

6 October 2023

Fiona Hamilton
Executive Manager, Regional Activation - Projects
Wagga Wagga City Council
243 Baylis Street (PO Box 20)
Wagga Wagga, NSW, 2650

Dear Fiona

**RE: WWCC RIVERSIDE STAGE 3 VARIATION – CIVIC THEATRE MASTER PLAN
CBA (COST BENEFIT ANALYSIS) UPDATE**

As per the email proposal, AEC Group agreed to update the Civic Theatre Masterplan CBA, noting the following:

- Analysis was predominantly based on information provided in the business case and economic analysis regarding construction costs - noting that AEC did not revisit the projected construction costs (other than applying ABS Producer Price Index), demand, revenue, operating costs, and visitation/attendance.
- The information provided was supplemented with estimates of how much of the activity reflects “business as usual” activity vs incremental additional activity due to the upgraded and additional infrastructure, to reflect the net benefit/cost of the project against a base case of ongoing operation of the existing Civic Theatre - again, this was largely based on information available in the documents provided rather than additional research by AEC.
- The CBA conducted by AEC, compared to the initial CBA provided, includes the following:
 - The removal of inappropriate benefit/cost items (e.g., flow-on activity);
 - Amended inappropriate benefit/cost items (e.g., visitor expenditure benefit, to reflect the producer surplus supported by visitor spend only, not total expenditure); and
 - Included additional benefits (and costs) where able (e.g., consideration of user amenity benefits as well as non-use (existence) benefits). AEC conducted desktop research to assist with valuing these benefits.

Following is a summary outlining the financial modelling, assumptions used and results of the CBA.

Yours sincerely



Graham Jarvis – Project Manager

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OPTIONS CONSIDERED

BASE CASE

In the Base Case scenario, the scope is to maintain the current Civic Theatre without any significant changes apart from necessary renovations and updates. The existing Civic Theatre comprises a single fixed-seat auditorium accommodating 491 people. It features a small bar and balcony on the upper level, a box office, and restrooms on the ground floor. Backstage facilities include a loading dock, workshop, five dressing rooms, and a laundry. Additionally, the basement houses a smaller theatre with seating for 80, costume storage, and leased office space.

In the base case it is assumed that the existing facility is currently operating at capacity and thereby activity is assumed to remain constant at existing levels.

PROJECT CASE

The new proposed performing arts centre will more than double the footprint of the existing venue. The proposed Venue 2 (V2) has two levels and will seat a total of 328 in the standard layout with 231 downstairs and 97 upstairs.

The downstairs seats will be retractable and create a flat floor space that holds up to 774 people for a standing concert. The room can be configured for a range of events and performance styles. The large window can also open out to the northern side of the venue creating a new outdoor performance area.

Venue 3 (V3) is located upstairs and can seat 119 in standard configuration and all seats will be retractable creating a flat floor venue that is suitable for cocktail style events of up to 200 people.

All venues within the performing arts centre, (existing Basement Theatre and V1, new V2 and V3) are acoustically separate and are designed to be used at the same time.

Additional construction includes:

New balcony of 100 sqm with panoramic views of the Wollundry Lagoon

- Commercial kitchen that will support special events, multicultural performances and conferencing.
- Two new bars including a large downstairs bar that opens out onto a new paved area on the Wollundry Lagoon shore.

The exterior design of the new space is inspired by the Wiradjuri meaning of Wagga Wagga being a place of dance and celebration and will incorporate Wiradjuri images that appear to dance as you move around the building.

The project case assumes additional demand is able to be catered to with the expanded facility, with demand estimates in line with those provided by Randall Arts Management to year 5 of operations. Demand is then assumed to stabilise and remain constant thereafter, as projected demand levels in year 5 are in line or above those for the existing facility in each of the three theatres.

FINANCIAL ASSUMPTIONS

The general assumptions made and applied within the financial modelling are:

- The project is assumed to begin in 2023-24 (2024) during which the stages of Planning, Detailed Design, Approvals and Procurement are to be completed, ready for the Development/Construction stage to begin in 2024-25 (2025).
- For the scenario where borrowings are considered, a debt interest rate of 3.5% has been assumed across the life of the project for all borrowings with a debt term of 10-years, based on Council's published Long-Term Financial Plan (LTFP). (It should be noted that the rates for shorter term loans are reduced, and longer-term loans may be increased). This is a fixed rate for a semi-annual repayment. This rate has also been applied as the interest rate on negative cash balances.
- Annual indexation of 3.50% is applied to asset values and depreciation once constructed.
- Annual indexation of 2.50% is applied to operating revenue and costs post construction.

- Prior to construction, an annual indexation of 3.50% is applied to operating revenue and costs, to reflect today's value, due to the recent inflationary trends.
- A discount rate of 4.025%, (rounded to 4.03%), has been used based on iPART published long term forecast rate, has been applied to calculate the net present value of future cashflows. This rate is calculated from adding the following:
 - 2.5% Risk Free Rate (long term) for Commonwealth 10-year bond yield
 - 1.4% Debt margin (long term) for Corporate A rated margins
 - 0.125% debt raising costs.

These assumptions are summarised in the following table.

Table 1 General Financial Modelling Assumptions

General Inputs	Value
Base Year	2024
Debt Rate (% pa)	3.50% ¹
Debt Term (years)	10
Interest Rate on Negative Cash Balances (% pa)	3.50%
Indexation of Asset Values & Depreciation Once Constructed (% pa)	3.50% ²
Pre-Tax Discount Rate (% pa)	4.03% ³
Cost escalation allowance (%/month)	1.50% ⁴
Operating revenue & costs indexation, post construction	2.50%

Source: AEC (unpublished).

The original capital estimate for the Civic Theatre was \$49 million⁵, as determined in November 2020. In March 2022, Council's in-house Quantity Surveyor conducted a comprehensive review, which led to an updated cost projection of \$50.3 million. This figure included a 1.5% monthly cost escalation allowance applied for a period of one year, extending the projection until April 2023.

To maintain currency throughout the entire financial year, AEC Group applied the same 1.5% monthly allowance for an additional three months, spanning April to June 2023. This adjustment increased the overall estimate to \$51.7 million.

The recent inflationary trends have had a noticeable impact on rising costs across various sectors, in particular the construction industry. As a result of this, AEC Group reviewed the ABS (Australian Bureau of Statistics) increases for non-residential building construction in NSW, for the previous three years, 2020-21 through to 2022-23. For the 2023-24 projection, the average percentage from these three years, 7.61%, was applied.

Looking ahead to the 2024-25 fiscal year, an assumption of a gradual return to the standard inflation rate of 5.00% was applied. This is summarised in the following table.

Table 2 Capital Cost Percentage Increases Applied

2020-21	2021-22	2022-23	2023-24	2024-25
PPI - Non-residential building NSW			Average of prior 3 years	Gradual return to normal levels – assumption of 5%
6.92%	8.77%	7.15%	7.61%	5.00%

Source: ABS PPI non-residential building construction in NSW, and AEC (unpublished).

¹ This is a fixed rate for a semi-annual repayment, 10-year term, based on Council's published LTFP.

² Based on an assumption that indexation will slow, estimating 3.5%.

³ Discount rate of 4.025%, based on iPART published long term forecast rate.

⁴ Cost escalation allowance of 1.5% per month applied for 15 months in total.

⁵ Based on Attachment B - J - Civic Theatre Performing Arts Masterplan Pages 5-7.

Utilising this approach has resulted in a year-on-year increment in construction costs leading up to the construction year, an increase from the original \$49 million, to \$58.6 million by 2024-25.

This is demonstrated in the following table.

Table 3 Increases in Capital Costs Year-on-Year

	2021-22	2023-24	2024-25
As at 31 March 2022	\$50,347,647		
Cost Escalation Allowance	\$1,342,148		
Total	\$51,689,795	\$55,625,234	\$58,608,325

Source: AEC (unpublished).

It should be noted that post construction the latter years will also have capital renewals required as assets reach the end of their useful lives, with an annual 3.5% indexation applied.

PROJECTED COSTS

The following costs have been applied to inform the Cost Benefit Analysis.

PROJECTED CAPITAL COSTS

EXISTING ASSET RENEWAL COSTS

The asset renewals for the existing Civic Theatre have been applied based on the annualised depreciation charge, as the asset register information provided is not complete (lacking acquisition date, useful life and remaining useful life).

The information provided is assumed to be for the 2022-23 financial year, and has therefore been indexed by 7.61%, the average ABS (Australian Bureau of Statistics) rate increases for non-residential building construction in NSW, for the previous three years.

The indexed annual depreciation of \$326,666, has been assumed to be the capital renewal spend for each year of the 40-year period, in both the Base Case and Project Case. An annual indexation of 3.50% is applied to asset values and depreciation once constructed, as per the assumptions identified previously.

CONSTRUCTION & ACQUISITION COSTS

Capital estimates were originally provided by Slattery Quantity Surveyors, Schuler Shook and certain items by Wagga Wagga City Council, in November 2020. This was used as a basis for Council's internal Quantity Surveyor to complete a review, due to the recent inflationary trends.

Council undertook a combination of m2 estimates, elemental estimates and rough quantity estimates to evaluate the costs. The main differences include Council utilising a cost per seat method to estimate the cost of the venues, and a higher rate for the back of house areas, in addition to an increase in cost escalation.

An increase in the overall contingency was applied, as well as a contingency added for the below the line items. Council also reviewed the SOACT works previously provided to Slattery. The outcome of Council's review is demonstrated in the following table, under the heading of 22-Mar-2022.

The inflation approach identified within the Financial Assumptions section of this report was applied to produce the 2023-24 and 2024-25 projected costs.

Table 4 Projected Civic Theatre Construction/ Acquisition Costs

Functional Area	Details	31-Mar-22	2023-24	2024-25
New foyer	New foyer & allowance for feature circular stair	\$5,309,563	\$5,713,810	\$5,999,500
Existing foyer	Demolition & new fit out of existing foyer	\$2,006,789	\$2,159,577	\$2,267,556
Venue 2	New theatre & theatre seat (328 no.)	\$6,923,200	\$7,450,303	\$7,822,818
Venue 3	New theatre & theatre seat (119 no.)	\$2,814,050	\$3,028,300	\$3,179,715
BOH (Back of House)	BOH admin, amenities, kitchen & equip, dressing room, etc	\$7,153,505	\$7,698,142	\$8,083,049
Other	Audio visual, sound, IT equip, fixtures & fittings	\$4,102,600	\$4,414,954	\$4,635,702
Sub Total		\$28,309,706	\$30,465,086	\$31,988,340
Design contingency	10% applied	\$2,982,551	\$3,209,630	\$3,370,111
Contract contingency	10% applied	\$2,982,551	\$3,209,630	\$3,370,111
Cost escalation allowance (original)	12 months, at 1.5% per month	\$5,833,870	\$6,278,036	\$6,756,018
Cost escalation allowance (additional)	3 months at 1.5%/month	\$1,342,148	\$1,444,333	\$1,516,550
Sub Total		\$42,966,630	\$46,237,925	\$48,549,822
Consultants' fees		\$4,126,733	\$4,440,925	\$4,662,971
Additional project management	Requested by client, but reduced in March 2022 review	\$1,200,000	\$1,291,363	\$1,355,931
Authority & headwork charges		\$427,760	\$460,328	\$483,345
Audio visual / IT equipment		\$855,521	\$920,656	\$966,689
Decanting and relocation costs		\$100,000	\$107,614	\$112,994
SOACT budget	Provided by Council, (includes contingency)	\$967,000	\$1,040,623	\$1,092,654
Increases in SOACT related costs	Incorporated at March 2022 review	\$124,550	\$134,033	\$140,734
Below the line	Electro acoustic system - Venue 2 & 3 (includes contingency)	\$921,600	\$991,767	\$1,041,355
Total		\$51,689,795	\$55,625,234	\$58,406,496

Source: WWCC & AEC (unpublished).

ASSET RENEWAL COSTS FOR NEWLY CONSTRUCTED / ACQUIRED ASSETS

Asset renewals will be required for the newly constructed/ acquired assets, which have been calculated based on the following useful life.

Table 5 Asset Life for Newly Constructed / Acquired Assets

Asset Class	Useful Life
External services and infrastructure connections	70 years
Buildings	40 years
Fixtures & fittings (e.g., foyer, theatre seats)	20 years
Hardscape	20 years
Theatre equipment (e.g., AV, lighting, projection, sound, electro acoustic system)	15 years
Kitchen equipment	10 years

Source: AEC (unpublished).

The following table demonstrates the timeframes of the renewals and the amount, based on the current costing, noting these would be indexed, as indicated in the financial assumptions.

Table 6 Asset Renewals for Newly Constructed / Acquired Assets

Asset item	Useful Life	2035	2040	2045	2055	Total
Kitchen equipment	10	\$508,474		\$508,474	\$508,474	\$1,525,422
Theatre equipment	15		\$1,547,028			\$1,547,028
Electro acoustic system (Venue 2&3)	15		\$867,796			\$867,796
Furniture, fittings, & equipment	15		\$1,016,948			\$1,016,948
Hardscape	20			\$322,034		\$322,034
BOH - Admin, amenities, kitchen, dressing room	20			\$4,048,076		\$4,048,076
BOH - Circulation, store	20			\$3,210,116		\$3,210,116
Lifts	20			\$859,434		\$859,434
New foyer	20			\$5,911,010		\$5,911,010
SOACT	20			\$1,233,389		\$1,233,389
Theatre seats (Venue 2&3)	20			\$1,936,269		\$1,936,269
Total		\$508,474	\$3,431,772	\$18,028,802	\$508,474	\$22,477,522

Source: AEC (unpublished).

PROJECTED ONGOING REVENUE & COSTS

BASE CASE

Operating Revenue

Operating revenue for the Base Case was projected by considering the revenue generated from 2017-18 through to 2021-22, excluding the financial year 2019-20 due to the COVID-19 pandemic. This has then been indexed at 3.5% each year to reflect today's value (2023-24). The average was then calculated, which was used for the model, which also applies the annual indexation of 2.5%.

There were two exceptions to this process, detailed as follows:

- **Community Productions:** The Civic Theatre has not received revenue relating to Community Productions since 2017-18, and therefore this was excluded; and

- **NSW Performing Arts COVID Support Grant:** The Civic Theatre received this grant in 2021-22, to cover performances impacted by NSW Government Public Health Orders from 26 June to 18 September 2021, as a one-off support from the State Government, hence this revenue was also excluded.

This revenue is summarised in the following table.

Table 7 Civic Theatre Base Case Operating Revenue

Operating Revenue	2023-24 \$ Value of Revenue (Base Year)	2025-26 Year 1 Operations
Civic Theatre ticketing	\$173,549	\$182,335
Theatre hire	\$280,413	\$294,608
Civic Theatre bar operations	\$126,845	\$133,266
Civic Theatre Seasons	\$226,961	\$238,451
Wagga Comedy Festival	\$78,708	\$82,693
Partnerships	\$36,448	\$38,293
Mayoress Charity Concert	\$9,683	\$10,173
Other Income	\$8,513	\$8,944
Total	\$941,119	\$988,763

Source: AEC (unpublished).

Operating Costs

Operating costs for the Base Case have been projected by considering the costs generated from 2017-18 through to 2021-22, excluding the financial year 2019-20 due to the COVID-19 pandemic. This has then been indexed at 3.5% each year to reflect today's value (2023-24). The average was then calculated, which was used for the model, which also applies the annual indexation of 2.5%.

There were four exceptions to this process, detailed as follows:

- **Salaries:** Salaries for 2021-22 financial year were used, with indexation of 3.5% applied for 2 years to reflect the cost today;
- **Community Productions:** In line with the revenue exclusion and due to this not being an annual activity, the costs have also been excluded;
- **NSW Performing Arts COVID Support Grant:** In line with the revenue exclusion and due to this being a one-off, the costs have also been excluded; and
- **Civic Theatre Masterplan:** Costs relating to the development of the Civic Theatre Masterplan were also excluded, as again this is seen to be a one-off.

Table 8 Civic Theatre Base Case Operating Costs

Operating Costs	2023-24 \$ Value of Costs (Base Year)	2025-26 Year 1 Operations
Employee costs		
Salaries	\$815,917	\$857,222
Corporate wardrobe	\$2,087	\$2,193
Safety equipment/ protective clothing	\$9,175	\$9,640
Recruitment	\$4,887	\$5,135
Materials & services		
Travelling	\$2,527	\$2,655
Office	\$28,421	\$29,859
Other expenses	\$69,842	\$73,378

Operating Costs	2023-24 \$ Value of Costs (Base Year)	2025-26 Year 1 Operations
Ticketing	\$47,268	\$49,661
Theatre hire	\$115,729	\$121,588
Bar operations	\$96,068	\$100,932
Civic Theatre Seasons	\$285,869	\$300,341
Wagga Comedy Festival	\$12,217	\$12,835
Partnerships	\$93,830	\$98,580
Civic Theatre building - Maintenance & operations	\$25,187	\$26,462
Sound system loan repayments	\$71,123	\$74,723
Internal charge - Administration	\$218,011	\$229,048
Total	\$2,086,870	\$2,192,518

Source: AEC (unpublished).

PROJECT CASE

Operating Revenue

Operating revenue is based on the Civic Theatre financial model provided by Council, (completed based on actuals from the 2019-20 financial year).

As the Civic Theatre Masterplan, Project Case, already included an indexation of 1.20%, an indexation rate of 1.014% for 5 years was applied to ensure the revenue was in today's value, 2023-24 financial year, (the equivalent of applying 3.50% indexation).

Indexation for the following years is applied at 2.50%, aligned with the Base Case.

This is summarised in the following table.

Table 9 Civic Theatre Operating Revenue, from 2025-26 to 2029-30

Operating Revenues	2023-24 \$ Value of Revenue (Base Year)	2025-26 Year 1	2026-27 Year 2	2027-28 Year 3	2028-29 Year 4	2029-30 Year 5
Partnerships	\$12,523	\$13,157	\$13,756	\$14,382	\$15,036	\$15,720
Grants & subsidies miscellaneous	\$30,739	\$32,295	\$33,764	\$35,300	\$36,906	\$38,586
Venue Rental						
T1 Fixed Seating	\$284,040	\$298,419	\$326,292	\$354,784	\$385,193	\$414,084
T2 Flexible - 300 average pax	\$113,830	\$119,593	\$128,279	\$137,509	\$148,693	\$164,318
T3 Flexible - 120 average pax	\$30,727	\$32,282	\$40,891	\$43,430	\$46,115	\$48,214
Specific Programs						
Season programming gross box office	\$316,597	\$332,625	\$349,322	\$356,430	\$375,932	\$401,748
Comedy Festival	\$71,345	\$74,957	\$78,367	\$81,933	\$85,661	\$89,559
New CT program works	\$8,875	\$9,325	\$9,749	\$10,192	\$10,656	\$11,141
Mayoress charity concert	\$37,868	\$39,785	\$41,595	\$43,488	\$45,466	\$47,535
Services & Products						
BOH and FOH casual staffing	\$202,361	\$212,606	\$227,161	\$249,250	\$282,991	\$300,278
Theatre bar revenue	\$49,419	\$51,921	\$58,686	\$64,264	\$70,933	\$76,555
Functions/ events revenue	\$45,541	\$47,847	\$57,718	\$78,204	\$99,638	\$111,180
Merchandise royalties	\$19,573	\$20,564	\$23,195	\$25,459	\$28,025	\$28,402
Ticketing fees - projected	\$212,448	\$223,203	\$252,179	\$275,947	\$304,123	\$327,370
Total	\$1,435,887	\$1,508,578	\$1,640,955	\$1,770,573	\$1,935,369	\$2,074,689

Source: AEC (unpublished).

There are some potential risks identified with the proposed operating revenue, including:

- Operating grants and subsidies have been factored into the financial projections, including funds from partnerships and miscellaneous sources. However, it's important to acknowledge the potential risk associated with miscellaneous revenue, as it is not guaranteed.
- Revenue projections are contingent on assumptions about venue utilisation, which anticipate a high level of use from opening. While the Civic Theatre is currently at capacity, the relocation of some events/ performances to the other new theatres will occur from opening, it is important to note that the high level of utilisation assumed carries a risk. The utilisation assumption is detailed in the following table.

Table 10 Civic Theatre Performances & Utilisation, Year 1 Post Construction

	Number of performances	Day utilisation (based on 1.1 days/ event)	Utilisation % (based on 365 days/ year)
Venue 1	196	215.6	59%
Venue 2	146	160.6	44%
Venue 3	197	216.7	59%

Source: Civic Theatre Masterplan Financial Model (unpublished).

- AEC Group is not close to the event/ performance scheduling; however, it should be noted that revenue relating to the Mayoress Charity Concert has only previously been earned in 2018-19 and 2019-20, while the Civic Theatre Masterplan, Project Case assumes this will become an annual event, and revenue generator.

Operating Costs

Operating costs are based on the Civic Theatre financial model provided by Council, (completed based on actuals from the 2019-20 financial year).

As the Civic Theatre Masterplan, Project Case, already included an indexation of 1.20%, an indexation rate of 1.014% for 5 years was applied to ensure the revenue was in today's value, 2023-24 financial year, (the equivalent of applying 3.50% indexation).

Indexation for the following years is applied at 2.50%, aligned with the Base Case.

This is summarised in the following table.

Table 11 Civic Theatre Operating Costs, from 2025-26 to 2029-30

Operating Revenues	2023-24 \$ Value of Revenue (Base Year)	2025-26 Year 1	2026-27 Year 2	2027-28 Year 3	2028-29 Year 4	2029-30 Year 5
Employee costs						
Salaries - Permanent staff	\$577,016	\$606,227	\$646,238	\$688,890	\$734,357	\$782,824
New non-recoverable positions	\$198,838	\$208,904	\$259,432	\$265,918	\$272,566	\$279,380
Casual labour	\$183,965	\$193,278	\$206,510	\$226,591	\$257,265	\$272,980
Provisions & oncosts	\$276,655	\$290,661	\$317,779	\$336,706	\$358,994	\$378,562
Employee Related costs						
Membership fees	\$3,155	\$3,315	\$3,466	\$3,624	\$3,788	\$3,961
Seminars/ conference fees	\$4,207	\$4,420	\$4,621	\$4,831	\$5,051	\$5,281
Staff recruitment costs	\$5,259	\$5,525	\$5,776	\$6,039	\$6,314	\$6,601
Uniforms	\$2,104	\$2,210	\$2,311	\$2,416	\$2,526	\$2,641
OH&S costs	\$1,609	\$1,691	\$1,768	\$1,848	\$1,932	\$2,020
Travel	\$6,437	\$6,763	\$7,070	\$7,392	\$7,728	\$8,080
Materials & services						
Repairs & maintenance	\$97,215	\$102,136	\$106,784	\$111,642	\$116,722	\$122,033
Marketing & publicity	\$34,603	\$36,355	\$38,009	\$39,738	\$41,546	\$43,437
Ticketing Expenses	\$53,112	\$55,801	\$63,045	\$68,987	\$76,031	\$81,843
General administration	\$277,611	\$291,665	\$304,936	\$318,188	\$332,564	\$347,832
Consultant/Contractor Fees	\$3,786	\$3,978	\$4,077	\$4,179	\$4,284	\$4,391
Civic Theatre Season	\$600,032	\$630,408	\$664,291	\$680,898	\$697,920	\$725,126
Net subsidy (opening year and special events)	\$52,588	\$55,250	\$28,316	\$29,024	\$29,749	\$30,493
Total	\$2,378,191	\$2,498,587	\$2,664,428	\$2,796,911	\$2,949,338	\$3,097,485

Source: AEC (unpublished).

There are some potential risks identified with the proposed operating revenue, including:

- Operating costs for the Base Case have internal charges included, however the Project Case does not identify this separately, but the assumption is that this is included within the General Administration. Based on this assumption it should be noted that General Administration for the Project Case is higher than the Base Case, with a 52.2% increase, (an annual increase of over \$95k).
- Staffing costs in the Project Case are higher than the Base Case, with a 51.5% increase, (an annual increase of over \$420K).

COST-BENEFIT ANALYSIS

This cost benefit analysis builds on information provided in the Randall Arts Management and Lawrence Consulting work previously undertaken for the Civic Theatre expansion, but amends the CBA to:

- Remove issues of not incorporating a base case and double counting.
- Remove flow-on benefits that are typically excluded from CBA.
- Include some additional economic and social benefits that were previously not examined by Lawrence Consulting.

The CBA has also been amended to use a base discount rate of 5% (in real terms) instead of 7%, in line with new (2023) guidelines from NSW Treasury for CBA, with comparisons to 3% and 7% discount rates.

As real discount rates are used (in line with NSW Treasury guidelines), all values are reported in 2023-24-dollar terms and discounted to 2023/24 values. Inflation and escalation have thereby been excluded from the CBA (aside from that required to estimate costs and benefits in 2023-24-dollar terms).

In line with timings outlined previously, analysis begins in 2024/25 (the project is assumed to be constructed in 2024/25) and 40 years of modelling has been undertaken (i.e. 39 years of operations following the one year construction). A residual value in year 40 has also been included, incorporating an assumed further 11 years of asset life.

Projected costs and benefits for the base case have been subtracted from the project case to provide only the incremental additional costs and benefits delivered by the project.

BENEFITS & COSTS EXAMINED

COSTS

The following costs were included:

- Construction costs: A capital cost of \$55.63 million has been included in Year 1 of the analysis.
- Lifecycle costs: Estimates of lifecycle costs for the existing facility in the base case were subtracted from the lifecycle costs for the project case to provide the incremental additional lifecycle costs due to the project. Annual lifecycle costs are outlined in Table 6 above.
- Operating and maintenance costs: Annual operating costs for the base case were subtracted from the annual operating costs for the project case to provide the incremental additional operating costs for the Civic Theatre due to the project. Annual operating costs are outlined in Table 11 above.

BENEFITS

The following benefits were included:

- Operating revenues: Annual facility operating revenues for the base case were subtracted from the annual facility operating revenues for the project case to provide the incremental additional facility operating revenues for the Civic Theatre due to the project. Annual facility operating revenues are outlined in Table 9 above.
- Benefits from facility employment: The additional jobs directly supported by the project will provide benefits to those additional people employed, which can be measured through the incomes they receive. Staff incomes in the base case were subtracted from staff incomes in the project case to provide the incremental additional staff incomes directly supported by the project. Note that not all of this income has been included as a benefit – while incomes represent the compensation paid to people for their time at work, these people will also incur an opportunity cost for working (e.g., the value they place on undertaking leisure instead, or potentially incomes received from alternative gainful employment or other benefits). To account for this, only 25% of the additional staff incomes supported by the facility has been included as a benefit.

- Event organiser benefits: In addition to the Civic Theatre receiving revenue for hosting events (e.g. through facility hire and other charges), the event organisers and ancillary event hosts (e.g. catering and merchandise businesses engaged) will also receive a benefit through the revenues they receive. This has been measured through estimates of ticket revenue, merchandise revenue and bar revenue, based on event and revenue information provided by Randall Arts Management. In estimating this benefit:
 - For ticket revenue, an assumption of \$75 per ticket for large scale events, \$40 per ticket for standard size events and \$20 per ticket for small events was used (based on a review of the current event calendar for the Civic Theatre).
 - Merchandise and bar revenues were estimated based on data from Randall Arts Management.
 - Base case event organiser revenues were subtracted from project case event organiser revenues to provide the incremental additional event organiser revenue supported by the project.
 - As organising and hosting events is not costless, assumptions based on Input-Output transaction tables regarding gross operating profit and staff salaries for the relevant sectors were used to develop an estimate of the producer surplus (gross operating surplus) and employment benefits delivered through organising and hosting events (with only 25% of the staff incomes included as a benefit).
- Recreational benefit for users: Patrons of the Civic Theatre will receive a leisure/ amenity benefit from attending performances. At a minimum this benefit can be considered to equate to what the person pays to attend (i.e. ticket price), which is already captured in the operating revenues and event organiser benefits above. The marginal additional utility received by patrons over and above the ticket price has been assumed to be approximately half the price paid, with this marginal additional benefit included as the recreational benefit for users.
- Benefits from attracted visitor spend: Estimates of visitor spend in the base case and project case are based on estimates from Lawrence Consulting, with an assumption that visitor spend in the project case will plateau after year 5 as demand is assumed to stabilise. In estimating this benefit:
 - Visitor spend estimates were allocated to spend items in line with estimates from Lawrence Consulting, then allocated to relevant Input-Output sectors.
 - As providing goods and services to visitors is not costless, assumptions based on Input-Output transaction tables regarding gross operating profit and staff salaries for the relevant sectors were used to develop an estimate of the producer surplus (gross operating surplus) and employment benefits delivered through visitor spend (with only 25% of the staff incomes included as a benefit).
- Existence (non-use) benefit: In addition to the use benefit patrons receive from attending performances, the existence of high quality performing arts facilities in a region generates utility for residents whether or not they use the facilities. The non use benefit of the facility refers to the benefit to the community of having the option to use the performing arts facilities if they wish, and the pride in place that comes with living in an area with good access to amenities. In estimating this benefit:
 - The non-use benefit per resident was estimated using the non-use benefit prescribed to comparable venues in comparable regions as benchmarks (Econtext, 2015; SGS Economics & Planning, 2019). Averaging such benchmarks resulted in an annual non-use benefit of \$30 per resident.
 - Consideration was given to the fact the Civic Theatre already exists (and thereby is already generating an existence benefit) and the size of the population the facility is approximately designed to service. Benchmarks from a variety of regions in Australia indicates District and Regional level performing arts facilities may cater for anywhere between 30,000 and 200,000 people, depending on the size of the facility and catchment. For the purposes of this assessment, it was assumed the existing facility is designed to cater to a population in Wagga Wagga LGA of around 50,000 people, and following expansion this will increase to 100,000 people.

- Where the population in a region exceeds the designed service capacity, it was assumed the utility derived per person would diminish commensurate with the proportional increase in population over designed service capacity (e.g., if the population in the service catchment exceeds the designed capacity by 50%, it has been assumed the non-use utility derived by each resident is approximately halved). In this manner, it is assumed that once a population equals or exceeds the designed service capacity, the overall aggregate community value remains constant.
- Residual value: The residual value was included in the last year of the analysis (year 40), estimated based on an assumption of 11 remaining years of useful life of the asset, applied to the net difference in benefits and costs in year 40 (i.e. assumes this differential would be delivered for a further 11 years).

RESULTS

The CBA returns a Net Present Value (NPV) of -\$12.2 million and Benefit Cost Ratio (BCR) of 0.83 at the base discount rate of 5%. This result is largely influenced by the upfront cost (present value of -\$53.0 million, which accounts for more than 75% of total costs) outweighing the net positive position of all the other ongoing costs and benefits (net present value of \$40.8 million).

At a lower discount rate of 3% the project is assessed to provide a positive NPV of \$5.5 million and BCR of 1.07, highlighting that where the impacts of discounting on the ongoing operating net benefit are reduced, the net operating impacts can outweigh the upfront cost.

Table 12. Civic Theatre Expansion CBA Results – 5% Discount Rate

Measure	3% Discount Rate	5% Discount Rate	7% Discount Rate
Present Value of Costs	\$78,115,909	\$69,894,151	\$64,203,959
Present Value of Benefits	\$83,619,838	\$57,699,345	\$42,359,324
Net Present Value	\$5,503,928	-\$12,194,806	-\$21,844,635
Benefit Cost Ratio	1.07	0.83	0.66

Source: AEC.