Appendix 1

Macquarie Point Stadium Economic Analysis Advice, SGS Economics & Planning

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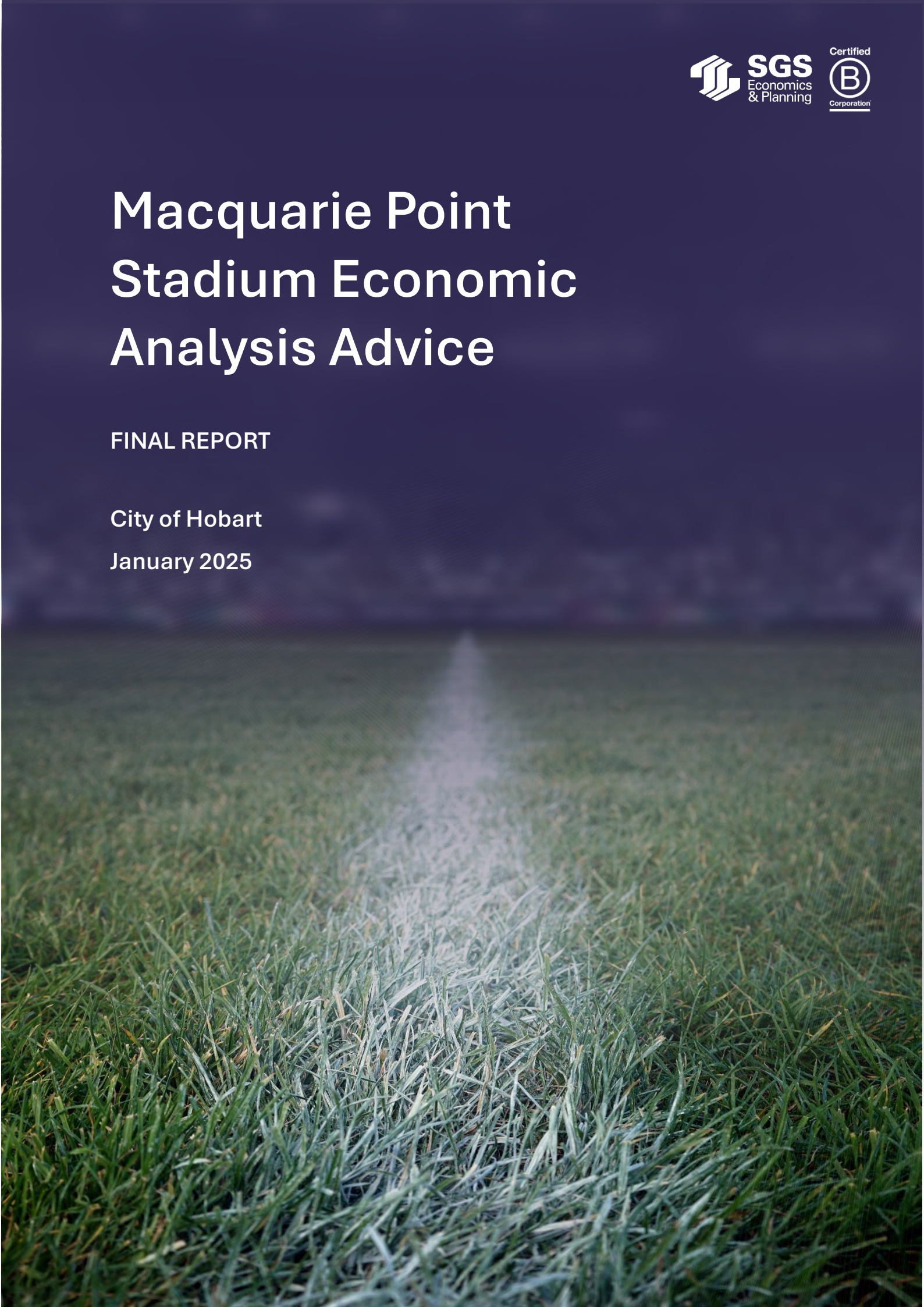
Macquarie Point Stadium Economic Analysis Advice

FINAL REPORT

City of Hobart

January 2025



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OFFICES IN CANBERRA, HOBART, MELBOURNE, AND SYDNEY ON THE COUNTRY OF THE NGAMBRI/NGUNNAWAL/NGARIGO, MUWININA/PALAWA, WURUNDJERI, AND GADIGAL PEOPLES.

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List of acronyms

AFL	Australian Football League
BCR	Benefit-cost ratio
Capex	Capital expenditure
CBA	Cost-benefit analysis
FTE	Full-time equivalent
GSP	Gross State Product
GST	Goods and services tax
HFE	Horizontal fiscal equalisation
MPDC	Macquarie Point Development Corporation
NPV	Net present value
Opex	Operational expenditure
POSS	Project of State Significance
TPC	Tasmanian Planning Commission

1. Executive summary

In the planning and approvals process for the Macquarie Point Stadium as a Project of State Significance (POSS), guidance from the Tasmanian Planning Commission (TPC) has required economic analysis in line with standard practice for the purpose of documenting benefits and impacts. Following completion of this work, however, questions and concerns remain amongst leadership regarding the realisation and timing of benefits, and to what extent there are additional impacts for consideration related to timing, public infrastructure funding and financing, and partner coordination.

1.1 Background and objectives

The Macquarie Point Stadium is a significant redevelopment of an existing site within the City of Hobart. An economic analysis was recently completed for the project, comprising a cost-benefit analysis, financial analysis, social and cultural impact analysis and economic impact assessment. Questions and concerns have arisen within the City of Hobart concerning the project and the economic analysis that has been performed. These questions pertain to what the project means for the City, what the findings of the analysis imply for its economic, social, cultural and environmental future, and whether any inputs, assumptions or omissions present risks that need to be considered in the City's engagement with the Tasmanian Government.

SGS was commissioned to review the analysis and provide the City of Hobart with a clear understanding of the benefits of the Macquarie Point Stadium and a summary of any issues identified in the analyses that were undertaken. Informed by this analysis, SGS was directed to outline the risks associated with the project from the perspective of the City.

1.2 Approach

Our approach to this review was as follows.

- Summarise the relevant guidance pertaining to the Macquarie Point Stadium, including the requisite analyses.
- Review the economic analysis documentation, including cost-benefit analysis, financial impact report, economic impact assessment and social and cultural impact analysis.
- Summarise the key economic benefits of the proposal
- Identify high-level risks and key issues from the perspective of the City of Hobart.

1.3 Summary of findings

We find that, despite being generally robust and aligned with the relevant guidance, the analyses of the Macquarie Point Stadium present issues for the City of Hobart. For both the City of Hobart and the Tasmanian Government, we consider that the costs of the project are likely to be higher than indicated, and the benefits are likely to be lower.

In terms of costs, we note:

- The significant financial liability incurred by the Tasmanian Government due to the large capital expense of the project, including an unfunded component, and projected failure to produce a positive operating result.
- The constrained financial environment this will create in which the City of Hobart must compete for infrastructure expansion grant or loan funding of its own.
- The significant costs associated with infrastructure upgrades and maintenance of the stadium precinct, including upkeep of parks, active travel links and management of parking and increased road congestion, which will be disproportionately borne by the City, but which are uncosted and unconsidered in the analysis.

In terms of benefits, we note:

- Economic and financial benefits do not equate to costs, resulting in a negative benefit-cost ratio (BCR) and net present value (NPV) from the perspective of the Tasmanian Government.
- A number of issues with benefits specified in the cost-benefit, economic impact and social and cultural impact analyses suggest that actual benefits may be even lower than suggested in these reports.
- While the cost-benefit analysis defers significantly to the social and cultural impact analysis in containing unquantifiable, though valuable positive impacts of the proposal, our review finds that most of these impacts are in fact monetised and quantified as benefits.
- This recommends attention to summary measures of the project's viability produced in the cost-benefit analysis; especially the negative net present value and benefit-cost ratio.
- The negative impact on the City of Hobart may be ameliorated by additional rates that will be raised from the stadium precinct, in line with similar recent developments of this kind.

In general, we conclude that the City of Hobart should advocate to ensure its interests are adequately reflected as the development proceeds. This advocacy should particularly relate to:

- The expectation that the City cover the substantial networks externalities generated by the project, particularly in maintaining infrastructure and providing services in and around the stadium precinct. However, it is noted that potential service costs may be covered by additional rate revenue from the precinct.
- The significant financial risk to which the City is exposed by the Tasmanian Government taking on a large, unfunded capital expense during construction and enduring financial liability during operation. These liabilities are likely to flow into reduced funding.

- The inability of the City of Hobart to pursue greater financial assistance from the Tasmanian Government to meet the costs of servicing the stadium, such as the required supporting infrastructure, given the state's new fiscal constraints.
- The necessity for the City of Hobart to trade off these potential costs against reductions in service delivery or funding to other council activities, to the detriment of the local community.
- The low likelihood that the project will generate sufficient economic benefits for the Tasmanian community to justify the costs incurred, or a sufficient financial return for the Tasmanian Government to justify the liabilities accepted.
- The critical role of additional rates raised from the stadium precinct in allowing the City of Hobart to meet the increased costs of the precinct's development, maintenance and operations. The City's continued engagement with the Tasmanian Government regarding the stadium should be informed by a robust analysis of the potential rates income of the development, and the impact of different development scenarios on this revenue.

2. Introduction

2.1 Background

The Macquarie Point Stadium is a significant redevelopment of an existing site within the City of Hobart. As a high profile, high-cost and potentially transformative investment, the redevelopment was designated a Project of State Significance (POSS) by the Tasmanian Planning Commission.

An economic analysis was completed for the project, comprising a cost-benefit analysis, financial analysis, social and cultural impact analysis and economic impact assessment. This builds on a number of other pieces of guidance produced for the project, including guidelines prepared by the Tasmanian Planning Commission (TPC) in February 2024, as well as an array of strategic material developed for the Macquarie Point site.

Questions and concerns have arisen within the City of Hobart concerning the project and the explicit and implicit implications of the economic analyses undertaken. Questions have included:

- What do the benefits and assessed impacts mean for the City?
- What are the implications of this project on the City's infrastructure, coordination of partners and when impacts are realised?
- To what extent any inputs, assumptions or omissions present risks for the City such that may impact on the City's engagement with the Tasmanian Government?

2.2 Objectives

To this effect, SGS was commissioned by the City of Hobart to conduct a review of the analyses that have been completed for the development. The driving purpose behind this review and its objectives are to give the City information for decision-making processes, which in turn may influence how the City chooses to engage the Tasmanian Government in matters related to funding for infrastructure. The scope of this review is for SGS to provide:

- A clear understanding of the economic benefits of the proposed Macquarie Point Stadium,
- Commentary on the robustness of the cost-benefit, financial and other analyses completed, and
- Identification of risks associated with the project from the City's perspective, regarding public finance implications, partner coordination, timing, benefits realisation

The remainder of this review is structured as follows.

- Chapter 3 specifies the documents covered by our review. It also contextualises our review in terms of: 1) TPC guidelines for the project as a Project of State Significance, 2) best practice guidance for the completion of economic analysis from Infrastructure Australia, and 3) review of economic analyses of other stadium investments (either new development or redevelopment) across Australia.

- **Chapter 4** reviews the individual reports completed for the Macquarie Point Stadium project, cataloguing direct and indirect issues from the perspective of the City of Hobart. Analyses reviewed are: 1) Cost-Benefit Analysis, 2) Financial Impact Report, 3) Economic Impact Assessment, and 4) the Social and Cultural Impact Analysis.
- **Chapter 5** draws together the commentary of Chapter 4 into a coherent narrative from the perspective of the City of Hobart, concluding with an assessment of the appropriateness of the City's concern regarding the Macquarie Point Stadium.

3. Documents review

This report provides a brief summary of what is conventionally required of an economic analysis and what is not. It also highlights the guidance pertaining to the assessment of the Macquarie Point Stadium development. The purpose of this summary is to draw a clear line between questions the City of Hobart has regarding information that should be included in the economic analysis versus those questions relating to issues that arise outside those requirements.

3.1 Documents reviewed

The following is a summary of the documentation and materials provided to SGS for review (Table 1). The reader should note that SGS was not provided with, nor did Council have access to, the underlying models, analysis, or research that were used to generate the findings and conclusions of these documents. As such, SGS's review only enters into the depth present within the reports themselves, and cannot engage with supporting information or technical material not contained within these reports.

Table 1: summary of documents reviewed

Document	Description
Cost-Benefit Analysis (KPMG, 5 September 2024)	Assesses the economic costs and benefits attributable to the stadium from the perspective of the whole of Tasmania.
Economic Impact Assessment (KPMG, 5 September 2024)	Outlines the likely impact of the stadium on the Tasmanian economy in terms of additional jobs and economic output.
Financial Impact Report (KPMG, 9 September 2024)	Outlines the financial implications of the stadium from the perspective of the Tasmanian Government.
Guidelines: Macquarie Point Multipurpose Stadium Project of State Significance (Tasmanian Planning Commission, 16 February 2024)	Provides the framework to be followed in the preparation of reports to be provided to the Tasmanian Planning Commission for the purposes of assessing the stadium proposal.
Social and Cultural Assessment (KPMG, 9 September 2024)	Outlines the anticipated positive and negative social and cultural impacts of the stadium project.
Hobart Stadium Cost Benefit Analysis Report – Final Full Report (MI Global Partners, 11 November 2022)	Cost-benefit analysis of a new stadium in Hobart.

Yarrawonga Multi-Sport Stadium Feasibility Study (MCa, 28 March 2019)	Cost-benefit analysis of a new multi-sport stadium in regional Victoria.
Final Business Case Summary Stadium Australia (Infrastructure NSW, September 2019)	Business case prepared for the redevelopment of Stadium Australia in Sydney into a smaller facility.
The Gabba Stadium Redevelopment Project Validation Report Summary (Department of State Development, Infrastructure, Local Government and Planning - Queensland, 2024)	Assessment of options for the redevelopment of the Brisbane Cricket Ground in Brisbane.

Source: SGS Economics & Planning, 2024

3.2 Guidance

This section provides context to SGS's review. The purpose is to illustrate the extent to which guidance is given for undertaking economic analysis as it relates to the Macquarie Point Stadium, and how this compares to benchmark guidance. As such, this section provides:

- Outline of the guidance (Table 2) prepared and published (in February 2024) by the Tasmanian Planning Commission (TPC) for undertaking economic analysis related to the Macquarie Point Stadium, Project of State Significance (POSS).
- Outline of typical guidance (Table 3) for undertaking economic analyses provided by Infrastructure Australia for projects of similar scope of capital investment.

TPC guidance

In publishing its guidance, the TPC is acting under the authorisation of a ministerial direction (from October 2023) in which the TPC was directed to undertake an integrated assessment of the Stadium in accordance with the State Policies and Projects Act 1993. Table 2 summarises the guidance prepared by the TPC for purposes of completing an assessment of the Stadium.

The reader should also note that while the Tasmanian Government itself (i.e., Tasmanian Treasury) does not publish guidance of its own, the TPC notes that "except where required in these guidelines, the CBA is to be prepared to align with the recommended principles and procedures outlined for a detailed CBA in the *Guide to economic appraisal*, Infrastructure Australia July 2021.[1]"

[1] Tasmanian Planning Commission (TPC) (2024) *Guidelines: Macquarie Point Multipurpose Stadium Project of State Significance*, 16 February, https://www.planning.tas.gov.au/__data/assets/pdf_file/0010/750358/Final-Guidelines-Macquarie-Point-Stadium-16-February-2024.pdf

Table 2: Tasmanian Planning Commission guidance relevant to Macquarie Point Stadium

Guidance	Reporting reference
3.1: Cost-Benefit Analysis – A CBA assessing the net benefit of investing in the proposed project. – The CBA should identify and quantify to the fullest extent possible, all significant benefits and costs over the life of the project, discounted to current values. – The CBA should present a base case in which all assumptions represent the best estimates at this time, with supporting evidence for the value of each key assumption. – Where community, environmental, social and cultural effects can be valued as costs and benefits with a reasonable degree of confidence, these should be included in the analysis. Where the CBA is assessing the effect of the project on intangible or cultural/social factors, these are to be valued or monetised in a similar way. – If there are significant costs or benefits that are not able to be easily quantified, notional but plausible values should be used, which can be varied in sensitivity analysis where they are significant drivers of the results. – If there are significant costs or benefits that cannot be valued or monetised with any degree of accuracy, these factors should be included in the CBA and quantified information provided that links to social welfare values. – All significant costs and benefits used in the analysis should be separately and clearly identified, with supporting evidence provided for the values assumed for each item. – All the important assumptions for both costs and benefits should be clearly stated over the life of the project analysis, with supporting evidence for each of the key assumptions made. – The CBA should include sensitivity analyses. For guidance, sensitivity analyses could include best and worst cases (i.e. "high" and "low" case scenarios that vary critical assumptions including the discount rate), partial sensitivity analysis (i.e. individually varying one critical assumption at a time), and scenarios that create plausible future alternative "states of the world" by reflecting collective changes in assumptions that are internally consistent with each other. – The choice of the discount rate is critical and it is expected the CBA base case would utilise a discount rate currently or commonly accepted by governments for assessing infrastructure proposals. For example, the Department of Prime Minister and Cabinet Cost-Benefit Analysis Guidance suggests a real discount rate of 7%, with alternative discount rates of 3% and 10% to be used for sensitivity analyses.	PoSS Summary Report: Chapter 5 – Economic, Social and Cultural Analysis Appendix E: Cost-benefit Analysis

3.2: Economic Impact Assessment – An Economic Impact Assessment (EIA) using a computable general equilibrium model to assess the net effect of the proposed project on the Tasmanian economy from construction activities and the operation of the Stadium. – The modelling is to show the direct and indirect/induced economic effect resulting from indicators such as GDP (including GSP), employment, real income per capita and industry sector output. Any assessment of employment effects is to express these effects in terms of Full Time Equivalent (FTE) employment for the specific period of time. – The modelling outputs should enable the construction and operation phase impacts to be separately identified. – The economic impact report should also consider the opportunity cost of domestic investment – for example, a "counter-factual" estimate of the impact of an alternative investment of equivalent public funds. The report should also consider the degree of 'crowding out' that may occur through the construction stage activities.	**POSS Summary Report:** Chapter 5 – Economic, Social and Cultural Analysis **Appendix F:** Economic Impact Assessment
3.3: Financial Impact Report – Impact of project's construction and ongoing costs on State's projected General Government Sector and Total State Sector financial position, with respect to key fiscal measures including, net operating balance, fiscal balance and net debt. – Year-by-year cash flow projections associated with the project. – Trends in key financial ratios for comparison purposes, including assessment of possible implications of the cost of State debt and the State's credit rating. – Assumed treatment of the Commonwealth funding contribution by the Commonwealth Grants Commission under the fiscal equalisation process. – Sensitivity analysis including the impact of a significant delay in construction and of cost escalation. – Time period for financial projections is to be the time period for construction (and including the scenario of a significant delay) and the first three years of operations	**POSS Summary Report:** Chapter 5 – Economic, Social and Cultural Analysis **Appendix G:** Financial Impact Report
3.4: Social and Cultural Impact Assessment – Effects related to sporting and other events and programs which would not occur without the Stadium. – Effects of Tasmania having AFL and AFLW clubs. – Effects on environmental values of the site and associated social and cultural impacts. – Effects on people with a cultural association with the Cenotaph or the Macquarie Point headland. – Effect due to changes in the cost and supply of residential accommodation in the greater Hobart area during construction.	**POSS Summary Report:** Chapter 5 – Economic, Social and Cultural Analysis **Appendix H:** Social and Cultural Analysis Report

Source: TPC, 2024; SGS Economics & Planning, 2024

Infrastructure Australia Guidance

As noted above, the TPC defers to Infrastructure Australia's *Guide to economic appraisal* regarding alignment of the CBA with recommended principles and procedures. Table 3 highlights considerations that are typically required and not required to be present in a CBA according to these guidelines. Considerations that are required in the guide and of relevance to the City of Hobart, but which are nonetheless absent from the analysis completed by KPMG are highlighted in bold. They are expanded upon in Chapter 4. However, it is worth noting upfront that these exclusions appear largely to result from the narrowness of the scope provided to KPMG, rather than deliberate analytical choices.

Table 3: considerations for CBAs aligned with Infrastructure Australia guidelines[2]

Required	Not required
Base case and project case specification	
– A 'do minimum' base case reflecting continued operation of a network or service. – Capital and operating expenditure required for 'do minimum'. – Minor improvements required to meet realistic future demand estimates. – Committed and funded expenditure. – Main constraints or issues presented by base case that might be resolved in project case.	– Asset augmentation or enhancement to meet incremental demand beyond current requirements. – Projects outlined in long-term planning documents unless planning reference case approach is taken to base case specification.
Costs	
– Capital costs. – Operating and maintenance costs. – Capital replacement and decommissioning costs. – **Costs incurred by other government agencies.** – **Opportunity cost (including opportunity cost of land).**	– Monetised costs arising from methodological development, such as land use impacts and wider economic benefits (which arise when changes in behaviour due to a project alleviate distortions in other markets; e.g. agglomeration).
Benefits and disbenefits	
– Operating and ancillary revenue. – Avoided capital and operating costs. – Residual asset value. – Reduced/increased consumer costs. – Improved/diminished consumer outcomes. – Environmental externalities.	– Monetised benefits arising from methodological development, such as land use impacts and wider economic benefits (which arise when changes in behaviour due to a project alleviate distortions in other markets; e.g. agglomeration).

[2] Infrastructure Australia (2021) *Guide to economic appraisal*, https://www.infrastructureaustralia.gov.au/sites/default/files/2024-02/Assessment%20Framework%202021%20Guide%20to%20economic%20appraisal.pdf

– **Network externalities.** – Health and safety externalities.	
Monetisation	
– Default parameter values where available (value of time, value of a statistical life, educational attainment impact on lifetime earnings). – Market prices. – Non-market valuation using revealed preference. – Non-market valuation using stated preference. – Replacement cost method. – Interpretation of previous decisions. – Benefit transfer.	
Non-monetised impacts	
– Cultural or heritage impacts. – Indigenous values. – Visual amenity/landscape. – Biodiversity. – Indirect mental and physical health impacts. – **Distributional effects.**	
Risks and sensitivities analysis	
– Discount rate. – Under/over estimation of capital costs. – Under/over estimation of maintenance and operating costs. – Best case. – Worst case. – Deferral test.	

Source: Infrastructure Australia, 2021; SGS Economics & Planning, 2024

Comparison with similar analyses

As part of our review, we have considered a sample of economic analyses of similar stadium developments across Australia. This is intended to highlight where differences in scope and conceptualisation of key costs, benefits and base case assumptions may generate different results.

Broadly, the analyses use a similar analytical framework, made up of construction, life cycle and event attraction costs and benefits comprising:

- Increased visitation and spending from international and interstate travellers
- Enhanced user amenity from high-quality facilities, and

- Health and wellbeing impacts from greater amounts of exercise.

BCRs range from 0.5 to 1.35, suggesting that stadium investments may sometimes be economically viable in Australia. The full comparison table is presented at Appendix A.

4. Summary of issues

This chapter brings together excerpts of each component of the economic analysis of the Macquarie Point Stadium, providing a summary of its key quantitative and qualitative benefits, as well as commentary of direct and indirect issues or associated risks.

4.1 Cost-Benefit Analysis

Introduction

SGS's review of the Cost-Benefit Analysis (CBA) is divided into two broad categories:

- Issues and commentary surrounding key metrics included (by guidance) in the analysis
- Issues and commentary regarding aspects excluded from the analysis

As with all the discussion in this chapter, the intention is not to contest the economics of the analyses that have been completed, or to suggest that they have been improperly or inadequately performed. Rather, it is to contextualise their findings from the perspective of the City of Hobart.

Discussion of metrics and analysis included in the CBA

This discussion revolves around analysis and finding required by the TPC Guidelines that are contained within KMPG's report. Broadly, following SGS's review of the CBA, we find:

- The CBA is generally robust. We cannot, however, comment on specific calculations or affirm certain assumptions, given we did not have access to the CBA model itself.
- Major parameters, core assumptions and summary indicators – benefit-cost ratios (BCR) and net present value (NPV) – appear to have been adequately specified and calculated.
- KMPG's analysis structure appears to align with the relevant (TPC) guidance, though we note inconsistent application of sources of guidance – e.g. NSW Treasury, Queensland Treasury and Infrastructure Australia – throughout the report.[3]
- According to the analysis conducted, the project is economically unviable. This reflects the BCR below 1 (0.69) and negative net present value.

Table 4 summarises and provides more detailed commentary on the key metrics (in net present value terms where applicable) in the CBA.

[3] This is not a detriment of KMPG's sourcing practice or modelling; rather, at issue is the lack of guidance from Tasmanian Treasury on conducting economic analyses, specifically cost-benefit analyses.

Table 4: key metrics and commentary on the CBA

Key Metric	Description	Commentary
0.69 BCR	– Benefit Cost Ratio (BCR) is created by dividing the present value of net benefits by the present value of net costs. – BCRs above 1 reflect benefits outweighing costs, meaning the project can be considered economically viable. – BCRs below 1 reflect costs outweighing benefits, meaning the project can be considered economically unviable. – BCRs range generally between 0.5 and 0.8 for stadiums (lower end BCRs for new development).	SGS believes that a few key underlying assumptions may be overly optimistic – see discussion below. A recalibration of these few assumptions could reduce the BCR to approximately 0.4. This is in line with the project's recalculated BCR of 0.44 in a recently-released independent report commissioned by the Tasmanian Government. This analysis integrates many of the below considerations regarding overly optimistic benefits and costs and excluded items such as network externalities and the opportunity cost of land.[4]
Negative $237 million (NPV)	– NPV refers to the present value of all costs, minus the present value of all benefits. – A negative NPV signifies that a project results in a net welfare loss for the Tasmanian community.	As above, with a recalibration of a few key assumptions, the NPV would also be further in the negative.
Base case of the site remaining vacant and undeveloped	– The base case for analysis is expected to represent the most plausible 'state of the world' in which an investment does not proceed. – The chosen base case suggests that, in the event the stadium was not built, the site would sit vacant, unsold and undeveloped, holding and producing no economic value. – The base case is important as net benefits and costs are	We consider this to be an implausible base case for the stadium project. Especially given the array of alternate uses, such as those contained within the Reset Masterplan 2017-2030 published by the Macquarie Point Development Corporation prior to the stadium proposal,[5] and the value of the site as the last major urban renewal opportunity in central Hobart,[6] the failure to consider a separate base case may obscure the true incremental impact of the proposal.

[4] Gruen, N. (2025) *Independent review of the Macquarie Point Stadium*, https://live-production.wcms.abc-cdn.net.au/fb51a2fbb43c25fd865faf3e275b6882, p. 118
[5] Macquarie Point Development Corporation (n.d.) *Macquarie Point Reset Masterplan 2017-2030*, https://www.planning.tas.gov.au/__data/assets/pdf_file/0010/705997/Applied-adopted-or-incorporated-document-Macquarie-Point-Reset-Masterplan-2017-2030.PDF
[6] Ibid. p. 7

	defined as incremental to the base case, meaning any changes in the base case will have significant implications for the overall assessment of the project.	In the least, we consider that the opportunity cost of the site in terms of the market value of the land should be included as an additional component of the capital cost. This reflects the fact that the choice to develop the site means it can no longer be sold in its current form, thus generate a return for the owner (the Tasmanian Government).
Annual attendance of 370,000-400,000	– The analysis suggests that, given its capacity, design and anticipated event program, the stadium will host 370,000-400,000 people every year. – The estimated revenues and benefits are driven by these events and attendance assumptions, as well as the split between interstate, international and local attendees.	We acknowledge the breadth of comparable stadium research and stakeholder consultation that contributed to the development of these assumptions. However, the use of benchmarks assumes that similar supply and demand conditions exist in the local market and assumes that visitors and locals have similar income, discretionary spending, travel and willingness to pay characteristics. We suggest that the demand analysis should have some fundamental economic component to explore differences in these characteristics and how they link to event attendance.
$212.8 million PV related to visitor spending – producer and labour surplus	– This benefit relates to people travelling to Tasmania to attend events at the new stadium. These visitors contribute to the Tasmanian economy by spending money on local goods and services. – Producer surplus refers to the profit generated by businesses on this spending. – Labour surplus refers to the excess wages earned by workers in these businesses.	This metric is grounded in 2 key assumptions that may be overly optimistic for the visitor profile: 1) Visitors are assumed to spend $304 per night, a statistic representative of Tourism Research Australia average spend for 'holiday' travel visitors. 2) Visitors are assumed to stay for 3.1 nights, a statistic grounded in TRA averages and representative of the typical holiday travel visitor who visits Tasmania's national parks, for example.
$106 million PV related to retained visitors – producer and labour surplus	– In contrast to the above benefit, which is generated by additional visitors to Tasmania, this reflects Tasmanians staying in Tasmania to attend events at the stadium, rather than travelling elsewhere to access the same experience.	The same concerns arise here but with potentially greater downside risk to the monetised metric. Retained (Tasmanian) visitors are assumed to have the same spending profile as the non-local visitor, $326 per visitor per night for an average length of stay of 2.9 nights. Furthermore, per visitor spend factor assumes spending on airfare, travel packages, accommodation, F&B, and all other expenditure, not all of which may be appropriate for Tasmanians attending an

		event who otherwise may have spent elsewhere.
$17 million PV related to stadium "use value"	– Use value refers to the utility derived by people actually attending the stadium; for instance the benefit of the high-quality viewing experience.	No issues
$20 million PV related to stadium "non-use value"	– Non-use value refers to the benefit gained by Tasmanians who do not themselves attend events at the stadium. – It reflects qualities such as pride in the establishment of the Tasmanian AFL team, which is facilitated by the existence of the stadium and does not require attendance to enjoy.	The study from which the metric was grounded represents an assessment of the non-use value for residents of the City of Pittsburgh, Pennsylvania (US), who were asked (through an appropriate choice modelling experiment) their willingness to be assessed an additional tax if it meant preserving the existence of a sports team with strong ties to the community. At issue are: – This non-use value represents a willingness to pay to preserve, not introduce a sports team. – This metric also represents a US local government context, in which cities have public finance and taxation powers, which Australian jurisdictions do not. – As such, testing the extent to which local residents in a US city would be willing to pay higher taxes carries implications for local leaders to introduce (and seek voter approval for) a new tax to cover a capex shortfall, which many US cities have done in cases exactly like the Macquarie Point Stadium. – As applied to the Australian context, the non-use value presents information which is unlikely to be acted on at the local, state or federal levels. To this point, there is no precedent in the Australian context where a tax has been introduced and hypothecated to infrastructure within a precinct.
$88 million PV related to the establishment of the Devils AFL team	– This benefit refers to producer and labour surplus derived from increased spending in the Tasmanian AFL 'industry'. – This industry is facilitated by the existence of the stadium and reflects spending by the AFL on grassroots and	It is claimed that the AFL will spend $350 million over 10 years (beyond the $15 million capex commitment for building the Stadium). Nowhere is it stated that this is a guarantee.

	community football in the state.	
$29 million PV related to health and productivity benefits	– Reflects the benefits of a healthier community due to increased participation in AFL. – Benefits reflect increased quality of life for healthy people, reduced health system expenditure and greater productivity due to physical and cognitive health.	No issues, though limited justification for incremental uplift in participation attributable to new stadium. Arguably should have been considered as a qualitative benefit.
$41 million PV from the terminal value of the stadium at the end of its effective life	– Terminal life benefits refer to the capacity of the stadium to produce benefits beyond the end of the evaluation period. – In the case of the stadium, which has an effective life of 50 years, this reflects the value of the above benefits for the remaining 20 years following the 30 year evaluation period.	No issues, though given the issues identified above the terminal life is likely to be lower than reported.

Source: SGS Economics and Planning, 2024; KPMG, 2024

Discussion of metrics and analysis excluded from the CBA

This discussion revolves around critical issues excluded from KPMG's report, particularly those related to implicit infrastructure funding required to deal with the increased volume of visitors to the stadium precinct. KPMG notes in its Executive Summary that "the analysis is limited to the Stadium itself, and not to broader surrounding precinct, or wider costs/ revenues associated with the AFL team or Stadiums Tasmania, which is out of scope for this report." As noted earlier, SGS is not implying that such exclusions were the result of flawed execution of the technical analysis; rather that the TPC guidance did not explicitly require such assessments. In general, and as discussed below, SGS's review of the CBA found that

- Capital and maintenance costs associated with upgrades to surrounding infrastructure are excluded
- Attribution of entities responsible for funding and maintaining such upgraded infrastructure is excluded
- It is likely that, if included as per the Infrastructure Australia guidelines, these factors would contribute to deepening the economic unviability of the stadium development.

SGS's commentary on aspects of the project excluded from analysis are provided in Table 5 below.

Table 5: commentary on implied infrastructure costs excluded from the CBA

Key excluded metric	What does this mean?	Any issues?
Costs incurred indirectly by the project, such as by other government agencies	– This refers to investment required by other agencies due to the wider infrastructure or service impacts of a project. – Examples include changing traffic routes, upgrading public transport services and providing new access and parking near a redeveloped precinct. – Infrastructure Australia recommends that, if such costs are essential for a project to realise benefits (for instance to allow access to the stadium) they should be attributed to the project.	The development of the stadium will require significant additional investment by other government agencies, levels of government and private service providers. City of Hobart, particularly, will be exposed to additional costs including: – The maintenance and upkeep of areas surrounding the stadium, including paths, parks, active transport links and gardens. – Public infrastructure such as park benches. – Parking control around the precinct and in overflow areas across central Hobart. – Amplification of roads surrounding the precinct. Given the inability of the project to produce the stated without Council investment in these areas, the additional costs should be factored into the analysis.
Network externalities	– Network externalities arise when changes in user behaviour have implications for the broader infrastructure network and infrastructure users not directly affected by the project. – Externalities can be negative – for instance in the case of congestion – and positive – as in the case of health benefits enabling reductions in government spending on healthcare. – Infrastructure Australia recommends network externalities be included as both costs and benefits of assessed projects.	The cost-benefit analysis includes substantial positive network externalities, such as health, productivity and wellbeing benefits and non-use benefits. However, it does not take account of negative network externalities such as: – Additional congestion on roads, active transport links and public transport around the stadium. – Any increase in Council rates or decreases in service delivery by the City of Hobart necessitated by increased infrastructure costs, such as those specified above. Especially given the inclusion of positive externalities as benefits, we consider that these costs should be factored into the analysis.
Distributional implications	– The costs and benefits of proposals are often not uniformly distributed across the population. Because it is conducted from the perspective of society as a whole, CBA typically does	The distribution of additional funding costs and network externalities between stakeholders is paramount to the evaluation of this project. Particularly with regard to the significant financial risk to which the Tasmanian

	not take distributional factors into account. – However, Infrastructure Australia recommends proponents describe and analyse as best as possible the distributional effects of the change resulting from their proposal.	Government, and concomitantly, the City of Hobart, is exposed by the project's financial profile (see financial assessment section below) the failure to consider these aspects and their distribution between stakeholders limits the value of the analysis.

4.2 Financial Impact Report

SGS's review of the Financial Impact Report (FIR) was undertaken to provide a summary of the key metrics and commentary on relevant issues. The FIR was undertaken to provide an estimate of direct financial costs and revenues accruing to the Tasmanian Government. In general, following SGS's review of the FIR, we find:

- The FIR is generally robust. As with the CBA, we cannot comment on specific calculations or affirm certain assumptions, given we did not have access to the model itself.
- Major parameters, core assumptions and summary indicators appear to have been adequately specified and calculated.
- As anticipated following review of the CBA, the Stadium's net impact to public finance is negative, with implications not only for the state to cover the remaining capital expenditure shortfall, but also for the state to cover both the operational shortfall related to the operations of the stadium and shortfall necessary to cover debt service related to the additional debt the state will take on as a result.
- Also as anticipated, no estimations of network externalities related to other governmental agencies (e.g. local government) were included, such as capital investment needed to augment existing assets and infrastructure to accommodate demands from stadium usage

SGS's summary of key metrics and commentary are provided below in Table 6.

Table 6: key metrics and commentary on the Financial Impact Report

Key metric	Commentary
Current capital cost estimate of $775 million.	– Due to the high profile of this project (and in line with Infrastructure Australia guidance), the TPC recommended the creation of probability distributions for key cost and revenue parameters. – KPMG elected not to perform this probabilistic analysis. – Given the volatility and uncertainty in the market, particularly escalation regarding construction costs, a probabilistic model would have addressed the extent to which the capital cost could likely increase further.
Stated budget reflects a capital costs estimate of $715 million.	– KPMG states that "MPDC has developed a value management strategy which will seek to deliver the Stadium within the budget"

	– A probabilistic analysis of the capital costs for the Stadium may undercut the likelihood of this proposition.
Shortfall in the current capital cost estimate ($775 million) of $145 million in the capital stack	– State is committing $375 million – Commonwealth is committing $240 million – AFL is committing $15 million – It is possible that the funding shortfall will be left with the Tasmanian Government to backfill, with implication for state finances flowing into increased financial risk for City of Hobart if funding is reduced.
Operational shortfall of $7.8 million per year	– KPMG notes that a majority of Australian venues do not generate a net positive cashflow during operations. – As the project is unlikely to generate a financial return for the Tasmanian Government, continual financial outlays will need to be covered by increased borrowing and/or reductions in service or grants delivery. – We note that this shortfall reflects value management, such as the assumption that in-stadium services such as food and beverage and signage will be managed by third parties. It is possible that these individual components, or the stadium overall, may turn a profit, however this is not expected to accrue to the Tasmanian Government. – We acknowledge that this does not include potential revenues from F&B, signage, supply rights and functions (totalling an estimated $3 million according to KMPG's report); however, neither does it include additional costs associated with the currently unfunded capital gap, which we believe the State will be required to cover. – This exacerbates risk for the City of Hobart, which is dependent on financial and service delivery cooperation with the Tasmanian Government.
No consideration of implications of project for horizontal fiscal equalisation (HFE)	– The TPC guidelines recommended consideration of the HFE implications of the stadium. However, KPMG elected to provide caveats to the analysis, acknowledging that the HFE formula by which GST revenues are distributed to states is complex and uncertain. – The KPMG report, however, elevates attention to two possible implications. First, in applying the HFE formula, it is suggested that there "may be some impacts depending on how the Commonwealth Governments [$240 million] contribution [is] expected to be applied." – Second, it was suggested that because the HFE formula accounts for the distribution of population across states, that even allowing for the extension of the no-worse-off-guarantee, if the state's projected population declines as a percentage of overall national population, HFE allocations could be impacted, implying that the State's ability to pursue additional (GST-based) resources could be at risk.

	– For the state, an increased debt load under tighter fiscal constraints could mean that the State is put in the awkward position of making unanticipated investment trade-offs, re-prioritising or even demoting previously prioritised projects investments. – For the City, such circumstances at the State may not bode well for either making the case for or securing resources to fund local and regional infrastructure excluded from the analysis.

Source: SGS Economics and Planning, 2024; KPMG, 2024

4.3 Economic Impact Assessment

The Economic Impact Assessment (EIA) represents a conventional and accurate application of a Computable General Equilibrium (CGE) model to the stadium development. The investment shows a moderate macroeconomic impact, comprising:

- In construction phase:
  - $250-268 million in incremental Gross State Product (GSP).
  - Real income per capita gains of $175-$271 per person.
  - 302-660 full-time equivalent (FTE) jobs.
  - Benefit overwhelmingly accruing to the construction sector.
- Impacts on GSP and FTE employment fall to 30-50 per cent of these levels for a typical year of operational phase.
- The main beneficiary industries from the operation of the stadium are arts and recreation and accommodation and food services, which experience deviations from baseline industry value-added of 4 and 3 per cent respectively.
- There are minimal forecast impacts on other industries in the Tasmanian economy.

Table 7 below outlines a number of issues highlighted in our review of the economic impact assessment. These are indirect issues, in that they do not concern flaws with specific elements of the analysis, rather the practical implications of the analysis for the City of Hobart.

Table 7: Economic Impact Assessment key metrics and commentary

Key Metrics	Commentary
Jobs growth in the Tasmanian economy – Construction phase: 721-1,576 jobs – Operational phase: 204 jobs	The report notes that economic growth generated by the project is **likely to come at the expense of other sectors in the Tasmanian economy**. This is particularly the case as the economy is experiencing tight labour, product and credit markets, which increase displacement when one investment is chosen over another. The greatest negative impacts are

Income growth in the Tasmanian economy – Construction phase: $175-$271 annual per capital increase – Operational phase: $191-$242 annual per capita increase	experienced in manufacturing, education and training and agriculture, forestry and fishing. These industries are expected to see labour, capital and purchasing power drawn away by the stadium development. The report notes that the full cost of public funding provided to the stadium will be **passed onto taxpayers in the form of higher taxes**. Given the financing issues highlighted in our review of the financial assessment, these rises – or a compensatory reduction in services or transfers to local government – could be substantial. This would have significant negative impacts on the City of Hobart and its community, which is already exposed to cost of living and service delivery pressures.
GSP growth in the Tasmanian economy – Construction phase: $250-$269 million GSP – Operational phase: $27-$32 million GSP	

Source: SGS Economics & Planning, 2024

4.4 Social and Cultural Impact Assessment

The Social and Cultural Impact Assessment (SCIA) is intended to systematically assess and document the potential social and cultural impacts of the development. These are captured in a comprehensive value framework, which documents the key mechanisms through which the development will create change, the outcomes of those mechanisms, and the positive and negative impacts of outcomes on stakeholders. Due to the relatively small net benefits of the proposal, and the low BCR of 0.69, the social and cultural assessment assumes greater importance in the evaluation of the proposal. As specified in the cost-benefit analysis report:

> While the quantifiable economic benefits are not projected to outweigh the quantifiable costs, it is acknowledged that this is not unusual for projects of this nature, where a large component of benefit is either not quantifiable or not able to be monetised (whereas most or all costs are able to be monetised). See the accompanying Social and Cultural Analysis Report for further detail on the full range of impacts – both quantified and unquantified.[7]

Following our review, we find:

- Despite the above caveat, most elements of the value framework are monetised – either partially or fully – in the cost-benefit and financial analysis. This is demonstrated in **Table 8** below.
- We do not expect that the benefit which remains to be monetised would yield significant contributions to stadium's net benefit estimate
- it appears that most unquantified impacts covered in the social and cultural impact analysis refer to the negative impacts of the proposal, which would ordinarily be covered under cost categories that have been excluded in this cost-benefit analysis, such as network externalities, environmental externalities, opportunity costs and increased costs to consumers and businesses.
- Therefore, we recommend that greater emphasis be placed on the quantitative results of the cost-benefit analysis (BCR and NPV) for decision-making purposes.

[7] KPMG (2024) *Cost-Benefit Analysis: Macquarie Point Multipurpose Stadium*, p. 2

Table 8: positive and negative impacts in Social and Cultural Impact Assessment compared to costs and benefits in Cost-Benefit Analysis – quantified and unquantified

Unquantified impact in Social and Cultural Assessment	Quantified in Cost-Benefit Analysis?	Which benefit(s)?
Positive impacts	Yes/no	Benefit in CBA
Economic uplift for Tasmania (short-term)	Yes	– Producer and labour surplus flowing from new visitors to Tasmania spending money on local goods and services. – Producer and labour surplus flowing from new event operators from outside of Tasmania spending money on local goods and services. – Producer and labour surplus flowing from fewer Tasmanians leaving the State to attend an event in another Australian State or Territory. – Producer and labour surplus flowing from the establishment of the new AFL team and the associated investment in the State.
Economic uplift for Tasmania (long-term)	Yes	
Employment and increased human capital (short-term)	Yes	
Employment and increased human capital (long-term)	Yes	
Improved investment and exports	Yes	
Increased civic pride and community cohesion	Yes	– Non-use value accruing to Tasmanians as a result of the AFL team's establishment, independent of the Stadium's use.
Improvement amenity for stadium visitors	Yes	– Use-value accruing to Tasmanians who attend the new Stadium.
Improved physical and mental health	Yes	– Personal health benefit accruing to Tasmanians who start playing AFL as a result of the participation target and 'inspiration effect', who otherwise would have been physically inactive. – Health system benefit that flows from the personal health benefit above. – Productivity benefit that flows from the personal health benefit above.
Improved subjective wellbeing	Yes	– Personal health benefit accruing to Tasmanians who start playing AFL as a result of the participation target and 'inspiration effect', who otherwise would have been physically inactive. – Use-value accruing to Tasmanians who attend the new Stadium.
Improved liveability	No	Unquantified
Improved athlete experience	No	Unquantified

Negative impacts	Yes/no	Cost in CBA
Housing supply (short term)	No	Unquantified, but generally fall under excluded network and environmental externalities.
Disruption to local businesses and residents (short term)	No	
Visual impact of the stadium	No	
Pollution, carbon emissions and other environmental impacts resulting from construction	No	
Disruption to local businesses and residents (long-term)	No	
Pollution, carbon emissions and other environmental impacts resulting from operations	No	

Source: SGS Economics and Planning, 2024; KPMG, 2024

5. Conclusion and implications for City of Hobart

This section draws together the findings of the review of individual analyses into a comprehensive assessment of the costs and benefits of the proposal from the perspective of the City of Hobart.

There are a number of issues of concern with the stadium proposal, and the associated analyses completed for the Macquarie Point Development Corporation, from the perspective of the City of Hobart. Broadly, these issues can be understood as:

- Higher costs than indicated by the analyses; and
- Lower benefits than indicated by the analyses.

Costs

On the cost side, while the analysis likely represents an understated capital investment value, there are multiple risks for the City of Hobart.

- The fact that the Tasmanian Government is committing $375 million in debt to the project implies an increased debt load and debt servicing requirements, which will constrain the environment in which the City must compete for infrastructure expansion grant or loan funding of its own.
- The fact that the Tasmanian Government (whether in the form of Treasury, Stadiums Tasmania or another public corporation) is likely to fund the unfunded capex shortfall implies greater debt load, further commitment of resources to servicing the debt and a further deterioration of the City's ability to seek infrastructure funding assistance.

As related to issues unaddressed by the economic analyses.

- Costs associated with infrastructure upgrades, capital reserves and maintenance the upkeep of parks, active travel links and other features of the precinct surrounding the stadium have not been considered or costed.
- Costs associated with management of increased transport, road congestion and parking across central Hobart have also not been factored in. As indicated by the attendance estimates, these demands on the transportation system are likely to be considerable.

Furthermore, and from the strategic financial planning perspective, the City of Hobart, TasWater, TasNetworks or any other entity is required to prepare a Business Case in the process of seeking capital or operational assistance to fund infrastructure investments. If the metrics contained within these economic analyses cannot demonstrate a positive BCR or NPV for the stadium, it is unclear how any of these entities will be able to demonstrate how the very same associated externalised benefits will yield a positive BCR or NPV, such that either the Tasmanian Government or the Commonwealth Government would approve of such grant assistance.

Benefits

The stadium project generates some benefits for the Tasmanian community, though the negative BCR suggests that these do not equate to the costs incurred its development and operation from the perspective of the Tasmanian Government. Moreover, the majority of benefits do not accrue directly within the City of Hobart, aside from those related specifically to in-stadium activities such as the use value to stadium attendees.

We have also identified a number of issues with benefits specified in the cost-benefit, economic impact and social and cultural impact analyses, which suggest that actual benefits may be even lower than suggested in these reports.

While the Cost-Benefit Analysis defers significantly to the Social and Cultural Impact Analysis in containing unquantifiable, though valuable positive impacts of the proposal, our review finds that most of these impacts are in fact monetised and quantified as benefits. The negative impacts, however, align with those aspects of cost or disbenefit that have been largely excluded from the CBA. This recommends attention to summary measures of the project's viability produced in the CBA; especially the negative net present value and benefit-cost ratio.

We do note, however, the potential for considerable additional rates to be raised from the stadium precinct. These rates could be sufficient to cover the increased costs to the City of Hobart of servicing the precinct during its development and operation

Concluding remarks

In general, we conclude that the City of Hobart should advocate to ensure its interests are adequately reflected as the development proceeds. This advocacy should particularly relate to:

- The expectation that the City cover the substantial networks externalities generated by the project, particularly in maintaining infrastructure and providing services in and around the stadium precinct. However, it is noted that potential service costs may be covered by additional rate revenue from the precinct.
- The significant financial risk to which the City is exposed by the Tasmanian Government taking on a large, unfunded capital expense during construction and enduring financial liability during operation. These liabilities are likely to flow into reduced funding.
- The inability of the City of Hobart to pursue greater financial assistance from the Tasmanian Government to meet the costs of servicing the stadium, such as the required supporting infrastructure, given the state's new fiscal constraints.
- The necessity for the City of Hobart to trade off these potential costs against reductions in service delivery or funding to other council activities, to the detriment of the local community.
- The low likelihood that the project will generate sufficient economic benefits for the Tasmanian community to justify the costs incurred, or a sufficient financial return for the Tasmanian Government to justify the liabilities accepted.
- The critical role of additional rates raised from the stadium precinct in allowing the City of Hobart to meet the increased costs of the precinct's development, maintenance and operations.

Appendix A: review of stadium CBAs in Australia

Table A1: summary of stadium CBAs across Australia

Project	Investment Type	Costs	Benefits	Base case	BCR
Hobart Stadium (MI Global Partners, 2022)[8]	New development	– Initial construction costs between 2023 and 2028 – Life cycle capital costs (ongoing annual capital costs of maintaining the stadium) – Operational costs: Direct costs and indirect costs, event day costs and food & beverage costs – Event acquisition costs	– Tourism benefit: Producer/Government and labour surplus through increased interstate and international visitors and operational expenditure as a result of new event content – Financial benefit: Estimated uplift in stadium revenue (i.e. hiring fees, food & beverage, ticketing commissions, sponsorship) as a result of new event content – Consumer benefits: Consumer user benefits (i.e. local Tasmanian event attendees) through enhanced stadium amenity and event experience – Community benefit: Consumer non user benefit to Tasmanian residents. This includes option value, social value and passive value. – Terminal value: The value of the net benefits to the government at the end of the evaluation period	There is no development of the Hobart stadium.	0.5

[8] MI Global Partners (2022) *Hobart Stadium Cost Benefit Analysis Report – Final Full Report*, accessed 14 November 2024. https://www.stategrowth.tas.gov.au/__data/assets/pdf_file/0017/415016/Hobart_Stadium_CBA_Final_Report_-_MI_Global_Partners.pdf

Yarrawonga Stadium (MCa, 2019)[9]	New development	– Capital costs – Maintenance costs	– Direct benefits of users: These include value in exchange and consumer surplus – Health and welfare benefits: There are significant long term health costs savings (private expenses & government Medicare payments) for persons who exercise – Direct benefits regional income: Increase in regional income that is generated by facility in the Yarrawonga region	Not reported	0.77 to 1.35
Stadium Australia (Infrastructure NSW, 2019)[10]	Reinvestment	– Capital costs – Life cycle costs – Event attraction costs (fees associated with the process of securing major events)	– Consumer surplus - Use and non use value – Producer and labour surplus – Terminal value	The Stadium would continue to operate and would be maintained for the next 30 years with no changes.	0.87 to 0.91
Gabba Stadium (Department of State Development, Infrastructure, Local Government and	Reinvestment	– Capital costs – Maintenance costs – Lifecycle costs	– Consumer surplus – Amenity and placemaking benefits derived through the development of open and green spaces, connections with public transport and activation of the public realm in the immediate surrounding area with retail and commercial offerings and heritage building refurbishments	The Gabba would not undergo major redevelopment and continue to host the same events	Not reported

[9] MCa (2019) *Yarrawonga Multi-Sport Stadium Feasibility Study*, accessed 14 November 2024. https://www.moira.vic.gov.au/files/sharedassets/public/04-community/works-and-projects/yms/d19-26687-eco-imp-yarrawonga-stadium-report-2-courts-draft-1-march-28-19.pdf.pdf

[10] Infrastructure NSW (2019) *Final Business Case Summary Stadium Australia*, accessed 14 November 2024. https://www.infrastructure.nsw.gov.au/media/0cfjie2h/sa-fbc-summary_final.pdf

Planning - Queensland)[11]			– Civic pride and destination branding for Brisbane and Queensland – Operational and environmental impacts Key positive social impacts include (likely not being monetised): – Improved facilities and accessibility for spectators and athletes – Improved operational environmental footprint through the new stadium design supporting goals of reduced water and energy consumption – Ongoing and skilled employment opportunities – Improved integration to public transport (and co-located active transport facilities) – Enhanced incorporation of heritage elements and representation of First Nations cultural heritage, creating cultural representation (e.g., visual displays) and educational opportunities for the community within and around the stadium.		

[11] Department of State Development, Infrastructure, Local Government and Planning (2024) *The Gabba Stadium Redevelopment Project Validation Report Summary*, accessed 14 November 2024. https://www.statedevelopment.qld.gov.au/__data/assets/pdf_file/0027/85356/gabba-stadium-redevelopment-project-validation-report.pdf

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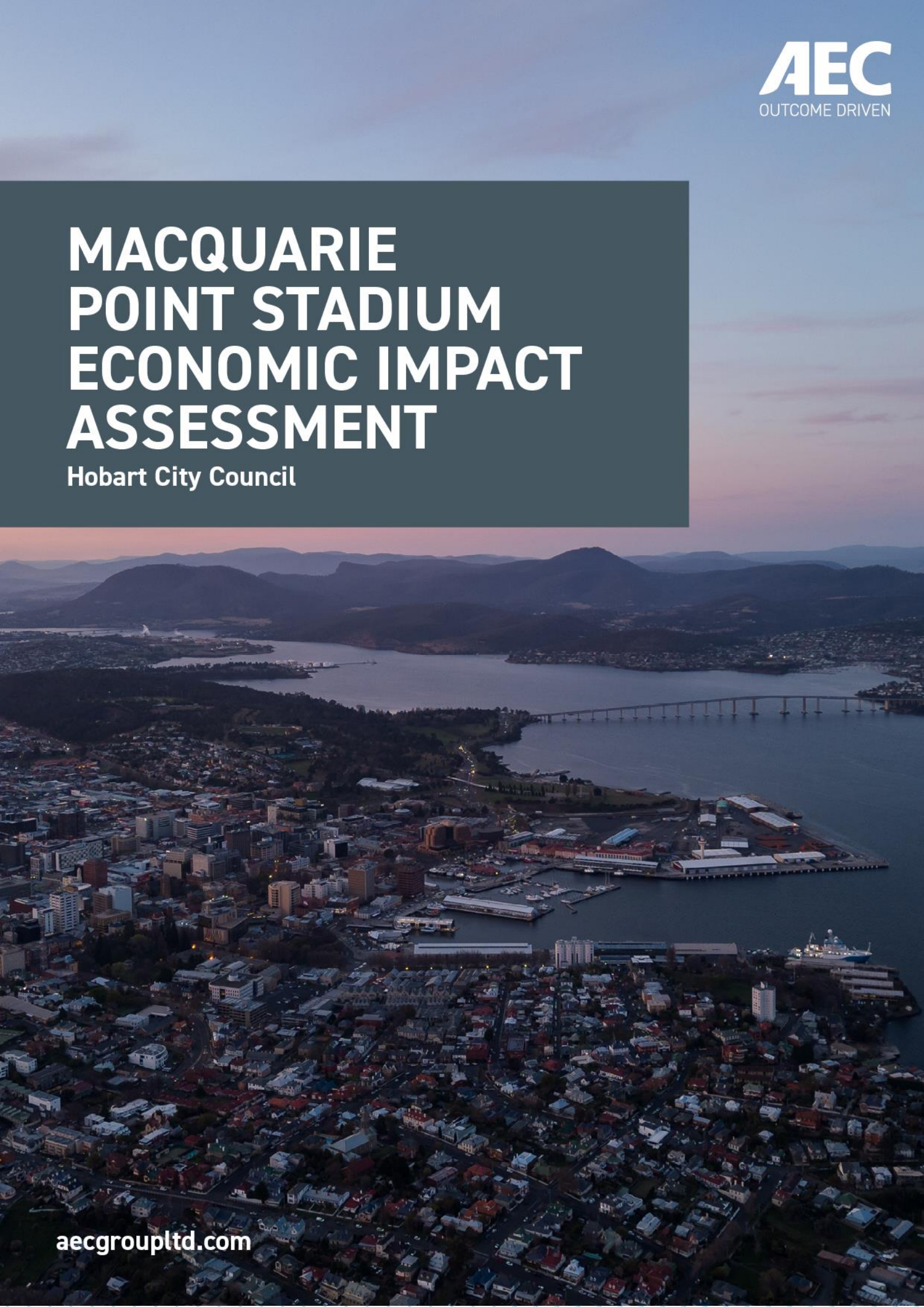
Appendix 2

Macquarie Point Stadium Economic Impact Assessment, AEC Group Report

AEC
OUTCOME DRIVEN

MACQUARIE POINT STADIUM ECONOMIC IMPACT ASSESSMENT

Hobart City Council



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GLOSSARY

Table G.1: Glossary of Terms

Acronym/ Term	Description
Business Output	Refers to the gross value of goods and services transacted, including the costs of goods and services used in the development and provision of the final product. Output typically overstates the economic impacts as it counts the value of goods and services at multiple points of the production cycle.
FTE Jobs	Refers to the part-time and full-time employment positions generated by the economic shock, both directly and indirectly through flow-on activity, and is expressed in terms of full time equivalent (FTE) positions. One FTE job is equivalent to one full time job for one year.
Gross Regional Product (GRP)	Refers to the value of output after deducting the cost of goods and services inputs in the production process. Gross Regional Product defines a true economic contribution to the region (in this study, Hobart Local Government Area) and is the preferred measure for assessing economic impacts.
Incomes (also referred to as salaries and wages)	Measures the level of wages and salaries paid to employees holding the FTE jobs generated.
Initial Stimulus (also referred to as direct impact)	Represents the economic activity of the industry directly experiencing the stimulus.

Flow-On Impact	Refers to the secondary effects (e.g. supply chain and induced consumption) that occur as a result of the direct impact. These impacts are disaggregated to:
	• Production induced (supply chain) impacts (type I flow-on), which includes:
	  ○ First round production requirements
	  ○ Industry support impacts
	• Household impacts (type II flow-on).

Production induced impact	The flow-on (supply chain) impact comprising direct requirements and industry support activity.
First Round Requirements	Expenditure on goods and services to support by the industry experiencing the stimulus (direct suppliers to the industry), known as the first round or direct requirements effects.
Industry Support	The flow-on or second and subsequent round effects of increased purchases by suppliers in response to increased final demand (i.e. sales), known as the industry support effects.
Household Impact	Represent the consumption induced activity from additional household expenditure on goods and services resulting from additional wages and salaries circulating (i.e. being paid) within the economic system.
LGA	Local Government Area
Hobart LGA	Refers to the residents, patrons, labour, and businesses within the Hobart LGA.
Rest of Greater Hobart (RoGH)	Refers to the residents, patrons, labour, and businesses within the Greater Hobart region, excluding Hobart LGA.
Rest of Tasmania (RoT)	Refers to the residents, patrons, labour, and businesses within the state of Tasmania, but outside of the Rest of Greater Hobart.
Interstate	Refers to the residents, patrons, labour, and businesses outside Tasmania, based in mainland Australia.
Non-Local	Refers to the residents, patrons, labour, and businesses outside the Hobart LGA.

Source: AEC.

EXECUTIVE SUMMARY

BACKGROUND

The proposed Macquarie Point Stadium (the Stadium) is a pivotal element of the Macquarie Point Master Plan, a multi-stage initiative designed to transform Macquarie Point in Hobart into a dynamic, mixed-use precinct. The proposed Stadium will feature a 24,500-seat capacity for sports events and approximately 30,000 capacity for concert events, with a transparent roof that will enable the Stadium to host a variety of sports, concerts, and business events.

The Stadium is envisioned as a cultural landmark for Hobart, facilitating the establishment of a new Tasmanian Australian Football League (AFL) team, the Tasmanian Devils, providing a sense of pride and importance for local residents regarding their community and region. This is evidenced by the strong support for the team and the rapid membership uptake, with over 200,000 members just months after the launch.

The development is anticipated to revitalise currently vacant waterfront land, drive the progress of other components of the Macquarie Point Master Plan, support local economic development and job creation, and elevate the profile of Hobart and Tasmania. This, in turn, is expected to attract more tourists and businesses to the region.

AEC Group Pty Ltd (AEC) has been engaged by Hobart City Council (Council) to conduct an economic impact assessment of the proposed Macquarie Point Stadium, focusing exclusively on the impact on the City of Hobart's geography, as most previous related studies for the Stadium have focused on Tasmania as a whole.

PURPOSE AND APPROACH

This report provides an economic analysis of the Macquarie Point Stadium for the Hobart LGA, examining both the potential construction and operation phase impacts. It incorporates previous related studies and peer reviews, along with desktop research, to inform the underlying assumptions and quantify the proposed project's economic impact on the Hobart LGA's economy using input-output modelling.

This analysis is designed to inform and demonstrate to the Council the economic impacts of the project, as well as its wider socio-economic benefits. Additionally, it offers high-level strategies that can be adopted to further activate the Hobart LGA before and after events, in order to fully leverage the benefits of the Stadium.

KEY FINDINGS

ECONOMIC IMPACT ASSESSMENT

The total construction cost for the proposed Macquarie Point Stadium is estimated at $934.8 million, with the construction period anticipated to span from 2025 to 2029. During the construction phase, it is estimated that the construction activity will generate significant economic impacts within Hobart LGA, as shown in Table ES.1.

Table ES.1: Economic Activity Supported by Construction, Hobart LGA

Impact	Output ($M)	GRP ($M)	Incomes ($M)	Employment (FTEs)
Initial Stimulus in Local Economy	$52.4	$20.3	$16.3	123
Direct Requirements (First Round Type I) Impacts	$41.8	$18.6	$13.0	116
Industry Support (Subsequent Round Type I) Impacts	$17.3	$8.4	$5.9	49
Household Consumption (Type II) Impacts	$31.9	$18.0	$9.4	97
Total Impacts in Local Economy	**$143.3**	**$65.4**	**$44.7**	**385**

Note: Totals may not sum due to rounding.
Source: AEC.

Modelling of the operational phase impacts examines the average total annual economic activity supported through the operations of the Stadium, which are assumed to reach a business-as-usual stage by 2032. The Macquarie Point Stadium will generate economic activity for the Hobart LGA through the following mechanisms:

- Operating activity of the stadium itself
- Activity associated with organising and hosting events at the stadium
- Activity supported more broadly in Hobart LGA on event days outside the Stadium, before and after an event
- Induced non-event day visitation and associated visitor expenditure.

Table ES.2 highlights the annual economic impacts of the Stadium supported by business-as-usual operations. Of the post-construction impacts, the largest impact is estimated to be delivered through induced non-event day visitor expenditure, followed by local and visitor expenditure on event day (outside the venue).

Table ES.2: Economic Activity Supported during Post-Construction, Hobart LGA

Impact	Output ($M)	GRP ($M)	Incomes ($M)	Employment (FTEs)
Stadium Operations				
Initial Stimulus in Local Economy	$7.4	$0.4	$2.6	23
Direct Requirements (First Round Type I) Impacts	$2.9	$1.4	$1.1	11
Industry Support (Subsequent Round Type I) Impacts	$0.9	$0.5	$0.3	3
Household Consumption (Type II) Impacts	$2.9	$1.6	$0.8	9
Total Impacts in Local Economy	**$14.0**	**$3.9**	**$4.9**	**45**
Hosting Event Activity				
Initial Stimulus in Local Economy	$4.5	$2.2	$1.8	31
Direct Requirements (First Round Type I) Impacts	$1.4	$0.7	$0.5	4
Industry Support (Subsequent Round Type I) Impacts	$0.4	$0.2	$0.1	1
Household Consumption (Type II) Impacts	$1.6	$0.9	$0.5	5
Total Impacts in Local Economy	**$7.9**	**$4.0**	**$2.9**	**41**
Local and Visitor Expenditure On Event Day (Outside The Venue)				
Initial Stimulus in Local Economy	$40.0	$19.8	$15.2	237
Direct Requirements (First Round Type I) Impacts	$9.0	$4.3	$3.0	25
Industry Support (Subsequent Round Type I) Impacts	$2.7	$1.3	$0.9	7
Household Consumption (Type II) Impacts	$15.2	$8.6	$4.5	46
Total Impacts in Local Economy	**$66.9**	**$34.0**	**$23.6**	**315**
Induced Non-Event Day Visitor Expenditure				
Initial Stimulus in Local Economy	$54.2	$26.4	$20.3	308
Direct Requirements (First Round Type I) Impacts	$12.1	$5.8	$3.9	33
Industry Support (Subsequent Round Type I) Impacts	$3.6	$1.8	$1.2	10
Household Consumption (Type II) Impacts	$20.2	$11.4	$6.0	62
Total Impacts in Local Economy	**$90.1**	**$45.3**	**$31.4**	**412**
Total Operations Phase				
Initial Stimulus in Local Economy	$106.0	$48.7	$39.9	598
Direct Requirements (First Round Type I) Impacts	$25.4	$12.2	$8.5	72
Industry Support (Subsequent Round Type I) Impacts	$7.6	$3.8	$2.6	21
Household Consumption (Type II) Impacts	$39.8	$22.5	$11.8	122
Total Impacts in Local Economy	**$178.9**	**$87.2**	**$62.8**	**813**

Note: Totals may not sum due to rounding.
Source: AEC.

AEC also examined a scenario where 100% (compared to only 50% under the central case) of business-type events represent net new activity for the Hobart LGA economy. Under this scenario, the impact improvement compared to the central case is relatively small (an improvement in GRP contribution of $2.5 million and 23 more FTE jobs, including direct and flow-on impacts).

WIDER SOCIO-ECONOMIC BENEFITS

In addition to the economic activity outlined above, the new Stadium may support a range of social and cultural benefits for the Hobart LGA, including the following:

- Support for Broader Economic Investment and Urban Renewal
- Support for Local Supply Chains and Workforce Skills Outcomes
- Amenity Benefit for Local Residents
- Population Retention and Increased Liveability in Hobart
- Raising the Profile of Hobart
- Enhanced Community Connectivity and Pride of New Stadium and New AFL Team
- Increased Participation in Sport and Support for Local Professional Sports Industry
- Volunteering Opportunities

STRATEGIES TO ACTIVATE HOBART LGA PRE AND POST EVENT

The Macquarie Point Stadium is expected to boost patronage to nearby businesses before and after events. The following strategies can be adopted to further activate Hobart LGA and fully leverage the benefits of the Stadium:

- **Pre-Event Engagement & Wayfinding Activation:** Develop a 'Stadium Event Trail(s)' map (printed and digital) that guides attendees to local venues and highlight opening hours, offers, experiences and what to expect pre/ post-event. Activate key walking routes between the Stadium and key entertainment precincts (e.g. Salamanca, Battery Point, CBD, etc) with branded signage, temporary public art, or wayfinding projections.
- **Event/ Night Economy Infrastructure:** Establish infrastructure or designate existing areas for temporary pop-ups or food trucks along key walking routes to and from the Stadium during major events to create a pre-event "village" atmosphere. Printed and digital (e.g. scooters, shuttle loops) to link key precincts (e.g. Salamanca Place, Battery Point, CBD, and Waterfront) more effectively on event nights, particularly in cold weather.
- **Campaigns Pre and Post Stadium Events:** Local businesses can boost event day sales through targeted awareness campaigns and event day promotions. Developing marketing campaigns to promote local businesses and attractions to Stadium visitors can highlight special offers, events, and unique experiences available in the surrounding areas. A significant portion of survey respondents who attended a game at CommBank Stadium in Parramatta reported being unaware of the range and quality of cafes, restaurants, bars, and clubs in Parramatta, indicating that the lack of purchases was due to a lack of awareness rather than negative perceptions (Invest Parramatta, 2019).
- **Extend Trading Hours and Provide Incentives:** Encouraging local businesses to extend their operating hours on event days can accommodate the anticipated influx of visitors before and after events at the Stadium, especially on event day. In 2023, the number of businesses in Hobart LGA operating between 6 pm and 6 am fell on most days of the week compared to 2022 (Ingenium Research, 2024). Around 41% to 58% of core nighttime economy-related businesses (10% to 13% of all retail businesses) were open in the evening from 6 pm to 9 pm, with that share dropping sharply to 21% to 35% from 9 pm to 12 am. Extended operating hours, especially for events held at night, can promote nightlife and increase activity. To support commercial viability, the government can offer incentives such as liquor license fee rebates for venues.
- **Curated Local Offers Linked to Event:** Work with traders to provide exclusive offers for patrons who show their event tickets (e.g. discounts, fixed-price menus, priority seating). Encourage venues to offer 60-minute set menus before events with guaranteed turnaround times.

- **Support Trader Capacity Building & Scheduling Support:** Offer Council-supported training or briefings for local businesses on how to prepare for peak event days (e.g. rostering, quick service delivery, digital promotion, etc). Council could create a real-time event calendar dashboard for traders to view pending events and appropriately plan ahead.
- **Collaborative Events and Partnerships:** Encourage collaboration between the Stadium operator and local businesses to host joint events, such as pre-game and post-game activities, live music performances, and food festivals, can attract more visitors to the area. These events can create a festive atmosphere and provide additional entertainment options for visitors. Consider the development of staggered/ staged exit strategies by including a mix of post-event entertainment or 'linger zones' in Stadium and staged at various points outside of the stadium to minimise max exodus and increase dwell time.
- **Buskers and Street Performers:** Introducing buskers and street performers in key areas around the Stadium can create a lively and engaging atmosphere. This can attract more visitors and encourage them to spend more time in the area, benefiting local businesses. Businesses may wish to create family-friendly early dining or activity options/ precincts for events (e.g. craft stations, face painting, kids' menus, and themed event tie-ins).
- **Cultural and Recreational Activities:** Leveraging the Stadium's presence to promote cultural and recreational activities in the area can enhance the overall visitor experience and encourage longer stays. Performers should be coordinated pre and post event (e.g. 2 hours before and 2 hours after) Organise walking tours, historical site visits, and outdoor activities that highlight the unique aspects of Hobart.

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1. INTRODUCTION

1.1 BACKGROUND

AEC Group Pty Ltd (AEC) has been engaged by Hobart City Council (Council) to conduct an economic impact assessment of the proposed Macquarie Point Stadium (the Stadium), located at Macquarie Point, Hobart. This assessment will focus on the impacts and benefits associated with the construction and operation of the Stadium, from the vantage point of assessing benefits exclusively for the City of Hobart's geography (Hobart local government area (LGA)).

It is important to note that most previous related studies for the Stadium have focused on Tasmania as a whole. A Project of State Significance (PoSS) application was recently submitted to the Tasmanian Planning Commission (TPC), with all technical reports included in the application prepared from the perspective of assessing benefits for the state of Tasmania.

The objective of this study is to provide a report that incorporates previous related studies and peer reviews, along with desktop research, to inform the underlying assumptions, and then quantify the proposed project's economic impact on the Hobart LGA's economy using input-output modelling. Additionally, the study aims to examine the potential social and cultural benefits of this development and offer high-level strategies to further activate businesses within the catchment area, leveraging the benefits of the Stadium.

1.2 PURPOSE AND APPROACH

This report provides an economic analysis of the Macquarie Point Stadium for the Hobart LGA, examining both the potential construction phase and operation phase impacts. Given the proposed stadium will be located within Hobart LGA, this analysis is designed to inform Council's decision-making processes, highlighting the potential economic, social, and cultural implications for Hobart, and offering strategies to capitalise on the benefits of the Stadium. All years presented in this report are for financial years ending June. Where years are reported (e.g. the year 2025) this refers to the financial year ending in June of the year presented (e.g. year ending 30 June 2025).

This report provides:

- **Section 2:** Project Overview - A description of the Stadium project, including key elements and the rationale for development of the Stadium.
- **Section 3:** Economic Impact Assessment - An estimation of the direct and flow-on impacts to the Hobart LGA economy via Input-Output (IO) modelling. A description of the IO methodology is provided in Appendix A.
- **Section 4:** Wider Socio-Economic Benefits - An assessment of the wider social and cultural benefits generated through the construction and operations of the Stadium, which are not fully captured in IO modelling.
- **Section 5:** Strategies to Activate Surrounding Region - An overview of the current retail and commercial offerings for locals and visitors in the catchment area, and high-level strategies that can be adopted to enhance the activation of these areas to support Hobart LGA's economy.

1.3 DOCUMENTS REVIEWED

Council provided key documents and materials for AEC to review and support the development of the assumptions for the economic impact assessment of Macquarie Point Stadium in Hobart, including:

- Cost Benefit Analysis Macquarie Point Multipurpose Stadium (KPMG, 2024[a]).
- Economic Impact Assessment Macquarie Point Multipurpose Stadium (KPMG, 2024[b]).
- Financial Impact Report Macquarie Point Multipurpose Stadium (KPMG, 2024[c]).
- Social and Cultural Analysis Macquarie Point Multipurpose Stadium (KPMG, 2024[d]).
- Supplementary Report Macquarie Point Multipurpose Stadium (KPMG, 2025).

- Macquarie Point Stadium Housing for Workforce (Leftfield Project Solutions, 2024).
- Independent review of the Macquarie Point Stadium (Gruen, 2025).
- The Socio-Economic Value of AFL Games in Hobart, 2015 (Institute Of Project Management, 2015).
- Macquarie Point Stadium Economic Analysis Advice (SGS Economics and Planning, 2025).

It is important to note that AEC was not provided with the underlying models, analysis, and stakeholder consultation that informed and generated the model outcomes and key findings of the above reports. Therefore, AEC cannot verify the accuracy of the model outcomes presented in these reports. However, information provided in the reports has been used for assessing impacts of the Stadium to Hobart LGA in this study if deemed reasonable and appropriate.

Almost all of the above reports focused on the project's impacts on Tasmania as a whole. This report, however, focuses on examining the impact on Hobart LGA. AEC conducted desktop research, performed benchmarking analysis and consulted with the Council, to fill data gaps and validate assumptions for use. Benchmarking included examining other stadiums such as CommBank (formerly Bankwest) Stadium in Parramatta, and AEC's previous stadium-related work which includes analysis and patrons surveying for the Queensland Country Bank Stadium, Suncorp Stadium, The Gabba, Cbus Super Stadium, People First Stadium and Optus Stadium.

2. PROJECT OVERVIEW

2.1 PROJECT DESCRIPTION

The Macquarie Point Stadium is a crucial element of the Macquarie Point Master Plan, a multi-stage initiative designed to transform Macquarie Point in Hobart into a dynamic, mixed-use precinct. This development aims to offer diverse experiences, stimulate economic activity and tourism, and attract investment to the region (MPDC, 2024).

The proposed Macquarie Point Stadium will feature the following key components (KPMG, 2024[a]):

- 24,500 capacity for sports events, with seating distributed as follows:
  - 19,608 General admission capacity (including of 1,500 standing spaces)
  - 692 Category 1 corporate capacity
  - 700 Category 2 corporate capacity
  - 3,500 Stadium membership capacity
- Approximately 30,000 capacity for concert events (including capacity / seating on the playing surface)
- A transparent roof supported by an internal steel and timber frame
- Food and beverage infrastructure, signage and audio visual infrastructure
- Function space for up to 1,500 people
- Practice wickets will be on-site
- Goods shed relocation and fitout
- Precinct-related works, such as site access upgrades, increased public transport infrastructure, and redesigns of surrounding streets.

The stadium is envisioned as a cultural landmark for Hobart, facilitating the establishment of a new Tasmanian Australian Football League (AFL) team, the Tasmanian Devils. It will host a variety of sports, concerts, and business events, catering to the diverse interests of Tasmanians. The development is expected to rejuvenate currently vacant waterfront land, drive the progress of other components of the Macquarie Point Master Plan, support local economic development and job creation, invigorate consumer-facing businesses in and around the stadium, and elevate the profile of Hobart and Tasmania, thereby attracting more tourists and businesses to the region.

2.2 EVENT SCHEDULE AND ATTENDANCE

The event schedule and associated attendance at the Stadium are crucial drivers of the economic analysis. AEC has adopted KPMG's proposed 'core' event calendar and assumed attendance figures for sports, concert, and business events, as detailed in Table 2.1 (KPMG, 2024c). These projections are deemed reasonable and align with attendance figures at comparable venues, such as Queensland Country Bank Stadium in Townsville, which had 299,384 attendees in 2024, and CommBank Stadium in Parramatta, which had 446,474 attendees in 2024 (Austadiums, 2025). For modelling purposes, AEC has assumed the following:

- **Sports and Concert Events:** 37 events per year, with a total attendance of 393,673 patrons[1]
- **Business Events:** 52 events per year, with a total attendance of 13,000 delegates[2].

[1] Total includes event participants.

[2] AEC has assumed that only 50% of KPMG's business-type event schedule (104 events) and associated attendance (26,000 delegates) represent net new activity for the Hobart LGA Economy (see section 3.2.2.2).

As KPMG's Cost Benefit Analysis and Economic Impact Assessment were conducted from a Tasmanian perspective (KPMG, 2024[a]; 2024[b]), events already held at other Tasmanian venues, such as UTAS Stadium in Launceston and Ninja Stadium in Bellerive, were excluded from their analysis. Since these stadiums are outside the Hobart LGA boundaries, any events transferred to Macquarie Point Stadium will represent additional activities and economic benefits for the Hobart LGA and thereby have been included in this study.

Table 2.1: Event Calendar and Attendance

Event-type	Event	Annual Event Days	Average Event Day Attendance
Commercial	AFL (TFC)	7	20,825
	AFLW (TFC)	3	4,900
	AFL pre-season	1	6,125
	AFLW pre-season	1	2,450
	BBL	4	10,413
	WBBL	4	2,450
	NRL Club Match	1	17,763
One-off	Test Match	4 (1 event)	14,088
	Men's ODI / T20	1	15,313
	Women's ODI / T20	1	4,900
	Socceroos (Tier 2 friendly)	1 in every 4 years	22,050
	Matildas (Tier 2 Friendly)	1 in every 4 years	22,050
	Youth International	1	2,450
	Ad hoc sport/ entertainment	1 in every 2 years	12,000
Entertainment	Concerts (Full)	1	30,000
	Arena mode concerts	1	10,000
Community	Local Football GF	1	4,900
	VFL Tasmania Devils / VFLW Tasmania Devils (Double Header)	2	2,450
	Coates Talent League (Double Header)	1	613
	Existing Mass Participation Events	1	1,500
	Existing Local Events	1	1,500
Sports and Concert Events	**Total Sports & Concert Events**	**37**	**393,673***
Business Events	**Total Business Events**	**52**	**13,000**
Total Events	**Total Events At Stadium**	**89**	**406,673**

* Total includes event participants.
Source: KPMG (2024[c]); AEC.

3. ECONOMIC IMPACT ASSESSMENT

3.1 APPROACH

Economic modelling estimates the economic activity supported by the construction and post-construction activity associated with the project. Input-Output (IO) modelling is used to examine the direct and flow-on[3] activity expected to be supported within the Hobart LGA economy. Modelling drivers used in the assessment are described in Section 3.2. A description of the Input-Output modelling framework is provided in Appendix A. All prices are expressed in 2024 dollar terms.

Input-Output modelling describes economic activity by examining four types of impacts:

- **Output**: Refers to the gross value of goods and services transacted, including the costs of goods and services used in the development and provision of the final product. Output typically overstates the economic impacts as it counts all goods and services used in one stage of production as an input to later stages of production, hence counting their contribution more than once.
- **Gross product**: Refers to the value of output after deducting the cost of goods and services inputs in the production process. Gross product (e.g., Gross Regional Product (GTP)) defines a true net economic contribution and is subsequently the preferred measure for assessing economic impacts.
- **Income**: Measures the level of wages and salaries paid to employees of the industry under consideration and to other industries benefiting from the project.
- **Employment**: Refers to the part-time and full-time employment positions generated by the economic stimulus, both directly and indirectly through flow-on activity, expressed in FTE positions/ FTE job years[4].

3.2 MODELLING DRIVERS AND ASSUMPTIONS

The following sections describe the key assumptions applied to model the economic impacts of the Stadium on the Hobart LGA economy during its construction and operational phases.

3.2.1 CONSTRUCTION PHASE

Modelling of the construction phase has been undertaken to assess the potential impacts associated with the overall construction period, which is anticipated to span from 2025 to 2029 (including site preparation) (KPMG, 2024[a]).

The total construction cost for the proposed Macquarie Point Stadium is estimated at $934.8 million, comprising the following capital expenditures:

- $715.5 million for core stadium-related costs (KPMG, 2024[a]).
- $68.2 million for other stadium-related costs (Gruen, 2025)
- $151.1 million for precinct-related costs (Gruen, 2025).

AEC has included additional costs not accounted for in KPMG's analysis, which are deemed necessary to fully realise the benefits of the Stadium. For example, the $151.1 million allocated for precinct-related costs covers essential infrastructure work within the Stadium Precinct. This is necessary to manage the increased flow of patrons safely and efficiently, and the inclusion of such costs aligns with Infrastructure Australia Guidelines (Infrastructure Australia, 2021).

[3] Both production-induced (Type I) and consumption-induced (Type II) flow-on impacts have been presented in this report. Refer to Appendix A for a description of each type of flow-on impact.

[4] One FTE job year is equivalent to one person working full time for a period of one year.

For IO modelling purposes, construction costs were allocated to their respective IO industries. This allocation was based on AEC's research into the most appropriate industries for each activity, using trade description information provided. The table below (Table 3.1) provides a summary of construction expenditure by industry estimated for the assessment.

Table 3.1: Construction Costs by Input-Output Sector

Input-Output Sector	Share (%)	Cost ($M)	Location (%)	Source (%)
Non-residential building construction	23.5%	$219.3	100%	6%
Heavy and civil engineering construction	16.4%	$152.9	100%	6%
Construction services	15.9%	$148.5	100%	6%
Professional, scientific and technical services	9.7%	$90.4	25%	25%
Furniture manufacturing	1.2%	$10.9	-%	-%
Specialised and other machinery and equipment manufacturing	1.3%	$12.5	-%	-%
Structural metal product manufacturing	8.6%	$80.1	-%	-%
Other agriculture	0.1%	$1.4	5%	5%
Other wood product manufacturing	11.8%	$110.0	-%	-%
Plaster and concrete product manufacturing	7.6%	$70.7	-%	-%
Electrical Equipment Manufacturing	3.7%	$34.6	-%	-%
Professional, Scientific, Computer and Electronic Equipment Manufacturing	0.4%	$3.5	5%	5%
Total Construction Cost	**100.0%**	**$934.8**	**58%**	**6%**

Note: Totals may not equal the sum of individual items due to rounding.
Source: AEC.

Of the above capital outlay, not all activity will be undertaken within the Hobart LGA economy. The estimated proportion of activity attributed to the Hobart LGA is based on workforce data from current major projects (such as the $786 million New Bridgewater Bridge project), review of Hobart LGA's economic structure against the scale of activity to understand relative capacity to deliver such works locally, as well as consultations with Council.

The following assumptions regarding location and source of activity were used for each IO sector:

- While 100% of construction activity (i.e., non-residential construction, heavy and civil engineering, and construction services) is expected to occur locally on site, approximately 6% is anticipated to be sourced from businesses and labour within the Hobart LGA. The remaining 94% of construction activity will be imported from outside the LGA. The local sourcing share was based on the proportion of construction workers from nearby LGAs for the New Bridgewater Bridge project (~45%) (Leftfield Project Solutions, 2024), with ABS Census of Population and Housing data indicating that around 13% of construction workers from nearby LGAs to the Stadium are from the Hobart LGA (ABS, 2022), leading to the 6% estimate (45% x 13% = 6%).
    - Approximately 7.5% of purchases on goods and services (supply chain related activity) would be spent within the local economy (i.e., 7.5% of the Type I flow on activity associated with non-local construction companies is assumed to represent additional local activity in the Hobart LGA region).
    - Approximately 5% of wages and salaries paid to construction-related workers sourced from outside the region would be spent on local goods and services, such as food and beverages (i.e., 5% of the Type II flow on activity associated with non-local workers is assumed to represent additional local activity in the Hobart LGA region).
- 25% of professional, scientific and technical services will be both sourced from and occur locally (i.e., 75% of this is activity will be sourced from businesses and labour outside the region).
- 5% of professional, scientific, computer and electronic equipment manufacturing, and other agriculture activity will be both sourced from and occur locally.

- The location and source of activity for the remaining IO sectors are expected to occur and be sourced from businesses and labour outside the region. This reflects the Hobart LGA's size of the relevant industry and its very low likelihood of delivering such works. For instance, while timber roof materials are expected to be sourced from Tasmania, they will likely be sourced from outside the Hobart LGA.

3.2.2 OPERATIONAL PHASE

Modelling of the operational phase impacts examines the average total annual economic activity supported through the operations of the Stadium. The Stadium is assumed to be operational from 2029, and similar to KPMG's analysis, the following assessment focuses on expected activity in 2032, representing a business-as-usual year of operation (KPMG, 2024[b]).

The Macquarie Point Stadium will generate economic activity for the Hobart LGA through the following mechanisms:

- **Operating activity of the stadium itself:** This includes general operational expenditure and maintenance of the stadium, as well as revenue generated through Stadium hire, etc.
- **Activity associated with organising and hosting events at the stadium:** This reflects the activity of event organisers in organising and hosting events, and includes ticket revenue generated from event attendance, revenue of vendors at the stadium from patron spend on food, beverages and merchandise, and operating costs for hosting events (excluding Stadium costs as these are outlined above).
- **Activity supported more broadly in Hobart LGA on event days outside the Stadium, before and after an event:** This refers to the expenditure and activation in areas surrounding the Stadium on event days through expenditure of event patrons either before or after attending an event.
- **Induced non-event day visitation and associated visitor expenditure:** This refers to spending in the Hobart LGA region by visitors attracted to Hobart as a result of events held at the Stadium (e.g., expenditure on accommodation and travel), excluding expenditure either at the event itself or on the event day (as this is covered above). Unlike previous studies that examined the impact from the perspective of Tasmania as a whole, this impact focuses on the Hobart LGA level and includes intrastate visitation expenditure.

3.2.2.1 STADIUM OPERATING ACTIVITY

To estimate the operating activity for Macquarie Point Stadium, information from KPMG's Financial Impact Report Macquarie Point Multipurpose Stadium (KPMG, 2024[c]) was utilised to project revenue and operating costs based on the adopted event schedule (see Section 2.2). Table 3.2 below highlights the estimated operating activity for Macquarie Point Stadium in an average year. The relative ratios among the key revenue and expenditure line items align with industry benchmarks and AEC's previous stadium-related studies.

Table 3.2: Estimated Operating Activity for Macquarie Point Stadium

Revenue & Expenditure	Estimates ($M)
Revenue	
Venue hire fees	$1.2
Ticketing related revenue	$0.8
Membership and other revenue	$5.3
Total Revenue	**$7.4**
Expenditure	
Event day costs not passed through	$0.2
Salaries and wages	$2.6
Turf maintenance	$0.4
Administration / overhead costs	$1.7
Maintenance	$4.7
Total Expenditure	**$9.5**

Source: KPMG (2024[c]), AEC.

For the purposes of modelling, operating activity was allocated to the 'Sports and recreation' industry in the Input-Output model. Direct estimates of output, contribution to Gross Regional Product, employment and employee incomes were developed based on the information outlined in Table 3.2, with all of this activity occurring in Hobart LGA. It is worth noting that the FTE estimates are based on the place of work, meaning these employees may reside outside of the Hobart LGA. However, to best reflect the flow-on economic activity supported by the Stadium, the modelling used the estimated expenditure on goods and services plus maintenance ($7.0 million) and the standard Input-Output industry structure for Hobart LGA to identify the typical level of flow-on activity associated with this quantum of expenditure on goods and services in the 'Sports and recreation' industry locally.

3.2.2.2 ACTIVITY ASSOCIATED WITH ORGANISING AND HOSTING EVENTS

Activity associated with organising and hosting events includes measures of ticket revenue as well as other expenditures by patrons at events, such as food, beverages, and merchandise. There are three key revenue streams associated with hosting event activity, each examined below.

SPORTS & CONCERT EVENTS

Total ticket revenue for sports and concert-related events at Macquarie Point Stadium is derived from KPMG's estimate of the stadium's ticketing-related revenue (see Table 3.2), which represents the share of booking fees/ charges attributable to the venue, and Gruen's assumption that the stadium's share of total ticket revenue is 5% (Gruen, 2025). This equates to $16.7 million of total ticketing revenue per annum, or $42.5 per patron, approximately in line with AEC's previous stadium-related studies.

Given that the Stadium will take a proportion of event revenue for hire of the Stadium/ commission for events held at the stadium to help cover operating costs, this cost ($0.8 million) was removed from the event host's ticket revenue (net ticketing revenue of $15.8 million) to avoid double counting (as this is effectively captured through modelling of the Stadium's operations). The associated host's event expenditure to organise such events is estimated to be $3.2 million, or 20% of event revenue. This share was based on industry benchmarks and AEC's previous stadium-related work.

In modelling flow-on activity associated with these annual operating costs, the level of output associated with expenditure of $3.2 million through the 'Sports and recreation' sector for Hobart LGA was modelled. Ticket revenue related to sports and concert events will occur in Hobart LGA as this is where the Stadium is located. However, it is assumed that only 20% of this activity will be sourced from Hobart LGA, reflecting that the majority of events promoted at the Stadium are by organisers with businesses domiciled outside the Hobart LGA, especially by interstate businesses (KPMG, 2024[b]).

BUSINESS EVENTS

The event organisers of business-type events at the Stadium's function spaces will also benefit through the revenues they receive. Under the central scenario, AEC has assumed that only 50% of these business-type events represent net new activity for the Hobart LGA economy. While capacity issues have been noted (KPMG, 2024[a]), it is difficult to ascertain what constitutes new activity versus events transferred from other venues within the Hobart LGA. Anecdotal evidence indicates that when larger-sized business events are held, this can result in some capacity constraints in terms of accommodation availability in Hobart LGA, and thereby place some constraints on the number of events that can be held locally at any one time. AEC also examined a scenario where 100% of business-type events represent net new activity for the Hobart LGA economy (see Appendix B).

The host's event expenditure to organise such events is estimated to be $1.6 million per annum, based on total additional attendance of 13,000 delegates (KPMG, 2024[a]), and average organiser expenditure (excluding venue hire and food & beverage-related costs) of $125 per delegate per day, based on information outlined in the BECA 2015 report and presented in 2024 dollars.

In modelling flow-on activity associated with these annual operating costs, the level of output associated with expenditure of $1.6 million through the 'Employment, travel agency, and other administrative services' sector for Hobart LGA was modelled. Activity related to business events will occur in Hobart LGA as this is where the Stadium is located. However, it is assumed that only 20% of this activity will be sourced from Hobart LGA, similar to the assumption adopted for sports and concert events.

ANCILLARY IN-STADIUM EXPENDITURE

Stadia also generate additional revenue for vendors through patron expenditure on food, beverages, and merchandise on event days. The average spend per patron at events at the Stadium, based on insights from AEC's survey of patron expenditure at stadiums as part of AEC's previous stadium-related studies, is estimated at:

- Food and Beverage: $30
- Merchandise: $5

The total in-stadium spend (tickets, food & beverage, and merchandise) for sports and concert events is estimated to be $77.5 per person per event, roughly in line with KPMG's estimate of $68 (which does not include merchandise expenditure).

The above spend per person on food, beverages, and merchandise has been applied to the estimated number of patrons per annum at Macquarie Point Stadium, based on average attendance and number of events per annum outlined in section 2.2. The projected annual revenue from food and beverages is approximately $11.8 million, while merchandise sales are expected to generate around $2.0 million.

For modelling purposes, food & beverage-related expenditure has been allocated to the Input-Output sector of 'Food & beverages', while merchandise expenditure has been allocated to 'Retail trade'. While 100% of food & beverage and retail trade activity is expected to occur locally, 25% is anticipated to be sourced from businesses and labour (vendors) within the Hobart LGA region (i.e., 75% of this activity will be sourced from vendors domiciled outside Hobart LGA). This is roughly in line with Hobart LGA's share of workers from the relevant industries compared to surrounding LGAs (ABS, 2022).

3.2.2.3 ACTIVITY SUPPORTED ON EVENT DAYS OUTSIDE THE STADIUM

Events held at the Stadium will not only deliver in-Stadium activity, but also generate considerable activity outside the Stadium in Hobart LGA on event days from event goers, both local and non-local, undertaking activity pre- and post-event.

The Stadium will host a range of events, from sporting to business type events, attracting teams, officials, media, spectators, and delegates to the Stadium and the Hobart region. It is expected to draw significant spectators from not only within Hobart LGA, but also outside the Hobart LGA, including Greater Hobart, regional Tasmania, and interstate visitors. The following patron profile assumptions have been made:

- **Sports & Concert Events:** A total of 392,743 spectators are expected to attend events at the Stadium. A deeper breakdown of the patron profile by event type is provided:
    - **Commercial Events:** These events are projected to attract 20% of total attendance from interstate visitors. AEC has assumed a lower share compared to KPMG's assumptions (25%), which were based on two interstate teams traveling to Tasmania (KPMG, 2024[a]). This adjustment follows feedback from the Tasmanian Planning Commission on KPMG's analysis, suggesting a more conservative assumption of 20% (KPMG, 2025).

      The remaining 80% is split by 8% Hobart LGA residents, 27% from the rest of Greater Hobart (RoGH), and 46% from the rest of Tasmania (RoT). This is based on the latest Tasmanian Devils membership figures by region from urban Hobart (Pulse Tasmania, 2024), with the proportion then determined by the Hobart LGA's share of the resident population within the region (ABS, 2024[d]).
    - **One-off & Entertainment Events:** These events are expected to attract 20% interstate visitors, based on KPMG's analysis. The remaining 80% is split by 16% Hobart LGA residents, 24% RoGH, and 40% RoT, based on Hobart LGA's share of the resident population of Tasmania, and a premium considering factors such as location and convenience that increase the likelihood of attendance compared to other Tasmanian regions.
    - **Community Events:** These events are expected to attract only Tasmanian residents due to their local nature, with 20% Hobart LGA visitors, 30% RoGH and 50% RoT, based on Hobart LGA's share of the resident population of Tasmania, and a premium considering factors such as location and convenience that increase the likelihood of attendance.

- **Business Events:** These events are expected to attract 13,000 new visitors, with 20% assumed to come from interstate (KPMG, 2024[a]). The remaining 80% is split by 16% Hobart LGA residents, 24% RoGH, and 40% RoT, based on Hobart LGA's share of the resident population of Tasmania, and a premium considering factors such as the relative concentration of business activity in the city and the relative income share of its residents compared to the rest of the state, which increases the likelihood of attending business events compared to other Tasmanian residents.
- **Non-Local Event Participants[5]:** This group, comprising traveling teams and staff, has been separated from sports and concert events due to the visitors' different characteristics. Adopting KPMG's assumptions, it is assumed that non-community events will attract one interstate team per event, with each bringing 30 people into the region. This is considered conservative as some events will attract two interstate teams, such as the NRL fixture. According to the event schedule, 31 non-community events are expected to be held per annum, attracting 930 visitors per annum, comprising 630 visitors for commercial event purposes and 300 visitors for one-off and entertainment events.

Overall, a summary of the visitor profile for each type of event is provided in Table 3.3.

Table 3.3: Visitor Profile Assumptions

Visitor Type	Proportion of Total		
	Sports & Concert	Business	Event Participants
Hobart LGA	10.9%	15.6%	-%
Rest of Greater Hobart	25.9%	24.0%	-%
Rest of Tasmania	43.9%	40.4%	-%
Interstate	19.3%	20.0%	100.0%
Total	**100.0%**	**100.0%**	**100.0%**

Note: Totals may not sum due to rounding.
Source: AEC.

In assessing the impacts of event day activities outside the Stadium, both before and after events, within the catchment area, this assessment:

- Included the estimated expenditure of Hobart LGA residents on event days (outside the venue) due to events at the new Stadium to better capture the true extent of spending on businesses in the surrounding area. Some of this expenditure will also represent Hobart LGA's capture of retained visitation, as some locals would no longer need to visit other regions in Tasmania or travel to the mainland to watch an AFL game or other major events.
- Considered 100% of visitors from the rest of Greater Hobart as day trips (returning home within the day) due to the short travel distance, while 50% of visitors from the rest of Tasmania were considered day trips and 50% were expected to stay overnight in Hobart LGA.
- Assumed that 80% of interstate visitors would stay overnight in the Hobart LGA, with the remaining 20% representing day trips. This assumption is based on a PwC study of Hawthorn Football Club games held at UTAS Stadium in Launceston in 2017, which found that approximately 77% of interstate and international visitors stayed at least one night in Tasmania (Hawthorn FC, 2018). This assumption depends on event start times, which may prevent visitors from traveling home after games, as well as the mode of transport and distance required to return home.
- Considered that 100% of event day participants would stay overnight in Hobart LGA.
- Estimated that 100% of day trip visitors, RoGH, RoT and interstate, were attracted to the region for the purpose of attending a game/ event at the Stadium.

[5] **Note**: Local teams and staff have not been included as there was insufficient information available to understand the level of activity they may undertake in Hobart LGA on an event day pre- and post-event.

- Estimated that a significant proportion (72%) of overnight visitors, both RoT and interstate, were attracted to the region for the purpose of attending a game/event at the Stadium. This estimate is based on KPMG and Events Tasmania estimations (KPMG[a]). For the remaining 28% of RoT and interstate visitors, it is considered they would have travelled to Hobart regardless of the events (i.e., the events were not the primary purpose for their visit). For these visitors, only expenditure on event day (outside the venue) in Hobart LGA is captured.
- Estimated that 100% of event day participants were attracted to the region for the purpose of attending a game/ event at the Stadium.
- Similar to KPMG, the impact from expenditure by international visitors was excluded, as previous studies have estimated that these visitors represent a relatively small and negligible share (less than 1%) of total patronage (Institute Of Project Management, 2015).

Based on the modelling assumptions listed in Table 3.3, the visitor profile is listed in Table 3.4 below.

Table 3.4: Visitor Breakdown for Macquarie Point Stadium

Visitor Type	Type of Trip	Visitor Trip Purpose	Annual Visitation
Hobart LGA	Day Trip - 100%	Attend event - 100%	44,828
		Other Reason - 0%	-
Rest of Greater Hobart	Day Trip - 100%	Attend event - 100%	104,716
		Other Reason - 0%	-
Rest of Tasmania	Day Trip - 50%	Attend event - 100%	88,884
		Other Reason -0%	-
	Overnight Trip - 50%	Attend event - 72%	63,996
		Other Reason -28%	24,888
Interstate	Day Trip - 20%	Attend event - 100%	15,686
		Other Reason - 0%	-
	Overnight Trip - 80%	Attend event - 72%	46,106
		Other Reason - 28%	17,569
Total	-	-	**406,673**

Note: Totals may not sum due to rounding.
Source: AEC.

AEC's previous stadium-related work experience (unpublished), both surveys and studies, and data from Tourism Research Australia (TRA), were used to estimate the expenditure of different types of visitors on event days, either before or after attending an event. The following assumptions were made:

- **Hobart LGA and RoGH Patrons:** It is estimated that the average event day spend outside the venue (Stadium) by a Hobart LGA and RoGH patron is $27.5 per person (AEC, unpublished). This estimate has been applied to both visitors of sports and concert events and business-type events on event day.
- **RoT Visitors:** For these visitors, it is assumed that:
  - **Sports & Concert Events:** Will follow the 'holiday' visitor profile of Tasmanian residents visiting the 'Hobart and the South' region (TRA, 2024):
    - $97 per person (excluding in-stadium spend) for day trip visitors[6]
    - $275 per person (excluding in-stadium spend) for overnight visitors on event day.
  - **Business Events:** Will follow the 'business' visitor profile of Tasmanian residents visiting the 'Hobart and the South' region (TRA, 2024):

[6] While this figure is considerably higher than for day trip visitors to Hobart overall (e.g., as outlined for interstate visitors below), this figure has remained relatively stable over the past few years.

- $40 per person[7] for day trip visitors
- $241 per person for overnight visitors on event day.

- **Interstate Visitors:** For these visitors it is assumed that:
  - **Sport & Concert Events:** Will follow the 'holiday' visitor profile of domestic residents visiting the 'Hobart and the South' region (TRA, 2024):
    - $31 per person (excluding in-stadium spend) for day trip visitors
    - $246 per person (excluding in-stadium spend) for overnight visitors on event day.
  - **Business Events:** Will follow the 'business' visitor profile of domestic residents visiting the 'Hobart and the South' region (TRA, 2024):
    - $139 per person for day trip visitors
    - $339 per person for overnight visitors on event day.
- **Event Participants:** For these visitors, it is assumed that they will follow the 'holiday' overnight visitor profile of domestic residents visiting the 'Hobart and the South' region (TRA, 2024).

For each visitor type and event type, expenditure items were allocated to their most relevant industry in the Input-Output modelling. Some items were excluded or adjusted for the following reasons:

- Not all TRA visitor expenditure items would be expected to be spent in the Hobart LGA. Some expenditure including flights and other items unlikely to be captured within the region or to be associated with induced visitation to the events were excluded from the local expenditure estimates.
- Some of the expenditure by patrons will be spent at Macquarie Point Stadium. To include this expenditure would double count these impacts with those captured for the event activity.

A breakdown of visitor spend by industry is presented below.

Table 3.5: Percent Split of Expenditure Per Patron by Industry and By Event

IO Industry	Hobart LGA	RoGH	RoT- Day Trip	RoT - Overnight Trip	Interstate - Day Trip	Interstate - Overnight Trip
Sports and Concert Events						
Retail trade	7.5%	7.5%	46.9%	26.5%	51.7%	17.3%
Accommodation	-%	-%	-%	30.4%	-%	36.9%
Food and beverage services	50.0%	50.0%	50.3%	26.9%	40.6%	24.4%
Road transport	15.0%	15.0%	-%	1.0%	0.3%	7.0%
Water, pipeline and other transport	-%	-%	-%	2.1%	0.0%	3.2%
Air and space transport	-%	-%	-%	-%	-%	-%
Postal and courier pick-up and delivery service	-%	-%	-%	3.4%	0.2%	0.7%
Motion picture and sound recording	-%	-%	0.3%	0.4%	0.7%	0.5%
Rental and hiring services (except real estate)	-%	-%	-%	0.4%	-%	2.6%
Arts, sports, adult and other education services (including community education)	-%	-%	-%	-%	-%	-%
Heritage, creative and performing arts	1.3%	1.3%	1.3%	2.0%	3.2%	2.4%

[7] For visitors attending business events, it is assumed that their ticket prices are covered by their respective businesses and, therefore, are not included in the TRA data.

IO Industry	Hobart LGA	RoGH	RoT- Day Trip	RoT - Overnight Trip	Interstate - Day Trip	Interstate - Overnight Trip
Sports and recreation	1.3%	1.3%	1.3%	2.0%	3.2%	2.4%
Gambling	25.0%	25.0%	-%	1.6%	-%	1.9%
Personal services	-%	-%	-%	3.4%	0.2%	0.7%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Business Events						
Retail trade	7.5%	7.5%	50.3%	46.3%	36.2%	17.2%
Accommodation	-%	-%	-%	22.6%	-%	46.1%
Food and beverage services	50.0%	50.0%	49.7%	28.9%	22.4%	26.2%
Road transport	15.0%	15.0%	-%	-%	0.9%	2.1%
Water, pipeline and other transport	-%	-%	-%	0.0%	-%	1.3%
Air and space transport	-%	-%	-%	-%	27.3%	-%
Postal and courier pick-up and delivery service	-%	-%	-%	-%	0.8%	0.1%
Motion picture and sound recording	-%	-%	-%	0.0%	-%	0.2%
Rental and hiring services (except real estate)	-%	-%	-%	-%	-%	0.8%
Arts, sports, adult and other education services	-%	-%	-%	1.0%	-%	1.4%
Heritage, creative and performing arts	1.3%	1.3%	-%	1.1%	11.7%	2.5%
Sports and recreation	1.3%	1.3%	-%	0.0%	-%	1.1%
Gambling	25.0%	25.0%	-%	0.0%	-%	0.9%
Personal services	-%	-%	-%	-%	0.8%	0.1%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Note: Totals may not sum due to rounding.
Source: AEC.

The local and visitor spend by industry on event day (outside the venue) in Hobart LGA as a result of events held at Macquarie Point Stadium is presented in Table 3.6.

Table 3.6: Macquarie Point Stadium Local and Visitor Expenditure On Event Day Outside the Venue

IO Industry	Hobart LGA ($M)	RoGH ($M)	RoT ($M)	Interstate ($M)	Event Participants ($M)	Total
Sports and Concert Events						
Retail trade	$0.1	$0.2	$10.2	$2.8	$0.1	**$13.4**
Accommodation	$0.0	$0.0	$7.2	$5.5	$0.1	**$12.8**
Food and beverage services	$0.6	$1.4	$10.6	$3.8	$0.1	**$16.5**
Road transport	$0.2	$0.4	$0.2	$1.0	$0.0	**$1.9**
Water, pipeline and other transport	$0.0	$0.0	$0.5	$0.5	$0.0	**$1.0**
Air and space transport	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
Postal and courier pick-up and delivery service	$0.0	$0.0	$0.8	$0.1	$0.0	**$0.9**
Motion picture and sound recording	$0.0	$0.0	$0.1	$0.1	$0.0	**$0.2**
Rental and hiring services (except real estate)	$0.0	$0.0	$0.1	$0.4	$0.0	**$0.5**
Arts, sports, adult and other education services	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
Heritage, creative and performing arts	$0.0	$0.0	$0.6	$0.4	$0.0	**$1.0**
Sports and recreation	$0.0	$0.0	$0.6	$0.4	$0.0	**$1.0**
Gambling	$0.3	$0.7	$0.4	$0.3	$0.0	**$1.7**

IO Industry	Hobart LGA ($M)	RoGH ($M)	RoT ($M)	Interstate ($M)	Event Participants ($M)	Total
Personal services	$0.0	$0.0	$0.8	$0.1	$0.0	**$0.9**
Total	**$1.2**	**$2.8**	**$32.1**	**$15.4**	**$0.3**	**$51.7**
Business Events						
Retail trade	$0.0	$0.0	$0.3	$0.1	$0.0	**$0.5**
Accommodation	$0.0	$0.0	$0.1	$0.3	$0.0	**$0.5**
Food and beverage services	$0.0	$0.0	$0.2	$0.2	$0.0	**$0.5**
Road transport	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
Water, pipeline and other transport	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
Air and space transport	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
Postal and courier pick-up and delivery service	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
Motion picture and sound recording	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
Rental and hiring services (except real estate)	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
Arts, sports, adult and other education services	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
Heritage, creative and performing arts	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
Sports and recreation	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
Gambling	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
Personal services	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**
Total	**$0.1**	**$0.1**	**$0.7**	**$0.8**	**$0.0**	**$1.7**
All Events						
Total	**$1.2**	**$2.9**	**$32.8**	**$16.2**	**$0.3**	**$53.4**

Note: Totals may not sum due to rounding. RoT = Rest of Tasmania.
Source: AEC.

Total local and visitor expenditure on event days outside the Stadium is estimated at $53.4 million per annum, with the majority coming from RoT visitors, contributing $32.9 million per annum. Hobart LGA patrons are estimated to have a relatively marginal impact, as they constitute a smaller share of total patrons and have one of the lowest average spends on event days.

Businesses in Hobart LGA across all relevant IO industries benefiting from local and visitor expenditure on event days are assumed to capture 75% of the above activity, or $40.0 million (i.e., 25% of this activity is assumed to take place outside the region). This assumption considers where patrons are likely to visit and spend before and after an event at the Stadium, focusing on convenience and the supply of retail and hospitality offerings such as restaurants, bars, cafes, and attractions in the immediate surrounding areas of the Stadium. This is considered a conservative assumption, as the survey from the 'The Socio-Economic Value of AFL Games in Hobart, 2015' report (Institute Of Project Management, 2015) found that around 90% of non-Tasmanians spent their money within Hobart. More detailed information about patrons' potential visiting and spending within Hobart LGA before and after an event at the Stadium is provided in section 5.

3.2.2.4 INDUCED NON-EVENT DAY VISITATION AND ASSOCIATED VISITOR EXPENDITURE

Many of the patrons and delegates visiting Hobart for events held at the Stadium are anticipated to stay several nights in the Hobart LGA (see Table 3.4).[8] This represents induced demand, as these visitors would not have come to Hobart if not for the events at the new Stadium. Therefore, their expenditure is considered additional economic activity for the Hobart LGA economy. Conversely, Hobart LGA patron expenditure on non-event days is excluded, as these attendees live and spend within the Hobart LGA on non-event days regardless of the events.

[8] AEC has assumed the adopted attendance figures also reflect the number of unique visitors, given that the vast majority of events are single-day events.

In assessing the impacts from induced visitor spending activity on non-event days due to events at the Stadium in the catchment area, this assessment:

- Followed the same visitor profile as seen in Table 3.3, excluding Hobart LGA patrons in the analysis as discussed above.
- Considered the impact of RoT and interstate overnight visitors whose purpose was to attend an event. From Table 3.4, this comprised 63,996 RoT visitors and 46,106 interstate visitors.

Tourism Research Australia (TRA) data and assumptions were utilised to estimate the expenditure of each type of visitor at each event and the number of nights stayed by overnight visitors (nights expressed below are equal to total nights reduced by one night to remove the event day). The following assumptions were made:

- RoT Visitors:
    - **Sports & Concert Events:** Follow the 'holiday' overnight visitor profile of Tasmanian residents visiting the 'Hobart and the South' region (TRA, 2024), with an expenditure of $352 per night per person for an extra 1.2 nights.
    - **Business Events**: Follow the 'business' overnight visitor profile of Tasmanian residents visiting the 'Hobart and the South' region (TRA, 2024), with an expenditure of $241 per night per person for an extra 1.5 nights.
- Interstate Visitors:
    - **Sports & Concert Events:** Follow the 'holiday' overnight visitor profile of domestic residents visiting the 'Hobart and the South' region (TRA, 2024), with an expenditure of $324 per night per person for an extra 3.1 nights.
    - **Business Events:** Follow the 'business' overnight visitor profile of domestic residents visiting the 'Hobart and the South' region (TRA, 2024), with an expenditure of $339 per night per person for an extra 1.9 nights.
- **Event Participants:** Follow the 'holiday' visitor profile of domestic residents visiting the 'Hobart and the South' region (TRA, 2024), with one-off and entertainment event participants staying an extra night.[9]

For each visitor type and event type, expenditure items were allocated to their most relevant industry in the IO modelling (see Table 3.5). The induced visitor spend on non-event days by industry in Hobart LGA, as a result of events held at Macquarie Point Stadium, adjusted for expenditure outside of the region, is presented in Table 3.7.

[9] Event participants for commercial events are assumed to stay one night, with their impact captured in section 3.2.2.3.

Table 3.7: Macquarie Point Stadium, Induced Visitor Expenditure Per Annum

IO Industry	RoT ($M)	Interstate ($M)	Event Participants ($M)	Total ($M)
Sports and Concert Events				
Retail trade	$7.1	$7.5	$0.0	**$14.7**
Accommodation	$8.2	$16.1	$0.0	**$24.3**
Food and beverage services	$7.2	$10.6	$0.0	**$17.9**
Road transport	$0.3	$3.0	$0.0	**$3.3**
Water, pipeline and other transport	$0.6	$1.4	$0.0	**$2.0**
Air and space transport	$0.0	$0.0	$0.0	**$0.0**
Postal and courier pick-up and delivery service	$0.9	$0.3	$0.0	**$1.2**
Motion picture and sound recording	$0.1	$0.2	$0.0	**$0.3**
Rental and hiring services (except real estate)	$0.1	$1.1	$0.0	**$1.2**
Arts, sports, adult and other education services	$0.0	$0.0	$0.0	**$0.0**
Heritage, creative and performing arts	$0.5	$1.1	$0.0	**$1.6**
Sports and recreation	$0.5	$1.1	$0.0	**$1.6**
Gambling	$0.4	$0.8	$0.0	**$1.3**
Personal services	$0.9	$0.3	$0.0	**$1.2**
Total	**$26.8**	**$43.6**	**$0.1**	**$70.6**
Business Events				
Retail trade	$0.3	$0.2	$0.0	**$0.5**
Accommodation	$0.2	$0.5	$0.0	**$0.6**
Food and beverage services	$0.2	$0.3	$0.0	**$0.5**
Road transport	$0.0	$0.0	$0.0	**$0.0**
Water, pipeline and other transport	$0.0	$0.0	$0.0	**$0.0**
Air and space transport	$0.0	$0.0	$0.0	**$0.0**
Postal and courier pick-up and delivery service	$0.0	$0.0	$0.0	**$0.0**
Motion picture and sound recording	$0.0	$0.0	$0.0	**$0.0**
Rental and hiring services (except real estate)	$0.0	$0.0	$0.0	**$0.0**
Arts, sports, adult and other education services	$0.0	$0.0	$0.0	**$0.0**
Heritage, creative and performing arts	$0.0	$0.0	$0.0	**$0.0**
Sports and recreation	$0.0	$0.0	$0.0	**$0.0**
Gambling	$0.0	$0.0	$0.0	**$0.0**
Personal services	$0.0	$0.0	$0.0	**$0.0**
Total	**$0.7**	**$1.0**	**$0.0**	**$1.7**
All Events				
Total	**$27.5**	**$44.6**	**$0.1**	**$72.3**

Note: Totals may not sum due to rounding. RoT = Rest of Tasmania.
Source: AEC.

Total induced visitor expenditure due to events at the new Stadium on non-event days is estimated at $72.3 million per annum, with the majority coming from interstate visitors contributing $44.6 million, largely due to these visitors anticipated to stay longer than RoT residents.

Businesses in Hobart LGA across all relevant IO industries that benefit from induced visitor expenditure followed the same profile as in Section 3.2.2.4, with 75% of activity assumed to be captured locally, or $54.2 million (i.e., 25% of this activity will take place at businesses outside the region).

3.3 MODEL RESULTS

3.3.1 CONSTRUCTION PHASE

Construction is estimated to contribute an initial investment of $52.4 million in industry output to locally sourced businesses within the Hobart LGA economy. A further $90.9 million in industry output is estimated to be supported in the economy through flow-on activity, including $59.1 million in production induced (i.e., supply chain) activity and $31.9 million through household consumption induced activity (i.e., expenditure of households within the local economy as a result of a lift in household incomes).

This level of industry activity is estimated to support the following economic benefits:

- $65.4 million contribution to Gross Regional Product (GRP) (including $20.3 million through initial activity).
- 385 Full Time Equivalent (FTE) jobs in the region (including 123 FTE jobs through initial activity), paying a total of $44.7 million in wages and salaries (including $16.3 million through initial activity).

Note that the employment reflected in these results is based on where the businesses are based, not where the work will occur. As such, this does not capture all on-site construction workers. IO modelling indicates an initial impact of approximately 925 FTE jobs will be located within Hobart LGA, of which 850 FTE jobs will be on-site construction workers (the remaining 75 FTE jobs primarily reflect professional services employees). However, only around 50 of these on-site FTE construction workers are estimated to be sourced from Hobart LGA.

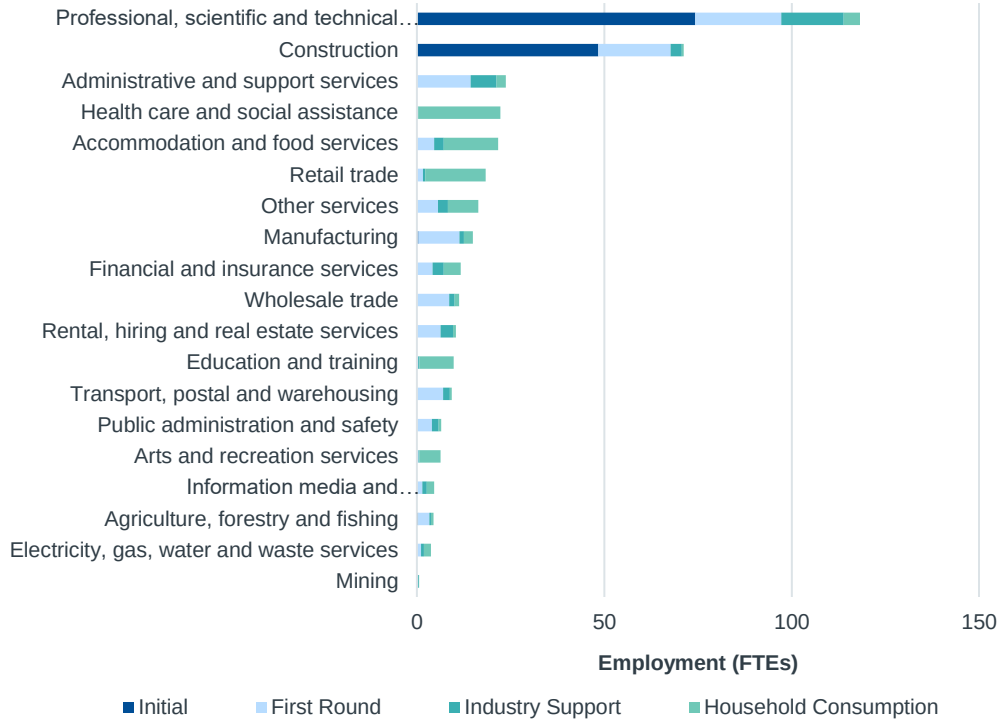
Table 3.8: Economic Activity Supported by Construction, Hobart LGA

Impact	Output ($M)	GRP ($M)	Incomes ($M)	Employment (FTEs)
Initial Stimulus in Local Economy	$52.4	$20.3	$16.3	123
Direct Requirements (First Round Type I) Impacts	$41.8	$18.6	$13.0	116
Industry Support (Subsequent Round Type I) Impacts	$17.3	$8.4	$5.9	49
Household Consumption (Type II) Impacts	$31.9	$18.0	$9.4	97
Total Impacts in Local Economy	**$143.3**	**$65.4**	**$44.7**	**385**

Note: Totals may not sum due to rounding.
Source: AEC.

A breakdown of FTE employment supported by industry in the Hobart LGA economy from construction activities associated with the project is outlined below. The local professional, scientific and technical services industry is estimated to receive the largest share of FTE employment impacts, at 118 FTE jobs.

Figure 3.1: Employment supported by Industry from Construction, Hobart LGA



Source: AEC.

3.3.2 POST-CONSTRUCTION ACTIVITY

The project is estimated to contribute $106.0 million annually in industry output to locally sourced businesses within the Hobart LGA regional economy through initial activity. A further $72.8 million per annum in industry output is estimated to be supported in the economy through flow-on activity, including $33.0 million in production induced (i.e., supply chain) activity and $39.8 million through household consumption induced activity (i.e., expenditure of households within the local economy as a result of a lift in household incomes).

This level of industry activity is estimated to support the following economic benefits each year:

- $87.2 million contribution to Gross Regional Product (GRP) (including $48.7 million through initial activity).
- 813 Full Time Equivalent (FTE) jobs in the region (including 598 FTE jobs through initial activity), paying a total of $62.8 million in wages and salaries (including $39.9 million through initial activity).

Of the post-construction impacts, the largest impact is estimated to be delivered through induced non-event day visitor expenditure, followed by local and visitor expenditure on event day (outside the venue).

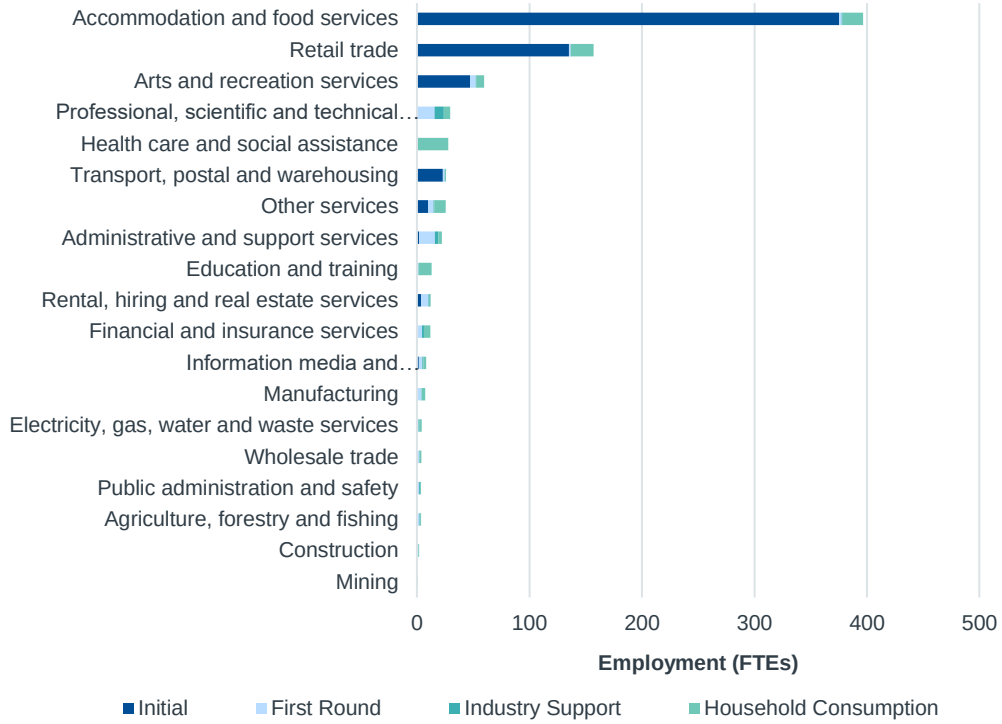
Table 3.9: Economic Activity Supported during Post-Construction, Hobart LGA

Impact	Output ($M)	GRP ($M)	Incomes ($M)	Employment (FTEs)
Stadium Operations				
Initial Stimulus in Local Economy	$7.4	$0.4	$2.6	23
Direct Requirements (First Round Type I) Impacts	$2.9	$1.4	$1.1	11
Industry Support (Subsequent Round Type I) Impacts	$0.9	$0.5	$0.3	3
Household Consumption (Type II) Impacts	$2.9	$1.6	$0.8	9
Total Impacts in Local Economy	**$14.0**	**$3.9**	**$4.9**	**45**
Hosting Event Activity				
Initial Stimulus in Local Economy	$4.5	$2.2	$1.8	31
Direct Requirements (First Round Type I) Impacts	$1.4	$0.7	$0.5	4
Industry Support (Subsequent Round Type I) Impacts	$0.4	$0.2	$0.1	1
Household Consumption (Type II) Impacts	$1.6	$0.9	$0.5	5
Total Impacts in Local Economy	**$7.9**	**$4.0**	**$2.9**	**41**
Local and Visitor Expenditure On Event Day (Outside The Venue)				
Initial Stimulus in Local Economy	$40.0	$19.8	$15.2	237
Direct Requirements (First Round Type I) Impacts	$9.0	$4.3	$3.0	25
Industry Support (Subsequent Round Type I) Impacts	$2.7	$1.3	$0.9	7
Household Consumption (Type II) Impacts	$15.2	$8.6	$4.5	46
Total Impacts in Local Economy	**$66.9**	**$34.0**	**$23.6**	**315**
Induced Non-Event Day Visitor Expenditure				
Initial Stimulus in Local Economy	$54.2	$26.4	$20.3	308
Direct Requirements (First Round Type I) Impacts	$12.1	$5.8	$3.9	33
Industry Support (Subsequent Round Type I) Impacts	$3.6	$1.8	$1.2	10
Household Consumption (Type II) Impacts	$20.2	$11.4	$6.0	62
Total Impacts in Local Economy	**$90.1**	**$45.3**	**$31.4**	**412**
Total Operations Phase				
Initial Stimulus in Local Economy	$106.0	$48.7	$39.9	598
Direct Requirements (First Round Type I) Impacts	$25.4	$12.2	$8.5	72
Industry Support (Subsequent Round Type I) Impacts	$7.6	$3.8	$2.6	21
Household Consumption (Type II) Impacts	$39.8	$22.5	$11.8	122
Total Impacts in Local Economy	**$178.9**	**$87.2**	**$62.8**	**813**

Note: Totals may not sum due to rounding.
Source: AEC.

A breakdown of average annual ongoing FTE employment supported by industry in the Hobart LGA economy associated with the project post construction is outlined below. The local accommodation and food services industry is estimated to receive the largest share of FTE employment impacts, at 397 FTE jobs per annum.

Figure 3.2: Employment supported by Industry during Post-Construction, Hobart LGA



Source: AEC.

AEC also examined a scenario where 100% of business-type events represent net new activity for the Hobart LGA economy (see Appendix B).

4. WIDER SOCIO-ECONOMIC BENEFITS

The modelling in Section 3 outlines the direct and flow-on economic impacts of the project during construction and post-construction in terms of industry output, GRP, employment, and incomes. However, not all benefits and costs can be appropriately examined using Input-Output modelling. This section examines the wider socio-economic benefits anticipated as a result of the new Stadium.

4.1 SUPPORT FOR BROADER ECONOMIC INVESTMENT AND URBAN RENEWAL

The Macquarie Point Stadium is a high-quality infrastructure development that will enhance local amenities and unlock a range of untapped benefits for Hobart and the state as a whole. Situated within walking distance of the city's entertainment and dining areas, the Stadium is likely to boost confidence in the CBD and encourage additional investment in entertainment and tourism infrastructure nearby. The Stadium is a key component of the Macquarie Point Master Plan, a multi-stage development aimed at transforming Macquarie Point, Hobart into a vibrant mixed-use precinct offering diverse experiences, promoting economic activity and tourism, and attracting investment to the region (MPDC, 2024).

The development of the Queensland Country Bank Stadium in Townsville, Queensland, saw surrounding areas upgraded with parks, walkways, and other public urban infrastructure.

It is widely accepted that CBD renewal projects provide significant economic benefits through increased patronage and activity within their precincts. Numerous studies have estimated the increased economic activity driven by CBD renewal, highlighting additional business revenues and activity as key benefits (Ha and Grunwell, 2014; Essential Economics, 2014; New York City DoT, 2014; Yang et al., 2014). A survey conducted on patrons of CommBank (formerly Bankwest) Stadium in Parramatta revealed that, on average, spending outside the stadium was higher than spending inside the stadium (Invest Parramatta, 2019).

The anticipated uplift in urban renewal is expected to support additional economic activity in the Hobart CBD and enhance the liveability and attractiveness of the region.

4.2 SUPPORT FOR LOCAL SUPPLY CHAINS AND WORKFORCE SKILLS OUTCOMES

During construction, the Macquarie Point Stadium is expected to support local supply chains within the Hobart LGA, as captured in the IO modelling. However, the estimated location and source of construction-related activities may be somewhat conservative.

The Macquarie Point Development Corporation (MPDC) and Skills Tasmania are implementing strategies to maximise local employment opportunities (KPMG, 2024[d]). These strategies include:

- Stadium Workforce and Training Plan: This plan aims to support MPDC's goal of sourcing primarily local labour and enhancing training pathways for upcoming professionals.
- Procurement Policies: MPDC's and State procurement policies are designed to maximise local employment and skills outcomes by preferencing Tasmanian suppliers and workers. These policies, however, are aimed at Tasmania as a whole, not just the Hobart LGA.

The application of these strategies during the construction phase may encourage a greater use of local supplies and labour than initially estimated, thereby further enhancing the local benefits of the Stadium. This approach will also upskill the workforce and provide key experience, leading to long-term economic benefits for the region.

4.3 AMENITY BENEFIT FOR LOCAL RESIDENTS

Access to the improved infrastructure provided by Macquarie Point Stadium represents an increase in amenity, not only for those regularly using the facility but also for the broader Hobart community.

The Macquarie Point Stadium is a roofed facility, enhancing the athlete and spectator experience during games and other events, such as concerts and live performances, by improving acoustics (KPMG, 2024[d]). This is also

likely to support attendance numbers during inclement weather periods. Additionally, the facility will provide an amenity benefit through an increased sense of pride for the Tasmanian Devils players in representing their city.

4.4 POPULATION RETENTION AND INCREASED LIVEABILITY IN HOBART

Liveability is a crucial element in establishing the attractiveness of a region, necessary for both retaining the population and attracting potential migrants. Liveability refers to the overall quality of life a geographic region can support, considering basic human services such as housing, healthcare, security, and transport, as well as community-oriented services. Access to both sport and culture is a key contributor to liveability, and the proposed Stadium will provide this. The Stadium will also enhance greater connectivity within the inner city, providing yet another reason to visit the CBD and its dining and entertainment offerings. This is particularly important for Hobart LGA, with its population as of June 2023 (55,964 residents) still below its 2020 peak (ABS, 2024[d]).

4.5 RAISING THE PROFILE OF HOBART

The Macquarie Point Stadium represents a significant improvement in sporting infrastructure in Hobart and Tasmania in general. Its focus on spectator experiences and unique structure, with the roof showcasing Tasmanian timber, will help promote the Tasmania brand, reputation, and profile. For example, a survey of visitors found that 88% of respondents felt their experience inside Bankwest (Parramatta) Stadium positively influenced their perception of Parramatta (Invest Parramatta, 2019).

AFL is a highly popular sport in Australia, and the inclusion of the Tasmanian Devils in such a high-profile competition will showcase Hobart. The Stadium is expected to attract other major events, such as NRL fixtures and Socceroos and Matildas matches, capturing a new audience as televised games highlight the stadium and its location within the city. This has the potential to encourage greater tourism visitation and, potentially, resident and business attraction to Hobart. As a result, the broader perception of Hobart and Tasmania is likely to be raised by the development.

4.6 ENHANCED COMMUNITY CONNECTIVITY AND PRIDE OF NEW STADIUM AND NEW AFL TEAM

Sport is one of the best ways to build social cohesion within the community, bringing people together to support a common team. The Macquarie Point Stadium will attract numerous patrons each year, providing more opportunities for residents and the broader Hobart community to socialise and connect.

The Stadium will be home to the new AFL team, the Tasmanian Devils. The Tasmanian Devils provide a sense of pride and importance for local residents regarding their community and region. This is evidenced by the strong support for the team and the rapid membership uptake, with over 200,000 members just months after the launch, making it only the sixth sporting club globally to achieve this milestone (AFL, 2024).

High-quality infrastructure and events, such as those provided by the new Stadium, are known to enhance civic pride and community cohesion (KPMG, 2024[d]). The new Stadium is expected to result in an uplift in subjective wellbeing for Tasmanian residents who support the Devils. The positive link between subjective wellbeing and sporting team membership is well documented (KPMG, 2024[d]). Additionally, the Stadium will host concerts, festivals, and other local community and mass participation events, creating opportunities for improved community connection and social cohesion, and building a shared identity and pride in place.

4.7 INCREASED PARTICIPATION IN SPORT AND SUPPORT FOR LOCAL PROFESSIONAL SPORTS INDUSTRY

The increased profile of sporting events facilitated by the Stadium, along with the sporting role models it attracts, can positively influence the development of children within the community and increase sports participation in the same sport being inspired by the athletes they desire (Money Smart Athlete, 2023). Increased participation in sports and recreation can have positive impacts on residents' mental and physical health, thereby improving productivity and providing avenues for greater social interactions.

The establishment of the Devils will result in the AFL investing $360 million over a 10-year period in Tasmania. The Stadium overall may support the growth of Hobart's professional sports industry. This impact could be seen in generating talent through targeted programs and increased participation in sport, growth in industries related to sports such as sports science, attraction of interstate talent to Hobart, and the retention of Tasmanian talent, all of which support the industry in Hobart and Tasmania.

4.8 VOLUNTEERING OPPORTUNITIES

Volunteers will be required at Macquarie Point Stadium for marshaling and registrations, providing Hobart residents with opportunities to increase their volunteer activities within the region. This also offers opportunities for a diverse cross-section of the population to be involved in aspects of local sport and event management.

Volunteers supporting the stadium operations can help create better mental health and social outcomes for the Hobart community. By investing time, volunteers help create opportunities for individuals and families, whether it be increased social connectedness or educational opportunities.

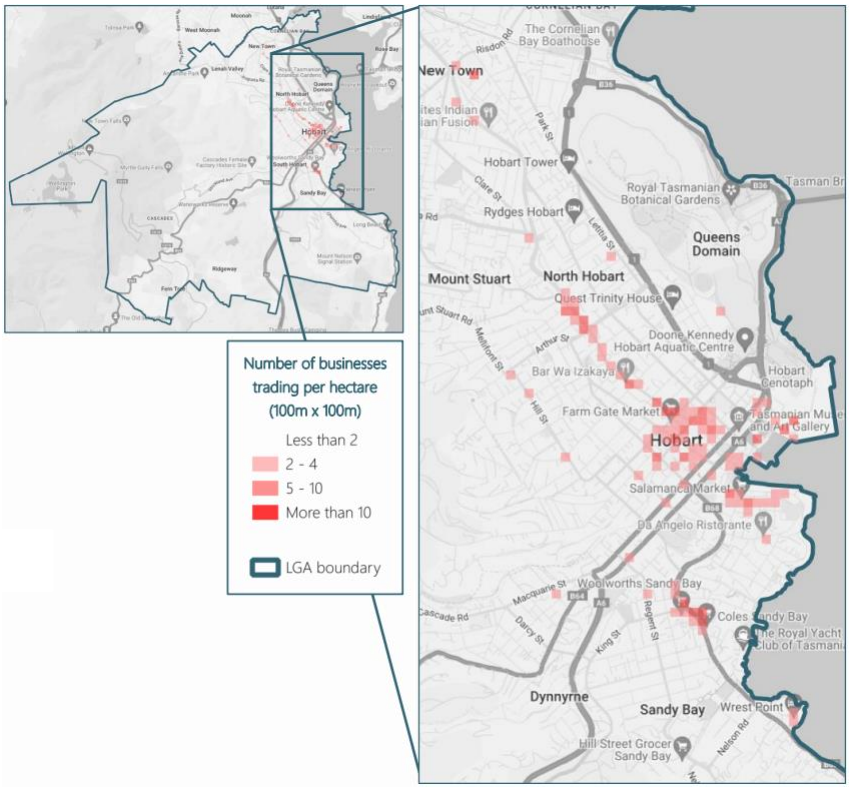
5. STRATEGIES TO ACTIVATE PRE & POST EVENT

The Macquarie Point Stadium is expected to boost patronage to nearby businesses before and after events. This section of the report explores current offerings for locals and visitors and outlines strategies to enhance the activation of these areas to support Hobart LGA's economy pre and post event.

5.1 CURRENT OFFERINGS IN HOBART LGA

In the Hobart LGA, many of the businesses that could benefit from Stadium events are within walking distance. Figure 5.1 shows a map of Hobart's core night-time economy (which includes establishments that provide services mainly between 6pm and 6am, such as pubs, restaurants, and clubs), retail, hair, and beauty business concentrations as of July 2024, all located close to the Stadium.

Figure 5.1: Core Night-time Economy, Retail, Hair and Beauty Business Concentrations, Hobart LGA, 2024



Source: Ingenium Research (2024).

Key hotspots for locals and visitors include:

- **Salamanca Place:** Renowned for its sandstone buildings and heritage architecture, Salamanca Place is a major tourist attraction. It features the city's vibrant nightlife with numerous restaurants, bars, and nightclubs. Located a short distance from the proposed Stadium site, it is particularly busy during the bustling Salamanca markets on Saturday mornings.
- **Hobart Waterfront:** The closest destination to the proposed Stadium site, the Hobart Waterfront is home to several bars and eateries. It is popular among tourists, with waterfront restaurants that are often busy in the evenings, especially with visitors from cruise ships.
- **Battery Point:** As Hobart's first suburb, Battery Point is a well-preserved colonial-era area. It is adjacent to Salamanca Place but slightly further from the proposed Stadium site. Popular with tourists, Hampden Road is the main strip, known for its charming cafes, art and gift shops, and bakeries.

- **In The Hanging Garden:** Situated in the centre of Hobart, this live music and cultural precinct is highly popular with both locals and tourists, particularly younger adults. It offers a dynamic atmosphere with various entertainment options.

Locals and visitors to the Stadium are expected to spend most of their time in these hotspots before and after events due to their close proximity, convenience, and the variety and scale of retail and commercial offerings compared to other Tasmanian regions. Previous studies have shown that many patron transactions occur within Hobart, with more than half of businesses in Hobart LGA reporting an increase in activity on game days from locals and visitors attending games at Ninja Stadium (outside Hobart LGA). Anecdotal evidence suggests that the distance and limited retail and hospitality offerings outside Hobart LGA may restrict expenditure in those areas, particularly on event days.

5.2 HIGH-LEVEL STATEGIES TO ACTIVIATE HOBART RETAILERS PRE AND POST EVENT

Hobart's night-time economy has experienced mixed performance in recent years, with a decline in the number of establishments and employment in 2023 compared to 2022, despite an increase in sales turnover (Ingenium Research, 2024). Revitalising the nightlife and supporting local businesses is crucial for enhancing the city's vibrancy, resilience, liveability, and sustainability. This has been identified as a key growth opportunity in the Council's City Economy Strategy 2023-2028 (Council, 2022). The Macquarie Point Stadium is expected to provide long-term support to these businesses and attract new ones to the region with the potential to activate the city pre and post event, be these day evening or night events.

The following strategies can be adopted to further activate Hobart LGA and fully leverage the benefits of the Stadium (please note, these are high-level considerations and have not been costed or included in the preceding analysis):

- **Pre-Event Engagement & Wayfinding Activation**: Develop a 'Stadium Event Trail(s)' map (printed and digital) that guides attendees to local venues and highlight opening hours, offers, experiences and what to expect pre/ post-event. Activate key walking routes between the Stadium and key entertainment precincts (e.g. Salamanca, Battery Point, CBD, etc) with branded signage, temporary public art, or wayfinding projections.
- **Event/ Night Economy Infrastructure**: Establish infrastructure or designate existing areas for temporary pop-ups or food trucks along key walking routes to and from the Stadium during major events to create a pre-event "village" atmosphere. Printed and digital (e.g. scooters, shuttle loops) to link key precincts (e.g. Salamanca Place, Battery Point, CBD, and Waterfront) more effectively on event nights, particularly in cold weather.
- **Campaigns Pre and Post Stadium Events:** Local businesses can boost event day sales through targeted awareness campaigns and event day promotions. Developing marketing campaigns to promote local businesses and attractions to Stadium visitors can highlight special offers, events, and unique experiences available in the surrounding areas. A significant portion of survey respondents who attended a game at CommBank Stadium in Parramatta reported being unaware of the range and quality of cafes, restaurants, bars, and clubs in Parramatta, indicating that the lack of purchases was due to a lack of awareness rather than negative perceptions (Invest Parramatta, 2019).
- **Extend Trading Hours and Provide Incentives:** Encouraging local businesses to extend their operating hours on event days can accommodate the anticipated influx of visitors before and after events at the Stadium, especially on event day. In 2023, the number of businesses in Hobart LGA operating between 6 pm and 6 am fell on most days of the week compared to 2022 (Ingenium Research, 2024). Around 41% to 58% of core nighttime economy-related businesses (10% to 13% of all retail businesses) were open in the evening from 6 pm to 9 pm, with that share dropping sharply to 21% to 35% from 9 pm to 12 am. Extended operating hours, especially for events held at night, can promote nightlife and increase activity. To support commercial viability, the government can offer incentives such as liquor license fee rebates for venues.
- **Curated Local Offers Linked to Event**: Work with traders to provide exclusive offers for patrons who show their event tickets (e.g. discounts, fixed-price menus, priority seating). Encourage venues to offer 60-minute set menus before events with guaranteed turnaround times.

- **Support Trader Capacity Building & Scheduling Support**: Offer Council-supported training or briefings for local businesses on how to prepare for peak event days (e.g. rostering, quick service delivery, digital promotion, etc). Council could create a real-time event calendar dashboard for traders to view pending events and appropriately plan ahead.
- **Collaborative Events and Partnerships**: Encourage collaboration between the Stadium operator and local businesses to host joint events, such as pre-game and post-game activities, live music performances, and food festivals, can attract more visitors to the area. These events can create a festive atmosphere and provide additional entertainment options for visitors. Consider the development of staggered/ staged exit strategies by including a mix of post-event entertainment or 'linger zones' in Stadium and staged at various points outside of the stadium to minimise max exodus and increase dwell time.
- **Buskers and Street Performers:** Introducing buskers and street performers in key areas around the Stadium can create a lively and engaging atmosphere. This can attract more visitors and encourage them to spend more time in the area, benefiting local businesses. Businesses may wish to create family-friendly early dining or activity options/ precincts for events (e.g. craft stations, face painting, kids' menus, and themed event tie-ins).
- **Cultural and Recreational Activities:** Leveraging the Stadium's presence to promote cultural and recreational activities in the area can enhance the overall visitor experience and encourage longer stays. Performers should be coordinated pre and post event (e.g. 2 hours before and 2 hours after) Organise walking tours, historical site visits, and outdoor activities that highlight the unique aspects of Hobart.

By implementing these strategies, the Hobart LGA can maximise the economic benefits of the Macquarie Point Stadium and create a vibrant, thriving community that attracts both locals and visitors.

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APPENDIX A INPUT-OUTPUT METHODOLOGY

INPUT-OUTPUT OVERVIEW

Input-Output analysis demonstrates inter-industry relationships in an economy, depicting how the output of one industry is purchased by other industries, households, the government and external parties (i.e. exports), as well as expenditure on other factors of production such as labour, capital and imports. Input-Output analysis shows the direct and indirect (flow-on) effects of one sector on other sectors and the general economy. As such, Input-Output modelling can be used to demonstrate the economic contribution of a sector on the overall economy and how much the economy relies on this sector or to examine a change in final demand of any one sector and the resultant change in activity of its supporting sectors.

The economic contribution can be traced through the economic system via:

- **Initial stimulus (direct) impacts**, which represent the economic activity of the industry directly experiencing the stimulus.
- **Flow-on impacts**, which are disaggregated to:
    - **Production induced effects (type I flow-on)**, which comprise the effects from:
        - Direct expenditure on goods and services by the industry experiencing the stimulus (direct suppliers to the industry), known as the **first round** or **direct requirements** effects.
        - The second and subsequent round effects of increased purchases by suppliers in response to increased sales, known as the **industry support** effects.
    - **Household consumption effects (type II flow-on)**, which represent the consumption induced activity from additional household expenditure on goods and services resulting from additional wages and salaries being paid within the economic system.

These effects can be identified through the examination of four types of impacts:

- **Output**: Refers to the gross value of goods and services transacted, including the costs of goods and services used in the development and provision of the final product. Output typically overstates the economic impacts as it counts all goods and services used in one stage of production as an input to later stages of production, hence counting their contribution more than once.
- **Gross product**: Refers to the value of output after deducting the cost of goods and services inputs in the production process. Gross product (e.g., Gross Regional Product) defines a true net economic contribution and is subsequently the preferred measure for assessing economic impacts.
- **Income**: Measures the level of wages and salaries paid to employees of the industry under consideration and to other industries benefiting from the project. Gross mixed incomes (i.e., incomes/ profit derived by the self-employed and unincorporated enterprises after they have paid for raw materials, overheads and any workers they employ) have also been included within the income measure.
- **Employment**: Refers to the part-time and full-time employment positions generated by the economic shock, both directly and indirectly through flow-on activity, and is expressed in terms of full time equivalent (FTE) positions.

Input-Output multipliers can be derived from open (Type I) Input-Output models or closed (Type II) models. Open models show the direct effects of spending in a particular industry as well as the indirect or flow-on (industrial support) effects of additional activities undertaken by industries increasing their activity in response to the direct spending.

Closed models re-circulate the labour income earned as a result of the initial spending through other industry and commodity groups to estimate consumption induced effects (or impacts from increased household consumption).

MODEL DEVELOPMENT

Multipliers used in this assessment are derived from sub-regional transaction tables developed specifically for this project. The process of developing a sub-regional transaction table involves developing regional estimates of gross production and purchasing patterns based on a parent table, in this case, the 2021/22 Australian transaction table (ABS, 2024a).

Estimates of gross production (by industry) in the study areas were developed based on the percent contribution to employment (by place of work) of the study areas to the Australian economy (ABS, 2012; ABS, 2017; ABS, 2022; ABS, 2024b; J&SA, 2024), and applied to Australian gross output identified in the 2021/22 Australian table.

Industry purchasing patterns within the study area were estimated using a Flegg Location Quotient approach, as described in Flegg et al. (2021), with a fixed degree of convexity applied to the regional size scalar. Regional final demand estimates (except exports) developed based on the regional inter-industry sales estimated using the Flegg Location Quotient relative to national inter-industry sales and final demand estimates for each industry (noting regional exports are assumed to reflect the remainder of total uses).

Employment estimates were rebased from 2021/22 (as used in the Australian national Input-Output transaction tables) to current year values using the Wage Price Index (ABS, 2024c).

MODELLING ASSUMPTIONS

The key assumptions and limitations of Input-Output analysis include:

- **Lack of supply-side constraints**: The most significant limitation of economic impact analysis using Input-Output multipliers is the implicit assumption that the economy has no supply-side constraints so the supply of each good is perfectly elastic. That is, it is assumed that extra output can be produced in one area without taking resources away from other activities, thus overstating economic impacts. The actual impact is likely to be dependent on the extent to which the economy is operating at or near capacity.
- **Fixed prices**: Constraints on the availability of inputs, such as skilled labour, require prices to act as a rationing device. In assessments using Input-Output multipliers, where factors of production are assumed to be limitless, this rationing response is assumed not to occur. The system is in equilibrium at given prices, and prices are assumed to be unaffected by policy and any crowding out effects are not captured. This is not the case in an economic system subject to external influences.
- **Fixed ratios for intermediate inputs and production (linear production function)**: Economic impact analysis using Input-Output multipliers implicitly assumes that there is a fixed input structure in each industry and fixed ratios for production. That is, the input function is generally assumed linear and homogenous of degree one (which implies constant returns to scale and no substitution between inputs). As such, impact analysis using Input-Output multipliers can be seen to describe average effects, not marginal effects. For example, increased demand for a product is assumed to imply an equal increase in production for that product. In reality, however, it may be more efficient to increase imports or divert some exports to local consumption rather than increasing local production by the full amount. Further, it is assumed each commodity (or group of commodities) is supplied by a single industry or sector of production. This implies there is only one method used to produce each commodity and that each sector has only one primary output.
- **No allowance for economies of scope**: The total effect of carrying on several types of production is the sum of the separate effects. This rules out external economies and diseconomies and is known simply as the “additivity assumption”. This generally does not reflect real world operations.
- **No allowance for purchasers’ marginal responses to change**: Economic impact analysis using multipliers assumes that households consume goods and services in exact proportions to their initial budget shares. For example, the household budget share of some goods might increase as household income increases. This equally applies to industrial consumption of intermediate inputs and factors of production.
- **Absence of budget constraints**: Assessments of economic impacts using multipliers that consider consumption induced effects (type two multipliers) implicitly assume that household and government consumption is not subject to budget constraints.

Despite these limitations, Input-Output techniques provide a solid approach for taking account of the inter-relationships between the various sectors of the economy in the short-term and provide useful insight into the quantum of final demand for goods and services, both directly and indirectly, likely to be generated by a project.

In addition to the general limitations of Input-Output analysis, there are three other factors that need to be considered when assessing the outputs of sub-regional transaction table developed using the above approach, namely:

- It is assumed the sub-region has similar technology and demand/ consumption patterns as the parent (Australia) table (e.g. the ratio of employee compensation to employees for each industry is held constant).
- Intra-regional cross-industry purchasing patterns for a given sector vary from the national tables depending on the prominence of the sector in the regional economy compared to its input sectors. Typically, sectors that are more prominent in the region (compared to the national economy) will be assessed as purchasing a higher proportion of imports from input sectors than at the national level, and vice versa.
- The size of the regional economy is assumed to have an inverse relationship with the requirement to import goods/ services to meet its needs (i.e. the smaller the economy, in general the greater the reliance on imports).

APPENDIX B SCENARIO: BUSINESS-TYPE EVENTS

This scenario examines the impact of 100% of business-type events representing net new activity for the Hobart LGA economy, resulting in 104 new business-type events with a total of 26,000 delegates.

Under this scenario, the project is estimated to contribute $108.9 million annually in industry output to locally sourced businesses within the Hobart LGA regional economy through initial activity (compared to $106.0 million annually under the central case scenario). Additionally, a further $74.8 million per annum in industry output is expected to be supported through flow-on activity (compared to $72.8 million annually under the central case scenario).

This level of industry activity is estimated to support the following economic benefits each year:

- **GRP:** $89.7 million contribution (compared to $87.2 million annually under the central case scenario)
- **Employment:** 836 Full Time Equivalent (FTE) jobs in the region (compared to 813 FTE under the central case scenario), paying a total of $64.6 million in wages and salaries (compared to $62.8 million annually under the central case scenario)

Overall, the impact improvement from this scenario compared to the central case (Section 3.3.2) is relatively small. The most significant impacts are seen in induced non-event day visitor expenditure and local and visitor expenditure on event day (outside the venue).

Table AB.1: Economic Activity Supported during Post-Construction, Hobart LGA

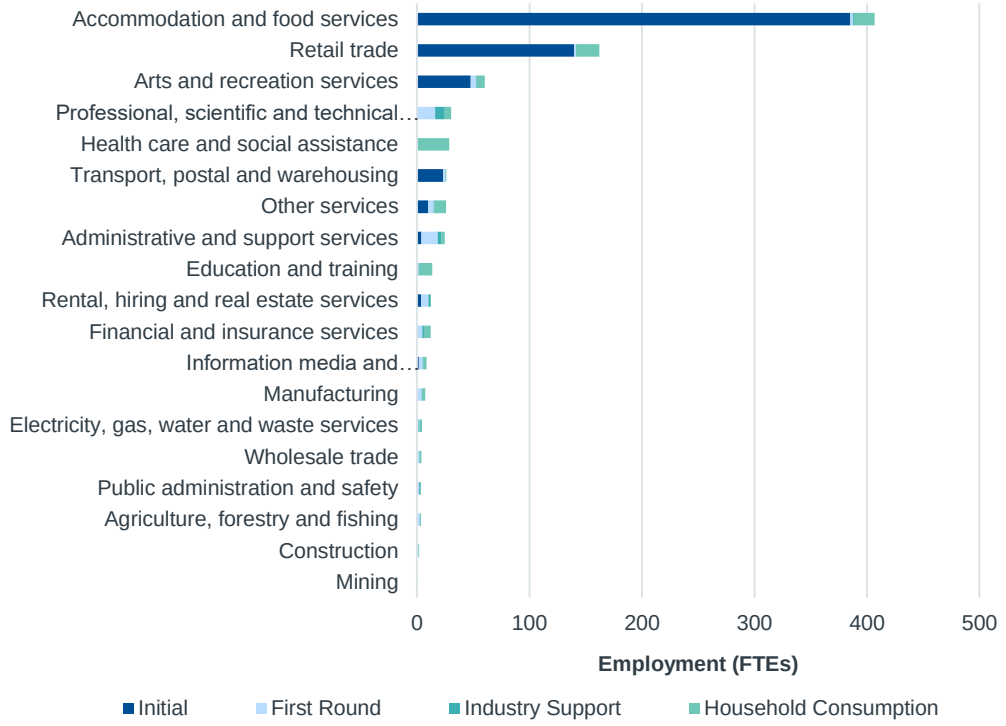
Impact	Output ($M)	GRP ($M)	Incomes ($M)	Employment (FTEs)
Stadium Operations				
Initial Stimulus in Local Economy	$7.4	$0.4	$2.6	23
Direct Requirements (First Round Type I) Impacts	$2.9	$1.4	$1.1	11
Industry Support (Subsequent Round Type I) Impacts	$0.9	$0.5	$0.3	3
Household Consumption (Type II) Impacts	$2.9	$1.6	$0.8	9
Total Impacts in Local Economy	**$14.0**	**$3.9**	**$4.9**	**45**
Hosting Event Activity				
Initial Stimulus in Local Economy	$4.8	$2.4	$2.0	33
Direct Requirements (First Round Type I) Impacts	$1.5	$0.8	$0.5	5
Industry Support (Subsequent Round Type I) Impacts	$0.5	$0.2	$0.2	1
Household Consumption (Type II) Impacts	$1.8	$1.0	$0.5	5
Total Impacts in Local Economy	**$8.6**	**$4.4**	**$3.3**	**44**
Local and Visitor Expenditure On Event Day (Outside The Venue)				
Initial Stimulus in Local Economy	$41.3	$20.4	$15.7	244
Direct Requirements (First Round Type I) Impacts	$9.3	$4.4	$3.0	25
Industry Support (Subsequent Round Type I) Impacts	$2.8	$1.4	$0.9	7
Household Consumption (Type II) Impacts	$15.7	$8.8	$4.6	48
Total Impacts in Local Economy	**$69.0**	**$35.0**	**$24.3**	**325**
Induced Non-Event Day Visitor Expenditure				
Initial Stimulus in Local Economy	$55.5	$27.0	$20.8	315
Direct Requirements (First Round Type I) Impacts	$12.4	$5.9	$4.0	34
Industry Support (Subsequent Round Type I) Impacts	$3.7	$1.8	$1.2	10
Household Consumption (Type II) Impacts	$20.7	$11.7	$6.1	63
Total Impacts in Local Economy	**$92.2**	**$46.3**	**$32.1**	**422**

Impact	Output ($M)	GRP ($M)	Incomes ($M)	Employment (FTEs)
Total Operations Phase				
Initial Stimulus in Local Economy	$108.9	$50.2	$41.1	615
Direct Requirements (First Round Type I) Impacts	$26.1	$12.6	$8.7	74
Industry Support (Subsequent Round Type I) Impacts	$7.8	$3.9	$2.6	21
Household Consumption (Type II) Impacts	$41.0	$23.1	$12.1	125
Total Impacts in Local Economy	**$183.7**	**$89.7**	**$64.6**	**836**

Note: Totals may not sum due to rounding.
Source: AEC.

A breakdown of average annual ongoing FTE employment supported by industry in the Hobart LGA economy associated with the project post construction is outlined below. The local accommodation and food services industry is estimated to receive the largest share of FTE employment impacts, at 407 FTE jobs per annum.

Figure 3.2: Employment supported by Industry during Post-Construction, Hobart LGA



Source: AEC.

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Appendix 3

Landscape and Urban Form, Leigh Woolley

Additional notes provided in response to Draft IAR.
April 9 2025

Background comments:

Regarding the sequence and spatial thinking of the 'Urban Form' and 'Landscape and Visual Effects' reports.

Considering key relevant materials identified in the DIAR under *3.1 Urban Form of Sullivans Cove and Hobart City* and *3.2 Landscape and Visual effects* sections. These documents include: the Sullivans Cove Planning Review (1991), the Hobart Waterfront Urban Design Framework (2004), Hobart 2010, Public Spaces and Public Life, (2010) The Building Height Standards Review (2018), and the Central Hobart Plan (2023).

Although the documents are chronological, they do not treat the landform of Sullivans Cove in the same way. This is important in seeking consistency of approach when reviewing the spatial context of the proposed stadium, especially having regard to current planning policy and expectations. Put simply it concerns the difference between considering the setting as a 'backcloth' (to the urban landscape of Sullivans Cove), and considering the 'landform as fundamental to urban structure'.

The 1991 Planning Review identified the setting as important, (Sullivans Cove was contained within the 'great amphitheatre' 1991, p.26) but it did not translate this into an appreciation of the *landform* that had 'shaped' the built form of the cove. Rather it remained as landscape *backcloth* where the water was the 'stage' and the mountain 'the gods'. (1991 p.17). Accordingly the principal spatial features were the 'Wall to the Cove' and the 'Cove Floor', being the visually dominant components of *built* structure.

This approach continued into the Hobart Waterfront Urban Design Framework of 2004. Here the grid of streets are identified as 'axes' in contrast to the Cove Floor, itself located beyond the defining edge of the Cove Wall. Similarly the 2010 Study by Jan Gehl, implored the city to make the most of its remarkable setting, (2010 p.16, 76) but also did not differentiate the landform as fundamental generator / edge to the Cove Floor.

This is important because the former Railyards site (being part of the 'reclaimed floor' of the cove) was not yet being considered part of the (potentially) extended public space of the Cove Floor. Although earlier studies had differentiated the reclaimed edge of the Cove from the Cove Wall itself, (1987 Sullivans Cove Urban Detail Study, p. 20, 24), and this also informed studies of the City Centre, (1991 Townscape topic report, CASP, HCC, p.2.4, 3.2) it was not until the Height Standards- Performance Criteria Review (2016) and the ensuing scheme Amendment (PSA 17-3, 2018) that landform terminology and specific figures were incorporated into the scheme. These then informed the Building Height Standards Review (2018).

These now clearly identify the *reclaimed* edge of the Cove Floor (fig 22.7) (also identifying the 'basin'), as well as the topographic condition of the Central Hobart terrain forming the Urban Amphitheatre. (figs. 22.8, 22.9) These, and the analysis embedded in the 2018 study, has helped reinforce and inform considerations of Central Hobart building heights being based on the (landform) location and their stepped character, back from the Cove Floor and in from the Domain headland. (CHIPS 22.1.3, 2018, CHP 2023)

In short, the context for density and building height now acknowledges the terrain of Central Hobart and the Amphitheatre to the Cove, as inherent and identified components of urban structure, not simply as 'backcloth'. Hopefully this clarification helps reduce some of the anomalies that persist when considering the earlier listed documents, as well as Appendix GG. (SDP)

There are some specific points / items within the Draft IAR to comment on :

3.1 *Building alignment*
(o) *' Evans Street is identified in the Planning Review as a street that should have buildings with active edges forming a street edge'. … 'the stadium, which is free standing, would not align with the street… with active frontages… does not meet the intended building form in the area'.*

Further to the preceding contextual comments, it is important to remember that when the Planning Review was written the 'Railyards' at Macquarie Point were not addressed as part of the Cove Floor. Moreover the landform considerations that now differentiates the 'reclaimed' from the 'given' ground were not incorporated. Accordingly the Cove Wall (that incorporated the frontage of Hunter Street) did so based on its built form, not due to the fact that it was built over Hunter Island and the sand spit (as 'given' ground). In short the Planning Review (1991) was 'built form' derived, not 'landform' derived.

As a result the buildings along Evans Street were not considered part of the Wall, even though logically they were built above the same 'ground' conditions as the Hunter Street frontage. This was an anomaly identified over a number of years and incorporated into subsequent analysis, including one of the documents included in the TPC Guidelines reference list. (Woolley 2015, 2017)

When the further considerations of the Cove Floor were recognised as incorporating all that area that was reclaimed, and that buildings on the Cove Floor were to be free-standing, ('in the round') then the previous inconsistent notion (that the former Railyards / Macquarie Point edge of Evans Street should be a street frontage) was brought into question. Accordingly, the outcome by the Panel (p) (p.47) that Evans Street should *'still meet the general intent of the planning principles'* is somewhat open to review.

The important consideration is that typologically this side of Evans Street should not be treated the same as the other side. The stadium side can accommodate buildings 'in the round' rather than 'street' facing, ideally with active edges.

4.2 Regatta Grounds / Lower Domain Precinct (+ **10.3** (h))
p.60 Context *'…assessment of the housing development is not within the scope of the Project '*

This component of the 'Project' none the less needs to be critically considered. It is potentially an extremely significant impact in terms of an incompatible use, as well as an inappropriate building height and presence. This is particularly the case considering its impact on the landform of the headland and the cultural values of the Cenotaph, and the expectations of public access along the foreshore beyond the working port.

Although beyond the scope of the Panel's review, it is potentially a significant non -conforming development / project. It must not be simply excluded, or left beyond critical review and consideration.

4.3.2 (c) Goods Shed
p. 64 Context … relocation

The proposed relocation would not seem to take account of the significance of the 'original' shore to planning outcomes in the Cove and Macquarie Point.

The sheds' relocation to the northern edge of the stadium reduces the public space between the toe of the headland and the reclaimed 'floor'. Accordingly, it potentially compromises the 'free standing' stadium and its separation from the landform of the headland. With so much effort expended over a number of years to reinforce this differentiation, it is necessary to ensure this is not undermined by such a move.

The other crucial feature of this 'relocation ' is not to inadvertently diminish capacity to interpret the 'line' / location of the 'original' shore. While subject to further careful analysis, it would seem that the proposed building would be located above / across the 'original' shore, potentially diminishing archaeological interpretation and aggravating cultural sensitivities.

Sub-surface impacts are also likely in those locations where further excavation will be necessary, beyond the perimeter of the stadium itself. These include the anticipated multi-level carpark next to the stadium to the NE, and the cricket practice nets to the North. It is recognised that the practice nets in particular will reduce public gathering space and movement including potentially on the cycleway / network.

Leigh Woolley Architect
9 April 2025

Additional documents mentioned:

Sulllivans Cove Urban Detail and Bicentennial Walking Trail Study
Sullivans Cove Development Authority 1987
L. Woolley et al

Townscape Topic Report
Central Area Study Project
HCC 1991
L. Woolley

Appendix 3 (2015)
In: Macquarie Point Masterplan : Re-set
Urban Design Notes 2017
L. Woolley

Height Standards – Performance Criteria Review
HCC 2016
L. Woolley

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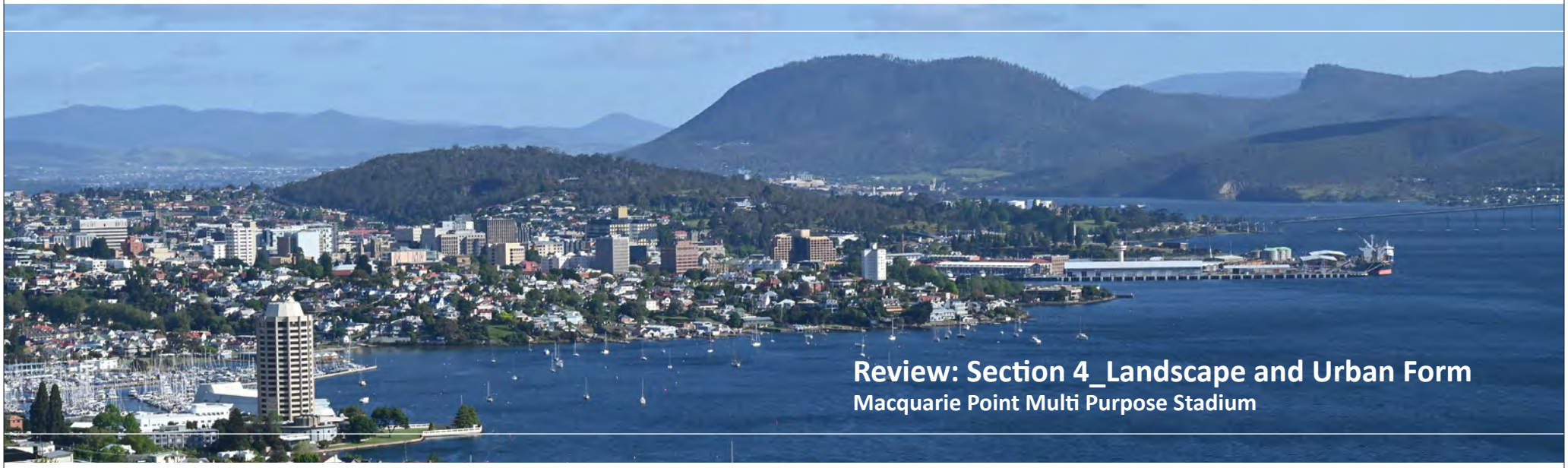

Review: Section 4_Landscape and Urban Form

Macquarie Point Multi Purpose Stadium

Prepared for the Hobart City Council

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December 31 2024

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Final Draft Report
31 Dec. 2024

Photography : Leigh Woolley

DRAFT

In mid October 2024 Leigh Woolley Architect was engaged by the Hobart City Council to undertake a discrete review of reports that have been submitted in response to Section 4: Landscape and Urban Form for a proposed Multi Purpose Stadium at Macquarie Point, Hobart.

The comments were to be considered against Guidelines developed by the Tasmanian Planning Commission (TPC) for the Project of State Significance process. The intention is that these comments assist Council in setting out its views regarding the POSS, as Council are not the planning authority for the project. Governed by the State Policies and Projects Act 1993 (the 'Act'), the parameters of the TPC's assessment have been prepared as an Appendix matrix for each section of the Guidelines. The relevant sections are identified to the left hand side of the following pages.

For the relevant reports it was requested that judgements be made whether the reports have adequately responded to the requirements of the guidelines, and if specific consideration of the guidelines have been met.

Review: Section 4_Landscape and Urban Form

Macquarie Point Multi Purpose Stadium

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Review : Section 4 _**Landscape and Urban Form**_
Macquarie Point Multi Purpose Stadium

Viewing west from Bellerive across the harbour waterplane to Central Hobart

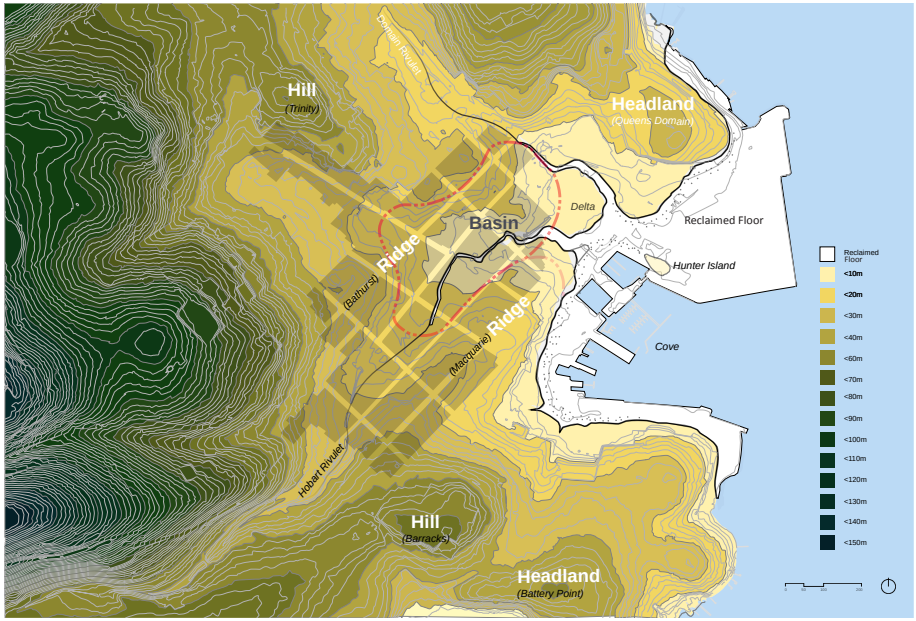


Fig. 22.7 (HIPS) Central Hobart Landform Structure (also identifying the Reclaimed Floor)

Location as context

No site or project exists in isolation. Context is inherent. In response to the relevant Landscape and Urban Form reports (developed as part of the POSS planning process), the context is both the physical location, and how its evolution has been considered, acknowledging recent planning history.

Since its adoption, the Sullivans Cove Planning Scheme (1997) has been subject to change and alteration. In anticipation of a statewide planning scheme, the SCPS has been revised and now more seemlessly accords with the Hobart Interim Planning Scheme (HIPS 2015).

While integration may assume a dulling of specificity, it does not diminish the need to apply consistent judgement across the spatial scales of the planning process, especially between precincts.

It is with this in mind that spatial information now forming part of the HIPS 2015, (Fig. 22.7) identifying the landform structure and settlement context of Central Hobart and Sullivans Cove is considered at the outset.

It can be interpreted in a number of ways including as a topography, a history and a foundation from which to consider development of the city centre, including Macquarie Point. It confirms the site context as part of a 'reclaimed floor' between headlands and adjacent the outflow of two rivulets, with a progressive layering of rising ground, especially to the west.

Identified by its location within a 'basin' informed by the principal rivulet, the street grid of Central Hobart is differentiated from the reclaimed 'cove floor'. The edge of the original shore is identified between the given ground and the reclaimed floor, readily providing a datum that is both topographic and historic.

Being formed by human endeavour, the Cove Floor is also differentiated by being a planar surface, necessary for multi-directional movement in support of port operations. Today this supports the reclaimed edge as a civic domain, effectively (in part) 'floating' several meters or so above the more extensive horizontal datum of the harbour water-plane.

TPC GUIDELINES	RESPONSE
4.0 | Landscape and Urban Form	
4.1 | Landscape and Visual Values	
Clause 4.1.1 The reports are to discuss, identify and assess the likely significance of, and the effects of, change resulting from the Stadium on the landscape, as a public resource, and on people's views, enjoyment and visual amenity. The landscape is to be assessed in its broadest sense. The area to be included in the assessment is to be the full extent of land and water where there may be an effect. The definition of landscape is to include natural landforms, waters and ecosystems, human settlement and people's association with place. The landscape assessment is to describe the importance and values attached to elements of the landscape by people and communities.	This chapter provides a summary of the response to this guideline. A technical response to the landscape assessment, and key viewpoints around the city to and from the Site and Cenotaph is provided in **Appendix J** – Visual Impact Assessment Report.
Clause 4.1.2 The reports are to assess the effect the proposed project has on: • the landscape and townscape values and characteristics of the project site and broader area, • spatial and physical use and enjoyment, • specific views in to and out of the site and the general visual amenity experienced by people and the likely significance of visual effects.	This chapter provides a summary of the response to this guideline. A technical response to the townscape values and characteristics is available at **Appendix I** – Urban Design Framework.
Clause 4.1.3 In preparing the reports, specific consideration is to be given to: • how the historic character of the landscape is incorporated into and shapes the character of the locality. The historic landscape character will be derived from understanding how the long sequence of events and actions are visible in today's landscape and the broad patterns and character that this sequence reveals, • supplementing the assessment of historic and landscape character with information on: – the historic cultural heritage significance of registered and listed heritage places and precincts, – the cultural significance of known Aboriginal heritage (note: advice from Aboriginal Heritage Tasmania will be obtained on how sensitive information is to be presented in reports), • the spatial characteristics of the broader area, • the existing urban morphology of the broader area, how previously adopted plans and strategies related to future urban form contribute to the landscape character of the area and the effect that out of scale buildings have on the historic and landscape character of the area, • the area within which the proposed project is visible, the number and range of people and groups who may experience views and viewpoints and where they will be affected, • the overall significance of visual effects from an understanding of the sensitivity of viewers, the values of different views and the scale, degree of contrast and magnitude of visual effects, • people's visual and spatial experience of the proposed project incorporating: – where people experience the proposed project while moving in the broader area, the sequential visual experience is to be assessed, – where the proposed project is to be lit at night, the effects of lighting are to be assessed,	This chapter provides a summary of the response to this guideline. A full response is provided in: **Appendix I** – Urban Design Framework **Appendix J** – Visual Impact Assessment Report.

Landscape and Visual Values

'Landscape is to be assessed in its broadest sense' *(Clause 4.1.1)*

The VIA Response (Appendix J) has been to consider *'key viewpoints around the city to and from the Site and the Cenotaph'*. However these generally do not extend to an appreciation of the location at 'the sub-regional level' *(Clause 4.1.3 dot point 8)* and to encompass *'the spatial and location characteristics of the surrounding landscapes, and their roles and values' (Clause 4.1.3, dot point 9).*

Refer to Suggested Additional Viewpoints (pages xx)

Accordingly, responses within both the Urban Design Framework and the Visual Impact Assessment are constrained to 'the site', rather than considering the ***site context***. The TPC Guidelines however anticipate an appreciation across scales, *'the definition of landscape is to include natural landforms, waters and ecosystems, human settlement and people's association with place'. (4.1.1)*, and 'how the historic character of the landscape is incorporated into and shapes the character of the locality' *(4.1.3 dot point 1),* and the effect the proposed project has on *'landscape and townscape values and characteristics of the project site and the broader area' (4.1.2 dot point 1)*

The Site Context is not just the space of Sullivans Cove and the Cenotaph, but the setting of the Domain headland, the place of the cove within the river edge landforms, (including headlands in contrast with the harbour waterplane), and the layered ground rising to the containing 'landform horizons', notably kunanyi and the Wellington Range.

As a result, references to the 'Urban Amphitheatre' and the 'Amphitheatre to the Cove' (definitions of both are within the existing planning scheme) are ill understood, and can be considered inadequate.

Accordingly it could be argued the Visual Impact Assessment does not establish the baseline landscape and visual conditions as anticipated in the Guidelines. *(4.1.1, 4.1.2, 4.1.3 esp. dot points 6, 7, 8)*

The baseline landscape condition is in the broadest sense, the relationship between 'containment and release' ('containment' by high and rising ground in contrast to 'release' across the harbour waterplane), and how this has been incorporated into and informed numerous documents since the 1997 SCPS.

As the source reference document (2013)* states :

'For the landscape baseline the aim is to provide an understanding of the landscape in the area that may be affected – its constituent elements, its character and the way it varies spatially, its geographic context, its history, its conditions, ***the way the landscape is experienced*** *and the value attached to it'. (p.32)*

Crucial to this expectation is determining 'the area that may be affected'. Given the scale of the proposed structure, and the expectation in the Guidelines that *'specific consideration is to be given to: the spatial and location characteristics of the surrounding landscapes' (4.1.3 dot point 9)*, the affected area is not merely the 'subject site', but the visual catchment of the development.

In terms of whether the Visual Impact Assessment has critically analysed the landscape against the methodology identified in the 2013 document* the following are noted :

- There is no map or plan of the broader urban setting that includes the components of the landscape included / discussed in the report (eg. 'Urban Amphitheatre', 'Amphitheatre to the Cove')

- Nor is there an indication in section, or through appropriate photography, to acknowledge that the scale of these inherent spatial characteristics have been acknowledged in the assessment.

** Guidelines for Landscape and Visual Impact Assessment (Third Edition) 2013.*
The Landscape Institute and the Institute for Environmental Management and Assessment. (UK)

- the spatial and location characteristics of the Cenotaph headland within the surrounding townscape and landscape at a local and subregional level. The roles, values and landscape significance of the Cenotaph headland is to be assessed with respect to views and vistas to and from the Cenotaph:
  - as identified by users and managers of the Cenotaph,
  - as outlined in section 32.3 and figure 32.2 of the Sullivans Cove Planning Scheme 1997,
  - as outlined in Planning Scheme Amendments to Macquarie Point Site Development Plan Planning Report, AllUrban Planning, Dec 2018,
  - as outlined in Macquarie Point Master Plan: Reset - urban design notes, Leigh Woolley, 2019,
- the spatial and location characteristics of the surrounding landscapes, and their roles and values.

TPC GUIDELINES	RESPONSE
Clause 4.1.4 The reports are to provide plans, including sections and elevations, maps and graphics that show, illustrate and describe: • the landscape character of the area and the significance of effects to landscape values, • the historic character of the area and how layers of history are revealed through visual and spatial indicators, • the historic, existing and planned urban morphology of the area, and how this character is represented in the landscape, • the areas within which the proposed project may be viewed and the range and number of people that may be affected, • key sequential and static viewpoints and the overall significance of visual effects. The methodology used for visualisations is to be described and is to be informed by the New Zealand Institute of Landscape Architects Best Practice Guide 10.2, Visual Simulations, 2010, or an equivalent professionally developed and adopted set of guidelines. The reports are to be informed and guided by the processes and principles outlined in Guidelines for Landscape and Visual Assessment, third edition, 2013.	This chapter provides a summary of the response to this guideline. A full response is provided in: **Appendix J** – Visual Impact Assessment Report **Appendix I** – Urban Design Framework. The two appendices also provide an outline of the landscape character and urban morphology of the area. This is supported by the detailed urban design analysis, plans and diagrams provided in: **Appendix GG** – Site Development Plan **Appendix B** – Stadium Design Description **Appendix A** – Architectural Drawings.

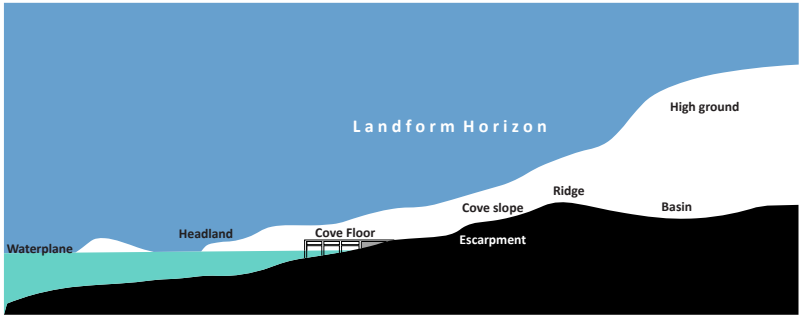


Fig. 22.8 HIPS Diagrammatic section: The Amphitheatre to the Cove within the Urban Amphitheatre

While there is a description of the local components: 'Queens Domain', 'Cove', 'City centre', the analysis does not extend to consider how these integrate with one another to gesture to how the landscape is experienced, notably in the context of the Urban Amphitheatre.

It is within this context that the terminologies derive their meaning. NB. The Urban Amphitheatre means *'the setting of Central Hobart including the layered rise of landforms rising from the water plane datum to the landform horizons'.*

Diagrams are therefore included from the current planning scheme (HIPS 2015 NB. fig. 22.9) that reinforce the location of Urban Amphitheatre, in 'plan' and via axonometric 'view'. (right opposite) These, and the context to which they apply, are however not acknowledged in either the Urban Design Framework (UDF) nor the Visual Impact Assessment (VIA). It would seem that the intent of Clause 4.1.3 *(esp. dot points 5, 6, 7, 8 and 9)* are therefore inadequately addressed.

A 'diagrammatic section' is included in the current planning scheme (Fig. 22.8) to identify the spatial terminologies incorporated within the 'Urban Amphitheatre' and the 'Amphitheatre to the Cove'. (The diagram is deliberately 'scale-less' and was only intended to be used in concert with the other figures, 22.7, 22.9) However it has been inappropriately copied as a literal 'section', (UDF p.100) to justify the scale of the proposed stadium.

There is no direct reference in either document to the spatial experience of the 'Amphitheatre to the Cove' meaning *'the **layering** of rising ground from the waterplane to the landform horizon, climbing away from the earlier rivulet outfalls as the low point into Sullivans Cove, incorporating adjacent hills and ridges, especially to the west and north west, and also flanked by distant headlands.'*

The Urban Design Framework acknowledges that the Urban Amphitheatre provides 'a sense of scale and containment and influences the orientation of the City'

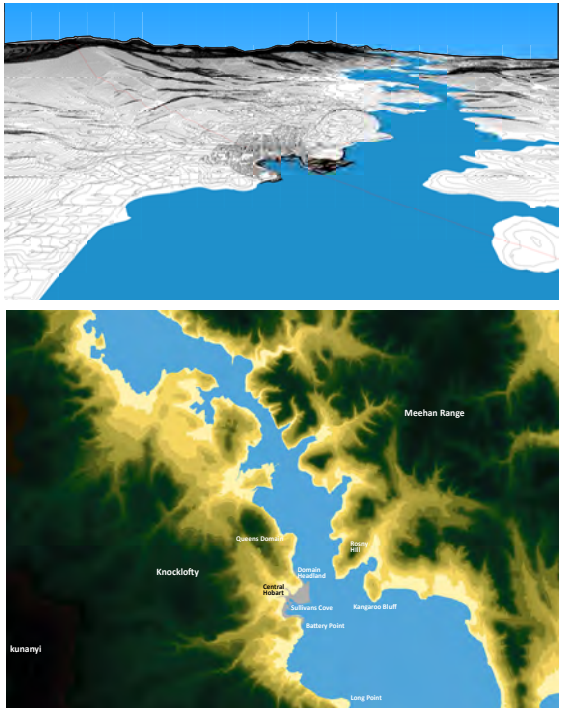
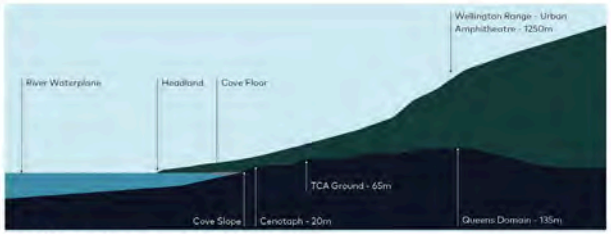
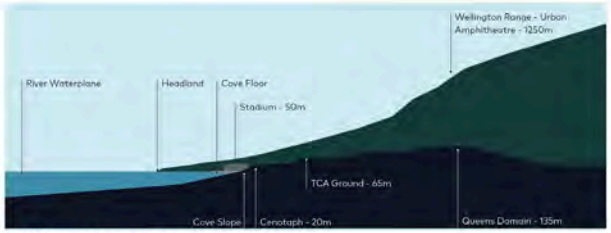


Fig. 22.9 (detail) HIPS 2015 'The Urban Amphitheatre'

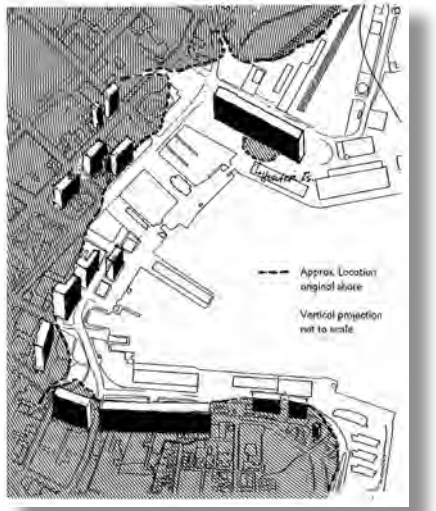
(p.67) but it does not then translate that to the sense of orientation within the Amphitheatre, is landform based. Rather it suggests 'the proposal is expected to have a low impact on the amphitheatre' and that, 'the dome of the Stadium is designed to reflect the wider landscape by alluding to the layered undulations of the lower foothills, thereby reducing its overall impact on the setting'.

While the shape of the proposed building (with domed roof) may assume 'familiarity' in a sculptural or even geometric sense, this does not mean as a building it is, or will become, familiar in a landscape sense.





'Scale -less' diagrams copied from the Planning Scheme to inappropriately 'justify' the scale / bulk of the proposed Stadium. *(UDF p.100)*



The 'original shore' has been identified in planning documents prior to the 1991 SCPR. This diagram confirms the relationship between buildings forming the 'Wall to the Cove' (located on solid ground) and the reclaimed edge beyond the 'original shore' .

Sullivans Cove Urban Detail and Bi-Centennial Walking Trail Study. *Woolley, et al.* 1987

Differentiation between landform and built form identifies Hobart

It can be argued in response to the forementioned, that it is the differentiation between the 'given' landform and 'subsequent' built form, that identifies Hobart.

The UDF (Appendix I) compounds the confusion by suggesting the impact of the domed roof is mitigated 'as the built form forms an extension of the perceived headland outwards towards the Estuary'. (p.67)

The distinction between landform and built form is particularly pertinent within Sullivans Cove. It is loosely recognised through the spatial construct of the 'Wall to the Cove'. This spatial characteristic is identified in reference to a built edge of buildings built close to the 'original shore' prior to reclamation. It also assists in identification of the built margin of the Cove Floor itself.

As the more essential feature, the 'Floor to the Cove' is itself differentiated from the 'given' landform of the headlands, escarpments and rising ground. This foundational distinction further underpins the role of the natural landforms to the identity of the 'cove'.

It also fundamentally acknowledges the importance of the 'original shoreline' above all other spatial characteristics. Acknowledging and identifying the 'original shore' not only allows a datum from which to gauge colonisation and the process of settlement, but by virtue of its planar character, a differentiated surface from that of the adjacent undulating 'given' ground.

As stated in one of the reference documents : *(4.1.3 dot point 8)*

" Being 'reclaimed' from the waters of the harbour, the Cove Floor is differentiated from the 'given' or 'natural' landform of the city. Accordingly it can be regarded as a 'created' topography. In the context of the 'natural amphi-theatre created by the water and mountainous backdrop' *(SCPS 6.2 Strategic Framework _Designing the Future Urban Form)* the Cove Floor is an 'in-between' space, reflecting the unique history of its formation as a sequence of utilitarian man-made spaces. These now comprise a continuous broad expanse (often experienced as a planar platform) between natural ground and the deep-water of the harbour. In response to these landform and built 'form' conditions, and in the context of the extended urban setting, 'the bulk and height of buildings must respect …the amphi-theatre sloping down to the Cove and the Macquarie and Regatta Point Ridges'. *(SCPS 23.2 Urban Form Objectives) ".*

Mac Point Master plan : Reset - Urban design notes, Leigh Woolley 2019

Identifying the original shoreline has therefore been fundamental to considerations of the urban morphology of Sullivans Cove in recent decades, including its implications on built form.

The 'Urban Design Notes' referred to above were compiled to provide context to the anticipated MPDC envelopes as part of the Macquarie Point Masterplan Re:set (circa 2018). Accordingly they reinforced spatial thinking and professional analysis (including views and sightlines) carried out since adoption of the SCPS (1997).

Some of these documents need to be identified / noted, as the current SDP (Appendix GG) appears to be unaware of their existence. (ie. there is no bibliography, timeline or list of references as part of the document).

- Visual and Urban Design Assessment (Oceanport) - POSS assessment (1997) *Walker, Shelton, Woolley*
- Site Development + Conservation Plans (PW 1 + 2)(2000) *Shelton, Woolley*
- Hobart Railyards Urban Design Strategy (2008) *SCWA*
- Sullivans Cove Masterplan (2010) *Office State Architect*
- Statement Cultural Significance Concrete Aprons / Cove Floor (2011) *Woolley for SCWA*
- Macquarie Point Strategic framework and Draft Masterplan 'New territory from old ground' (2014) *JWA*
- HIPS 2015 Height Standards - Performance Criteria Review (2017) *Woolley for HCC*
- Macquarie Point Site Development Plan (2017) *MPDC*
- Building Height Standards Review Project (2018) *Woolley for HCC*

TPC Guidelines
Clause 4.1.3

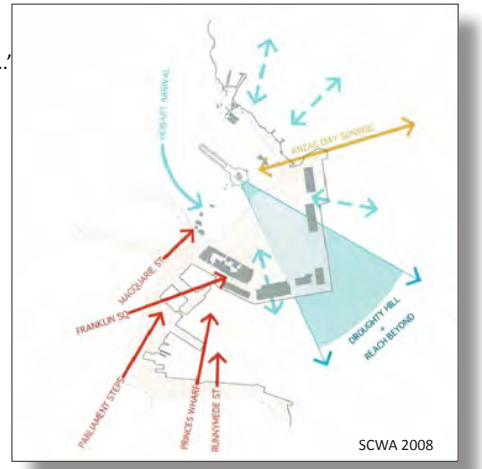
Specific consideration be given to :

‘ The spatial and location characteristics of the Cenotaph headland within the surrounding townscape and landscape at a sub regional level...’ (Dot point 8)

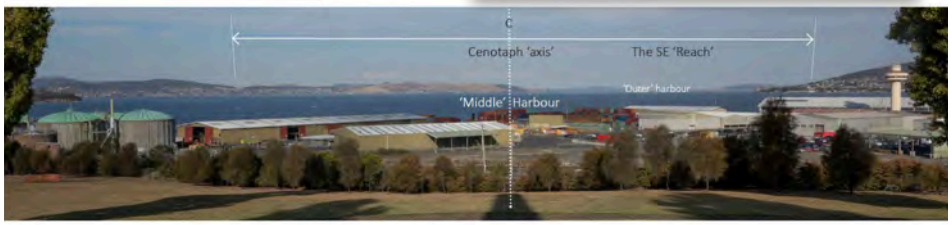
Reference documents considering the View from the Cenotaph down river to the mouth of the Derwent.

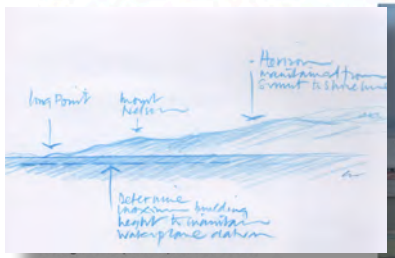
Right :
Principle : Respect Key Views to and from the Cenotaph and from within Sullivans Cove.

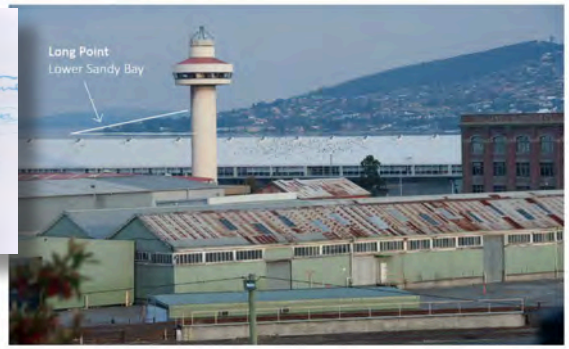
Hobart Railyards Urban Design Strategy
Sullivans Cove Waterfront Authority. 2008
p.14



Below :
Considering the View Line from the Cenotaph down river to the mouth of the Derwent.







Source : Macquarie Point Master Plan : Re:set - urban design notes, Leigh Woolley 2018 p.7

Reflecting the ‘natural’ topography

The VIA report (Appendix J) acknowledges the stadium will have a significant impact (effect significance varies from Moderate - High) with an acknowledged change to its visual surrounds. *(p.77)* The report then concludes that it considers the Stadium meets the intended outcomes of the SCPS, its Amendments and Guidelines for the POSS.

However the intended outcomes of the SCPS include that the bulk and height of buildings must reflect the natural topography of the Sullivans Cove Planning Area, the Amphitheatre sloping down to the Cove and the Macquarie Street and Regatta Point Ridges. *(23.2 dot point 5)*

As the VIA clearly shows, the bulk and height of the building does not reflect the ‘natural’ topography of the SC Planning Area, and as view line 7 confirms, (as would other suggested view-lines), nor does it reflect (or reinforce) the amphitheatre sloping down to the cove.

NB. To ‘reflect’ does not mean to replicate / copy or substitute a built form for a ‘natural’ (form) topography, moreover it alludes to a particular built scale and presence, where the natural features of the amphitheatre are clearly identified, without new buildings being individually prominent. *(23.2, dot point 7)*. In short the result of the objective is to differentiate built form from landform so as to ensure the natural topography continues to be reflected.

It is also noted that there are no dusk or night time images provided capable of identifying the anticipated transparency of the dome and its lighting impacts.

View Line Impacts

The VIA (Appendix J) acknowledges that the Stadium would become a prominent feature within the locality. (p.68) It further suggests that the identified important views *(shown on Fig. 32.2)* will continue. Although several localised views will unlikely be affected, other important views will be impacted.

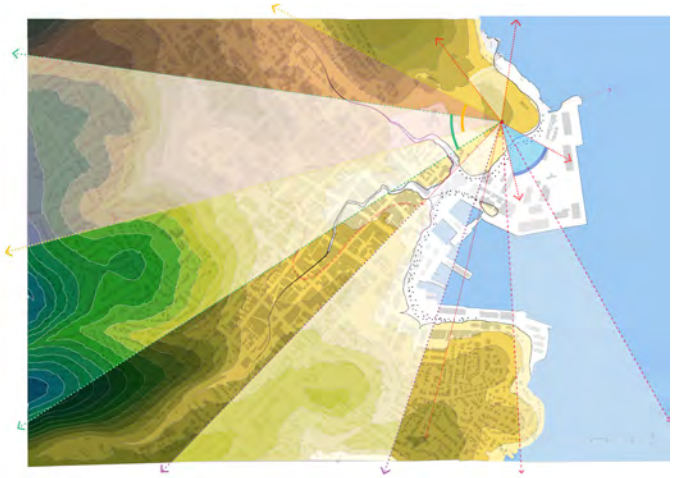
This includes View lines from the Cenotaph to the mouth of the Derwent River *(VIA viewline 5)* and the more general expectation that the Cenotaph headland offers the experience of the urban landscape, where important views will not unreasonably be impacted, including :

‘From the Cenotaph to the horizon of the natural amphitheatre, including the Wellington Range descending to the Mount Nelson ridge, then to Porter Hill and down to the waterplane at Long Point, Lower Sandy Bay. ‘ *(SCPS 32.3.8)*

Given this, the statement that ‘Views of the mouth of the River Derwent towards the south east are still visible from the Cenotaph.’ (p.68) is incorrect. It is not merely a view across the harbour (to the Howrah Hills) but specifically views to the mouth of the Derwent that are anticipated. This includes the deep prospect to the southern sky over the South Arm Peninsula to the (unseen) but implied ‘mouth of the Derwent’, as this embraces Storm Bay beyond.

The view to Betsey Island on the horizon seen above the harbour waterplane, also confims this. (see also VIA View 3, Existing View) The experience of the landscape setting is confirmed by ensuring the ‘landform horizon’ of the ‘natural amphitheatre’ continues along the Mount Nelson ridge continuing down to the waterplane at Long Point. This is shown in the previously identified TPC reference document. (detail : left opposite)

While the VIA recognises that views to Long Point will be obscured by the Stadium, (p.68) it must be assumed the author does not adequately appreciate the location of the ‘mouth of the Derwent’. In this instance it is actually behind Long Point, while Storm Bay is more readily appreciated by the form of Betsey Island on the horizon. Accordingly two landform items assist in appreciation of the ‘mouth of the Derwent’ from the Cenotaph: the waterplane connection of Long Point, Lower Sandy Bay, and the presence of Betsey Island (located within Storm Bay) on the horizon. Both of these features will be obscured by the proposed Stadium. (*VIA View 3 Proposed stadium- following page)*



The Cenotaph headland provides one of the city's principal viewing points. Diagram of amalgamated views from the 2018 study on Building heights.

View line 3 (VIA) Existing and proposed impact on views across the cove and down river.

Transitioning to and from the low point of the amphitheatre of the cove

The VIA recognises The Amphitheatre as being 'the broad conceptual and physical construct of the landform and built form around Hobart' (p.7), and the Cove Amphitheatre 'references the layering up from the waterplane to the Cove Floor and adjacent hills, and that it is 'bookended' by the two headlands of Macquarie Point and Queens Domain to the east and Battery Point to the west'. (p.8) It further contends that the 'sites contextual setting' is 'visually complex involving the interplay between built and natural elements' (p.8).

However it does not then consider the anticipated height and bulk of the proposed Stadium to this context, and then ask whether these landform features, as key spatial characteristics, can continue to be identified or appreciated.

The urban form expectations are identified in the SCPS (23.2 Objectives) where 'the bulk and height of buildings must reflect the natural topography of the Sullivans Cove Planning area, the amphitheatre sloping down to the Cove and the Macquarie Street and Regatta Point Ridges.'

These intentions are further pursued as Desired Future Character Statements within the current planning scheme, *(HIPS 2015) (Clause 22.1.3.1)* where the built scale (of Central Hobart) will '***transition*** from its intense focus in the basin...including both its rising and diminishing grades, including ***to the low point*** of the Amphitheatre to the Cove'. (See Fig. 22.7, 22.8, 22.9). ..... 'while providing a ***reduction in scale*** to the Queens Domain, the Domain and Battery Point headlands'. *(see figs. 22.7, 22.8).*

The transition between the intensity of the city centre and the lesser scale within the cove is clearly intended and anticipated, as is the expectation that the headlands remain obvious as landforms.

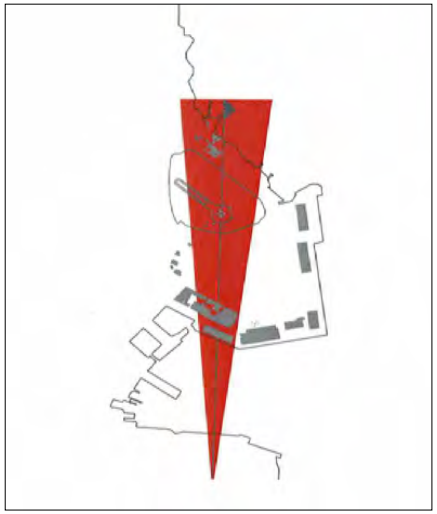
The layered rise from the waterplane, lifting to the cove floor and then through the scales of the amphitheatre are further anticipated as a 'stepping up, while stepping away' from the Cove.

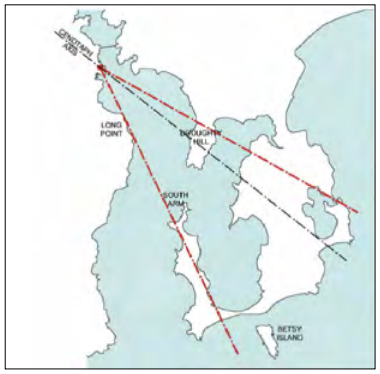
By contrast the VIA acknowledges that 'the Stadium extends above that of the built form in the surrounding visual context and it presents as a prominent element from most of the viewpoints outlined'. *(p.61, 9.1)*

Moreover the report suggests the Stadium 'is intended to be an iconic building in Hobart.. and a focal point within its local setting'. *(p.61, 9.2)*

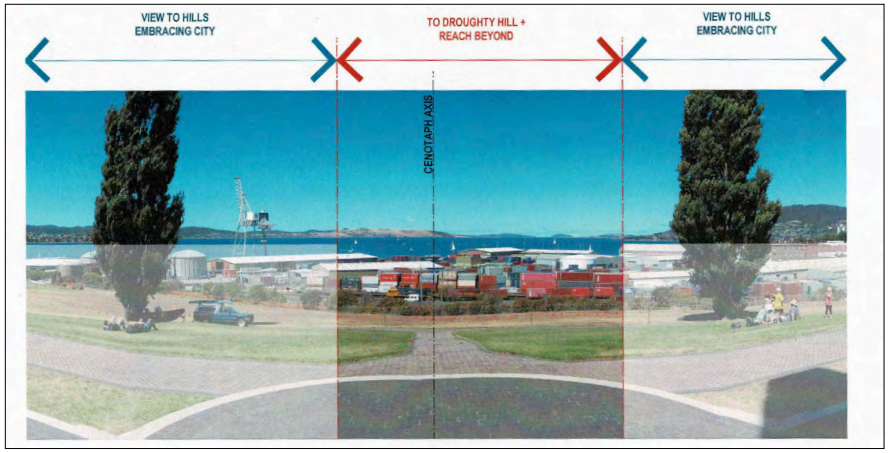
The SCPS Urban Form Objectives also insist that 'New buildings not be individually prominent with neighbouring buildings by being significantly higher or having a larger apparent size....' *(23.2 dot point 7)*

Notwithstanding architectural efforts to generate a contextual form in response to the brief, the presence of the Stadium above the Cenotaph headland is both individually prominent, and of a scale that obscures views across the Cove and down the river, especially to the 'mouth of the Derwent'.





Detailed view analysis including definition of 'The Reach' (right and below) together with a number of other views across the cove, (example above) formed part of the thorough analysis of the Hobart Railyards Urban Design Strategy, 2008.



Above : Key View analysis & heights- 1 Built Form Height Strategy. (p.22)
Hobart Railyards, Urban Design Strategy, December 2008 (SCWA)

'Reviewing' rather than 're-setting' the planning context

Given the height, bulk and impact of the proposed Stadium, a review and reconsideration of planning expectations is necessary. This is particularly the case regarding anticipated building scale 'stepping back' from the waterfront. *(Refer Figure 8, SCPS p.110, Clauses 32.3 esp: 32.3.7, 32.3.8, p. 172)*

Rather than a 're-setting' of the planning context, as suggested by the Site Development Plan (2024) (Appendix GG), a review of amendments already made to the planning scheme is more appropriate as a point of departure.

In seeking to establish a case, the SDP (2024) returns to the SCPR (1991) for guidance while seemingly dis-regarding subsequent professional analysis, including amendments to the Planning Scheme. Accordingly the SDP would seem to be unaware (or in denial of) recent planning history. The rationale and approach in consequence is inadequate, if not confusing.

For example the role of the Cove Floor as the primary element differentiating both the original shoreline and the planar character of the reclaimed space has long been identified, and is not in dispute. Indeed documents predating the 1991 (SCPR) recognised the importance of the landform character in defining Sullivans Cove *(eg. 1987 referred again 1997- see diag. p.8)*

The 'wall to the cove' generates (in part) an edge of historic buildings and provides a convenient reference to the urban morphology of the central cove, but not to the more extensive reclamation of Macquarie Point. This deficiency has been recognised for some time.

Accordingly a number of documents and studies have acknowledged this, and have sought to amplify the concept of the Floor of the Cove as extending through to the reclaimed edge, including to beneath the 'escarpment'. *(Refer Fig. 22.7 HIPS).* This logic has also informed the previous Mac Point SDP. (2017) It is therefore disingenuous for the current SDP to suggest this spatial characteristic is now being 'revealed', as a 're-set'.

However this is not the only concern arising from the current SDP. The document is laboured and un-necessarily verbose.

Rather than acknowledging the limitations of earlier planning documents (SCPR '91, and SCPS '97) and gesturing to changing circumstances, including acknowledging updates to the planning scheme, and recognising the considerable work done by various agencies since, seeks instead to re-badge this work under its own title : 'Resetting the planning context to deliver the cove principles' !

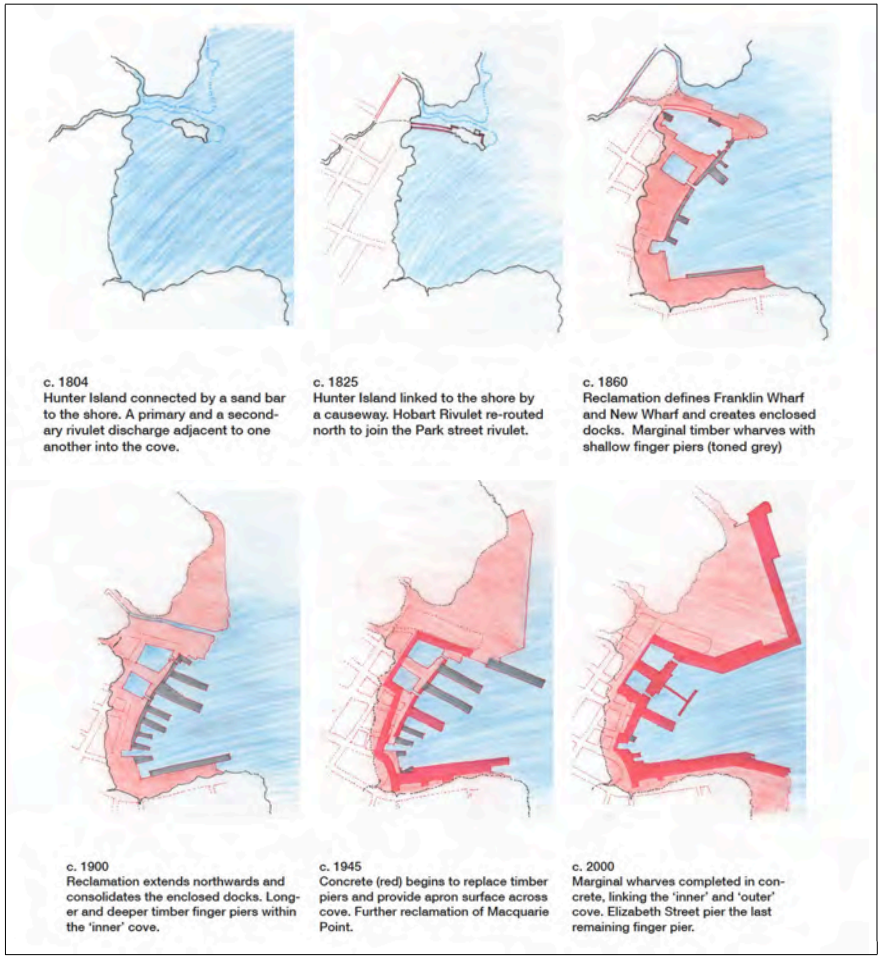
Given this, and the absence of a bibliography and references, (especially acknowledging work undertaken in the past 35 years) it is also lacking in both professional and scholarly rigour. As some diagrams in the report have been extracted from key studies that are not acknowledged, the validity of the 'plan' is further undermined.

The document seems instead to seek to justify a solution, rather than providing the spatial framework for a solution to be proven or tested against. This is particularly in evidence regarding views and viewlines.

As already noted, views in the initial Sullivans Cove Planning Scheme were essentially corridor/ street views, rather than landscape views that have come to identify urban design analysis in the city in more recent times. A number of studies have expanded upon the initial, more contained (central cove) views, to incorporate the role of the Domain headland (and through this the reclaimed space of Macquarie Point).

Work undertaken by the SCWA / 2008 in seeking to integrate the former Railyards as an extension of the Cove Floor, also carefully detailed views to and from the Cenotaph. These have informed subsequent studies, (including the 2014 Mac Point Masterplan) to also acknowledge the potential scale of building envelopes on the site. Accordingly view lines and building height and bulk were integrated / tested.

DRAFT



Above: Morphological analysis developed in support of a *Statement of Cultural Significance for the Concrete Aprons, Sullivans Cove. (Woolley 2011)* This work confirmed the concept of an 'inner' and 'outer' cove where reclamation generated the continuous Cove Floor (light red), with the concrete apron (dark red) forming a defined wharf edge/ service margin. It further reinforced the significance of the 'original shore' rather than the 'Wall to the Cove' as the principal spatial determinant.

Statement of Cultural Significance, Concrete Aprons, Sullivans Cove.
Prepared for the Sullivans Cove Waterfront Authority.
Leigh Woolley Architect. Aug 31 2011

This work then informed the initial (and revised) SDP for Mac Point (2017). Both documents incorporating this analysis are identified in the TPC Guidelines list, and accordingly are more extensively referenced in this review.

These views are then accommodated in the more encompassing analysis *(Woolley, 2018)* where views and view cones become part of a suite of urban design instruments, (in the context of the landform of Central Hobart) to consider building heights.

Has the case for a 're: set' been established ?

As the SDP (2024) (Appendix GG) states, (p.6) it is 'required to examine a complexity of issues and articulate a cohesive plan that maximises the sites potential to add to the Cove'.

While the SDP begins to establish a case for expansion of the civic and cultural precinct, (*Use*) and alludes to the importance of those connections between the City centre and Macquarie Point, (*Movement*) it has not established a framework for the significant scale (*Built Form*) of a development such as that proposed.

In essence the 're;set' is merely a catch up on changes that have already been made. It does not develop a framework where the scale / bulk and impact of the Stadium, as proposed, can be accommodated.

The purpose of a SDP is not to convince its author of the spatial history of a location, but to develop principles arising from such an analysis. These then need to inform a (spatial) framework (plan) for future development. This is neither the structure, nor the outcome of this SDP. (Appendix GG)

As the SDP was written in response to the TPC Guidelines for the project, it is also surprising that it does not refer to the landscape setting 'in the broadest sense'. *(TPC, Clause 4.1.1)* A cursory or preliminary analysis of landscape and visual qualities could then at least provide the context for measures that may be considered necessary to mitigate impacts. Instead it seeks to justify the indefensible, and this is notably the case with views and viewlines. In striving to limit the experience of landscape from 'the broadest sense' to a few selected glimpses across the cove, it denies the way in which the public orient within the cove and the city. (This is also a criticism of the VIA)

While it may be possible to find locations where the proposed height and bulk of the Stadium will be obscured by other structures, *(Fig 53, p.48)* this is not the purpose of a viewline analysis.

Rather than acknowledging, or even bothering to research the documents that informed the previous SDP for Macquarie Point (2017), the author generates alternate preferred alignments.

As has already been shown, the 'established' views developed over a number of decades and are now (in large part) contained within the SCPS. Others are from public spaces (notably streets) where a landform characteristic, such as a ridgeline or change in level, invites 'pause', to take in the view. Battery Point views are instructive in this respect as they are particularly noticeable at the edge of the landform. ie. where the geology reinforces the human experience of 'the point'.

To take one view line as a case in point. Viewing along Runnymede Street toward the Cenotaph across the Cove, the noticeable change in level is evident near McGregor Street - itself a perpendicular alignment along the contour. At this location there is a sense 'of pause', emphasised by the corner, and the prospect out over the cove. Accordingly it has provided for some time, a viewpoint location for consideration of development within, across and beyond the central cove.

This location has also been instructive for development prior to considerations of Macquarie Point itself, as it confirms the importance of the (Cenotaph) headland as the geological balance forming the other side of the cove. This is an example of a view line from a view point that not only assists orientation, but assists in 'revealing' the structure of the cove, and through this the setting of the city.

By contrast the view points chosen within the SDP (Appendix GG) are from deeper within the streets of Battery Point where the landform is less pronounced and where other structures, including vegetation, mask parts

Above: An established Battery Point Viewpoint from Runnymede Street, adjacent MacGregor Street. This location has been used for some time to consider development scale within Sullivans Cove and Macquarie Point.

Opposite: By contrast, the view alignment deep along Stowell Avenue (p.46 SDP) is not at the Battery Point escarpment edge, it avoids alignment to the Cove Floor of Macquarie Point, and the vegetation in the street obscures the depth of view.

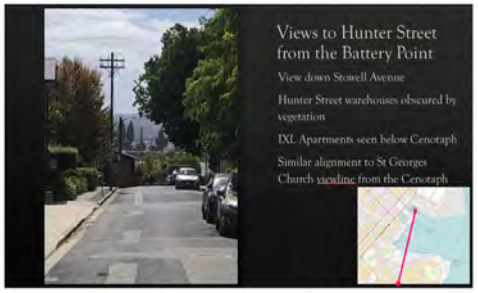


Fig. 49 View to Hunter Street and the Cenotaph from Stowell Avenue.

of the view, thus denying depth of view, *(eg. Fig.49)* or where alignments don't oversail the subject site at all ! *(eg. Fig.48, 49)*. Rather than address the issue at hand, which is to develop a framework for the project site, these views instead seek to 'edit out' the site itself.

Moreover the role of publicly shared viewpoints is that they can be returned to, to provide orientation and connection to the place and form of the city as it develops. These locations are constants from where development can be considered and re-viewed. It is disingenuous to suggest otherwise, or at the very least not to include these locations as inherent to recent urban design and planning history.

This is also why the Cenotaph Headland is important to the city. It not only provides a place of orientation from land and water, it also provides the ground (as an elevated datum) from to which to scale the city and its setting. *(see figure below)*

While its role has long been recognised in the formation of settlement around Sullivans Cove, it is also the principal Viewing Point, (not on the Cove Floor) identified in the 1991 SCPR, offering multi-directional views.

"The location above Macquarie Point (previously Queens Battery) now the Cenotaph headland and War Memorial *(Hutchison and Walker 1925)* provides a publicly accessible and ceremonial location from which to view the city centre and its landscape setting - between mountain and harbour" *p. 43 (Woolley 2018)*

The importance and role of viewing points and view lines has long been recognised.

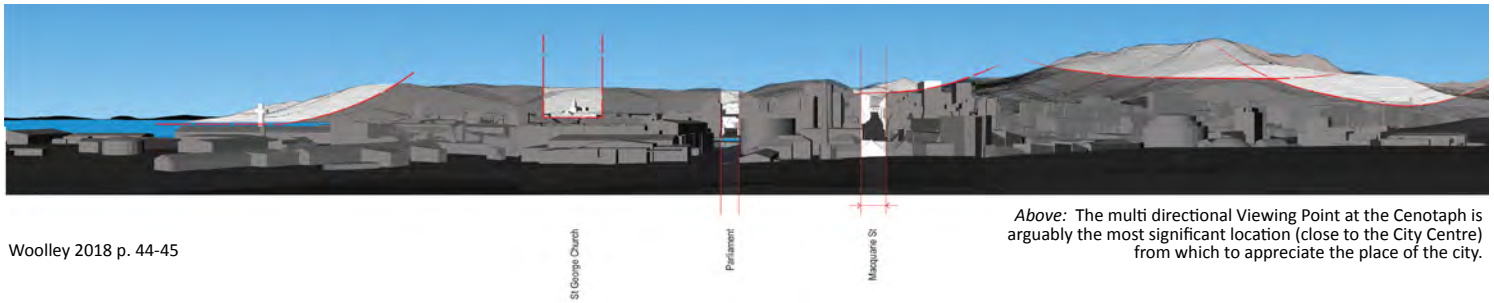
When referring to building envelope heights *(Appendix GG p.59)* contained within the revised MP masterplan 2017 *(fig. 32.4 SCPS)*, the SDP (2024) does not seem to recognise that these were based (in large part) on the previously established view lines.

Accordingly, the deemed to comply heights (which varied across the Mac Point site) were established primarily in response to views out from the Cenotaph podium. The highest of these taking account of views down river and across the cove, and the lowest seeking to ensure the landform character of the Cenotaph headland was itself not unduly diminished, when viewing back across the cove.

The comment that the application of height limits is too blunt an instrument to shape and control development across a very large site, *(p.62)* is to disregard the anticipated layering of development back from the waterfront. At the same time it devalues or misunderstands the role of the previous development envelopes established in response to the location.

Height controls should always be in response to 'location' and 'form'. In this instance the location has well developed intentions, and even by 2017 with the '*Mona : Re:set'*, the larger development parcels, and an expansive central open space, (compared to the earlier Masterplan 2014) still had maximum height expectations.

While the scale of the spaces in the Mona Re:set were less intimate, the parcels generated were in response to the location, with those closer to the toe of the headland being of less height than those located more centrally. *(Refer Fig. 32.4 SCPS : Permitted heights - below)*



Woolley 2018 p. 44-45

Above: The multi directional Viewing Point at the Cenotaph is arguably the most significant location (close to the City Centre) from which to appreciate the place of the city.

This stepping down to, or 'modelling' toward the water is wholly consistent with intentions identified within the SCPR 1991, whose design principles included (p.27) :

'To emphasise or expose 'the fall' between City and Cove including the quarry and cliff faces, and original shoreline.'

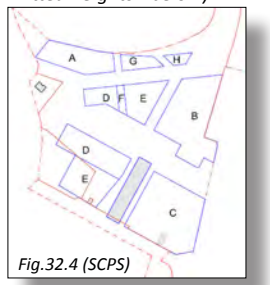


Fig.32.4 (SCPS)

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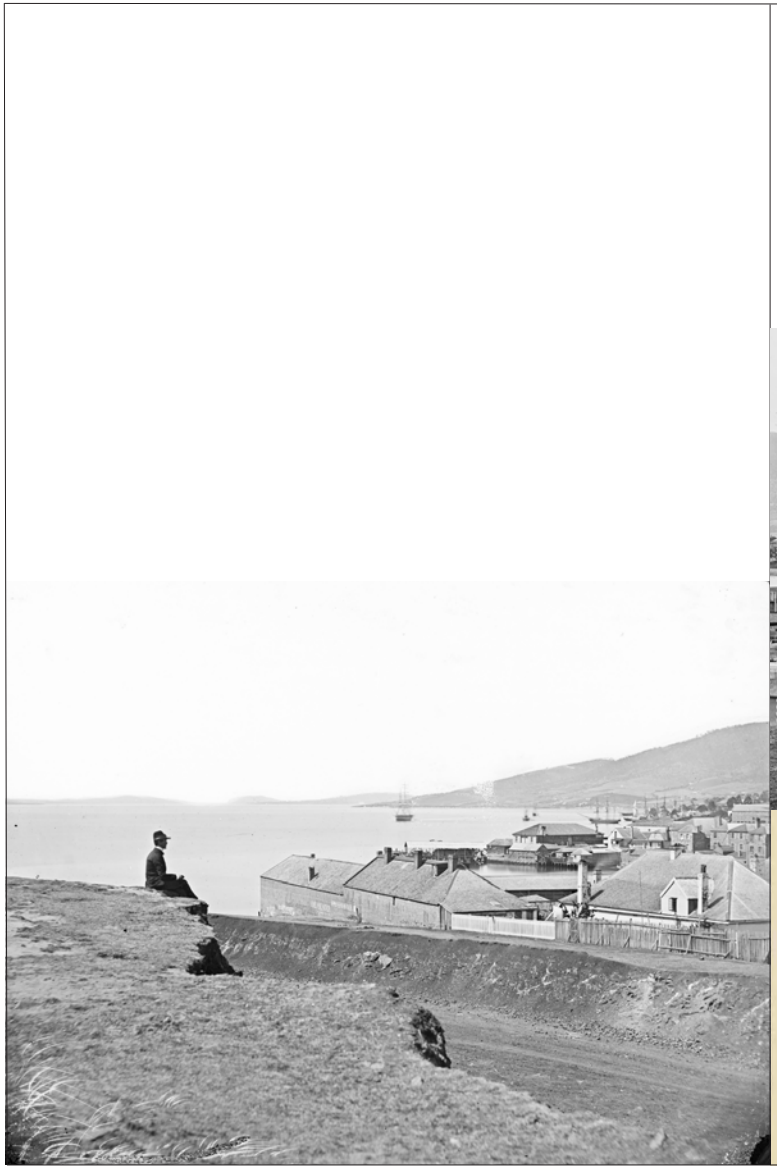
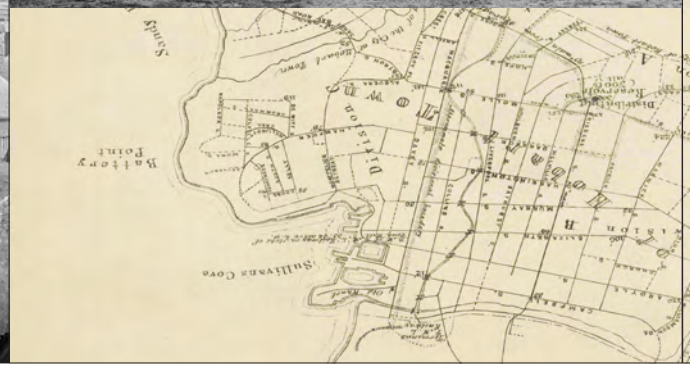
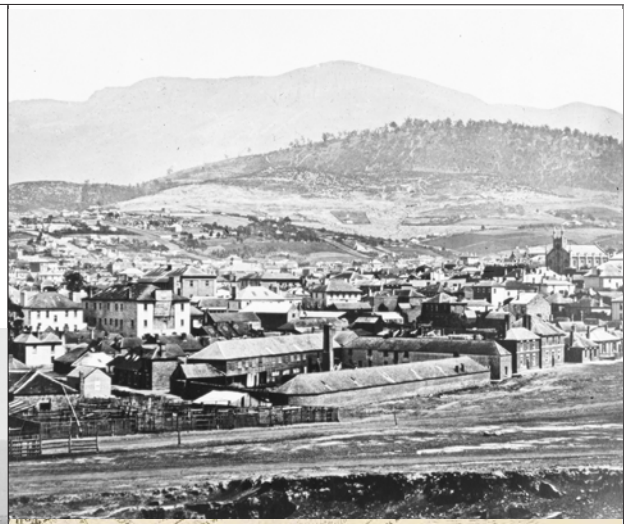
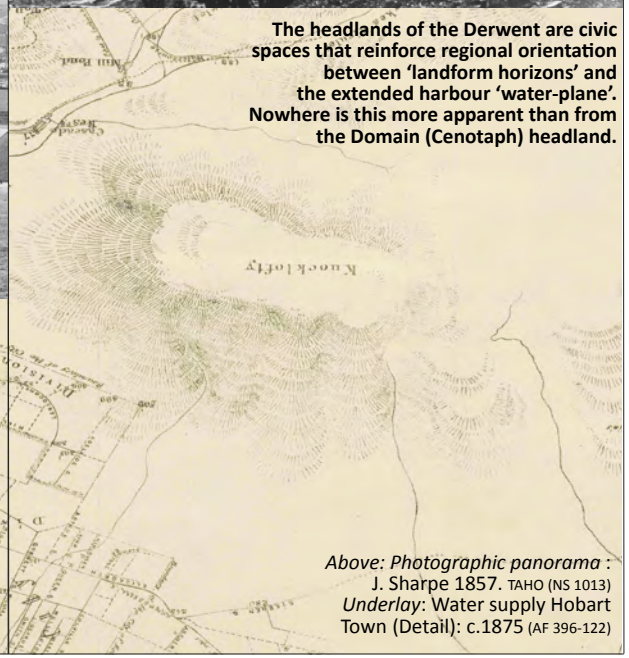








The headlands of the Derwent are civic spaces that reinforce regional orientation between 'landform horizons' and the extended harbour 'water-plane'. Nowhere is this more apparent than from the Domain (Cenotaph) headland.

Above: Photographic panorama : J. Sharpe 1857. TAHO (NS 1013)
Underlay: Water supply Hobart Town (Detail): c.1875 (AF 396-122)

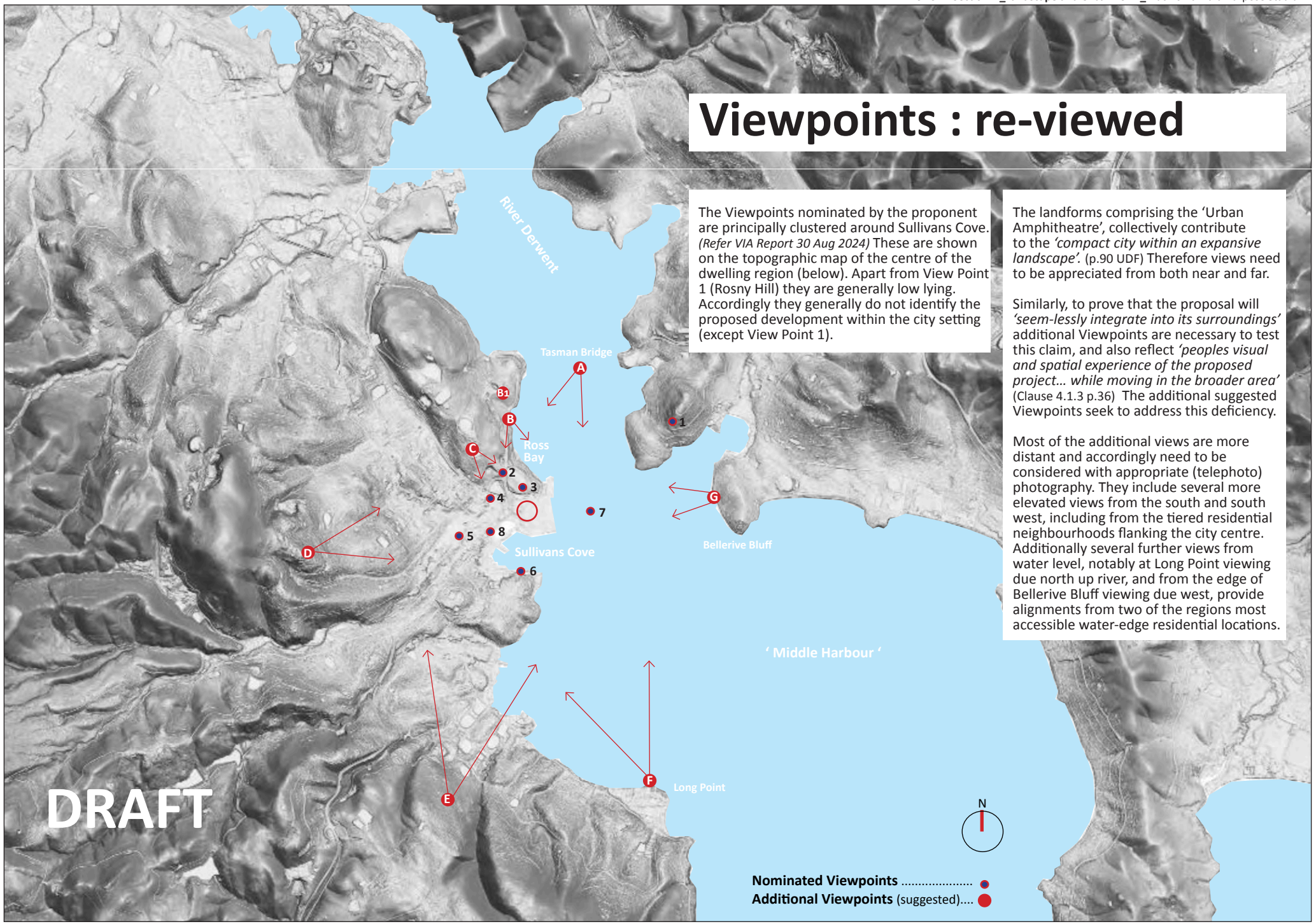
Viewpoints : re-viewed

The Viewpoints nominated by the proponent are principally clustered around Sullivans Cove. *(Refer VIA Report 30 Aug 2024)* These are shown on the topographic map of the centre of the dwelling region (below). Apart from View Point 1 (Rosny Hill) they are generally low lying. Accordingly they generally do not identify the proposed development within the city setting (except View Point 1).

The landforms comprising the 'Urban Amphitheatre', collectively contribute to the *'compact city within an expansive landscape'.* (p.90 UDF) Therefore views need to be appreciated from both near and far.

Similarly, to prove that the proposal will *'seem-lessly integrate into its surroundings'* additional Viewpoints are necessary to test this claim, and also reflect *'peoples visual and spatial experience of the proposed project… while moving in the broader area'* (Clause 4.1.3 p.36) The additional suggested Viewpoints seek to address this deficiency.

Most of the additional views are more distant and accordingly need to be considered with appropriate (telephoto) photography. They include several more elevated views from the south and south west, including from the tiered residential neighbourhoods flanking the city centre. Additionally several further views from water level, notably at Long Point viewing due north up river, and from the edge of Bellerive Bluff viewing due west, provide alignments from two of the regions most accessible water-edge residential locations.



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Suggested additional Viewpoints

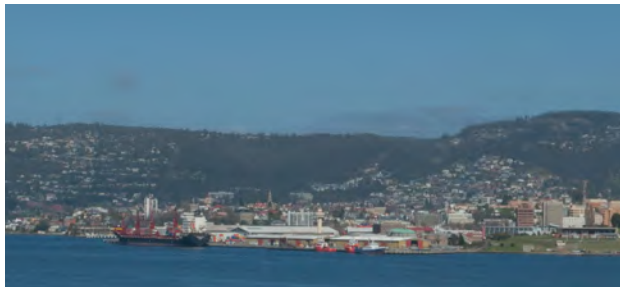
To assist in appreciating the development site in the context of the landscape of the city centre, with views that are variously more elevated and diverse.

A

Viewpoint A

Tasman Bridge

The elevated arrival across the harbour, availed by the height of the main bridge span, (60 m at apex) ensures the subject site is appreciated as a component of the Cove Floor, set beneath and behind the Cenotaph Headland.



B

Viewpoint B

Tasman Highway viewing across Ross Bay

The oblique view roughly parallel to the shore will locate the bulk and scale of the proposed building in the context of the Cenotaph headland and the arrival sequence to the city centre.

B1

Viewpoint B1

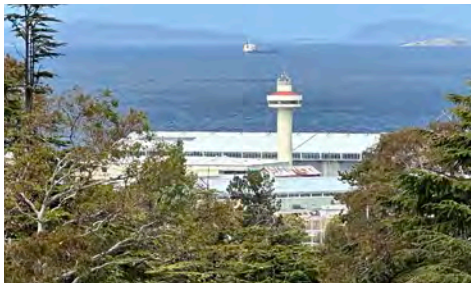
From Government House and Gardens across Ross Bay to Cenotaph Headland.

C

Viewpoint C

Davies Avenue viewing south east

The elevated view from the Davies Avenue ridge, at approx 50m contour, aligned with the port control tower will approximate the height of the domed roof form of the proposed stadium. (It is noted that the Port Control tower is 41m high, with the main platform at 36m approx.)



D

Viewpoint D

West Hobart elevated slopes

The elevated slopes west of the city centre provide the backcloth (or dress circle) to the central area beneath. From approximately the 150m contour, (in this instance from Chadwick Court, West Hobart) the relationship between city centre, Macquarie Point and the harbour beyond are well defined.

E

Viewpoint E

Sandy Bay Hillside viewing north

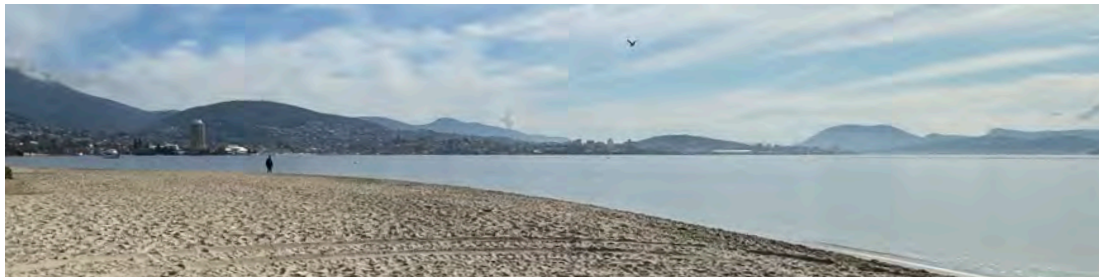
The elevated residential areas above Churchill Avenue (approx. 150 m contour) extend the regional 'dress circle' allowing the promontory of the reclaimed edge of Macquarie Point, to be appreciated.

F

Viewpoint F

Long Point, Sandy Bay viewing north

From the datum of the water plane at Long Point, Lower Sandy Bay, the familiar scale of the regional landforms define the location of the city centre, the Domain landform and headland.

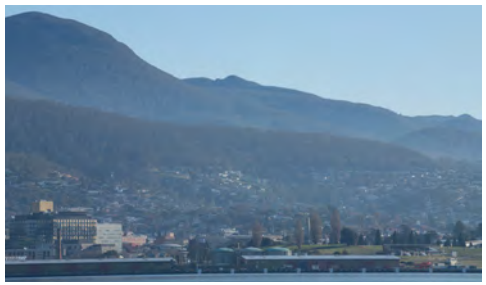


G

Viewpoint G

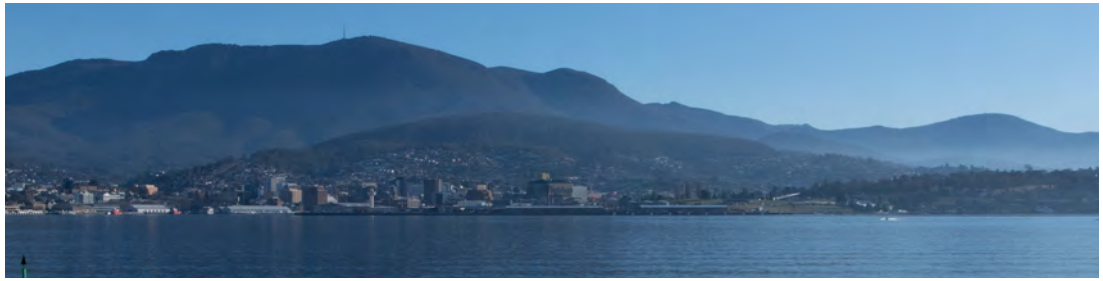
Bellerive Bluff foreshore viewing west

With the layered rise of hills to the landform horizon of kunanyi and the Wellington Range, the city centre is appreciated between the Domain headland and the mid ground scale of Knocklofty.



The suggested views acknowledge Macquarie Point as a significant promontory within the estaurine scale of the harbour and city setting. They seek to better 'locate' this edge of the reclaimed space of Sullivans Cove, in order to appreciate the scale and bulk of the proposed stadium.

All are from public locations and are intended to further consider the impact of the proposed development on the land forms and water-planes that define the city centre. They address specific views that are part of the visual amenity experienced by people, especially within the Hobart Municipality.



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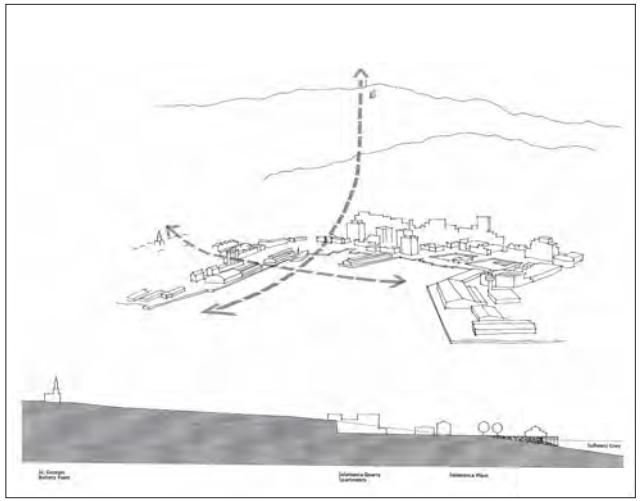
The role of View lines across the Cove Floor and between headlands, has been formalised over a number of years.

Right : Sketch concept in the context of the 'Amphitheatre to the Cove'
(Woolley / Shelton c. 2000)

Below : Woolley 2016
(Detail p. 34)



UDF : **Site focus at expense of urban context**

The Urban Design Framework (Appendix I) incorporates inputs from the various architects and landscape architects to the project. The Framework is a thorough and generally well considered document that has sought to consider the spatial characteristics that now define the Cove Floor. At the site scale the information provided is detailed, but this is less so at the urban scale.

This undue emphasis is also the case for the other design documents, (Appendix A, and J). When considering 'the place' of Sullivans Cove for example, the location of the two headlands are fundamental to the Cove's identity and structure. They are a geological fact, and in tandem with the presence of Hunter Island and the sand spit leading to the shore, inherent to the evolution of Hobart as a port city.

This emphasis is acknowledged with figures now in the interim planning scheme *(Fig. 22.7 already noted p.3)* Surprisingly however the Urban Design Framework provides little or no urban analysis (including diagrams) beyond the site scale.

While the open space / landscaping strategy is more topographically considered, this work would seem not to have adequately informed the other disciplines. The strategy interprets the layered morphology of the site, acknowledging the hydrological confluence of the rivulets, while also interpreting the industrial heritage of the reclaimed surface.

Intentions are clear and consistent, with the evolution of the Cove Floor acknowledged as an extended public domain with a civic role. However the 'Connection to Country' section, while providing useful and insightful principles *(UDF p.6-9)* does not consider 'the place' of Sullivans Cove as defined by the headlands of the Domain and Battery Point.

As indicated, these are fundamental to the definition and identity of the cove and the role of the rivulets flowing into it. In this respect the 'context' for country is missing, and with it subsequent considerations of the 'Amphitheatre to the Cove' and the 'Urban Amphitheatre'.

While it is appreciated that detailed information may (necessarily) be constrained to the 'subject' site, the scope of consideration, and with it the context of analysis for an Urban Design Framework, needs to be broader. These limitations have also influenced Appendix J, (Visual Impact assessment), and the breadth of view-points considered.

Adjacent Building Envelope Heights

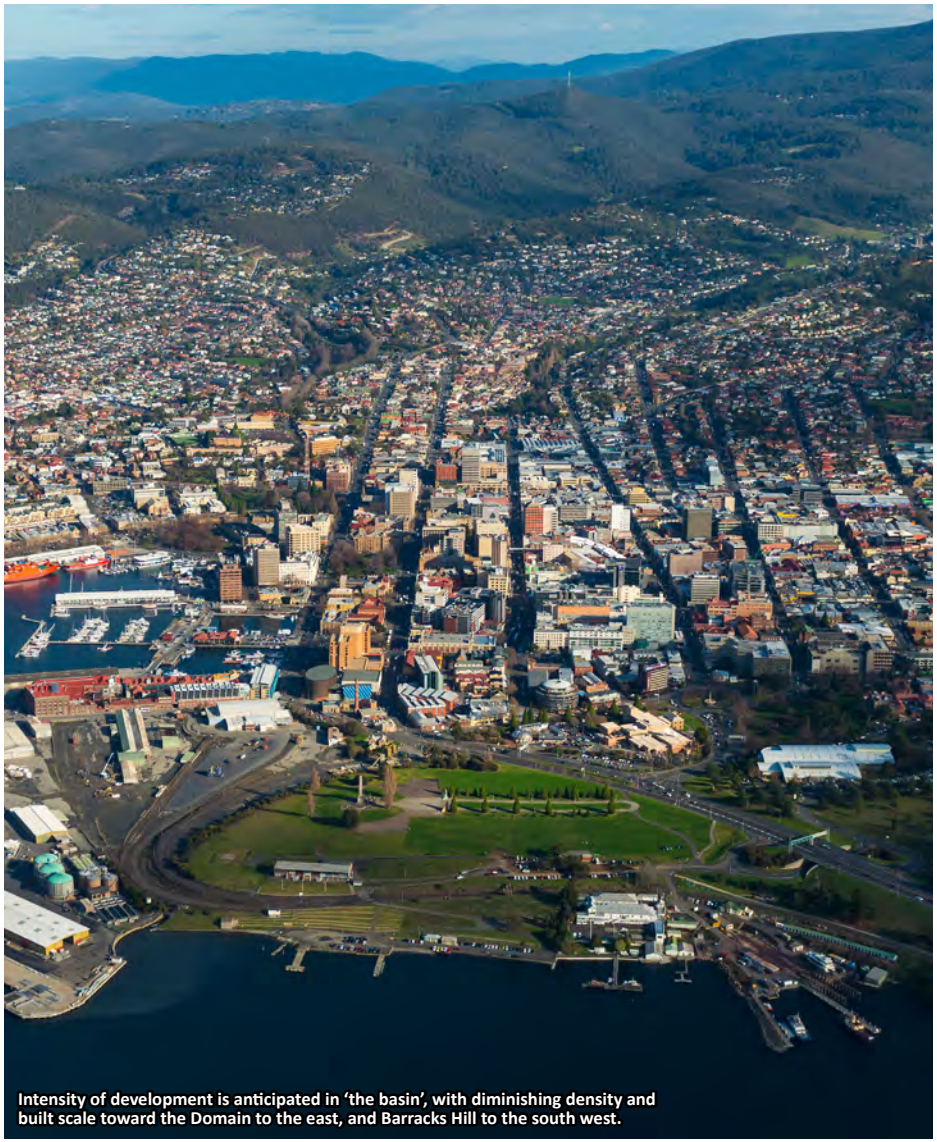
Building envelopes outside the PoSS (Stadium) are generally identified at RL 24. It is stated that these 'align with the established height datum set by the existing built form on the southern side of Evans Street.' *(UDF p.43 para 2)*

However notwithstanding this built contextual reference, this approach mis-understands that the (previous) envelope heights on the Mac Point site are not generated by street space scale intentions, but by view lines, particularly to and from the Cenotaph. These various envelopes *(UDF p.43)* need to be reconsidered in terms of their impact on view lines (identified within the planning scheme), particularly those not in the shadow of the Stadium.

Development on the Cove Floor is generally 'free-standing', frequently on the industrial concrete apron, and not part of a street space typology. Accordingly it generates its own context, and that is fundamentally to do with the urban role of the reclaimed space as an engineered, essentially 'planar' transition between city centre and harbour water-plane. It exists in counterpoint to the undulations of the landform and the water-plane datum.

Part of the consistent rationale for major development on the Cove Floor is that it be developed 'in the round'. This is recognised by the authors of the framework, *(eg. UDF p.68)* but it is not applied to these additional envelopes. The scale of these envelopes will be most apparent where they 'stand alone', as evidenced in particular by the proposed residential blocks facing toward Ross Bay. *(UDF p.45)*

The surrounding linkages (pedestrian and vehicular) assume considerable disruption to existing activity, as



MPDC 2015

Intensity of development is anticipated in 'the basin', with diminishing density and built scale toward the Domain to the east, and Barracks Hill to the south west.

an appropriation of public land (and uses) in support of the Stadium. Similarly optimistic public movement expectations (generally pedestrian) assumes the construction of the Collins Street Active Travel Bridge, while the construction of the Northern Access Road will be fundamental to port functioning, (as well as the Stadium). It is noted that the junction / (future upgrading ?) with the Tasman Highway is not shown.

The long-held desire for the site to provide a (public) transport interchange has not been addressed, nor as yet have the location of rapid bus stops within the Hobart CBD.

The landscape and visual values and characteristics of the project site have already been discussed (in part). It is important to re-state that the differentiation of built form and landform is crucial to Hobart's urban identity.

As a city that is 'cradled' by the landscape, the role of differentiation (between the given landform and the built fabric of the city) is fundamental to an appreciation of Hobart's urban character. ie. It is fundamental that the layers of the landscape continue to be evident. Accordingly it is necessary to question the assumption that the impact of the Stadium 'is mitigated as the built form forms an extension of the perceived headland outwards toward the estuary'. *(UDF p.67)*

Similarly the assumption that the height and bulk of the stadium will not compete with the surrounding townscape, *(UDF p.68)* especially that located within 'the basin', is to also mis-understand the role of the basin as the location where density (and potential building height) are anticipated. This is not the case for the Cove Floor.

The CBD is recognised as the built centre of the city region, and as the principal activity centre in the state. The 'basin' is located behind the Macquarie Ridge with diminishing density and scale toward the Queens Domain, to the east / north east, and Barracks Hill to the SW. (NB. The diagram (UDF p.68) should refer to the full extent of 'the Cove Floor' that includes the subject site and the reclaimed space of Macquarie Wharf.)

' A small city in a large landscape '

The limitations of the extent of view lines have already been discussed. As part of the Urban Design Framework it is necessary to reinforce that the only elevated view (from those identified in Appendix I) that embraces the extended setting, is View 1 from Rosny Hill.

From this location (and from the additional suggested view lines p.15-17) it is important to ascertain and consider whether the height, mass and bulk of the Stadium will be 'in competition' with the (natural) landforms. From this view point (and a number of others) the opposite is presented. Given the bulk and height of the proposed Stadium the proposition that this is otherwise is difficult to support.

The view down river *(UDF p.80)* is shown as being largely retained, while elsewhere it is shown as being blocked by the Stadium. This representation is only possible because the line of sight is taken at some height above ground level, possibly from the top of the Cenotaph(?) It is not an alignment or view field that will be experienced by people, at ground level, on the Cenotaph Headland viewing point. It is misleading.

The proposed relocation of the Goods Shed *(UDF p.88)* will, (if feasible to dismantle and move) be placed on the northern side of the proposed Stadium adjacent the Cenotaph Headland. The 'toe' of the headland, and the potential to interpret the 'original' shoreline are significant pre-colonial features of this part of Macquarie Point. It is important to ensure that these characteristics of the site are not lost or devalued by this proposed move.

All cities are experienced as landscapes. As the built focus of a complex landscape, the urban form of Central Hobart engages its geo-morphology to provide the foundation to the city's unique form and character. Landform and built form galvanise to identify Hobart as a 'small city in a large landscape', its image sustained by careful considerationn of the location and form of major development. Nowhere is this more important than at the land and water interface within Sullivans Cove and Macquarie Point.

References

Macquarie Point Multi -Purpose Stadium -
Project of State Significance **Appendices**

PoSS Summary Report:
Esp. **Chapter 2 Landscape and Urban Form**

Appendix A Architectural Drawings
Appendix B Stadium Design Description
Appendix GG Site Development Plan
Appendix I Urban Design Framework Report
Appendix J Visual Impact Assessment

Hobart Interim Planning Scheme (HIPS 2015)
Sullivans Cove Planning Scheme (1997)

Guidelines for Landscape and Visual Impact Assessment (third edition) 2013 The Landscape Institute, UK.

Hobart Railyards Urban Design Strategy
Sullivans Cove Waterfront Authority (SCWA)
Dec. 2008.

Building Height Standards Review Project
Woolley , Leigh. for the City of Hobart
June 2018

Height Standards - Performance Criteria Review
Woolley , Leigh. for the City of Hobart
Dec. 2016

Statement of Cultural Significance for the Concrete Aprons
Woolley, Leigh. for the Sullivans Cove Waterfront Authority
2011

Macquarie Point Masterplan : Re:set Urban Design Notes
Woolley, Leigh for the Mac Point Development Corporation.
2019.

Appendix 4

Urban Design Advisory Panel Submission, UDAP

Macquarie Point Stadium Project:

UDAP submission

Introduction

- The Urban Design Advisory Panel (UDAP) has been requested by Hobart City Council (HCC) to review and provide feedback on the submitted application documentation for the Macquarie Point Stadium Project of State Significance, specifically to Clause 4.0 "Landscape and Urban Form" of the TPC guidelines and the TPC's draft Integrated Assessment Report (IAR).

- POSS Scope Clarification:

  The defined boundary limits to the 2023 POSS are identified under *Project Scope Application document p18 Appendix-B-Stadium-Design-Description*. The Application includes a recommended extension of the POSS boundary to include:
  • The Stadium,
  • External concourse zone,
  • Arrival plazas in front of the four Entry Gates,
  • Outdoor cricket wickets adjoining the Stadium,
  • Underground car park, and
  • The Goods Shed that will be relocated and integrated with the Stadium to the north.

  Both boundary limits exclude all other areas in the precinct from the POSS including landscaping of the headland escarpment and the Aboriginal Culturally Informed Zone, the Antarctic Facilities Zone and the Complementary Integrated Mixed-Use Zone. This potentially restricts our comment on urban design and landscaping design outside the scope of the POSS, which is critical to a relevant response.

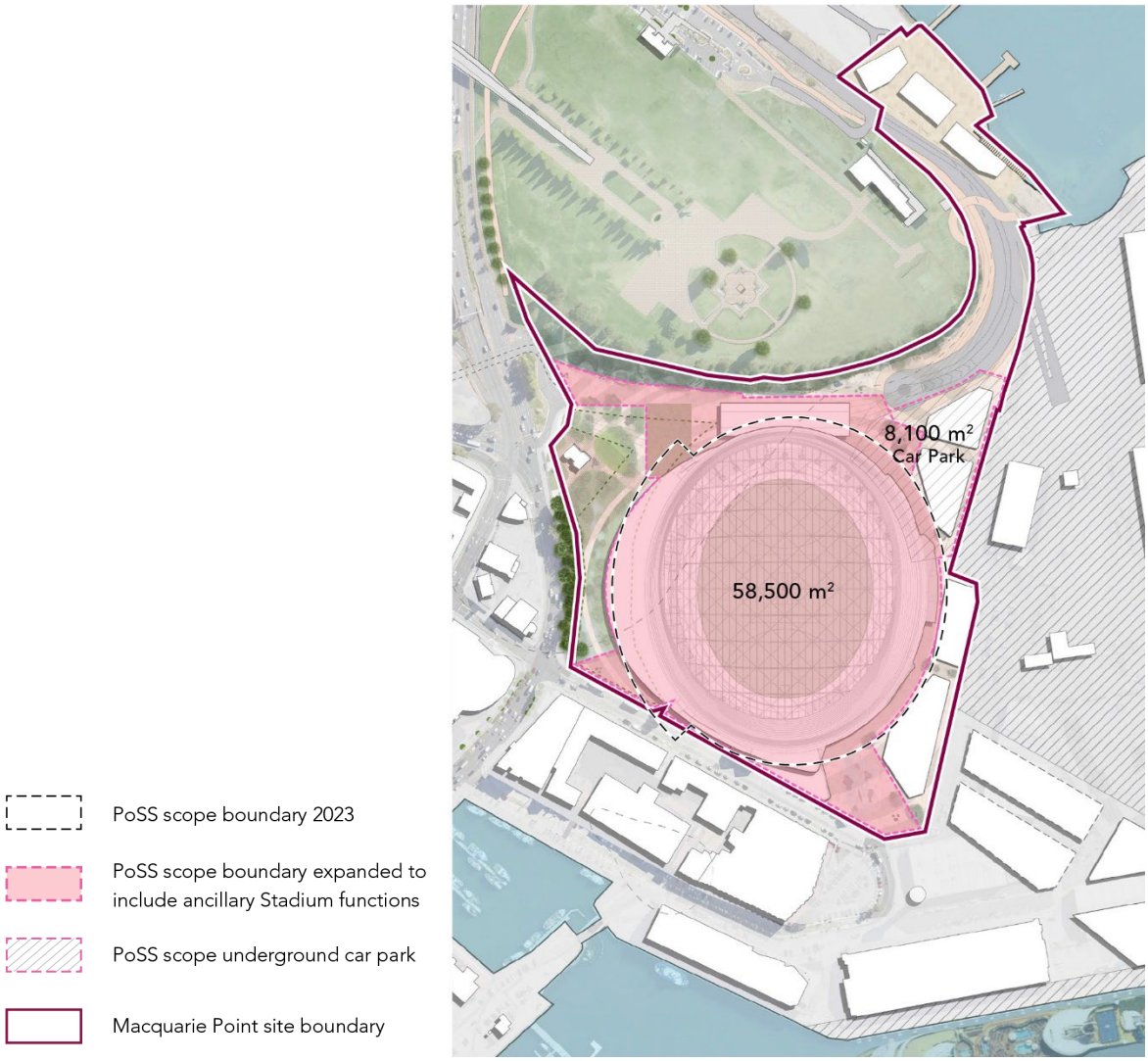


Image Source : Application doc_ PoSS scope boundary p18 Appendix-B-Stadium-Design-Description

UDAP concur with the Panel on the review scope and supports the POSS process under the existing legislation as a fair and reasonable process for a project of this scale. These are the UDAP's preliminary views and considerations.

4.0 LANDSCAPE AND URBAN FORM

4.1 Landscape and visual values

- *The project's effect on landscape and townscape values, spatial use, enjoyment, and specific views*.
    - An essential condition to any permit would be for landscaping.

    - Landscape is a core part of the design and reading of the building.

    - Appendix J Visual Impact Assessment outlines the importance of the public realm landscaping to the overall proposal, providing benefits and mitigating the stadium's visual impact, including:
        - Assisting in mitigating the impacts of the stadium bulk and scale.
        - Softening the built form of the stadium.
        - Allowing the stadium to co-exist with the Engineering Building within the local viewshed.
        - Reflecting the natural and cultural values of the site and its context.
        - Moderating the built form and ground level materiality.
        - Along the escarpment, reinforcing the historical vertical edge of the river in this location, retaining the topographic importance of the edge.
        - Strengthening the visual edge, providing further separation between the Cenotaph and the Stadium.

    - The Visual Impact Assessment has been prepared with the assumption that the landscaping was part of the project scope, and the summary even claims that the landscaping is likely to reduce the Magnitude of Change rating from various viewpoints.

- Some comments on specific views, and the Visual Impact Assessment (Appendix J):

VP1 from Rosny Hill

- Magnitude of change in this view is likely medium, not low.
- The stadium eclipses the headland in height and scale. Although seen from a distance, the form is dominant in reference to the headland and surrounding built form of the city and cove.
- The colouring of the stadium in this montage is a dull green-grey, almost like a camouflage. The stadium is shown with less definition than the buildings hundreds of metres behind it, so it is unlikely to be a true representation of its visual prominence in the landscape because it is made to look recessive.
- UDAP would rate the overall impact as Medium-High (not Moderate).

VP2 from Bridge of Remembrance:

- Viewpoint 2 provides a panoramic view of the River Derwent with the flanking shores of the river rising East to Rokeby Hills and West to Mount Nelson with the City, Cenotaph and associated landscape setting in the foreground.
- The Stadium roof clearly obstructs this panoramic view to the west of the Cenotaph and is highly visible obstructing the views of lower Sandy Bay and South Arm.

VP3 from Cenotaph and Memorial Precinct:

- The views south from the precinct capture the above-described broader panoramic views of the River Derwent and landscape setting of the surrounding tree-capped hills of the southern parts of the city of Hobart.
- The stadium structure clearly obstructs views out of the subject area southward, reducing the effect of the city read within a Landscape.

VP4 from Brooker Ave

- Significant gateway view which frames the Royal Engineers Building
- The Stadium is monolithic in this view, and importantly its presence behind the Engineers Building removes the sky that currently frames its silhouette.
- UDAP disagrees with a 'moderate' overall impact and suggest this is 'high'.

VP6 from IMAS

- This viewpoint is assuming low numbers of viewers (presumably because the IMAS UTAS campus is only accessed by a smallish academic population?), however UDAP consider that this viewpoint stands in for many other sites with views across the cove to the north, such as along the length of Princes Wharf, Franklin Wharf, around Constitution Dock and the Mures area. Its sensitivity is therefore likely much higher than noted in the assessment.
- Overall, a higher sensitivity rating would increase the overall impact rating from high to very high.
- The view eastward obstructs the ridgelines of backdrop landscape setting of the city and therefore reduces the landscape values of the townscape.

VP7 from Derwent River:

- UDAP questions the perspective accuracy of the image in this location as it appears "warped?"
- Given that the City of Hobart is well known internationally for its image of a waterfront destination with a mountain backdrop, views of the townscape within its landscape setting should also be considered within the "seascape" context. Therefore, views from the river would logically be considered significant.

- This view illustrates the significant impact on the broader setting and context of understanding the townscape within the surrounding landscape backdrop due the visual bulk of the building form.

Visual Assessment Summary:
The visual assessment summary confirms and acknowledges that *"the height of the Stadium extends above that of the built form in the surrounding visual context and it presents as a prominent element from most of the viewpoints outlined above."* However, the response to the POSS guidelines suggests that the visual bulk of the stadium does not impact on the surrounding natural features. Several mentions are made to reference the semi-transparent materiality and shape of the dome reducing visual impact in its landscape setting, which in UDAP's opinion, cannot be relied upon given the material illustrative nature of the montaged views. It is also noted that only a location and general description has been provided for each view without specific details such as elevation, perspective or camera lens angles.
UDAP also questions the likely effect of glare and reflectivity of the roof dome materials within the contextual setting of views specifically from elevated locations.

There is also a concern about light pollution from the stadium at night. The light spill requires modelling once materiality has been finalised and there should be consideration of timing restrictions for use of the lights, along with an assessment of the impacts of the proposed illuminated signs. It is also important to see the visual impact of the key views at night.

- *The historic character of the landscape and its influence on the area's identity, supplemented with heritage and Aboriginal cultural significance*.
    - Landscape is integral to Aboriginal heritage.

    - The site is located at and is integral to the Gateway to the city with symbolic and cultural importance.

- UDAP hold concerns with regards to the visual impact on the identity of the city within its landscape context as raised above. The city sits within a cove beyond which valleys inhabited by urban development, is ringed by lower vegetated slopes with the predominant ridge lines and peak of kunanyi / Mt Wellington beyond. The urban form of the city is made up of smaller parcels of land in lower lying areas, reflecting relatively a smaller grained urban form of the townscape within this context. This has the effect of reducing the visual bulk of individual buildings within its landscape setting. The Application illustrations provided show that when viewed from the river, the stadium visual bulk and form appear dominant within the foreground of the city and in contrast to the pre-existing urban form of smaller building forms.

- *The urban morphology, visibility of the project, and its visual impact on different groups*.
  - The scale, bulk and form of the proposed stadium has a significant visual impact on nearby topographic features such as the headland of the Queens Domain and Cenotaph, and neighbouring urban fabric such as the Hunter Street buildings and Royal Engineering Building.

  - The combination of the stadium's scale, its adjacencies to landmarks within Sullivans Cove, and the tight fit of the stadium's footprint within the site, has made these impacts impossible for the architects to avoid.

  - The stadium is a pleasing form in and of itself, and the use of timber and transparent aspects to the roof and the lower walls at the edges go some way to minimising the scale and bulk, however the relationships that are set up between the proposed stadium and the places and buildings around it are not respectful or complementary due to the unavoidable contrast in scale and visual bulk, and the long expanse of inactivated frontage on Evans Street.

  - The low, linear and fine-grained building forms that line Hunter Street provide a strong and memorable visual character to this part of the cove

(from the city side of Hunter Street), and the clarity and visual interest of those forms is diminished by the massive form of the stadium rising behind them.

- *Visual and spatial experiences, including effects of lighting at night and the significance of the cenotaph headland at the local and sub regional level*.
    - Given that the stadium sports field and other internal lighting will be enclosed by the domed roof structure, light spill will be mitigated to a degree and dependant on the transparency of the final ETFE membrane roof material. This will contribute to an overall reduction of evening sky light spill during operation.

- *The reports must also provide visuals (maps, plans, elevations) showing landscape character, historic context, and visual impact, guided by best practice methodologies from the New Zealand Institute of Landscape Architects and other landscape assessment guidelines*.
    - The visual maps, drawings and plans produced and provided by the applicant appear to be of a quality and standard as would be expected for such a project. However, there appears to be a lack of explanation in plans, diagrams and drawings with regards to the initial stages of the development proposal and how this will present, the proposed quality of the public realm during these stages, and how these stages will look. Further information should be requested in visual format to illustrate each project stage in its various iterations. This information should be provided in plan, elevation, 3D views and diagrammatic format.

4.2 Urban form of Sullivans Cove

- *Building height, bulk, and prominence compared to surroundings*.
    - Comments made under other headings are relevant.

    - As it exists, the arrival "gateway" to Hobart from the Tasman Highway, visually conveys the historic heart of the City, its small scale and historic settlement patterns and characteristics, within a magnificent natural

setting. The context retains easy legibility of the topographic and geographic features that led to settlement here, within a large-scale natural amphitheatre with the benefits of an abundance of fresh water, served by a navigable river and a viable port.

- This visual "gateway" experience to Hobart encompasses the spatial character of the undeveloped flat fill Macquarie Point Precinct area where the proposed Stadium is to be located. The current spatial character of the area, albeit modified by the reclaimed Cove Floor of the railyards and by the buildings on Evans / Hunter Streets, continues to convey the low Cove Floor plane bounded by the prominent Cenotaph headland to the north and the memory of Hunter Island to its south.

Refer Application document image p12 2.3 Historic Shorelines Appendix-JJ-Mac-Point-Precinct-Plan-Macquarie-Point-Development-Corporation-August-2024 below.

- Due to its intended use, the scale and prominence of the proposed Stadium mass will significantly alter and dominate the natural topography at the gateway as well as from the water no matter the architectural articulation and detail of the project. The Stadium height, massing, bulk, and scale will invert the perceived natural topography of the area. It will diminish the impact of the Cenotaph and the Cenotaph headland, obscure and substantially fill the open Cove floor spatial volume and thereby compromise the topographical forms that determined the origins of the City of Hobart.

- The Sullivans Cove Planning Review 1991 (SCPR) informed the Sullivans Cove Planning Scheme 1997 and remains relevant to development of the Cove, which includes the Macquarie Point Site as per the Planning scheme PSA-19-2 Macquarie Point Amendments which inserted a new Macquarie Point Site Development Plan within Part F – Key Sites in 2019.

- The SCPR Executive Summary emphasises the importance of the overall Sullivans Cove as a national asset, and a historic site, the historic integrity of which must be preserved while allowing for progress. The review considers Sullivans Cove as the symbolic Heart of Hobart.

Relevant SCPR Summary of Principles for Development in Sullivans Cove (p7 SCPR) include:

- *Development must respect the spatial and built form of Sullivan's Cove.*
- *The activities in Sullivans Cove must complement those of the central City area and shall not require new buildings that are out of scale with Sullivans Cove.*
- *Activities should only be permitted when they can be accommodated in spaces and buildings which are of a scale and character of Sullivans Cove.*

The SCPS states (p173) that applications for 'use' and 'development' of Macquarie Point must consider (amongst other items) The Desired Future Character Statements in clause 32.3. While some Desired Future Character Statements are met by the Application, this review considers that others are not adequately met. These include:

- *32.3.1 Re-engage with its history by revealing layers of the changing nature of Macquarie Point over time through expression of the topography, natural shoreline, Round House, Goods Shed, Royal Engineers Building and Red Shed.*
- *32.3.3 Not adversely impact on the cultural heritage and reverential ambience of the Hobart Cenotaph and its surrounds.*

- *32.3.4 Acknowledge the footprint of the former railway Round House as shown on Figure 32.3 and the associated Table 32.3.*

- *32.3.7 Require the bulk, siting and height of buildings to be sympathetic to the natural topography of the headland, amphitheatre, and escarpment surrounding the Cenotaph* and to reinforce the natural shoreline with freestanding buildings viewed in the round on the Cove Floor.
- *32.3.8 Not unreasonably impact on important views, including the following shown on Figure 32.2.*

The decision to locate a 23,000 seat Stadium in this location contradicts the cited SCPR Principles to the detriment of the gateway experience to Hobart and significantly contradicts the clauses highlighted from the Desired Future Character Statements.

The Application document argues that (as per the Macquarie Point Masterplan Re-Set Urban Design Notes -Leigh Wooley 2017) the Stadium:

- disassociates from the natural rise between the Cove Floor and Cove Ridge
- is recognisably part of the Cove Floor
- acknowledges and does not confuse the landform rise between floor and headland
- is developed in the round thereby reinforcing its location on the Cove Floor and
- reinforces the primary development patterns and spaces of the site,

However, the scale of the stadium and lack of pedestrian permeability across the site due to its footprint, combined with the minimised and compressed adjacent public space on the perimeters of the site overrides any argument that could support the appropriateness of the building type, a Stadium, in this location.

Diagram comparing the footprint scale of the proposed Stadium superimposed over the existing Cenotaph headland. It illustrates the significant scale of this proposed stadium outline in relation to the existing headland. *Base drawing source: Submission document_ Site Plan Appendix-B-Stadium-Design-Description.*

The SCPR (p44) states: *"Cities consist of general "texture" (i.e. buildings and spaces which make up the basic structure and pattern of the City) and "monuments" (i.e. special buildings and spaces which form climaxes at strategic points".*

The point has been made in this report that, in this location, the proposed Stadium will dominate and detract from the historic texture of the city. Similarly, its height, bulk and scale will significantly impact and diminish the spatial experience and symbolic prominence of the Cenotaph memorial.

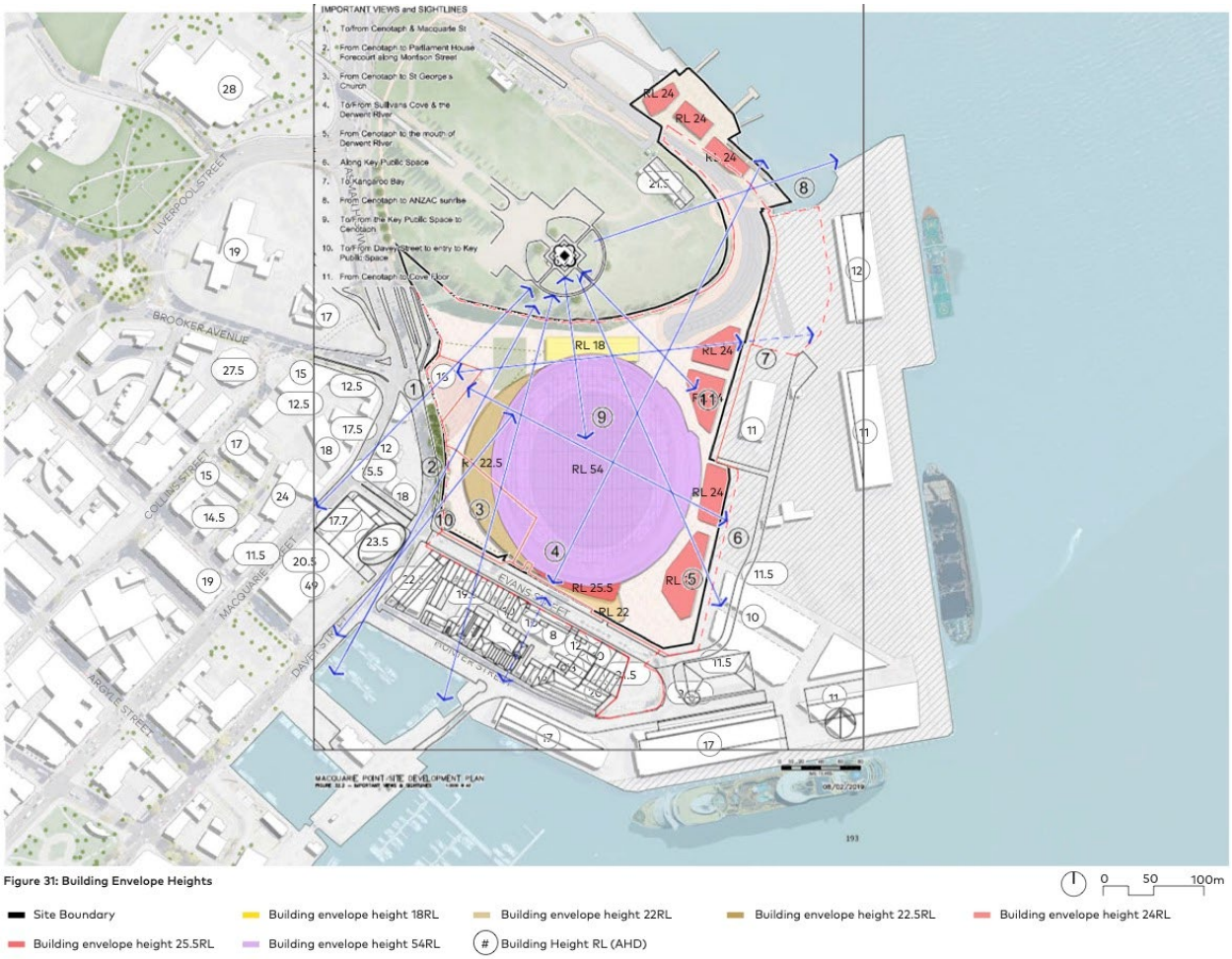
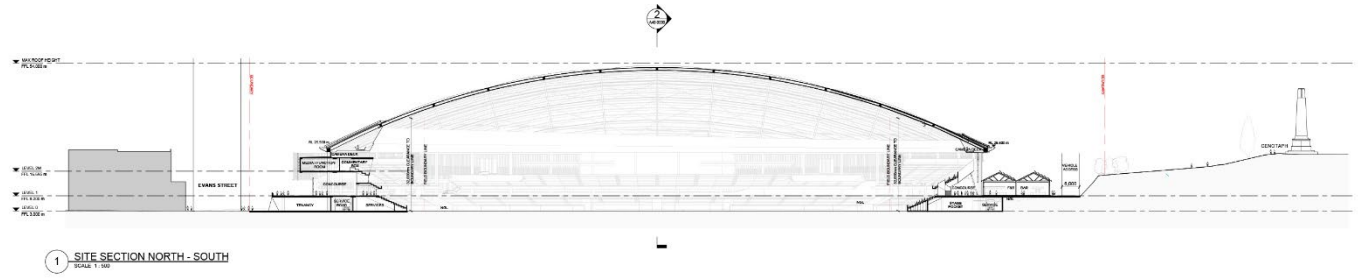


Figure 31: Building Envelope Heights

Image source: Sullivans Cove Planning Scheme 1997 Amendment incorporating 32.0 Macquarie Point Site Development Plan - Important Views and Sightlines p193 overlayed over Application document Building Envelop Heights diagram p43 Appendix-I-Urban-Design-Framework-August-2024

While the apex of the Cenotaph is referenced and listed at RL45.9 in the Application drawings *(1.3 Proposed use and development Building Envelope Heights Appendix-I-Urban_Design_Framework_August 2024)* this height reference should not be construed as the datum by which to compare the Stadium dome height. By comparison to the Stadium, the "needle" form of the Cenotaph memorial is insignificant with little impact in contrast to the Stadium bulk. The Stadium dome springs from RL25.5 rising to RL54 above the headland ground level of ~RL24. This height, despite the mitigating domed roof form, will visually interrupt existing wide sweeping views across the city and aspects of the River Derwent from the Cenotaph detracting from the symbolic experience of a "place-based" representation of "home" to the fallen. The Cenotaph monument, location and memorial services may not hold value to all of the local community, and may, by contrast, be construed by some as symbolic of the colonisation of the Island, nevertheless maintaining the sanctity of the Cenotaph and environs remains of significance within sectors of Hobart's current social and cultural community experience and is promoted within the Macquarie Point Masterplan: Reset Urban Design Notes *(Leigh Woolley 2017 – Appendix 4.2 Diagrammatic Review)*.

The relative heights referenced are demonstrated in the *Application document - Site Section 01 Appendix-A-Architectural Drawings*



The analysis of the Application documents demonstrates that the proposed Stadium building height, bulk, and prominence compared to surroundings contradicts the stated Desired Future Characteristic Statements highlighted above.

- *The project's contribution to a human-scale environment*.

- Position of the Goods Shed at the rear of the building, between the stadium and the escarpment is clearly explained, but the spatial effect of this is questionable. The Goods shed is dwarfed by the stadium and in this location is buried deep into the site. This contrast in scale is very evident in both the sections and renders. UDAP suggest consideration of other opportunities for the placement of this building, in locations that would provide a better-scaled context.

- Unfortunately, the stadium doesn't present an activated edge along Evans Street, which is arguably its largest interface with the city beyond the site.

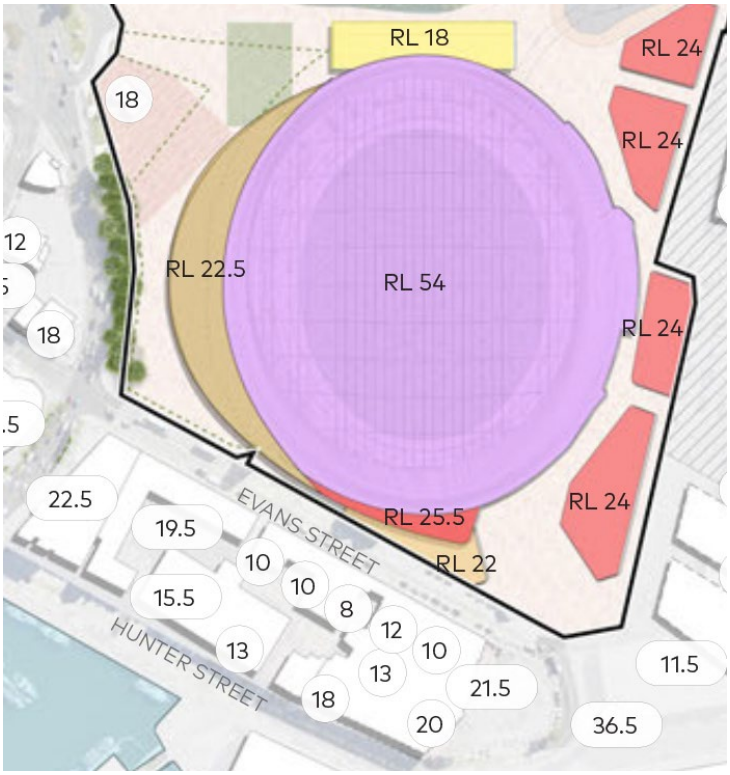
- Although there is real opportunity for the buildings that face Hunter Street to also present to Evans Street, providing interest, relief, activation, passive surveillance and permeability in the urban fabric adjacent to the stadium precinct.

- There are some initiatives that would contribute to creating a human-scaled environment within the landscape design package for public realm improvements including playful elements, water features, detailed paving treatments and native plantings.

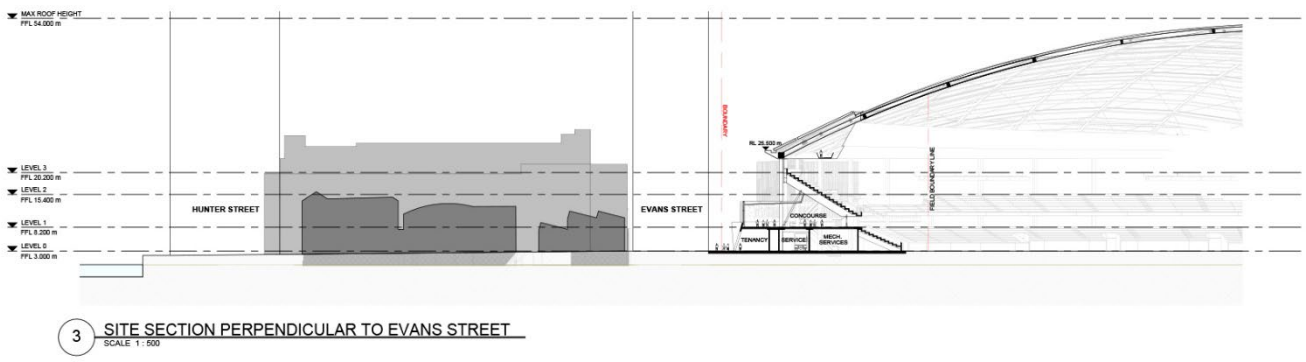
- Despite the Applicant arguing that the Stadium alignment, domed roof form, and architectural design detail all reduce the overwhelming scale of the Stadium, nevertheless the Application document Site Sections demonstrate the very significant diminution of the human form relative to the dominating bulk of the Stadium, and also the loss of the human scaled built context characteristic of historic Hobart as experienced along neighbouring Hunter and Evans Streets.

- The Application drawing *Site Section Perpendicular to Evans Street _ Site Section 03a Appendix-A-Architectural Drawings* includes graphic representation of the higher existing Evans Street building envelope heights of RL 19.5 and RL22.5 that occur towards Davey Street. However,

UDAP notes that the lower existing building envelope heights of RL10, RL8 and RL12 make up the greater proportion of the Evans Street facades opposite the Stadium and that it is opposite these smaller-scale buildings that the looming Stadium extends hard up against its Evans Street boundary.



Application document Figure 31 p43 Building Envelope Heights Appendix-I-Urban-Design-Framework-August-2024



Furthermore, the full expanse of the continuous Stadium facade will be experienced visually along the entire length of one side of Evans Street by pedestrians in their approach to Gate 1 along Evans Street.

The above factors impacting in this manner together, would mean the likely significant diminishment of the human scale of the existing street fabric by the Stadium as proposed.

- *How architectural details complement or detract from existing forms and spatial patterns*.
    - Application renders indicate a contemporary "textured, battened screen that wraps key programmatic areas of the Stadium". The 'woven screen' layer is conveyed as "a distinctive element of the building [which will] cantilever[s] over the external concourse on the western side". UDAP supports contemporary architectural detailing and the use of timber as being appropriate and complementary to existing forms and spatial patterns.

- *The impact on the Cove's wall and floor expression*.
    - UDAP defers to Leigh Woolley's identification of the impacts on the Cove wall and floor.

    - The Stadium height, massing, bulk, and scale will invert the perceived natural topography of the area. It will interrupt and diminish the

experience of being able to clearly discern the Cove wall along the headland escarpment. Likewise, the ability to perceive or experience the expression of the (reclaimed) Cove Floor will be lost due to the Stadium footprint substantially covering the open Cove floor in plan, and by its significant bulk and height filling the open spatial volume that defines the Cove floor.

- *The continuity of the built wall edge and interface with Evans Street*.
    - Item 32.3.10 of the SCPS Desired Future Character Statements requires future development of the site to:

      Establish and reinforce a well-defined built edge to Evans Street, set back to highlight the Goods Shed as a public entry point to the site.

      While the Application includes relocation and modification of the heritage listed Goods Shed to elsewhere on the site, nevertheless the desirability of the proposal reinforcing a well-defined built edge to Evans Street remains relevant.

    - UDAP finds it challenging to decipher the active interface with Evans Street based on the limited level of documentation and images reviewed. No street elevations, or detailed plans have been reviewed as part of this assessment. Given that the area forms key arrival, access and patron zones, UDAP feels that greater consideration to the built wall edge and public realm of Evans Street needs to be evidenced.

    - However, the benefit to the human scale and activation of Evans Street through architectural design and functional use remains desirable. Opportunities should be maximised for a mix of uses and permeable spaces at ground plane.

- *Active street frontages and pedestrian usability of secondary spaces*.
    - The urban design framework illustrates locations for potential street edge activation and these areas are annotated in the architectural drawings. Little consideration or detail is provided within the documents

reviewed that illustrate the specific quality or nature of street level and public realm in these locations. UDAP is of the opinion that further effort to activate and enhance Evans St and mitigate blank facades should be undertaken by the design team. Pedestrian access and circulation surrounding the stadium and connecting across the site appears to be delivered in later project stages thereby creating confusion when attempting to understand the initial useability of pedestrian secondary spaces.

- *The project's all-round spatial and visual contribution*.
    - Sections are critical for renders can deceive. There is no view in the Visual Impact Assessment Report (Appendix J) from the Brooker and Tasman Highway intersection arguably the 'road gateway' into the City' to get a sense of scale.

    - Assessing the all-round spatial and visual contribution can only be realistically relied upon via the provided images within the visual assessment document. Based on this assumption, comments have been provided earlier within the UDAP report specific to each viewpoint image. Whilst the Stadium height is generally below that of the higher city buildings and surrounding mountain ridgelines, the horizontal massing and form dominate the foreground of the townscape when viewed from afar.

    - UDAP request that a digital model of the proposal be provided to HCC to allow UDAP to consider the projects spatial and visual contribution independently from the visual assessment undertaken.

      The Application document *Appendix B Stadium Design Description p16 Vision – Design Pillars* emphasizes an architectural response that is to be *"Unmistakenly Tasmanian"* with *"the form of the building [is] intended to accommodate all the functional requirements of a contemporary Stadium whilst being distinctly grounded in place. This means drawing on the built traditions of Sullivans Cove where buildings are expressed as legible*

forms on the Cove Floor and can be experienced from every aspect" and that *"The former Round House associated with the old Hobart Rail Yards established a precedent for round buildings at Macquarie Point".*

Of note when considering the former Round House as a precedent in regard to the project's all-round spatial and visual contribution, is the ratio of built form to the open space around it. By contrast, the ratio of the proposed Stadium bulk to the remnant compressed open spaces surrounding it once all development stages have been realised, it (particularly adjacent to the Port Authority site and the Cenotaph headland escarpment) will pose a significantly higher built form to open space ratio. The project's positive all-round spatial and visual contribution here is likely to be further undermined by the height and bulk of the Stadium compared with that of the Round House which historically did not obscure the all-round visual and topographic spatial experience of the Cove Floor. A digital model of the proposal will assist UDAP in making this determination.

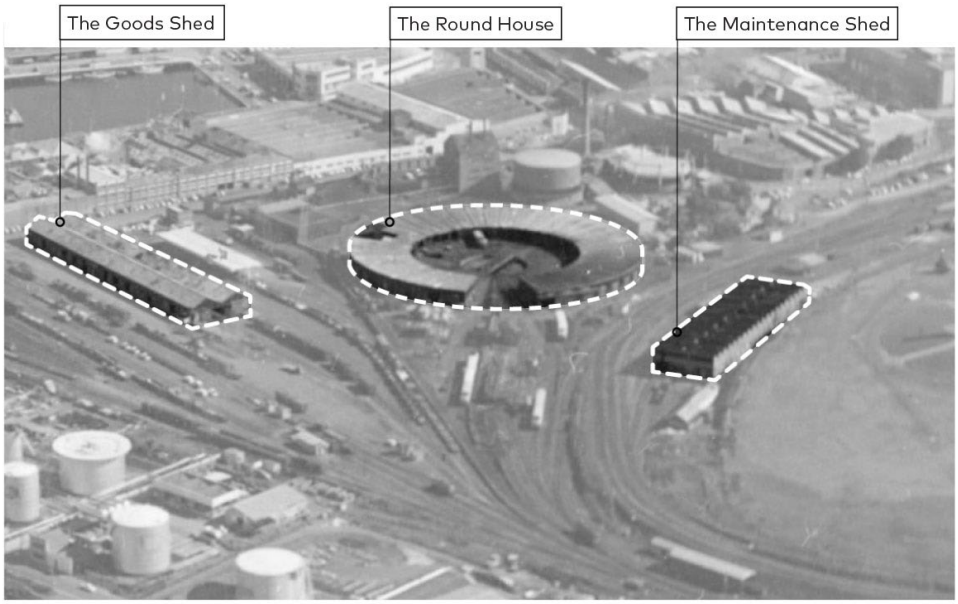


Figure 44: Hobart Yards in the 1960s. Uncredited, Stations of Tasmania. (Source: Macquarie Point Development Corporation)

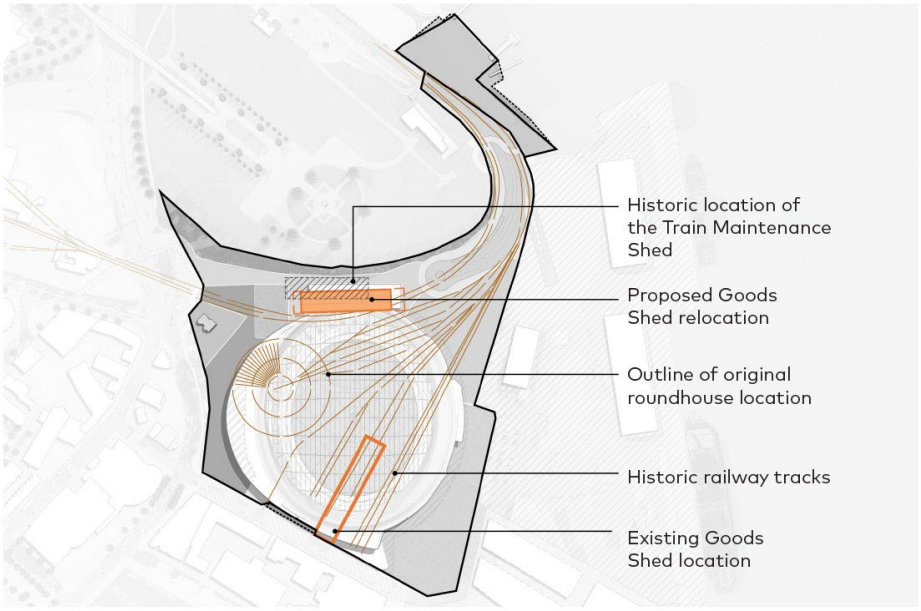


Figure 45: The Good Shed preservation and relocation diagram (Source: Cox Architecture)

- *How well the design and placement of urban elements like steps, seating, planting, lighting, and external treatments integrate with or detract from the character and form of spaces and buildings. The extent to which the proposed project overshadows public areas*.
    - It's not possible to assess the design and placement of urban elements, as it is not clear what is proposed, and what is included as artistic impression/out of scope.

    - UDAP requires further detailed information to be able to consider the proposed design of urban elements.

CONCLUSION

UDAP wish to emphasise that the Application reports, architectural drawings, and 3D visual renders consistently incorporate areas outside of the demarcated POSS boundary. The POSS currently excludes the pedestrian concourse, underground car parking, and all landscaping and the Aboriginal Culturally Informed Zone except possibly to the under croft. It includes removal of the heritage listed Goods Shed but does not include its depicted relocation and re-use within the demarcated project.

The Antarctic Facilities Zone, and the Complementary Mixed-Use Zones are further exclusions.

UDAP reiterates that it is critical to define all elements of the proposal, including its context and essential associated infrastructure.

There is a lack of staging detail with elements including landscaping, with no clarity on the delivery and funding of these works.

Appendix 5

Cultural Heritage Issues, MacKay Strategic

MACKAY STRATEGIC

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Phone 0412 673 548
Address PO Box 479 Lindfield
NSW 2070 Australia

1 February 2025

The City of Hobart
50 Macquarie Street
Hobart Tasmania 7000

Dear Madam or Sir,

Macquarie Point Multipurpose Stadium: Project of State Significance
Advice on cultural heritage issues prepared for the City of Hobart

I have been instructed by Hobart City Council (HCC) to provide independent expert advice about non-Indigenous heritage issues arising from the proposed Macquarie Point Multipurpose Stadium in Hobart (the Project). My relevant qualifications for this assignment are outlined at Annexure A.

The Project has been determined to be a Project of State Significance, pursuant to the *State Policies and Projects Act 1993* (Tas). The Tasmanian Planning Commission (Commission), and not HCC, is therefore the planning authority for the Project. The Commission issued Guidelines for the Project on 16 February 2024, and HCC has provided advice to the Commission about the Guidelines. HCC must be consulted regarding the draft integrated assessment report, which is to be prepared by the Commission, and will have the opportunity to lodge a representation in relation to the exhibited draft integrated assessment report, and to make representations to any subsequent Commission Hearing.

The proponent of the Project, the Macquarie Point Development Corporation (the Corporation), submitted a set of Project documents to the Commission on 17 September 2024, which have been on public exhibition. This advice is particularly focused on those documents, the heritage issues that arise in relation to the Project and whether the documentation submitted about the Project adequately responds to the requirements of the Guidelines and adequately considers the (non-Indigenous) cultural heritage that may be affected by the Project.

In providing this advice, I have considered all of the documents listed in the schedule at Annexure B, but have particularly been informed by and/or commented on the following documents:

- Macquarie Point Multipurpose Stadium Guidelines, Tasmanian Planning Commission, 16 February 2024;
- Macquarie Point Multipurpose Stadium, Appendix 2, List of Proposed Conditions;

- Macquarie Point Multipurpose Stadium, Project of State Significance, Volume 1, Summary Report September 2024;
- Appendix J: Visual Impact Assessment (VIA Report), Macquarie Point Multipurpose Stadium, SLR Consulting Australia, August 2024;
- Appendix M: Draft Macquarie Point Stadium Historical Archaeological Assessment, Archaeological Sensitivity Report and Archaeological Method Statement (Historical Archaeology Report), August 2024;
- Appendix L: Macquarie Point Multipurpose Stadium Historic Cultural Heritage Impact Assessment (HIA Report), Purcell and GJM, August 2024; and
- The Goods Shed Conservation Management Plan, Macquarie Point Development Corporation, 2021.

Overview

The Project proposes construction of a very large overtly new structure in a prominent location at the edge of the Hobart central business district, close to the River Derwent waterfront, resulting in a range of potential heritage impacts.

The Project requires the demolition or removal of heritage items, including an historic Railway Goods Shed that is listed on the Tasmanian Heritage Register and the so–called Red Shed, which is an item of local heritage significance.

The Project is in close proximity to, and within the setting of, other significant heritage items and places, including the Cenotaph, The Royal Engineers' Building and Sullivans Cove.

The Project would involve extensive excavation, both with the Project site and in some adjacent areas for foundations and services and therefore has wide scale potential impact on archaeological resources.

The ensuing advice firstly considers the heritage items that are most-directly affected by the project and then provides comments on some of the Project reports that address heritage issues.

Railway Goods Shed (Goods Shed)

The Goods Shed is of State significance, listed on the Tasmanian Heritage Register, and is the subject of a detailed Conservation Management Plan (CMP) prepared in 2021, which provides for its conservation and adaptation in its current location. It is proposed that the Goods Shed building would be relocated, rotated to a different alignment, so as to be associated with a former rail alignment, and adapted in accordance with a new CMP.

In view of the nature of the Goods Shed, and its historic composite structure, including evidence of use and changes over time, the Project documents before the Commission should include a detailed

methodology and construction plan which shows that re-location is technically possible and precisely how it would be undertaken. This is not a 'normal' requirement, but it is by no means normal to propose the re-location of a State significant (THR) listed item. Therefore, it is firstly necessary to show that re-location is actually possible, and secondly to specify precisely what changes or interventions (eg: new foundations, replacement of defective members, faithful sequencing of moved components etc) would be involved, so that the heritage impact of the proposed action can be properly assessed.

Furthermore, there is a need for a much more detailed understanding of how the changes required to re-orient, re-locate and adapt the Goods Shed would affect its specific heritage values. This requires the attributes that support the State heritage values of the Goods Shed to be specified in detail. These may be physical aspects such as original fabric or design, or intangible features, such as use or association. The changes which would arising from the Project need to be systematically related to the attributes of the Goods Shed which underpin its State Heritage value, so that the heritage effect of the outcome can be understood by the Commission.

In the circumstances, a new CMP is clearly warranted and appropriate, given that the proposed action is directly contrary to the policy provisions of the existing CMP, and there is a need to present a more fine-grained analysis of heritage values and to relate that to proposed changes. However, the new CMP should be prepared now (and not as a subsequent implementation action), so that it can properly inform the Commission in its decision-making regarding the Project.

It would also be appropriate to give more broad-ranging consideration to the likely high level of adverse heritage impact to the State-significant Goods Shed and the options for suitable mitigative measures. Given the nature and extent of change proposed, typical mitigation such as oral history, archival recording or on (and / or off) site interpretation of the history and cultural significance (all of which should occur) are unlikely to be commensurate with the scale of the heritage impact. Therefore, it would be appropriate to consider less typical approaches. For example, if the detailed methodology and construction plan, in conjunction with a new CMP, were to indicate that core aspects of the heritage value of the Goods Shed would not be retained by the proposed re-orientation, re-location and adaptation of the Goods Shed, then more radical mitigation might be considered, such as not seeking to retain the structure, installation of an interpretive exhibition or display on site, and deployment of the funds saved to contribute to Hobart's heritage in other more innovative and impactful ways.

The Red Shed

The Red Shed is a locally significant local heritage item. This structure, which a has already been re-located and altered from its original form and use, is manifestly less significant than the Goods Shed, and its removal, though having some adverse impact, is likely to be assessed as acceptable in the context

of the Project. Suggestions that it be re-located or recorded or stored for future re-erection at an unspecified place do not seem to accord with its modest level of heritage value.

Insofar as a new CMP for the Red Shed is proposed and decisions are yet to be made about its potential retention / relocation, all of those processes should be completed as part of the Project documentation before the Commission, so that an appropriately well-informed decision may be made. It would be pre-emptive and tokenistic to approve the demolition or removal of this (or any) structure of local significance on the basis that a yet-to-be prepared CMP would guide its future.

The Royal Engineers Building

The Royal Engineers' Building is a prominent and very well-known historic building which is listed on the Tasmanian Heritage Register (THR). The Project would make a dramatic and significant change to the visual setting and key views of this building, and may affect its future use, conservation and interpretation as a significant heritage place.

The documents provided to the Commission do not include adequate assessment of the visual impact on significant heritage items, including the Royal Engineers Building, which means that the heritage impact of the Project is not presented in a manner that would allow a thorough understanding by the Commission. This concern is addressed further below in relation to the Visual Impact Assessment Report.

The Cenotaph

The Cenotaph is a State significant listed (THR) heritage item, but is also a place of major social value to particular sections of the Hobart (and wider) community. Its use by veterans, and in events such as Anzac Day and other commemorations, is a self-evidently important part of the social practice and tradition in Hobart. The proposed change to the visual setting of the Cenotaph may have profound adverse social impact to the individuals and/or groups who value and use this place. In particular, it is important to recognise the Cenotaph's individual prominence as a single monument, which would potentially be compromised by the Project.

The understanding of potential impact on the Cenotaph provided in the Visual Impact Assessment Report is inadequate, as the Cenotaph is viewed in the round and not just axially from fixed perspectives. It is not appropriate to characterise the visual impact of the Project on the Cenotaph as 'indirect' (as occurs in the Historic Cultural Heritage Impact Assessment Report), as the change to its visual setting would be a direct consequence of the Project and would be major and permanent.

A proper and adequate evaluation of heritage impacts on the Cenotaph (including impact on its social significance) would require a formal consultative process – in which the associated people are provided

with sufficient information to understand how the proposed development would change the setting of the Cenotaph.

Sullivans Cove

The Project would forever alter the visual setting and character of Sullivans Cove. In particular, the proposed stadium would be highly visible in views looking to the east across the docks and the row of highly-significant historic maritime buildings along Hunter Street. The effect on the significance of each of these buildings is an issue, but there is a broader issue of the overall degradation of the setting of Sullivans Cove as a 'heritage place'. The potential adverse change in views from within Sullivans Cove can be understood by reference to the visibility of the 'sawtooth' profile of the Sullivans Cove Apartments which from Evans Street – the project would be much higher and even more visible.

Although Sullivans Cove is not listed on the Tasmanian Heritage Register, nor on any other statutory heritage list, it is nevertheless already managed as a special place – with significant cultural heritage values – through its own planning scheme, the *Sullivans Cove Planning Scheme 1997*. Recognising that this scheme is not binding on the Project, it would nevertheless be relevant to apply its various provisions in order to achieve a merits-based understanding of the substantial adverse impact of the Project on the cultural heritage values of Sullivans Cove.

Macquarie Point Multipurpose Stadium Historic Cultural Heritage Impact Assessment (HIA Report)

The HIA Report is detailed and comprehensive, but its conclusions give rise to concerns, particularly in its characterisation of 'direct' and 'indirect' impacts. The HIA Report appears to regard direct impact as physical change and indirect impacts as non-physical change – even if occurring as a direct result of the Project. This is an inappropriate distinction. 'Indirect' impacts would more normally be 'downstream' consequences, such as (such as, for example, noise arising from the proposed stadium operations). Insofar as the Project may affect the visual character of a heritage item, that impact would be a 'direct' consequence of the project. This is a significant issue with the HIA, as the presentation of non-physical impacts as 'indirect' may have the effect of understating their importance to the Commission.

Visual Impact Assessment (VIA Report)

The VIA Report is not commensurate with the scale and scope of the Project. It would be reasonable to expect more sophisticated visualisation and modelling, from multiple perspectives. In particular, there seems to be an assumption that there are only static (typically axial) views of key monuments such as the Cenotaph, whereas the reality is that the visual impact of the stadium will be experienced 'in the round'. The same applies to the Royal Engineers Building, views east across Constitution Dock from Sullivans Cove, and other perspectives.

Therefore, it appears that the visual impact of the Project on key on significant heritage items including the Cenotaph and Royal Engineers Building, and key precincts, such as Sullivans Cove may not be presented in a manner that would allow a thorough understanding by the Commission. I note that visual impact is also being addressed in a separate report by Leigh Woolley.

Draft Macquarie Point Stadium Historical Archaeological Assessment, Archaeological Sensitivity Report and Archaeological Method Statement (Historical Archaeology Report),

The Historical Archaeology Report is voluminous, but some of its conclusions and recommendations bear questioning. In particular, the conclusion that the majority of the site is of 'nil sensitivity' does not accord with the data summarised in figure 7.0.3 which suggests that much of the subject area has only 'low industrial disturbance'. This Historical Archaeology Report is therefore not fit for purpose in its current form as it lacks clarity as to archaeological assessment, and potential impacts. The Historical Archaeology Report requires a stronger and clearer synthesis of previous historical archaeological excavations and possibly a 'triage' approach to further archaeology involving further testing, stratified sampling as well as archaeological monitoring.

Noting that this report is still in 'draft' stage, some more focused work is suggested, which would more clearly and strategically present the historic landform and use, interventions like cut and fill, areas of disturbance, and a resolved archaeological zoning plan which shows where pro-active archaeological investigations, monitoring or no action are warranted and proposed. For example, a simple summary set of graphics should be provided showing:

- original landform and shoreline;
- known Aboriginal sites/ features (if any);
- historical structures and uses;
- known disturbances (archaeological excavations and other);
- potentially intact sub-surface features or areas of archaeological sensitivity;
- assessed archaeological research potential; and
- archaeological zoning plan indicating proposed management (ie: archaeological investigations, monitoring or no action).

This graphic set (and the Historical Archaeology Report itself) should cover all of the areas potentially affected by the Project, including, for example, parts of Evans Street that might be excavated to allow installation of services.

Conclusions

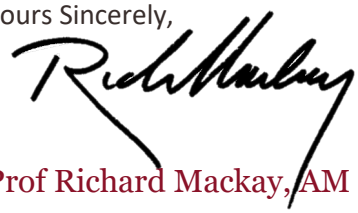
While recognising the circumstances in which the Project has arisen and the desire to press ahead quickly with project documentation and decision-making, the current heritage assessment documents do not provide adequate information or understanding of likely heritage effects of the Project, as they:

- potentially understate heritage impact;
- do not engage directly with the possibility that the project should not proceed on heritage grounds;
- pre-empt the outcome of two yet-to-be-prepared Conservation Management Plans;
- require further consideration of social considerations about the Cenotaph;
- should consider Sullivans Cove as a cultural heritage place;
- lack adequately detailed three-dimensional visual assessment;
- do not seem to involve an adequate archaeological/salvage strategy; and
- lack adequately detailed three-dimensional visual assessment.

The issues raised in this advice are significant and my assessment of the set of Project documents relating to heritage leads me to conclude that they are not yet fit for purpose in their current form and require further work and additional consideration and content as outlined above, so that they can put before the Commission a clear, comprehensive evidence-based evaluation of the heritage impact and implications of the Project.

This advice may be refined or modified, following issue or review of further documents or engagement with representatives of the Commission or the Corporation.

Yours Sincerely,



Prof Richard Mackay, AM

Annexures

A. Qualifications and Relevant Experience

B. Documents Consulted

MACKAY STRATEGIC

Annexure A: Qualifications, and Relevant Experience

I hold the following qualifications: Bachelor of Arts (Honours First Class), MBA. I am an Adjunct Professor in the School of Humanities and Social Sciences, Faculty of Arts and Education at Deakin University and was for 18 years an Adjunct Professor at La Trobe University. From 2018 to 2023 I was a Commissioner of the NSW Independent Planning Commission.

I am a Member of the Australian Heritage Council and have previously served as a Member of the NSW Heritage Council, and as non-executive Director of the National Trust of Australia (NSW). I was inaugural Chair of the NSW State Heritage Register Committee and author of the 'heritage' component of the 2011 and 2016 Commonwealth 'State of the Environment' reports to the Australian Parliament. Since 2015 I have been an expert adviser to the UNESCO World Heritage Committee on the state of conservation of World Heritage properties.

I am an Honorary Member of ICOMOS, the International Council on Monuments and Sites and of Australia ICOMOS Inc. I adhere to the ICOMOS Ethical Principles related to Best Practice and Ethical Conduct. I am also an Honorary Life Member of the Australian Association of Consulting Archaeologists and a Life Member of the National Trust of Australia (NSW).

I have worked in cultural heritage and planning in Australia for more than 40 years, including numerous major assignments in Tasmania. I completed an independent review of the *Tasmanian Historic Cultural Heritage Act* for the Tasmanian Government in 2005. I have prepared heritage impact assessments for major projects at Port Arthur and the Cascades Female Factory, which are components of the Australian Convict Sites World Heritage property, and was team leader for a conservation plan for the Franklin Square offices. I have recently advised Hobart City Council in relation to development proposals and provided expert evidence at the Tasmanian Civil Appeals Tribunal.

I have published extensively, including articles and papers on assessing cultural heritage values and heritage impact assessment. In the late 1990s I was a Member of the Australia ICOMOS '*Burra Charter* Working Group'. I am the co-author of the publication: *Guidance and Toolkit for Impact Assessments in a World Heritage Context* (UNESCO, ICOMOS, ICCROM and IUCN, 2022).

My curriculum vita and further information about my experience, presentations, lectures and publications is available at: https://www.mackaystrategic.com.au/about/

Annexure B Documents Consulted

- Macquarie Point Multipurpose Stadium Guidelines, Tasmanian Planning Commission, 16 February 2024.
- Macquarie Point Multipurpose Stadium, Appendix 2, List of Proposed Conditions.
- Macquarie Point Multipurpose Stadium, Project of State Significance, Volume 1, Summary Report September 2024.
    - Appendix J: Visual Impact Assessment (VIA Report), Macquarie Point Multipurpose Stadium, SLR Consulting Australia, August 2024.
    - Appendix K: Previous Aboriginal Heritage Investigations, Macquarie Point Multipurpose Stadium, Macquarie Point Development Corporation, July 2024.
    - Appendix L: Macquarie Point Multipurpose Stadium Historic Cultural Heritage Impact Assessment (HIA Report), Purcell and GJM, August 2024.
    - Appendix M: Draft Macquarie Point Stadium Historical Archaeological Assessment, Archaeological Sensitivity Report and Archaeological Method Statement (Historical Archaeology Report), August 2024.
- Macquarie Point Multipurpose Stadium Project of State Significance Appendix 1 Request for Further Information, Tasmanian Planning Commission, November 2024.
- Macquarie Point Multipurpose Stadium Project of State Significance Scope of the Integrated Assessment Tasmanian Planning Commission, January 2025.
- 19A - 35 Hunter Street Conservation Plan, prepared by Paul Davies Heritage Consultant, March 1997.
- Archaeological Reports (6), Macquarie Point 10 Evans Street Hobart, prepared by Austral Tasmania, for Macquarie Point Development Authority, May 2019 – April 2022.
- Heritage Significance of Wharf Apron Sullivans Cove Scoping Study, prepared by Leigh Woolley, April 2011.
- Hobart Cenotaph Conservation Assessment, prepared by Ian Terry for Hobart City Council, January 2001.

- Hobart Railway Goods Shed, THR nomination, Tasmanian Association of Tourist Railways Inc, April 2013.
- Macquarie Point Multi Purpose Stadium Review: Section 4_Landscape and Urban Form (DRAFT REPORT), prepared by Leigh Woolley for Hobart City Council, December 2024.
- Royal Engineers Building 2 Davey Street Hobart, Conservation Works Phase 1, prepared by Jacob Allom Wade Architects 1984.
- Queens Domain Cultural Heritage Management Plan, Prepared by Austral Archaeology, for Hobart City Council 2002.
- Statement of Cultural Significance Concrete Aprons Sullivans Cove, prepared by Leigh Woolley for the Sullivans Cove Waterfront Authority, August 2011.
- Sullivans Cove Archaeological Zoning Plan, prepared by Austral Archaeology, David Parham and Lindy Scripps for Hobart City Council and the Tasmanian Heritage Council 2003.
- Sullivans Cove Assessment of Places of Potential Cultural Significance, prepared by Godden Mackay for Hobart City Council, 1998.
- Sullivans Cove and Precinct National Heritage List Assessment Report prepared by Australian Government Department of the Environment, July 2007.
- Tasmanian Heritage Council: Macquarie Point Multipurpose Stadium Project of State Significance – Submission pursuant to section 21(1) of the State Policies and Projects Act 1993.
- The Goods Shed Conservation Management Plan, Macquarie Point Development Corporation, 2021.
- The Peoples' Park: Historical Overview of Queens Domain Hobart - Queens Domain Cultural Heritage Management Plan, Part One, prepared by Ian Terry and Austral Archaeology for Hobart City Council, October 1999.

Appendix 6

Aboriginal Concepts Review, paliti rruni Island Spirit consultancy

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07 November 2024

Macquarie Point Multipurpose Stadium Project – Overview of Aboriginal community cultural heritage addressed in the proposal for the Macquarie Point Multipurpose Stadium Project of State Significance (POSS).

The purpose of this overview is to determine if the process of assessment and Aboriginal community consultation has been adequately addressed in the work completed to date under the development process and methodology as outlined in the: *Macquarie Point Multipurpose Stadium Project of State Significance Assessment Previous Aboriginal Heritage Investigations Report, 17th July 2024.*

The scope of work is to review section 5.1 (Aboriginal cultural values and landscape) and 5.2 (Aboriginal heritage) of the Guidelines. With an aim to review the technical reports outlining if they have adequately addressed the criteria set out in Guidelines 5.1 and 5.2.

The guidelines relevant to this review 5.1 (Aboriginal cultural values and landscape) and 5.2 (Aboriginal heritage) of the Guidelines, listed as DRAFT GUIDELINES Macquarie Point Multipurpose Stadium Project of State Significance and prepared by the Tasmanian Planning Commission for the Macquarie Point Multipurpose Stadium project of State significance in December 2023, are listed here.

5.1 Historical and cultural context

5.1.1 The reports are to provide an ethnohistoric and historical analysis of the project site and broader area. The reports are to include a timeline of traditional/cultural and historic use of and associations with the place and how the area has transformed over time.

5.1.2 The reports are to include discussion and provide information relating to:

- Aboriginal cultural history and the current relationship of aboriginal peoples with the project site and broader area; and
- use and development of the project site and broader area across colonial and post federation periods.

5.1.3 Without limiting the contents of the reports, the following information is to be provided:

- investigation of verbal, material and documentary evidence pertinent to the project site and broader area; and
- plans, graphics and photographs demonstrating the historical timeline of the Macquarie Point site and broader area; and
- plans and details showing how the proposed development respects and responds to the historic and cultural heritage.

5.2 Aboriginal heritage

5.2.1 The reports are to describe:

- the known and potential Aboriginal heritage; and
- measures that will be undertaken so that development which may have adverse effects on the cultural significance of Aboriginal heritage is avoided or managed in an acceptable manner.

5.2.2 The reports are to assess:

- the extent to which the development affects Aboriginal heritage protected under the *Aboriginal Heritage Act 1975*;
- the cultural significance of known and potential Aboriginal heritage within the project site and the degree to which the location and design of proposed development avoid adverse effects to this heritage; and
- how the proposed development will positively contribute to an understanding and appreciation of Aboriginal heritage within the project site.

5.2.3 The assessment may be informed and guided by relevant principles and process outlined in Aboriginal Heritage Standards and Procedures, Aboriginal Heritage Tasmania 2017.

The review is to identify any matters in the technical reports regarding Aboriginal cultural heritage, Aboriginal Cultural landscapes and Aboriginal Cultural values that are not adequately addressed and to make further recommendations to which matters need further consideration.

Review of section 5.1

- **5.1.1 Ethnohistoric and Historical analysis of the project site and broader area:**

The information contained within the technical reports regarding ethnohistorical data is extensive in its nature but not considered culturally adequate. The report provides a comparatively detailed overview of the traditional occupation of the much broader boundaries of the country of the Tasmanian Aboriginal Southeast Nation and associated Aboriginal groups of the southeast nation, however providing only a limited summary of land use practices associated directly within the project boundaries. Some references are made to the observation of Aboriginal people's seasonal movements along with descriptions of cultural materials as observed and recorded during the early 18th century but not directly within the project boundaries. While it is accepted that limited historical records will impact on the results of such research, it is seen as inadequate research if not accompanied by Aboriginal community knowledge and input.

Section 5.1.1 Ethnohistoric and Historical analysis of the project site and broader area, clearly sets out the requirement for outlining the current relationship of Aboriginal people to the site and the broader area. The technical reports do not provide adequate information to define the relationship the contemporary Aboriginal community hold with the project site or the broader area. The Report (Corporation, 2024) p65, p66 Section 2.3.1 provides some insight into the ongoing Aboriginal connection to this landscape: confirming ongoing connections post European occupation of the area and highlighting the significance of the continued Aboriginal occupation, beyond this there is no evidence of an attempt to outline the ongoing Aboriginal connection or significance. This leaves a large gap in the ethnohistorical record of Aboriginal people for the defined area. This also highlights that the requirements of ***Section 5.1.2 point 1***. *Aboriginal cultural history and current relationship of Aboriginal peoples with the project site and broader area; and* ***Section 5.1.2 point 2***. *Use and development of the project site and broader area across colonial and post federation periods,* is not considered adequately addressed in these technical reports.

While the technical reports for the most do meet the requirement of ***Section 5.1.1 Historical and cultural context*** it should be noted that from an Aboriginal community view the reports is not representative of the standards or expectations of Aboriginal community focused research. The Aboriginal community standards and expectations of any ethnohistorical report is to ensure Aboriginal community input and assessment is made of the cultural information. This approach to research is supported by The *AIATSIS Code of Ethics for Aboriginal and Torres Strait Islander Research* (The AIATSIS Code) sets out standards that guide researchers working with Aboriginal and Torres Strait Islander peoples, can be undertaken by meaningful engagement and reciprocity between the researcher and the individuals and/or communities involved in the research.

Tasmanian Aboriginal people hold the view that historical records contain strong cultural bias, the recordings referenced in these reports, were made by non-Aboriginal people and therefore cannot be seen as culturally accurate. The Aboriginal community view in regard to this type of research is that where possible ethnohistorical research should be considered with the cultural bias of the recorder acknowledged and accompanied by the addition of Aboriginal analysis. Without the inclusion of Aboriginal analysis, the research is considered inadequate from an Aboriginal perspective. The risk of excluding Aboriginal analysis is the research is considered non-representative. The technical reports in this review, in their current state, would fall into this category.

While it is accepted that Archaeological research and field work in the area of Aboriginal heritage, in Tasmania, is undertaken in consultation with recognised Aboriginal Heritage Officers, it is not considered the role of the Aboriginal Heritage Officer to undertake detailed ethnohistorical research. The expectation of the Aboriginal community is to have comprehensive research that includes extensive community consultation in order to provide culturally appropriate and authentic historic information. This is particularly supported by the (The AIATSIS Code) AIATSIS Code of Ethics for Aboriginal and Torres Strait Islander Research, Principle 1: Indigenous self-determination, engagement and collaboration and informed consent. The Code of Ethic clearly outlines that engagement, and collaboration is defined by the following sections:

1.5 - At every stage, Aboriginal and Torres Strait Islander research must be founded on a process of meaningful engagement.

1.5 - a. Modes and intensity of engagement should be appropriate to the aim of the research and the priorities and interests of the communities engaged.

1.5 - b. Indigenous peoples may have their own research protocols and processes for reaching decisions about participating in research that should be followed.

1.5 - c. Universities and research sponsors should be open to changing and developing their practices to respond to and accommodate local protocols.

The current process in Tasmania and the process followed as outlined in the technical reports was to seek approvals and authorisations through the *Aboriginal Heritage Act 1975* and associated policy and procedures as determined by the State Government. The only other area that identified an attempt of Aboriginal community input was to provide copies of the reports to various Aboriginal community organisations. No responding comments or feedback is outlined from this processed. This process is not considered meaningful community engagement and is not considered to adequately address the principles of the AIATSIS Code of Ethics for Aboriginal and Torres Strait Islander Research. The definition of the six principles of Aboriginal community engagement as outlined in the AIATSIS 2016 Principles for engagement in projects concerning Aboriginal and Torres Strait Islander people, are not defined in this research report.

What is required: Ethnohistorical research is only considered comprehensive when accompanied by Aboriginal research and meaningful Aboriginal community consultation. Many Aboriginal community family groups hold stories and cultural knowledge of country that is not listed in historical records. The maintaining of cultural knowledge in stories, song and dance associated with both modified and unmodified landscapes is a continued cultural practice not lost in Tasmania. The technical reports do not provide detailed records or descriptions of generational or inherited Aboriginal knowledge. The technical reports rely solely on historical records. While it is acknowledged these records are important elements of the ethnohistorical assessment, alone they form only a non- Aboriginal view. The requirement is to fulfil the Aboriginal community accepted protocols as defined in the AIATSIS C.O.E Principle 1, through community engagement to add the Aboriginal voice to this body of work.

Recommendation: To engage Aboriginal expert /'s in the field of Aboriginal ethnohistoric research and in the process of community engagement. This would provide the Aboriginal community the opportunity to analyse the research in the technical reports and to add an authentic Aboriginal voice to the research presented in the technical reports. The completion of such work could assist to fully inform the proposed development of the site and provide a culturally accepted outcome along with an Aboriginal historic record of the project site and of the historic records of nipaluna / Hobart.

Review of section 5.2 (5.2.1, 5.2.2, 5.2.3)

The reports provide detailed descriptions of Aboriginal heritage material located through the excavation process. Expert analysis has provided further scientific evidence that Aboriginal people were present in the Hobart area during the earliest years of colonisation and more specifically located in the area of the project boundaries.

The findings from the excavation work have provided data to inform, revise and update the *Sensitivity Mapping* of the project area. The report provides a guide to identifying the potential scientific / archaeological features to be present in particular zones and provides a methodology of planning for future development within each zone. Low Archaeological sensitivity, Moderate Archaeological sensitivity, and High Archaeological sensitivity.

The mapping of cultural sensitivity and potential cultural material is an accepted practice in archaeology. However, it is not accepted by the Aboriginal community as an appropriate method to provide protection to Aboriginal heritage. This methodology serves only to protect one element of heritage being physical or tangible objects. The mapping of potential cultural sensitivity serves only to facilitate the permit process under the Aboriginal Heritage Act 1975. The mapping methodology does not provide any necessity for Aboriginal consultation or consideration of Aboriginal cultural or spiritual values associated with the mapped areas.

The findings of the technical reports indicate the tangible Aboriginal heritage to be “disturbed” or “secondary context”. No longer in-situ and therefore no longer associated with the original purpose or context from which it was created. The breakdown of this is very much seen as a means to minimise the significance of the items or material and the association it holds to cultural values.

This is where the Aboriginal view is significantly different from the scientific view. The Aboriginal view is that the items are part of a greater picture or story. The story associated with the material is a direct connection with culture. Aboriginal people will rarely consider cultural material as secondary or disturbed context. Cultural material is always considered as part of the story of culture and country. Terms such as in situ, disturbed, deflated or concealed are considered scientific analysis of objects. Aboriginal connections to story facilitated through the cultural material are not defined by these terms and the connection is not limited by them.

The Tasmanian Aboriginal Heritage Act is well established as inadequate and outdated. All reviews of the act since 1990 have recommended its full replacement. It has been especially criticised by the Tasmanian Aboriginal community and our representative bodies, including the Aboriginal Land Council of Tasmania, for not recognising Aboriginal cultural values associated with connection to country and its broad cultural definition. The definition of Aboriginal heritage given by the Tasmanian government’s Aboriginal heritage unit, is slightly more inclusive and states:

"Aboriginal cultural heritage is the tangible and intangible legacy of Tasmania's Aboriginal people. It refers to those places, objects and traditions that have been passed down to us from past generations. It also includes intangible places where there may be no physical evidence of past cultural activities. These include places of spiritual or ceremonial significance or trade and travel routes." However the policies and procedures as administered by the Aboriginal Heritage Unit do not align with this statement as they are limited by the restraints of the Aboriginal Heritage Act.

The Report fails to acknowledge the significance of the continuation of the story for Aboriginal people, by way of suggesting future management of the cultural material should be assigned to non- Aboriginal management.

The report acknowledges the limitations of the project and that there is potential for unidentified artifacts to remain both within the historical assemblage and within the moderate and high sensitivity zones as mapped out within the project boundaries.

The reports state that "efforts to include the Aboriginal community in the practical stages of the project have provided successful outcomes", No direct evidence derived from the Aboriginal community is included to support such a statement.

The reports are strongly weighed by a scientific approach. The sensitivity mapping and unexpected discovery plan for management of Aboriginal Heritage is not considered to adequately provide provision for Aboriginal community input and therefore not considered an adequate methodology in its current form.

The future management of 6,596 cultural items has been left for the Hobart City Council and the Tasmanian Museum and Art Gallery, in consultation with the Aboriginal community, to determine. This highlights an outcome the Aboriginal community would consider an unacceptable outcome. Conservation, future management, and ongoing care of Aboriginal cultural heritage must be determined as an important part of the permitting process. Tasmanian Aboriginal people have long asserted the right to ownership over our heritage and continuously voice the lack of priority for this within the state legislative framework. Permits issued under the Aboriginal Heritage Act 1975 ignore the community ownership issue and instead choose museums and scientific institution management rights over and above Aboriginal community ownership.

This is not to reflect the failing of the Archaeologist or project proponent but more to highlight the failures of the current legislation and policies and procedures currently used by the state government under the Tasmanian Aboriginal Heritage Act 1975. The archaeological findings undoubtedly contribute to the historic understanding of the site through providing physical and scientific basis. However, this was only achieved through what is considered by the Aboriginal community an intrusive and impactful methodology. The Tasmanian Aboriginal community have long contested the necessity for excavation to provide evidence of Aboriginal occupation or connection.

This review of these technical reports does support the findings of increased understanding of the physical aspects of Aboriginal heritage within the project site. However, the review has also highlighted the lack of community consultation which has led to a failing to provide a better understanding of the cultural values and Aboriginal connection within the project site. The exclusion of Aboriginal cultural values and spiritual connection due to this there is no assessment outcome that can assist to determine if the proposed development will positively contribute to an understanding and appreciation of Aboriginal heritage within the project site.

What is required: For this project to move forward in a culturally appropriate manner it first needs to engage with, support and respect the empowerment of Tasmanian Aboriginal people to manage their heritage. Tasmanian Aboriginal people are relentless in their push for recognition of ownership and control of their heritage. The common community view is that Aboriginal health and wellbeing is deeply interwoven in the connection to country. Wellbeing is derived directly from the ability to be physically on country practicing culture, conserving cultural resources, and protecting cultural landscapes. This process provides community empowerment in the protection of heritage. It needs to be understood that Aboriginal people see heritage as one component of a living culture and for it to be protected, so must all other aspects of cultural landscapes, including the process of practicing culture.

Recommendation:

To achieve a better outcome in this area it is recommended the proponent engages in meaningful Aboriginal community consultation lead by and driven by Aboriginal people.

The The future management of 6,596 cultural items is a priority. Aboriginal community consultation regarding the future management of this material should be undertaken as a matter of urgency.

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Appendix 7

Movement Technical Review, GHD

Macquarie Point Stadium

Movement Technical Review

City of Hobart

11 November 2024

→ **The Power of Commitment**

Project name	Macquarie Point Stadium Technical Reviews					
Document title	Macquarie Point Stadium | Movement Technical Review					
Project number	12653916					
Revision	**Author**	**Reviewer**		**Approved for issue**		
		Name	**Signature**	**Name**	**Signature**	**Date**
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1. Introduction

A proposal by the Crown Right of Tasmania for the development of a multipurpose stadium at Macquarie Point has been declared a Project of State significance. The Project involves assessment of impacts performed in accordance with requirements of guidelines prepared by the Tasmanian Planning Commission. Technical studies have been submitted to estimate degree of influence of the project on the environment and communities that may be affected by construction and operation of this project.

1.1 Purpose of this report

GHD have been commissioned by the City of Hobart to undertake an independent peer review of the reports submitted to address the Tasmanian Planning Commission Guidelines for the Macquarie Point Multipurpose Stadium Project of State Significance. This report specifically addresses Section 6 (Movement) and has been prepared by Jane Tan – Senior Transport Planner, Augustus Luo – Senior Transport Modeller and Brad Scouller – Technical Director, Transport Planning. The report has been reviewed by Roland Cathcart – Senior Technical Director, Transport Modelling, Brad Scouller - Technical Director, Transport Planning, Samantha Chapman – Senior Engineer - Transport Planning & Traffic Engineering and Steven Burgess – Technical Director – Transport Planning & Traffic Engineering.

1.2 Documents considered

The 'Movement' technical review is undertaken based upon Section 6 of the Tasmanian Planning Commission (TPC) Project of State Significance (PoSS) Guidelines, with reference to Chapter 4 of the Macquarie Point Multipurpose Stadium Summary Report and referenced technical documents – primarily Appendix N – *Macquarie Point Multipurpose Stadium Transport Study*. The following documentation has also been considered:

– Appendix A – Architectural Drawings
– Appendix B – Stadium Design Description
– Appendix H – Social and Cultural Analysis Report
– CoH Submission Mac Point Draft Precinct Plan Nov 2023

1.3 Scope and limitations

This report: has been prepared by GHD for the City of Hobart and may only be used and relied on by the City of Hobart for the purpose agreed between GHD and the City of Hobart.

GHD otherwise disclaims responsibility to any person other than the City of Hobart arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report (refer section 1.4 of this report). GHD disclaims liability arising from any of the assumptions being incorrect.

1.4 Assumptions

This document contains GHD's professional opinion based on the assessment of the documents indicated in the submission as relevant to Section 6 the PoSS guidelines. Our review does not consider, nor have visibility of, the scope that was requested of the technical consultant(s) that provided documentation for the submission. Where our review has indicated an omission, shortcoming or discrepancy relating to the suitability of the material

provided, this is to indicate what impacts this may have from the view of City of Hobart and is not an assessment of the scope requested or undertaken.

GHD's technical review is based upon qualified 'professional judgement' and does not include quantified verification of assumptions, calculations, recommendations or the like. For example, re-running of traffic modelling to verify calibration, validation and outputs has not been undertaken.

Identified risks have been provided for consideration by City of Hobart, however they not been rated for likelihood and consequence.

2. Key findings

This section summarises the key overall findings from the transport technical review and aims to provide reader perspective when reviewing GHD's findings and potential risks.

Our review identified three key risks from the documents reviewed:

- **The assessment relies on strategic modelling** which has a limited and often conservative assessment of performance impacts, it is noted that the strategic modelling observes oversaturated conditions
- The recommendations rely on a significant amount of **uncommitted and unfunded projects**, including some which are yet to have feasibility confirmed
- There is not an **assessment of suitability of mitigations of issues identified**, or the potential risk based on assessments not undertaken.

Whilst most requirements were addressed, they weren't to the detail the guidelines prescribed. As such, further detailed investigations will be required to resolve these issues to mitigate operational risks. Some of the key omissions include:

- Event transport strategy
- Traffic / pedestrian management strategy
- Parking management strategy
- Travel demand management strategy
- Assessment of emergency services access and provision due to traffic impacts
- No bus staging/layover for the Northern Access Road interchange

Additional elements not addressed are indicated within the detailed section following.

Key modelling and assessment considerations

In GHD's view, in the absence of operational modelling the assessment did not adequately address several PoSS guideline requirements related to road capacity and congestion and as such, was not sufficient to enable if or what road network changes or improvements would be required to maintain an acceptable level of service for road users.

Further:

- The assessment concludes inbound traffic congestion (based on link saturation levels) would be no worse than a typical base case AM peak (in 2030). However, this assessment does not account for the implications of links operating at or above capacity in both directions during the pre-event peak, with traffic signals most likely operating to favour outbound traffic movement.
- Changes to intersection operation that would be required to facilitate increased pedestrian crossing movements during the pre-event peak are not taken into account.
- The impact on traffic delays and level of service would require operational modelling to be appropriately quantified. This modelling should be undertaken before development of the Final Masterplan to determine if road network changes or improvements would be required to address or minimise traffic disruptions.
- Modelling scenarios did not include sensitivity testing for different mode share distributions, age profile of event spectators, variability in weekday/weekend transport demand and overlapping events.
- Reporting indicates that parts of the network will be exceeding capacity. This may not be an acceptable outcome to CoH.

Reliance on assumptions

The submission relies upon many assumptions and (in some cases) has not undertaken sufficient analysis to verify if these assumptions are viable. Examples of these include:

– That there will be no CBD road diversions during event egress and that traffic and public transport routes will remain unimpacted.
– That people choosing to drive will park in CBD parking garages, not in unrestricted parking areas close to the stadium and around the CBD fringe.
– That there will be sufficient bus fleet, drivers and park 'n' ride spaces to fulfill the forecast demand of the event shuttle buses
– Implementation of other projects such as:
    - That the proposed city-wide bus rapid transit system will be operational
    - That the Northern Access Road will be incorporated into the project scope and that the designed bus plaza has sufficient operational capacity to handle forecast demand
    - That the Collins Street pedestrian bridge will be built (noting planning has identified scenarios for this not being built)

With respect to the reliance on uncommitted and/or unfunded projects, it is noted that mitigation is not considered if any of these projects were not to proceed. For example the assessment does not consider strategies to mitigate demands under scenarios where the Collins Street Bridge is not constructed or not as highly used.

Supporting transport infrastructure and intervention requirements

Under a typical planning process there is a requirement to disclose what transport infrastructure requirements are to be implemented to enable the stadium to proceed, including consideration of timing, cost and who will be responsible for implementing.

The assessment includes a high-level assessment of this, however:

– The traffic modelling undertaken does not provide sufficient detail of the network performance to provide confidence in the assessment recommendations relating to intervention requirements
– There has not been assessment of the effectiveness or 'trip capacity' of the interventions and as such if they appropriately meet the requirements
– The line items included as 'essential' are limited and based on the information provided would not be sufficient in isolation
– Line items rated as 'high' or other priority ratings that are not 'essential' are referred to in other areas of the assessment as being important for the operation of the network to support the stadium and ongoing use of the area (either implicitly or explicitly)

3. Movement technical review

Table 1: Section 6.0 – Movement technical review response table

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
6.1 Travel scenarios and management options				
Clause 6.1.1 The reports are to provide a transport assessment that provides evidence and information on a range of potential travel demand scenarios and travel demand management measures to be implemented and extended/adapted over time to achieve acceptable outcomes for stadium users and the broader transport/movement network. The purpose of the transport assessment is to provide information on the range of strategies and measures that may be required under different demand scenarios to:				
Enable visitors and Tasmanians using the stadium to have an easy, safe, amenable, reliable and convenient door to door travel experience.	✓	⚠	The submission broadly addresses all aspects of a patron's door to door experience, however there are several assumptions and gaps in the submission detail that increases risk at this stage of project development. The key risks are listed as follows: Assumption of rapid transport being implemented and operational That the Northern Access Road (incl. transit facilities) are critical infrastructure, with no commitment to its implementation in scope No strategies or operational plans have been developed for key aspects such as event transport, traffic/pedestrian management, parking and travel demand management Uncertainty regarding implementation of the Collins Street active transport bridge Network traffic assessment indicates key routes to the stadium are predicted to be oversaturated.	The assessment does not quantify or evidence that visitors and Tasmanians using the stadium are enabled to have an easy, safe, amenable, reliable and convenient door to door travel experience. This is due to a number of factors: – The assessment basis (refer Clause 6.1.2) limits the understanding of the network performance, however it is identified that key road routes are forecast to be oversaturated, meaning network access will not be easy, reliable or convenient. – There is reliance on a number of uncommitted and unfunded projects, including some which are yet to have feasibility confirmed – Particular risks raised in subsequent clauses Further detailed investigations in line with the PoSS guidelines are required to 'de-risk' these issues.
Support and encourage active transport.	✓	⚠	Relevant future cycle infrastructure projects that would enhance access to the stadium have been identified. These projects are at various stages of planning and design and as such are not necessarily funded at this stage.	The assessment does not quantify or evidence appropriate level of support and encouragement of active transport. This is due to a number of factors: – The assessment basis (refer Clause 6.1.2) limits the understanding of the network performance, however it is identified

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
			Key precinct requirements (subject to scenarios) and priority projects to support high volumes are included High-level event traffic management measures including road closures during events and travel demand management considerations have been identified While the 2029 cycle network would improve access to the precinct, there are still gaps in the network for cycling to the precinct. Assisting with delivery – further information / quantitative assessment could be undertaken to identify projects to be prioritised that would have the greatest benefit.	that key road routes are forecast to be oversaturated, meaning network access will not be easy, reliable or convenient. – There has not been an integrated assessment of pedestrians with traffic management requirements and impacts of egress period operational traffic conditions – There is reliance on a number of uncommitted and unfunded projects, including some which are yet to have feasibility confirmed. In particular movement of pedestrians during egress relies on the construction and pedestrian use of Collins Street Bridge. – Particular risks raised in relation to gaps/barriers in the network and uncommitted projects may hamper uptake of cycling – Particular risks raised in relation to the requirement for further confidence to be provided for the mode share target to be achieved and active transport to be encouraged Further detailed investigations in line with the PoSS guidelines are required to 'de-risk' these issues.
Minimise the risk of local and regional traffic disturbance before, during and after events.	⚠	⚠	The report includes discussion of the various transport modes which can assist in the distribution of the transport load. No details pertaining to minimising the risk of traffic disturbance, before, during and after events, such as peak and load spreading strategies have been provided.	The assessment has not quantified the level of traffic disturbance that may occur. As such, the resultant level traffic disturbance to local and regional traffic may not be acceptable to CoH.
Manage to an acceptable level any adverse effects to local businesses and residents from traffic, crowds and parking.	⚠	⚠	Some strategies identified to manage traffic and access. A concept local area transport and access plan has been developed to serve as a basis for future management plans. Note – pedestrian modelling is conservative and under these scenarios (egress over 15-minutes), efficiency / safety relies on projects still in planning phase (and not necessarily funded). Some recommendations provided on management of parking near residential areas. Some high-level impacts to local businesses identified however the report notes further engagement required.	The assessment has not quantified the level of traffic disturbance that may occur. As such, the resultant level of any adverse effects to local businesses and residents may not be acceptable to CoH. From the report the following is noted: – Some strategies identified in the broader transport strategy. An event management plan will be needed to ensure minimal adverse impact to local businesses and residents. – Further engagement with stakeholders will be needed to confirm access restrictions to the waterfront i.e. the Evans/Hunter Street link. – Further scenario assessment and mitigation strategies will be needed should projects that are relied upon not be delivered on time.

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
Clause 6.1.2 The reports are to provide an overall framework supported by suitable models and assessment methods that:				
Enable a range of possible travel demand scenarios to be understood from the perspective of the users and the overall transport network.	✓	⚠	4 main scenarios tested for different capacities (24,500 / 31,500), and 40% / 60% private car utilisation. Static precinct pedestrian modelling undertaken Mass transit modes such as buses, event transport and coaches were identified and considered as part of the modelling. No sensitivity testing of variations in the mode split, such as changes in the proportion of active transport and public transport users, has been undertaken. The strategic modelling provides some high-level insights into the impacts of the event demands on the overall transport network. However, it is not the most suitable tool to quantify the true extents of the to the overall transport network and the users as it does not appropriately capture the true extents of the delay impacts between the interaction of pedestrians and vehicular demand.	Lack of sensitivity testing for different mode share distributions between scenarios could result in different network performance / outcomes. The scenarios assessed include an assumed level of mode share that relies on travel demand management to be achieved. Strategic modelling does not provide enough detail or confidence in the level of performance expected to be achieved. The level of performance may not be acceptable to CoH
Enable assessment of the effectiveness of a range of possible solutions including capacity creation, network management and behavioural change.	⚠	✗	Assessment only considers the impact of the additional event traffic on the base case This has been considered for two mode share distribution scenarios Capacity creation has been discussed such as changing mode share splits, however details regarding the feasibility of the implementation is lacking. (E.g. number of buses are required to facilitate the transport task, parking management strategy to achieve the target mode splits) Capacity creation via additional infrastructure such as the Collins Street Active Transport Bridge has been assessed for pedestrian purposes The strategic model is unable to account for the interaction between pedestrian and vehicles	The modelling and assessment methods do not enable assessment of the effectiveness of a range of possible solutions, in particular due to: – The assessment of the various elements of the transport network (vehicular and active transport) are isolated – The actual impacts of the event operations may not be fully captured in the modelling undertaken as the interaction between modes (e.g. vehicle and pedestrians) will likely result in worsening of performance – Strategic modelling does not provide enough detail or confidence in the level of performance expected to be achieved. The level of performance may not be acceptable to CoH

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
Underpin a proposed suite of travel demand measures that can be implemented prior to the stadium commencing operation, as well as extended and adapted over the life of the stadium.	✓	⚠	Travel demand management (TDM) strategies regarding mass/public transport and parking have been identified, however at this level of planning, do not represent a detailed TDM strategy.	As above there are limitations in the detail provided by the modelling. However, it is evident that travel demand management is required based on the modelling undertaken and the target mode shift. TDM Strategy to be developed and evidence appropriate mitigation of risks.
Achieve acceptable public safety outcomes for users of the stadium and all other transport network users; and	✓	⚠	Some safety concerns are flagged along with associated recommendations. Note that some of these recommendations rely on Collins Street Bridge being in place and well utilised during egress. Impacts of pedestrian pinch points and queuing at signalisation has not been fully understood.	The report does not provide evidence of this being assessed or achieved, however in order to do so detailed operational plans or event management plans would be required. It should be noted that such plans would typically not be produced until further design development of the stadium and associated network plans confirmed. No plans or management of how to minimise the likelihood of pedestrian / vehicular interactions have been provided.
Are informed by consideration of relevant transport plans and strategies, at a local and regional level, identified in section 2, including Keeping Hobart Moving - Transport Solutions for Our Future (draft) State of Tasmania Oct 2023 and The Greater Hobart Cycle Plan.	✓	✓	Other relevant transport plans and strategies have been considered and integrated. It is noted that the Inner Hobart Network Operations Plan could have been used to provide assessment of performance against existing operating targets.	Nil
Clause 6.1.3 In preparing the reports, specific consideration is to be given to:				
Modelling and assessing a range of transport scenarios including: A high proportion / P10 use of private cars to travel to the stadium / locality / area, A high proportion / P10 pedestrian movement between the stadium and the Princes Wharf 1 / Salamanca Place area	✓	⚠	Modelling was limited to testing an 'ideal' and 'higher' private car utilisation (40% / 60%) 34% was allocated to the Princes Wharf 1 / Salamanca Place area No further sensitivity analysis of different distributions has been undertaken	Different distributions may lead to different outcomes, other scenarios to be investigated should be considered in order to appropriately cover the likely operating conditions. The assessment undertaken is limited by the two mode share scenarios considered. It is noted that these rely on a significant change to existing mode share proportions.
Travel demand preferences related to local weather events, the time of day/night events are being held, the age profile of event spectators.	⚠	⚠	There will be some standard events (i.e. AFL game) and there also may be ad-hoc events that have vastly different profiles – the fully extent of this and how this has been covered by the assessment is not evident.	Different distributions may lead to different outcomes, other scenarios to be investigated should be considered in order to appropriately cover the likely operating conditions.

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
			– 60% private vehicle utilisation was used as a proxy for a poor weather event – Modelling has only been undertaken on a scenario overlapping the PM peak volumes with the event demand, no other time periods such as weekends have been assessed. – Age profile of event spectators not considered	The suitability of the performance of the event mode largely hinges on the statement that the PM + Event mode is no worse than the AM peak base case. The assessment undertaken is limited by the two mode share scenarios considered. It is noted that – The 60% private vehicle utilisation was used to represent a poor weather event, so this assumes that under typical weather conditions a lower private vehicle utilisation is achieved (representing a more significant change from existing mode share proportions) – Age profile of event spectators and how this impacts the travel demand preferences was not explicitly included – A worst cast event time of day was considered which relies on an assumption that no event ingress/egress would occur during the AM peak period.
The range of uses and activities proposed, which may include major events at different scales, conferences, exhibitions as well as daily activities.	✓	✓	Day to day origin demands and conference demands considered The modelling only considers the PM + Event mode.	Different distributions may lead to different outcomes, other scenarios to be investigated should be considered in order to appropriately cover the likely operating conditions. The suitability of the performance of the event mode largely hinges on the statement that the PM + Event mode is no worse than the AM peak base case.
The higher and lower levels of confidence associated with anticipated mode share changes resulting from travel demand measures.	✓	✗	40% (with travel demand measures) and 60% (without travel demand measures) private car split has been assumed	The assessment does not quantify or evidence that the mode share assumption can be achieved through the travel demand measures.
Assessing travel preferences, management measures and outcomes from a: whole of Hobart's inner/waterfront precinct perspective whole of local/regional transport network perspective	✓	⚠	The Origins study that was undertaken considers the travel preference of various transport modes from a whole of local / regional transport network perspective for Hobart. However, the management measures and the feasibility of implementation to achieve the desired mode share has not been undertaken in great detail (e.g. whether the public transport fleet is capable of handling the event demand). The strategic modelling that was undertaken provides some insight into the likely outcome of the transport network which shows that several key links will be oversaturated.	Management measures and the feasibility of implementation to achieve the desired mode share has not been undertaken in great detail (e.g. whether the public transport fleet is capable of handling the event demand).

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
			The pedestrian modelling discusses the likely travel preferences of pedestrians through the Hobart inner / waterfront precinct perspective. Similarly, the management measures and feasibility of implementation has not been discussed in great detail.	
Providing an acceptable level of resilience in the transport network across transport services to enable atypical travel/movement circumstances to be managed.	⚠	⚠	The oversaturation of the network under event scenarios are identified, however the network resilience is not assessed. Strategic models are not the most suitable tool to assess the network resilience across the transport network especially with atypical travel / movements such as road closures.	This assessment doesn't quantify traffic delays and level of service under event conditions and therefore the need for targeted road network changes/improvements was not adequately assessed. Strategic modelling results indicate the network would be oversaturated under event scenarios in the PM peak, but the assessment doesn't quantify the predicted traffic delays or level of service. There is a risk that traffic performance will not be acceptable to CoH. – The assessment basis (refer Clause 6.1.2) limits the understanding of the network performance; however it is identified that key road routes are forecast to be oversaturated, meaning network access will not be easy, reliable or convenient.
Establishing systems that enable travel outcomes to be monitored and evaluated over the lifetime of the stadium and for travel demand measures to be adapted and extend overtime.	✓	✓	High level monitoring and reporting plan provided which is adequate for this stage of the project.	Nil
Where the proposed use includes the potential for events to be held during or overlapping with peak weekday/weekend travel patterns, the options and strategies are to assess this period as a base scenario.	✓	⚠	Modelling considers overlapping of event demands with PM peak travel Report indicates that the peak inbound traffic during the AM period is 4,000 vph across the Tasman Highway. It also notes that 4,000 vph is observed in each direction during the weekends (indicating demands greater than the AM peak) However, no further analysis undertaken for the weekend period (e.g. weekend midday event)	A combination of a weekend traffic peak and weekend midday event may result in higher traffic demands than what has been considered in the report, however it is noted limited detail on weekend profiles is provided. Weekend travel mode split could be vastly different due to a weekday peak, which could result in a higher private vehicle mode share. The suitability of the performance of the event mode largely hinges on the statement that the PM + Event mode is no worse than the AM peak base case.
6.2 Traffic, freight and transport routes				
Clause 6.2.1 The reports are to discuss how the use of the stadium relates to and affects:				

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
The land transport task and function of roads in the locality and broader area as well as the operation of the Port of Hobart.	✓	⚠	Addresses the build-up of the stadium transport task and identifies projects and how they impact the transport task for the stadium Northern access road identified as a key link for shared used between Port operations and for event traffic management Identified potential overlaps of cruise terminal and stadium events and provided some high-level discussions on ways to manage this. Discussion on the interaction of the Port and stadium operations are largely high level in nature and is not considered in the modelling	The assessment doesn't quantify the predicted traffic delays or level of service. There is a risk that traffic performance will not be acceptable to CoH.
The current and estimated (with/without the proposed project) traffic volumes and levels of services of roads in the area and specifically the risk of and timeframes associated with periods of saturation and congestion.	✓	⚠	High level strategic modelling undertaken which demonstrates traffic volumes and levels of service (based on volume/capacity ratio). Strategic modelling does not consider delay level of service such as intersection impacts. Modelling considers overlapping of event demands with PM peak travel and as such the timeframes are only considered through this assumption.	Strategic modelling is limited in the detail in can provide in related to delays anticipated and as such understanding not provided for the level of performance. Reporting indicates that parts of the network will be exceeding capacity. This may not be an acceptable outcome to CoH
Periods of congestion/saturation on roads in the locality of the stadium as well as the broader road network effects.	✓	⚠	High level strategic modelling undertaken which demonstrates parts of the network would be oversaturated (even in base case conditions). The strategic model that has been produced for this report is not suitable to capture the full extents of the potential congestion and saturation impacts to the broader road network. In addition, the strategic model is not able to capture the interactions between pedestrians and vehicular traffic such as increased phase times/ cycle times at intersections.	Strategic modelling is limited in the detail in can provide in related to delays anticipated and as such understanding not provided for the level of performance. The level of performance may not be acceptable to CoH. Impacts to the road network because of the congestion / saturation may be higher than reported as only strategic level modelling was undertaken.
Clause 6.2.2				

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
The reports are to assess the:				
Road network changes/improvements and the other management interventions required to maintain the function, level of service and safety of major roads and the broader network.	✓	✗	Identifies the need for higher non-private vehicle transport and considers the pedestrian level of service. Identifies active transport improvements to improve pedestrian safety (Collins Street Bridge). Road network assessment concludes no road network changes/improvements are required ('essential'); however this is based on a high-level assessment using strategic model outputs. It should also be noted that impacts to emergency services and road safety are not included as per Clause 6.2.3. Management of parking and to achieve mode share is not sufficiently provided.	The assessment basis (refer Clause 6.1.2, 6.1.3) limits the understanding of the network performance, however it is identified that key road routes are forecast to be oversaturated. As such network changes and management interventions are considered to be required however the extent and effectiveness is not quantified. The travel demand management identified is considered to likely not be extensive enough to appropriately meet the potential risks. A number of strategies have not been prepared that would be required to appropriately mitigate, including: - Event transport strategy - Traffic / pedestrian management strategy - Parking management strategy - Travel demand management strategy - Bus staging/layover for the Northern Access Road interchange *Note: There is reliance on a number of uncommitted and unfunded projects, including some which are yet to have feasibility confirmed*
Clause 6.2.3 In preparing the reports, specific consideration is to be given to:				
Estimated changes in traffic volumes and characteristics over the operating life of the stadium.	⚠	⚠	Sensitivity has been done for a 2050 background volume, no variations to the mode share split has been tested Base network is already congested at major chokepoints such as Tasman Bridge and Brooker Highway, so the 2050 performance is similar to that of 2030.	Potential for further changes in mode split over the operating life of the stadium which can lead to different impacts on the road network which are not understood.
Continued access to the Port of Hobart via Evans Street and any new proposed freight access route.	✓	✓	Provided	*Note this assessment relies on other projects: there is ongoing planning of the Northern Access Road*
The heavy vehicle volume and types associated with transport to/from the Port of Hobart and any effect vehicles accessing the Tasman Highway or Brooker Highway has for congestion and the risk of crashes.	⚠	⚠	Heavy vehicle volume / types and port operations investigated No consideration for the congestion impact of risk of crashes identified with new access	New port access may result in an increase in crash frequency of crash severity

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
The proposed and likely timeframes associated with events at the stadium and how the transport task associated with these timeframes relates to current and forecast traffic on the road network.	✓	⚠	No consideration for weekend events Weekend demand profiles are different to weekdays, impacts to the road network could be drastically different to what has been reported for the weekday. This is especially relevant as the report states that the weekend peak traffic along a key link (Tasman Highway) is as high as the weekday AM / PM peaks	Weekend transport task may be vastly different to the weekday evening stadium use and impacts may not be fully understood. The assessment basis (refer Clause 6.1.2, 6.1.3) limits the understanding of the network performance, however it is identified that key road routes are forecast to be oversaturated. The suitability of the performance of the event mode largely hinges on the statement that the PM + Event mode is no worse than the AM peak base case.
The traffic characteristics and specific events that currently, or are forecast to, lead to low level of service on the road network and how this relates to the transport tasks scenarios or traffic related events during use of the stadium.	⚠	⚠	Reporting only considers the 2030 base case as the only other “non-stadium” event 2030 base case performance is already exceeding capacity of key routes into the CBD even without the use of the stadium The pedestrian demand modelling only considers the egress from the event, no consideration for the background pedestrian demand on the network.	Strategic modelling is limited in the detail in can provide in related to delays anticipated and as such understanding not provided for the level of performance. The level of performance may not be acceptable to CoH. It should also be noted that the 2030 base case performance may not be acceptable by the CoH Background pedestrian demand will further contribute to chokepoints identified in the active transport network.
The potential for and effects of traffic congestion resulting from use of the stadium on the provision of emergency services in Hobart area.	✗	✗	No consideration for potential impact of congestion on the provision of emergency services	Significant delays to emergency service access in the Hobart area may occur because of the stadium
The history of vehicle crashes in the locality and the need to avoid and otherwise minimise the number and severity of crashes, where possible.	✗	✗	Vehicle crash review not provided as part of Transport Study Report	The new stadium may worsen an existing blackspot and worsen the road safety of the Hobart transport network.
Clause 6.2.4 The reports are to provide plans, maps and graphs that show:				
The function and characteristics of the land transport network both generally and during periods of low level of service, and how these characteristics change under a range of transport scenarios or traffic related risks associated with the stadium.	⚠	⚠	The assessment demonstrates high level impacts to the road network under stadium event modes The modelling that has been undertaken is strategic in nature which only provides a high-level picture of the impacts to the road network	Strategic modelling is limited in the detail in can provide in related to delays anticipated and as such understanding not provided for the level of performance. The level of performance may not be acceptable to CoH.

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
			Strategic models are unable to capture the likely traffic interactions between vehicle and pedestrians under an event mode Resilience of the road network is also unable to be assessed during periods of low level of service	
The characteristics of the land transport freight task and proposed network associated with the Port of Hobart and how these changes affect the broader network.	⚠	⚠	Characteristics of land transport freight task considered. No discussion on the impact and how it will affect the broader network.	Impacts to the broader network because of the Port of Hobart not fully understood.
The land transport task and characteristics associated with proposed mass transit services and how this may affect the broader transport network.	⚠	⚠	Maps and plans are broadly included across ferry, existing bus network, future proposed rapid bus and ferry, demonstrating the future networks. High-level concept event bus routes have been developed.	Discussion is included however the assessment does not quantify the task relating to mass transit services. In particular this does not resolve: – If there is sufficient bus fleet to meet demand – If there are sufficient services proposed to meet demand – If there is sufficient availability of drivers to meet demand. – If park 'n' ride has appropriate capacity to service the routes and provide adequate connectivity / catchment. – If business-as-usual (BAU) services and infrastructure (passenger queuing space, bus bays) at the Hobart City Bus Interchange can accommodate additional event demand. – Consideration to if the Rapid Bus network will be implemented prior to the first event and the impacts if this does not occur or requirements for other interventions such as event buses and road network priority
The location and type of proposed road network change/improvement and management interventions.	✓	⚠	Report considers supporting and enabling projects; however, no map is provided	The assessment basis (refer Clause 6.1.2, 6.1.3) limits the understanding of the network performance, however it is identified that key road routes are forecast to be oversaturated, meaning network access will not be easy, reliable or convenient. It is noted that the performance of the transport network exceeds the capacity even with the proposed interventions If the interventions aren't implemented, the network performance could be worse than what is reported. There is reliance on a number of uncommitted and unfunded projects, including some which are yet to have feasibility confirmed. The assessment does not quantify or evidence the mode share target to be achieved through the interventions noted as 'essential'.

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
6.3 Access: mass/public transport, car use and parking				
Clause 6.3.1 The reports are to discuss and provide information on issues, effects and user preferences associated with people choosing to use mass/public transport rather than cars (private cars/ride share) to travel to the stadium/locality for events. Based on this, the reports are to provide evidence-based strategies for:				
Achieving a planned mass/public transport versus car mode share.	⚠	✕	Mode split is in favour of public / mass transport (at 31% bus trips, 2% ferry trips, 2% coach/charter bus trips) 30% drive (incl. park 'n' ride, pick up / drop off). Future stretch target of 70% (active and public transport) Report identifies that rapid bus is the backbone for ingress/egress events but also states that it is supplementary during ingress/egress (assuming that this means supplementary to the existing bus network). It also does not include the rapid bus as 'essential'. Event buses are also assumed to use associated transit lanes / bus priority for some sections of their route. Report acknowledges that the proposed Rapid Bus is in the planning phase and that Stage 1 is assumed to be in place. The staging of Rapid Bus is unclear in the document (noting that this information is captured in *Keeping Hobart Moving*). It is noted that there are uncertainties and assumptions associated with Rapid Bus given it is in the planning phase.	The report does not provide sufficient evidence that the planned mode share can be met. There is not assessment of the travel demand management provided however it is considered that if only the interventions identified in the report as 'essential' are provided that this is likely insufficient. Management of parking is not covered to appropriate detail to provide confidence in mode share being achieved. *Note: The achievement of mode share would rely on a number of unfunded projects, including the rapid bus network.* *As identified in Clause 6.2.4 the following are not resolved through the assessment:* – If there is sufficient bus fleet to meet demand – If there are sufficient services proposed to meet demand – If there is sufficient availability of drivers to meet demand. – If park 'n' ride has appropriate capacity to service the routes and provide adequate connectivity / catchment. – If business-as-usual (BAU) services and infrastructure (passenger queuing space, bus bays) at the Hobart City Bus Interchange can accommodate additional event demand. – Consideration to if the Rapid Bus network will be implemented prior to the first event and the impacts if this does not occur or requirements for other interventions such as event buses and road network priority
Managing the provision and use of car parking in the broader area to achieve transport outcomes.	✓	⚠	Assumes 22% of trips will result in a parking trip-end Sufficient parking opportunities identified within the surrounding of the stadium between large-scale commercial car parks, off-street employee car parks or off-street private car parks. High-level discussions on managing the parking demand are provided in the parking memo	No detailed parking demand management strategy has been provided. The report identifies there is ample parking available within a 1.2km catchment to the stadium. However, without a clear management strategy, private car use may become more preferred than the target mode share. The report does not provide sufficient evidence that the planned mode share can be met. There is not assessment of the travel demand management provided however it is considered that if only the interventions identified in the report as 'essential' are provided that this is likely insufficient.

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
			Parking capacity is identified as not being a concern for the study area, however no discussions on how to implement a parking strategy to reduce the private car mode split.	
Clause 6.3.2 The reports are to provide an assessment of the issues and options associated with:				
People accessing the stadium/locality and outline.	✓	✗	High-level cycle access, walk access is covered. Infrastructure to support this has been recommended.	As described relevant to the specific sub-clauses below the assessment does not quantify or evidence that issues and options associated with people accessing the stadium / locality are resolved. *Note: The safety, efficiency of the network relies on a number of unfunded projects, including reconfiguration of Hunter Street car park, footpath expansions.*
The maximum extent, location and design of mass/public transport services and infrastructure (including park and ride) required to achieve planned usage levels with a high degree of confidence.	✓	✗	Identifies the role of mass/public transport, assuming 33% of mode share across local, rapid and event buses, and ferries. No analysis to determine if existing/proposed event patronage uplift can be accommodated on existing/proposed services. No analysis of park 'n' ride supply with respect to the forecast demand of 7,729 passengers using Event Buses. Report notes new park 'n' ride infrastructure at key locations but does not elaborate on this, requires clarification. No analysis of the Bus Plaza to determine if sufficient bus capacity is provisioned. No bus staging area identified.	The report does not provide sufficient evidence that the planned mode share can be met. Without the analysis undertaken there is not confirmation that there is sufficient bus fleet, services proposed and/or availability of drivers to meet demand. Park 'n' ride supply is in shortfall to accommodate the forecast Event Bus demand. Temporary park 'n' ride locations could be identified to further support the mode share or as contingency should additional supply be needed. There is no analysis provided to identify the required demand for the Bus plaza, and therefore it is not clear if it can meet to meet forecast demand.
Strategies to achieve the majority of people accessing the stadium/locality by mass/public transport services.	✓	⚠	Travel demand management (TDM) strategies regarding mass/public transport and parking have been identified, however at this level of planning, do not represent a comprehensive TDM strategy nor mitigate the potential risks.	There is not sufficient network understanding in the report to comment on the appropriateness of the high-level travel demand management indicated, however there is significant risk that the strategies are insufficient. The assessment basis (refer Clause 6.1.2) limits the understanding of the network performance, however it is identified that key road routes are forecast to be oversaturated. Table 8.2 of the report notes a number of interventions as 'essential', it is not evidenced that these interventions alone would appropriately achieve the desired access or mode share.

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
				Note: The safety, efficiency of the network relies on a number of unfunded projects, including bus rapid transit corridor, pedestrian and cycling routes.
Strategies to manage the capacity and use of metered, multistorey, off-street and on-street car parking and how this will be managed around events.	⚠	✕	Some recommendations on how to manage various car parking demand has been identified, however no high-level parking strategy has been identified It is assumed that there will be ample capacity available throughout the CBD, issues related to oversupply have not been considered. A strategy will be needed to promote the target mode share split, otherwise private car usage may become the more attractive option if parking is too accessible.	Parking strategies have not been identified. Based on the information in the report insufficient strategies to manage parking both operationally and in terms of oversupply are provided. No detailed parking demand management strategy has been provided. The report identifies there is ample parking available within a 1.2km catchment to the stadium. However, without a clear management strategy, private car use may become more preferred than the target mode share.
Strategies for the provision of drop off/pick up areas generally, and arrangements and infrastructure for people with specific access needs.	✓	⚠	Drop off / pick up arrangements have been identified for some transport modes such as event bus and coaches, it is noted this does not yet cover detail of which services would access these facilities. Disability group access has been identified via the event bus plaza A kerbside taxi zone is proposed for Evans Street outside the stadium No consideration for private vehicle drop-off and pick up (under event operations)	Kerbside taxi zone is proposed for Evans Street which may create issues with this provision being too close to the stadium and as such potentially impacting mode share target, pedestrian safety and traffic flow.
Where the proposed use includes the potential for events to be held during or overlapping with peak weekday/weekend travel patterns, the options and strategies are to assess this period as a base scenario.	⚠	⚠	Events at Queens Domain are identified to potentially coincide with stadium events, but strategies are not investigated in detail. Domain events may have a higher private car mode share than stadium events. The strategic models assess an overlap of the PM peak period and the event transport task, with different mode share targets (40% and 60% PV) No modelling for other scenarios such as weekend travel patterns have been undertaken.	Different distributions may lead to different outcomes, other scenarios to be investigated should be considered in order to appropriately cover the likely operating conditions. The suitability of the performance of the event mode largely hinges on the statement that the PM + Event mode is no worse than the AM peak base case. The report has considered the event case as the “options” scenario, and not as a “base” scenario The assessment has not considered the potential for non-stadium events that overlap to have much higher share of private vehicles There may be other variations or scenarios which may result in different types of impacts to the local road network

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
Clause 6.3.3 In preparing the reports, specific consideration is to be given to:				
The alignment of public/mass transport and parking strategies with the information and outcomes of related travel demand management and transport assessment processes.	⚠	✗	Identifies a list of strategies and recommendations typically considered for managing demand Strategies for the management of cycle access included Travel demand management (TDM) strategies regarding mass/public transport and parking have been identified, however at this level of planning, do not represent a comprehensive TDM strategy. Assessment/stakeholder engagement to inform feasibility of some strategies is unclear	The assessment does not demonstrate alignment of or interaction between the transport assessments and modelling, travel demand management strategy (not provided in detail), car parking strategies (not provided) and public/mass transport strategies. Parking strategies have not been identified. Based on the information in the report insufficient strategies to manage parking are provided. The report identifies there is ample parking available within a 1.2km catchment to the stadium. However, without a clear management strategy, private car use may become more preferred than the target mode share. Travel demand management outcomes not considered or assessed. There is not sufficient network understanding in the report to comment on the appropriateness of the high-level travel demand management indicated, however there is significant risk that the strategies are insufficient. There is no consideration to risks if proposed projects not in place, i.e. should rapid bus not be in place by stadium opening, consideration is required to if local and event buses accommodate the shift in demand. This includes infrastructure (bus stop capacity, layovers, bus fleet) to accommodate the additional services.
The need to ensure plans and redesign for mass/public transport fit with the need to provide pedestrians with safe, amenable, convenient pathways and platforms.	✓	⚠	Current planning assumes existing/proposed public/mass transit routes remain upon existing routes that traverse past the stadium (i.e. Davey Street). Route diversions may reduce delays for bus passengers and improve safety for pedestrians.	The plan requires the event buses, in particular those heading south, are required to cross a key pedestrian route. As such there is conflict between mass/public transport and pedestrians, causing delays for transit services and safety risk for pedestrians.
The capacity of the existing mass/public transport system.	⚠	⚠	Identifies available bus routes, but does not identify capacity i.e. seats available, available capacity	Without the analysis undertaken there is not confirmation that there is sufficient bus fleet and/or availability of drivers to meet demand.
The capacity for plans and strategies for mass/public transport movement to be altered or extended based on experience and evaluation.	✓	✓	The Transport Study represents early-stage project planning. It provides a foundation for further detailed design and operational planning as the project develops.	Based on the level of planning undertaken at this stage there is not detail that quantifies or limits the plans or strategies for mass/public transport. As such this hasn't been explicitly addressed, however no additional risks to those highlighted in Clause 6.2.4 are noted.
Clause 6.3.4 The reports are provide maps, plans and graphics that describe and show:				

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
The home catchments, key transport routes, modes and vehicle numbers associated with people travelling to/from the stadium/locality.	✓	✓	Provided	Nil
The mass/public transport (coaches, buses, ferries) fleet, capacity and key routes during peak movement periods.	⚠	⚠	No analysis undertaken to determine mass/public transport fleet requirements. With exception of the Event Bus routes, the report makes no mention of mass/public transport routes during events. Route diversions may be necessary to avoid high pedestrian activity zones or – particularly close to event start and egress periods. This is not documented.	Without the analysis undertaken there is not confirmation that there is sufficient bus fleet and/or availability of drivers to meet demand. Without considerations to route diversions it is not understood where mass/public transport routes are compromised by traffic congestion and/or high pedestrian conflicts.
The potential and planned capacity for car parking (metered, multi-storey, off-street and onstreet) to be used around event periods within a 30-minute walking distance of the stadium.	✓	✓	Provided	No detailed parking demand management strategy has been provided. The report identifies there is ample parking available within a 1.2km catchment to the stadium. However, without a clear management strategy, private car use may become more preferred than the target mode share. There is discussion that the car parking capacity likely exceeds demand and this appears to be an appropriate assessment. Further details on operationalising this would need to occur during more detailed planning.
The detailed design of: Mass/public transport infrastructure to be used during peak periods; and Infrastructure/arrangements for general drop off/pick up locations and for people with specific access needs.	✓	⚠	The bus plaza has been designed upon a concave curve, meaning rear sight visibility of approaching vehicles is compromised. No on-plan definition of transit operations and passenger queuing capacity/infrastructure is provided. No weather protection is proposed at the bus plaza. Queens Domain was identified of bus staging (layover) however, no operational considerations provided– this is particularly needed for crowd egress mode.	Risk of rear-end collisions due to poor rear sight visibility of approaching vehicles. No spatial identification of passenger queuing storage – risk of space provision being insufficient. Lack of weather protection may discourage public transport usage during adverse weather. On egress mode, buses will need to queue en-masse to ensure swift arrival of empty buses after full buses depart. Consideration to access management of the bus plaza and which services will use this facility has not been identified.
6.4 Pedestrian / cycling movement				
Clause 6.4.1 The reports are to:				

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
Discuss the characteristics of the use of the stadium and associated pedestrian, cycling and other non-motorised movement.	✓	✓	Precinct pedestrian modelling has been undertaken (separate to stadium modelling that informs stadium design). Mode share discussed with 25% to walking, cycling and micromobility. Cycle infrastructure that would facilitate improved connections to the stadium are recommended. Dismount is required when entering the stadium precinct during events to avoid conflicts between people walking and riding. Bicycle parking located at select locations (eastern end of Evans Street, near the landing of the proposed Collins Street bridge on the eastern side, on Hunter Street). Monitored temporary parking measures are also discussed (at the Cenotaph) Report notes that if required, large numbers of bicycle parking would be facilitated by temporary parking for events of 23,000 and above.	Characteristics are discussed. However, note that the assessment assumes that there will be a safe, connected network in place. The assessment could consider a prioritisation of cycle routes (overlayed with population/demand) that would be most beneficial to facilitate cycling. This may be beneficial for Council to understand.
Discuss and present information on the origins/destinations, paths, volumes and networks associated with pedestrian and cycle movement.	✓	✓	Pedestrian modelling undertaken. Key recommendations are provided based on the scenario (with and without infrastructure such as Collins Street Bridge) Walking origins, based on the 2021 Census data, undertaken – justified based on memberships sales. For note, the report identifies opportunity to identify if any postcodes have seen an increase in memberships. Noted that a fair amount of demand is assigned to Collins Street Bridge which is subject to feasibility assessments and funding (approximately 30% based on exit points).	A discussion on different distributions is included however it should be noted that these may lead to different results. The assessment does not consider strategies to mitigate demands under scenarios where Collins Street Bridge is not constructed or not as highly used along with e.g. temporary closure of Davey Street.
The associated planning, infrastructure provision and management issues are to be discussed, with consideration given to how these issues change	✓	⚠	Day-to-day operations / modes shares are discussed Modelling has considered scenarios with increased private vehicle mode share that is used as a proxy for bad weather.	The assessment basis (refer Clause 6.1.2, 6.1.3) limits the understanding of the network performance, however it is identified that key road routes are forecast to be oversaturated.

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
depending on factors such as time of day, prevailing weather conditions and the age and composition of users.			Walk, bicycle, public transport, car through and within the precinct, during an event and during non-events, is identified along with challenges and opportunities. Level of cycling confidence is discussed, along with an assessment that utilises catchment mapping census data.	
Clause 6.4.2 The reports are to assess:				
The physical connections and improvements and management arrangements with surrounding land and road owners, required for pedestrians and cyclists to have safe, visible, amenable, direct and convenient routes when moving to and from the stadium and surrounding area.	✓	⚠	Connections and improvements for cyclists and pedestrians, are assessed and documented. The report flags that the urban realm outside of the footprint will need to be "significantly uplifted" to accommodate the movements. The report flags that ownership details should be undertaken to support and enable further planning. Pedestrian modelling represents a 15-minute egress scenario which is considered conservative. Davey Street will see high volumes of pedestrian movement, alongside live traffic. There is a line in the conclusion of the Appendix G that notes the temporary closure of Davey Street during peak pedestrian movements. At this stage of the project - this hasn't been modelled or considered further in the body of the report. (noting that Davey Street is a key road link). An acceptable pedestrian Level of Service (LoS) on Davey Street is highly reliant on the proposed and unfunded Collins Street Bridge (there are still sections of LoS E and F with the bridge)	The assessment assumes that there will be a safe, connected network in place and does not identify any additional projects to be required as essential. Noting that the modelling provides a conservative assessment of egress occurring within 15-minutes, see below potential risks that mitigation is not provided for: – Safety risks associated with walking alongside traffic on Davey Street and the crossing of Davey Street during post-event egress. – Pedestrian modelling suggests queuing at the signalised crossing on the eastern side of Davey Street at the Davey Street / Campbell Street intersection. There is a risk that that pedestrians will try to cross upstream of the crossing point, navigating between cars. Mitigation measures to be explored (such as treatment on Elizabeth Street). – With high pedestrian egress, potential that event buses, other event car parking may be locked in until congestion clears. *Note: The safety, efficiency of the network relies on a number of unfunded projects, including pedestrian and cycling routes.*
The pedestrian network and standing/queuing area requirements associated with peak use of mass transport services.	✓	⚠	Queuing space is incorporated into pedestrian modelling. Some temporary measures to facilitate mass movements of people walking are identified. Unclear if pedestrian volumes at the Hobart Bus City Interchange, including those	It is not evidenced that there are sufficient standing/ queuing area requirements at all public transport required locations given the level of assessment undertaken. Modelling undertaken in isolation does not provide an appropriate understanding of how the pedestrians movement and arterial traffic flow interact, in particular if there will be additional queuing impacts due to changes made to accommodate other modes.

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
			waiting and those passing through, can be safely accommodated.	Pedestrian modelling suggests queuing at the signalised crossing on the eastern side of Davey Street at the Davey Street / Campbell Street intersection. There is a risk that that pedestrians will try to cross upstream of the crossing point, navigating between cars. The assessment would benefit from testing the resilience of the network such as signal adjustments to facilitate pedestrian loads.
A range of pedestrian movement scenarios including the peak movement of people to initial destinations in the Salamanca and central city areas.	✓	✓	Movement toward Salamanca is considered – the link along Franklin Wharf, just past Elizabeth Street Pier is included in pedestrian modelling. Wharf and Salamanca, and the CBD is identified as an attractor/destination	Nil
The level of security of proposed bicycle parking infrastructure and number of bicycle bays to be accommodated.	✓	⚠	120 permanent bike hoops are recommended throughout the precinct. This is proposed to be supplemented by secure temporary bike parking, up to around 400 bicycles. Examples that were noted in the report include the use of “temporary fencing, crowd control barriers or other systems”. Monitoring of demand is recommended. End of trip facilities are proposed to be located within the stadium precinct.	Unclear where around the Cenotaph that temporary secure parking for up to 400 bicycles is proposed to be located. Consideration if the temporary infrastructure provided on grassed land will appropriately meet user needs and achieve target mode share.
Pedestrian/cycle conflict and crash risks and interventions.	✓	✓	Strategies to avoid pedestrian / cycle conflict have been recommended.	Nil
Clause 6.4.3 In preparing the reports, specific consideration is to be given to:				
Maintaining the function and traffic flow of major arterial roads in the area during periods of high pedestrian use.	⚠	⚠	Modelling only considers the independent impacts of the transport modes. E.g. effects of vehicle trips on the road network, and the effects of pedestrian trips on the active transport network No consideration on the likely interactions between the two transport modes have been provided (limitation in the form of modelling chosen for this project). Strategic modelling doesn’t quantify the predicted traffic delays or level of service.	Modelling undertaken in isolation does not provide an appropriate understanding of how the pedestrians movement and arterial traffic flow interact. Strategic modelling does not provide enough detail or confidence in the level of performance expected to be achieved. The level of performance may not be acceptable to CoH

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
The need for plans and management of pedestrian networks to where possible avoid and otherwise minimise the likelihood of near misses or crashes between vehicles and pedestrians/cyclists, and to minimise pedestrian/cyclist conflicts.	⚠	⚠	The report identifies areas of extreme crowding following the egress from an event	Modelling undertaken in isolation does not provide an appropriate understanding of how the pedestrians movement and arterial traffic flow interact. It is expected that more detailed assessment will inform event management plans and operational plans which will indicate if risks are appropriately managed. Risk to active transport users may not be fully understood and subsequently mitigated
Any effect periods of high pedestrian use have on operation of wharf and port activities, tourist activities, parking and cycle paths in and around Sullivans Cove.	✓	✓	Some impacts to the wharf and port activities identified Safety issues related to high pedestrian movements identified namely vehicle restrictions, vehicles held until peak crowd volumes reduce. Dock swing bridges (Victoria Dock bridge, Constitution Dock bridge) proposed to remain in fixed position for pedestrian safety. Vessels proposed to seek alternative docking area A recommendation of the extension of no traffic area on Franklin Wharf, Davey Street Proposed primary access point for TasPorts vehicles is the Northern Access Road – this will enable Evans Street to be redesigned for improved streetscaping.	*Note this assessment relies on other projects: there is ongoing planning of the Northern Access Road including active transport infrastructure.*
A range of potential techniques to manage flow, volume and direction of pedestrian movement before and after events.	✓	✓	A number of techniques are identified in line with the assessment provided: Noted that 'measures to slow down egress from the stadium to be investigated.' Different routes for accessing the CBD identified/modelled. Phasing of lights noted to regulate flow	*Note: this relies on the appropriateness of the modelling assessment*
The integration of pedestrian and cycling routes within the landscape and built form proposal.	✓	⚠	Consideration is given to this integration including: Cycle routes consider the 2029 network. Dismount zones proposed around the Stadium precinct to improve safety (reduce conflicts between cyclists and pedestrians)	*Note: The safety, efficiency of the network relies on a number of unfunded projects, including pedestrian and cycling routes.*

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
			Identification of key paths / areas that will be required for crowd pedestrian flows. Report notes that cycling infrastructure in Hobart is limited – key projects that will improve connections have been listed.	
The potential for risky/antisocial behaviour before and after events and the effect this has on movement and safety.	✗	✗	No discussion on risky/antisocial behaviour and the impact to movement and safety within the report. Assessment is related to safe pedestrian crowd movement.	Incidences related antisocial behaviour are not fully understood. The assessment would benefit with a review of crowd management. Mass crowds, long queues and extended wait times for buses, taxis, as well as alcohol consumption can trigger anti-social behaviour.
Whether there is an opportunity to create a pedestrian route between Evans and Hunter Streets on Crown land used by the University of Tasmania.	✓	✓	A route between Evans and Hunter Streets is identified to be critical to the event transport strategy. Opportunity to create a pedestrian connection through the University of Tasmania building has been identified, noting this is associated with the UTAS Southern Campus Transformation project/masterplan. The assessment identifies the opportunity to convert the University of Tasmania car park at the eastern end of Evans Street, to alternate uses to improve the urban realm and better integrate with the stadium (Pocket Park).	Confirmation of these opportunities is needed (also noted in Chapter 8.2).
Physical restrictions and pinch/congestion points such as pedestrians waiting to cross at controlled intersections and the shared pedestrian and cycleway on Davey Street/Tasman Highway.	✓	⚠	The modelling has been undertaken in isolation of required operational changes and other modes which may mean some issues are not identified.	Pedestrian modelling suggests queuing at the signalised crossing on the eastern side of Davey Street at the Davey Street / Campbell Street intersection. There is a risk that that pedestrians will try to cross upstream of the crossing point, navigating between cars. Without an understanding of the impacts of changes required for other modes the understanding of the pedestrian risk locations is limited.
Clause 6.4.4 Without limiting the content of the reports, the reports are to provide plans, maps and graphs that show:				
Peak pedestrian movement networks, origins/destinations, preferred desire lines, volumes, level of service/comfort and congestion/risk locations.	✓	⚠	The pedestrian modelling demonstrates several scenarios for different events and with/without the Collins Street pedestrian bridge. These are visually mapped, identifying Level of Service for all links. The modelling has been undertaken without the consideration of traffic management	Without an understanding of the impacts of changes required for other modes the understanding of the pedestrian risk locations is limited. The pedestrian demand modelling only considers the egress from the event, no consideration for the background pedestrian demand on the network. Background pedestrian demand will further contribute to chokepoints identified in the active transport network.

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
			provisions which makes the result more conservative. The modelling has been undertaken in isolation of required operational changes and other modes which may mean some issues are not identified.	
Linkages between existing and proposed infrastructure.	✓	✓	Provided	Nil
Proposed infrastructure improvements and management interventions.	✓	✓	Provided	Nil
Volumes and timeframes associated with peak pedestrian activity in the area.	⚠	⚠	Only pedestrian level of service (LoS) has been provided on a map. Reporting assumes that event egress occurs over a 15minute period. No pedestrian volumes identified on a plan, map or graph	Pedestrian activity is limited to event egress volumes and does not consider the background usage on the network. Potential for additional chokepoints within the network. Without this analysis understanding of required pedestrian works is limited.

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→ The Power of Commitment

Appendix 8

Noise and Vibration Technical Review, GHD

Macquarie Point Stadium

Noise and Vibration Technical Review

City of Hobart

18 November 2024

→ **The Power of Commitment**

Project name	Macquarie Point Stadium Technical Reviews					
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1. Introduction

A proposal by the Crown Right of Tasmania for the development of a multipurpose stadium at Macquarie Point has been declared a Project of State Significance. The project involves assessment of impacts performed in accordance with requirements of guidelines prepared by the Tasmanian Planning Commission. Technical studies have been submitted to estimate degree of influence of the project on the environment and communities that may be affected by construction and operation of the project.

1.1 Purpose of this report

GHD has been commissioned by the City of Hobart to undertake an independent peer review of the reports submitted to address the Tasmanian Planning Commission Guidelines for the Macquarie Point Multipurpose Stadium Project of State Significance. This report specifically addresses Section 8.4 (Noise and Vibration) and has been prepared by Dr Valeri Lenchine, Technical Director – Noise and Vibration and has been reviewed by Mr. Chris Gordon, Technical Director Acoustics.

The acoustic terminology used in this paper is consistent with the terminology used in the acoustic report and relevant standards.

1.2 Documents considered

The 'Noise and Vibration' technical review is undertaken based upon Section 8.4 of the Tasmanian Planning Commission (TPC) Project of State Significance Guidelines, with reference to Chapter 7.4 of the Macquarie Point Multipurpose Stadium Summary Report and referenced technical documentation as noted below:

- **The Project Guidelines** – Macquarie Point Multipurpose Stadium – Project of State Significance. (Tasmanian Planning Commission, Feb. 2024)
- **The NVIA** - Macquarie Point Multipurpose Stadium. Project of State Significance Noise and Vibration Assessment, (AECOM Australia, Aug. 2024)
- **The Policy** - Environment Protection Policy (Noise) (Department of Environment, Parks, Heritage and the Arts, 2009)
- **The Manual -** Noise Measurement Procedures Manual (Department of Environment, Parks, Heritage and the Arts, July 2008)

1.3 Scope and limitations

This report: has been prepared by GHD for the City of Hobart and may only be used and relied on by the City of Hobart for the purpose agreed between GHD and the City of Hobart.

GHD otherwise disclaims responsibility to any person other than the City of Hobart arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report (refer section 1.4 of this report). GHD disclaims liability arising from any of the assumptions being incorrect.

1.4 Assumptions

This 'Noise and Vibration' technical review was largely focused on the Noise and Vibration Assessment (AECOM Australia, Aug. 2024). The supplementary documentation provided was considered but is not explicitly discussed in this report.

GHD's technical review is based upon qualified 'professional judgement' and does not include quantified verification of assumptions, calculations, recommendations or the like. The review does not include:

– Independent verification and analysis of noise and vibration monitoring data at noise monitoring locations
– Independent verification and analysis of wind speed and local weather data
– Accuracy verification of acoustic model or acoustic inputs used in the NVIA

This document contains GHD's professional opinion based on the assessment of the documents indicated in the submission as relevant to Section 8.4 of the Project Guidelines. Our review does not consider, nor have visibility of, the scope that was requested of the technical consultant(s) that provided documentation for the submission. Where our review has indicated an omission, shortcoming or discrepancy relating to the suitability of the material provided, this is to indicate what impacts this may have from the view of City of Hobart and is not an assessment of the scope requested or undertaken.

Identified risks have been provided for consideration by City of Hobart, however they not been rated for likelihood and consequence.

2. Methodology

In undertaking this review, consideration has been given to:

– The requirements of the Project Guidelines as relevant to noise and vibration (sections 1.4, 8.4 and 9.2 of the guidelines).
– Findings in the AECOM Australia Noise and Vibration Impact Assessment Report.

The Project Guidelines do not clearly specify applicable noise and vibration criteria and procedure for compliance checking. It is noted that sport and music noise may require different procedures for assessing the environmental impact. The noise and vibration impact assessment report references similar stadium developments in other jurisdictions to explore different approaches that may be relevant to the Macquarie Point Multipurpose Stadium.

The review has taken a risk-based approach and has sought to identify the more important issues where operational problems might arise. The findings of the technical review are provided in a tabulated format in Section 4. A summary of the key findings from the peer review is provided in Section 3.

3. Key findings

3.1 Preface

Environment Protection (Noise) Policy 2008 (The Policy) may be used for establishing relevant noise limits. However, frequency of sport and entertainment events must be carefully considered as well as the practicalities of noise control for such events.

Tasmanian regulatory documentation does not provide guidance on acceptable vibration impacts. Therefore, the necessity of strict vibration limits should be reviewed in context of the risk of adverse reaction from the community.

3.2 Key findings

1. Overall, the methodology outlined in the NVIA is consistent with relevant noise and vibration assessment practices. Assessment of pre-construction noise environment was carried out in accordance with recommendations in The Project Guidelines. However, possible low frequency impact from rock concerts and similar events (including both noise and possible structural vibration response) was not addressed in the NVIA.
2. The Project Guidelines do not prescribe noise and vibration limits. The NVIA considers relevant regulatory documentation and noise criteria applicable to other projects but does not suggest project specific goals. This may create difficulties in assessing compliance of noise and vibration impacts from the project, managing complaints and assessing effectiveness of suggested noise mitigation measures. It is expected that clear noise and vibration criteria, mitigation measures and predictions should be defined before commencing construction of the project, which are then refined at design finalisation and commissioning.
3. The Project Guidelines reference assessment of possible impacts of vibration. Such assessment was not performed as part of the NVIA. The assessment should include information confirming that operational vibration assessment is not necessary, due to low risk of perceivable vibration.
4. The NVIA does not contain a detailed construction noise and vibration assessment, rather an overview of the requirements, indicative noise assessment from piling and excavator use, and a list of construction noise and vibration mitigation measures. It is assumed that a Construction Noise and Vibration Management Plan (CNVMP) will address construction impacts separately as the NVIA does not contain sufficient information to make conclusions about associated risks.

The structure and content of the NVIA is aligned with some items in the Project Guidelines but does not fully demonstrate compliance with requirements in the document. Discussion on necessity of some recommendations in the Project Guidelines should be caried out to pinpoint sections of the report that needs updating. The NVIA would benefit from providing justification for the exclusion of quantitative operational vibration assessment at the affected receptors. Not all of the items in the Project Guidelines were addressed to a satisfactory level.

4. Noise and vibration technical review

Table 1: Section 1.4.3 and 8.4 – Noise and vibration

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
1.4 Design and Management Response				
Clause 1.4.3 Off-site noise sources and noise sensitive activities in the locality that may be affected by noise from the site **Section/s of the report** 2.0, 5.0	✓	✓	Section 2.1 of the NVIA describes the nearest noise sensitive receptors. It is difficult to list activities associated with all the receptors. This section would benefit from a description of noise sensitive activities that could be affected by the development.	-
8.4 Noise and Vibration				
Clause 8.4.1.i The reports are to describe the existing noise and vibration conditions of the project site and vicinity **Section/s of the report** 5.0	✓	✓	Section 5.3 of the NVIA details results of a long-term noise monitoring programme performed at 3 nearest noise sensitive locations and one vibration monitoring location. It should be noted that two of the noise monitoring locations were on rooftops of buildings. It is not clear if ambient / background noise magnitudes would be representative for ground level. The long-term monitoring was supplemented by short term noise measurements at 14 locations and vibration measurements at 10 locations (Section 5.1).	Noise monitoring results may not be indicative of the existing noise environment experienced at ground level receiver locations
Clause 8.4.1.ii The reports are to describe all sources of noise and vibration that can be reasonably identified from the use of the proposed Project, considering all types of expected and possible events **Section/s of the report** 3.0, 6.0	✓	⚠	Section 3 of the NVIA describes potential sources associated with operation of the site and Section 6 provides major acoustic inputs for modelling of different scenarios. Information for vibration operational sources is not presented, but unlikely operational vibration sources will be significant to impact on nearest sensitive receptors.	Uncertainty in expected vibration impact.

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
Clause 8.4.1.iii The reports are to analyse the potential effects of impacts from noise and vibration, taking into account, but not limited by, the following: **Section/s of the report** 6.3, 7.1,7.2, 8.0	✓	⚠	The report generally addresses expected noise impact to a satisfactory level, however: – Structural response is possible during concerts or other events with significant low frequency impact. This is not considered in the report. – Assessment of operational vibration impact is formally required under the project guidelines. Qualitative or quantitative vibration assessment is not included in the report. More elaborate justification should have been provided as to why it may not be necessary.	Underestimated level of impact that may evoke adverse reaction of community
Clause 8.4.1.iii a) The maximum potential impact (maximum capacity and maximum sound amplification) for each proposed or possible type of event; **Section/s of the report** 6.3, 7.1, 7,2	✓	✗	Section 6.3 of the NVIA describes inputs for modelling of noise sources. It should be clearer that inputs in Table 13 of the report contain maximum assumed acoustic input. **Music concerts** – It is understood that Table 14 presents results of the worst case scenario (pop and rock music concerts). Section 7.1.1 also compares impact with noise requirements applicable to other stadiums throughout Australia and New Zealand. – While a comparison against these noise requirements is provided, an acceptable limit for this project has not been established (as required in item 8.4.2.i). – Assessment of low frequency impacts from music concerts has not been considered (as implied in item 8.4.2.iii (g)). – This comparison shows that the predicted levels may be up to 13 dB(A) greater than limits for similar stadiums in other states, however this comparison fails to address the impacts at the University of Tasmania School of Creative Arts and Media (R3) and Royal Hobart Regatta Grounds (The Cenotaph) (R13) which are greater than this. It is unclear why these receivers have not been discussed. – Assuming that an effected building façade provides minimum 20 dB attenuation (as discussed in the NVIA), the internal noise levels are still expected to be above acoustic indicator levels in the TAS Noise EPP (Table 4 of the NVIA), however applicability of the EPP indicator levels to concert events is arguable. – Information in section 3.1 of the report shows that a major concert event is expected to happen just 1 time per annum, with the potential for smaller concerts/festivals. No event numbers have been provided for the smaller events.	– Potential for low frequency noise impacts from music concerts and music being played through PA during sporting events. Given the potential for high impacts from low frequency noise, a detailed assessment of this should be provided. – An acceptable noise level for music concerts has not been established. These should be established for large and smaller concerts for the purposes of compliance assessments and impact noise management in the future – Impact to R3 and R13 have not been considered. R3 is an educational facility and would likely experience significant impacts. These have not been addressed based on the assumption that this won't operate during concerts and sporting events, which may not be the case (night classes, library operation etc).

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
			Sporting matches – AFL matches are expected to be the major noise generation events at the stadium. Noise levels for public announcements and crowd noise are predicted to be significantly lower than from rock concerts. Game sirens may result in high L_{Amax} levels, which are short in duration.	
Clause 8.4.1.iii b) Noise and vibration generated by the operation of the proposed development outside of event times, including building services plant, loading and waste collection; **Section/s of the report** 7.2, 8.0	✓	⚠	Scenario S7 (Section 3.2) of the NVIA is intended to address this requirement. Results of waste collection and loading dock operations are summarised in Section 7.2 and show that they are expected to be below recommended noise indicator levels. Inputs for the modelling are described in Section 6, including modelling inputs and assumptions (Section 6.2), and noise sources (Section 6.3). Section 8 is dedicated to operational vibration. This information does not contain any indicative estimates. This section should contain some vibration estimates for typical activities and relevant separation distances.	Impacts of operational vibration has not been quantified and assessed. Risk of excessive vibration impact is unknown.
Clause 8.4.1.iii c) Noise and vibration generated by crowds arriving at and departing from the venue; **Section/s of the report** 7.1.5, 8.0	✓	⚠	Modelling scenario S3 (Section 3.2) addresses this requirement. The report does not suggest any specific criteria for this sort of activities and refers to EPP indicator levels (Section 7.1.5). Generally impact inside affected receptors is predicted to be low with windows closed. Similar to other scenarios, there are no qualitative or quantitative estimates of vibration in Section 8.	Impacts of operational vibration has not been quantified and assessed. Risk of excessive vibration impact is unknown.
Clause 8.4.1.iii d) Noise and vibration generated by any entertainment provided outside the venue; **Section/s of the report** 7.1.6, 8.0	✓	⚠	It is understood that modelling scenario S6, Plaza events (Section 3.2) addresses this requirement. The report does not suggest any specific criteria for these sort of activities. Results of noise predictions in Section 7.1.6 show that generally outdoor impact at affected receptors is expected to be below EPP recommended levels for day and evening time moderate annoyance, except of marginal exceedance which is predicted at Royal Hobart Regatta Grounds (R13). Section 8 does not provide sufficient details on expected vibration impact.	Impacts of operational vibration has not been quantified and assessed. Low frequency impact and risk of structural response is not assessed.
Clause 8.4.1.iii e) Noise levels estimated at the boundary of land owned or controlled by the Proponent and at	✓	✓	Noise contours for the site and adjacent areas are included in Appendix A of the report. Noise estimates are presented for different modelling scenarios. Noise impact estimates for particular receptors are included in Section 7.1.	-

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
the curtilage of noise-sensitive uses in the locality; **Section/s of the report** 7.1, Appendix A			It would be beneficial to have a clear summary of this information for the project boundary in Section 7.1 of the report.	
Clause 8.4.1.iii f) How and where noise and vibrations are likely to travel, based on contour predictions; **Section/s of the report** Appendix A	✓	⚠	Noise contour predictions are included in Appendix A. There is no vibration assessment in the report and Section 8 does not contain sufficient justification for not including vibration assessment. It is likely that it will be impracticable to produce vibration contours due to complexity of such assessment. The requirement is addressed adequately for noise impact, vibration assessment should be supplemented by more details and explanations.	Impacts of operational vibration has not been quantified and assessed. Safe separation distances for vibration are not known.
Clause 8.4.1.iii g) The nature of the noise and its potential to cause nuisance (tonal components, impulsive or intermittent noise, etc.); **Section/s of the report** 7.4	✓	✗	Results of noise predictions are summarised in Section 7.1. Potential noise characters that may exacerbate perception of noise are included in Section 7.4. These characteristics are considered from risk perspective, however low frequency impact is not considered in the report. TAS Noise Measurement Procedures Manual considers adjustments to measured (or predicted) noise levels depending on presence of the characters. This may change expected compliance of the impact with recommended noise levels. Such assessment is not included in the NVIA.	Potential for low frequency noise impacts from music concerts and music being played through PA during sporting events. Given the potential for high impacts from low frequency noise, a detailed assessment of this should be provided. Consideration should be given to possible change in compliance due to applicability of penalties for noise characters.
Clause 8.4.1.iii h) Time of day (day, evening and night) and day of the week; **Section/s of the report** 7.1, 7.3	✓	✗	This is considered in different parts of the report in accordance with TAS regulations (Sections 7.1, 7.3 and 7.4). It would be beneficial to clarify when particular noise modelling scenarios may occur. The assessment of potential sleep disturbance impacts is very light and appears to rely on time restrictions/management measures. Given the potential for both concerts and sporting events to continue into the nighttime period, a more detailed night time assessment (including sleep disturbance) should be undertaken.	The level of impacts during the nighttime period is not well defined. There is a risk that concerts and sporting events will lead to sleep disturbance impacts should the event continue into the nighttime period.
Clause 8.4.1.iii i)	✓	⚠	Meteorological conditions for modelling scenarios were included in Section 6.2 of the NVIA. Contextual information on typical environmental conditions in the area would be beneficial (wind	Insufficient information to identify how often worst-case noise

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
Meteorological conditions, including normal and 'worst case' conditions and the expected frequency of 'worst case' conditions; **Section/s of the report** 6.2			rose) to show frequency of possible worst-case scenarios for different receptors. However, it will not change results of noise predictions, which were obtained for most conservative weather category in accordance with CONCAWE algorithm. An updated section on analysis of weather conditions is expected to fully address this requirement.	propagation conditions may occur in the area.
Clause 8.4.1.iii k) The proximity of current, proposed or potential noise-sensitive uses; **Section/s of the report** 2.1	✓	✓	Section 2.1 of the NVIA contains list of nearest affected receivers and separation distances.	-
Clause 8.4.1.iii l) Impacts and effects on fauna; **Section/s of the report** 9.0	✓	⚠	Section 9 of the NVIA provides general description of expected noise impact on fauna. There is statement in the section: "It is not expected that any existing fauna will be displaced due to the proposed Stadium". It is not confirmed by analysis of species in the area and their sensitivity to noise. Perhaps such analysis should be included in a separate report rather than in an acoustic report. Current assessment lacks this information.	Potential impacts on fauna in the assessment is not well defined
Clause 8.4.1.iii m) Cumulative impacts, taking into account surrounding sources of noise and vibration; **Section/s of the report** 7.3, 8.0	✓	⚠	Cumulative impact from the site and existing sources is considered in Section 7.3 of the NVIA. It is understood the resultant cumulative impact is given for operation of the stadium and some events but does not include noise estimates for all events. It is recommended to provide cumulative noise estimates for all modelled scenarios. Quantitative estimates of vibration are not provided in the report. Justification on absence of vibration impact assessment deemed to be necessary.	Impacts of operational vibration has not been quantified and assessed, which does not provide basis for expected levels of vibration in the area.
Clause 8.4.1.iii n) Comparison between the predicted emission levels with existing noise and vibration levels; **Section/s of the report** 7.3	✓	⚠	Similar to the comment above, stadium daily operation levels and some events are compared with existing noise environment. It should have been reported for all events as well. Vibration impact is not assessed. Section 7.3.2 of the NVIA indicates that the indoor impact may be high, but NVIA does not consider this effect as relevant to UTAS premises (receptor R3) claiming that it "is unlikely to operate during concerts".	Educational activities at UTAS may be impacted during concert events.
Clause 8.4.2.i)	✓	✗	Section 4 of the NVIA provides overview of regulatory documents, Section 4.1.2 emphasises that indicator levels in the	Acceptable noise and vibration levels have not been established. These should be established for all

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
The reports are to review and detail appropriate noise and vibration assessment methodology, standards and acceptable limits; **Section/s of the report** 4.0, 6.0			EPP are not mandatory, section 4.4 summarises noise criteria applicable to stadiums in other jurisdictions. It is not clear what is suggested as the project specific goals. Vibration limits are not considered in the report.	types of events for the purposes of compliance assessments in the future
Clause 8.4.2.ii) Where relevant, the choice of a particular methodology over alternative methodologies is to be explained; **Section/s of the report** 6.0	✓	⚠	Tasmanian regulatory documents do not specify mandatory noise prediction algorithms. Section 6 of the NVIA references CONCAWE noise prediction algorithm. Reference to relevant document is not included in the list of references (Section 13). Since vibration predictions do not form part of the report, there is no reference to relevant methodology.	Uncertainties in estimates of expected noise and vibration impact.
Clause 8.4.2.iii) Assessment of impacts and effects is to include information on the significance and duration of the impact. **Section/s of the report** 7.1, 7.4	⚠	✗	Section 7.1 of the NVIA details results of noise predictions for few scenarios. Information on how long these impacts may last is not included in the report. Section 7.4 contains supplementary information on duration of some noise events. Additional information on duration of particular events will be beneficial to fully address this requirement. Duration of vibration impacts is not included in the report.	Duration of events required to determine extent of potential noise impacts is unknown.
Clause 8.4.2.iv) Assumptions and judgements are to be stated clearly and the nature and magnitude of uncertainties are to be clearly defined. **Section/s of the report** 1.2, 6.2	✓	⚠	Section 1.2 contains clarifications and limitations of the report. Information on assumed acoustic inputs for acoustic modelling of impact from the site is included into Section 6.2. There is a high degree of uncertainty in predicting noise from sport and music events. It is difficult to quantify accuracy of noise predictions. However, some discussion on expected uncertainties would be beneficial for report.	Actual impact may be greater than predicted due to high uncertainty of acoustic inputs.
Clause 8.4.3 The potential for emissions to cause nuisance is to be addressed, taking into account: **Section/s of the report** 6.3, 7.1,7.3, 7.4	✓	⚠	Most of information is provided in relevant section of the report, it should be supplemented by additional acoustic and duration of impact information as noted in the comments below	Insufficient information to determine the extent of some impacts

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
Clause 8.4.3 a) Changes in noise frequencies and tonal components. **Section/s of the report** 6.3, 7.1	✓	⚠	Section 6.3 of the NVIA provides general information about noise sources and Section 7.4 contains additional information about possible characters. The report does not include notes on dominant frequencies or severity of associated noise characters. Additional discussion on that would be beneficial.	Insufficient information to determine the extent of some impacts
Clause 8.4.3 b) Increases in ambient noise levels. **Section/s of the report** 6.3, 7.1	✓	⚠	Expected increase in cumulative impact for non- events operation of the site and some events is included in Section 7.3. The estimates should be obtained for all events scenario as well and included in table similar to Table 28.	Lack of clarity of expected cumulative impact for all activities associated with the project.
Clause 8.4.3 c) The time varying nature of emissions (e.g. impulsive or intermittent noise);. **Section/s of the report** 6.3, 7.1	✓	✓	Description of noise characters that may be associated with the site operation are included in Section 7.4.	-
Clause 8.4.3 d) The temporal span of the noise emissions and its effects on nearby uses. **Section/s of the report** 7.4	✓	⚠	Section 3.1 provides list of expected events and frequency of occurrence during a year. This information should be supplemented by expected duration of events and relevant time of a day.	Insufficient information to determine the extent of any impacts
Clause 8.4.4 The reports are to describe any measures to limit and control noise and vibration to an acceptable level. **Section/s of the report** 11.1	✓	⚠	Section 11.1 provides general recommendations on noise mitigation practices. Since this is not a design report, this may be considered sufficient. The report does not include project specific noise and vibration criteria, therefore it is difficult to identify measures that will be sufficient to reduce impact to an acceptable level. Noise mitigation relies on a number of substantial design solutions and some noise management practices.	Uncertainty for future compliance checking and complaint resolution due to absence of clearly defined noise and vibration criteria. Implementation of noise mitigation design measures may require additional budget allocations. If they are not included in the final design, impact from the project may be greater than predicted.
9.2 Construction management				

PoSS Guideline	Included	Suitability	GHD Submission Review Comments	Potential Risks
Clause 9.2.2 The reports are to outline: – potential adverse effects from construction noise **Section/s of the report** 10.1	✓	✓	The NVIA does not contain a construction noise or vibration assessment specific to the project. Section 10 describes potential noise and vibration impacts and relevant criteria. Section 11.2 also includes general construction noise and vibration mitigation practices. It is understood that detailed noise and vibration assessment is not required at the stage and may be carried out as a separate study should the project be approved (as recommended in the NVIA report).	-

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