ESD Report

Proposed Transport House Function Centre Stage 1a

Mulpha Transport House

Prepared for
Mulpha Transport House

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Surface Design

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Document control

Revision	Date	Revision details	Author	Sign	Verifier	Sign	Approver	Sign
00	7.04.2022	Draft issues for review and comment	BK		BL			
01	14.04.2022	General updates	BK		BL		BMD	

Contents

1. Introduction

1.1 Purpose of Report

This report has been prepared on behalf of Mulpha Transport House to accompany the submission documentation for the Proposed Transport House Function Centre Envelope submission only. This document has been prepared in response to Condition 6 of the letter issued by the NSW Government Department of Planning and Environment and Condition 11 of the Development Consent SSD 7693 for the InterContinental Hotel Concept development application.

As the design of the Proposed Transport House Function Centre has not commenced, this report has identified ESD Principles to be followed in the development of the Function Centre design. These principles shall be used to guide the design team in the development of appropriate ESD Initiatives that align with the Development Consent Condition C11, proposed use and expected life of the Function Centre.

1.2 Document Outline

This document has been provided in sections as follows:

- **Section 1:** provides an introduction to this document
- **Section 2:** discusses the Planning requirements that are deemed to apply to this proposed development
- **Section 3:** discusses and reviews previous documents prepared for the project and how these relate to the Proposed Transport House Envelope application
- **Section 4:** outlines the ESD Principles for the Proposed Transport House Function Centre.

As the design of the Proposed Transport House Function Centre has not yet commenced, ESD Guiding Principles have been developed only which is to assist and guide the development of the ESD initiatives for the next SSDA submission for the Transport House Function Centre.

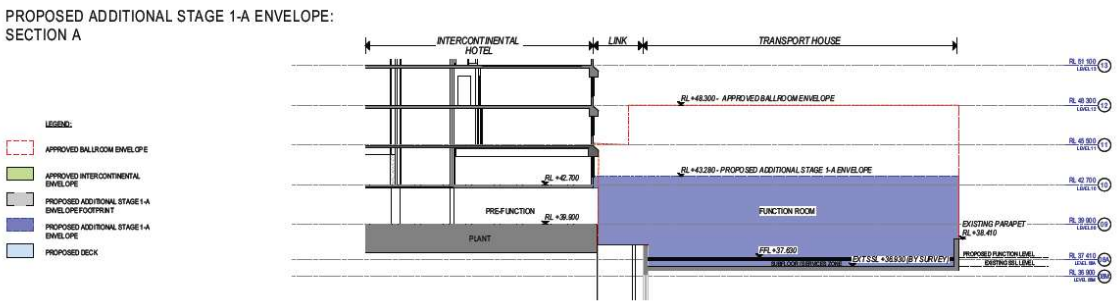
1.3 Project Description

The Proposed Transport House Function Centre shall occupy the rooftop of 99 Macquarie Street Transport House which is known to include some plant room spaces. The envelope will include a physical link from the Intercontinental Hotel at Level 9 via a lift to the Transport House rooftop. Urbis, the appointed Planners on the project have confirmed in Planning Report dated 2021 that this development stage is to be known as Stage 1a and the envelope of this development is to be around half of the approved Ballroom envelope[1].

This report shall accompany the Proposed Transport House Function Centre Envelope submission only and has set out the ESD Principles to be used in informing the final ESD initiatives for the project.

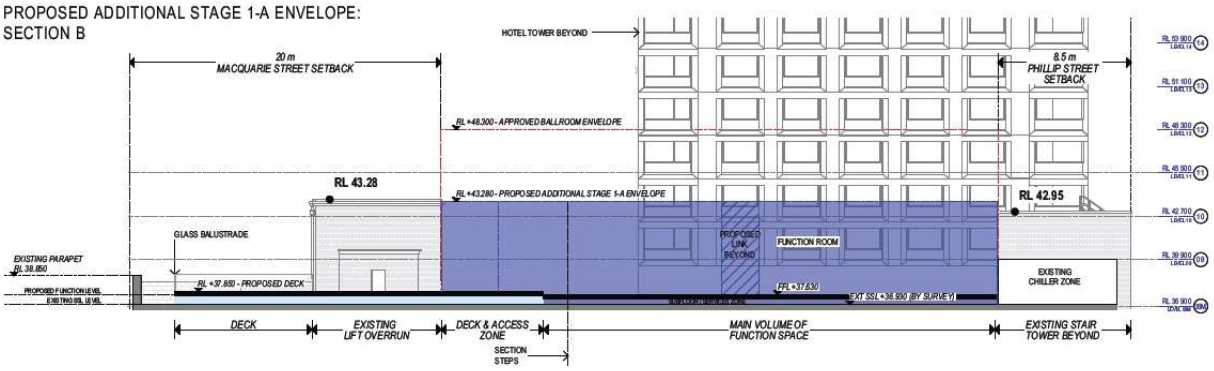
A separate and detailed SSDA submission is expected to be prepared following this Envelope submission where a revised ESD Report is to be provided which confirms the specific ESD Initiatives to be incorporated into the Function Centre.

Figure 1: Section A for Stage 1a Transport House Function Room Envelope by Cottee Parker, Drawing number 3101 dated 7 December 2021[2].



[1] Urbis, SECTION 4.55(2) MODIFICATION TO SSD-7693 Proposed Transport House Function Centre, December 2021, page 6.
[2] Cottee Parker, Section A and B Drawing number 3101 dated 7 December 2021.

Figure 2: Section B for Stage 1a Transport House Function Room Envelope by Cottee Parker, Drawing number 3101 dated 7 December 2021[3].



1.4 Reference Documents

The following documents have been referenced in preparation of this document:

Reference No.	Document Title	Author	Revision
-	SECTION 4.55(2) MODIFICATION TO SSD-7693 Proposed Transport House Function Centre	Urbis	December 2021
REP07702-A-001	Intercontinental Hotel Sydney Stage 1 DA – ESD Outline	Energy Action	24 October 2016
2549-ESD-r3	Ecologically Sustainable Development (ESD) Report	BCA Energy	06 August 2020
EF19/4600 SSD 7693	Development Consent Section 4.38 of the Environmental Planning and Assessment Act 1979 InterContinental Hotel Concept development application	NSW Government Independent Planning Commission	22 January 2020
-	Intercontinental Hotel Alterations and Additions Modification (SSD-7693-Mod-2) Response to Submissions	Department of Planning and Environment	21 March 2022
-	Planning Secretary's Environmental Assessment Requirements Development within identified sites and precincts Template document Item 9 Ecologically Sustainable Development (ESD)	NSW Department of Planning, Industry and Environment	Version 1
6680	Transport House 99 Macquarie, Sydney Proposed Additional Stage 1a Envelope Appendix A - Architectural Documentation Package	Cottee Parker	7 December 2021 Issue A
2000 No 557	Environmental Planning and Assessment (EP&A) Regulation 2000 - Schedule 2 Schedule 2 – Environmental impact statements under the Environmental Planning and Assessment Act 1979	NSW Government	8 September 2000

[3] Cottee Parker, Section A and B Drawing number 3101 dated 7 December 2021.

1.5 Terms of Reference

The following terms of reference apply to this document and sources of the definitions have been provided where relevant:

ESD – Ecological Sustainable Development

Ecological Sustainable Development – the principles of ecologically sustainable development defined in Clause 7(4) of the Schedule 2 of the Environmental Planning and Assessment Regulation[4] as follows--

(a) the **"precautionary principle"** , namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by--

(i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and

(ii) an assessment of the risk-weighted consequences of various options,

(b) **"inter-generational equity"** , namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,

(c) **"conservation of biological diversity and ecological integrity"**, namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,

(d) **"improved valuation, pricing and incentive mechanisms"**, namely, that environmental factors should be included in the valuation of assets and services, such as--

(i) polluter pays, that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,

(ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,

(iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.

EP&A Regulation - Environmental Planning and Assessment Regulation 2000

NABERS - National Australian Built Environment Rating System. NABERS is a national initiative managed by the NSW Department of Planning, Industry and Environment on behalf of the Federal, State and Territory governments of Australia[5].

NABERS – According to the NABERS Website[5] is a simple, reliable sustainability rating for the built environment. Like the efficiency star ratings that you get on your fridge or washing machine, NABERS provides a rating from one to six stars for buildings efficiency across:

- Energy
- Water
- Waste and
- Indoor environment

This helps building owners to understand their building's performance versus other similar buildings, providing a benchmark for progress.

SEARs – NSW Government Secretary's Environmental Assessment Requirements

SSDA – State Significant Development Application

[4] NSW Government, 2000, Environmental Planning and Assessment Regulation 2000 [NSW], Schedule 2 Clause 7(4), Repealed version for 1 February 2022 to 28 February 2022, accessed 6 April 2022, page 211 or 293

[5] NSW Department of Planning, Industry and Environment on behalf of the Federal, State and Territory governments of Australia. NABERS Website What is NABERS? https://www.nabers.gov.au/about/what-nabers, Version 2019

2. ESD Planning Requirements

The project has undergone a number of development applications as outlined in the Urbis Section 4.55(2) Modification to SSD-7693 Proposed Transport House Function Centre document.

The ESD planning requirements are that considered to apply to the Proposed Transport House Function Centre are identified in the following sections and have been referenced in preparation of this document.

2.1 Development Consent ESD Conditions

The Development Consent Conditions by NSW Government Independent Planning Commission for SSD-7693 InterContinental Hotel Concept development application identify requirements for ESD in Condition 11. These conditions were issued on 22 January 2020 and references a previous ESD Report prepared by Energy Action dated 24 October 2016.

Condition 11, titled Environmental Performance states:

ENVIRONMENTAL PERFORMANCE

C11. Future development application(s) must demonstrate the incorporation of Ecological Sustainable Development principles in the design, construction and ongoing operation phases of the development in accordance with the ESD report prepared by Energy Action dated 24 October 2016.

Project Response: In response to the above requirements Section 3 of this document addresses the content of the Energy Action report in reference to the Proposed Transport House Function Centre Envelope.

2.2 Modification SSD-7693-Mod-2 Response to Submissions

The NSW Government Department of Planning and Environment has identified in their letter response dated 21 March 2022 to the Intercontinental Hotel Alterations and Additions Modification (SSD-7693-Mod-2) Response to Submissions that an ESD Report is required. The letter states in Attachment A:

Ecologically Sustainable Development

6. Provide an updated ESD report which considers the proposed Stage 1A in order to update Condition C11.

Project Response: In response to the above requirements this document has been provided to address the applicable requirements for Development Consent Condition C11.

2.3 State Significant Development

The NSW Government Planning Secretary's Environmental Assessment Requirements (SEARs) document states in Item 9 for Ecological Sustainable Development (ESD) the following:

- Identify how ESD principles (as defined in clause 7(4) of Schedule 2 of the EP&A Regulation) are incorporated in the design and ongoing operation of the development.
- Demonstrate how the development will meet or exceed the relevant industry recognised building sustainability and environmental performance standards.
- Demonstrate how the development minimises greenhouse gas emissions (reflecting the Government's goal of net zero emissions by 2050) and consumption of energy, water (including water sensitive urban design) and material resources.

Project Response: In response to the above requirements this document has been provided to identify how these requirements may be addressed for the Proposed Function Centre Envelope through the proposed ESD Principles.

3. Previous ESD Documents

3.1 Project ESD Reports

Surface Design has been made aware of previous ESD Reports that have been presented with the development applications for the InterContinental Hotel development at concept and modified submissions. These reports include:

- Intercontinental Hotel Sydney Stage 1 DA – ESD Outline by Energy Action dated 24 October 2016; and
- Ecologically Sustainable Development (ESD) Report by BCA Energy dated 6 August 2020

As such in preparing this document, we have reviewed the above reports and have provided our summary for how the content of the Intercontinental Hotel Sydney Stage 1 DA – ESD Outline report may relate to the Proposed Transport House Function Centre envelope development.

Intercontinental Hotel Sydney Stage 1 DA – ESD Outline

The Intercontinental Hotel Sydney Stage 1 DA – ESD Outline report by Energy Action is the report that is referred to by NSW Government Independent Planning Commission in the Development Consent Condition 11. It is understood that this report shall be used as a reference for all future applications and has been discussed further below.

Ecologically Sustainable Development (ESD) Report by BCA Energy

Surface Design is of the understanding that this report was prepared by BCA Energy in reference to the Intercontinental Hotel Sydney refurbishment works only, which includes some internal works and new building works to the Hotel roof. This document was prepared to respond to Development Consent Condition 11 for the Intercontinental Hotel Sydney refurbishment works only.

3.2 ESD Consent Condition 11 Report Review

The Intercontinental Hotel Sydney Stage 1 DA – ESD Outline report by Energy Action identifies:

- possible energy efficiency initiatives that could be applied to the Intercontinental Hotel spaces and the proposed Ballroom above Transport House. These relate to equipment and services upgrades and building fabric constructions; and
- identifies possible environmental rating tools that could be considered for the project and provides recommendations for these tools only.

Surface Design is of the understanding that this report identifies initiatives that could be incorporated rather than sets specific requirements on the development to deliver on an initiative and it refers to a Ballroom development to the roof of Transport House.

As required by Development Consent Condition 11, we have used this report as a reference item only in the development of the ESD Principles for the Proposed Transport House Function Centre.

4. ESD Guiding Principles

ESD Principles have been developed for the Proposed Transport House Function Centre that considers its intended use, proposed lifecycle and Development Consent Condition 11 that applies.

The ESD Principles shall be used to guide the development of specific ESD initiatives for the Transport House Function Centre during the design stages. These principles have been developed for the Transport House Function Centre envelope application only and are considered separate to any works associated with Intercontinental Hotel refurbishment.

This section identifies and describes the proposed ESD Principles in brief and provides an example of a possible ESD Initiative that could apply to the Function Centre.

The commitment to specific ESD initiatives for the Transport House Function Centre shall be confirmed in a subsequent application once the design of the Function Centre has commenced.

4.1 ESD Principle 1 – Design for Materials Efficiency

The Function Centre shall design for a circular economy and establish measures to reduce the resource consumption and material environmental impacts of the project where possible.

The Function Centre is expected to a life span of up to ten (10) years. This lifecycle identifies an opportunity to assess and plan for appropriate equipment selections and material selections that align with this project life. The selection of materials and manufacturers will be key to limiting the embodied carbon impacts of the project and measures shall be put in place to reduce these impacts. These could include establishing Product Stewardship Agreements with manufacturers, Design for Disassembly, Design for Reuse, Design for a Reduced Embodied Carbon Footprint and Environmental Product Disclosure.

Aligns With	Objective	Benefit
SEARS Item 9	Design for the set Building Lifecycle	Reduces embodied carbon impacts of the development
ESD Initiative Example		
The project shall establish product stewardship agreements for all major finishes and furniture suppliers to take back the materials at the end of the project life for remanufacturing into a new use, reuse / repurposing, or reconditioning.		

4.2 ESD Principle 2 – Design for Operational Efficiency

The Function Centre shall set energy and greenhouse emission operational targets and identify water efficiency initiatives. These shall be measured and documented during the project design stages and assessed in operation.

Systems shall be put in place to measure, monitor and respond to the use of this space and be capable of assisting in identifying where improvements in operational efficiency can be made.

Aligns With	Objective	Benefit
Development Consent Condition 11	Set energy and greenhouse gas emissions targets and set measures for water efficiency	Improve operational energy and water use efficiencies
ESD Initiative Example		
The function centre shall install energy meters to monitor and report on all major equipment energy use, lighting and space use.		

4.3 ESD Principle 3 – Resilient and Conscious

The Function Centre shall be resilient to current and future environmental conditions over the next ten (10) years and the design shall consider the future Ballroom use.

The design of the Function Centre shall be conscious that it will need to transform into its new and final use at the end of its life, be resilient throughout its intended life and not inhibit the future development of the Ballroom development.

Aligns With	Objective	Benefit
SEARS Item 9	To be resilient to changing environmental conditions and not inhibit any future development and opportunities on the site	Design for Future needs where possible

ESD Initiative Example

The function centre shall consider changing climate conditions over the next ten (10) and consider future infrastructure that may be required to support the future Ballroom development.

4.4 ESD Principle 4 – Adaptive and Comfortable

The Function Centre shall be adaptable and comfortable to meet possible different function centre needs. It shall offer versatile spaces that can respond to different uses and needs in operation.

The building shall consider the finishes and materials that improve indoor comfort, offer adaptable spaces and connect to the exterior environment.

Aligns With	Objective	Benefit
SEARS Item 9	To be adaptable and comfortable	Offer different opportunities for how the building may be used

ESD Initiative Example

The function centre shall consider the use of operable and movable internal partition systems to cater for different space uses and functions.

4.5 ESD Principle 5 – Minimise Impact in Construction

The Function Centre shall set targets for the construction stage to reduce the impact of development where possible in terms of materials consumption, wastes sent to landfill, energy and water use.

The project shall identify, measure and record on the construction stage impacts and set goals to reduce consumption where possible.

Aligns With	Objective	Benefit
Development Consent Condition 11	Set, measure and record on environmental impacts of the construction stage	Offers opportunity to be aware and reduce the environmental impact of the development during the construction stage

ESD Initiative Example

The function centre shall include prefabricated structure to avoid on site generation of construction wastes.

4.6 Summary

This report has been prepared on behalf of Mulpha Transport House to accompany the submission documentation for the Proposed Transport House Function Centre Envelope submission. This document has been prepared in response to Condition 6 of the letter issued by the NSW Government Department of Planning and Environment and Condition 11 of the Development Consent SSD 7693 for the InterContinental Hotel Concept development application.

As the design of the Proposed Transport House Function Centre develops the ESD Guiding Principles identified in this report, will be used to develop the ESD initiatives that will form part of the ESD Commitment for the Function Centre development. These initiatives will be presented in a subsequent report that will accompany the future application for the Function Centre.