

DESIGN 5

A R C H I T E C T S

Hannah Bryce-Tierney
Thelem Consulting

22 May 2020

htierney@thelem.com.au

Dear Hannah,

SYDNEY METRO REVIEW OF ENVIRONMENTAL FACTORS BAYS ROAD RELOCATION WORKS

Thank you for your request to review the report prepared by Sydney Metro for *The Bays Road Relocation Works: Review of Environmental Factors*. The proposal is described on page (i) of the document and is quoted below:

The proposal would be completed in two phases and would comprise the following key activities:

- *Reconfiguration of the intersection at Port Access Road / Sommersville Road / Solomons Way*
- *Relocation of Port Access Road to the south-west*
- *Line marking and signage at Port Access Road, Sommersville Road and Solomons Way to establish one-way flows and remove conflicting traffic movements*
- *Relocation of Cement Australia Truck Parking Licenced Area to the north-east.*

This letter contains the following sections

- 1 Background
- 2 The Proposal and Limitations
- 3 Comment and Potential Impacts with Regard to the White Bay Power Station.
- 4 Conclusion and Recommendations

1 BACKGROUND

As you are aware, Design 5 have reviewed and provided comment to Sydney Metro on earlier preliminary proposals for the relocation of the Bays Road. This advice occurred during a site visit with representatives from Sydney Metro and advice we prepared in a letter dated 22 August 2019.

The relocation of the port road is required to enable continued safe and unobstructed access to the White Bay Cruise Terminal and other port operations during the future construction works associated with the proposed Sydney Metro West.

This current review and response is limited only to potential impacts of the proposed relocation of the Bays Road has on the White Bay Power Station located directly to the east.

As part of this letter, we have avoided any background material on the history, evolution or the significance of the White Bay Power Station. Background information for the White Bay Power Station is addressed in numerous reports including Appendix D of the Sydney Metro report as well as the *White Bay Power Station Conservation Management Plan* prepared by Design 5 – Architects and dated 2013.

Design 5 - Architects Pty Ltd ACN 090 066 194 ABN 22 090 066 194
5 Queen Street, Chippendale NSW 2008 Australia
Tel +61 2 9319 1855 +61 2 9319 0836 Fax
E-mail: design5@design5.com.au

Nominated Architect – Alan Croker, NSW Registration No 4693, Tas Registration No 883
Matthew Byrnes 8918 Robert Gasparini 7614 Anita Krivickas 8253 Lian Wong 8532

2 THE PROPOSAL AND LIMITATIONS

The Review of Environmental Factors includes appendices that assesses the heritage impact of the relocated road prepared by Artefact, both dated April 2020, and include:

- Appendix D, *Statement of Heritage Impact*; and
- Appendix E: *Aboriginal Heritage Assessment*.

Design 5 have relied solely on the content of the main report prepared by Sydney Metro and the two appendices listed above for this review.

The information provided in the Sydney Metro report and its attachments as to the extent of work proposed and the proximity to the White Bay Power Station is general in nature. It is therefore difficult to draw conclusions as to the impacts of the proposal on the White Bay Power Station from primary sources, such as from survey drawings, engineering plans and detailed construction documents.

The following information would be required to make further considered conclusions on the physical and visual heritage impacts to the White Bay Power Station:

- Drawings showing the exact location of the bays road in relation to the White Bay Power Station including dimensions from structures within the White Bay Power Station complex.
- Detailed scope from structural and civil engineers showing, but not limited to, the extent of disturbance to ground, form of road construction, extent of excavation and change of stormwater and related conditions adjacent to the White Bay Power Station.

Given the above limitations, it is difficult to provide direct comment on the proposal apart from diagrams and descriptions provided in the referenced reports.

3 COMMENT AND IMPACTS IN REGARD TO WHITE BAY STATION

The overall summary of heritage impact on the White Bay Power Station is provided on page 57 of the report with other potential impacts described on page 58. Detail background material and impacts are provide in Appendix D.

The summary impact on White Bay Power Station is quoted below followed by comment:

Summary	Comment
<p><i>The overall impact of the proposal on the heritage item would be minor. While there would be physical permanent changes within the heritage curtilage, there are no significant buildings or structures that form part of the heritage item are within the proposal site and the proposal would not have direct impacts on elements that are of moderate to exceptional significance. The proposal is not expected to diminish the historic, associative, aesthetic, social significance, research potential, representativeness or rarity of the heritage item.</i></p>	<p>Generally we agree with this assessment. However, due to the limitations listed above, it is difficult to assess these impacts to their full extent at this stage. To assist with this assessment, Design 5 have overlaid <i>Figure 4-2 Overview of the proposal</i> (from Sydney Metro report) with <i>Figure 3.8.2.1 Site Plan Significance Gradings</i> (page 88) of the significance diagram in the White Bay Power Station Conservation Management Plan (refer to Figure 3.1 below).</p> <p>This diagram shows that the Bays Road will be located on the part of the site known as Coal Yard and is graded as Little/Neutral significance in the CMP. Artefact report states that works within the SHR boundary, there will be “<i>site clearance and any necessary surface remediation, site set up and other ancillary activities</i>” (Artefact; <i>Statement of Heritage Impact</i>, page 32). However, actual detail and extent of site clearance and surface remediation and what this entails is lacking.</p> <p>In regard to high level conservation policy, the two main policies from the Conservation Management Plan that most relate to this part of the site is Policy 1.2.1 and Policy 1.4.1. Response to Policy 1.2.1 is provided in Artefact report but not Policy 1.4.1. Policy 1.2.1 is quoted below followed by comment</p>

Summary	Comment
	<p>Policy 1.2.1 <i>Any development being proposed in the vicinity of the White Bay Power Station must carefully consider its bulk, scale and placement in order to respect the visibility and prominence of the power station as a harbourside landmark.</i></p> <p>Comment: We are satisfied and agree with the response in Artefact report on page 33 including their conclusion that “these changes have been considered minor due to the scale of the proposed works and the maintenance of views and vistas to and from the heritage item.” (Artefact; Statement of Heritage Impact, page 33). However, we reserve final comment subject to detail design.</p> <p>Policy 1.4.1 Spaces/elements graded 4 Little/neutral <i>These spaces, structures or elements retain only minor or neutral significance and may be retained or adapted substantially. Elements or fabric of higher significance should be retained if possible. Adaptation is preferred to complete removal. Walls and other elements shared between these spaces and other spaces of higher significance should be treated in accordance with the higher ranking as it affects that higher ranked space.</i></p> <p>Comment: While this is a fairly low significance area of the site, it is adjacent to sensitive structures. The main concern in this area is proximity of the proposed road to the Coal Handling Shed, the two extant steel chimneys and the guy ropes supporting the two chimneys.</p>

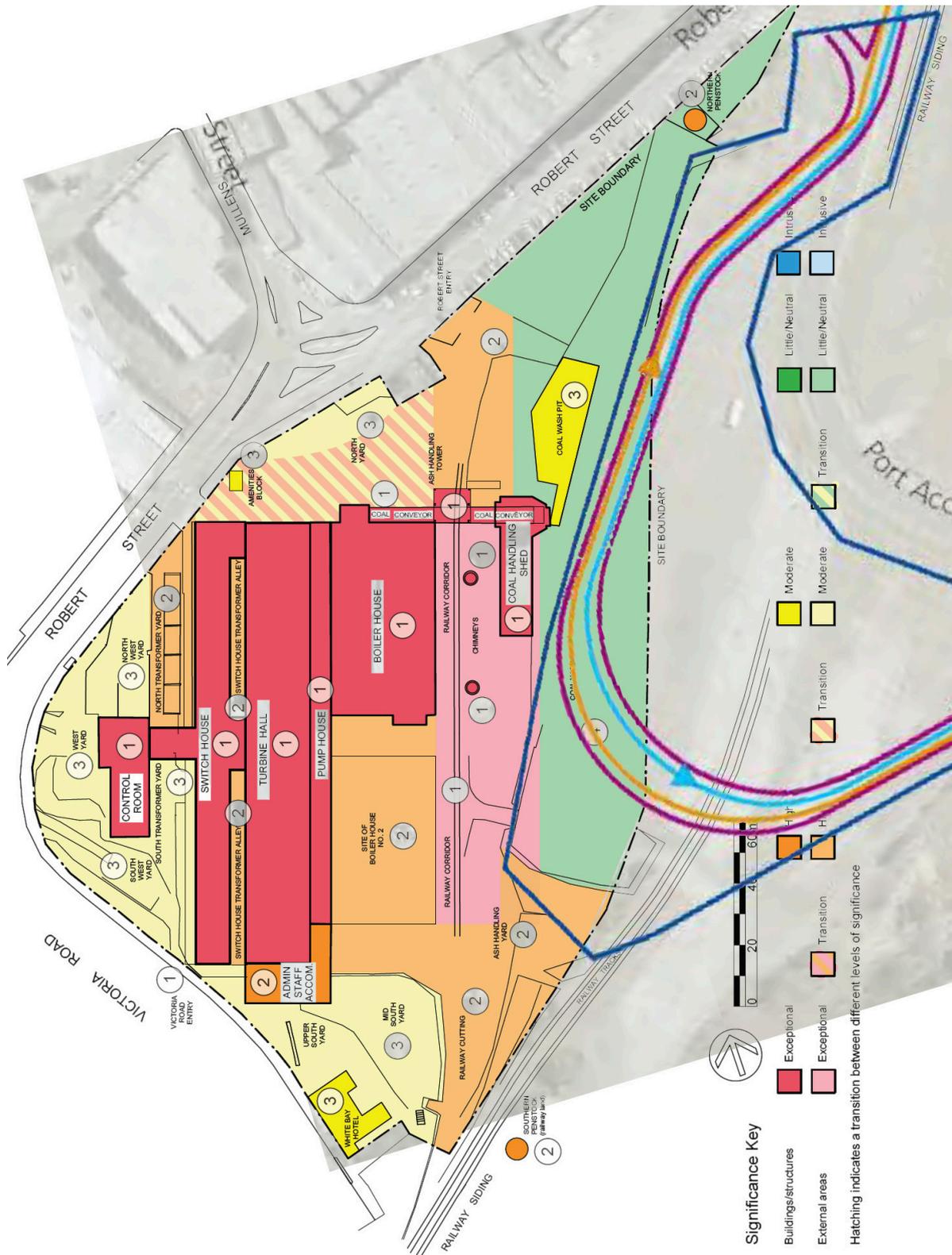


Figure 3.1: Design 5 overlay of *Figure 4-2 "Overview of the proposal"* from the *Review of Environmental Factors* (page 22) with *Figure 3.8.2.1 Site Plan Significance Gradings* in the *White Bay Power Station Conservation Management Plan* (page 88). The overlay shows the proposal of the Bays Road to be located predominately east of the Coal Handling Shed and within an area graded as having Little/Neutral significance (shown green). The road will be located close to the railway corridor which formerly serviced the Coal Handling Shed (accessed from the former Rozelle Railyards through the Victoria Road Bridge), and includes the former rail corridor and retaining wall and indicated as having Exceptional Significance.

Summary	Comment
<p>Direct impact – partial demolition</p> <p><i>The proposal would encroach on about 0.54 ha of the curtilage of the White Bay Power Station. A section of the relocated Port Access Road would be located within the heritage curtilage. Construction works within the heritage curtilage would involve site clearance and ancillary construction activities.</i></p> <p><i>These works would be undertaken in open areas comprising hardstand and port infrastructure (associated with the former coal yard). The former coal yard is not considered to be of exceptional or high significance and does not have designated policies within the White Bay Power Station Conservation Management Plan (CMP).</i></p> <p><i>However, section 5.1.12 of the CMP indicates that landscape elements including yards should be conserved and adapted. At present, the former coal yard remains undeveloped and the proposal, including the relocated Port Access Road, would alter this.</i></p>	<p>We generally agree with this assessment and with mitigation measures for Non-Aboriginal heritage that an <i>Archaeological Work Method Statement</i> be prepared and implemented where excavation is required close to White Bay power station structures (page 60).</p>
<p>Potential direct impact vibration</p> <p><i>Modelling indicates that one item within the heritage curtilage (coal handling shed) could experience vibration levels above the cosmetic damage screening criteria (refer to Figure 7-2). Further assessment (including a structural assessment) prior to the commencement of vibration-intensive works and vibration impact monitoring (if required) would be completed to ensure vibration levels remain below appropriate limits for that structure.</i></p> <p><i>The more detailed assessment would specifically consider the heritage values of the structure in consultation with a heritage specialist to ensure sensitive heritage fabric is adequately monitored and managed.</i></p>	<p>The report recognises potential for physical vibration impacts to structures in White Bay Power Station shown in figure 7-2 of the report (extract of Figure 7-2 is below). This diagram shows impacts to the Coal Handling Shed identified as exceptional significance in the CMP. The second structure indicated is the construction sheds which have no significance and any impacts to this building is inconsequential in heritage terms.</p>  <p>Figure 3.2: Crop of Figure 7-2 from the <i>Review of Environmental Factors</i> (page 50) showing cosmetic damage criterion to the Coal Handling shed</p> <p>The report does not consider the nearby chimneys, chimney supports or Boiler House which is also close distance to the proposed road.</p> <p>Apart from this issue, we generally agree with the following mitigation measures:</p> <ul style="list-style-type: none"> • Vibration monitoring as outlined in Table 7-7 (page 51) to include nearby structures at White Bay Power Station. • Non-Aboriginal heritage as outlined in Table 7-13 (page 60). Archival recording should also include a photographic survey of

Summary	Comment
	nearby structures at White Bay prior to commencement of work (page 60 of the report).
<p>Indirect Impact – Views and Vistas</p> <p><i>The landscape elements and external spaces that form part of the heritage item and are located in the proposal site have been identified as having spatial significance for their contribution to the scale and industrial quality of the item and its built components.</i></p> <p><i>Construction works and the relocation of the Port Access Road would visually alter the presentation of the portion of the heritage item that is located within the proposal site. This would result in temporary and permanent visual changes within the heritage item curtilage and would change the arrangement and configuration of the land surrounding the significant industrial structures.</i></p> <p><i>However, the site would maintain its current industrial function and level of development; and the nature of proposal comprises of the relocation of road infrastructure rather than intrusive new development.</i></p>	<p>This is generally agreed as we also acknowledge the many evolutionary changes to the area immediately east of the White Bay Power Station since reclamation in the late 1890s.</p> <p>While predominantly a vacant site, the area has had various phases of large scale industrial structures built on this site, but has predominantly been utilised as a rail corridor. The part of the site that is within the White Bay Power Station has been rail corridor to supply coal to the power station from rail yards to the south through Victoria Road Bridge. Artefact response to views and vistas in their reports, particularly response to Policy 1.2.1 is generally supported.</p>

The White Bay Power Station (Inlet) Canal

While outside the White Bay Power Station site, the canal connects with underground water passage through the White Bay Power Station. Any disturbance to this structure, could change water flowing through the underground canal, which we understand the White Bay Power Station relies on for stormwater drainage. Any physical changes to this canal can therefore have the potential for direct physical impacts to the White Bay Power Station.

Summary	Comment
<p>Direct impact – partial demolition</p> <p><i>A 70-metre stretch of the s170 heritage-listed White Bay Power Station (Inlet) Canal is located directly within the study area. However, the inlet canal is located entirely underground, with its visible entry point into White Bay located outside the study area. The proposal would include site clearing and any necessary contaminated land remediation works around Port Access Road in addition to the relocation of the Ports Access Road which would include excavation.</i></p> <p><i>There is limited information on the precise depth of the heritage item. Depending on excavation methods and depths, this excavation work has the potential to directly impact the subsurface heritage item. The proposal is considered to have a minor direct impact on the s170 heritage listed White Bay Power Station (Inlet) Canal. Once the relative depth of the heritage item is confirmed, the direct impact on the item may be reduced to a neutral impact or increased to moderate.</i></p>	<p>We generally agree with this assessment and recommend that further investigations are made so that potential direct harm can be avoided with appropriate structural mitigation.</p>
<p>Potential direct impact – Vibration</p> <p><i>Vibration is predicted to be above the cosmetic damage screening criteria. The item would experience vibration levels above the cosmetic damage screening criteria (refer to Figure 7-2).</i></p>	<p>Same as the comment above</p>

Further assessment (including a structural assessment) prior to the commencement of vibration-intensive works and vibration impact monitoring (if required) would be completed to ensure vibration levels remain below appropriate limits for that structure.

The more detailed assessment would specifically consider the heritage values of the structure in consultation with a heritage specialist to ensure sensitive heritage fabric is adequately monitored and managed.

CONCLUSION AND RECOMMENDATIONS

As stated at the limitations section of this letter, the report prepared by Sydney Metro contains information that is general in nature and reliance as to the location and extent of the proposed road is made on small diagrams contained within the body of the report. Given the above limitations, it is difficult to provide direct comment on the proposal apart from diagrams and descriptions provided in the referenced reports.

We agree with the assessment and findings that the works will have little visual heritage impacts to the curtilage of White Bay Power Station or “diminish the historic, associative, aesthetic, social significance, research potential, representativeness or rarity of the heritage item”. From this point of view, and considering the need for the road, the proposal should be supported in principle. We consider that the recommendations for vibration monitoring for physical impacts to the white by power station to continue during the works.

However, due to the lack of actual surveys, engineering drawings and scope of work, we recommend the following conditions for the work be incorporated in addition to the mitigation measures proposed by Sydney Metro:

- Carry out a full and thorough survey of all above ground features particularly in the areas adjacent to the White Bay Power Station to assist with site planning, detailed design of the road and heritage assessment.
- Detailed designs of the Bays Road, including structural and civil designs, should be peer reviewed in terms of potential physical impacts to structures on White Bay Power Station, including but not limited to, the Coal Handling Shed, the two steel chimneys and chimney support cable anchors.
- A heritage consultant should be engaged by the proponent to advise as the details develop.
- The Port Access Road should be constructed on top of existing ground level as much as possible to avoid cutting. This is to minimise or avoid potential for archaeological disturbance and allow reversibility of the road following construction of the metro and to not restrict any future proposals for urban renewal.
- Ensure that sufficient access to the base of chimney cables is maintained to the east elevation of the Coal Handling Shed for periodical maintenance and repair.
- Ensure that temporary and permanent works do not direct stormwater toward the White Bay Power Station.
- An archaeological assessment should be carried out as part of the detailed design and any potential for significant archaeology identified.
- Recommend liaison with the Heritage Division of the Office of Environment and Heritage.

Please do not hesitate to contact me should you have any questions.

Yours Sincerely



Robert Gasparini
Director
Design 5 – Architects Pty. Ltd.