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29th March 2014

Mr Craig Pursey
Planning Officer
Shire of Jerramungup
Vasey St,
Jerramungup WA, 6338

***Lightsite:
a kwongkan artwork project***

**PLANNING APPLICATION
LOT 104 POINT HENRY RD, BREMER BAY.**

SCHEDULE OF ATTACHED DOCUMENTS:

1. A1 - Site Plan (1:1000)
2. A2 - Plans, sections and elevations of proposed *Lightsite* installation (1:50)
3. Signed Schedule 6 application form.
4. Completed DA Checklist
5. A receipt of EFT payment of the Development Application Fee.

Dear Craig,

As the owner of Lot 104, I submit this planning application for a Class 10b installation: 'Lightsite'.

I present this application in my capacity as Research Architect, Head of Landscape Architecture, and Fellow of the Centre for Emergency and Disaster Management, QUT. This project is intrinsic to my practice-led academic research into bushfire safety and biodiversity conservation. My university provides direct support to this project by way of covering my academic salary for the planning, design, documentation and construction stages of the project.

1. BACKGROUND/CONTEXT

BUILDING ENVELOPE

Lightsite - the proposed Class 10b installation - will be a permanent structure sited within the existing approved building envelope. It will be 60m² in area and have maximum height of 4 metres above natural ground level. It will be constructed of cast in-situ, fair-faced concrete (all surfaces). This is a non-reflective material of colour that is consistent with the natural environment, as per the Shire of Jerramungup Town Planning Scheme 2 - *Rural Residential Zone 3* requirements.

CLASS 10B STRUCTURE - 'LIGHTSITE'

The structure is a non-habitable, permanent, private artwork, which falls within the genre of "LandArt". I have included below a series of photomontages of *Lightsite* and images of similar non-habitable LandArt installations, both in Australia and overseas.

- *Lightsite* does not have any services such as electricity, gas, water supply or effluent disposal, and it will not be used for storage or the uses associated with sheds.
- *Lightsite* will only be accessible on foot - there will be no vehicular access to the artwork.

KWONGKAN CONSERVATION AND CELEBRATION

'Kwongkan' is the official botanical term for the biologically diverse heath and shrubland on the sandy soils of the southwestern portion of Australia. This region, which is known as the 'South West Floristic Province', has been classified by Conservation International as one of the earth's 34 'Biodiversity Hotspots' due to its exceptional diversity that is under threat from further extensive land clearing.

The primary contributor to the ecological diversity is Kwongkan shrublands (not forests). The Fitzgerald River National Park exemplifies this landscape type, as do portions of Point Henry peninsular and the townsite of Bremer Bay (eg John Street/Town Centre bushland reserve). Lot 104 is approximately 50% kwongkan with the approved building envelope being around 70%.

This artwork is both the physical structure *and* the kwongkan that immediately surrounds it.

The construction of this artwork generates no more than 60m² of kwongkan clearing. It will be built in a manner that minimizes site disturbance, so that very little landscape remediation is required post-construction (For example, the concrete will be pumped by a 'boom' from the driveway, and the formwork and steel reinforcing will be constructed off-site).

***Phytophthora cinnamomi*, Tea Tree and Peppermints**

Lot 104 is host to a highly important community of banksia-dominated kwongkan that is highly susceptible to *Phytophthora cinnamomi* (Die back disease) and weed infestation. The kwongkan on the site will be protected from the spread of *Phytophthora* by preventing vehicle access and clearing of any form other than for the structure itself. All pedestrian access is restricted to being on an above-ground steel 'boardwalk' so that *Phytophthora* cannot be transferred to the soil.

Tea Tree invasion is a particular problem on Lot 104 and an active eradication program is now in its 10 year.¹

History of Vegetation Surveys

I purchased Lot 104 to conduct botanical surveys and to test how through art practice and architectural design I might celebrate this botanical diversity. My aim is, as it was then, to capitalize on this extraordinary opportunity to build structures within a landscape that parallels the Fitzgerald River National Park. Since 2004 the following botanists and landscape ecologists have conducted surveys on Lot 104: Barbara Miller-Hornsey, Chris Robinson and Keith Bradby and Nathan McQuoid. To-date over 100 plant species have been identified.

Town Planning Scheme Provision for Rural Residential Zone 3 (RRes3)

Lightsite exemplifies the primary objective for RRes3, which is stated as being:

*“to facilitate the creation of quality rural-residential retreats in a scenic coastal area, with an emphasis on minimising any detrimental impact on **landscape quality** and existing natural vegetation and preserving the existing visual amenity of foreground views into Portion Kent Location 111 from Point Henry Road and Short Beach Road, along with views across the land from neighbouring Short Beach”.*

An objective measure of ‘Landscape quality’ is biological diversity. The botanic surveys show that Lot 104 has exceptional landscape quality – being equal in biological richness to some of the most botanically diverse areas in the world.

The development achieves this RRes3 primary planning objective by focussing all day-to-day activities associated with dwelling on the low-lying wind-protected part of the building envelope (as shown on the Site Plan). The dwelling site has the dieback-susceptible Kwongkan only on two sides rather than all sides of it. Clearing associated with effluent disposal, vehicle access and passive fire protection occurs within a restricted area of Peppermint woodland and only partially within the kwongkan. In this way passive fire protection - as per the intent of WAPC/DFES guidelines – is achieved *as well* as the RRes3 objective of minimizing impact on landscape quality.

Bushfire performance

Lightsite will be constructed of non-flammable mass concrete (approx. 150mm thick) with a structural fire resistance level of one hour and the ability to withstand peak flame temperatures of 1090° Kelvin (817° Celsius) - the Fire Protection Association of Australia recommended peak temperature. Being non-flammable and in an environment that supports bushfires with a very short 5-minute duration, *Lightsite* will have a significant built-in structural safety margin.

The construction process itself will not involve on-site welding or angle grinding or the types of activities that might ignite a fire. Nevertheless a 400litre petrol powered fire-unit will be on-site at all times.

¹ Tea Tree seeds are blown from the road reserve of Point Henry Road onto Lot 104 by prevailing SW winds. Since 2004 Tea Tree has progressively seeded into around 50% of Lot’s 102, 103 and 104. An eradication program targeted at Point Henry Road reserve between Short Beach Rd and Horse Hill Rd is essential for protection of this Threatened Ecological Community.

***Lightsite* - history of the project**

In 2006 and 2007 my internationally acclaimed Perth International Arts Festival project “*Lightsite*” was installed temporality on the building envelope. This project was supported by the federally administered Regional Arts Fund. The installation and the photographs captured within it subsequently toured Western Australian galleries and museums for two years through 2006 and 2007. In 2012 *Lightsite* was one of Ian Weir Architect’s projects selected by the Australian Institute of Architects to represent innovation in architectural practice at the prestigious Venice Architecture Biennale, Italy.

The inspiration for this project comes from experience growing up on Swamp Rd, Gairdner River on a War Service Settlement farm where, as a youth, I participated in the extensive clearing of kwongkan shrubland for farming. Please see figure 1.



Fig 1. *Lightsite* inspiration – growing up in a scarified landscape on ‘Content’, Swamp Rd, Gairdner River.

The two images below show *Lightsite* (temporary) installed on the proposed development site on Lot 104. This was used to celebrate the connectivity that amateur botanist Barbara Miller-Hornsey has with this extraordinarily biodiverse region.



Lightsite on Lot 104 in 2006.



Photograph taken inside *Lightsite* on Lot 104 featuring Barb Miller-Hornsey, 2006

Below are a series of photomontages of the proposed permanent installation of *Lightsite*.



Siting on Lot 104 showing the kwongkan heath



Photomontage - *Lightsite* looking East

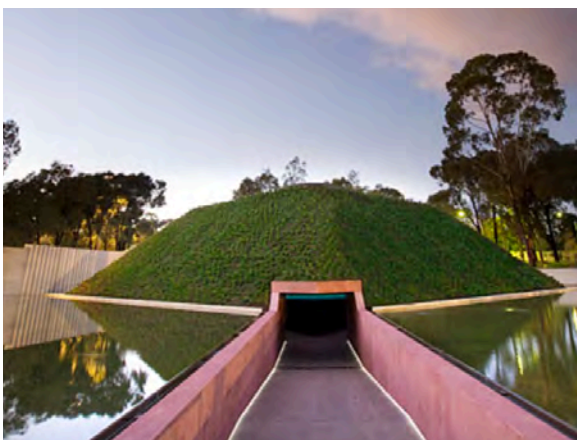


Photomontage - *Lightsite* looking West



Photomontage - *Lightsite* looking East

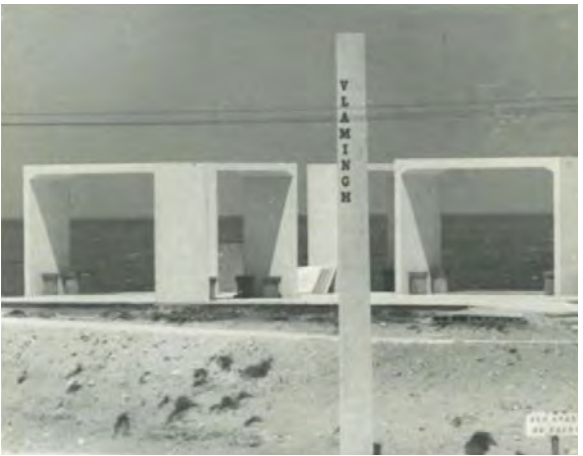
Below are a number of examples of similar LandArt projects situated within Australia and overseas. These projects have been design by artists, land artists and architects and are all non-habitable permanent installations.



Skyspace by James Turrell (USA) at the National Gallery of Australia, Canberra (non-classified LandArt).



Private LandArt project - *Maryhill Overlook* by Allied Architects (USA), Washington State, USA.



Vlamingh Memorial by Tony Brand, Cottesloe Beach, WA.

Private LandArt project by Donald Judd, Marfa Texas, USA

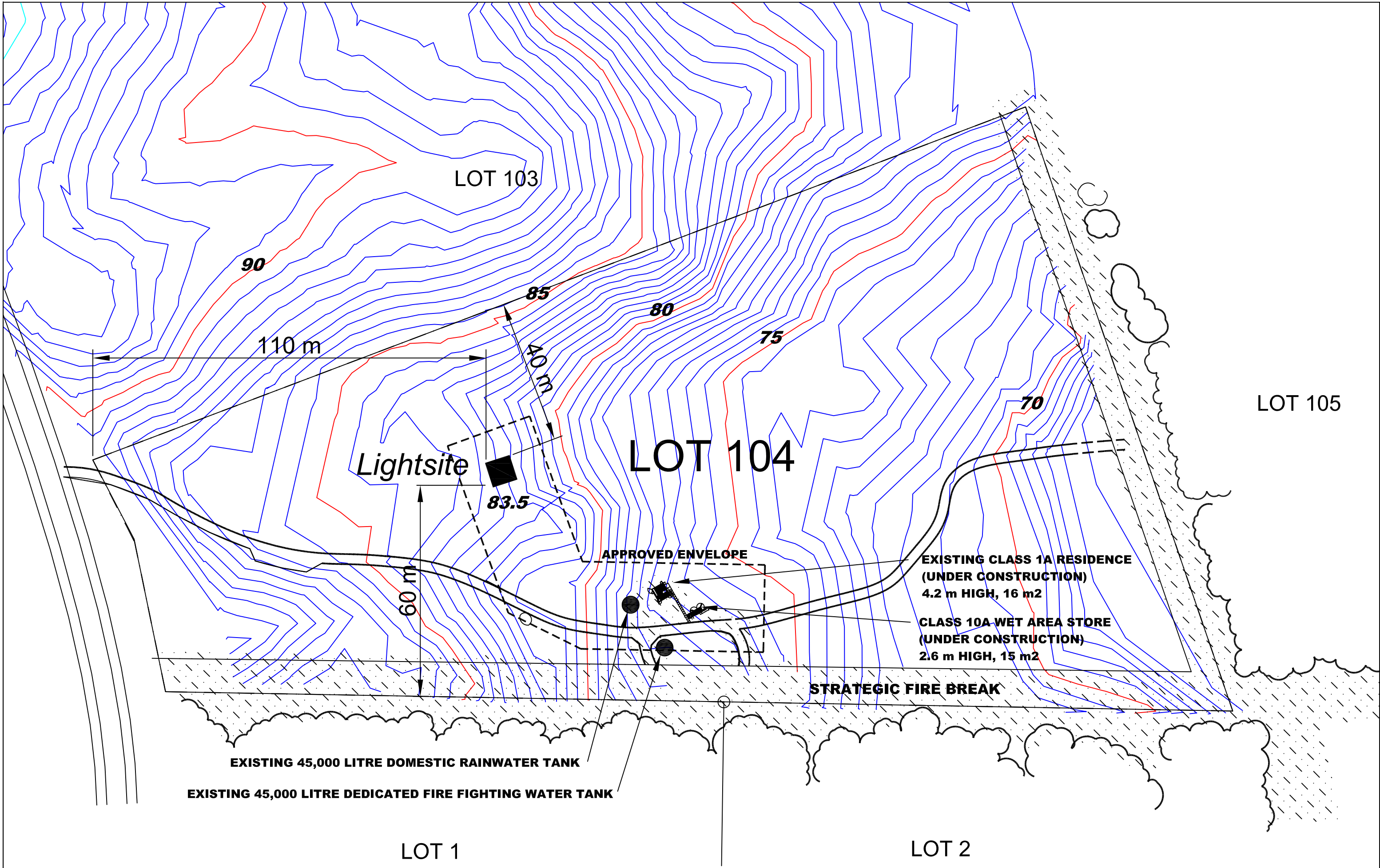
Please do not hesitate to contact me if you require any additional information.

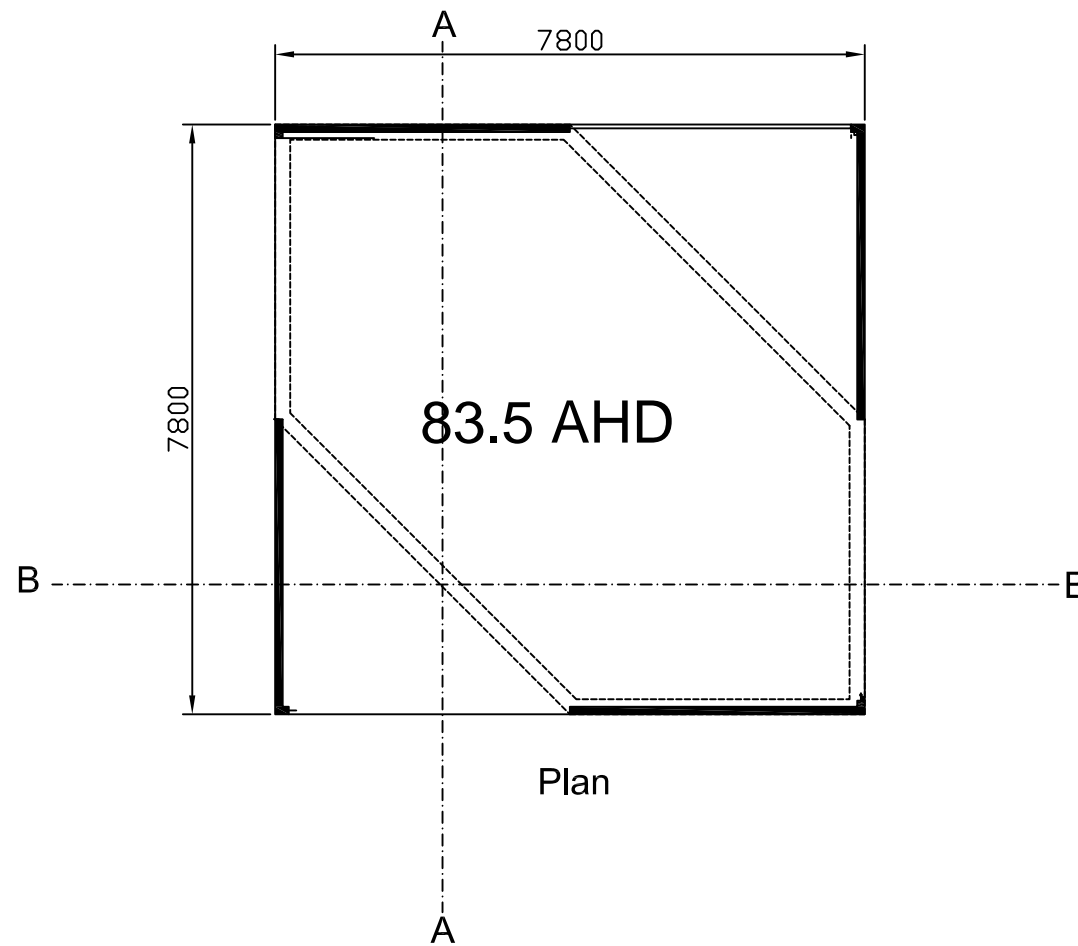
Yours Sincerely,

Dr. Ian Weir,

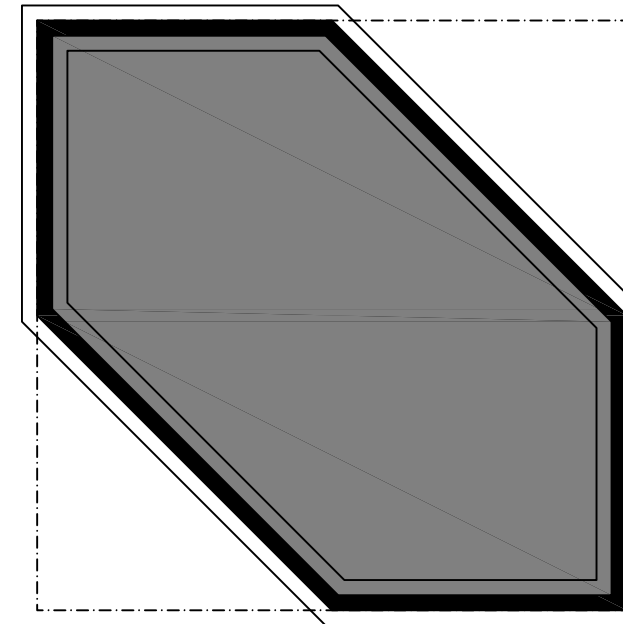
Queensland University of Technology

Date: 29th March 2014.

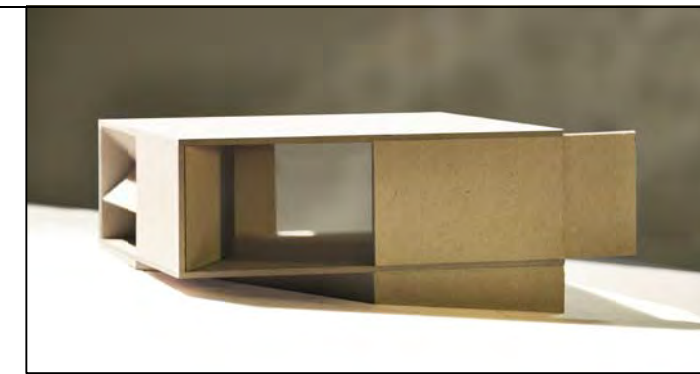




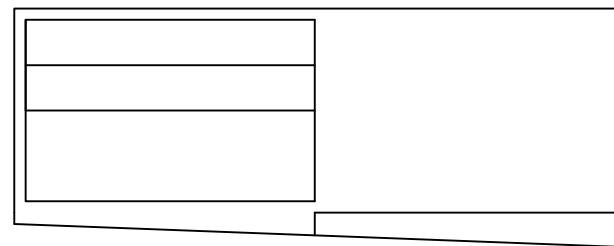
Plan



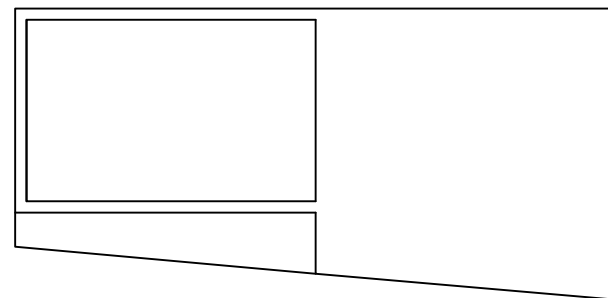
Footing Plan



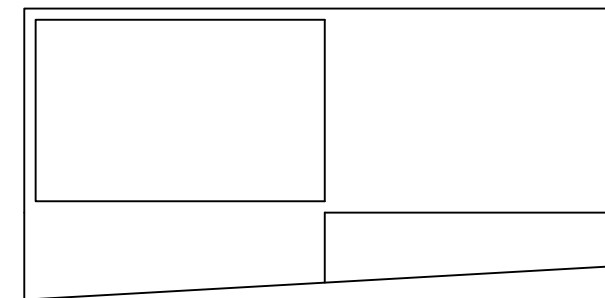
Lightsite looking North



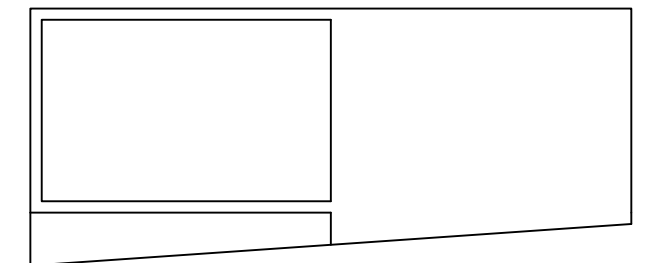
West Elevation



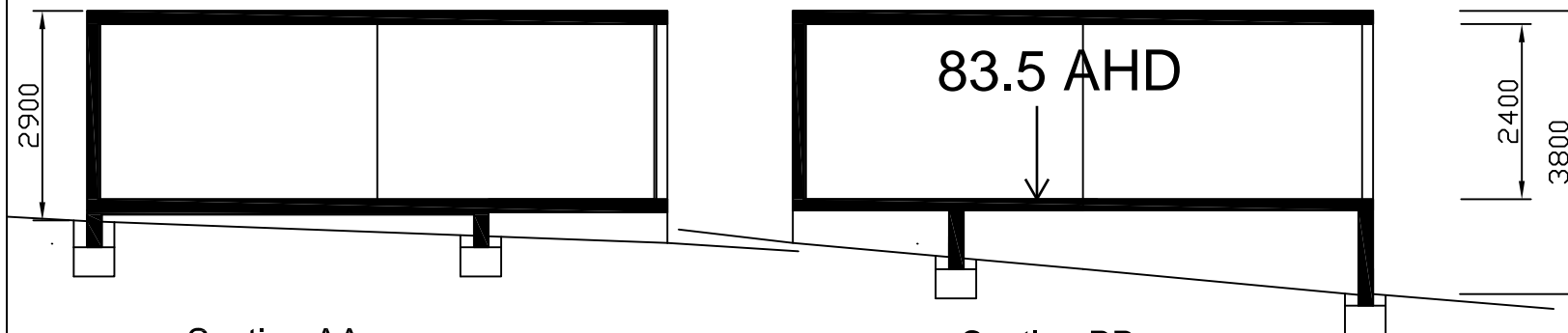
South Elevation



East Elevation



North Elevation



Section AA

Section BB



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DATE 26th March 2014

SCALE 1:100 @ A3

DRAWN BY I Weir

CHECKED BY I Weir

DRAWING TITLE **Lightsite**

PROJECT Lot 104, Point Henry Rd
Development Application

DWG No.

A2