition	\$1,345,212	\$1,345,212
5	Construction	Arena	FFC Interior Renovation	\$142,500	\$142,500
6	Construction	Arena	Roof Replacement	\$0	\$0
7	Construction	Arena	Construction of 6000 seat arena and support areas	\$48,847,870	\$48,847,870
8	Construction	Theatre	General interior renovation	\$856,635	\$856,635
A - Subtotal					\$55,067,217
B Deferred Maintenance					
1	Improve building signage	Arena	Replace existing marquee- Project has been funded	\$100,000	\$100,000
2	Improve building efficiency	Arena	Replace rooftop package HVAC unit and upgrade system	\$0	\$0
3	Improve building efficiency	Arena	Replace arena lighting with dimmable LED fixtures	\$0	\$0
4	Improve building efficiency	Arena	Replace hard wired dimming system	\$0	\$0
5	Improve building envelope	Arena	Replace arena roof	\$0	\$0
6	Improve building efficiency	Arena	Replace emergency generator w/ natural gas equipm't in 10 years	\$0	\$0
7	Improve building efficiency	Arena	Remove existing fuel oil tank in 10 years	\$0	\$0
8	Improve building envelope	Arena	Tuck point brick on arena	\$400,000	\$700,000
9	Improve building envelope	Arena	Insulate walls and roof	\$0	\$0
10	Improve building envelope	Arena	Add gutter and drains at entry	\$0	\$0
11	Improve building circulation	Arena	Replace elevator to bring up to code - In construction cost	\$0	\$0
12	Improve finishes	Arena	Paint interior of arena	\$0	\$0
13	Improve finishes	Arena	Repair concrete on arena floor	\$60,000	\$120,000
14	Improve finishes	Arena	Replace stage curtains - In construction cost	\$0	\$0
15	Improve building signage	Theatre	Install marquee/ awning at exterior entrance	\$60,000	\$60,000
16	Improve building efficiency	Theatre	Replace original flyrail	\$300,000	\$450,000
17	Improve building efficiency	Theatre	Prepare structural grid study	\$7,000	\$7,000
18	Improve building envelope	Theatre	Repair basement stone on theatre	\$50,000	\$50,000
19	Improve building envelope	Theatre	Tuck point brick on theatre within 10 years	\$300,000	\$300,000
20	Improve building envelope	Theatre	Replace theatre roof	\$75,000	\$150,000
21	Improve building efficiency	Theatre	Replace stage lighting and provide LED fixtures in theatre lobby	\$400,000	\$550,000
22	Improve building efficiency	Theatre	Replace rooftop package HVAC unit and upgrade system	\$100,000	\$100,000
23	Improve building efficiency	Theatre	Replace stage lighting dimmers	\$100,000	\$140,000
24	Improve finishes	Theatre	Replace window woodwork and wood structure	\$50,000	\$75,000
25	Improve finishes	Theatre	Replace stage curtains	\$50,000	\$80,000
26	Improve finishes	Theatre	Replace stage wood floor	\$25,000	\$25,000
27	Improve finishes	Theatre	Paint interior of theatre and repair plaster	\$60,000	\$120,000
B - Subtotal					\$3,027,000
C Life Safety / Code Compliance					
1	Increase space on sidewalk	Arena	Remove entry vestibule and rework entrance	\$0	\$0
2	Provide added safety devices	Arena	Add defibrulators and oxygen recharging stations	\$15,000	\$15,000
3	Increase access to seating	Arena	Move dressing rooms at eastern entrance - In construction cost	\$0	\$0
4	Increase entrance/ exit capacity	Arena	Add doors to exterior walls	\$0	\$0
5	Increase entrance/ exit capacity	Arena	Provide added exits in north wall - In construction cost	\$0	\$0
6	Improve fall protection in theatre	Theater	Provide fall protection and roof rails	\$85,000	\$125,000
7	Need EMS access to balconies	Theater	Provide new elevator with access to all levels with new platforms	\$250,000	\$285,000
C - Subtotal					\$425,000
D Security					
1	Increase limited visual surveillance	Arena	Provide video camera system and security office for arena/theatre	\$250,000	\$350,000
2	Need protective barriers at exterior	Arena	Add precast concrete bollards at entrances (24)	\$50,000	\$50,000
3	Need detention area	Arena	Provide security office - In construction cost	\$0	\$0
4	Improve poor box office security	Arena	Relocate box office with up to date systems - In construction cost	\$0	\$0
5	Improve poor box office security	Theater	Provide safe alarm for box offices - In construction cost	\$0	\$0
D - Subtotal					\$400,000
E Event Marketability					

APPENDIX E: Capital Cost Estimates

Comparison of Estimated Capital Construction, Repair & Replacement Costs over 15-Yr Projection Period

(All figures are shown in current 2018 dollars)

Scenario 4: Deferred Maintenance, Interior Theatre Renovation, and New Arena Construction					
ID	Issue	Space	Proposed Solution	Cost	15-Year Total Cost
1	Improve building access	Arena	Adjust mailing address to agree with main entrance	\$0	\$0
2	Improve building access	Arena	Replace ADA ramps to reduce slope	\$0	\$0
3	Reduce pull weight of entrance doors	Arena	Replace exterior door closers (22)	\$0	\$0
4	Premium seating	Arena	Provide club seating	\$0	\$0
5	Premium seating	Arena	Provide private and party suites - In construction cost	\$0	\$0
6	Cannot use dressing rooms in summer	Arena	Provide HVAC to locker/ dressing rooms- In construction cost	\$0	\$0
7	Increase dressing room capacity	Arena	Provide 6 large and 2 small dressing rooms- In construction cost	\$0	\$0
8	Improve sound seal at Blue wall	Arena	Replace operable wall - In construction cost	\$0	\$0
9	Need increased arena seating capacity	Arena	Add seating sections to the north and east - In construction cost	\$0	\$0
10	Improve inadequate exhaust system	Arena	Provide smoke exhaust system- In construction cost	\$0	\$0
11	Cannot create ice in warm weather	Arena	Provide new ice floor - In construction cost	\$0	\$0
12	Provide flexible seating arrangements	Arena	Replace telescopic seating with seating in separate sections - In constru	\$0	\$0
13	Increase rigging capacity and capability	Arena	Provide 150,000 pound rigging grid - In construction cost	\$0	\$0
14	Increase height to bottom of structure	Arena	Remove existing structure and raise roof - In construction cost	\$0	\$0
15	Provide better identification of entrances	Arena	Provide enhanced exterior entrance design - In construction cost	\$0	\$0
16	Need increased catering capacity	Arena	Provide catering kitchen - In construction cost	\$0	\$0
17	Improve event capability	Arena	Provide portable staging and risers - In FF&E	\$0	\$0
18	Improve event capability	Arena	Provide folding tables - In FF&E	\$0	\$0
19	Need adequate wing space for stage	Theater	No solution	\$0	\$0
20	Need adequate dressing rooms	Theater	Renovate Street Level for new dressing rooms - In construction cost	\$0	\$0
21	Increase rigging for sound system	Theater	Provide rigging points above the stage in the fly loft	\$35,000	\$35,000
22	Need adequate space in orchestra pit	Theater	Rework orchestra pit floor and add lift	\$300,000	\$300,000
23	Improve event capability	Theater	Provide concert grand piano for theatre and arena	\$180,000	\$180,000
24	Improve event capability	Theater	Provide upright piano	\$17,500	\$17,500
25	Improve event capability	Theater	Provide folding tables - In FF&E	\$0	\$0
26	Improve event capability	Theater	Provide Street Level offices for Symphony - In construction cost	\$0	\$0
27	Improve small theatre facility	Theater	Provide upgrades for black box theatre (Allowance)	\$150,000	\$225,000
28	Increase theatre seating capacity	Theater	Renovate third floor balcony (Allowance) in 10 years	\$350,000	\$350,000
E - Subtotal					\$1,107,500
F Patron Amenities					
1	Improve poor wi-fi access	Arena	Provide updated wi-fi system - In construction cost	\$0	\$0
2	Provide weather cover at entrance	Arena	Add entrance canopy - In construction cost	\$0	\$0
3	Improve ADA and box office access	Arena	Provide drop-off at new entrance (See Life Safety item above)	\$0	\$0
4	Need improved ADA access	Arena	Renovate existing toilets and add fixtures - In construction cost	\$0	\$0
5	Need improved concession service	Arena	Replace concession equipment	\$60,000	\$250,000
6	Need improved concession service	Arena	Renovate concession stands and add mobile carts - In construction cost	\$0	\$0
7	Need improved concession service	Arena	Add concession stands and merchandising - In construction cost	\$0	\$0
8	Improve concourse finishes/ acoustics	Arena	Replace concourse carpet and floor tile without grout joints - In construc	\$0	\$0
9	Provide stroller and wheelchair storage	Arena	Provide new closet in concourse - In construction cost	\$0	\$0
10	Limited hospitality and concourse areas	Arena	Provide hospitality area and party suites - In construction cost	\$0	\$0
11	Improve poor theatre acoustics	Arena	Provide added sound absorption and reflective clouds	\$65,000	\$65,000
12	Improve patron comfort	Arena	Replace 1500 fixed seats	\$0	\$0
13	Improve patron comfort	Arena	Replace 2400 riser seats - In construction cost	\$0	\$0
14	Improve room acoustics	Arena	Replace arena sound system - In construction cost	\$0	\$0
15	Need increased toilet capacity	Theater	Provide new Street Level toilets - In construction cost	\$0	\$0
16	Improve finishes in theatre	Theater	Replace concourse carpet and floor tile without grout joints	\$45,000	\$65,000
17	Need larger theatre lobby	Theater	Renovate Street Level as expanded theatre lobby - In construction cost	\$0	\$0
18	Improve patron comfort	Theater	Renovate theatre historic seating	\$187,500	\$375,000
19	Improve room acoustics	Theater	Replace sound system	\$100,000	\$170,000
F - Subtotal					\$925,000
G Operations					
1	Need 2" deck under telescopic seating	Arena	Provide 2" concrete fill under west telescopic risers - In construction cost	\$0	\$0
2	Improve inefficient electrical systems	Arena	Increase electrical capacity (1200 amps) and provide shore power - In co	\$0	\$0
3	Improve inefficient electrical systems	Arena	Replace feeder cable with 4/0, 5 wire cable - In construction cost	\$0	\$0
4	Improve inadequate loading areas	Arena	Provide loading docks with compactor - In construction cost	\$0	\$0
5	Improve number and image of offices	Arena	Renovate existing administrative office area - In construction cost	\$0	\$0
6	Upgrade production capabilities	Arena	Remodel press box as a production area - In construction cost	\$0	\$0
7	Upgrade production capabilities	Arena	Provide arena curtain trussing - In construction cost	\$0	\$0

APPENDIX E: Capital Cost Estimates

Comparison of Estimated Capital Construction, Repair & Replacement Costs over 15-Yr Projection Period

(All figures are shown in current 2018 dollars)

Scenario 4: Deferred Maintenance, Interior Theatre Renovation, and New Arena Construction					
ID	Issue	Space	Proposed Solution	Cost	15-Year Total Cost
8	Upgrade production capabilities	Arena	Provide 21 chain hoists	\$85,000	\$170,000
9	Upgrade production capabilities	Arena	Provide 2 chain hoist motor controls and control cable	\$20,000	\$40,000
10	Upgrade production capabilities	Arena	Provide double hung lighting truss - In construction cost	\$0	\$0
11	Need more space for snow removal	Arena	Improve access to exterior plaza and sidewalk areas - In construction cost	\$0	\$0
12	Improve limited grease trap capacity	Arena	Provide additional under counter traps in concession stands - In construction cost	\$0	\$0
13	Need upgraded equipment	Arena	Replace follower spotlights (4) - In FF&E	\$0	\$0
14	Need upgraded equipment	Arena	Provide basketball floor with new finish and storage carts - In FF&E	\$0	\$0
15	Need upgraded equipment	Arena	Remove existing goals from structure and replace basketball goals - In FF&E	\$0	\$0
16	Improve staff efficiency	Arena	Provide 2 production offices - In Construction Cost	\$0	\$0
17	Eliminate circulation conflicts	Arena	Provide new dressing rooms on north side - In Construction Cost	\$0	\$0
18	Eliminate circulation conflicts	Arena	Provide storage space on north side - In Construction Cost	\$0	\$0
19	Need storage space	Arena	Provide staging space in the back-of-house - In Construction Cost	\$0	\$0
20	Improve proximity of concession storage	Arena	Provide centrally located commissary - In Construction Cost	\$0	\$0
21	Need cold concession storage	Arena	Provide cold storage in each new stand - In Construction Cost	\$0	\$0
22	Need more food prep space for catering	Arena	Provide catering kitchen - In Construction Cost	\$0	\$0
23	Need more space for tornado protection	Arena	Provide added safe areas - In Construction Cost	\$0	\$0
24	Need space for scene shop and storage	Theatre	Renovate Street Level to create space - In Construction Cost	\$0	\$0
25	Improve inefficient electrical systems	Theatre	Provide shore power at theatre	\$75,000	\$75,000
26	Improve inefficient mechanical systems	Theatre	Replace steam HVAC system with ducted air system in theatre	\$500,000	\$500,000
27	Need upgraded equipment	Theatre	Replace theatre follower spotlights (2)	\$30,000	\$50,000
28	Need increased theatre rigging capacity	Theatre	Provide structural modifications for front of stage rigging system	\$300,000	\$300,000
29	Improve inadequate office areas	Theatre	Upgrade theatre office and production areas - In construction cost	\$0	\$0
G - Subtotal					\$1,135,000
CONSTRUCTION COST					\$62,086,717
FEES, FF&E, SOFT COSTS, CONTINGENCY					\$9,313,008
TOTAL - SCENARIO 4					\$71,399,725

APPENDIX E: Capital Cost Estimates

Comparison of Estimated Capital Construction, Repair & Replacement Costs over 15-Yr Projection Period
(All figures are shown in current 2018 dollars)

Upfront Capital Costs

Cost By Type	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Expansion/Construction	\$0	\$0	\$33,982,865	\$55,067,217
Deferred Maintenance	\$4,070,000	\$4,070,000	\$1,712,000	\$1,712,000
Life Safety / Code Compliance	\$0	\$484,000	\$350,000	\$350,000
Security	\$0	\$435,000	\$300,000	\$300,000
Event Marketability	\$0	\$3,815,500	\$1,982,500	\$682,500
Patron Amenities	\$0	\$5,297,500	\$795,000	\$457,500
Operations	\$5,000	\$2,102,500	\$1,010,000	\$1,010,000
Hard Construction Costs	\$4,075,000	\$16,204,500	\$40,132,365	\$59,579,217
Soft Construction Costs	\$611,250	\$2,430,675	\$6,019,855	\$8,936,883
Total Construction Costs	\$4,686,250	\$18,635,175	\$46,152,220	\$68,516,100

Upfront Plus Capital Costs Years 1-15

Cost By Type	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Expansion/Construction	\$0	\$0	\$33,982,865	\$55,067,217
Deferred Maintenance	\$7,590,000	\$7,590,000	\$3,027,000	\$3,027,000
Life Safety / Code Compliance	\$0	\$583,000	\$425,000	\$425,000
Security	\$0	\$580,000	\$400,000	\$400,000
Event Marketability	\$0	\$4,440,500	\$2,407,500	\$1,107,500
Patron Amenities	\$0	\$6,800,000	\$1,262,500	\$925,000
Operations	\$5,000	\$2,467,500	\$1,135,000	\$1,135,000
Hard Construction Costs	\$7,595,000	\$22,461,000	\$42,639,865	\$62,086,717
Soft Construction Costs	\$1,139,250	\$3,369,150	\$6,395,980	\$9,313,008
Total Construction Costs	\$8,734,250	\$25,830,150	\$49,035,845	\$71,399,725