

Heritage Impact Statement for Locomotive Workshop (Bays 1–4a)



Prepared for Mirvac by Curio Projects
FINAL REPORT
ISSUED NOVEMBER 2017

Table of Contents

Table of Contents	2
Executive Summary	5
1.0 Introduction	12
1.1. The Purpose of this Report	12
1.2. Background	13
1.3. Site Identification	13
1.4. Heritage Conservation Documents	17
1.5. Limitations and Constraints	17
1.6. Authorship	17
2.0 Statutory Context	18
2.1. Planning Framework	18
2.2. Heritage Statutory Framework	18
2.2.1. Environmental Planning and Assessment Act 1979	18
2.2.2. Statutory Heritage Listings	19
2.2.3. Requirements of the SEARS	19
4. Heritage	19
3.0 Historical Overview	21
3.1. Pre-European Environment	21
3.2. Post-Contact Aboriginal History	22
3.3. European Development	23
3.3.1. Chisholm Estate	23
3.3.2. History of the Eveleigh Railway Workshops	23
3.3.3. Locomotive Workshops	24
3.4. Historical Summary Timeline—ATP Site Specific	28
4.0 Physical Analysis	31
4.1. ATP Site Context	31
4.1. Physical Description of Locomotive Workshops	32
5.0 Potential Archaeological Resources	37
5.1. Aboriginal Archaeological Potential	37
5.1.1. AHIMS Search	37
5.1.2. Environmental Context	38
5.1.3. Potential for Aboriginal Archaeological Deposits	39
5.2. Historical Archaeological Potential	40
5.2.1. Archaeological Potential	40
5.2.2. Relics vs Works and Standing Footings	41
5.2.3. Site Disturbance Activities	41

5.2.4.	Historical Archaeological Resources	42
5.2.5.	Summary of Historical Archaeological Potential	45
6.0	Heritage Significance	46
6.1.	Significance of Components—Overall ATP Site	47
6.1.1.	Significance of Components—Locomotive Workshop	49
6.1.2.	Heritage Significance—Bays 1–4a	50
7.0	Description of the Proposed Development	51
8.0	Assessment of Development Impacts	71
8.1.	Change of Use	71
8.1.1.	Background	71
8.1.2.	Overarching Vision for Change	72
8.1.3.	Blacksmith Workshop	73
8.1.4.	Changes to the Locomotive Workshop Bay Numbering	73
8.1.5.	Retail—Supermarket	74
8.1.6.	Provision of Parking	75
8.1.7.	Loading Dock Options	75
8.1.8.	Changes to Bays 1 and 2 North: Moveable Heritage Collections	81
8.2.	Demolition Impacts	84
8.2.1.	Demolition of Existing Interpretation	84
8.2.2.	The Blacksmith	84
8.3.	Insertion of Loading Dock	85
8.3.1.	Loading Dock—Physical Impacts	85
8.3.2.	Loading Dock—Visual Impacts	87
8.3.3.	Loading Dock - New Mezzanine Heritage Exhibition Area	89
8.3.4.	Installation of New Retail Inserts	90
8.4.	Bays 3-4a—Impacts	92
8.4.1.	Changes to Modern Infill Office Fit-Out	92
8.4.2.	Construction of New Retail Premises	95
8.4.3.	Construction of Travelator	99
8.4.4.	Amenity and Service ‘Pods’	103
8.4.5.	Enhancement of Entrances/Openings	104
8.5.	Changes to Roof Fabric	106
8.5.1.	Roof Upgrade—Physical Impacts	106
8.5.2.	Roof Upgrade—Visual Impacts	108
8.6.	External Windows and Doors on Northern, Southern and Eastern Facades	111
8.6.1.	External Doors—Physical Impact	111
8.6.2.	Alteration of External Doors—Visual Impact	112
8.6.3.	External Heritage Windows	115

8.7.	Changes to External Annex Structures	115
8.7.1.	Corner Retail—Physical Impact	115
8.7.2.	Corner Retail—Visual Impact	116
8.8.	Installation of External Illumination	118
8.8.1.	External Illumination—Physical Impact	118
8.8.2.	External Illumination—Visual Impact	119
8.9.	Signage.....	119
8.10.	Public Domain Improvement	120
8.11.	Impact to the Moveable Heritage Collection	122
8.11.1.	Bays 1 and 2.....	122
8.11.2.	Bay 3.....	123
8.11.3.	Bay 4.....	124
8.11.4.	Bay 4a.....	125
8.11.5.	Overhead Cranes	130
8.12.	Blacksmith Upgrade Works.....	131
8.13.	Potential Archaeological Impacts—Bays 1–4a	132
8.13.1.	Aboriginal Archaeological Impacts	132
8.13.2.	Historical Archaeological Impacts.....	133
8.13.3.	Archaeological ‘Relics’ vs ‘Works’	133
8.14.	Interpretative Initiatives	134
8.14.1.	Stage 1 Interpretation Strategy	134
8.14.2.	Stage 2 Interpretation Strategy	134
8.15.	Overall Statement of Heritage Impact.....	144
8.15.1.	Summary of key impacts	144
8.15.2.	Assessment of Impacts against the CMP Policies	149
9.0	Conclusions and Recommendations	153
9.1.	Adaptive Reuse	153
9.2.	Impacts to Fabric and Space	154
9.3.	Summary of Conclusions	155
9.4.	Recommendations.....	155
9.5.	Compliance with SEARS Requirements	157
10.0	Bibliography.....	159
APPENDIX A—AHIMS EXTENSIVE SEARCH RESULT		
APPENDIX B—INTERPRETATION STRATEGY		
APPENDIX C— NSW HERITAGE COUNCIL CORRESPONDENCE		

Executive Summary

Background

Curio Projects Pty Ltd has been commissioned by Mirvac to prepare a Heritage Impact Statement (HIS) for the Locomotive Workshop (Bays 1–4a)—Retail Development (the subject site). This report supports a State Significant Development Application (SSDA) submitted to the Minister for Planning pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act).

The Application (referred to as SSDA 8517) seeks approval for the adaptive reuse and redevelopment of the eastern portion of the Locomotive Workshop Building (being Bays 1–4a) within Australian Technology Park (ATP), Eveleigh as described in detail in the Project Description section of this report.

The SSD application (SSD 8517) for the eastern portion of the Locomotive Workshop (Bays 1–4a) seeks approval for the following plan development:

- demolition of existing ‘modern’ office infill fit-out elements to Bays 3–4a, including display barriers in Bays 1 & 2;
- relocation of moveable heritage items;
- adaptive reuse of the Bays 1–4a and two annex structures for retail premises uses, function centre uses, information and education facility uses, general industrial uses, recreation facility (indoor) uses and associated back of house facilities;
- construction of internal and external alterations to Bays 1–4a;
- heritage interpretation and conservation works;
- public domain improvements within the curtilage of Bays 1–4a;
- provision of an external building illumination system;
- signage; and
- associated utilities and infrastructure.

This HIS assesses the proposed development in terms of its impacts on the eastern portion of the Locomotive Workshop (Bays 1–4a). It also assesses how the proposed works relate to any proposed future works to Bays 5–15, the wider ATP site, and the surrounding Eveleigh Railway Workshop (ERW) precinct, as a whole.

All known and potential heritage impacts, including change of use, and any impacts to built heritage fabric, moveable heritage items, impacts to intangible heritage and any impacts on potential Aboriginal and historical archaeological resources have been described and assessed.

Change of Use

The proposed redevelopment of Bays 1–4a of the Locomotive Workshop includes several major changes in use:

- Bays 1 & 2 North solely from the existing heritage exhibition, to a retail space with heritage items displayed throughout, a loading dock for the adjacent supermarket anchor tenant, and a mezzanine heritage exhibition and interpretation space.
- Bays 3–4a from commercial and function space to retail space, with an anchor supermarket tenant in Bays 3–4a North, marketplace style retail in Bays 3–4a South, and additional single storey mezzanine retail.

- Installation of a traveller in Bay 4 South, connecting the retail and supermarket premises with basement car parking beneath Building 2.
- External annex along Bay 1 southern facade from space ancillary to the existing blacksmithing works in Bays 1 & 2 South, to an activated retail/café space.

The proposed change in use within the eastern portion of the Locomotive Workshop is part of the overall change in use proposed for the Locomotive Workshop building. Changes to Bays 1-4a are intended to enhance and support the proposed commercial uses of Bays 5–15 (subject to separate DA and HIS), and the broader precinct.

As part of determining the final uses for the site, critical to the decision-making was understanding how to work within the fabric and spaces of the Locomotive Workshop within its immediate broader setting (including Bays 5-15, Buildings 1-3, the revitalised public domain), and beyond. Mirvac also needed to ensure that the offering at ATP:

- would be commercially viable;
- compliments the offering at Carriageworks;
- retains the technology and innovation focus of ATP;
- activates public use;
- conserves the significant fabric of the building;
- celebrates the heritage values of the site (both intangible and tangible); and
- can be environmentally sustainable (able to achieve a 5 Green Star rating).

As a result, the Locomotive Workshops are proposed to undergo its most extensive network of changes since the Eveleigh Workshops closed in the 1980s and ATP was created in the 1990s.

Summary of Proposed Impacts

This HIS has been prepared with close reference to, and consistency with, the ATP CMP and other Public Positive Covenant documents such as the Moveable Collection Management Plan (MCMP), and the Heritage Asset Management Strategy 2013-2018 (HAMS), as well as broader NSW policies and guidelines, such as the ICOMOS Burra Charter (2013) and the joint NSW Heritage Council and The Royal Institute of Architects guidelines on *New Uses for Heritage Places: Guidelines for the Adaptation of Historic Buildings and Sites* (2008).

The development will result in a change of use of spaces within Bays 1-4a, which will have a physical and visual impact, that differs markedly, to the current physical and visual impact of the current 1990s modern infill office and event space fitout. It shares, however, the common principle applied to the fitout of the 1990s, which is to create a new fitout, that for the most part, is reversible, and will more openly reveal the heritage fabric, with no long-term physical impact on the significant fabric of the Locomotive Workshop or its Moveable Heritage Collection.

The key impacts in Bays 1-4a relate to the cumulative impact of the chosen retail anchor - the supermarket, its associated loading dock and travelator. As discussed in the detailed impacts subsections of the report, the decision by Mirvac to provide a supermarket as the key retail anchor in the northern portion of Bays 3-4a has been the result of a number of factors. These factors included, but were not limited to:

- creating a sustainable, activated ‘seven-day-a-week’ precinct that would attract regular users;
- a close examination of the ability of the Locomotive Workshop to handle change (based on its heritage significance);
- engaging with various potential tenants over the last 12-18 months to understand site- specific tenancy needs; and
- undertaking internal and external retail economic assessments and feasibility studies to assess the viability of different retail options specific to the Locomotive Workshops.

As a result, every effort has been made by the design team to reduce, offset and mitigate the cumulative impacts of introducing a supermarket, and its ancillary requirements, into Bays 1-4, where possible. In addition to this, broad consultation within the community, and beyond, was undertaken to further refine and reduce the impacts, where the opportunity existed.

As a result, very few permanent impacts to significant heritage fabric have been proposed.

Key changes to fabric include:

- relocation of three insitu forges¹ from Bay 2 north to Bay 2 South;
- relocation of the Dual Grinder (Item no. 4745040) from Bay 2 north to Bay 2 South;
- relocation of non-provenanced moveable heritage items that are being stored in Bay 2 North (originally from the Spring Shop, not the Blacksmith) from within the proposed loading dock location to a new location within the site;
- relocation of tool racks and other moveable items from within the proposed loading dock location, to other locations within Bay 1 and Bay 2 north under the guidance of the current blacksmith and former blacksmith, Richard Butcher;
- repositioning of the overhead crane in Bay 1 North, further along the tracks to allow for the construction of the loading dock;
- relocation and reinterpretation of moveable heritage items in Bays 3-4a to different, publicly accessible locations within Bays 3-4a;
- repositioning of the overhead crane, along the same track, from Bay 4 North to Bay 4 South; and
- unbolting, removal and storage, of a small section of steel girders and trusses, between Bays 2 and 3, 4 and 4a, to allow site-through access at the mezzanine level, as well as one steel girder in Bays 1 and 2 to allow for mezzanine access.

The major impacts generally relate to visual impact of the new uses proposed for Bays 1-4a, and are associated with the:

- removal of the 1990s three-storey modern office fitouts;
- construction of new, light-weight glazed pavilion, at the south-east corner of the Locomotive buildings (Bays 1-2);
- construction of the supermarket & associated retail (Bays 3-4a);

¹ The specific items are the Blacksmith Forge No. 4 + Coke Bin (Item no. 4745027), Forge No. 29 Coke Bin (Item no. 4745027) and Forge 30 Coke Bin (Item no. 4745367)

- installation of a travelator (Bay 4);
- construction of roof plant, requiring internal structural support (Bay 4); and
- construction of the loading dock and false floor over the railway tracks (in Bays 1 and 2).

The proposal to remove all of the 1990s ATP modern office fitout, including the removal of all third-storey mezzanine levels throughout, and the removal of the 'box within a box' office spaces provides the opportunity to open up views within the bays for the first time in 20 years.

The decision to restrict development to a maximum of one mezzanine level, that will remain open to the roof structure, was made to retain the views and vistas to and from key locations within Bays 3-4a, where possible and to reinstate a strong connectedness between the original fabric of the building and the new fitouts. This includes reinstating views of the volume of the building and its significant elements, such as the cast iron columns, roof trusses, steel girders and overhead cranes.

It is proposed to reduce the impact of any new retail fitout through the design of sensitive, light-weight structures that bolt together and work as stand-alone elements within the building so that they can be easily removed in the future. The visual impact of the insertion of new retail within Bays 3-4a will be carefully managed in accordance with the key design principles, as outlined in the Sissons architectural reports,² to ensure that the adaptive reuse will result in a vibrant, active use of the site.

As the proposed supermarket has the potential to have a major impact on the way in which Bays 3-4a are read and appreciated, the impacts are proposed to be minimised, using a bespoke design approach that will be applied to the supermarket threshold and fitout, as discussed in the HIS in Section 8.4.2. and in the Sissons Architectural Design Report. The operation and fitout of the supermarket and associated tenancies within Bays 3-4a will be subject to separate DA approvals and will be prepared in accordance with the Mirvac's design principals.

The proposed travelator will create a new physical element within the central section of Bay 4 that will also be read as a new, modern visual element emerging from the centre of the Bay. Therefore, its potential impact is proposed to be offset through clever, immersive heritage interpretation within the tunnel of the travelator, and in the treatment of the travelator fabric as it emerges from within the Bay. The intention is to ensure that the fabric and presence of the travelator within Bay 4 is minimised as much as possible, so that it does not detract from the significant fabric of the building.

As part of the travelator works, the proposed development will have the potential to impact upon the brick arched footings of the building in Bay 4 (southern façade). It is proposed to investigate, conserve and incorporate the brick arched footings within the proposed travelator design. The newly exposed footings will form part of the heritage interpretation experience within the travelator. It is considered that the uncovering and use of the brick arched footings within the travelator design is a very positive design outcome.

The construction of the glazed pavilion is a positive addition to the southeast corner of the site, and will help to activate visitation to the Blacksmith Workshops in Bays 1 and 2.

The construction of the roof plant will have some physical and visual impact in the form of structural supports, internally, which proceed through the roof to independently support the roof plant. The fabric of the supports are however, industrial in nature, and will not have a major visual impact within

² Submitted with the SSDA application, including the Architectural Plans, Architectural Design Report and Landscape Design Report prepared by Sissons.

the space. Externally, the roof plant will not be visible from any location, as it sits within the valley of the roof. This is a positive solution to ensure the retail area is adequately serviced.

The loading dock has created the most negative impact in terms of changes to space, yet the loading dock, in this location, is one of the three factors deemed critical to the success of the proposed retail.

In order to offset and help minimise the visual impacts associated with creation of the loading dock, the following heritage initiatives have been proposed:

- a dedicated heritage exhibition space (not static), and archival repository, to be located within the mezzanine above the loading dock;
- use of the loading dock southern wall face as a 'moveable heritage interpretation display', similar to 'Ghosts', an interpretative artefact wall proposed for Bay 2 North, which was endorsed by the NSW Heritage Council in 2012³;
- improved interpretation of, and public access to the iconic Blacksmith Workshop moveable heritage collection throughout Bays 1-2;
- interpretative treatments that will interpret the original floor, including railway tracks and pits within the finished floor of Bays 1-4a, where relevant;
- reintroduction of a hard-packed dirt floor in the forging areas of Bay 2 South to assist with functionality of the blacksmith workshop (in consultation with the Blacksmith and to allow for maximum flexibility); and
- reintroduction of controlled lighting in Bays 1 and Bay 2 to assist the blacksmithing activities in Bays 1 and 2 South (in consultation with the Blacksmith).

The proposed offsets have focused very strongly on the reversibility of the loading dock, minimisation of space, efficiency, permeability, design and heritage interpretation as the way to find an on-balance solution. As part of this process, it was determined, in consultation with Richard Butcher, former Blacksmith at Eveleigh, (and upon review of all S170 documentation) that the machinery collection in Bay 1 and Bay 2 North is less intact as an insitu collection than anywhere else within Bays 1-2. The area is, generally, used as a storage area for displaced moveable heritage collections, predominantly from the Spring Shop. The lack of engagement with the static collection by the public was also carefully considered.

In addition, it was determined that the proposed interpretative artefact wall for moveable heritage items on the southern wall of the dock, and the interactive heritage exhibition on the mezzanine level, was very similar in concept, to the large-scale two-story 'Ghosts' interpretation wall/display proposed by 3D Projects in 2012 (endorsed by the NSW Heritage Council and UrbanGrowth, at the time). The concept plan even located the 'Ghosts' display in the exact same location as the proposed loading dock, and came to the same conclusions regarding impacts on moveable heritage collections and spaces.

Whilst the physical and visual impact of placing the loading dock in the rear North of Bays 1 and 2, is negative compared to the current openness of the space, this location within Bays 1 and 2 has been designed to have the least impact on the significant collection being held across all of Bays 1 and 2.

Numerous heritage sub-panel discussions, internal design meetings and consultation with key stakeholders has resulted in the development of a number of significant offsets that will reduce the

³Ghosts is a part of the Interpretation Strategy prepared by 3D Projects 3D Projects 2012, *Eveleigh Railway Workshops Interpretation Plan & Implementation Strategy*, prepared for Redfern-Waterloo Authority (2012:58-59)

impact of the loading dock and create an opportunity to showcase the history and importance of the blacksmiths, past and present, within the broader context of the iconic history of the site. The proposed heritage offsets, include the:

- reversibility of the loading dock;
- careful design that incorporates a moveable heritage display wall, interpretation and transparency within the loading dock, where possible;
- creation of a dedicated heritage exhibition space at the mezzanine level that will incorporate rotating displays; and
- the renewal of the heritage interpretation throughout the Bays 1 and 2 ground floor plane;

The proposed offsets will provide a very strong base/place within the Eveleigh Railway Workshops, to create an authentic, engaging cultural heritage tourism experience that can be sustained in the long-term, together with the rest of the proposed public activation of the site.

The loading dock is proposed to be fully reversible (easy to dismantle), and incorporates many key design elements that has been the catalyst for many positive heritage offsets, including the dedicated heritage exhibition space. The impacts of the loading dock have been minimised as much as possible, to create a compromise that allows Bays 1 and 2 to be retained for use as a blacksmith tenancy. The proposed works will provide a vastly improved interpretation of the significant insitu moveable heritage collection and provide a destination for cultural tourism visitors, whilst still allowing Mirvac to create loading for the proposed retail tenancies.

This HIS has determined that there is a nil to low potential for any Aboriginal or historical archaeological deposit to be present within the eastern portion of the Locomotive Workshop (Bays 1–4a). While the excavation required for the installation of the travelator in Bay 4 South will require significant localized ground disturbance works, the assessment has determined there is no potential for impact to archaeological deposits to be impacted upon.

While the eastern and western portions of the Locomotive Workshop are being addressed through separate SSDAs due to functional purposes (future retail vs commercial functionality), this HIS acknowledges that the Locomotive Workshop is one holistic and cohesive heritage building with a unified exceptional level of heritage significance and history. Therefore, the redevelopment of Bays 1–4a have not been treated as isolated individual components throughout the design process.

All proposed works in Bays 1–4a of the Locomotive Workshops will be consistent with the proposed architectural treatment of Bays 5–15 and the wider ATP public domain. The broader significance of the ERW site is embodied within the ATP site, and in particular, the fabric and collections housed within the Locomotive Workshop. The changes to the use and spaces within Bays 1–4a of the Locomotive Workshop, including interpretative initiatives, will conserve the significant fabric, stories and moveable heritage collections of the building whilst returning the overall Locomotive Workshop back to a busy, industrious workplace that will be utilised and appreciated on a daily basis by thousands of workers, local community members and visitors alike.

Conclusions

In summary, the proposed adaptive reuse of Bays 1–4a of the Locomotive Workshop, whilst requiring a major change of use in key spaces within the Locomotive Workshop, will have an exciting and positive, long-term effect in protecting and celebrating the site's iconic heritage fabric and stories.

The actual impact on heritage fabric, resulting from the proposed adaptive reuse, has been minimised as much as possible through design, with the majority of impacts able to be fully reversed in the future,

including the insertion of a fully-reversible loading dock and retail/service pods that can be readily removed. The main visual impacts are associated with the construction of new retail at the south-east corner of the Locomotive Workshop building, construction of the supermarket, the travelator, roof plant and the loading dock. However, all these elements have been designed to incorporate a variety of key heritage offsets and positive outcomes, such as:

- retention of the working Blacksmith in Bays 1 and 2 south, with improved amenity;
- a dedicated heritage exhibition space, and archival repository, to be located within the mezzanine above the loading dock;
- use of the loading dock wall as a 'moveable heritage interpretation wall';
- improved interpretation of, and public access to the iconic Blacksmith Workshop moveable heritage collection;
- use of the travelator tunnel, as a dedicated interpretative space for the interpretation of the former Foundry; and
- creation of opportunities to activate the spaces in and around Bays 1 and 2 to (heritage exhibitions, discrete retail uses, events) to increase visitation to the Locomotive Workshop, including the new external, south-east corner retail.

The redevelopment aims to preserve, accentuate and emphasise the exceptional cultural and aesthetic heritage values of the building, its collections, stories and spaces within an operational framework that will secure the long-term economic viability and activation of the site. Mirvac has a vision to create a compelling 'destination', like no other in Australia, where the commercial, retail and cultural heritage tourism opportunities for ATP can be brought together and celebrated, with the Locomotive Workshop, front and centre.

1.0 Introduction

1.1. The Purpose of this Report

Curio Projects Pty Ltd has been commissioned by Mirvac to prepare a Heritage Impact Statement (HIS) for the Locomotive Workshop (Bays 1–4a)—Retail Development (the subject site). This report supports a State Significant Development Application (SSDA) submitted to the Minister for Planning pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act).

The Application (referred to as SSDA 8517) seeks approval for the adaptive reuse and development of the eastern portion of the Locomotive Workshop Building (being Bays 1–4a) within Australian Technology Park (ATP), Eveleigh as described in the Project Description section of this report.

The Locomotive Workshop building was originally part of the Eveleigh Railway Workshops (ERW), and is now included within the site known as the Australian Technology Park (ATP), Redfern.

The purpose of this HIS is to identify any potential heritage impact that the proposed development within the Locomotive Workshop may have on the heritage values and significance of the Locomotive Workshop and the wider significance of the former ERW.

The overall design intent of the development of the Locomotive Workshops is to remove all existing unsympathetic interior elements and provide a clear interpretation and expression of the industrial style and significant heritage fabric, including the moveable heritage collection that currently exists.

It should also be noted that this HIS supports the SSDA for the eastern portion of the Locomotive Workshop (Bays 1–4a) only.

This HIS assesses all known and potential built heritage impacts and archaeological impacts associated with the proposed development of the eastern portion of the Locomotive Workshop (Bays 1–4a) against the policies and guidelines included in the endorsed Conservation Management Plan (CMP) for the site, titled *Godden Mackay Logan. (December 2013). Australian Technology Park Conservation Management Plan Volume 1. Sydney: Report prepared for Australian Technology Park Sydney Ltd.* This report has also been prepared in accordance with and/or in reference to following guideline documents:

- NSW Heritage Office 1996, revised 2002, *Statements of Heritage Impact*
- *Australia ICOMOS Charter for Places of Cultural Significance, The Burra Charter*, 2013 (Burra Charter);
- NSW Heritage Office 2001, *Assessing Heritage Impacts*.
- NSW Heritage Branch 2009, *Assessing significance for archaeological sites and 'relics'*.
- Dept. of Urban Affairs & Planning, 1996, *Heritage Curtilages Heritage Council Guideline, Heritage Office*.
- NSW Heritage Office/RAIA 2005, *Design in Context – guidelines for infill development in the Historic Environment*.

This report assesses all known and potential heritage impacts and archaeological impacts associated with the proposed development of the site. This report has been prepared with reference to Curio Projects, 2015, *Heritage Impact Statement—ATP Redevelopment*, prepared for Mirvac, December 2015.

1.2. Background

Historically, ATP (formerly ERW) was used for railway maintenance, storage and other associated industries. Use of the site as marshalling yards and workshops formed part of a large railway-based precinct on both sides of the main railway line, dating from 1882 and growing in size until its closure in 1989. Since this time, the precinct has been progressively redeveloped and repurposed.

In 2014, the NSW Government resolved to offer development sites within the ATP for sale through a selective tender process conducted by Urban Growth NSW Development Corporation (UGDC). In November 2015 Mirvac Projects Pty Ltd (Mircvac) was named as the successful party and ownership and development rights of the precinct were subsequently transferred.

In December 2015, an SSDA was submitted to the Department of Planning & Environment for a multi-building redevelopment (i.e. Buildings 1, 2 and 3 shown in Figure 2) of the ATP to provide new commercial office, retail and community uses and a significant upgrade to the ATP public domain. Following public exhibition, and the submission of additional information, the development was approved by the Planning Assessment Commission on 20 December 2016. The construction of Buildings 1 and 2 is currently underway (as shown in Figure 2).

The redevelopment of the Locomotive Workshop is also part of Mirvac's redevelopment strategy for the ATP. The Locomotive Workshop is to be redeveloped in its entirety, however planning approvals are sought through the submission of two separate SSDAs. This Application relates to the eastern portion encompasses the heritage Bays 1 and 2, the existing Blacksmith operation, and Bays 3,4 and 4a. In conjunction with SSDA 8449 that relates to Bays 5-15, this Application is envisaged to be the next phase of urban regeneration within the ATP.

Mircvac submitted a request for Secretary's Environmental Assessment Requirements (SEARS), for the retail development within the eastern portion of the Locomotive Workshop (Bays 1–4a) on 29 May 2017. SEARS were issued to Mirvac on 26 June 2017.

A note on the numbering of the Bays of the Locomotive Workshop: the Locomotive Workshop overall consists of sixteen bays, which were originally numbered 1–4, 4a, 5–15. The redevelopment of the ERW site as ATP in the 1990s saw the renumbering of the bays to 1–16. The current redevelopment includes the renumbering of the bays to their original sequence (i.e. Bays 1–4, Bay 4a, Bays 5–15), and therefore this report refers to the eastern portion of the Locomotive Workshop as per this numbering (i.e. Bays 1–4a).

1.3. Site Identification

The Locomotive Workshop is located within the Australian Technology Park (ATP), Eveleigh. The ATP precinct is located approximately 5km south of the Sydney CBD, 8km north of Sydney airport and within 200m of Redfern Railway Station and has an overall area of approximately 13.2 hectares. An aerial photograph of the ATP precinct is shown in Figure 1 and the locational context of the Locomotive Workshop building is identified in Figure 2.

The eastern portion of the Locomotive Workshop site (Bays 1–4a), to which this HIS relates, is located in the north of the ATP site, adjacent to the railway line (depicted in Figure 1), and is located within Part Lot 400, DP119309 (Figure 3). Bays 1–4a of the Locomotive Workshop currently incorporates a Blacksmith (in Bays 1 & 2 South), heritage exhibition (in Bays 1 & 2 North), commercial office accommodation, a function room, auditorium, and a circulation and entertaining space. The location of the Locomotive Workshop in reference to other ERW buildings and modern ATP buildings across the ATP site is presented in Figure 4.



FIGURE 1: ATP PRECINCT (SOURCE: ETHOS URBAN)

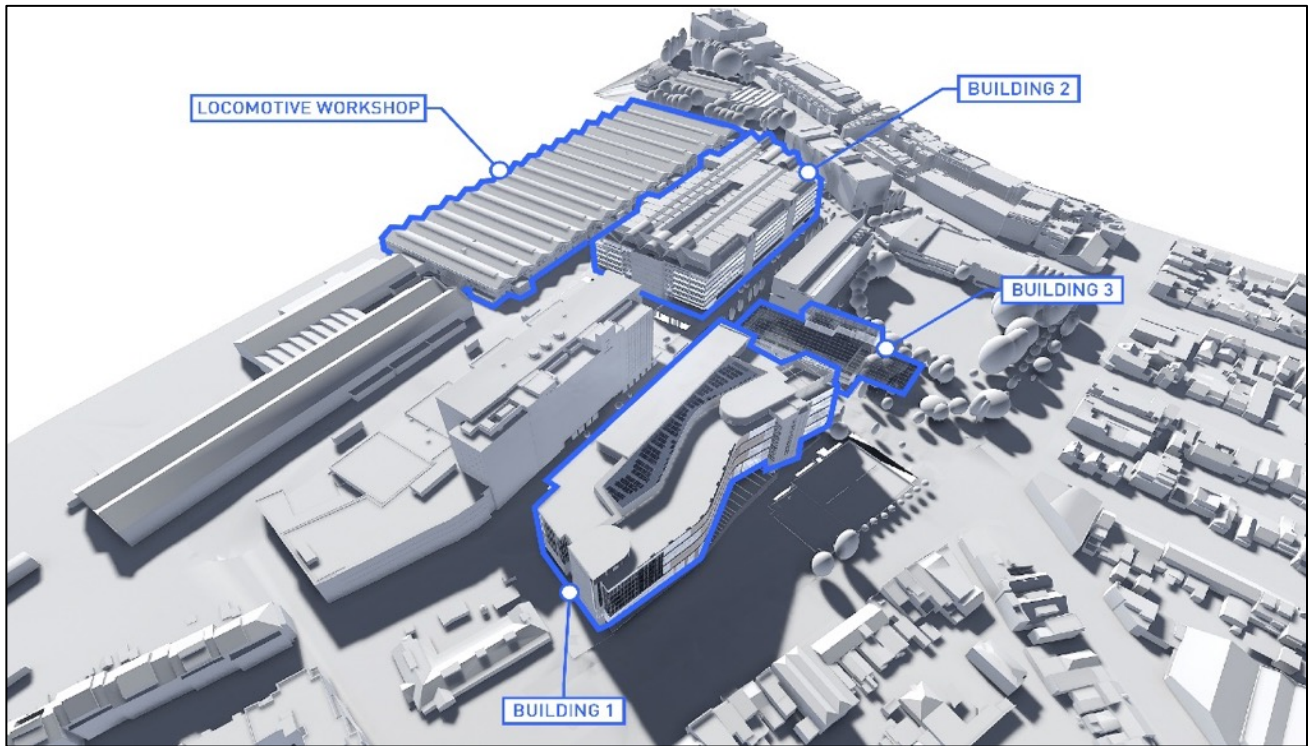


FIGURE 2: LOCATIONAL CONTEXT OF THE LOCOMOTIVE WORKSHOP (SOURCE: SISSONS)

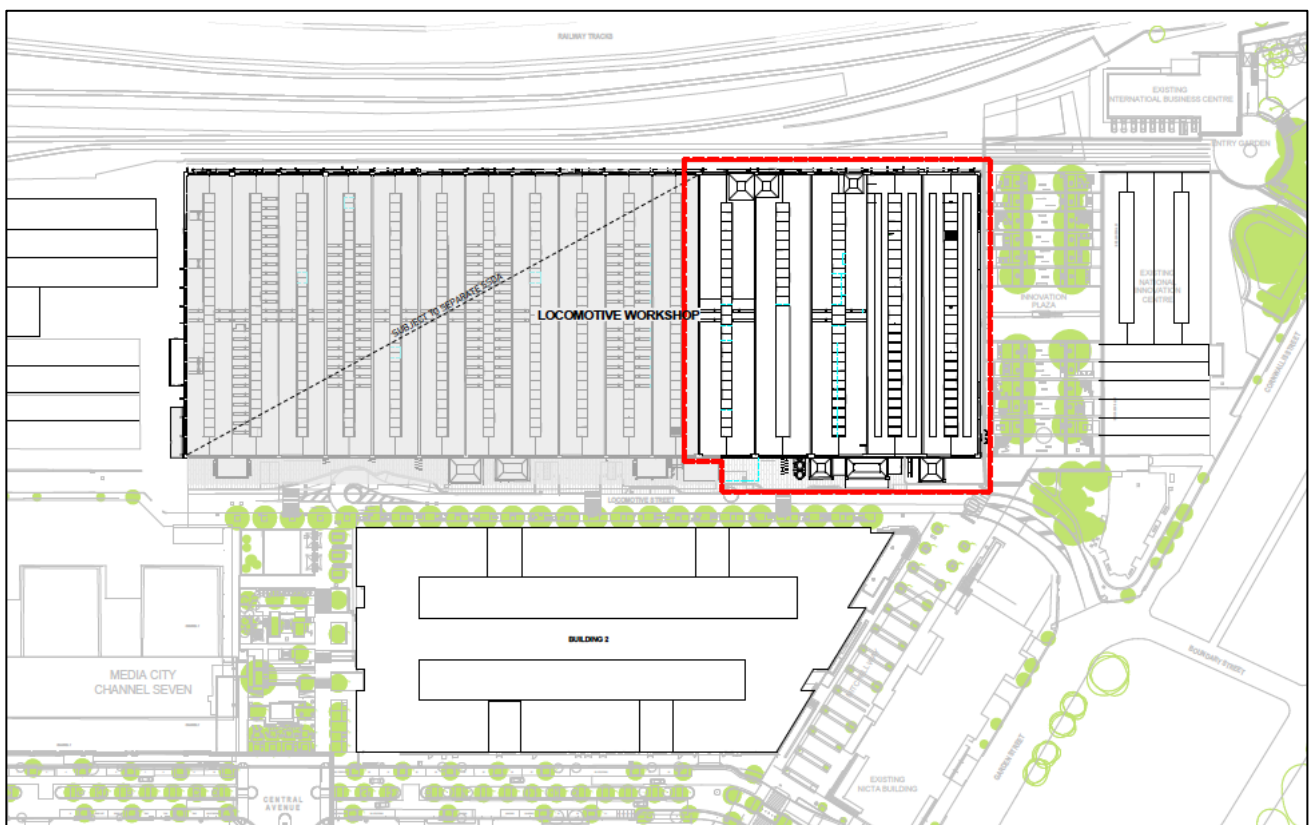


FIGURE 3: PROPOSED SITE PLAN, LOCOMOTIVE WORKSHOP BAYS 1-4A (SOURCE: SISSONS ARCHITECTS, DRAWING SA-AR-DWG BB-B4-0302[G], 27.10.17)

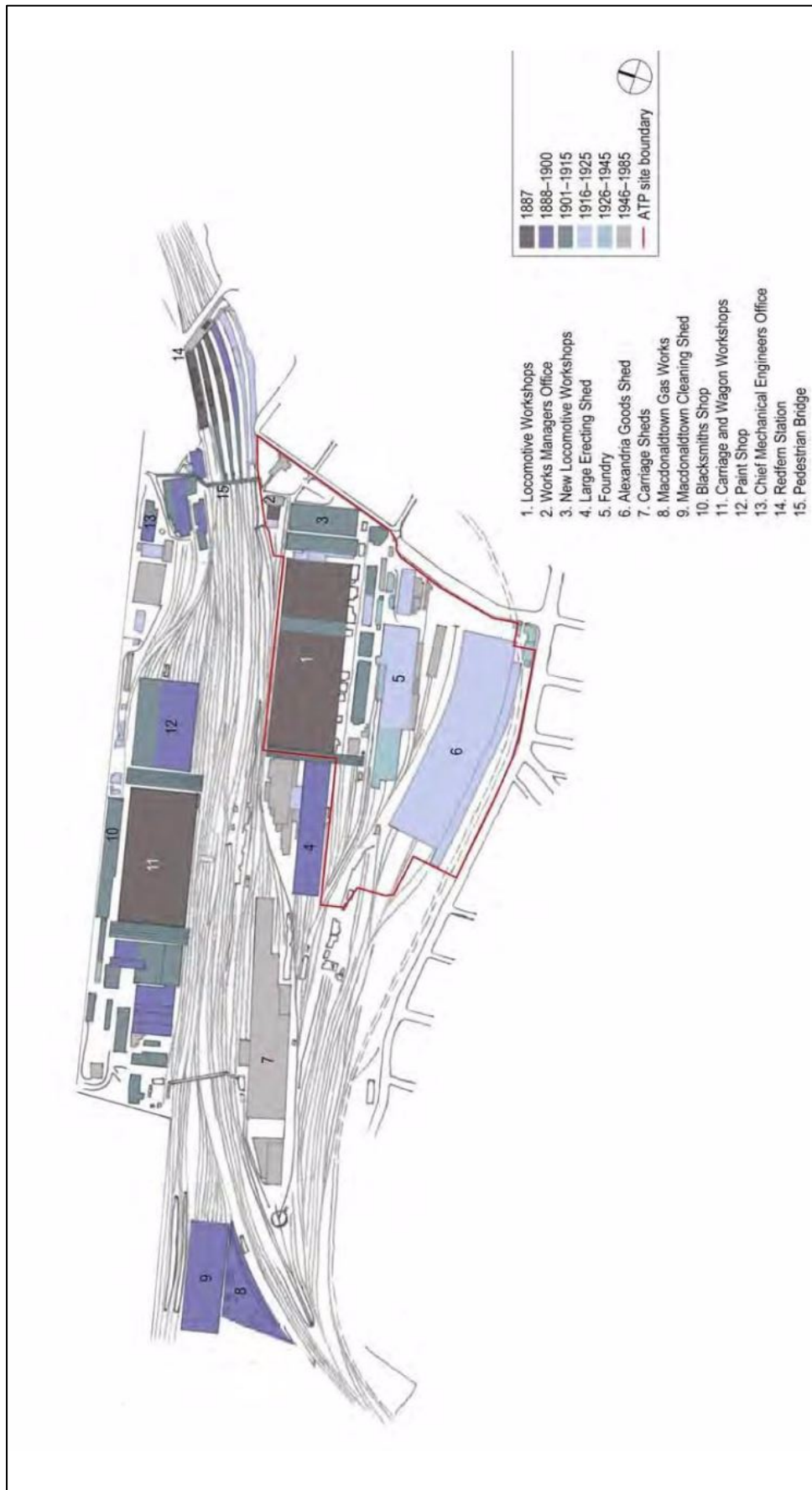


FIGURE 4: PLAN OF HISTORICAL DEVELOPMENT OF THE EVELEIGH RAILWAY WORKSHOPS AS IN THE CMP (FROM GML 2013: FIGURE 2.1)

1.4. Heritage Conservation Documents

The following listed documents form the key site-specific conservation management policies and guidelines for the ATP site that provide the baseline for assessing the acceptability or otherwise of the impacts of the proposed works on the individual heritage assets, and broader cultural heritage significance of ATP.

- Australian Technology Park Conservation Management Plan Volume 1, prepared by Godden Mackay Logan, December 2013
- Australian Technology Park Conservation Management Plan: Appendices, prepared by Godden Mackay Logan, December 2013
- ATP Conservation Vision Statement, prepared by the Australian Technology Park Sydney
- Interpretation Strategy for Australian Technology Park, prepared by Curio Projects, November 2016
- Draft Eveleigh Railway Workshops—Overview Report, commissioned by UrbanGrowth, prepared by OCP Architects 2016.
- Heritage Impact Statement—ATP Redevelopment, prepared by Curio Projects, December 2015
- Heritage Asset Management Strategy 2013-2018 (HAMS)
- Draft Moveable Collections Management Plan (MCMP), prepared by FuturePast, April 2015.
- Eveleigh Railway Workshops: Interpretation Plan & Implementation Strategy, prepared for Redfern-Waterloo Authority by 3-D Projects, Artscape & Only Human, February 2012; and
- Eveleigh Railway Yards Locomotive Workshops Conservation Management Plan, prepared by Heritage Group State Projects NSW Public Works, June 1995

1.5. Limitations and Constraints

This report has been prepared using the extensive historical data and documentation available for the site, and in particular, utilises the historical information contained in the Conservation Management Plan prepared for the site, in order to assess the potential impacts on historical archaeological resources. No further historical research has been undertaken.

The report includes an assessment of the potential for the site to impact on Aboriginal archaeological objects and/or places but does not include an assessment of the potential Aboriginal Cultural Heritage significance (intangible values) of the site. This HIS does not include assessment of any non-heritage related planning controls or requirements.

1.6. Authorship

This report has been prepared by Sam Cooling, Heritage Specialist and Senior Archaeologist, and Natalie Vinton, Heritage Specialist and Director, of Curio Projects Pty Ltd.

2.0 Statutory Context

2.1. Planning Framework

State Environmental Planning Policy (SEPP) Major Development 2005 is the principal environmental planning instrument applying to the ATP. Schedule 3, Part 5 of the Major Development SEPP sets out the zoning, land use and development controls that apply to development on the ATP site.

As the overall development has a capital investment value of more than \$10 million it is identified as State Significant Development (SSD) within the nominated Redfern-Waterloo 'specified site' under Schedule 2 of the *State Environmental Planning Policy (State and Regional Development) 2011* (SEPP SRD), and in accordance with Section 89C of the *Environmental Planning and Assessment Act* (EPA Act). The Minister for Planning is the consent authority for the project. The Final Notice of Determination for the overall ATP redevelopment was issued in December 2016 as SSD 7317.

The commercial development of Bays 1–4a within the Locomotive Workshops will also have a capital investment value exceeding \$10 million, and therefore is also declared to be a SSD (described further below in Section 2.2.3).

2.2. Heritage Statutory Framework

In NSW, heritage items and known or potential archaeological resources are afforded statutory protection under the:

- Environmental Planning and Assessment Act 1979 (NSW) (EPA Act);
- Heritage Act 1977 (NSW) (Heritage Act); and
- National Parks and Wildlife Act 1974 (NSW) (NPW Act).

There are further planning policies and controls that provide a non-statutory role in the protection of environmental heritage. These include *Development Control Plans* for each local Council area.

This section of the report discusses the local and State planning context for the site with respect to its built heritage values associated with local heritage items and conservation areas in the vicinity of the study area.

2.2.1. Environmental Planning and Assessment Act 1979

The NSW Department of Planning and Environment administers the EPA Act, which provides the legislative context for environmental planning instruments to be made to legislate and guide the process of development and land use. Local heritage items, including known archaeological items, identified Aboriginal Places and heritage conservation areas are protected through listings on Local Environmental Plans (LEPs) or Regional Environmental Plans (REPs). The EPA Act also requires that potential Aboriginal and historical archaeological resources are adequately assessed and considered as part of the development process, in accordance with the requirements of the NPW Act and the Heritage Act.

As part of the SSD approvals process, applicants are not required to obtain separate heritage statutory approvals, including built heritage and historical archaeology approvals under Section 60 of the NSW Heritage Act (1977) or Aboriginal Heritage Impact Permits (AHIPs) under Section 90 of the National Parks and Wildlife Act, 1974.

As the project is a SSD, the statutory provisions of the NSW Heritage Act and the National Parks and Wildlife Act will only apply again, if an unexpected discovery of historical archaeological relics or Aboriginal objects and/or Aboriginal places are made during the works program.

Should an unexpected archaeological resource be found, then there is a requirement to cease works in the immediate area and report the discovery of the unexpected archaeological find—to the relevant authority (NSW Heritage Division or OEH). This is the only statutory process not over-ridden by the SSD process. Should any archaeological remains identified in the assessments submitted with the EIS be found, these are not considered to be ‘unexpected finds’.

2.2.2. Statutory Heritage Listings

The Eveleigh Railway Workshops and Eveleigh Railway Workshops Machinery (of which the Locomotive Workshops are a heritage item) are listed on the following statutory heritage registers under the *Heritage Act 1977 (NSW)* (the Heritage Act):

- NSW State Heritage Register; and
- Australian Technology Park S170 Heritage and Conservation Register (ATP S170 Register).

The following items are also listed, individually, on the ATP S170 Register:

- Eveleigh Locomotive Workshops Precinct (the subject site)
- Eveleigh Locomotive Workshops Machinery Collection
- Engine Shop (former)
- Locomotive Workshops Building
- Works Managers’ Office (former)
- Water Tower

2.2.3. Requirements of the SEARS

On 26 June 2017, the Secretary’s General Assessment Requirements (SEARS) were issued to Mirvac for the ‘adaptive reuse of the eastern portion of the Locomotive Workshop for commercial and retail uses’ (Application no. SSD 8517). The specific requirements for the EIS—with respect to heritage matters were identified in sub-section 4.0 as follows:

4. Heritage

The EIS shall include a Heritage Impact Assessment, prepared in accordance with the NSW Heritage Office publication Statement of Heritage Impact, and in accordance with the guidelines in the NSW Heritage Manual, that:

- *addresses the impacts of the proposal on the heritage significance of the Locomotive Workshops and Eveleigh Railway Workshops;*
- *addresses the cumulative heritage impacts of this proposal on the Eveleigh Railway Workshops considering the other projects occurring in the ATP component of this State Heritage Register site;*
- *demonstrates consistency with the Heritage Public Positive Covenant, including the Conservation Management Plan for the Locomotive Workshop building and ATP;*
- *assesses the impact of the proposal on any aboriginal and non-aboriginal archaeology and outline any proposed management and conservation measures to protect and preserve archaeology;*
- *addresses the impact to moveable heritage items and insitu machinery, and conservation and management measures to ensure protection of significant objects;*

- *addresses the impact to the industrial character of the building;*
- *demonstrates how the proposal relates to the future plans for Bays 6-16 [Bays 5–15]; and*
- *considers opportunities for heritage interpretation within the public domain, including the relationship with and any updates required to the Interpretation Strategy for the ATP.*

This report constitutes the Heritage Impact Assessment, as required by the SEARS to be submitted as part of the EIS.

As part of the SSD approvals process, applicants are not required to obtain separate heritage statutory approvals, including built heritage and historical archaeology approvals under Section 60 of the NSW Heritage Act (1977) or Aboriginal Heritage Impact Permits (AHIPs) under Section 90 of the National Parks and Wildlife Act, 1974.

Following the issuing of final Notice of Determination (approval), the statutory provisions of the NSW Heritage Act and the National Parks and Wildlife Act will only apply again, if—once development commences—an unexpected discovery of historical archaeological relics or Aboriginal objects and/or Aboriginal places are made during the works program.

Should an unexpected archaeological resource be found, then there is a requirement to cease works in the immediate area and report the discovery of the unexpected archaeological find—to the relevant authority (NSW Heritage Division or OEH). This is the only statutory process not over-ridden by the SSD process. Should any archaeological remains identified in the assessments submitted with the EIS be found, these are not considered to be ‘unexpected finds’.

3.0 Historical Overview

While this HIS refers specifically to commercial redevelopment activities within the Locomotive Workshops, in order to accurately portray the history and heritage significance of the Workshops, a holistic overview of the history of the wider ERW and ATP site must be understood. Therefore, this historical overview provides a brief overview of the historical use of the wider ATP site, with specific reference to the Locomotive Workshops as relevant.

Generally, the following historical overview as presented in this chapter has been drawn from the ATP CMP (GML 2013)⁴, and the 3D Projects IP for the wider ERW site. It is not intended to be read as a stand-alone history, but rather to provide a brief summary and historical context in order to understand the historical function and significance of the Locomotive Workshops within the Eveleigh Railway Workshops. Sections of the historical overview are drawn directly from the endorsed CMP⁵ and from the Curio Projects 2015 ATP HIS,⁶ and have been italicized and referenced as appropriate.

In general, the history of the ATP site can be summarised into four main phases of occupation and use:

Phase 1—Pre-European Environment/Aboriginal Occupation (c20,000BP–1794)

Phase 2—Early Land Grants, Chisholm Estate (1835–1880)

Phase 3—Establishment and development of Eveleigh Railway Workshops (1880–1989)

Phase 4—Recent History/History of the ATP (1989–Present)

3.1. Pre-European Environment

The Aboriginal history of the area, both pre- and post-European contact is significant for Aboriginal people -the traditional owners of the land- and the cultural connections are enduring and ongoing. The CMP summarises the Aboriginal groups and their occupation of the site, prior to the arrival of Europeans, as:

More than thirty different Aboriginal groups are recorded as having occupied the Sydney region prior to contact. Estimates of the number of Aboriginal people living along the coast between Broken Bay and Botany Bay at the time of contact place the number at approximately 1,500 people. Similar estimates have been made for the inland groups occupying the Cumberland Plain to the west. However, it is difficult to make any certain estimate of population numbers, with researchers placing the total pre-contact number of Aboriginal people within the Sydney region anywhere between 4,000 and 8,000.⁷

The available evidence suggests that the area of Redfern today forms part of a wider expanse of land traditionally occupied by the Cadigal (or Gadi, Gadigal) people. Historic accounts suggest these people lived in the area from South Head along the southern side of Sydney Harbour to the cove adjoining this settlement (Long Cove). To the west of the Cadigal were the Wangal people and to south, on the shores of Botany Bay, lived the Gameygal people.⁸

Archaeological and ethnohistoric information has provided many details of Aboriginal life in the Sydney basin prior to contact with European settlers. The CMP notes that:

⁴ GML 2013, *Australian Technology Park Conservation Management Plan Volume 1*. Report prepared for Australian Technology Park Sydney Ltd.

⁵ GML 2013

⁶ Curio Projects 2015, *Heritage Impact Statement—ATP Redevelopment*, Report prepared for Mirvac.

⁷ GML 2013: 7

⁸ GML 2013:7

The Cadigal subsisted on the wide resource base of the local area, including terrestrial, estuarine and marine resources, although archaeological and ethnohistorical evidence indicates that the Sydney Aboriginal economy is likely to have been predominantly marine-oriented. Food was obtained through fishing, shellfish collection, hunting and gathering of small plants and animals. These activities would have been conducted in the vicinity of the study area; indeed it is likely that the nearby swamps, estuarine mud flats and bays would have provided a relatively reliable, predictable and concentrated range of fish, shellfish and crustacean resources. Fishing was conducted either with lines or spears, although traps and stone weirs may also have been used. As well as the range of plant and animal foods, the landscape would have provided a range of medicinal plants, as well as raw materials used for the manufacture of tools, weapons and shelters and for ceremonial purposes including body decoration.⁹

3.2. Post-Contact Aboriginal History

Serious documentation of local Aboriginal culture and history by early amateur and professional anthropologists was not properly undertaken until around the 1890s. At this point in time many surviving Aboriginal people from local and surrounding groups were living in fringe camps, on properties (owned by non-Aboriginal people), missions, and reserves.

There were many constraints and barriers during that time which adversely impacted on cultural continuance. Despite these constraints and barriers, levels of traditional knowledge and practices have been carried on in Redfern and its surrounding areas.¹⁰ Two hundred years after European displacement, many Aboriginal people with traditional connections to Country still live in the region. There are also many opportunities and places within Eveleigh and the surrounding area that not only illustrate Aboriginal cultural heritage but are an important legacy for present and future generations of Aboriginal and non-Aboriginal people.¹¹

Aboriginal heritage extends well beyond the typical archaeological sites, rock engraving and rock shelter art. It includes natural landscape features, ceremonial, mythological or religious areas, massacre sites or other places with which Aboriginal people maintain a strong spiritual or historical association. The CMP describes the post-European colonisation of Sydney and its impacts on the Aboriginal population of the region as follows:

The Cadigal were the earliest Aboriginal people to be impacted physically and socially by the European colonisation of Sydney. Early contact started on a relatively positive note, with a range of historic accounts detailing the friendly relations between European and Aboriginal people during this period. Governor Phillip had been instructed ‘by every possible means to open an intercourse with the natives and conciliate their affections’. Phillip’s policy in dealing with the Aboriginal people was to treat them with the greatest humanity and attention, ensuring that every precaution be made to prevent them from receiving insults.¹²

However, these intentions of peaceful cohabitation were difficult to enforce, and friendly relations did not last. Many of the early settlers did not share the sentiments of the governor, being less morally inclined than him in relation to the local Aboriginal population. Incidents of conflict soon emerged and this, combined with European expansion and land and resource use, placed pressure on traditional Aboriginal practices. The local Aboriginal population became increasingly dispossessed of their

⁹ GML 2013: 8

¹⁰ GML 2013: 9

¹¹ GML 2013: 8

¹² GML 2013: 8

traditional lands and food and plant resources, leading to inter-tribal conflict, starvation and the breakdown of traditional cultural practices...

...Places such as Happy Valley at La Perouse continued to be a focus for Aboriginal people through the nineteenth century and into the twentieth century. From the 1930s, Aboriginal people were attracted to working class suburbs like Redfern, Glebe, Pyrmont, Balmain and Rozelle where they could find work on the nearby railways, including Eveleigh Railway Workshops and factories. Many Aboriginal people migrated from northern and western New South Wales into these suburbs for new work opportunities. Particularly Redfern and Glebe became communities with sizable Aboriginal populations and many organisations developed to service the needs of these communities. Today, the Redfern area is the home of many Aboriginal organisations including the Metropolitan Local Aboriginal Land Council, Native Title Services and Redfern Aboriginal Corporation.¹³

3.3. European Development

3.3.1. Chisholm Estate

The site of the Eveleigh Railway Workshops was formerly an area of land granted to James Chisholm in 1835, and subsequently known as the Chisholm Estate. The grant comprised 60 acres of land on the southwestern side of Chippendale's grant. Chisholm, a former member of the NSW Corps, built a house in the northeastern area of the site and named it Calder House after his birthplace in Scotland. Parts of the estate were farmed. Chisholm died in 1837 and his widow remained at Calder House. The estate was bisected by the western rail line to Parramatta in 1855 and the Calder House was leased for a school. Plans from c1875 indicate that the estate was undeveloped, containing only Calder House, a cottage in the estate's northwestern area and a group of stables in its southeastern corner. The group of stables were located in what is now the ATP site.¹⁴

3.3.2. History of the Eveleigh Railway Workshops

The current ATP site was occupied by a large complex of rail workshops and yards throughout the late nineteenth and most of the twentieth century. The northern part of the ATP site, next to the western rail lines, was occupied by the Eveleigh Locomotive Workshops (including the current subject site), while the southern part of the site was occupied by the Alexandria Goods Yard.¹⁵

The Eveleigh Railway Workshops (ERW) were established in response to the rapid growth of rail transport during the second half of the nineteenth century and the need for a local, government-owned maintenance facility for the many locomotives that serviced the new railways. Prior to 1855, private enterprises had been relied on to establish a rail network in NSW. Due to the significant costs involved in railway and locomotive construction, reliance on private companies failed to establish any comprehensive railway network for NSW. Following an enquiry in 1854 which revealed the need for a rail system for the state, the NSW government took control of the state's railways in 1855.

The first government-constructed rail line opened in 1855 and linked the first Redfern station (located on Devonshire Street to the south of the present Central Station) to Parramatta. A small group of government-owned rail workshops was established at the southwestern end of the old Sydney railway yards to service the locomotives, but the manufacture of rolling stock and much of the locomotive repair and overhaul work continued to be carried out by private companies. Demand for rolling stock soon outstripped supply and it became apparent that the NSW government would need to expand its own repair and maintenance operations to keep up with demand. An 1871 proposal to expand and upgrade

¹³ GML 2013: 9

¹⁴ GML 2013: 9

¹⁵ GML 2013: 7

*the established government-owned rail workshops was initially carried out, but the workshops were swiftly outgrown. A larger site that could accommodate foreseeable future expansion was required.*¹⁶

Chisholm Estate, located southwest of the old Sydney railway yards, was selected as the site for the new railway yards in 1875. The estate was already bisected by the western rail line to Parramatta and mainly undeveloped. The NSW government resumed 64.5 acres of the estate for the construction of the new railway workshops in 1878. Land clearing and building construction commenced in 1882.

The Eveleigh Railway Workshops were separated into two main functional areas—the Carriage and Wagon Workshops on the northern side of the rail line and the Locomotive Workshops on the southern side—and four main sections: the locomotive workshops, the running sheds (on the southern side), the carriage and wagon shops, and the paint shop and stores (on the northern side).

The Locomotive Workshops operated in the following way:

- **Locomotive Workshops:** Manufacture and repair of parts were carried out in the Locomotive Workshops. Engines were put together in Bays 6–8 of the workshops.
- **Large Erecting Shed:** After 1899 engines were also put together in the Large Erecting Shop
- **Engine Running Sheds:** Locomotive servicing, cleaning and repairs were carried out in the engine running sheds. The sheds were capable of holding 126 engines at any one time.
- **New Locomotive Shop:** Locomotives were manufactured in the New Locomotive Shop from 1908.

The four main buildings of the Locomotive Workshops were supported by a range of ancillary operations carried out in other buildings around the site. At its peak, the Locomotive Workshops contained the engine running sheds, locomotive workshops, the large erecting shed and the new locomotive shop, iron, steel and copper foundries, a spring shop (which manufactured all springs used in the workshops), an olive shop for the olive hammers (used to manufacture tools and brake keys), a boiler shop, tinsmiths, coppersmiths, a pattern shop, plumbers shop and the works manager's office.¹⁷

3.3.3. Locomotive Workshops

In 1887, the Locomotive Workshops was constructed at the ERW site, second only to the construction of the engine running shed in 1885. Construction of the Locomotive Workshops commenced with Bays 1–4 in 1887, which were immediately put into operation while the remaining bays (Bays 5–15) were still under construction. This led to these two zones (Bays 1–4 and Bays 5–15) being built as separate structures, with the space in between functioning as a laneway. The laneway was later filled in, connecting the two structures to function as a single building (the Locomotive Workshops), connected by a new bay known as Bay 4a.

The locomotive workshops were constructed of English bond brickwork with sandstone details. Each bay was supported by cast-iron columns laid out in double rows. Bays 1–4 and 5–15 were separated by an annex which contained tinsmiths and coppersmiths, a sand store and core stoves for the foundry.

The intended function of each workshop bay was part of the design of the building. Bay 1 contained the steam hammer shop, Bay 2 the blacksmith's shop, Bay 3 the boiler shop and Bay 4 the foundry.

Bay 5 was the tender repair shop and had a 25 ton overhead crane installed. Bays 6, 7 and 8 contained the engine repair or erecting shop, with the traverser in Bay 7 distributing locomotives to the bays on either side, each of these having a 25 ton overhead crane. Bay 9 contained the wheel shop and the

¹⁶ GML 2013: 10

¹⁷ GML 2013: 16

machine and fitting shop occupied Bays 10 and 11. Each of these bays had a 5 ton overhead crane installed. Bays 12 and 13 contained the paint shop with the traverser in Bay 13 to move locomotives in and out. Brick walls inserted instead of columns at the junctions with either adjacent bay isolated the Paint shop from the rest of the workshops and, in the absence of any overhead crane, only a single row of columns divided the two bays. Bay 14 contained the pattern and joiners shop and a brick wall also separated this from Bay 15 containing the locomotive store which supplied all manner of parts and tools used in the workshops. Two annexes were built at the rear of Bays 9 and 10, one being the cleaning shop and the other a second boiler house.

A works manager's and timekeeper's office was constructed to the northeast of the locomotive workshops. Originally a small masonry building with sandstone lintels and wrought iron balconies, the office was marked by a bell tower at the top of the building which called the beginning and end of each working day. The works manager's and timekeeper's office handled the payroll for all areas of Eveleigh.¹⁸



FIGURE 5: INTERIOR OF THE LOCOMOTIVE WORKSHOPS, DATE UNKNOWN. (SOURCE: GOVERNMENT PRINTING OFFICE COLLECTION, STATE LIBRARY OF NSW)

¹⁸ GML 2013: 11



FIGURE 6: VIEW OF THE LOCOMOTIVE WORKSHOPS BEFORE 1910, LOOKING SOUTHWEST. (SOURCE: STATE RAIL AUTHORITY ARCHIVES)



FIGURE 7: THE LOCOMOTIVE WORKSHOPS IN 1986, SHOWING THE TRAVERSER BETWEEN THE LOCOMOTIVE WORKSHOPS AND THE LARGE ERECTING SHED. . (SOURCE: DON GODDEN & ASSOCIATES)

Functionality of the Locomotive Workshops

As described in Section 3.3.2 above, the Locomotive Workshops functioned on the southern side of the railway line, as one of four key functional buildings involved in the manufacture and maintenance of locomotives (also including the Large Erecting Shed, the Engine Running Sheds, and New Locomotive Shop), supported by other ancillary operations in subsidiary buildings within the site. The orientation of the 15 bays within the Locomotive Workshops is presented in Figure 8. The numbering system of the

bays was changed during the redevelopment of the site into the ATP, to Bays 1–16 converting Bay 4a to Bay 5, including the demolition of the internal wall. (NB. The original numbering of the bays will be restored through the current redevelopment of the Locomotive Workshop, i.e. Bays 1–15 including Bay 4a).

As the function and requirements of the ERW site changed over time, so too did the function of each bay within the Locomotive Workshops. This changing functionality over time (1887–2009) is summarised in Table 1. The use of each bay described for 2009 is generally representative of the use of each bay for the ATP site prior to the Mirvac redevelopment of the ATP site that commenced in 2015.

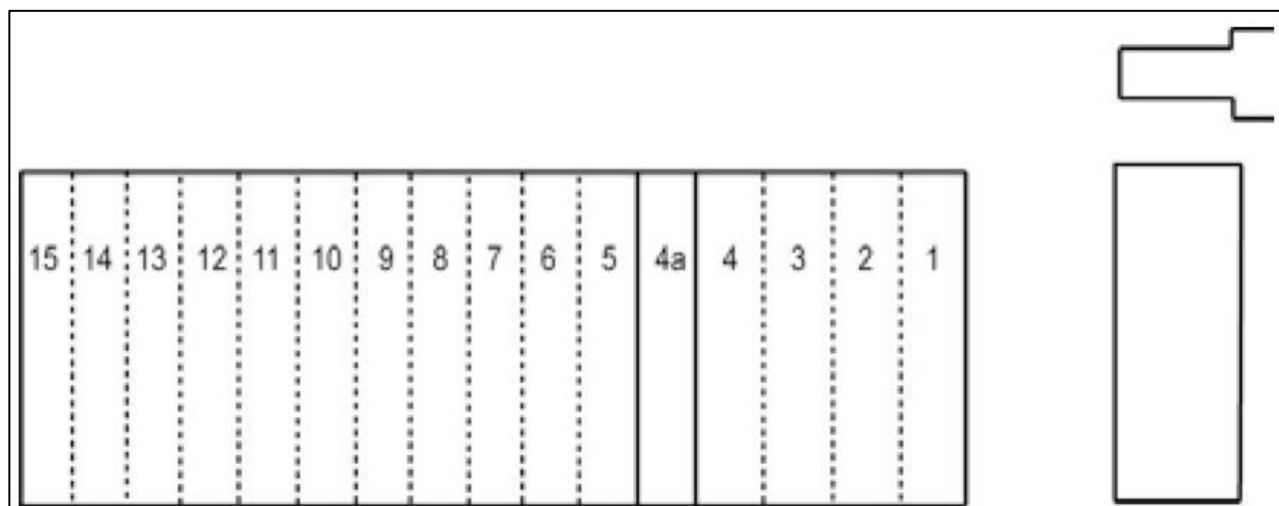


FIGURE 8: SCHEMATIC REPRESENTATION OF THE LOCO WORKSHOPS BAYS, ORIENTED NORTH. OUTLINES TO THE EAST PROVIDED FOR LOCATIONAL CONTEXT ARE THE NEW LOCOMOTIVE WORKSHOPS AND THE WORKS MANAGERS OFFICE (SOURCE: GML 2013: 16)

TABLE 1: SUMMARY OF THE FUNCTION OF THE LOCOMOTIVE WORKSHOPS BAYS OVER TIME (ADAPTED FROM GML 2013: TABLE 2.1, 16-17)

Bay	1887	1905	1924	1984	2009
1	Steam hammer and spring shop	Blacksmiths Shop	Blacksmiths Shop	Blacksmiths Shop	Blacksmiths Workshop
2	Blacksmiths Shop	Blacksmiths Shop	Blacksmiths Shop	Blacksmiths Shop	Blacksmiths Workshop
3	Boiler Shop	Boiler Shop	Boiler Shop	New Spring Shop/Heat Treatment	Main Entry
4	Foundry	Boiler Shop	Boiler Shop	Fabrication Shop	Offices
4a	Annex containing tinsmiths and coppersmiths, sand-store and core stoves for the foundry	Boiler Shop	Boiler Shop	Fabrication Shop	Offices
5	Tender Repair Shop	Erecting Shop	Tender Shop	Canteen (south)/Fitting Shop (north)	Offices

Bay	1887	1905	1924	1984	2009
6	Erecting Shop	Erecting Shop	Tender Shop	Millwrights Shop/Bar Store	Offices
7	Erecting Shop and Traverser	Erecting Shop	Wheel Shop and Traverser	Fitting Shop	Offices
8	Erecting Shop	Erecting Shop	Tender Shop	Fitting Shop	Offices
9	Wheel Shop	Wheel Shop	Machine Shop	Axle and Wheel Shop	Offices
10	Machine and Fitting Shop	Machine and Fitting Shop	Machine Shop	Machine Shop	Exhibition Space
11	Machine and Fitting Shop	Machine and Fitting Shop	Machine Shop	Machine Shop	Exhibition Space
12	Paint Shop	Paint Shop	Machine Shop	Machine Shop	Exhibition Space
13	Paint Shop and Traverser	Paint Shop and Traverser	Machine Shop	Machine Shop	Exhibition Space
14	Pattern and Joinery Shop	Pattern and Joinery Shop	Tool Room/Brass Finishers	Tool Room/Air Brakes	Offices
15	Locomotive Store	Locomotive Store	Millwrights	Store/Rail Motor Test Room	Offices

3.4. Historical Summary Timeline—ATP Site Specific

While ATP is understood to be one part of the wider ERW site, the following timeline only provides a key historical summary of the site, *specific to the Locomotive Workshops* (i.e. the current ATP site and focus of this report). While the construction of the carriage workshops in 1887 on the northern side of the railway line has been acknowledged, all other key dates have been provided specifically with reference to the history of the site and operations relevant to the current ATP site only.

1871 Planning for Eveleigh Railway Workshops (ERW) commenced

1878 Resumption of 64.5 acres of land from John Chisholm for construction of Eveleigh Railway Workshops (ERW)

1882 Development and building of ERW commenced

1885 Engine Running Shed completed and commenced operation.

1887 Locomotive Workshops Completed. Bays 1–4 officially opened. Bays 5–15 completed and opened later in the year.

1887 Carriage Workshops constructed

1887 Work Managers and Timekeepers Office completed.

1899 Large Erecting Shed completed

1892 Union negotiations lead to ERW closure on Saturdays

1907 New Locomotive Shop erected

- 1908** Manufacture of new locomotives commenced at Eveleigh
- 1913** Terrace houses/shops resumed for Alexandria Goods Yard
- c1914** Pedestrian Bridge completed
- 1914** New Locomotive Shop extended
- 1914** Electrification of ERW machinery completed
- 1916** Eight strikes at ERW due to poor working conditions.
- 1917** Alexandria Goods Yard completed
- 1917** New Foundry and pattern shop constructed
- 1923** Australian Railways Union (ARU) Shop Committee established at ERW
- 1925** Davy Press installed
- 1925** Manufacture of new locomotives ceased
- 1925** NSW Railways acquired Chullora site for new railway workshops intended to supersede ERW
- 1937** Chullora workshops opened. Some repair work transferred from ERW
- 1940** Production of shells in Bays 5-6 of Locomotive Workshops
- 1942** Air raid shelters constructed
- 1945** Reintroduction of locomotive construction until 1952
- 1965** Steam locomotion abandoned
- 1970s** ERW modernized to meet demands of servicing and repairing modern diesels and rolling stock
- 1986** Restored 3801 locomotive commences tourist operations from ERW Large Erecting Shop under management of 3801 Limited
- 1986** Closure of the Locomotive Workshops
- 1989** Closure of all ERW
- 1989+** Demolition of numerous ERW buildings including Foundry and Alexandria Goods Yard
- 1989** Paddy's Markets relocated to Bays 5–15 of Loco Workshops. Machinery relocated to Bays 1–4a
- 1991** ATP Works commence. Wrought Artworks recommission blacksmiths forges in Bay 1 and 2
- 1993** ATP formally established
- 1994** Paddy's Markets returns to Haymarket
- 1994-5** Conversion of Works Manager's Office to International Business Centre
- 1996** ATP Opens
- 1996** Adaptation of New Locomotive Workshops for National Innovation Centre
- 1999** Biomedical Building construction commences
- 2005** Ownership of ATP and parts of North Eveleigh transferred to RWA (Redfern Waterloo Authority)

- 2006** 3801 returned to custody of NSW Rail Transport Museum and relocated from LES
- 2007** CarriageWorks Theatre opens
- 2008** NICTA building completed
- 2009** Eveleigh Markets open in former Blacksmith's Shop, North Eveleigh
- 2010** Media City Building opens. Innovation Plaza upgrade is completed, permanent display of heritage pivot and steam crane, new seating and lighting installed.
- 2012** Ownership of ATP transferred from RWA to Sydney Metropolitan Development Authority
- 2013** Ownership of ATP transferred from SMDA to UrbanGrowth NSW Development Corporation
- 2014** ATP CMP formally endorsed
- 2016** Ownership of ATP transferred to Mirvac

4.0 Physical Analysis

The ATP site has been the subject of extensive physical analysis as part of the CMP documentation, which was prepared in 2013—with extracts from the CMP included below, in order to provide a brief context of the positioning of the Locomotive Workshops within the ATP site. Italicised sections represent direct quotations from the CMP, which have been referenced as relevant.

The direct quotation as presented in this physical analysis refer to the bays of the Locomotive Workshop with its existing bay numbering, i.e. 1–16, however this is proposed to change through the course of this project to 1–15, including Bay 4a. Where relevant, the revised numbering as proposed through this redevelopment has been noted in square brackets within quotations.

4.1. ATP Site Context

The ATP site reflects an amalgamation of railway land gradually resumed since 1878. Areas of land once occupied by the Alexandria Goods Yard and resumed for the construction of the Eastern Suburbs Railway tunnels and extensions of the Eveleigh locomotive workshops are contained within the ATP site in addition to the land initially resumed for the locomotive workshops. The site boundary does not correspond with the boundary of the Eveleigh Locomotive Workshops nor does it reflect any particular historical management area.

The ATP site excludes some buildings and areas of land that have historically been part of the Eveleigh Railway Workshops, including some previously intrinsic to its function. For example, the Large Erecting Shop, which is still in use by RailCorp, is not within the ATP site boundary. The full extent of the Alexandria Goods Yard is not reflected in the boundary of the ATP site either—a large portion of the goods yard land to the east was redeveloped by the Housing Commission of NSW in the 1980s and some land was turned into a park. The area of the goods yard contained within the ATP site has been redeveloped into a sports oval, landscaping, tennis courts, carparks and landscaped verges, as well as the site for the Biomedical and RTA buildings.

Three of the four most significant buildings of the Eveleigh Locomotive Workshops have been retained within the ATP site—the locomotive workshops, the new locomotive shop and the works manager’s office.... Most of the ancillary buildings that occupied the Eveleigh Locomotive Workshops have been demolished. These buildings comprised a range of small and large sheds of various materials which would have provided a sense what the workshops were really like when they were functioning, but would have been difficult to adapt to a new use.

Eveleigh was formerly surrounded by a boundary wall that separated the workshops from the surrounding streets. This has been removed and replaced by building form and landscaping. The pedestrian overbridge that connected the two sides of the Eveleigh Railway Workshops was demolished c1994. The historical physical connection that existed between the workshops and Redfern Station has been lost through the removal of this bridge.

The adaptive re-use of the workshops has been carried out sensitively, but inevitably with such a substantial change in use—railway workshops to technology park—the character of the site as a whole has changed. Physical remnants of past use are generally confined to the workshops buildings remaining and the machinery collections contained within, with some machinery and rail lines located throughout the site. Existing interpretation at the site is a product of its time and does not give a coherent story about the site as a whole.¹⁹

¹⁹ GML 2013: 47

4.1. Physical Description of Locomotive Workshops

The most prominent building on the site is the Locomotive Workshop, a two storey sandstone brick structure of Neo Classical form consisting of 16 equally sized bays, internal hollow cast iron columns and wrought iron trusses, and corrugated iron roofing. Externally, arched openings pierce through the 460mm thick brick walls which once allowed for trains and machinery to exit and enter the building. The openings are now solid, glazed or operable. (Figure 9 and Figure 10).



FIGURE 9: LOCOMOTIVE WORKSHOP MAIN ENTRANCE AT BAY 8.
(SOURCE: CURIO 2016)



FIGURE 10: FRONT FAÇADE OF LOCOMOTIVE WORKSHOP, BAYS 12 TO 16 (SOURCE: CURIO 2016)

Together with the internal trusses, columns and internal downpipes, the roof acts as a system working as one unit. It is clad with a mixture of original and new corrugated iron sheeting, with original sheeting largely in place in Bays 1 and 2. Each bay has a clerestory window in the centre of the roof with a curvilinear profile, also clad in corrugated iron. Original louvers have remained on the sides with added glazing allowing for natural light throughout the building (Figure 11).

The Locomotive Workshops building remains predominately intact and in a fair to good condition with each bay expressing its long period of intensive use with a certain degree of weathering that has occurred over time. The eastern Bays 1 and 2 communicate of the original condition of the building with the addition of very little new fabric.²⁰ (Figure 12).



FIGURE 11: ROOF IN BAY 2, SOUTH. (SOURCE: ETHOS URBAN 2016)

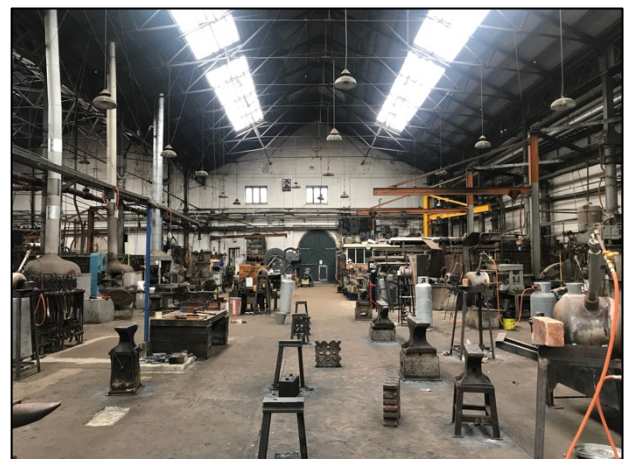


FIGURE 12: BAY 2, NORTH, BLACKSMITHING SHOP. (SOURCE: ETHOS URBAN 2016)

²⁰ GML 2013: 46-47

The current floor surface across the entire Locomotive Workshop consists of a concrete floor, with inlaid rail tracks extending through Bays 1 and 2 (inlaid with concrete and exposed, Figure 13), and mainly carpet throughout other bays. Differing views exist as to whether the original rail stock throughout the remaining bays (3–15) remains insitu beneath the interpretive carpet installed in the 1990s (indicating the original location of the rail stock throughout Bays 3–15), or whether they were removed at that time.

The southern end of Bays 1 and 2 currently houses ‘Eveleigh Works’ blacksmithing. It was previously occupied by ‘Wrought Artworks’ blacksmith for over 24 years until 2016 (Figure 14), with the northern side of the same bays currently occupied by the majority of the moveable heritage collection of the ERW, including the Davy Press (Figure 15).

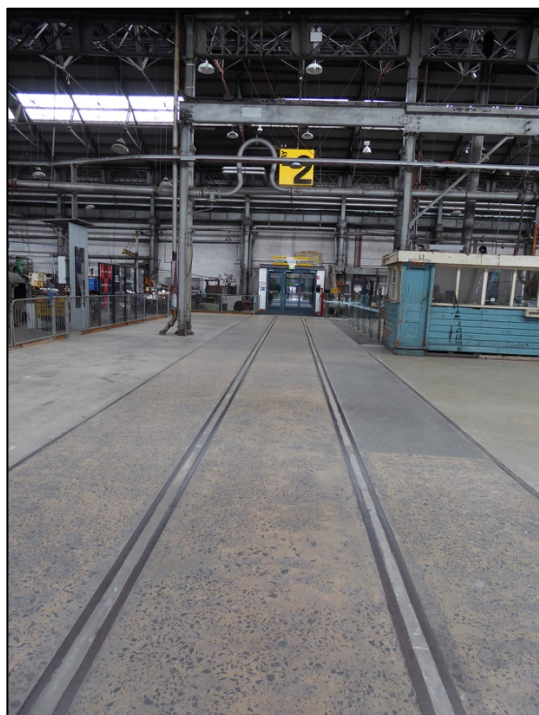


FIGURE 13: RAIL STOCK RUNNING EAST-WEST THROUGH BAYS 1 AND 2. (SOURCE: CURIO 2016)

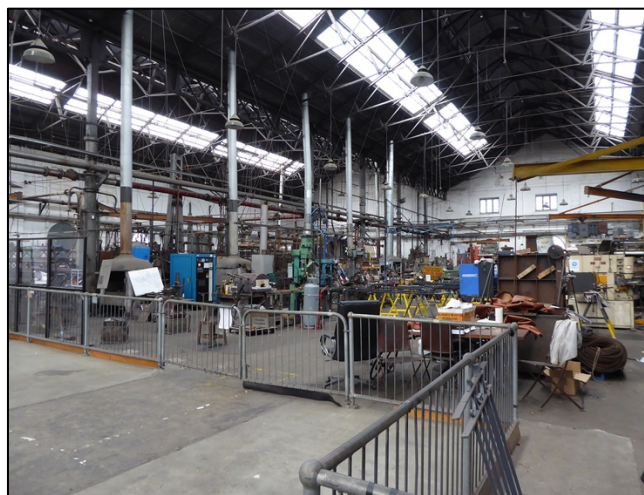


FIGURE 14: BLACKSMITHING, BAYS 1 AND 2 SOUTH (SOURCE: CURIO 2017)



FIGURE 15: MOVEABLE HERITAGE COLLECTION, BAYS 1 AND 2 NORTH. (SOURCE: CURIO 2016)

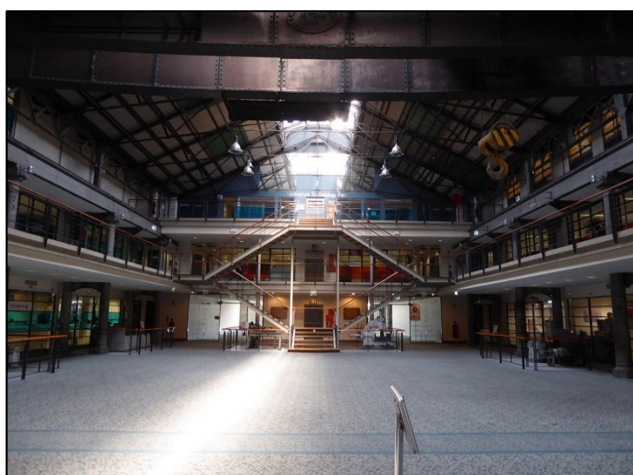


FIGURE 16: BAYS 3 & 4 MODERN INFILL OFFICE SPACE (SOURCE: CURIO 2016)

At time of writing, Bays 3, 4 and 4a consisted of modern infill office spaces (Figure 16), occupied until 2016 by the former ATP Office and other tenants, including an auditorium at the southern end of Bay 4a. The office spaces within these bays were designed to be across three levels in order to utilize the

height of the Locomotive Workshops building, with stairs 'exposed to the central atrium and the floor lines with carpet throughout'.²¹

Each floor in Bays 3, 4 and 5 [now Bay 4a] has a mezzanine walkway that looks over the open space. Two large openings, which have been infilled with glass, form an access point at the southern end of Bay 4. The southern end has remained open with a mezzanine walkway for the upper level. The centre of the Locomotive Workshop building houses further office space and a thick brick wall with a large opening that divides the space between Bay 5 and 6 [now Bays 4a and 5]. On either side are two levels of infill offices leaving a corridor of open space through Bays 6 and 7 [now Bays 5 and 6] (Figure 17). Within this corridor is another overhead travelling crane and a new lift shaft. The office spaces are lined with plasterboard and contain some openings made up of glass and a steel frame. The corridor then leads to Bay 8 [now Bay 7] which is of a similar design to Bay 4, having the central space open with a cafe and two levels of office space around the edges at the northern end (Figure 18). There is also a large glass opening at the southern end forming another access point from the south (Figure 19). Similarly, to Bay 6 and 7 [now Bays 5 and 6], Bay 9 [now Bay 8] contains two levels of office space and a ticket window on the ground floor where it leads into the exhibition space of Bay 10-14 [now Bays 8–13] (Figure 20).

An open hall is set up in Bays 10–14 [now Bays 9–13] leaving the large space of the Locomotive Workshop open (Figure 21) with some machinery grouped as an interpretive display at the northern end of Bay 10 [now Bay 9] (Figure 22). The original structure is left exposed expressing the cast iron columns and wrought iron roof trusses.

Originally Bays 15-16 [now Bays 14 and 15] were separated by a brick wall which has remained (Figure 23). They have now been infilled with three and two levels of new office space respectively. Centrally, the original structure is exposed with the new structures on either side. These are connected by walking bridges on level two and three (Figure 24). Most of the new infill areas are lined with timber or plasterboard and constructed of steel and timber while the floor is lined with carpet.²²



FIGURE 17: CORRIDOR BETWEEN INFILL OFFICES IN BAY 7 [NOW BAY 6] (SOURCE: ETHOS URBAN 2017)



FIGURE 18: BAY 8 [NOW BAY 7] CENTRAL OPEN SPACE, FACING NORTH (SOURCE: CURIO 2016)

²¹ GML 2013: 47

²² GML 2013: 46-48



FIGURE 19: GLASS OPENING AT SOUTHERN END OF BAY 8 [NOW BAY 7] (SOURCE: CURIO 2016)



FIGURE 20: MEZZANINE LEVEL ACROSS BAY 9 [NOW BAY 8], VIEW WEST TO ENTRANCE TO EXHIBITION HALL IN BAYS 10–14 [NOW BAYS 8–13] (SOURCE: ETHOS URBAN 2016)

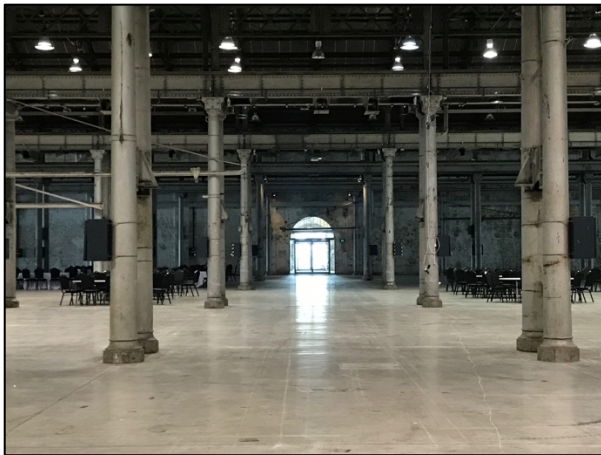


FIGURE 21: LARGE OPEN EXHIBITION SPACE IN BAYS 10–14 [NOW BAYS 9–13] (SOURCE: ETHOS URBAN 2016)



FIGURE 22: MACHINERY GROUPS IN NORTH OF BAY 10 [NOW BAY 9] (SOURCE: ETHOS URBAN 2016)



FIGURE 23: EXTANT WALL BETWEEN BAYS 15 AND 16, FACING WEST,
(SOURCE: ETHOS URBAN 2017)

FIGURE 24: OFFICE SPACE INFILL AND MEZZANINE WALKING BRIDGES
IN BAY 15 (SOURCE: ETHOS URBAN 2017)

A series of annexes once lined the southern wall of the building, consisting of 21 annexes of brick, timber and corrugated iron. Today, there are nine original annexes remaining and three new that have been constructed of contemporary material. Annexes 1 to 6 are original and currently house: a machinery/workshop area, blacksmith shop, blacksmith shop access and fuel tanks, boilers, commercial kitchen access and pump room. Annex 8a is an original structure with heavy modifications and currently houses the ATP security office, while 9a is an external space with air conditioning fan coil units on a platform. Annex 10a houses office space within a modified original structure. Annexes 12, 13 and 20a are new structures clad with corrugated iron and house the plant room.²³

As noted above, Annex 6 houses the pump room which comprises of a brick and stone structure with a lantern roof. It was restored and interpreted in 2009, including the repainting of the hydraulic pump inside in its original colours, while retaining the room in its original form, with hand tools and other machinery left in place as if they have recently been laid down from a day's work, designed to allow visitors to view the pump house as how it once would have operated.

²³ GML 2013: 48

5.0 Potential Archaeological Resources

5.1. Aboriginal Archaeological Potential

The ATP site, and its surrounding suburbs have an important and strong legacy of Aboriginal historical connections to the region. A NSW Office of Environment and Heritage (OEH) Aboriginal Heritage Information Management System (AHIMS) search undertaken by Curio Projects, confirms that no Aboriginal sites are recorded in or near the site and no Aboriginal places have been declared in or near the site (Appendix A).

The CMP included an assessment of the potential for the site to contain Aboriginal objects or places. The report concluded that due to the extensive cutting down of the top soil of the site and consecutive development phases across the site, that the potential for Aboriginal objects across the overall ATP site would be low. The CMP also noted that very few Aboriginal excavations had been undertaken in the area prior to the assessment for the CMP in 2012.

Following from the assessment within the CMP, the HIS for the overall redevelopment of the ATP site (Curio Projects 2015) reassessed the potential for intact Aboriginal archaeological deposits to be present at the ATP site with specific reference to recent geotechnical investigation across the site. The HIS considered that the level of Aboriginal archaeological potential for the ATP, as assessed in the CMP, to be accurate.

While this project is considered to be a SSDA, and therefore is not strictly required to adhere to OEH Aboriginal cultural heritage guidelines, this section of this report generally follows the OEH *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW*,²⁴ in order to maintain best practice methods of Aboriginal archaeological assessment, and to ensure that the EIS submission for the current SSDA is complete. This includes the requirement for a recent AHIMS search (current within 12 months to comply with the OEH Due Diligence Code of Practice), as well as an additional desktop review of any relevant recent archaeological work or excavations in the area (i.e. since 2015), and an Aboriginal archaeological assessment specific to the current development area within the ATP, that is, the Locomotive Workshop.

5.1.1. AHIMS Search

Since the last AHIMS search for the site was undertaken for the Curio Projects HIS over 12 months ago, a revised extensive search was undertaken in order to ensure that no additional Aboriginal sites had been registered within or in close proximity to the site boundaries of the ATP since the last assessment. Curio Projects undertook an AHIMS extensive search on 20 July 2017, which confirmed that no Aboriginal sites or Aboriginal places have been recorded in or near the ATP site.

The current AHIMS search was undertaken for an approximate 2km x 2km area centered on the ATP site, with a 1km buffer. This search returned 12 results, which included:

- 1 Midden Site (#45-6-2597);
- 7 Potential Archaeological Deposits (PADs) (#45-6-2666, 45-6-2663, 45-6-2680, 45-6-2745, 45-6-2979, 45-6-3071, and 45-6-3064);
- 3 Artefact Sites (#45-6-2629, 45-6-2822, 45-6-2987); and
- 1 Aboriginal Resource and Gathering (#45-6-2767)

While the AHIMS search for the preparation of the HIS encountered six registered Aboriginal sites, the additional six sites returned with the current AHIMS search are a result of a slightly wider search area,

²⁴ DECCW 2010, *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW*

and not a reflection of an increased number of registered sites in the area. None of the additional six sites from the current search were recently added to AHIMS.

The current AHIMS search demonstrated that no new Aboriginal objects, sites or places have been recorded with the OEH AHIMS database since the preparation of the HIS for the ATP site in 2015.

The CMP stated that:

Given the long history of urban development and landscape modification within the City of Sydney and surrounding inner suburbs, other site types such as stone quarries, grinding grooves, rock art, modified trees or human burials would be considered extremely unlikely for the study area²⁵

This assessment of Aboriginal archaeological potential for the ATP site, specifically in relation to the Locomotive Workshop as is the focus of this report, has determined that the above statement remains valid.

No additional Aboriginal archaeological assessments or excavations were identified as having been recently undertaken in the area of the ATP (i.e. since 2015), and therefore additional discussion of relevant neighbouring Aboriginal archaeological sites has not been undertaken for this report.

5.1.2. Environmental Context

The ATP site is located across the boundary of two physiographic regions, being the Cumberland Lowlands to the north west, and the Botany Lowlands to the south east. The Cumberland Lowlands are generally characterised by the Blacktown Soil Landscape overlying Wianamatta Group Shale, while the Botany Lowlands are generally an aeolian sand dune formation overlying quaternary alluvium. The northern portion of the ATP site is generally located across the Blacktown Soil Landscape (including the Locomotive Workshop), while southern portion is generally located across the Botany Lowlands geological region.

The dominant soil profile of the Botany Lowlands is the Tuggerah soils. The Tuggerah soil landscape is characterised by gently undulating plains and rolling undulating rises of low lying broad, very gently inclined, swales and dunes. Tuggerah soils have low erodibility as they consist of highly permeable, coarse sand grains. However, their lack of cohesion makes them very susceptible to erosion from concentrated flows. Generally, Tuggerah soils comprise non-cohesive, highly permeable soil with an associated very low soil fertility.

The dominant soil profile of the Cumberland Lowlands is the Blacktown soil landscape over Ashfield Shale, which is generally characterised by a relatively flat aggrading landscape of undulating grass surface terrain containing hillslopes and ridgelines with gently inclining slopes of 5 to 10 degrees. Blacktown soils range in depth from shallow to moderately deep (less than 100cm), and are highly susceptible to erosion, particularly on minor hill slopes where surface vegetation is not maintained.

The juxtaposition of the differing physiographic regions and corresponding soil profiles in this location would likely have provided a resource rich zone for Aboriginal people to live, as the differing geological zones would have likely supported a variation of vegetation and corresponding wildlife.

The natural vegetation coverage across the ATP site (now cleared) would have once consisted predominantly of dry sclerophyll eucalypt and apple woodland or forest, including tress species such as Smooth-Barked Apple (*Angophora costata*), Sydney Peppermint (*Eucalyptus piperita*), and Old Man Banksia (*Banksia aemula*), as well as a wide variety of bracken and moss constituting the understory of these tree communities. This rich and varied vegetation would also have provided the local Aboriginal

²⁵ GML 2013

people with a rich resource area for exploitation. In addition, coastal resources from Port Jackson Bay (approximately 2km to the north) and Botany Bay (approximately 6km to the south) would have been accessible from the ATP area.

A geotechnical desktop study was undertaken in 2015 for Lots 8 (proposed Building 3), 9 (proposed Building 1), and Lot 12 (proposed Building 2) by Douglas Partners Pty Ltd. The geotechnical study reviewed available published data, previous investigation data, and other available survey records, in order to provide information on subsurface conditions that would allow selection of appropriate shoring mechanisms and designs for the development foundations. The analysis provided by the geotechnical data regarding the nature of the subsurface conditions and soil profiles at the ATP site can be used to further investigate the nature of the soils present, and thereby their potential to bear any Aboriginal archaeological deposits.

The geotechnical data confirmed the site's location on the Tuggerah soil profile (i.e. sand lenses in the geotechnical report), as well as confirming the presence of fill within all three new development lots. Fill was present within Lots 8 and 9 to a depth of 2.5-4m below surface level, and within Lot 12 at a depth of 4-6m in the Northwest and North East corners of the lot, and to a depth of 1.5-2.5m in the lower car park area.

While the 2015 geotechnical investigation did not extend specifically to beneath the Locomotive Workshop, proximity of the Locomotive Workshop to the locations within ATP subject to geotechnical testing (c.40m north of Lot 12–Building 2) suggests that the geotechnical profile beneath the Locomotive Workshop would be relatively consistent with that of Building 2, that is, a top layer of fill associated with the original construction of the ERW, which most likely would also have involved extensive levels of cutting and levelling to allow construction of the Locomotive Workshop.

5.1.3. Potential for Aboriginal Archaeological Deposits

Previous land use and disturbances have had a significant impact on the Aboriginal subsurface archaeological resource that may have once been present at a location. Initial construction of the Locomotive Workshop building would have included extensive cutting, leveling and filling, and other associated activities such as the laying of rail stock, which would have greatly impacted any Aboriginal archaeological deposit in this location through the destruction of archaeology bearing topsoils and soil profiles, disturbance of any intact archaeological deposits, and removal of natural soil profiles through excavation and construction.

While it is likely that soils consistent with the boundary of the Blacktown (shallow loams) and Tuggerah (sandy soils) soil profiles would have once been present beneath the Locomotive Workshop building, (which would have been the natural soil profile occupied by Aboriginal people and therefore capable of yielding Aboriginal archaeological deposits) it is highly likely that the natural soil profile across the entire ATP site (including the Locomotive Workshop) has either been completely destroyed, removed, or disturbed to a point that intact Aboriginal archaeological deposits are no longer present. Where the original natural soil profile may possibly still exist subsurface at the site, this would only be present in small pockets that have a high likelihood of having been highly disturbed by previous construction works. In addition, the geotechnical data indicates that potential nature soil profiles across the ATP site are likely to coincide with contaminated groundwater. The layer of fill across the majority of the ATP site would have no potential to contain intact Aboriginal archaeological deposits.

In review of the historic use of the ATP site, the conclusion made through the CMP regarding the potential nature of the Aboriginal archaeological deposit at the ATP site is confirmed through this report; that there would be low to no potential for Aboriginal archaeological deposits occurring beneath the Locomotive Workshop. Should these Aboriginal archaeological deposits (which would be

predominantly in the form of Aboriginal stone objects) be present, they would be within limited pockets of remnant soil profiles (if present), potentially located in some areas across the site, below the levels of fill, and would likely be in a highly disturbed context. The potential presence of these Aboriginal objects would be very low, and if present, would be unlikely to provide any information of scientific significance.

Overall, based on the information provided so far and knowledge of the local area, the risks of finding in-situ Aboriginal archaeological sites are considered to be low-nil.

5.2. Historical Archaeological Potential

The CMP included an assessment of the potential for historical archaeological resources to survive within the curtilage of the ATP site, and concluded that due to the level of cutting down of the site, and subsequent development phases, there would generally be a low to moderate potential, across the ATP site for historical archaeological resources to be present within the ATP Site.

The HIS prepared by Curio Projects in 2015, and the subsequent *Historical Archaeological Research Design and Methodology for Australian Technology Park (ARD)*, also prepared by Curio Projects,²⁶ reviewed and revised the assessment of historical archaeological potential across the ATP site from that presented in the CMP.

The historical archaeological potential as presented in this section is drawn directly from the HIS and ARD, with additional details directly referencing the historical archaeological potential relevant to the Locomotive Workshop specifically, where relevant.

5.2.1. Archaeological Potential

The archaeological potential of a site refers to its potential for archaeological resources to survive below-ground, and relates to its level of intactness. The potential for archaeological resources to survive is directly related to the types of cultural activities and environmental factors that have impacted on a site over time (site disturbance activities), and how such factors may or may not have disturbed, destroyed, conserved or impacted upon the evidence of earlier activities. The type of materials used for construction, daily activities, intensity of development and demolition activities, environmental conditions and topography all influence the ability of archaeological remains to survive.

The potential for historical archaeological resources and/or 'relics' to survive is not the same as potential archaeological 'significance'. Often the two terms are confused which can lead to inaccurate historical archaeological assessments. Potential 'archaeological significance' relates to the importance of any archaeological resource found, rather than its ability to survive within a cultural heritage landscape. For example, a site may contain extensive archaeological evidence of the former footings of a c.1910 terrace which means it has 'high archaeological potential'—a high likelihood for evidence to survive, but when assessed in terms of its archaeological significance and ability to contribute significant new information, it has 'low archaeological significance' because the evidence associated with the footings of c.1910 terraces in Sydney is common -with hundreds of intact c.1910 terraces still standing. Archaeological research of more c.1910 footings would not add to our understanding of Sydney's history in a meaningful way.

Archaeological potential refers to the level of likelihood for physical evidence of a particular historical activity or development to survive. It is usually classified as low, medium or high:

²⁶ Curio Projects 2016, *Historical Archaeological Research Design and Methodology for Australian Technology Park*, prepared for Mirvac, January 2016.

- Low archaeological potential—it is unlikely that physical evidence of a particular historical phase or activity survives.
- Moderate archaeological potential—it is possible that physical evidence of a particular historical phase or activity survives, however surviving archaeological remains may have been subject to some disturbance or may only partially survive.
- High archaeological potential—it is likely that physical evidence of a particular historical phase or activity survives.

This section presents information with respect to the site-specific historical archaeological potential and historical site disturbance activities that may have impacted on this potential.

5.2.2. Relics vs Works and Standing Footings

It is important to note that insitu industrial archaeological resources (such as roadways, railway tracks, tram tracks, kerbstones, culverts, milestones, remnant flues, and other related below-ground infrastructure) are managed by the NSW Heritage Division as ‘works’, not ‘relics’. Therefore, a distinction has been made between ‘relics’ and ‘works’ where relevant, as while both relics and works may have the potential to be present, the way in which they are assessed and managed, may differ.

Resources that have the potential to be present at the overall ATP site (in relation with the Locomotive Workshop) and are considered to be ‘works’ include items such as railway tracks, turntables, kerbstones, and other related rail infrastructure that exists below-ground in association with the former railway uses of the site.

5.2.3. Site Disturbance Activities

Each phase of occupation and use of the ATP site has had the potential to remove, impact, or truncate the potential archaeological resource remaining from previous historical phases of use. The land of the Locomotive Workshop would have been subject to the land clearance of the Chisholm Estate and dairy farm usage, c1820s, after which, the Locomotive Workshops building itself was constructed early in the establishment of the ERW (i.e. 1887).

Unlike other areas of the ATP site, as an extant building, the footprint of the Locomotive Workshop would have been unlikely to have been subject to additional high levels of disturbance since the establishment of the ERW, remaining as it has in use and with minimal ground alteration since construction.

While the internal floor surfaces of the Locomotive Workshop would have once been soil, the majority of this was excavated during the 1990s redevelopment of the site at the ATP for decontamination works and for the laying of concrete floors.

Installation of numerous major services, electrical substations, service pits, water mains etc. are also focused along and beneath Locomotive Street, as well as across the wider entire ATP site, c.1990s.

In the course of the creation of the ATP in the 1990s, the floor of the Locomotive Workshop was concreted, and interior rail stock removed (with the exception of the rail stock in Bays 1 and 2, which was filled in with concrete) and interpreted in location through the installation of printed carpet representing the original location of the tracks between the bays.

In addition, it should be noted that soil sampling of the ATP site has demonstrated that there are known levels of high contamination that remain within the soils and ground water across the whole site as a product of the activities of the Eveleigh Railway Workshops.

5.2.4. Historical Archaeological Resources

Phase 1—Chisholm Estate and Dairy Farm 1835—1882

One of the key phases of historical development at ATP, with respect to the potential archaeological deposit at the site, relates to the history of the site as Chisholm Estate (and dairy farm), c. 1835–1880.

The CMP states that:

*Based on the analysis of the historical research there were two stable buildings marked on a plan of the Chisholm estate c1875 in the area on or very near to the eastern edge of the current subject land. These buildings were probably simple timber structures which typified agricultural/pastoral buildings of the time.*²⁷

*Two buildings are shown, with the word stables next to them on an early undated plan of the area. There is very low potential for occupation deposits and structures relating to these two buildings given the extensive later development of the site for railway use, the construction of the NICTA building and excavation for and paving of Garden Street.*²⁸

The locations of these stables in relation to the ATP site were overlaid by GML on a plan of the Chisholm Estate c1875. This plan has been reproduced in Figure 25. The location of one of the stables appears to be located at the northern edge of the extant NICTA building (i.e. southeast of the Locomotive Workshops), with the second just east of the ATP site boundary, under present day Garden Street.

There is no evidence for any potential archaeological features relating to Phase 1 (1835–1882) of site occupation within the footprint of the Locomotive Workshop. Therefore, the Locomotive Workshop subject site has no potential for archaeological resources relating to Phase 1 of historical use of the ATP site.

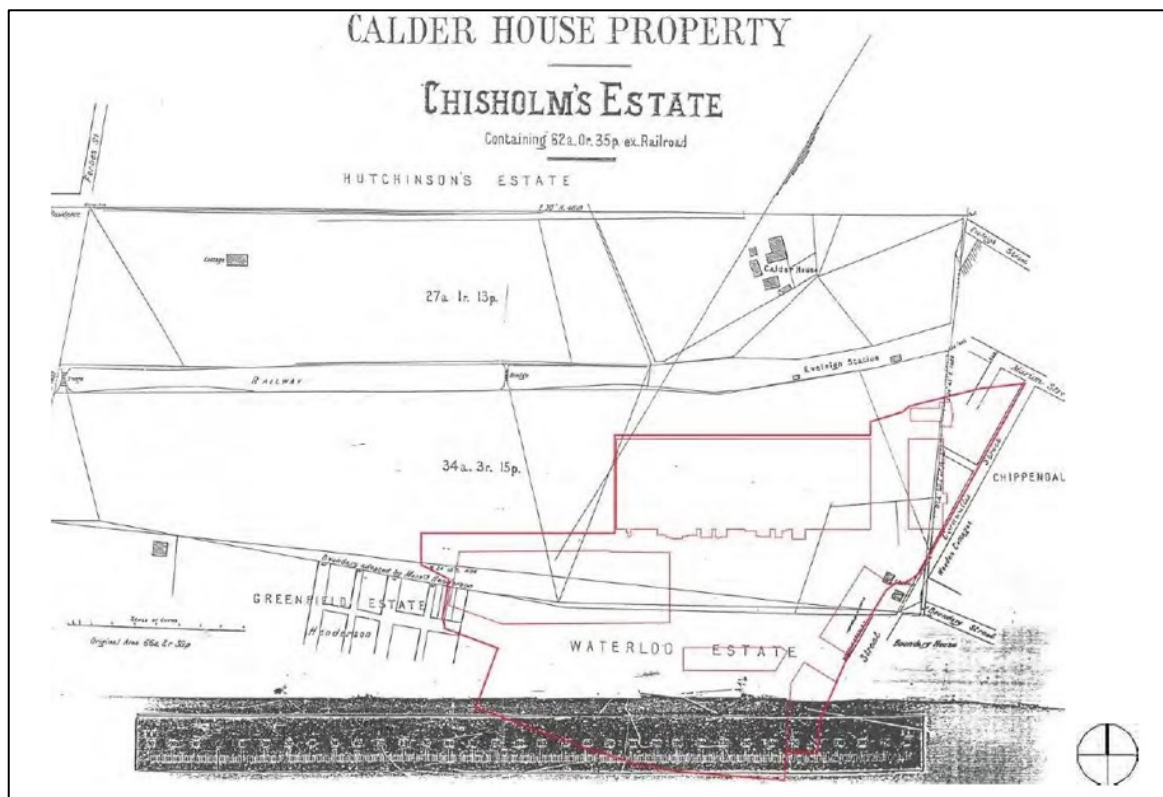


FIGURE 25: CHISHOLM ESTATE OVERLAID ON THE CURRENT ATP SITE LAYOUT (SOURCE: GML 2013, FIGURE 2.3 WITH CURIO ADDITIONS)

²⁷ GML 2013: 68

²⁸ GML 2013:69

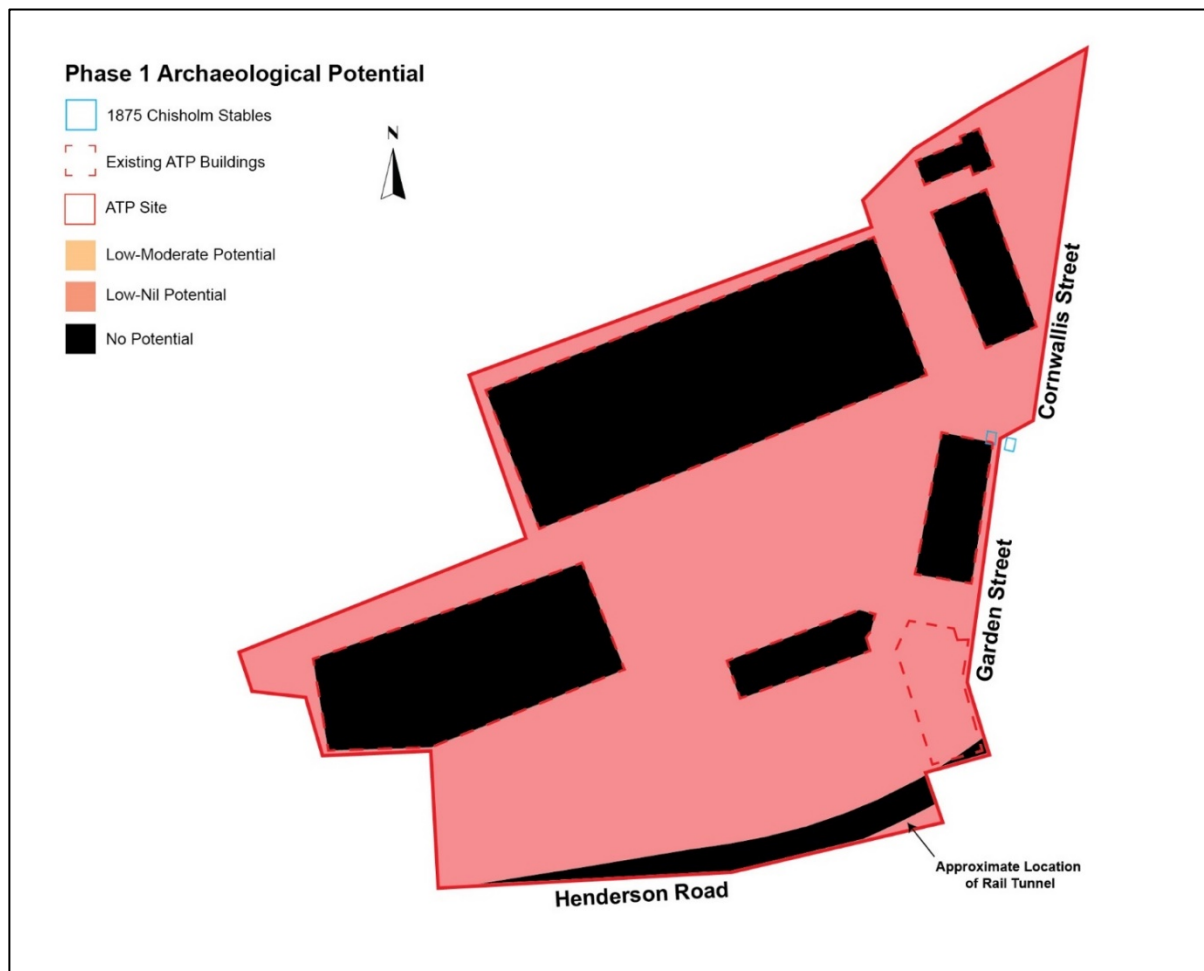


FIGURE 26: PHASE 1 POTENTIAL ARCHAEOLOGICAL RESOURCES ACROSS THE ATP SITE (SOURCE: CURIO 2016: 17)

Phases 2–4 of Historical Use of the Locomotive Workshop

The second phase of historical development at the ATP site, relates to the residential development within the site between 1880–1917, prior to the resumption of houses and shops for the Alexandria Goods Yard. The positioning of the Locomotive Workshop did not require any resumption or demolition of residential housing, and therefore has no potential for historical archaeological resources relating to Phase 2 historical use of the ATP site.

The third and fourth phases of historical development at the ATP site relate to the construction and operation of the Eveleigh Railway Workshops site (Phase 3—1880-1917), and the recent history of the ATP itself (Phase 4—1989-Present). The Locomotive Workshop was constructed at the very start of Phase 3, and remains extant through until today. Therefore, there is no potential for any additional activities, other than the construction of the Locomotive Workshop itself, to be present in an archaeological context within the building.

There is low potential that some earlier evidence of the construction of the Locomotive Workshop itself may be present in an archaeological context beneath the current floor of the Locomotive Workshop, potentially in the form of working footings, however this evidence, if it were present, would be likely to be ephemeral, fragmentary, and inconsistent. There is also the potential for arched footings to be present beneath the ground surface of the Locomotive Workshop, however these footings are considered to be ‘works’ as opposed to ‘relics’, and if present, would be managed and addressed accordingly.

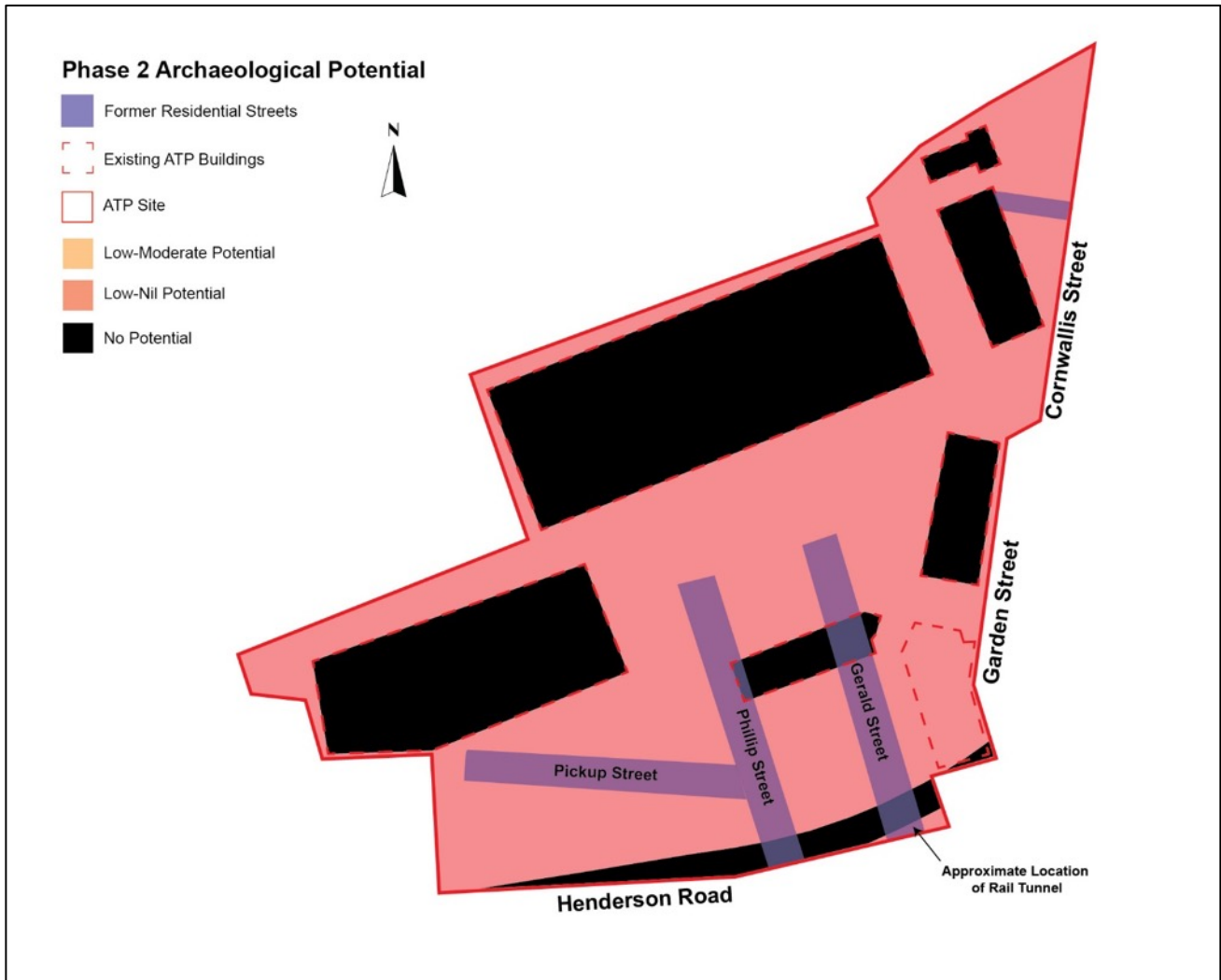


FIGURE 27: PHASE 2 ARCHAEOLOGICAL POTENTIAL (SOURCE: CURIO 2016).

Two turntables remain within the ATP site, along Locomotive Street in front of Bay 4a and Bay 12. Both turntables are listed on the S170 Register and are two of what once was ten turntables that flanked the south side of the Locomotive Workshops. The other turntables were removed in 1996. The S170 Register recommends that both turntables: ‘should be retained for interpretive purposes.

These turntables are considered to be ‘works’ by the NSW Heritage Division, as they form part of the rail infrastructure of the site, rather than ‘relics’ in accordance with the NSW Heritage Act. Therefore, the turntables are not considered to be archaeological in nature. In addition, while these turntables have been noted here in order to acknowledge their function as part of the wider Locomotive Workshop and ERW site, they are technically included within the Public Domain of the ATP, and are subject to separate DA processes.

In addition, as described in the physical analysis of the Locomotive Workshop, some remnant rail stock is located insitu, infilled with concrete along the floor in Bays 1 and 2 of the Locomotive Workshop. These rail stock form a part of fabric of the actual building itself and therefore are also not considered to be archaeological in nature. There is no longer any remnant rail stock within the western portion of the Locomotive Workshop, as it is understood that all interior rail stock in Bays 5–15 were removed and replaced by concrete and in some areas, interpretive carpet during the 1990s redevelopment of the building for the creation of the ATP.

5.2.5. Summary of Historical Archaeological Potential

In general, the Locomotive Workshop has nil to low potential for archaeological relics to survive within the footprint of the extant building relating to any phase of historical use of the site. Surviving turntables, rail stock and working footings such as potential subsurface arched footings are considered to be 'works' as opposed to 'relics' and therefore, while these works will require management, mitigation and consideration throughout the proposed development, they are not considered to be archaeological in nature, and will be discussed further in the subsequent sections of this report.

6.0 Heritage Significance

The summary statement of significance for the ATP site has been drawn from Section 7.5.1 of the CMP:

ATP provides important evidence of the founding and gradual expansion of the largest railway workshops in NSW over a period of 100 years. The Eveleigh Railway Workshops was a highly significant and ambitious public endeavour of a type that rarely occurs today. Eveleigh was a government-established and government-run industrial workshop designed to provide self-sufficiency for the Sydney and NSW railways, without reliance on private operators who did not possess the funds or workforce to cope with demand during the nineteenth century. It employed and developed the best technology available at the time and continued to innovate in response to changes in the NSW railways system and management policy throughout its years of operation.

The ATP site contains an amalgam of land gradually resumed for railway use during the nineteenth and twentieth centuries. The land was resumed for a number of expansions of the Locomotive Workshops, establishment of the Alexandria Good Yard and construction of the Eastern Suburbs Railway connection to the Illawarra line, and involved demolition of an area of housing north of Henderson Road. At its peak, the area was the most important rail precinct in NSW.

Three of four remaining buildings and a significant machinery collection from the State-significant Eveleigh Locomotive Workshops are contained within the ATP site. The Locomotive Workshops building, New Locomotive Shop and Works Manager's Office form a historically and aesthetically significant group that demonstrates the scale and importance of the Eveleigh Locomotive Workshops and are a landmark along the western railway. The distinctive, highly detailed industrial buildings provide powerful evidence of the importance of the workshops as a major industrial undertaking in NSW during the late nineteenth century. Individual items of the Locomotive Workshops Machinery Collection remain significant items of technical achievement. These range from the Davy Press, a unique machine in Australia and rare in a world context, to the Departmental Lathe, a precision machine built locally. While the Machinery Collection is not entirely intact, it retains a high level of significance and the collection within the blacksmiths workshop is relatively complete.

The ATP site holds great significance for members of the local community and current and former workers within the NSW railways and is central to many local community members' connection with the Redfern/Darlington area. As the site of the former Eveleigh Locomotive Workshops, ATP is emblematic of a type of work no longer common in NSW and the remaining buildings are seen as a testament to the many thousands of workers and their families that made their living within its walls. The pride in the history of the Eveleigh Locomotive Workshops is evident through the dedication of the many volunteers that continue to work in the Large Erecting Shed, the blacksmith business in Bays 1 and 2 South and the open days and tours led by former workers, as well as the many views expressed during the community consultation process.

The ATP site has strong historical connections with the surrounding area, including North Eveleigh and Redfern Station, as well as a historical connection with the expansion, pattern and type of development that occurred in adjacent suburbs. While the former Eveleigh Locomotive Workshops are significant in their own right, this significance is increased by their relationship to the Eveleigh Railway Workshops as a whole, including the former Carriage and Wagon Workshops at North Eveleigh and the former Macdonaldtown Gas Works.

6.1. Significance of Components—Overall ATP Site

As stated by GML in the CMP for the ATP site:

Different components of a place may make a different relative contribution to its heritage value. Loss of integrity or poor condition may also diminish significance. Specifying the relative contribution of an item or its components to overall significance provides a useful framework for decision-making about the conservation of and/or changes to the place. The following table sets out terms used to describe the grades of significance for different components of the place and is taken from the NSW Heritage Office publication Assessing Heritage Significance (2001).

TABLE 2: STANDARD GRADE OF SIGNIFICANCE (AFTER GML 2013, AFTER NSW HERITAGE OFFICE 'ASSESSING HERITAGE SIGNIFICANCE')

Grade	Justification
Exceptional	Rare or outstanding element directly contributing to an item's local and State significance.
High	High degree of original fabric. Demonstrates a key element of the item's significance. Alterations do not detract from significance.
Moderate	Altered or modified elements. Elements with little heritage value, but which contribute to the overall significance of the item.
Little	Alterations detract from significance. Difficult to interpret.
Intrusive	Damaging to the item's heritage significance.

The CMP assessed the components of the ATP site to have differing grade of significance, including the Locomotive Workshop. These assessed grades of significance are presented in Table 3, as originally presented by GML in the CMP. The elements or attributes that specifically relate to the eastern portion of the Locomotive Workshop (i.e. Bays 1–4a), and therein to this HIS, have been bolded in the table below.

TABLE 3: GRADES OF SIGNIFICANCE AND APPLICATION TO ATP, ELEMENTS RELEVANT TO LOCOMOTIVE WORKSHOP IN BOLD (FROM GML 2013: TABLE 7.3, P. 95-96)

Grade	Application to ATP	Elements/Attributes
Exceptional	Major elements within ATP and visual connections within ATP and the former Eveleigh Railway Workshops. These may include some alterations which are of a minor nature and/or do not detract from significance.	Locomotive Workshops building including original annexes New Locomotive Shop Works Managers Office Turntables throughout site General visual connections that reflect former functional relationships and context between the elements within ATP and with the former Carriage and Wagon Workshops, Paint Shop and Chief

Grade	Application to ATP	Elements/Attributes
		Mechanical Engineers Office at North Eveleigh and railway lines.
High	Major elements within ATP and specific views within ATP and the former Eveleigh Railway Workshops which provide evidence of key attributes of the item's significance. These generally include alterations of a more substantial nature than Exceptional elements, but do not obscure significance.	Water tower Specific views: • Along the northern and southern elevations of the Locomotive Workshops building. • Into the site from the northeastern entrance (Marian Street), the entrance near Margaret Street and the entrance near Boundary Street. • The three former Eveleigh Locomotive Workshops buildings from the railway lines. • View from the northern end of Innovation Plaza across to the Chief Mechanical Engineers Office at North Eveleigh. • View of the two sides of the Eveleigh Railway Workshops and Redfern Station from the entrance to ATP at Marian Street.
Moderate	Remnants of the Eveleigh Locomotive Workshops within the ATP site which have historic, associational and/or aesthetic values and contribute to overall significance. May also include sites of archaeological potential relating to former structures and landscape features.	Remnant brick walls from foundry Remnant rail tracks throughout the site Change in level between Locomotive Workshops building and foundry site
Little	Added or altered elements which detract from significance and/or may obscure more significant attributes.	NICTA Media Central (8 Central Avenue) Biomedical Building RTA and NSW Ambulance buildings
Intrusive	Added or altered elements which damage the item's significance.	No elements identified

6.1.1. Significance of Components—Locomotive Workshop

The CMP continues in its assessment of grades of significance across the ATP site, to further ‘the extent to which particular components of the place retain and/or provide meaningful evidence of the original site, as well as the relative importance of later layering and overall physical condition’.²⁹

This assessment has been adapted from the original CMP assessment, to present the significance of the individual heritage items and fabric therein, as specifically relevant to the eastern portion of the Locomotive Workshop (i.e. Bays 1–4a), i.e. the subject of this HIS.

TABLE 4: GRADE OF SIGNIFICANCE AND APPLICATION TO BUILDING FABRIC—EASTERN PORTION OF THE LOCOMOTIVE WORKSHOP (BAYS 1–4A)
(ADAPTED FROM GML 2013: 96-97)

Grade	Application to ATP	Locomotive Workshop Elements/Attributes
Exceptional	Major spaces, elements and fabric of the early/original buildings remaining from the Eveleigh Locomotive Workshops. These may include some alterations which are of a minor nature and/or do not detract from significance.	External walls, including all original openings Blacksmiths workshop (Bays 1 and 2), including intact machinery collection Original annexes to Bays 1–3 Roof lanterns Original internal layout of the building, including arrangement of bays divided by double rows of cast-iron columns Rail tracks and services remaining in the slab Turntable south of Bay 4a Overhead travelling cranes throughout
High	Major spaces, elements and fabric of early/original buildings remaining from the Eveleigh Locomotive Workshops which provide evidence of key attributes of the item’s significance. These generally include alterations of a more substantial nature than Exceptional but do not obscure significance.	Machinery displayed throughout, except in Bays 1 and 2
Moderate	Additions/alterations to the early/original buildings remaining from the Eveleigh Locomotive Workshops which have historic, associational and/or aesthetic values which contribute to overall significance.	No fabric identified.
Little	Added or altered spaces, elements and fabric which detract from significance and/or may obscure more significant attributes.	Office fit out in original Bays 3–4a New annexes to Bays 4 and 4a Modern glass doors Carpet throughout Bays 3–4a
Intrusive	Added or altered spaces, elements and fabric which damage the item’s significance.	No fabric identified.

²⁹ GML 2013: 95

6.1.2. Heritage Significance—Bays 1–4a

The fabric within Bays 1–4a of the Locomotive Workshop identified in the CMP of exceptional and high significance consists of:

- External walls, including all original openings;
- Blacksmiths workshop (Bays 1 and 2), including intact machinery collection;
- Original annexes to Bays 1–3;
- Roof lanterns;
- Original internal layout of the building, including arrangement of bays divided by double rows of cast-iron columns;
- Rail tracks and services remaining in the slab;
- Turntable south of Bay 4a; and
- Overhead travelling cranes throughout.

Some current elements present in Bays 1–4a of the Locomotive Workshop have been identified as being of little heritage significance. These include:

- New annex to Bay 4a;
- Modern Glass Doors; and
- Carpet throughout Bays 3–4a.

7.0 Description of the Proposed Development

The SSD application (SSD 8517) for the eastern portion of the Locomotive Workshop (Bays 1–4a) seeks approval for the following:

- demolition of existing ‘modern’ office infill fit-out elements to Bays 3–4a, including display barriers in Bays 1 & 2;
- relocation of moveable heritage items;
- adaptive reuse of the Bays 1–4a and two annex structures for retail premises uses, function centre uses, information and education facility uses, general industrial uses, recreation facility (indoor) uses and associated back of house facilities;
- construction of internal and external alterations to Bays 1–4a;
- heritage interpretation and conservation works;
- public domain improvements within the curtilage of Bays 1–4a;
- provision of an external building illumination system;
- signage; and
- associated utilities and infrastructure.

It is intended that the modern 1990s infill offices and lecture theatre in Bays 3–4a will be demolished as part of the proposed works, and that Bays 3–4a will be adaptively reused to create an artisan style marketplace. The proposed development within Bays 3–4a will be anchored by a supermarket at ground level, and will contain commercial and event spaces within a new Level 1 mezzanine (Figure 31).

The existing ‘modern’ infill fit-out office elements in Bays 3–4a generally consist of mezzanine levels, which in some locations are two storeys in height. Following the demolition of these modern office fitout, the adaptive reuse of Bays 3–4a through the construction of internal improvements for retail use, will not exceed a single storey mezzanine.

As part of the redevelopment of the Locomotive Workshop, it is intended that the heritage significance of the building, its collections, and the ongoing blacksmithing activities in Bays 1 & 2 South will be reinforced and reinterpreted within the proposed new uses for the site. Issues associated with the existing heritage interpretation at the site, including its identification in the CMP as being a product of its time, and not providing a coherent story about the site, will be addressed as part of the proposed adaptive reuse within Bays 1–4a.

The proposed heritage interpretation and conservation works would include the relocation of some of the moveable heritage collection from Bays 1–4a, repositioning of the overhead cranes (within their tracks) in Bay 1 and Bay 4, enhanced interpretation of displayed moveable heritage items in Bays 3–4a, revision of the heritage display in Bays 1 & 2 North, and the development of a new mezzanine dedicated heritage exhibition and interpretation space in Bays 1 & 2 North.

The proposed use of Bays 1–4a seeks to facilitate greater access to and celebration of the heritage and historic artefacts present on site, by opening the building to the public, expanding the audience to the blacksmith heritage space and improving services and the public interface, encouraging public and community access to the site through the implementation of retail spaces, while supporting the new and existing tenants and community with the ATP precinct and surrounds.

Specific works, as outlined in Sisson's Design Report³⁰, include:

Bays 1-2 Interiors—Proposed Works

- Heritage Interpretation & Conservation Works
- Relocation of moveable heritage items
- Enhancement of entrances and openings
- Construction of a loading dock with new mezzanine heritage exhibition area over
- Adaptive reuse of Bays 1-2 and associated annexes for retail uses, function centre uses, events, information and education facility uses, general industrial uses and associated back of house uses
- New connection between Bays 2-3 on Ground and Level 1

Bay 3-4a Interiors—Proposed Works

- Demolition of existing modern infill fit-out elements to Bays 3-4a
- Adaptive reuse of Bays 3-4a for retail premises uses, events and associated back of house uses
- Installation of support beams for roof plant
- Removal of small sections of steel beams to allow inter-bay access at the mezzanine level between Bays 1-4a
- Construction of travelator connecting retail with parking (in basement of Building 2)
- Enhancement of entrances/openings

Bays 1 -4a Exterior—Proposed works include:

- Installation of external lighting to enhance the building façade
- Installation of external signage including a single 'Locomotive Workshops' sign on the façade, with all other signage behind glazed glass doors
- Public Domain improvements to the paving and footpath network within the Locomotive site boundary
- Addition of a steel and glass pavilion to the south-east corner of Bays 1-2 to create 'corner retail'

Roof—Proposed Works include:

- Installation of roof plant in the valleys of the roof profile
- Roof upgrade, including installation of insulation to Bays 1-4a
- Insertion of skylights, in the form of natural daylight slots to Bays 3-4a

Retail/Office Annexures—Proposed Works

- Removal of modern infill features
- Refurbishment of single level retail tenancy

A more detailed and comprehensive description of the proposal is contained in the EIS prepared by Ethos Urban. Further detailed design, including materiality, finalised relocation of some of the moveable heritage collection etc., will be developed and addressed as part of future separate DA processes (as part of tenant fitout), and as part the Stage 2 Heritage Interpretation Strategy.

Figure 29 to Figure 45 present the DA plans for the development.

³⁰ Sissons 2017.



FIGURE 28: EXISTING AND DEMOLITION PLAN—GROUND FLOOR (SOURCE: SISSONS, DRAWING SA-AR-DWG-BB-B4-0310, REVISION H, 2.11.17)



FIGURE 29: PROPOSED PLAN—GROUND FLOOR (SOURCE: SISSONS, DRAWING SA-AR-DWG-BB-B4-0330, REVISION H, 10.11.17)

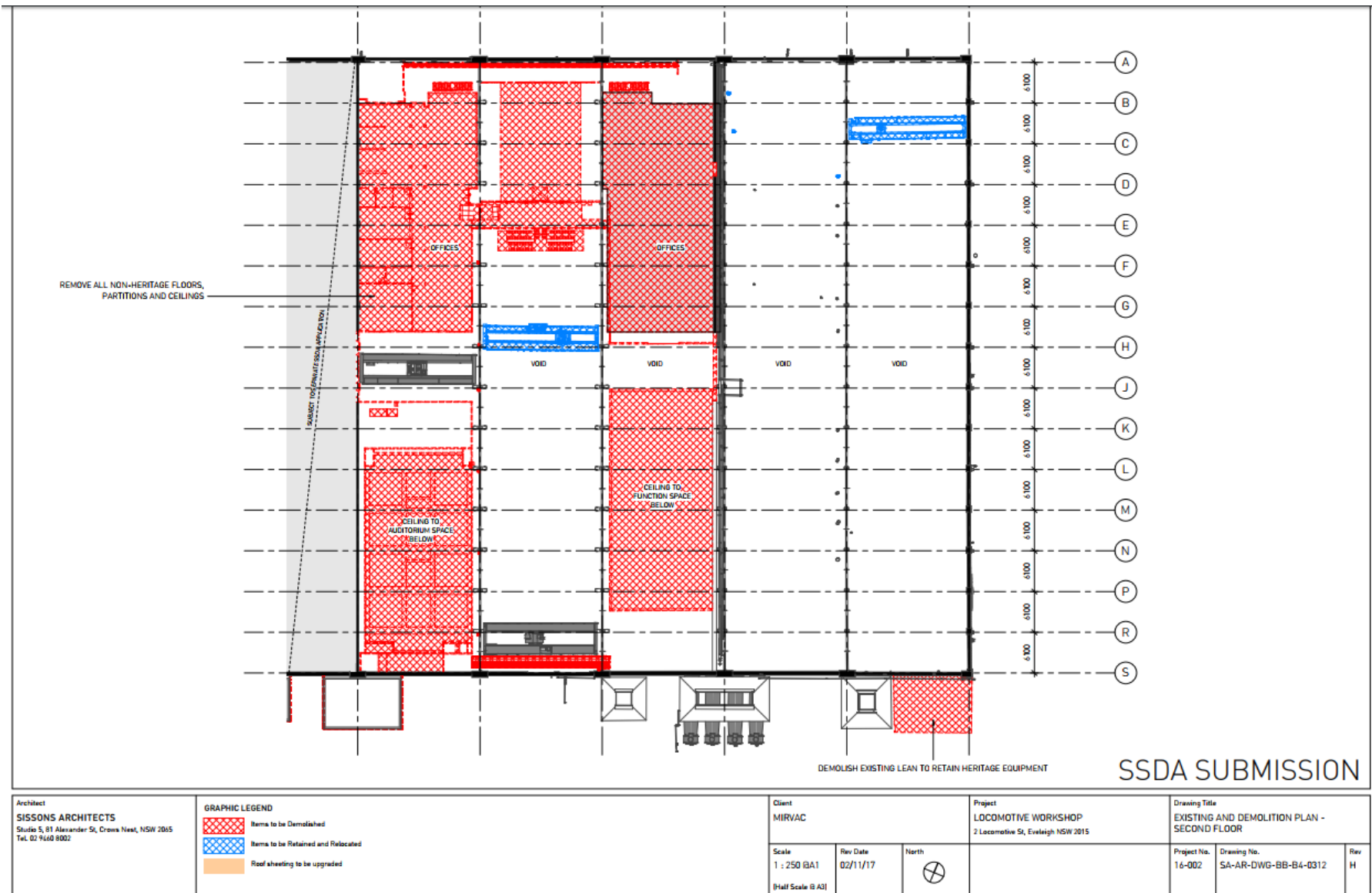


FIGURE 30: EXISTING AND DEMOLITION PLAN—FIRST FLOOR (SOURCE: SISSONS, DRAWING SA-AR-DWG-BB-B4-0311, REVISION H, 2.11.17)

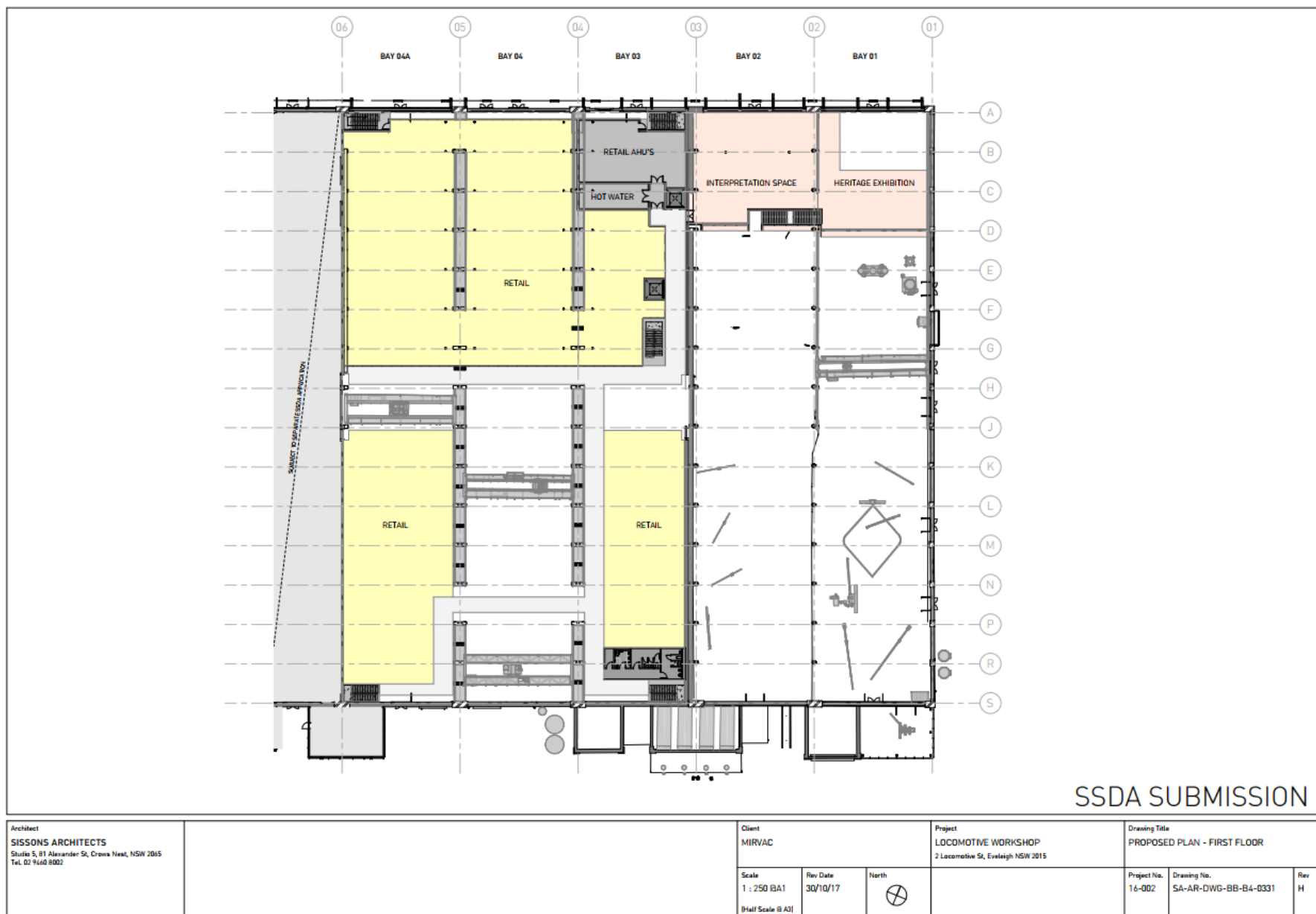


FIGURE 31: PROPOSED PLAN—FIRST FLOOR (SOURCE: SISSONS, DRAWING SA-AR-DWG-BB-B4-0331, REVISION H, 30.10.17)

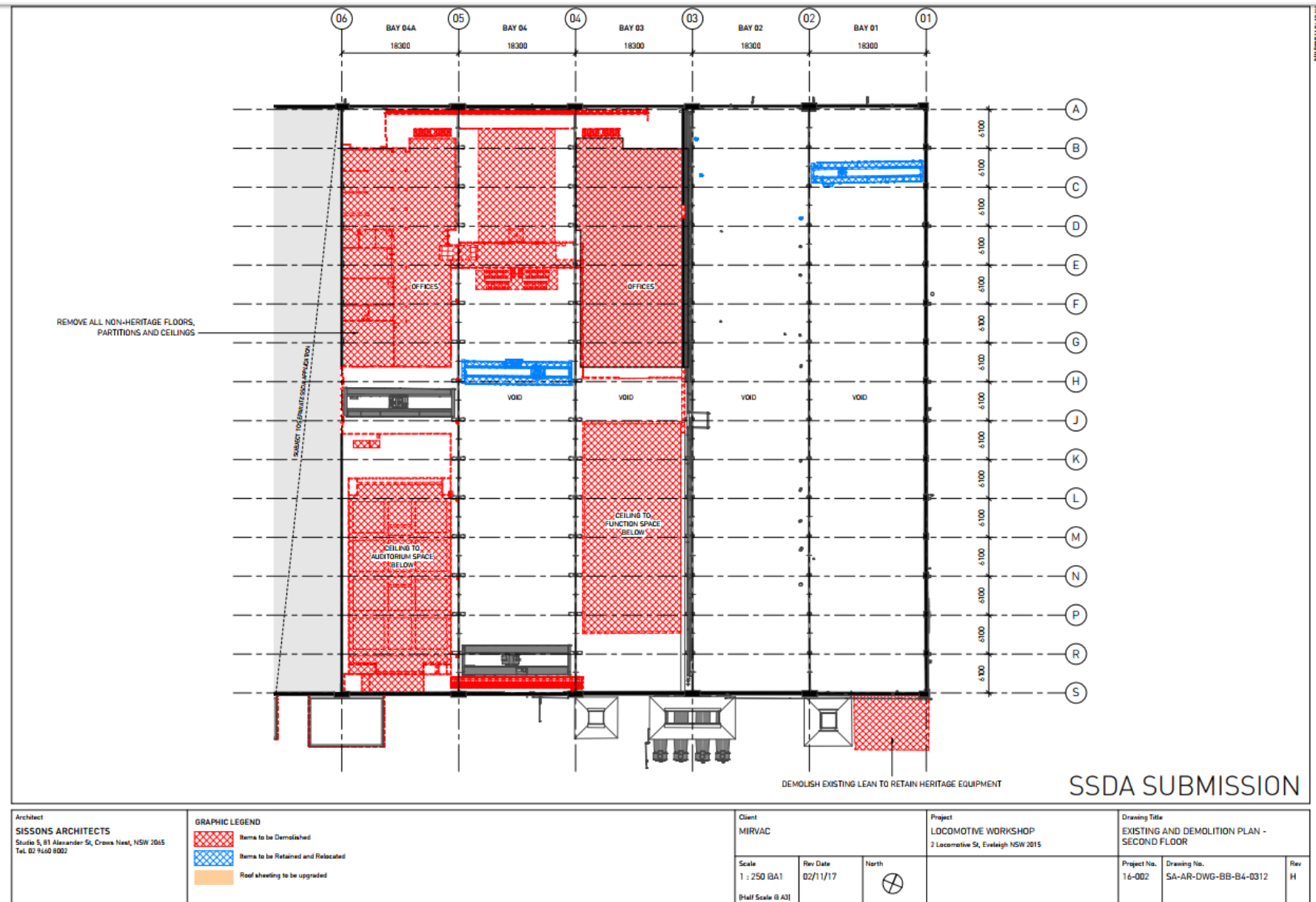


FIGURE 32: EXISTING AND DEMOLITION PLAN—SECOND FLOOR (SOURCE: SISSONS, DRAWING SA-AR-DWG-BB-B4-0312, REVISION H, 2.11.17)

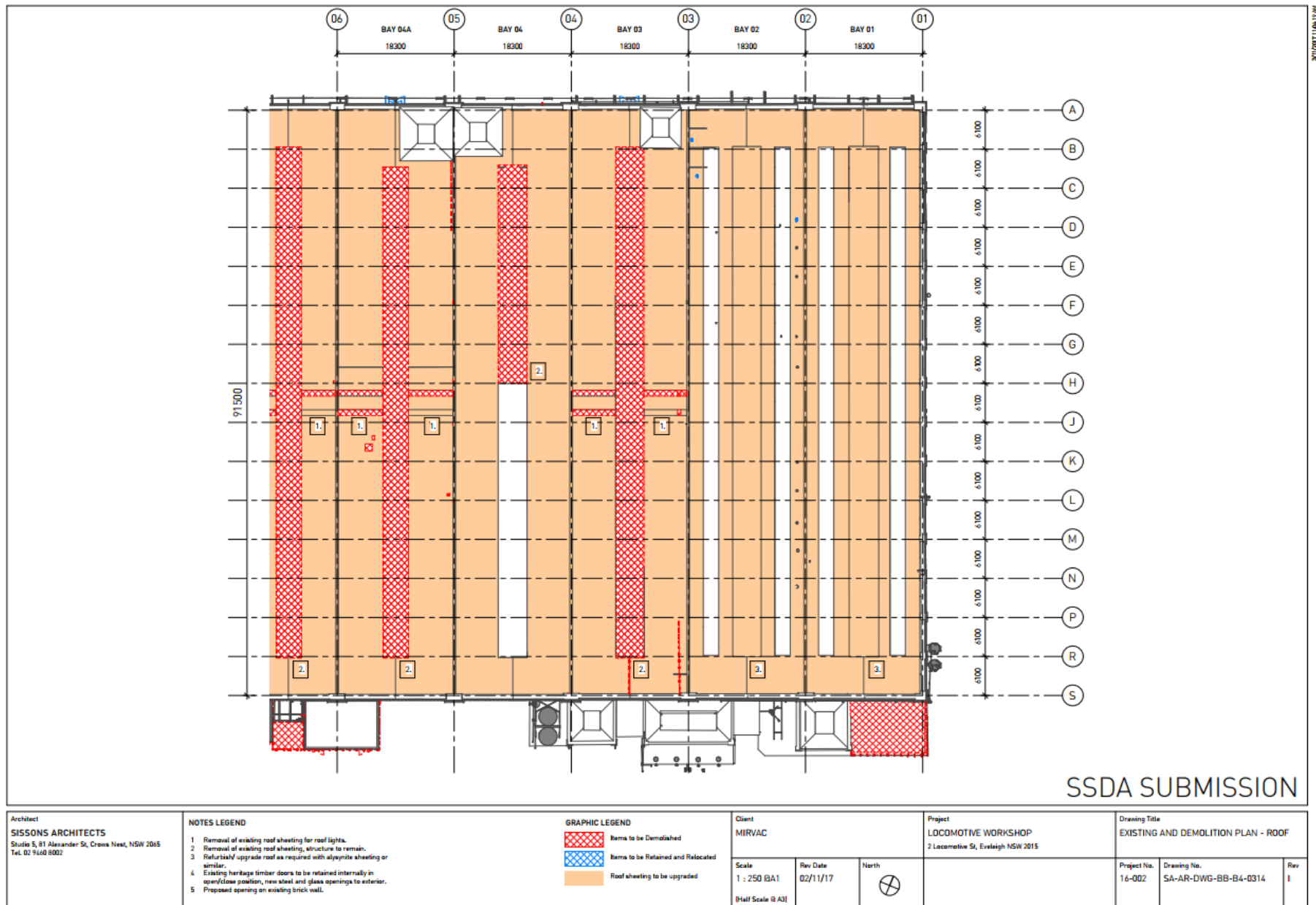


FIGURE 33: EXISTING AND DEMOLITION PLAN-ROOF (SOURCE: SISSONS, DRAWING SA-AR-DWG-BB-B4-0314, REVISION I, 2.11.17)

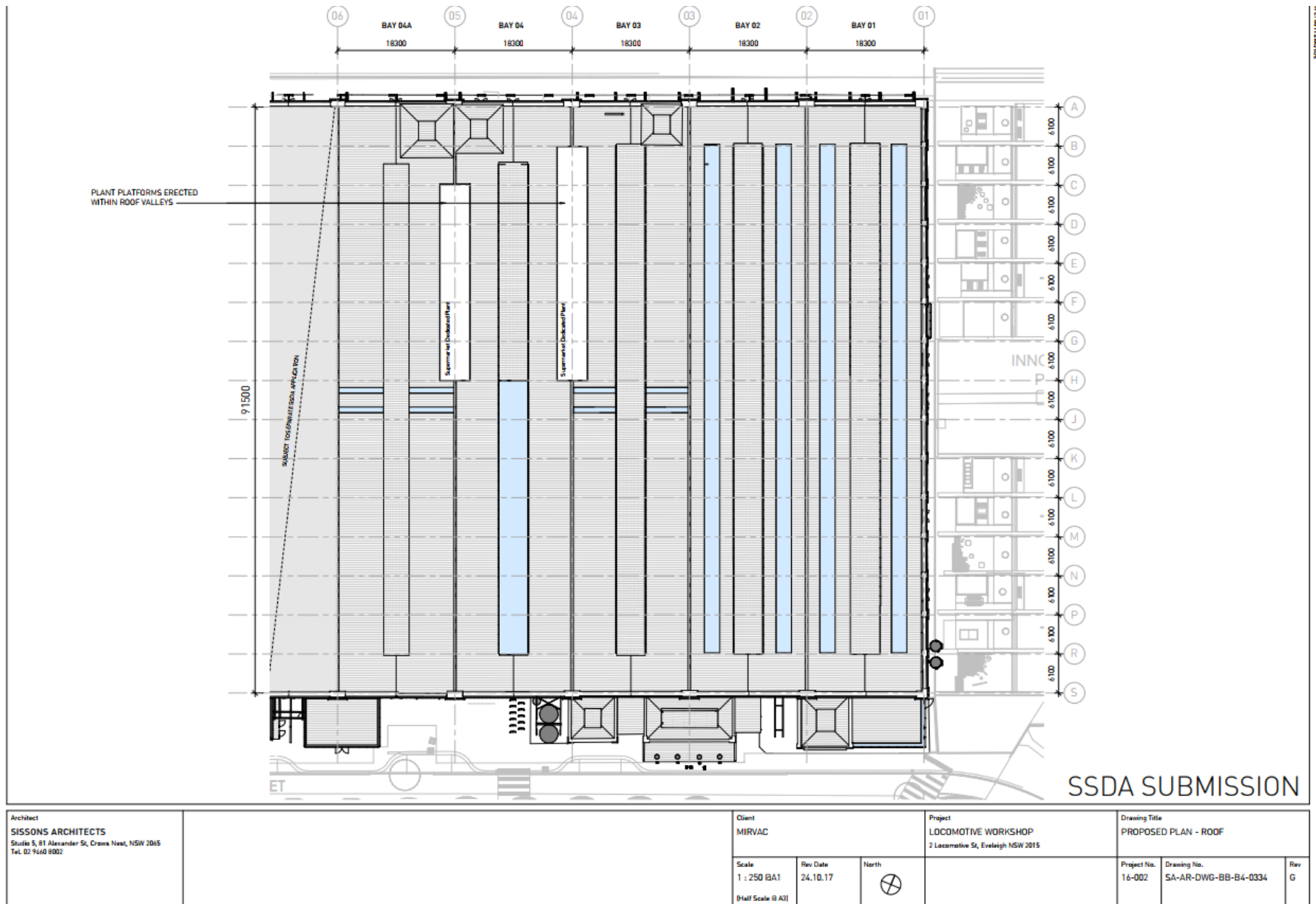


FIGURE 34: PROPOSED PLAN—ROOF (SOURCE: SISSONS, DRAWING SA-AR-DWG-BB-B4-0334, REVISION G, 24.10.17)



FIGURE 35: EXISTING ELEVATIONS (SOURCE: SISSONS, DRAWING SA-AR-DWG-BB-B4-0320, REVISION G, 27.10.17)

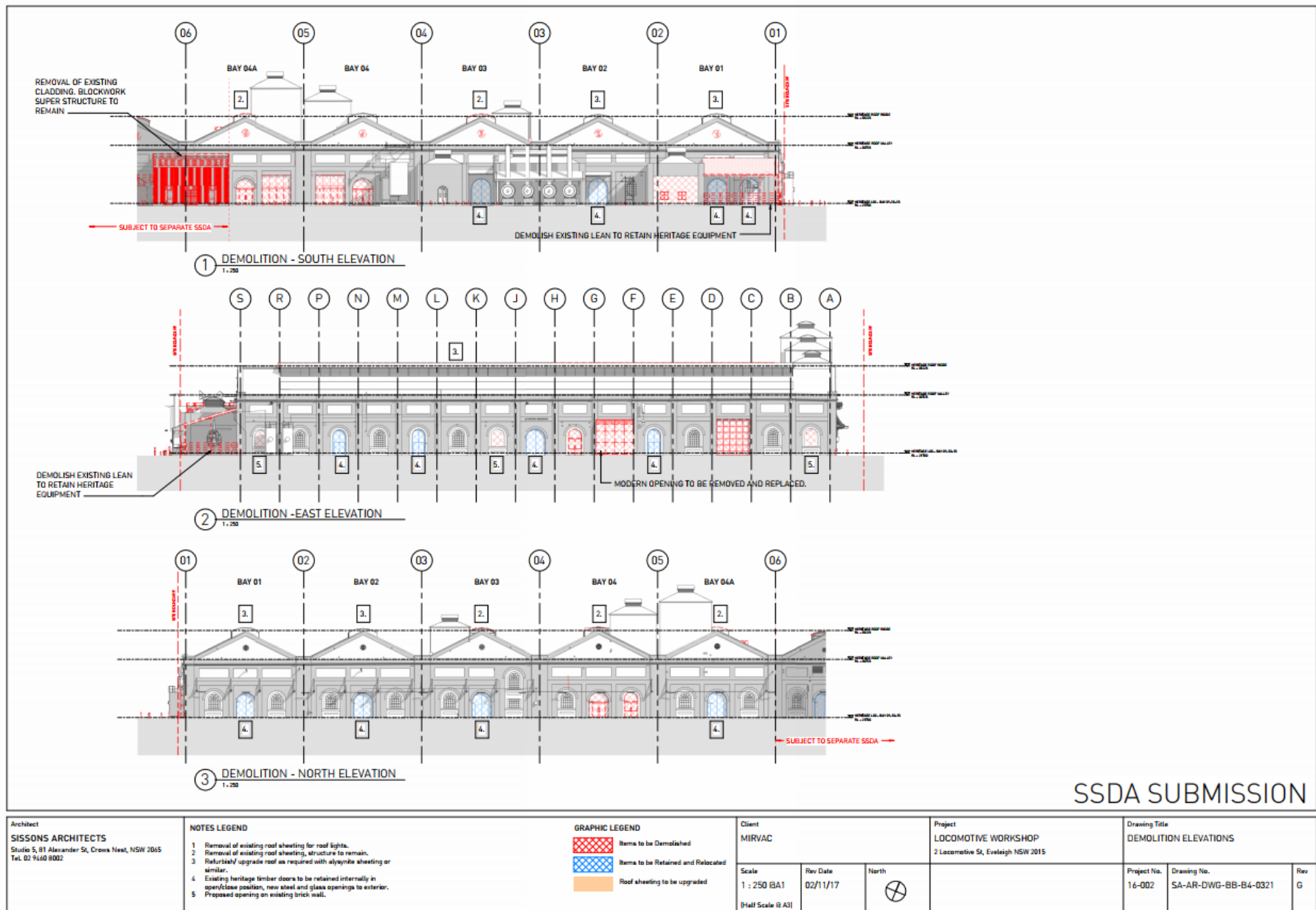


FIGURE 36: DEMOLITION ELEVATIONS (SOURCE: SISSONS, DRAWING SA-AR-DWG-BB-B4-0321, REVISION G, 2.11.17)

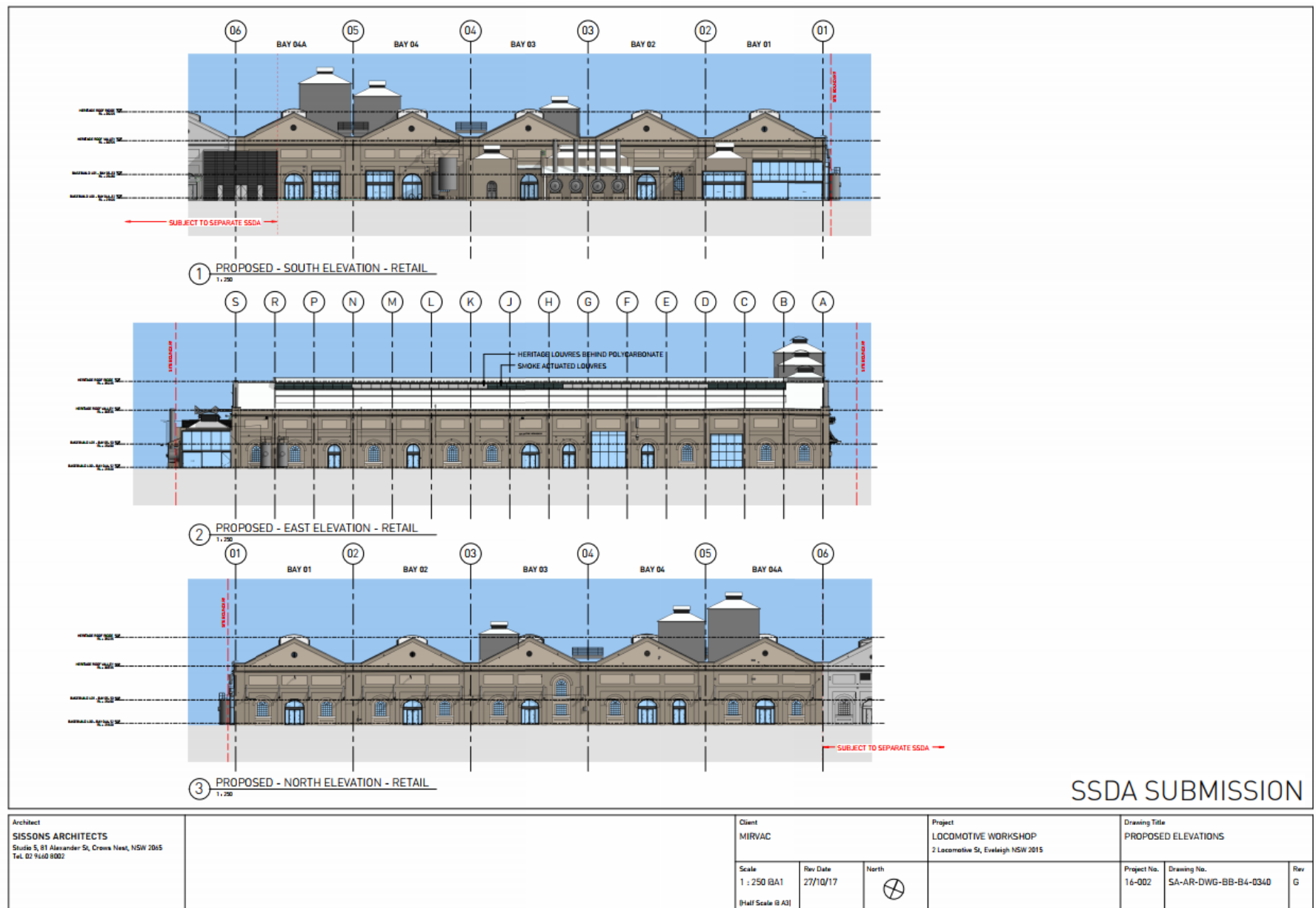


FIGURE 37: PROPOSED ELEVATIONS (SOURCE: SISSONS, DRAWING SA-AR-DWG-BB-B4-0340, REVISION G, 27.10.17)

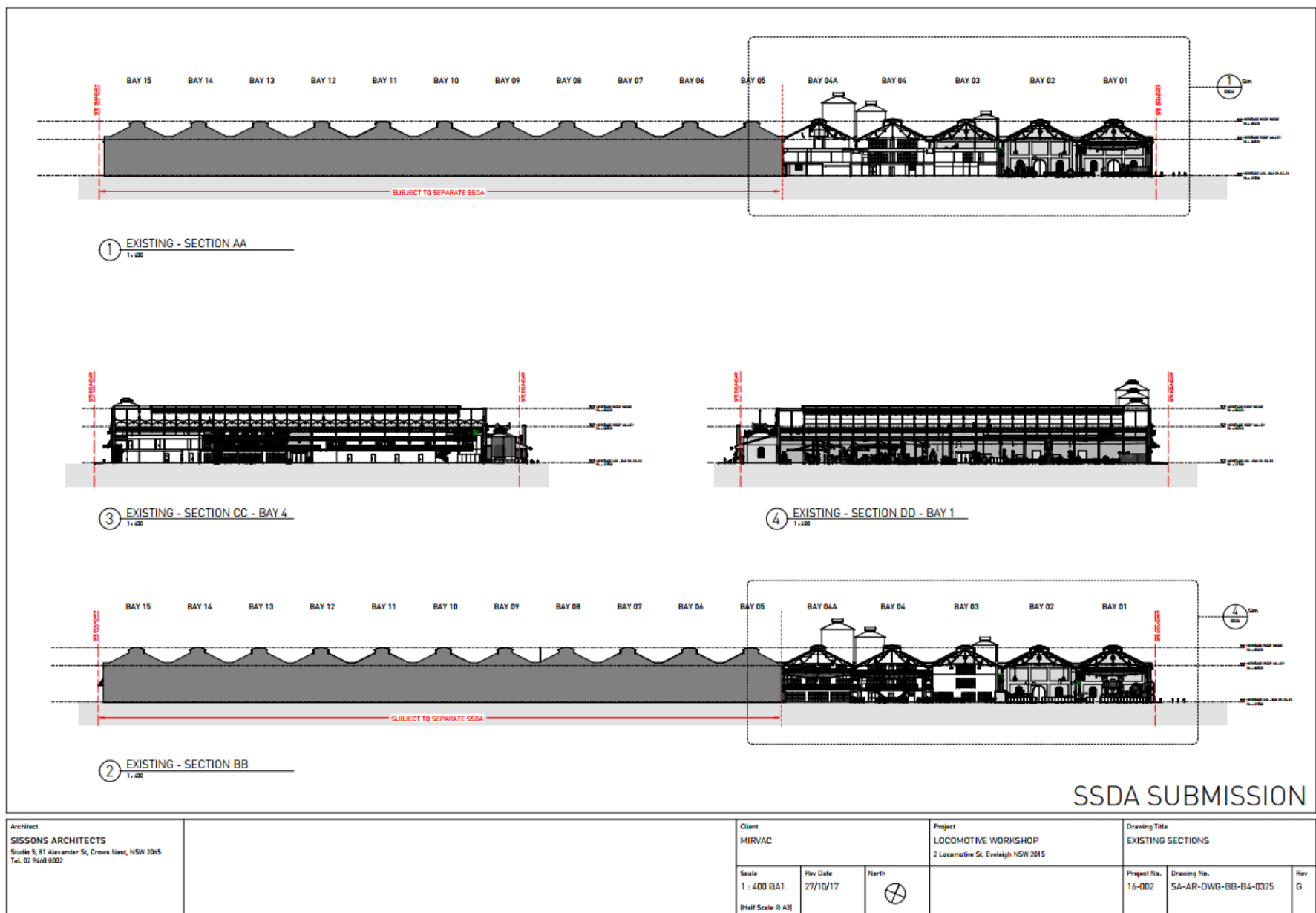


FIGURE 38: EXISTING SECTIONS (SOURCE: SISSONS, DRAWING SA-AR-DWG-BB-B4-0325, REVISION G, 27.10.17)

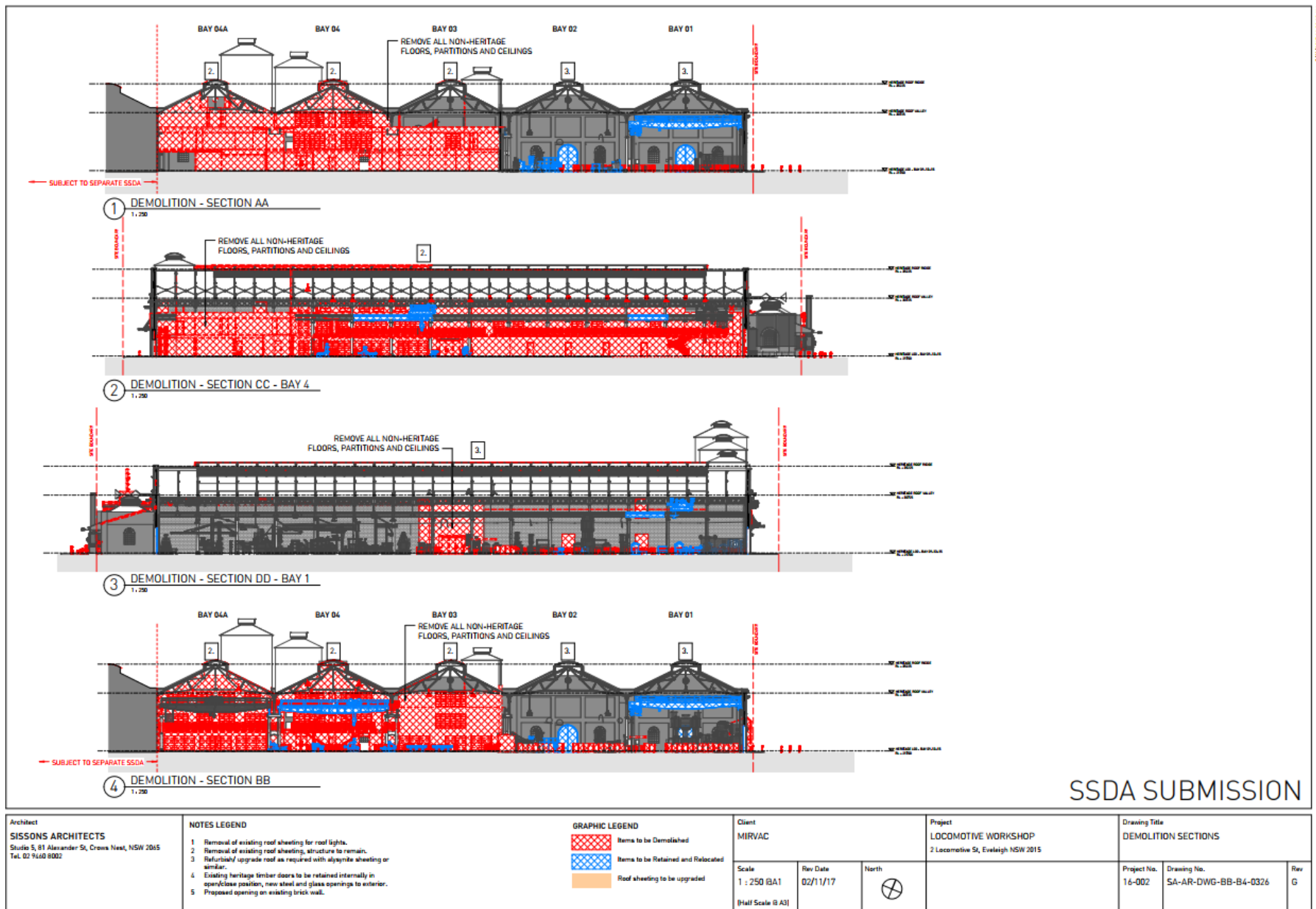


FIGURE 39: DEMOLITION SECTIONS (SOURCE: SISSONS, DRAWING SA-AR-DWG-BB-B4-0326, REVISION G, 2.11.17)

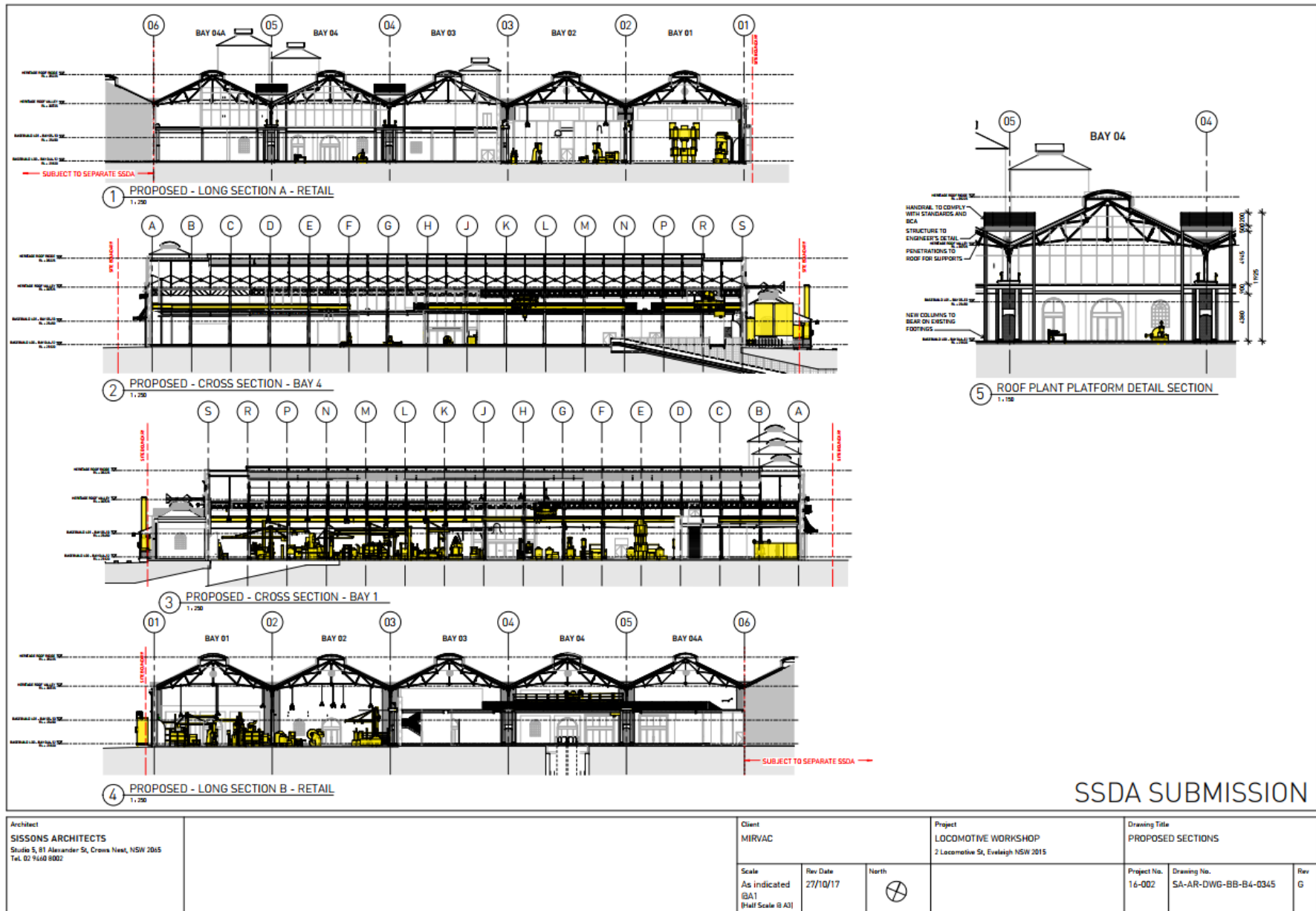
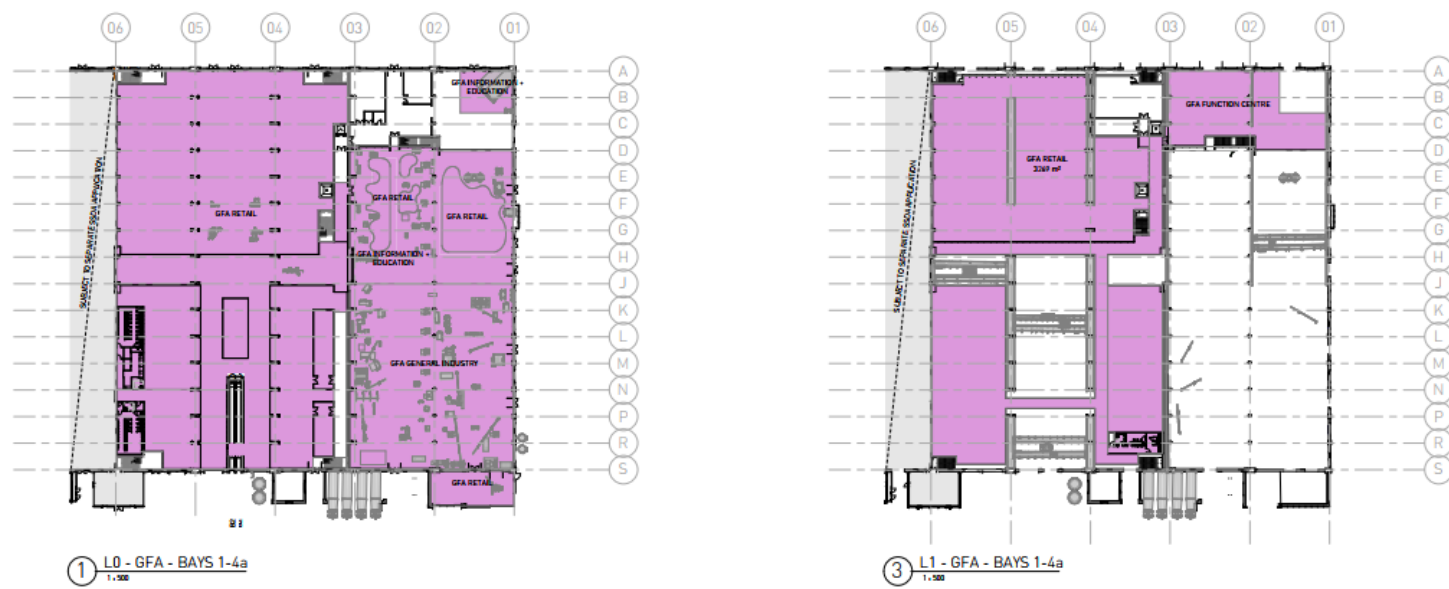


FIGURE 40: PROPOSED SECTIONS (SOURCE: SISONS, DRAWING SA-AR-DWG-BB-B4-0345, REVISION G, 27.10.17)



SSDA SUBMISSION

Architect SISSONS ARCHITECTS Studio 5, 81 Alexander St, Crows Nest, NSW 2065 Tel: 02 9460 8002	TOTAL GFA AREAS BAYS 1-4a		Client			Project		Drawing Title		
			MIRVAC			LOCOMOTIVE WORKSHOP		GFA PLANS		
						2 Locomotive St, Eveleigh NSW 2015				
	LEVEL 01	3,801	Scale	Rev Date	North		Project No.	Drawing No.		Rev
	LEVEL 00	7,557	1 : 500 (B1)	30/10/17			16-002	SA-AR-DWG-BB-B4-0350		E
	TOTAL	11,358	(Half Scale @ A3)							

FIGURE 41: GFA PLANS (SOURCE: SISSONS, DRAWING SA-AR-DWG-BB-B4-0350, REVISION E, 30.10.17)

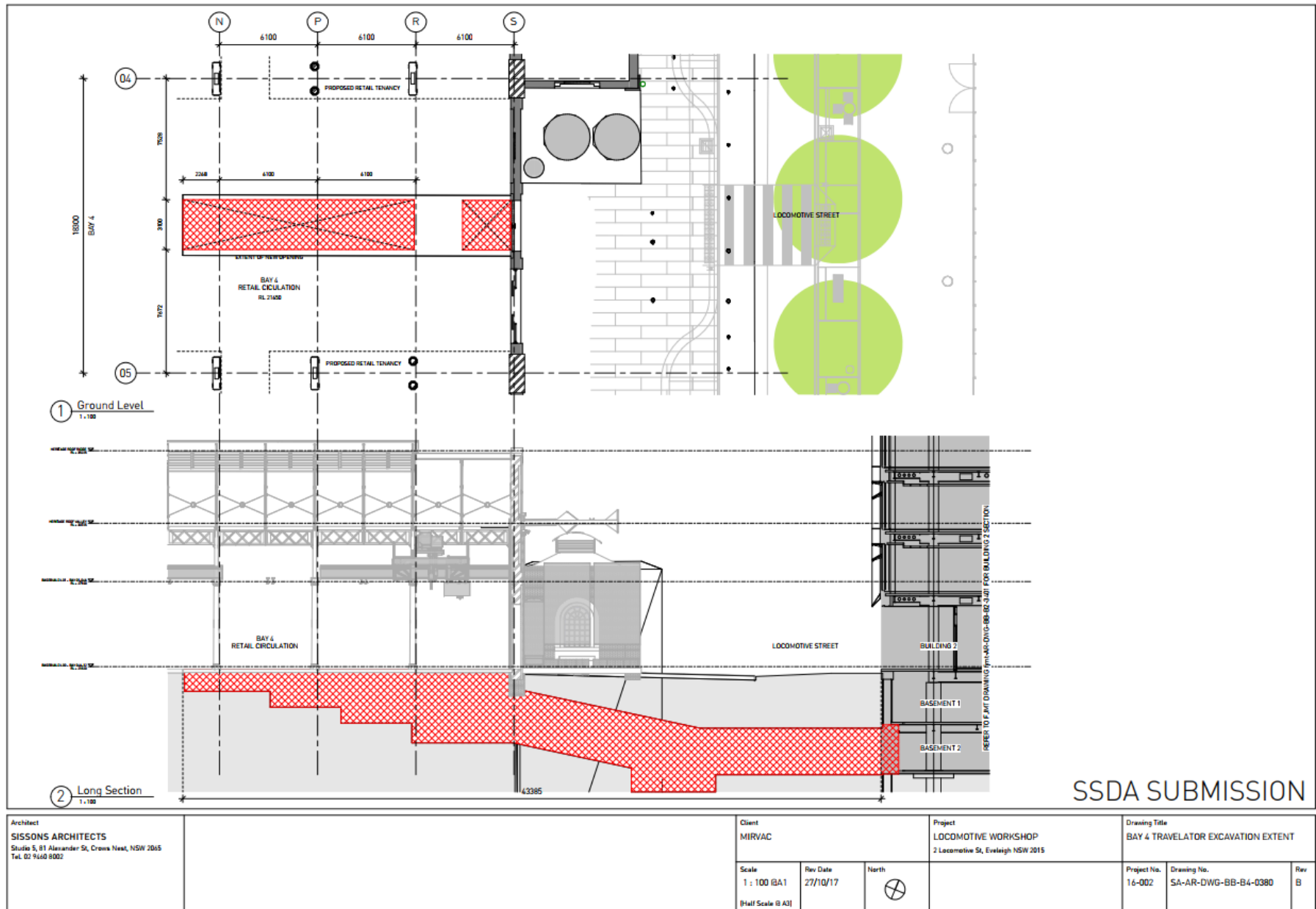


FIGURE 43: BAY 4 TRAVELATOR EXCAVATION EXTENT (SOURCE: SISSONS, DRAWING SA-AR-DWG-BB-B4-0380, REVISION B, 27.10.17)

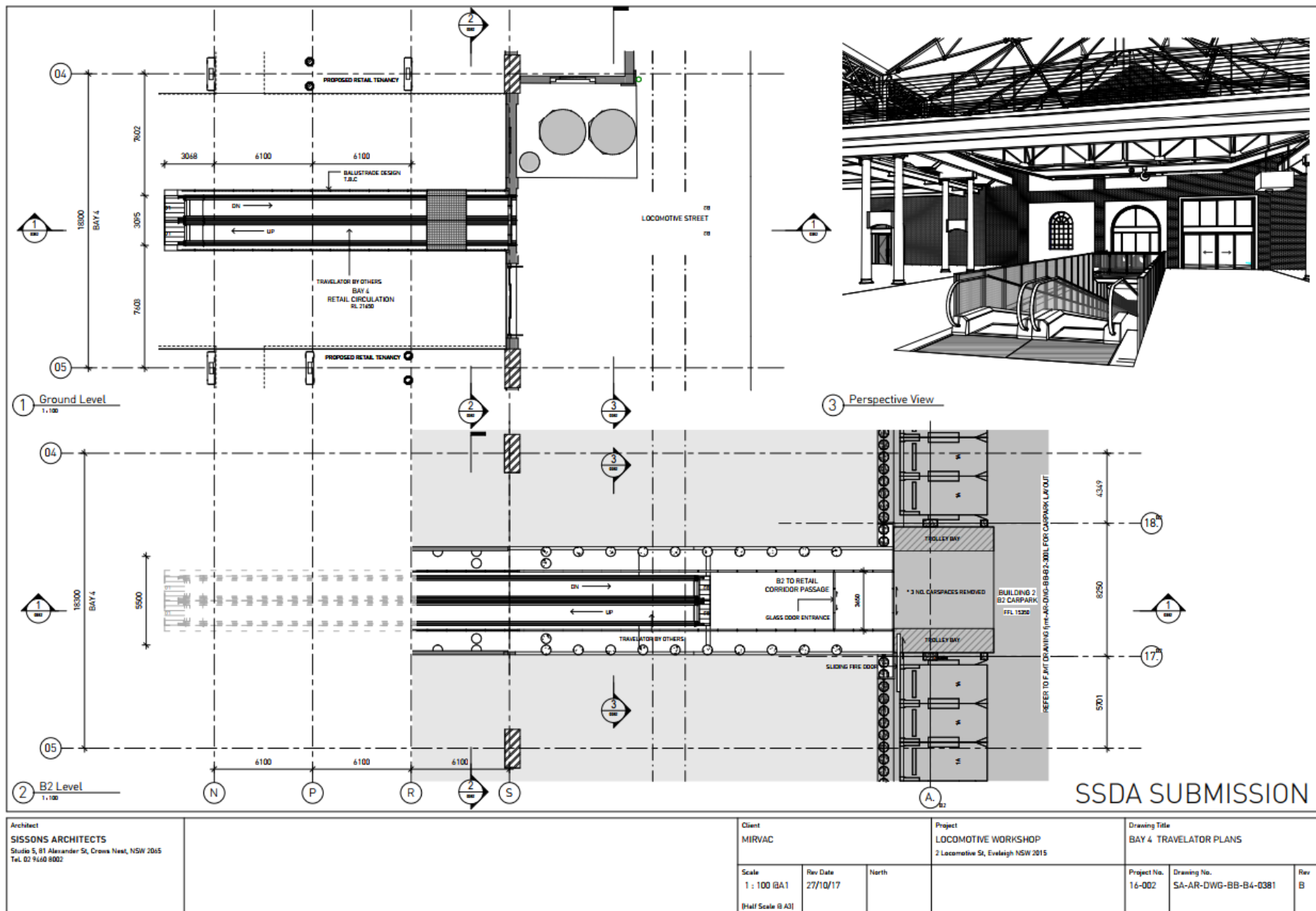


FIGURE 44: BAY 4 TRAVELATOR PLANS (SOURCE: SISSONS, DRAWING SA-AR-DWG-BB-B4-0381, REVISION B, 27.10.17)

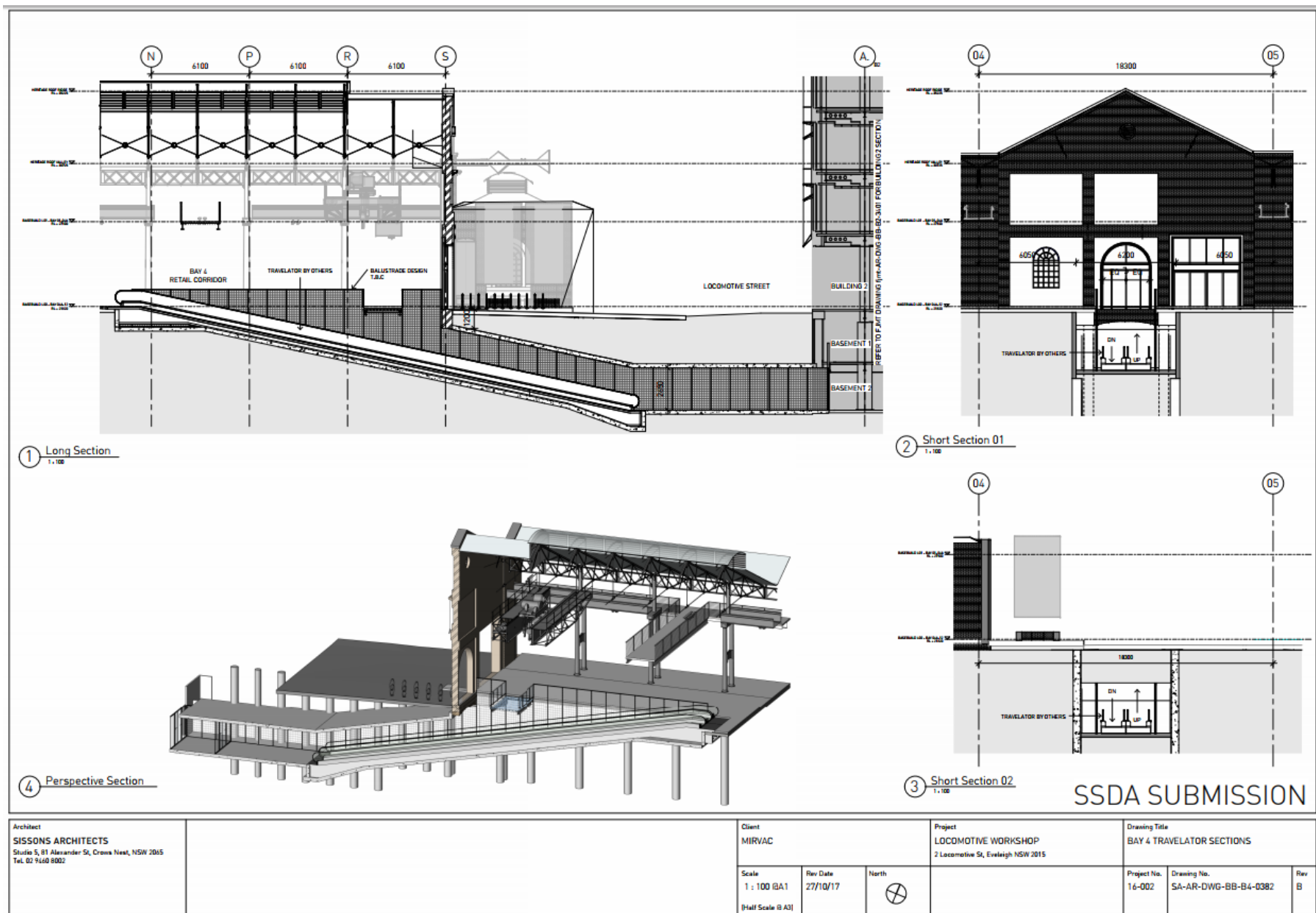


FIGURE 45: BAY 4 TRAVELATOR SECTIONS (SOURCE: SISSONS, DRAWING SA-AR-DWG-BB-B4-0382, REVISION B, 27.10.17)

8.0 Assessment of Development Impacts

This HIS assesses the proposed development in terms of its impacts on the eastern portion of the Locomotive Workshop (Bays 1–4a). Specifically, this HIS assesses the impacts to the tangible and intangible values of the site and how the proposed works will relate to, and be read in conjunction with, any proposed future works to Bays 5-15, the wider ATP site as a whole, and the surrounding cultural heritage precinct.

All known and potential heritage impacts, including change of use, and any impacts to built heritage fabric, moveable heritage items, impacts to intangible heritage and any impacts on potential Aboriginal and historical archaeological resources have been described and assessed.

8.1. Change of Use

8.1.1. Background

The bays within the Locomotive Workshop have always accommodated many changing uses over the years, with minimal long-term impact to the actual building itself. This is due to the robust nature of the building, including the size and scale of the repeated bays throughout.

Since the 1990s, adaptive reuse of Bays 1-4a for ATP has included the function of Bay 1 North and Bay 2 North as a static interpretative display and storage area for a large proportion of the Moveable Heritage Collection, whilst Bay 1 South and Bay 2 South have continued to function as a working Blacksmith. Bays 3-4a have been used predominantly for three- stories of commercial office space. Bay 4a has housed an auditorium and within Bay 4 South there has been an existing void that has been curtained off and used as a function space in more recent times.

The majority of visitors to Bays 1-4a, only use Bays 1 and 2 to transition through the site from east to west along the central corridor. The actual users of Bays 1 and 2 are generally the blacksmiths, and customers signed up for classes at Eveleigh Works. The display in Bay 1 North is rarely visited and given that it is static and has remained the same for years, people tend to view it once only, if visited at all. There is no clear wayfinding signage across the precinct to direct the public to Bays 1 and 2. Despite this, Bays 1-2 remain the most significant and intact of all workshop bays across the whole of ERW, and more broadly is amongst the most intact Blacksmith Workshops in the world.

The lack of visitation to the space not only relates to how the collection is interpreted (as a static display), but more broadly because of the lack of public activation within the ATP site. The Locomotive Workshop has sat within the constraints of being in the ATP business park for over 20 years. The use of the site predominantly as a business park has led to many local community members and key heritage stakeholders feeling unwelcome. Only a core group of extremely dedicated heritage volunteers, including ex-workers, have had the chance to continue to interact with the site, on a regular basis during that time. Broader public access has, generally, only occurred at a handful of open days throughout the years, and for small numbers of people that have visited the site as part of occasional tours run by the volunteers.

The lack of opportunities for public interaction with the Locomotive Workshop does not translate, however, into a lack of care for the site and its history. In fact, the level of interest in, and commitment to, the ongoing conservation, interpretation and use of Bays 1 and 2 remains high. This was demonstrated throughout the many consultation sessions held by Mirvac as part of this SSDA process, and as outlined in the community consultation report prepared by Ethos Urban, titled *Consultation Outcomes Report: The Locomotive Workshop – Retail SSDA 8517* (October 2017).

8.1.2. Overarching Vision for Change

With the transfer of the whole of ATP from Government ownership to private ownership, there is a greater impetus to ensure that the site is self-sufficient and economically viable in the long term. The continuing conservation and sustainability of the heritage values of the site are intrinsically linked to the site's economic viability, which is proposed to be achieved through an ongoing mix of activation, use and visitation. These are the key drivers that will foster appreciation for the heritage significance of the site and will create a sustainable future for the Locomotive Workshops.

Mirvac intend to remain as the long-term owner of the site and are, therefore, extremely committed to creating a change of use in Bays 1-4a that will activate the site, showcase its iconic heritage and create demonstrated sustainable outcomes (economic, environmental and social). As part of changing the identity of the site, from a government-owned business park, to a precinct that is activated seven days a week, and invites the community in, Mirvac proposes to implement:

- focused retail public activation strategies;
- a new layering of cultural heritage tourism-related initiatives;
- heritage interpretation and exhibitions that tie the Locomotive Workshops to the rest of the ATP site, and Eveleigh Railway Workshops; and
- the continuation of Blacksmithing in Bays 1 and 2 South.

The aim of the proposed redevelopment of ATP, more broadly, is to create a 'sustainable development'³¹ that has economic, environmental and social benefits, not only for the site owners and occupants, but for the local community and key heritage stakeholders.

Of the Eveleigh Railway land holdings, CarriageWorks at North Eveleigh has become the focus for public activation, through theatre performances, Saturday Farmer's Markets and a variety of changing events, such as exhibitions, art shows and festivals. CarriageWorks has built a prominent public profile and experiences high levels of repeat visitation as a result of its carefully curated events, activities and exhibitions. ATP, at South Eveleigh, on the other hand is not well-known and is not, generally, considered to be an inviting public destination. The intention of Mirvac and the design team, including architects, retail specialists, heritage and interpretive design specialists, is to create an equally successful, activated destination, that compliments rather than competes with the suite of offerings at CarriageWorks.

As part of determining the final uses for Bays 1-4a critical to the decision-making was understanding how to work within the fabric and spaces of the Locomotive Workshop, and within its broader setting (including Buildings 1-3, the revitalised public domain), and beyond. Mirvac's aim is to establish uses within the Locomotive Workshop that:

- are sustainable (economically, environmentally and socially);
- compliment the offering at CarriageWorks;
- retains the technology and innovation focus of ATP;
- activates public use; and
- celebrates the heritage values of the site (both intangible and tangible).

³¹ Sustainable development has been defined in many ways, but the most frequently quoted definition is from Our Common Future, also known as the Brundtland Report: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs." <https://www.iisd.org/topic/sustainable-development>

The proposed offer will not be a traditional “shopping centre”, rather it will involve elements of production, education, manufacturing, wholesale and dining in a setting that is sympathetic to the heritage significance of the building. The critical mass of facilities proposed will create a focal point for the surrounding residents and workers, capitalising on the site’s proximity to public transport.³² The intent is to encourage a more regular, much wider public use of the site and greater appreciation for the site’s significant heritage values than its current use allows.³³

In addition, as part of the activation of the Locomotive Workshop, the redevelopment also proposes the opportunity for hosting varying short term and temporary events within Bays 1 -4a³⁴. Potential event types proposed could range from small scale events (e.g. cooking classes, soft arts workshops etc), through to larger convention type events (e.g. international blacksmithing convention, larger meetings etc), in order to help bring people into the heritage space of Bays 1 -4a. It is anticipated that any potential future events within Bays 1 -4a would have no physical impact to the space, with the only potential impacts being short term in nature, in the form of short term signage/wayfinding, temporary market stalls etc, that would be completely removable and reversible, with no physical, or long term visual impact to the heritage fabric or aesthetic of the space.

As a result, the Locomotive Workshops are proposed to undergo its most extensive network of changes since the Eveleigh Workshops closed in the 1980s and ATP was created in the 1990s.

8.1.3. Blacksmith Workshop

The blacksmithing workshop, currently located in Bays 1 & 2 South, will be retained and forms a significant part of the site-wide activation program. The continuation of the Blacksmith Workshop preserves the tradition of a 130-year long blacksmithing trade in this same location.

The existing tenant, Eveleigh Works, will continue to utilize the original blacksmithing tools and machinery from the ERW in a controlled and engaging environment, providing a unique opportunity for an original trade to function in its original location. The key change of use relates to providing a unique mix of light retail, events and cultural heritage interpretation in Bays 1-2 North whilst supporting the activities and functional operations of Bays 1-2 South.

Mirvac is working closely with the current blacksmith tenant, Eveleigh Works, on opportunities to enhance the presentation, functionality and activation of the workshop in Bays 1 & 2 south, as part of the overall vision to create an exciting hybrid of cultural heritage tourism and retail in Bays 1-4a.

8.1.4. Changes to the Locomotive Workshop Bay Numbering

The Locomotive Workshops consists of sixteen bays, which were originally numbered 1–4, 4a, 5–15. The redevelopment of the ERW site as ATP in the 1990s saw the renumbering of the bays to 1–16.

The current redevelopment includes the renumbering of the bays to their original sequence. The renumbering of the bays is a positive change that was identified by the many stakeholders as being necessary. Using the original sequence of bay numbers provides the most appropriate historical and interpretative context for the Locomotive Workshop within its broader Eveleigh Railway Workshops setting.

³² MacroPlan Dimasi 2017, *Locomotive Workshop, ATP, Eveleigh—Economic Impact Assessment*, prepared for Mirvac.

³³ Sissons 2017, *Redevelopment of the Locomotive Workshop, Design Report for SSDA Bays 1–4a*, prepared for Mirvac

³⁴ It is noted that such events are already permissible under the site-specific exemptions no 16. and no. 14 listed in the NSW Government Gazette of 13 March 2015.

Returning the numbering of the Locomotive Workshop Bays to their original sequence, rather than continuing the duplication of two Bay 16s (at the Locomotive Workshop and at Carriageworks), will resume the clarity as one complete set of buildings in ERW numbered 1-15 between the Locomotive Workshop, in the south and linked to Carriageworks, to the north.

8.1.5. Retail—Supermarket

Mirvac have a wide breadth of retail experience which they bring to the project, with Mirvac Retail winning a gold medal at the 'International Council of Shopping Centres' awards for their 'Hello Sydney' campaign late last year.³⁵ They have demonstrated, that time and time again, Mirvac are able to deliver extremely successful, world-class retail precincts in Sydney that create public activation and repeat visitation. This includes retail offerings at a variety of different site types, such as Broadway Shopping Centre, East Village, Tramsheds and Birkenhead Point Outlet Centre, demonstrating that Mirvac do not apply a 'one model fits all' approach. Mirvac's adaptive reuse of the local-heritage listed Tramsheds won the NSW National Trust Heritage Award for 'adaptive reuse' and the Urban Development Institute of Australia Awards first place in the category of 'Excellence in Retail Development'.

Given the heritage significance of the iconic Locomotive Workshops, and the challenges of ensuring public activation will not occur at the expense of the heritage, Mirvac's retail team have carefully considered many options for the site. Mirvac also commissioned MacroPlan Dimasi to prepare an independent Economic Impact Assessment for the need for retail facilities within the Locomotive Workshop to assess the robustness and sustainability (including economic, environmental and social) of the proposed retail for Bays 1-4a.

The report analysed local statistics and data in order to determine market gaps in the area for retail floorspace and to assess the potential economic and community impacts that might result from such a development.³⁶ In particular, it assessed information related to:

- existing residents and retail facilities within the catchment area of the ATP; and
- projected residential and commercial growth in the area brought by developments.

The economic assessment found that specialty retail, as required by Mirvac to activate the ATP precinct, 'cannot be sustained successfully in a non-residential precinct without an everyday anchor tenant such as a supermarket'.³⁷ The report considered the implementation of a different kind of retail anchor tenant, such as a cinema or a department store, however a cinema presents a limited time of day activation of a site (i.e. predominantly evening only), whilst a department store would require a significantly larger floorplate than that available within the Locomotive Workshop.

The economic assessment determined that the provision of the supermarket as an anchor tenant will encourage a wide range of hours of usage by all audiences of the ATP precinct including commercial tenants and workers, members of the public, local residents, and commuters. It will support a 'wider ambition of an 18-hour/7-day economy, a place that is active early in the morning and deep into the evening, giving a great sense of vitality and community throughout the year'.³⁸

The economic assessment also determined that the proposed retail would support an additional 212 net jobs (approximately) on site, as well as 85 jobs across the broader supply chain. It also noted that the creation of permanent employment within the retail proposed (based on an average income of

³⁵ <https://www.insideretail.com.au/blog/2016/10/21/mirvac-wins-big-at-international-shopping-centre-awards/>

³⁶ Ibid (2017:iv)

³⁷ MacroPlan Dimasi 2017:8

³⁸ As per Section 4.2- Retail Approach in Sissons 2017, *Redevelopment of the Locomotive Workshop, Design Report for SSDA Bays 1–4a*: 22

workers of approximately \$36,000 per annum) could generate up to \$7.5 million in wages and salaries income benefits for the on-site workers per annum. In turn, it was considered likely that a proportion of this could be redirected towards expenditure within the local retail, entertainment and business services³⁹.

The creation of a retail offer and the flow-on benefits that go with it (public activation, reuse of a heritage asset, job creation etc) will contribute to the sustainability and viability of the precinct, and will directly contribute to the ongoing conservation of the Locomotive Workshops and its significant moveable heritage assets, for the long-term.

The report also considered the option of placing the supermarket within the approved retail location within Building 2, instead of within the Locomotive Workshop. However, the economic analysis considered factors such as:

- neighbouring residential developments;
- nearby infrastructure and institutions such as rail stations and universities;
- the projected growth of residents in neighbouring suburbs over the next several years; and
- the existing retail and supermarket premises available to service the growth in residents.

As described in the report, the analysis indicated that the approved supermarket space within Building 2 would not be sufficient in scale and size, to meet the identified significant market gap for supermarket floorspace within the main trade area of the ATP (i.e. a current market gap of 4,235m²).⁴⁰

8.1.6. Provision of Parking

The MacroPlan assessment also determined that parking for cars is an important component in attracting a supermarket anchor tenant to the Locomotive Workshops, as well as other smaller retail tenants. Specifically, the availability of sufficient car-parking with a direct connection and access to the proposed new retail precinct within the Locomotive Workshop was important. It was the opinion of MacroPlan Dimasi that 'without this immediate connection, in our view, an anchor tenant would be unlikely to locate at the Locomotive Workshop, leading to a much inferior retail outcome, and a reduced appreciation (through visitation) of the heritage value of the site'.⁴¹

In this way, it was determined that one of the key lynchpins for the success of the retail precinct within the Locomotive Workshops, would be to provide carparking for the proposed supermarket. The only option to create customer parking, was to utilise the provision of new basement parking in Building 2., to be accessed via a travelator into Bay 4. The impacts of the travelator, and its proposed offsets, are outlined in Section 8.4.3. of this report.

8.1.7. Loading Dock Options

One of the key design ambitions of the proposed redevelopment of the Locomotive Workshop is to remove vehicles from Locomotive Street and activate the street as a more pedestrianized urban environment (Figure 46). The existing loading bay and truck access to the Locomotive Workshop is predominantly from Bays 4 and 13 onto Locomotive Street.

Mirvac explored the location of the supermarket and corresponding loading dock through several locations within the Locomotive Workshop building in order to consider potential impacts to the

³⁹ Ibid(2017:i)

⁴⁰ MacroPlan Dimasi 2017: 47

⁴¹ MacroPlan Dimasi 2017: 10

heritage fabric and the ATP public domain (as presented in the Sissons *Design Report* for the eastern portion of the Locomotive Workshop).⁴²

The first option proposed the location of the supermarket and marketplace retail in western end of the Locomotive Workshop in Bays 11–13 (including loading to Locomotive Street in Bay 15), with a large format commercial tenant in the central bays, commercial office space in eastern bays, and retaining the existing blacksmith and heritage exhibition solely in Bays 1 & 2 (Figure 47).

The issues with this option, lay in the loading dock access to Locomotive Street (not consistent with the desire to remove traffic from this area of the public domain), lack of public access through the Locomotive Workshop (failing to link the site from the main site thoroughfare from Redfern Station to the retail precinct), as well as lack of activation of the main zones of heritage interpretation in Bays 1 & 2. Option A would also have required a new opening in the heritage fabric in Bay 15.

Option B (Figure 48) considered the retention of the existing blacksmith and heritage exhibition in Bays 1 & 2, shifting the large format commercial tenant further west to Bays 9–13, placing the supermarket and marketplace retail in the centre of the building in Bays 6–8, new commercial space in Bays 3–5, and shifting plant and end of trip facilities to Bay 15. While this option improved visual links throughout the building and better pedestrian links through the building from Innovation Plaza to retail space, it still only allowed for limited activation along the eastern façade of the Locomotive Workshop to Innovation Plaza, further reducing loading dock and logistics opportunities to the central bays, with access along Locomotive Street accessible only by smaller trucks.

In the final option considered, Option C (Figure 49), the layout of the Locomotive Workshop was revised to what has become the preferred option (as expanded upon through the proposed development), allowing a gradual progression of public to private space unfolding from east to west. This option, retains heritage and blacksmithing functions in Bays 1 & 2, but with the addition of a loading dock in Bay 1 & 2 North, to allow direct access to the supermarket and specialty retail in Bays 3–4a.

This option removes truck access from Locomotive Street, allowing urban activation of the southern façade without vehicular concerns, conceals the operations of the loading dock in the northeast of the site and allowing the utilization of existing openings within the heritage fabric in this location (i.e. northeastern corner of Bay 1).

Figure 50 presents the proposed retail plan for the overall ATP precinct, demonstrating that the retail within the eastern portion of the Locomotive Workshop is positioned to best align with the main site thoroughfares, ‘ant tracks’, and to connect with other retail offerings across the ATP site.

⁴² As discussed in Sissons 2017, *Redevelopment of the Locomotive Workshop, Design Report for SSDA Bays 1–4a*, prepared for Mirvac, October 2017



FIGURE 46: CURRENT VIEW WEST ALONG LOCOMOTIVE STREET FROM BAYS 1 & 2, REQUIREMENT TO CONVERT TO AN ACTIVATED URBAN SPACE WITHOUT VEHICULAR CONCERNS (BUILDING 2 FUTURE LOCATION IS ALONG FORMER CARPARK AND LANDSCAPED AREA IN RIGHT OF PHOTO)
(SOURCE: CURIO 2016)

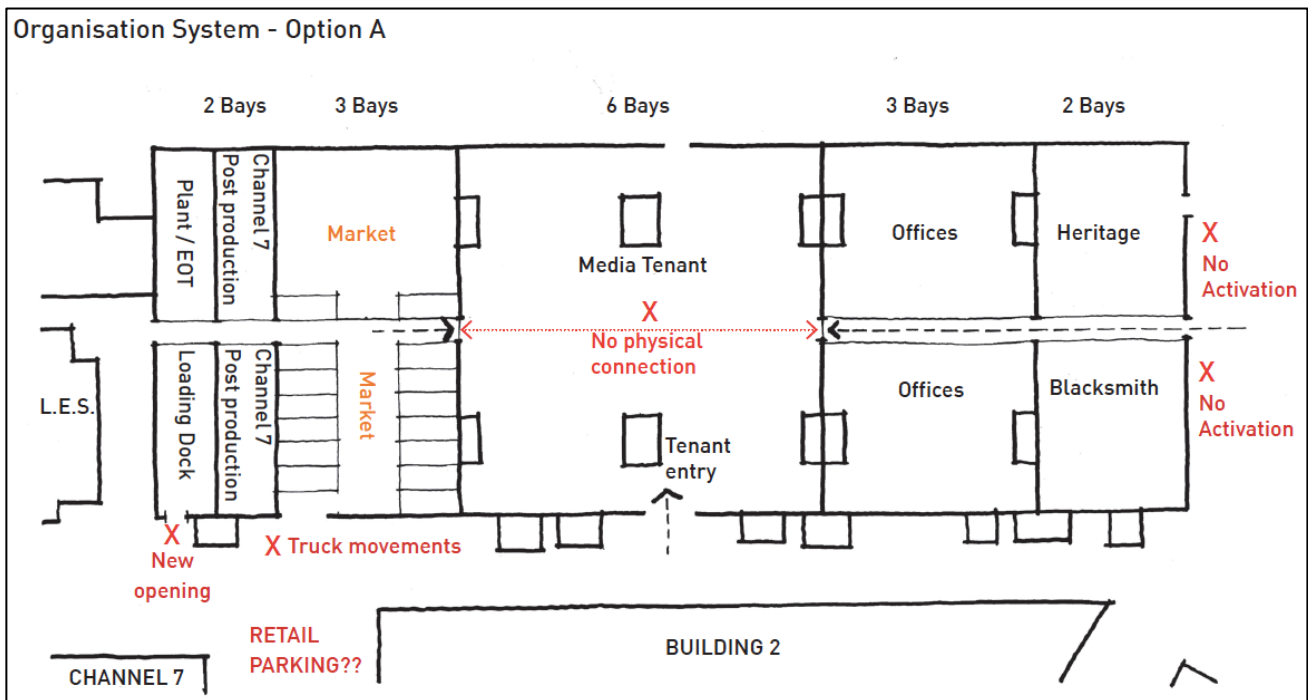


FIGURE 47: LOCOMOTIVE WORKSHOP ORGANISATIONAL SYSTEM—OPTION A (SOURCE: SISSONS)

Organisational System - Option B

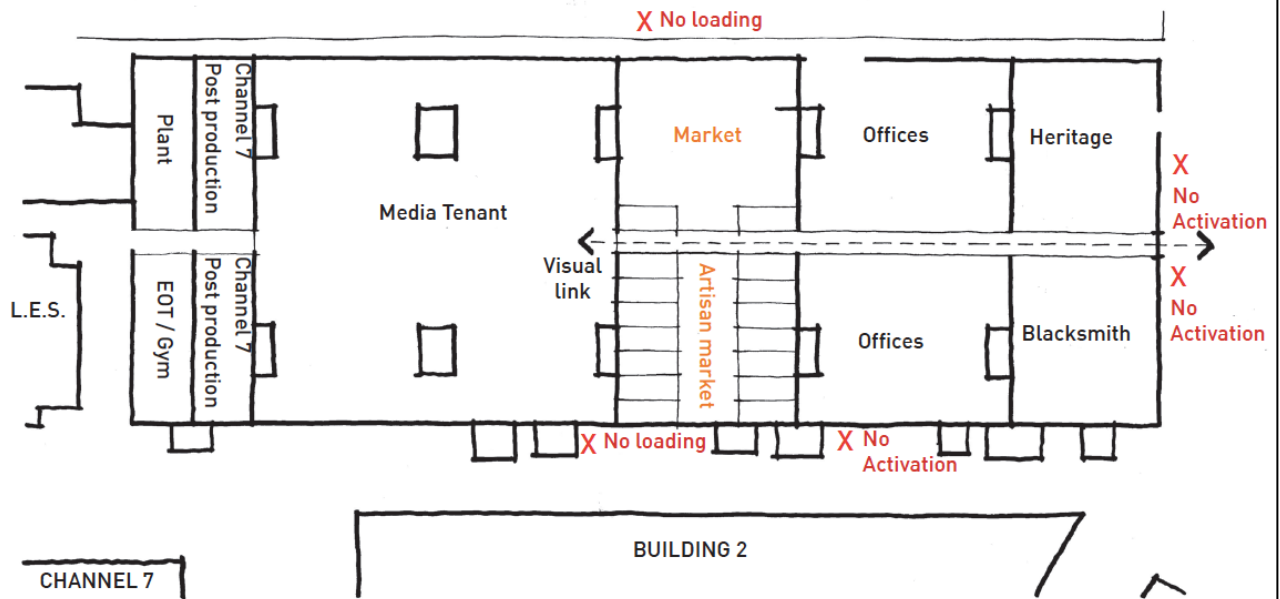


FIGURE 48: LOCOMOTIVE WORKSHOP ORGANISATIONAL SYSTEM—OPTION B (SOURCE: SISSONS)

Organisational System - Option C

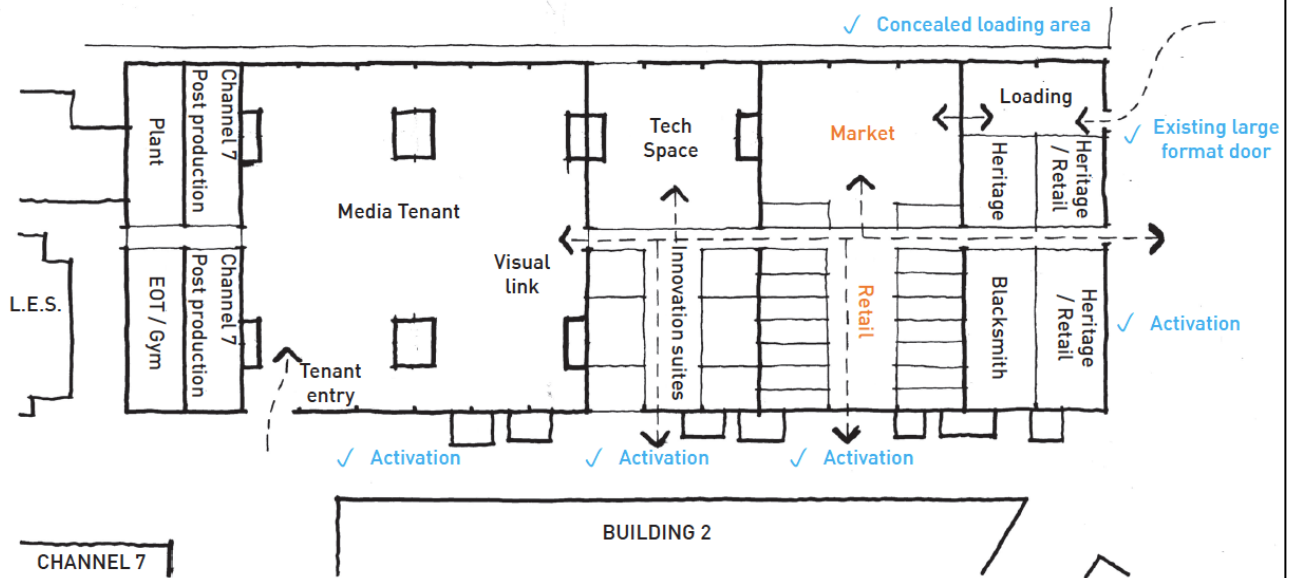


FIGURE 49: LOCOMOTIVE WORKSHOP ORGANISATIONAL SYSTEM—OPTION C (SOURCE: SISSONS)

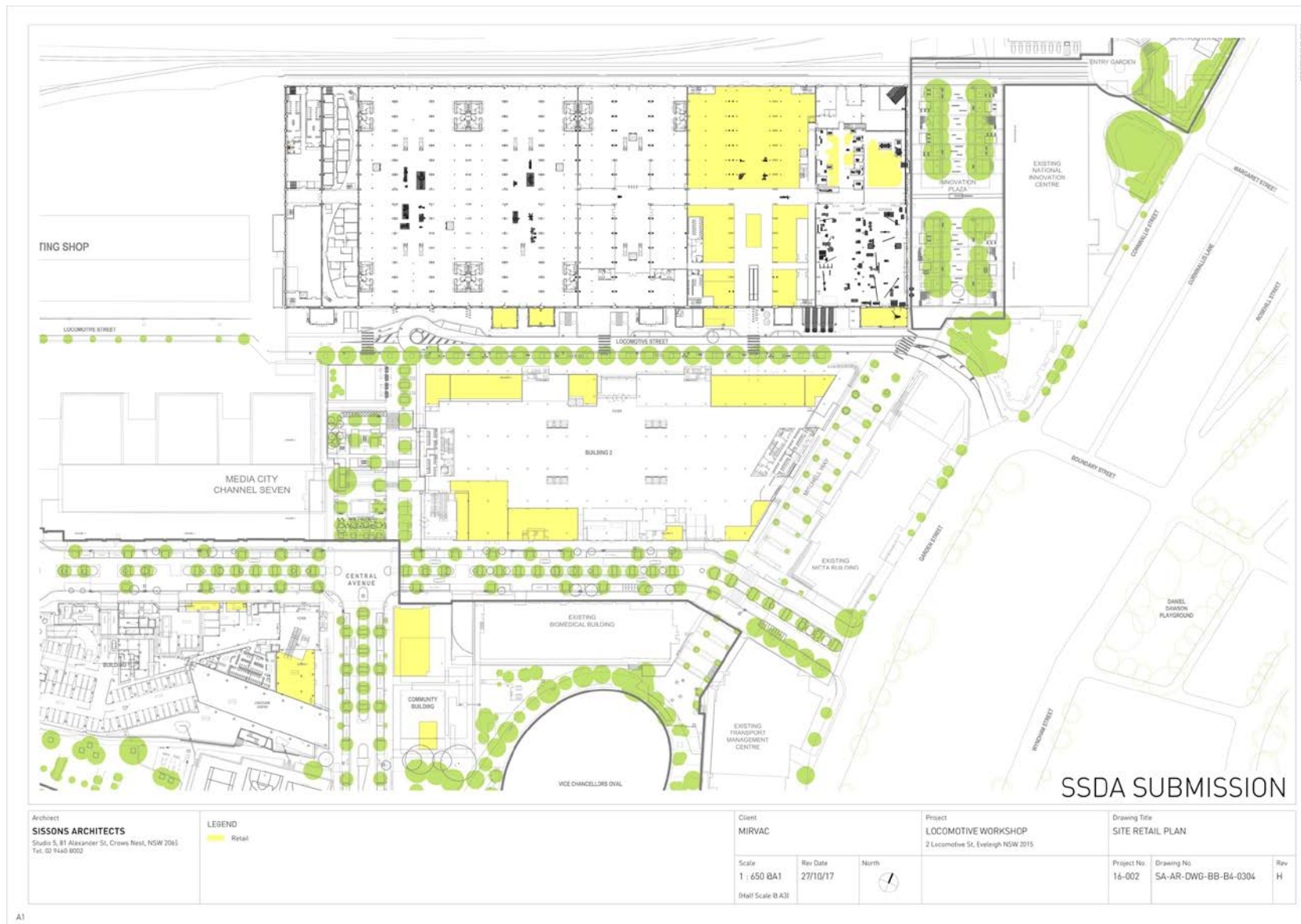


FIGURE 50: ATP SITE RETAIL PLAN, RETAIL IN YELLOW (SOURCE: SISSONS, SA-AR-DWG-BB-B4-0304[H], 27.10.17)

8.1.8. Changes to Bays 1 & 2 North—Moveable Heritage Collection

Bays 1 and 2 North currently houses a static display of insitu and moveable heritage items from Bays 1 and 2, as well as displaced moveable heritage items from elsewhere within the Eveleigh Railway Workshop. As discussed in the Stage 1 Interpretation Strategy for the ATP,⁴³ the existing heritage exhibition in Bays 1 and 2 North does not provide an interpretative experience that conveys the iconic, legendary history and significance of the site.

Most visitors are unable to gauge what tools and machinery were used for what purposes, and whether they remain in their original context or not. A vast number of the moveable heritage items are not insitu which adds to the confusion. The overwhelming vastness of the current display combined with the lack of clear and engaging interpretation encourages the majority of site users (other than those few specifically visiting the building for its heritage) to move quickly through central spine of Bays 1-2 without any real engagement. Figure 51 to Figure 54 show the collection in its current interpretative state.

The management of items that are no longer insitu or within an appropriate context is being carefully considered as part of the new interpretation proposed for Bays 1 and 2. A large part of the significance of the moveable heritage items, is their context and their function as part of the Locomotive Workshop activities, and telling this story in a unique and accurate way. When non-blacksmith related items are placed as they currently are in Bays 1 and 2 the interpretative impact can be negative, and reduces the use of the space from interpretative, to storage.

The interpretative initiatives for the Locomotive Workshop and wider ATP site aim to give a voice to the heritage machinery, to communicate their function and significance in a tangible and clear manner. Therefore, it is appropriate that any heritage machinery items within Bays 1 and 2 North that are not located insitu, be relocated. In addition, working with the Blacksmith located in Bays 1 and 2 South, it has become apparent that there is the significant opportunity for the restoration and practical use of several forges and other items currently on display in Bays 1 and 2 North. Placing these heritage items back into the practical and functional use for which they were intended, is a very positive heritage outcome, consistent with the policies of the CMP, and Mirvac and the heritage specialists for the project are working closely with the Blacksmith tenant to organize this.

Other concerns regarding the current display in Bays 1 and 2 North (as raised in the Stage 1 Interpretation Strategy) include ongoing issues with dust and dirt build up resulting from objects being exposed in an open display environment every day of the year, as well as the concern of increased visitation to the site through the proposed redevelopment (i.e. to over 10,000 site users per day) potentially encouraging vandalism or tampering with items of the readily accessible display. Overall, the Interpretation Strategy made clear the need for a revision of the heritage exhibition in Bays 1 & 2, facilitating a more secure environment for the significant moveable heritage collection, with opportunities to create a more engaging display of the items within the redevelopment, incorporating heritage in a real way into the future use of the space, allowing celebration and appreciation of the heritage items in a practical and accessible way to all site users.

One of the main opportunities presented through the redevelopment of the ATP site (including the Locomotive Workshop) is the revision and improvement of heritage display and interpretation across the whole site, particularly including Bays 1 and 2 North, and to generate a consistent and effective interpretive approach across the whole building.

⁴³ Curio Projects, 2016, *Interpretation Strategy for Australian Technology Park*, prepared for Mirvac, November 2016

To allow the viability of the proposed design for the eastern portion of the Locomotive Workshops (consisting predominantly of new retail premises including a supermarket), Mirvac have determined the northern section of Bays 1 and 2 to be the most practical location for a centralized loading dock, which is required to support and service the retail offerings and supermarket. Therefore, the opportunity for the revision of the Bays 1 and 2 North heritage exhibition as presented through the development, has considered how to best incorporate the required loading dock in this location. The design team has worked closely with the heritage sub-committee⁴⁴ to design the loading dock so that it will work to enhance the revised heritage interpretation display in this location.

The initial Interpretation Plan for the wider former ERW site (including ATP), prepared by 3D Projects in 2012,⁴⁵ actually proposed the centerpiece focus of heritage interpretation within the Locomotive Workshop in the form of a 'large-scale 'floating' artefact and audio-visual installation which explores the site through an array of personal stories and experiences of the place's past inhabitants' (Figure 55) in the exact location of the proposed loading dock.⁴⁶

The installation of the centralized services loading dock in Bays 1 and 2 north, which has been identified as pivotal to the viability and function of the retail redevelopment within the eastern portion of the Locomotive Workshop, has also been designed to function as a dedicated canvas in Bays 1 and 2 north for the installation of a large-scale heritage interpretation initiative in this location. It will serve as the key hub for the activation of cultural heritage tourism and interpretation at the site, and will be supported by interpretative initiatives throughout the Locomotive Workshop and the rest of the ATP site.

Therefore, the redevelopment proposes the change in use of Bays 1 and 2 North from a dated and poorly presented static heritage exhibition, to mixed use space lead by heritage, in the form of a loading dock, and a revitalized and renewed heritage exhibition (including display of insitu machinery, new heritage interpretation wall and mezzanine heritage exhibition level over the loading dock). Small-scale retail offerings, and temporary events, will also be integrated within the heritage display on the ground floor of Bays 1 and 2 North in order to activate these previously under-visited bays, serving to draw site users and visitors into the space, encouraging interaction and engagement with the heritage of the Locomotive Workshop on a functional and everyday level, through the interpretative experience developed in this location. The proposed interpretation is outlined in more detail in subsection 8.14.2. and will be fully detailed in the Stage 2 Interpretation Strategy.

⁴⁴ Consisting of the Mirvac Design Team (Sissons, Curio Projects, Mirvac, Trigger), NSW Heritage Division and City of Sydney

⁴⁵ 3-D Projects, Artscape & Only Human, 2012, *Eveleigh Railway Workshops: Interpretation Plan & Implementation Strategy*, prepared for Redfern-Waterloo Authority.

⁴⁶ 3-D Projects 2012: 55



**FIGURE 51: EXISTING HERITAGE DISPLAY IN BAYS 1 & 2 NORTH
(SOURCE: CURIO 2016)**



**FIGURE 52: EXISTING HERITAGE DISPLAY IN BAYS 1 & 2 NORTH
(SOURCE: CURIO 2016)**



FIGURE 53: EXISTING CROWDED, STATIC MOVEABLE HERITAGE DISPLAY IN BAYS 1 & 2 NORTH. MANY ITEMS NOT INSITU (SOURCE: CURIO 2016)



FIGURE 54: EXAMPLE OF CURRENT HERITAGE DISPLAY, DIFFICULT TO UNDERSTAND AND ENGAGE WITH (SOURCE: CURIO 2016)

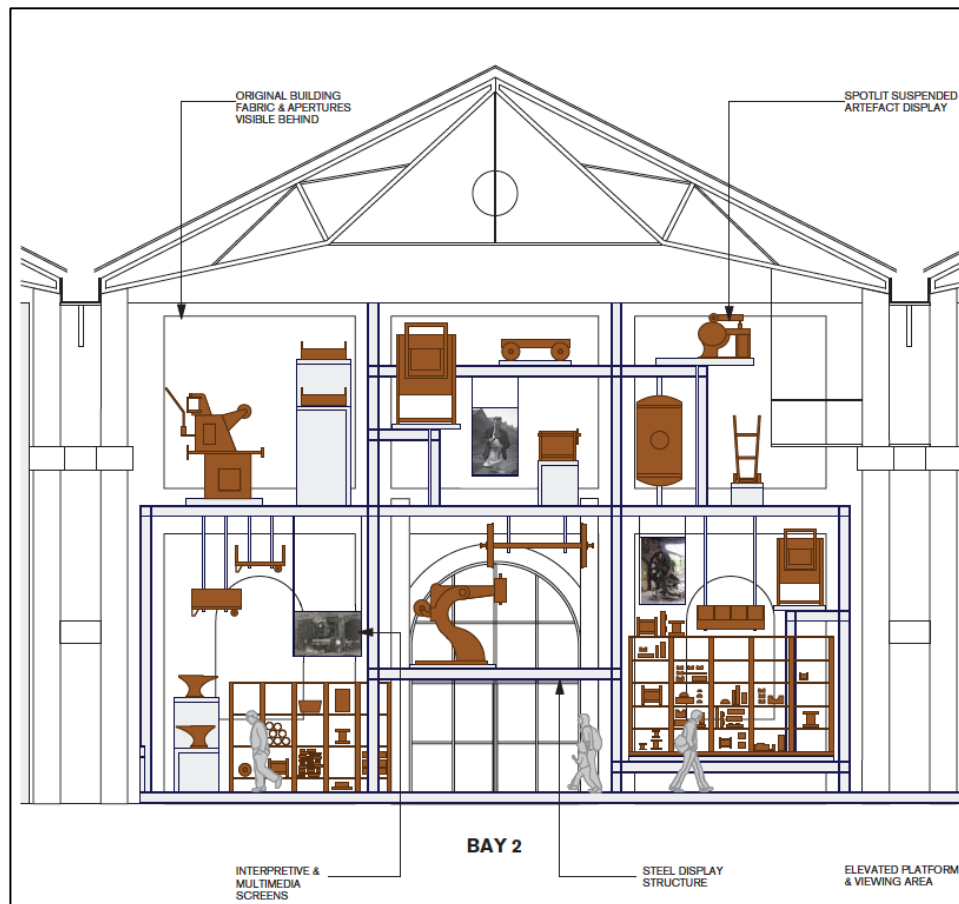


FIGURE 55: PROPOSED CONCEPT FOR THE LARGE-SCALE 'GHOSTS' INTERPRETIVE INITIATIVE IN BAYS 1 AND 2 (SOURCE: 3-D PROJECTS 2012)

8.2. Demolition Impacts

8.2.1. Demolition of Existing Interpretation

The redevelopment of the eastern portion of the Locomotive Workshop includes the revision of the existing heritage display in Bays 1 and 2, as part of the installation of a loading dock, and the creation of a new mezzanine heritage exhibition and interpretation centre.

In order to facilitate the changes, the removal of the introduced, modern interpretation elements within Bays 1 and 2 North is required. In particular, key elements such as the extensive glass balustrading will be removed. The removal of physical ‘barriers’ will help to create an environment that is welcoming and inspires exploration.

Elements to be demolished and/or removed, include:

- All glass balustrades and metal wire fencing;
- All existing modern heritage interpretation elements, such as the signage and broken digital display; and
- the metal chequer plate pathway.

Whilst the existing heritage interpretation signage was only prepared in 2015 (Figure 56 and Figure 57), it becomes redundant as a result of the introduction of a whole new interpretative approach which is intended to be more interactive, accessible and focused firmly, in creating a cultural heritage tourism outcome.

8.2.2. The Blacksmith

The existing blacksmith in Bays 1 and 2 South will be retained, with no demolition proposed, other than changes to the floor treatment, which involve removing much of the existing floor and its replacement with a more suitable surface for the forging.

The existing barriers will be removed, and a new edge condition will be provided to the tenancy along the central spine. This will still be in the form of a barrier but will allow clear views into the workings of the blacksmith, while ensuring safe separation of the industrial functions from pedestrians.



FIGURE 56: EXISTING INTERPRETATIVE ELEMENTS (GLASS BALASTRADES AND WIRE FENCING), BAY 1 NORTH, PROPOSED FOR DEMOLITION (SOURCE: ETHOS URBAN 2017)

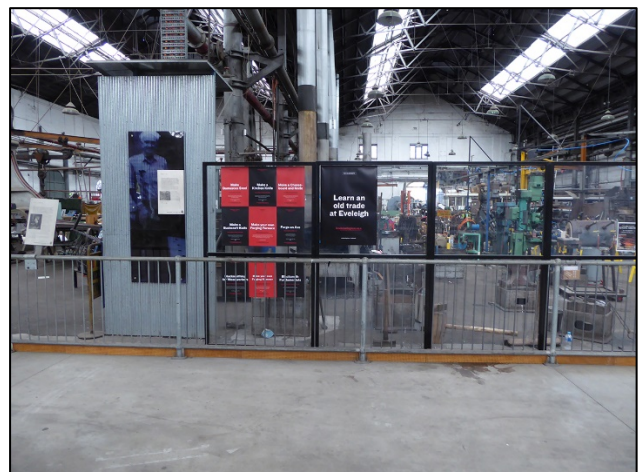


FIGURE 57: EXISTING FENCING AND INTERPRETATIVE SIGNAGE FRONTING BLACKSMITH, BAYS 1 AND 2 SOUTH (SOURCE: CURIO 2016)

8.3. Insertion of Loading Dock

As discussed in Section 8.1.5 above, Mirvac considered several options when identifying the final positioning for the combination of the supermarket, travelator and loading dock within the Locomotive Workshop. Site activation along the main access of Locomotive Street, traffic and transport considerations (as per the 'Traffic and Transport Impact Assessment', prepared by GTA⁴⁷), and critical retail success factors⁴⁸ were all key considerations that determined final placement of the supermarket in Bays 3-4a, with the loading dock adjacent in the north of Bays 1 and 2.

8.3.1. Loading Dock—Physical Impacts

The rationale for the location of the loading dock is outlined in Section 8.1.7 of this report, and is not readdressed here.

The design of the loading dock has been central to many of the community consultation sessions and heritage-sub panels, and will continue to be a key point of interest for key stakeholders. Given the degree of complexity in creating a loading dock that also serves as a heritage exhibition space, a heritage interpretation wall, and as a backdrop to the exceptionally significant Blacksmith moveable heritage collection, the final design continues to be developed in close consultation with the NSW Heritage Division and the City of Sydney.

The loading dock, is very similar in its broad concept to 'Ghosts' which was the two-storey interpretative element proposed to be built in front of the north internal wall within Bay 2, as part of the Interpretation Plan prepared by 3D Projects in 2012, and endorsed by the NSW Heritage Council and UrbanGrowth. The location was specifically chosen for the large-scale element (approximately 8 metres high x 12 metres wide) because:

This area will be relatively clear when the current array of unrelated artefacts are relocated, and offers sufficient floorspace for both the display and potentially a visitor viewing platform accessed by walkways...it is a suitably commanding position with few visual obstructions down the entire length of Bay 2 which will afford clear visibility with obscuring important building fabric or adjacent assemblages of insitu machinery and tools.⁴⁹

The concept plan notes that the 'Ghosts' infrastructure would be fully reversible and would have no physical impact to the fabric of the building. It also acknowledged that there 'may well be other suitable locations for such an installation at the Eveleigh Railway Workshops, should one be available, but few spaces if any would provide better atmosphere or physical context'⁵⁰

The key design principles for the loading dock, like 'Ghosts' relate to:

- **Reversibility** (ability to remove the structure without any major physical impacts)
- **Permeability** (ability to read the volume, space and relationships of key elements in Bay 1 North)
- **Efficiency** (efficient use of space for the back-of-house and loading, in order to reduce floorplate, and efficiency of space within the mezzanine level to maximise interpretation and event space options)

⁴⁷ Submitted as part of the SSDA which this HIS accompanies, for more details see the Ethos Urban EIS

⁴⁸ MacroPlan Dimasi 2017

⁴⁹ 3D Projects 2012:56

⁵⁰ Ibid 2012:58

- **Minimisation** (minimise the impacts on the moveable heritage collection and fabric of the building)
- **Creativity** (the visual areas of the loading dock must be active, engaging and intriguing enough to attract people into the space for dwell time)

The loading dock has been designed to be completely reversible and will cause no major long-term physical impacts to fabric. It will utilise the existing roller door opening along the eastern façade of Bay 1 without the need to create any additional openings or expanding any opening within the heritage façade. Equitable disabled access will occur via the lift in Bay 3, and a staircase will provide a key point of access down the centre of Bay 2.

The loading dock will be designed to touch the fabric of the heritage building lightly, with minimal physical intervention for stability attachment points, and will be constructed using light-weight steel, galvanized iron and other 'industrial' style elements. In response to the consultation sessions with key stakeholders, the Bay 1 North section of the loading dock will remain more transparent to retain views between the Davy Furnace and the Davy Press.

The location of the loading dock in Bays 1 and 2 will require the relocation of three insitu forges from Bay 2 North to Bay 2 South. The specific items are the Blacksmith Forge No. 4 + Coke Bin (Item no. 4745027), Forge No. 29 Coke Bin (Item no. 4745027) and Forge 30 Coke Bin (Item no. 4745367). Various other non-insitu items such as blacksmithing tools and a workbench also require relocation. The relocation of four insitu blacksmithing tool racks, one grinder, and nine displaced machines from the Spring Shop will also require relocation. This is minimal number of items, when compared with the number of insitu items throughout the rest of Bays 1 and 2, which is consistent with the rationale for locating the two-storey Ghosts structure in the same location.

Mirvac has consulted with the blacksmith tenant in Bays 1 and 2 South to relocate several of these items to the blacksmith space for repair and reuse, including the three forges, the workbench, the grinder and some of the other blacksmithing tools (also described in subsection 8.12 of this report). The reintroduction of several items of machinery into functional use is a very positive heritage outcome

The relocation of heritage items that are not insitu within Bays 1 and 2 North will have no physical impact, as these items will be carefully relocated to more authentic locations within the Locomotive Workshops, with more effective heritage interpretation displays, or if that cannot be achieved, will be moved to climate controlled storage on site, for reuse in future interpretative initiatives.

The use of the loading dock for loading, is proposed to be limited to low usage periods of the site (i.e. overnight and early morning), in order to minimize traffic and pedestrian conflict, without detracting from retail opening hours and heritage interpretation initiatives in Bays 1 and 2. Despite this offset, it is also considered that any noise and activity associated with truck movements and the operations of the modern 'industry' within Bays 1-4a, should not be viewed as negative. In reality, such noise and activity is consistent with the type of industrial activity and noise that filled the site for more than 100 years.

The key physical impact relates to the loss of floorspace from Bays 1 and 2 North to provide for the loading dock. In order to offset this impact, the mezzanine level added above the loading dock, will 'regain' the floorspace and create a dedicated heritage exhibition space, that may also be able to be used as a central repository for significant research information related to the Eveleigh Railway Workshops, as a whole (see Section 8.14.2). The use of the space, at a second-storey level at the rear of

Bay 2 North (and Bay 1) is consistent with the endorsed 'Ghosts' interpretative concept which proposed a two-storey element with possible walkways.

In conclusion, whilst the loading dock will be a major new element within the space, it is considered that the proposed design and offset benefits are extremely positive. They include:

- the creation of a dedicated heritage exhibition and event space on the mezzanine level;
- an interpretative artefact wall for elements of the moveable heritage collection along the southern façade of the loading dock wall;
- the reinterpretation and revitalisation of the static moveable heritage collection on the ground plane in Bays 1 and 2; and
- the relocation of forges to Bay 2 South, for restoration and use.

The requirement for loading in this location has defined a space in which the dedicated cultural heritage tourism activation can occur. In addition, it is consistent with 'Ghosts' in terms of location and general concepts.

In the future, should the supermarket use change, the loading dock will be able to be fully reversed, having caused no major impacts to the heritage fabric of the space.

8.3.2. Loading Dock—Visual Impacts

The visual impacts of the proposed insertion of the loading dock into the northern part of Bays 1 and 2 include:

- relocation of moveable heritage items (3 insitu, 9 non-insitu);
- changes to the overall spatial layout of Bays 1 and 2 North;
- the reduction of useable space in the north of the bays (reducing the space of the open workshop from its original size and scale);
- the construction of the interpretative loading dock wall and staircase; and
- the construction of a mezzanine level for heritage exhibitions and events.

The insertion of the loading dock will constitute a major visual impact within Bays 1 and 2 because the space is currently open from floor to ceiling. The proposed design and positioning of the loading dock also requires the enclosure of the insitu Davy Furnace in the northeastern corner of Bay 1 (Figure 58). This impact causes the loss of the visual relationship between the Davy Furnace and the Davy Press.

In order to offset the visual impact of the loading dock, the southern wall of the loading dock, visible from the rest of Bays 1 and 2, is proposed to be used as an interpretation surface that is utilized as a multifunctional artefact display space, while also framing views of the Davy Furnace from the heritage display mezzanine above (Figure 59 and Figure 60). This is similar to 'Ghosts' which was the 8 metre x 12 metre artefact interpretative infrastructure proposed for the exact same space in 2012. It is proposed to display elements from the moveable heritage collection within this artefact display space.

In order to soften the impact of the wall, so that it reads as an interesting interpretative element, within Bays 1 and 2, the wall would be divided into three differently positioned sections as to diffuse the bulk of the wall, creating a layered nature, which when coupled with soft lighting, would serve to create permeability of the wall. This would help to dissolve the perception of the loading dock wall as a

hard/opaque barrier. A permeable outer wall material such as mesh would be used, over an inner layer wall of an opaque substrate in front of the loading dock area, transitioning to transparent glass in front of the Davy Furnace.

The outer wall mesh would allow views to visitors accessing the stairs from the ground floor to the mezzanine heritage exhibition level above, serving to activate this area of the wall. The transparent inner wall and mesh outer wall in front of the Davy Furnace would help to mitigate the loss of the visual relationship between the Davy Furnace and Davy Press by allowing views from the public area of Bays 1 and 2 through to the Davy Furnace.

In addition, the mezzanine floor in Bay 1 North, allows interpretation of, and views into the Davy Furnace and the Davy Press from within the heritage exhibition space. This in combination with the restriction of main loading dock access hours to generally outside of public visitation and retail operating times, will serve to reduce the negative visual impact of the enclosure of the furnace, and ensures it is still visible from Bays 1 and 2.

The design of the loading dock would retain views from Bays 1 and 2 South, to the northern Locomotive Wall and ceiling above, to be enhanced by lighting to encourage an imperceptible transition from the loading dock wall to the space beyond. The use of a 'sharknose' mezzanine level edge will serve to remove the perception of a bulky floor when viewed from the main ground floor areas of Bays 1 and 2.

The above describes how the loading dock wall has been designed to reduce the visual impact of its introduction into the space, as much as possible, and will complement the aesthetic of the building when viewed within Bays 1 and 2. In conclusion, whilst the introduction of the loading dock into Bays 1 and 2 north, is a major impact in Bays 1 and 2, it is considered to provide a compromise that is fully reversible (easy to dismantle); will facilitate a vastly improved interpretation of the significant insitu moveable heritage collection in Bays 1 and 2 north; and will allow Mirvac to create loading for the proposed retail tenancies. Importantly, the loading dock does not impact on the majority of the insitu blacksmith collection, with only 3 insitu items to be moved to Bays 1 and 2 South.

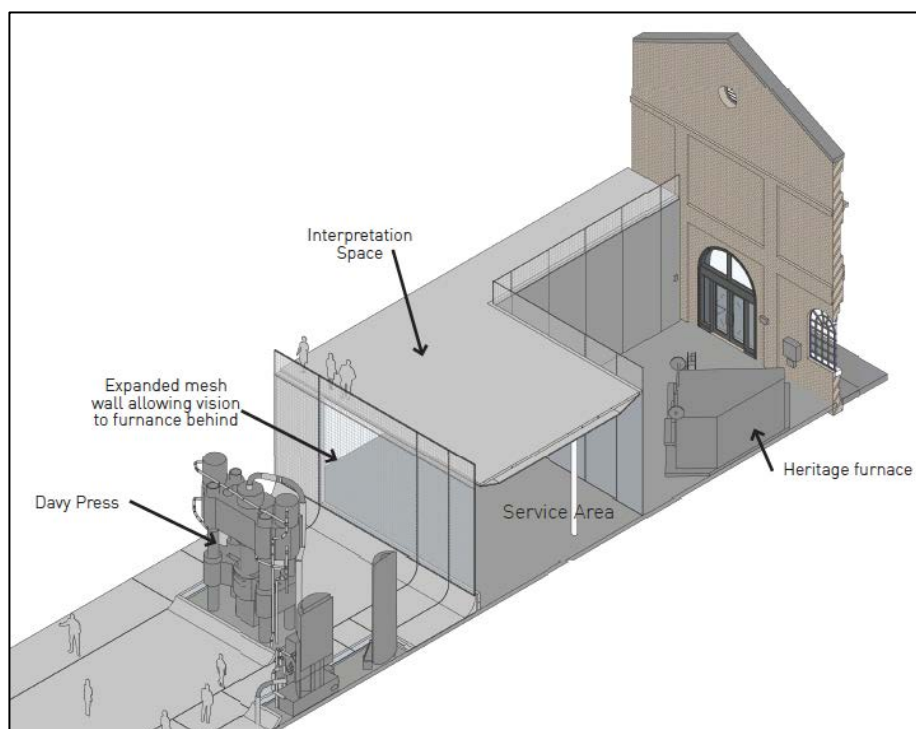


FIGURE 58: VISUALISATION OF LAYOUT OF LOADING DOCK IN RELATION TO DAVY FURNACE (SOURCE: SISSONS)

Loading Dock Wall Design Features

The loading dock wall has been designed so that physically it has as minimal visual impact as possible.

It becomes an interpretive surface that frames views of the Davy Furnace, movement of visitors on the stair and is a multi-functional display space.

The layered nature of the wall and soft lighting creates permeability by dissolving perception of a hard/opaque barrier.

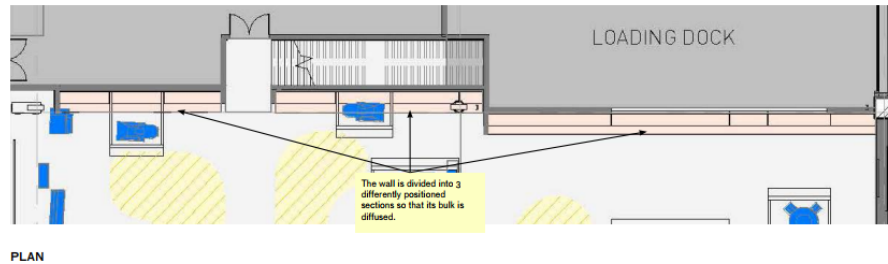


FIGURE 59: LOADING DOCK WALL DESIGN FEATURES (SOURCE: TRIGGER 2017)

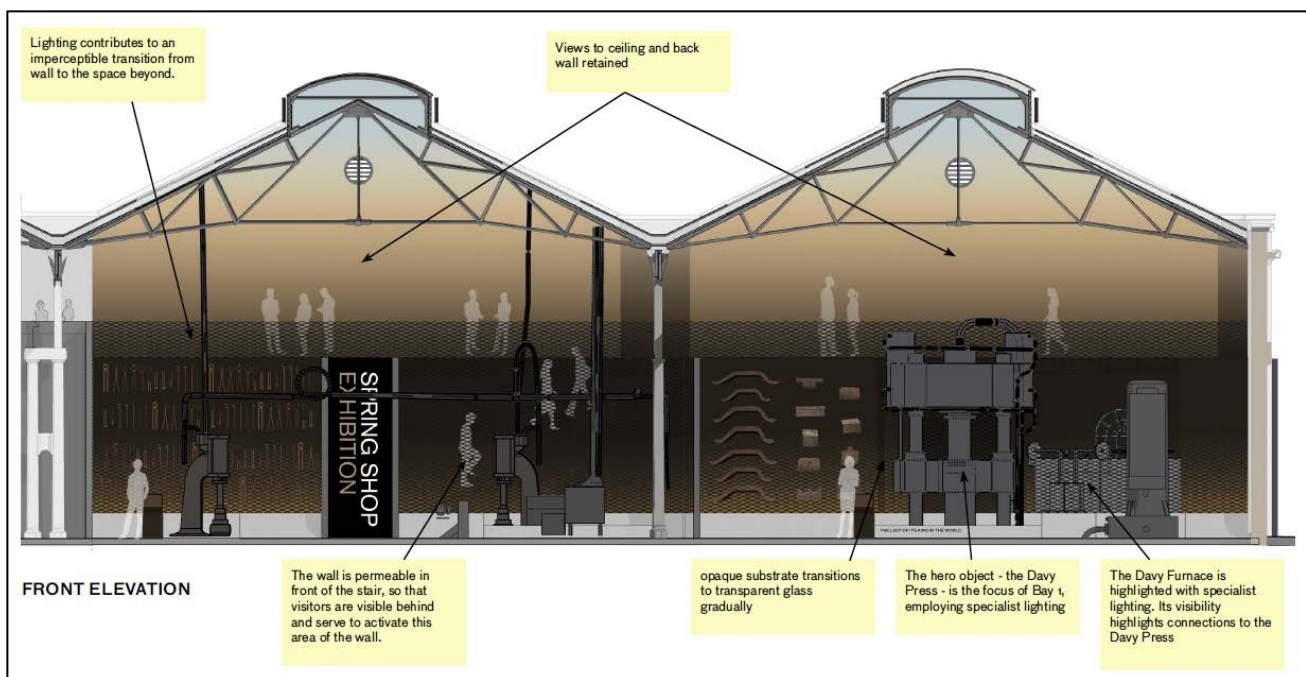


FIGURE 60: VISUALISATION OF PROPOSED LOADING DOCK WALL HERITAGE INTERPRETATION, VIEW NORTH (SOURCE: TRIGGER 2017)

8.3.3. Loading Dock- New Mezzanine Heritage Exhibition Area

As discussed in previous sections, a new mezzanine heritage exhibition and interpretation centre is proposed to be located over the new loading dock in Bays 1 and 2 North, to improve existing interpretation initiative within Bays 1 and 2, and to create a centre for the activation of cultural heritage tourism at the site.

By being located above the new loading dock, the new heritage mezzanine will serve to enclose the loading dock, mitigating against noise and traffic impacts within Bays 1 and 2, while providing significant heritage interpretation opportunities for the site. The design of the mezzanine aims to return the floor area of the loading dock to the public by elevating the floor level, allowing for views over the insitu heritage machinery in Bays 1 and 2, as well as towards the Blacksmith in Bays 1 and 2 South.

The mezzanine level will be access by two ways, through a staircase directly accessible from the ground floor retail/heritage display area of Bays 1 and 2 North, or through the proposed pedestrian lift in Bay 3

which will provide access directly to the mezzanine level via a new opening in the intertenancy wall linking Bays 2 and 3.

The physical and visual impacts of the mezzanine heritage area are synonymous with the impacts of the loading dock, as it is one and the same structurally. Therefore, whilst the construction of the loading dock in this location is considered to be a heritage impact in terms of impacting on the 'openess' of the space (albeit, reversible) the creation of the mezzanine heritage space as an offset to this impact is considered to be an extremely positive outcome that will become the focal point for heritage exhibitions, events and a multitude of cultural heritage outcomes.

In addition, it is important to note that the proposed artefact wall and a dedicated heritage exhibition level at the second-storey, is consistent with the intent, location and design principles of the 'Ghosts' interpretation which was endorsed by the NSW Heritage Council and UrbanGrowth as a concept in 2012.

Design language - materiality



FIGURE 61: PROPOSED MATERIALITY FOR LOADING DOCK & EXHIBITION SPACE

8.3.4. Installation of New Retail Inserts

New Retail—Physical Impacts

Retail premises within Bays 1 and 2 North have been designed to be small scale, low-height, self-contained 'pods', allowing the opportunity for scattered, informal seating within the bays, compatible with a 'heritage-focused' overall use of the space. The proposed design allows for the pods to fit between the insitu heritage equipment to ensure that the insitu moveable heritage collection remains

the dominant element within the space. It is envisaged that the retail in this space might service the users of the space similarly to that of a small retail or café pod in a museum or art gallery.

It is proposed that these retail pods will be lightweight, removable and will sit over a new floor plate throughout, through which all key services will run, including heating and cooling. As a result, it is intended that the retail pods will require no significant intervention into any heritage fabric.

New Retail—Visual Impacts

The pods will be visually recessive, constructed of steel, consisting generally of low height open counters with expanded mesh cladding to the sides of the benches, extending the materiality of the mesh outer wall along the loading dock wall. The low height design of the pods ensures that the heritage columns will be retained as the primary vertical elements in Bays 1 and 2, and are not obscured by modern retail inserts (Figure 62). The pods are designed to sit in between heritage items, encouraging appreciating and interaction with the heritage items and aesthetics by retail customers (Figure 63).

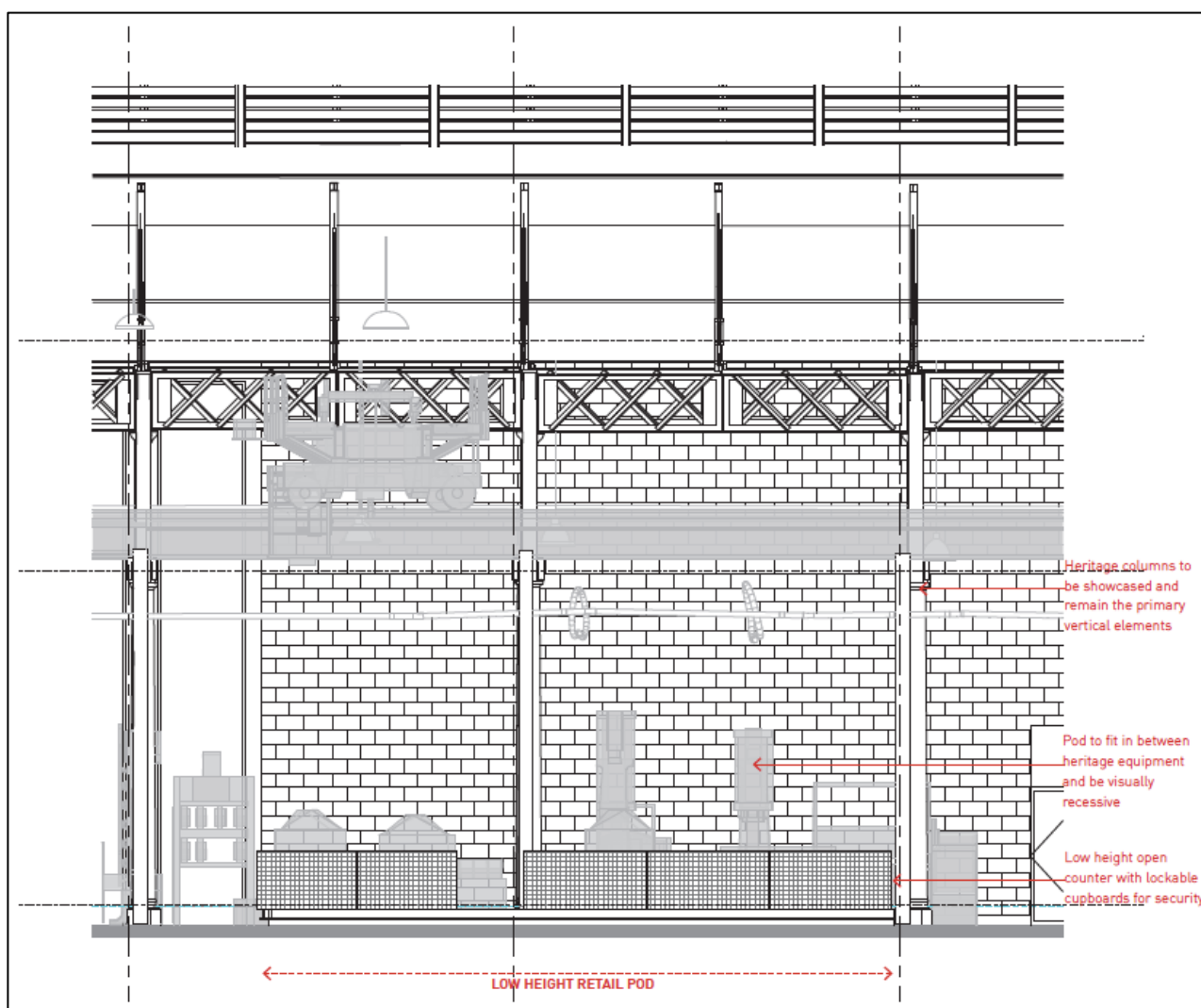


FIGURE 62: EXAMPLE OF PROPOSED RETAIL PODS, BAYS 1 AND 2 NORTH (SOURCE: SISSONS)



FIGURE 63: BAYS 1 AND 2 NORTH VISUALISATION (SOURCE: SISSONS)

8.4. Bays 3-4a—Impacts

The proposed impacts within Bays 3-4a, predominantly relate to the insertion of structural supports for roof plant, creation of the supermarket, retail pods, central atria and the travellerator.

8.4.1. Changes to Modern Infill Office Fit-Out

Demolition of Modern Infill Office—Physical Impact

The redevelopment proposes the demolition of all internal modern office fit-outs (including auditorium/function room spaces) within Bays 3–4a of the Locomotive Workshop. The office fit-outs were installed in the 1990s during the redevelopment of the ERW site into the ATP. They consist entirely of modern materials, and have been identified in the CMP as being of little heritage significance.

The existing office fit-out within Bays 3–4a consists of two mezzanine levels of infill offices (Figure 64 and Figure 65), with a central atrium in Bay 4 (Figure 65). A central corridor runs east to west from Bay 3 to Bay 4a. The existing modern infill offices when constructed in the 1990s were commended for their ability to work within the original fabric of the building and their reversibility. As a result, there are very minimal to no physical impacts proposed with respect to the proposed demolition of the infill fabric. The existing modern fit-outs do not take advantage of the spatial volume and character of the Locomotive Workshops.

In order to ensure minimal impact of the removal and demolition of the existing infill fabric, a careful demolition program has been proposed as part of the CEMP. The proposed demolition program will include:

- a heritage induction program that will ensure that all construction staff are made completely aware of the significance of the building and significant fabric components;
- the inclusion of clear plans showing all original building fabric to be protected and conserved throughout the demolition process;
- a clear process for the archival recording of the building prior to demolition, during demolition and on completion of all demolition works; and
- oversight of the demolition works by an experienced demolition team, with demonstrated expertise in construction and demolition works at historic sites. A nominated Heritage Specialist will undertake regular inspections to ensure that all demolition works are being undertaken in an appropriate manner.

It is proposed that the building will be photographically recorded prior to the demolition of any fabric, during demolition and upon completion of demolition in order to ensure that there is a comprehensive archival record of the changes to the building over time, and to record the building in its raw form, once all of the infill elements have been removed and prior to commencement of new interior development works.

Once the demolition works are completed, it is proposed to refurbish Bays 3–4a as discussed further in subsection 8.4.2.

Demolition of Modern Infill Office—Visual Impact

This SSDA proposes the removal of the modern office fit-out within Bays 3–4a. While the 1990s office fit out within the Locomotive Workshop was considered best practice for the time of its creation, in many areas it does not actually relate to the form and fabric of the Locomotive Workshop building itself. The choice of materials, and the creation of three stories often obstructs and obscures some of the building's best assets. It also restricts the interaction of the office user with the heritage, due to the 'box within a box' approach (Figure 66 to Figure 69).

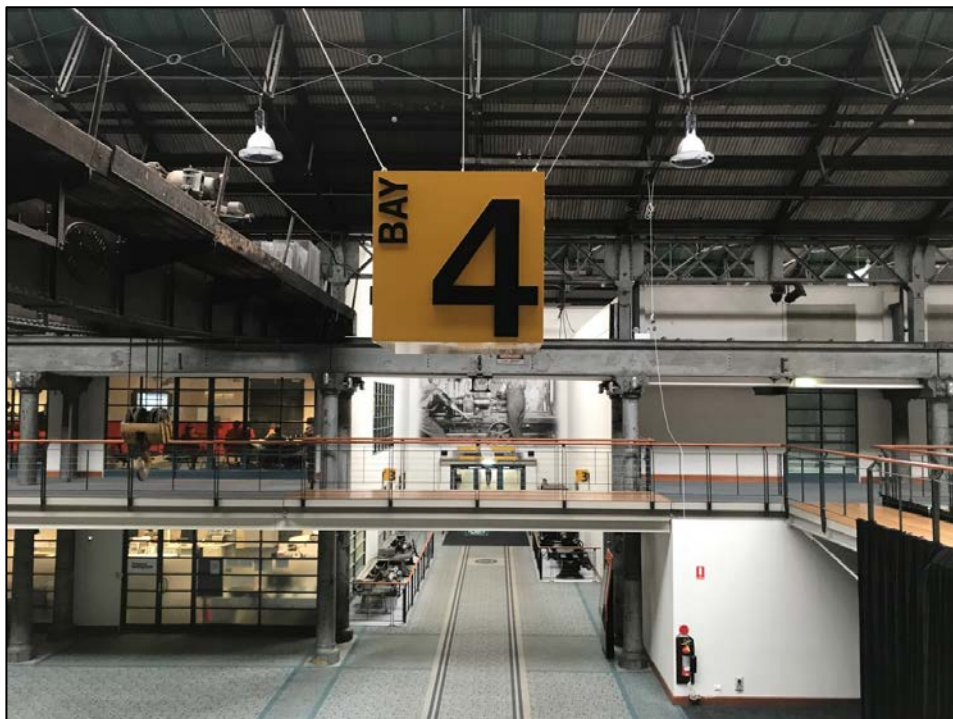


FIGURE 64: CURRENT MEZZANINE OFFICE FIT-OUT, BAY 4, LOOKING EAST TO BAY 3 (SOURCE: ETHOS URBAN 2017)

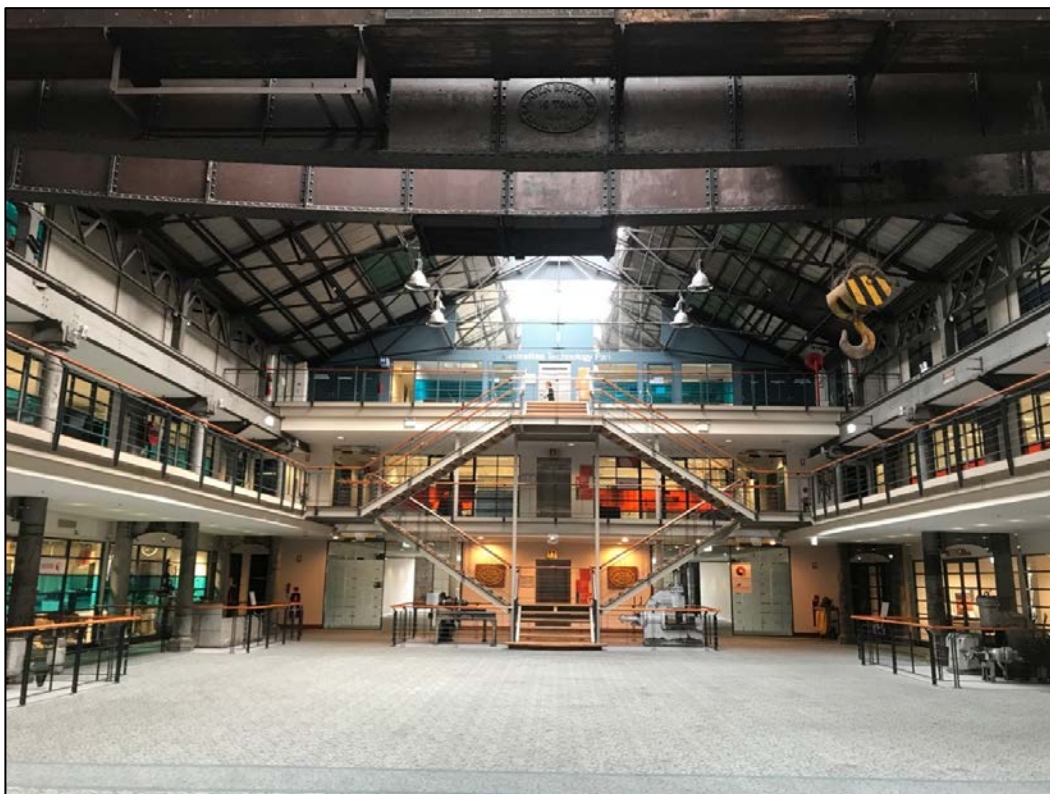


FIGURE 65: CURRENT CENTRAL ATRIUM IN BAY 4 (SOURCE: ETHOS URBAN 2017)



FIGURE 66: EXISTING OFFICE FIT-OUT, MEZZANINE FIRST STOREY, ATTACHMENT TO NORTHERN WALL, BAY 3 NORTH (SOURCE: ETHOS URBAN 2017)



FIGURE 67: BAY 3 NORTH, FACING EAST, EXISTING TWO STOREY OFFICE FIT-OUT, MODERN FABRIC EASTERN INTERTENANCY WALL, PROPOSED FOR DEMOLITION (SOURCE: ETHOS URBAN 2017)

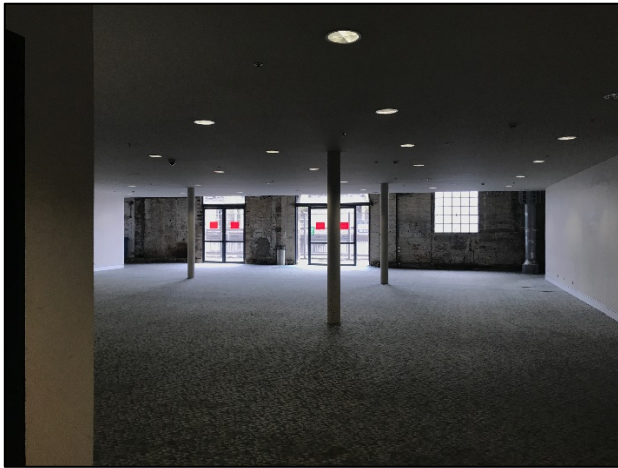


FIGURE 68: GROUND FLOOR OFFICE SPACE, BAY 4 NORTH, LOW CEILING OBSCURING VIEWS TO HERITAGE WINDOW AND WALL, NON-COMPLEMENTARY WITH HERITAGE FABRIC AND AESTHETIC

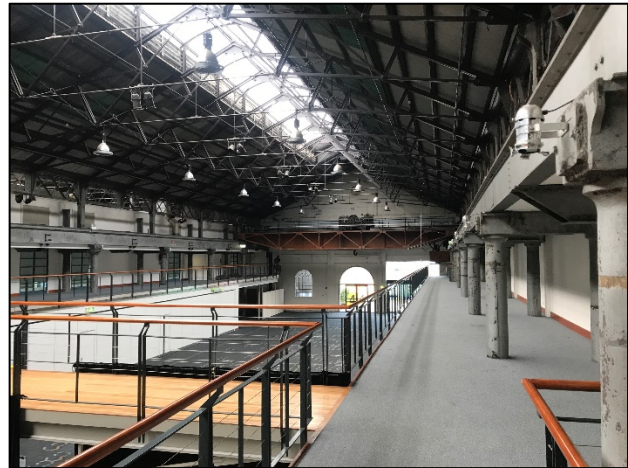


FIGURE 69: EXISTING OFFICE FIT-OUT, MEZZANINE LEVEL BAY 4 FACING SOUTH (SOURCE: ETHOS URBAN 2017)

Therefore, the removal of the existing modern office fit-out, including the removal of the current mezzanine office fit-out as well as function space and auditorium will have a positive impact on the readability of the Locomotive Workshop, prior to its refurbishment.

The full demolition of the modern 1990s infill allows for the building to be returned to its base state, prior to the new works. As a result, the demolition works provides a window of opportunity for Mirvac to archivally record the original fabric of the building to modern standards, including potential 3-D recording of the building prior to its refurbishment. This will provide a valuable resource for Mirvac, researchers, interpretation and heritage specialists, the NSW Heritage Division and the City of Sydney in the future.

8.4.2. Construction of New Retail Premises

The proposed development intends to change the use of space in Bays 3–4a from the existing commercial and function space to retail. As a result of the change of use, there will be physical changes to Bays 3–4a. The changes will include:

- a new supermarket fit out across Bays 3–4a North;
- the creation of retail premises across Bays 3–4a South;
- the creation of a new mezzanine level above the ground floor retail across Bays 3–4a;
- the insertion of a structural support for the roof plant in Bay 4; and
- the installation of key services and infrastructure throughout, including bathroom facilities, one lift, stairs and other related plant and services throughout Bays 3–4a.

Several options for the configuration of the Bays were considered, including whether it was appropriate to include two mezzanine levels within certain spaces. After consideration of the options and consultation with the heritage sub-panel, it was concluded that a second mezzanine level (third storey) to increase the offering of floor space, would have a detrimental effect on the readability of the historic fabric within Bays 3–4a. In particular, the readability of the overhead cranes, roof trusses and building spaces was considered to be heavily compromised by the addition of a third-storey (as clearly demonstrated in the existing modern office infill fitout).

The resulting proposed development restricts all new infill retail spaces to no more than two storeys in Bays 3–4a. Additionally, a central atrium is proposed in Bay 4 south (Figure 70).

The specific design and fitout of the supermarket and all retail spaces will be subject to a future DA (and corresponding HIS), however the general heritage impacts of the new retail premises and the overarching design principles will be considered here, in relation to the compatibility of the overall design and more general potential heritage impacts.

Supermarket in Bays 3–4a North

As described in Section 8.1.5 of this report, it is proposed to install a new supermarket within Bays 3–4a north. While the specific details of the supermarket tenancy fitout and operations will form part of a separate tenancy DA, the construction of a supermarket will involve standard supermarket specific services and infrastructure such as cool storage, display aisles, POS facilities and registers, back of house facilities, as well as infrastructure connections with the building east to the loading dock proposed to be located in Bays 1 and 2. Therefore, the construction and installation of a supermarket in Bays 3–4a North will have a physical impact in Bays 3-4a North.

The supermarket design will be in accordance with design principles being prepared by Mirvac's design team and as already outlined in Sissons Architectural Design Report submitted with the SSDA. As outlined in Sissons Architectural Design Report the supermarket shopfront will respond first and foremost to the significant heritage values of the site, and unique aesthetic views, including the industrial nature of the building itself. When viewed from within the central atria and public areas of Bays 1-4a, the supermarket shopfront will be designed to interact with heritage features such as the columns without concealing them, touching heritage fabric lightly with minimal intervention.

The overarching design principles of the supermarket tenancy include the creation of a 'heritage interpretation zone' within the entrance zone to the supermarket (including incorporation of several items of the moveable heritage collection), an 'integration zone', aiming to integrate the supermarket fit out with the rest of the building, and a 'visual links zone', related to maintaining continuous views along the central spine corridor of the Locomotive Workshop.⁵¹

The presence of the 'heritage interpretation zone', will provide a positive aesthetic offset to ensure that the supermarket does not have a major visual impact within the Locomotive Workshop, when viewed from within the public spaces and central atria of Bays 1-4a. It is intended to create a seamless transition from the travelator heritage experience, into the central atria, with the overhead crane on full display, right through to the bespoke, retail offer. It will be designed to soften the transition from the cultural heritage focus of Bays 1 and 2 through to the retail. Getting the balance right between the two zones, will form a key part of the final design of the retail, and in particular, the supermarket transition zone.

The design of the 'integration zone' that creates the entry point for the supermarket will be undertaken with great care. The interface between the supermarket and the public spaces of the atrium in Bay 4 and other surrounding retail spaces will not create a 'standard supermarket' frontage across all three bays, as this would create a major negative visual impact within Bays 1-4a and beyond.

The softening of the impact of the main entrance to the supermarket is proposed to be achieved in many ways, including through the reduction of the entrance to the supermarket through a single bay with a 'bespoke' design approach to be applied to the entrance. This entrance would draw inspiration

⁵¹ Sissons 2017, Design Report: 54

from the industrial nature of the building, and would be designed to minimise the emphasis on views of the ‘sterile sections’ of the supermarket space behind (through use of lighting and other associated measures). The entrance zone will have retail elements, or a transitional retail zone on either side that creates a carefully curated visual aesthetic that complements the heritage fabric of the site, in terms of materiality, and visual impact.

The final detailed design of the proposed supermarket will form part of a separate tenancy DA and will be commensurate with design guidelines being prepared by Mirvac’s Locomotive Workshop design team.



FIGURE 70: EARLY VISUALIZATION OF BAY 4, FACING NORTH, PROPOSED TRAVELLATOR IN LEFT OF IMAGE. ADDITIONAL DESIGN CONSIDERATIONS, INCLUDE CHANGES TO THE MATERIALITY OF THE TRAVELLATOR, AND CREATING A TRANSITION ZONE THAT REDUCES THE SCALE OF THE SUPERMARKET SHOPFRONT IN BAYS 3-4A (SOURCE: SISSONS)

Ground Floor Retail Premises—Bays 3–4a South

The ground floor retail premises are proposed to house ‘production type’ retail, including food and beverage stalls, as well as boutique makers and producers, serving to both activate the Locomotive Workshop building and ATP precinct for the public, while complementing the new workspaces proposed within the western portion of the Locomotive Workshop.

The installation of the proposed retail premises would include associated Back of House facilities and other services and infrastructure, with the potential to be a major physical and visual impact on the heritage values and aesthetic of the Locomotive Workshop.

In order to mitigate the potential heritage impacts of the retail tenancies within the space, the design of the retail premises are proposed to be constructed using light-weight steel framing, allowing for reversibility and differentiation with the heritage fabric. The use of steelwork through the retail

development will mean that any required support columns will be smaller and spans are longer (when compared with more traditional reinforced concrete systems). This will allow for new fabric to have a light touch on the heritage fabric where necessary.

Retail tenancy walls are proposed to be simple glazed walls with minimal framing elements, allowing the retail tenancies to remain as open and transparent as possible, allowing clear view lines to heritage items and architecture, as well as to encourage the sense of an open and shared workplace, consistent with the general open bay working aesthetic of the Locomotive Workshop during its function as part of the ERW. The design of the ground floor retail premises would be generally open and low in height, providing minimal visual intrusions into the heritage aesthetic of the Locomotive Workshop building.

In order to assist the retail development to create a contemporary industrial feel within Bays 3–4a new retail premises, the retail tenancies will be required to carefully consider colour palette and materiality. Whist tenancy fitouts in Bays 3–4a will be subject to separate tenancy DA approvals, they will be required to meet with Mirvac design guidelines and will need to complement the industrial aesthetic of the heritage building, highlight any moveable heritage items and columns at ground level, and create retail spaces that are commensurate with the heritage character of the building. In this way, the proposed retail premises will be able to be developed with minimal physical and visual impact within Bays 3–4a South.

Mezzanine Retail

The development proposal includes the construction of a mezzanine retail level above the ground floor retail premises and supermarket, open to the roof structure. To ensure that the physical impacts to existing original fabric remain minimal, the design intent is to keep the mezzanine level pulled back from the wall fabric, through the installation of self-supporting, lightweight structures that sit within the building envelope. This will provide a structure that is independent from the cast iron columns rather than attached, and to work with materials that could be removed and reversed in the future without having a major physical impact to original building fabric. The internal configuration has been designed to be transparent and open, creating structural and programmatic clarity while conserving and highlighting the heritage value of the place.

The proposed use will require the unbolting and removal of small sections of steel girders between Bay 4 and 4a, as well as between Bay 2 and 3 to allow site through access. It will also require the repositioning of the overhead crane from Bay 4 North, to Bay 4 South (repositioning along the same track). The impact to heritage fabric has been localised in order to ensure that the readability and integrity of the bays remain intact. Currently, Bays 4 and 4a have three stories which obscure most of the steel girders and trusses. When compared to the proposed works, the impact of the 1990s 'box within a box' has had a much greater physical and visual impact on the space, than that proposed in the SSDA.

In addition, this strategy (as applied to all proposed new mezzanine levels across the whole Locomotive Workshop) has been developed in order to retain the flexibility of the vast, industrial-scale spaces for potential future uses, while retaining the heritage integrity of the building.

Other Services and Infrastructure

The proposed redevelopment of Bays 3–4a will include the installation of various facilities and ancillary development including (but not limited to) retail seating, new flooring, retail back of house areas and other plant. Many of the services are proposed to be run underneath the new flooring, so as to reduce the visual and physical impacts within the building.

Five staircases are proposed to be installed within Bays 3–4a (three in the north and two in the south), along with one new disabled access compliant lift in the north of Bay 3, designed to allow accessibility to the mezzanine level of the development within Bays 3–4a, as well as connecting to the heritage mezzanine space in Bays 1 and 2.

It is proposed to remove the existing interpretative carpet throughout Bays 3–4a (installed in the 1990s) and replace with new interpretation of the original path of the rail tracks along the central spine of the building (Bays 3–4a), through the use of metal inlays in the floor. This is considered to be a positive impact, as the carpet has been identified in the CMP as being of little heritage significance. The replacement of the carpet with a more authentic representation of what once lined the floors of the Locomotive Workshop is an improved interpretative and aesthetic outcome that is more in keeping with the industrial character and fabric of the building.

New roof plant will be required to be installed for the supermarket, proposed for within the roof valleys between Bays 3 & 4 and Bays 4 & 4a, however this has been discussed as part of the roof upgrade works in Section 8.5 below.

8.4.3. Construction of Travelator

The proposed redevelopment includes the construction of a travelator in Bay 4, primarily in order to service the supermarket in Bays 3–4a by connecting the Locomotive Workshop with the new basement parking within Building 2.

The travelator is one of the key elements within the development which requires a major intervention into a small section of the building (Bay 4 South) in order to facilitate the proposed change of use to retail. The connectivity between car-parking and the proposed retail offering has been identified ‘as a fundamental threshold requirement to attract retail tenants, in particular a supermarket anchor tenant’⁵².

The MacroPlan Dimasi 2017, *Locomotive Workshop, ATP, Eveleigh—Economic Impact Assessment* also identifies that:

Without this immediate connection, in our view, an anchor tenant would be unlikely to locate at the Locomotive Workshop, leading to a much inferior retail outcome, and a reduced appreciation (through visitation) of the heritage value of the site. Critical success factors for a retail offer include critical mass, functionality, mix/diversity, anchor tenants, and accessibility (including hours of operation, parking, and connectivity).

Therefore, it was considered essential, from a heritage perspective, that the impact of the travelator would need to be mitigated, in various ways, in order to offset the impact of the travelator within the central section of Bay 4. The concept of creating an immersive, heritage interpretative experience, and the use of non-standard, industrial materials, where possible, were identified as key positive offsets to balance the potential impacts of the travelator within the space. The opportunity to change a negative impact into a positive outcome in this location, has been made possible through careful design, incorporation of original fabric of the building’s footings within the tunnel design, and engaging, meaningful interpretation.

Travelator—Physical Impacts

The installation of the travelator will require excavation into the modern fabric of the floor in Bay 4 and below the historic footings of the building in order to install and connect to the second basement level

⁵² MacroPlan Dimasi (2017:iv)

of carparking beneath Building 2 (on the other side of Locomotive Street from the Locomotive Workshops). While this is a major new use to be introduced into the space, it will not impact historic building fabric at the ground level or above.

Excavation for the travelator has the potential to impact the substructure foundations of the Locomotive Workshop, including the brick arch footings that support the building along the southern elevation. The brick arch footings which are located below-ground, form part of the substructure of the building and are therefore, not 'relics' (as defined by the NSW Heritage Act, 1977) ⁵³.

In order to minimize the potential for the travelator to impact upon the footings in this location, the travelator has been positioned to sit within the expanse of the brick arch footings. During investigative works for the travelator, the footings will be exposed locally to assess how they will be stabilized and incorporated into the design of the void space within Bay 4. The intent is to create a visual interpretation of the archway as the travelator passes beneath it, with minimal physical impact to the footing itself.

Rather than the standard glass traveller finishes being applied, the travelator for Bay 4 will be custom-made to incorporate the interpretative elements discussed in 8.13, and to reduce the impact of new fabric into the space. It is intended that expanded mesh, will be used in at ground level, within the final design, to reinforce that the predominant nature of the site is industrial.

Travelator—Visual Impacts

The connection point of the travelator to the Locomotive Workshop in Bay 4, as it rises from below-ground is intended to be mitigated through the careful presentation of the heritage interpretation within the travelling route of the traveller, and the its colour palette, materiality and design of the traveller, itself. At the emergence point into Bay 4, the view of the travelator is intended to be soften within the industrial heritage aesthetic of the Locomotive Workshops, when compared to the standard travelator that occurs in modern shopping centres. For example, the use of metal/industrial character safety balustrades around the ground floor perimeter of the travelator, is intended to help offset the visual impact on the industrial heritage aesthetic of the building, posed by such a substantial modern piece of infrastructure.

The incorporation of the brick arched footing within the roof of the traveller (as shown in Figure 73) will provide a new opportunity for visitors to the site to understand how the building was constructed, in a unique and engaging way. Figure 73

Travelator—Interpretation

While the travelator is a physical and visual impact within the Locomotive Workshop, it also presents an opportunity to offset this impact through heritage interpretation initiatives, allowing the creation of a unique, immersive experience that will encourage visitors to the site to explore its cultural heritage values further.

During the time spent in the tunnel between the Building 2 carpark (site of the former Foundry) and Bay 4, it is intended to interpret the significant story of the Foundry and its relationship with the Locomotive Workshops. The story of the Foundry is important as the building no longer exists, and the tunnel provides the opportunity to display and interpret key elements that were rediscovered during the excavation for Building 2 (see Figure 71 and Figure 72)

⁵³ Section 5.2.2. describes the difference between works and historical archaeological relics.



FIGURE 71: THE DISCOVERED FABRIC OF THE FOUNDRY (IMAGE SOURCES: EBERLE PHOTOGRAPHY)



FIGURE 72: REMAINS OF THE FOUNDRY WORKINGS, BUILDING 2 (SOURCE: EBERLE PHOTOGRAPHY)

In addition, the nature of a travelator is that it provides an excellent opportunity for engagement with a relatively stationary and captive audience, especially in this instance where it is transferring the public through a tunnel into the site.

It is proposed to accentuate the brick arched footing feature above the traveller link to the Locomotive Workshop, where possible. This would serve to break up the void through which the traveller passes, and would allow the aesthetics and technical achievement of the heritage substructure of the building to be appreciated for the first time since construction.

Specific heritage interpretation initiatives proposed for within the travelator and subterranean tunnel beneath Locomotive Street includes elements from the former Foundry (recorded as part of the bulk earthworks program for Building 2), as well as visual and audiovisual displays (Figure 73 to Figure 75). Initial high-level design concepts for the travelator and tunnel prepared by Trigger were presented at numerous consultation meetings, including the heritage sub-panel meetings, and were further developed, in consultation with key stakeholders. The final interpretation will be detailed in the Stage 2 Interpretation Strategy for the Locomotive Workshop (in preparation).

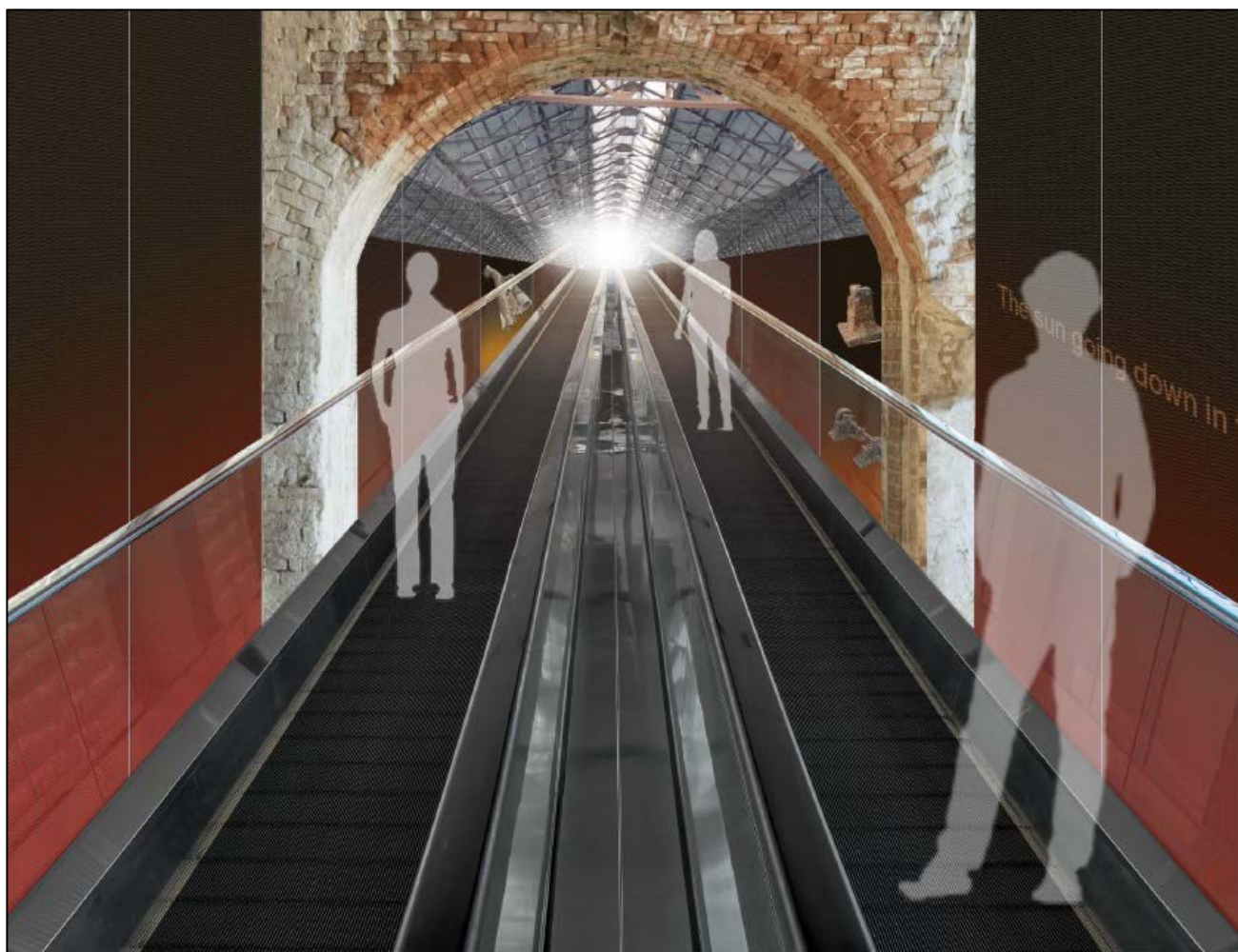


FIGURE 73: CONCEPT DESIGN FOR TRAVELATOR INTERPRETATION (SOURCE: TRIGGERS)

The Foundry Tunnel

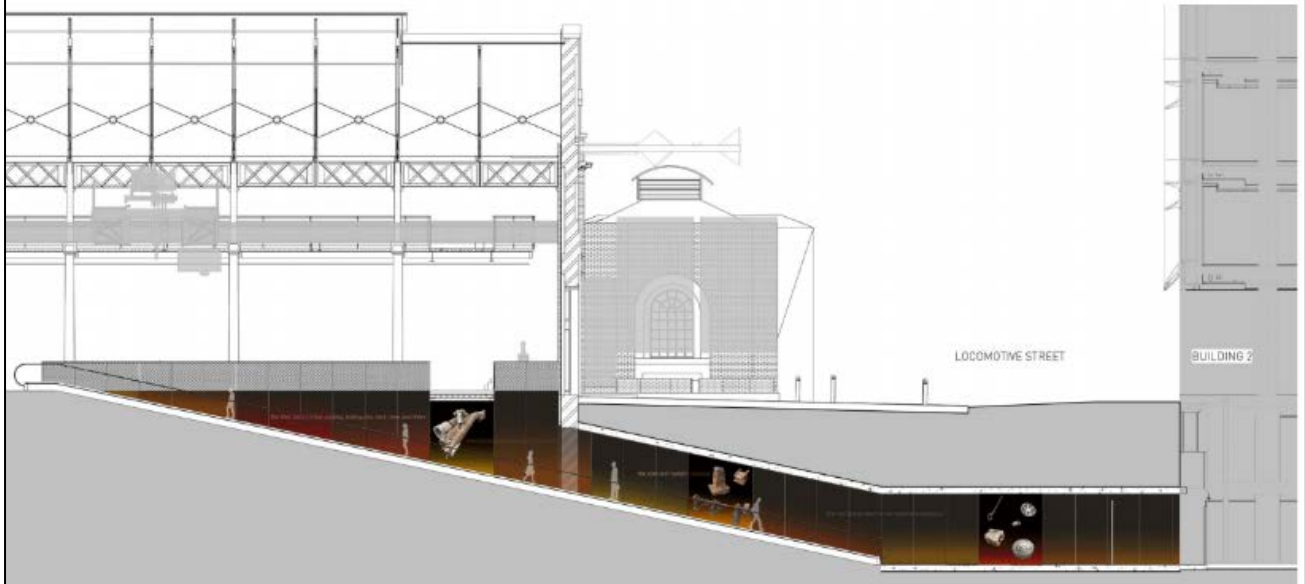


FIGURE 74: CROSS-SECTION OF PROPOSED INTERPRETATION FOR THE TRAVELATOR (SOURCE: TRIGGER DESIGNS 2017)

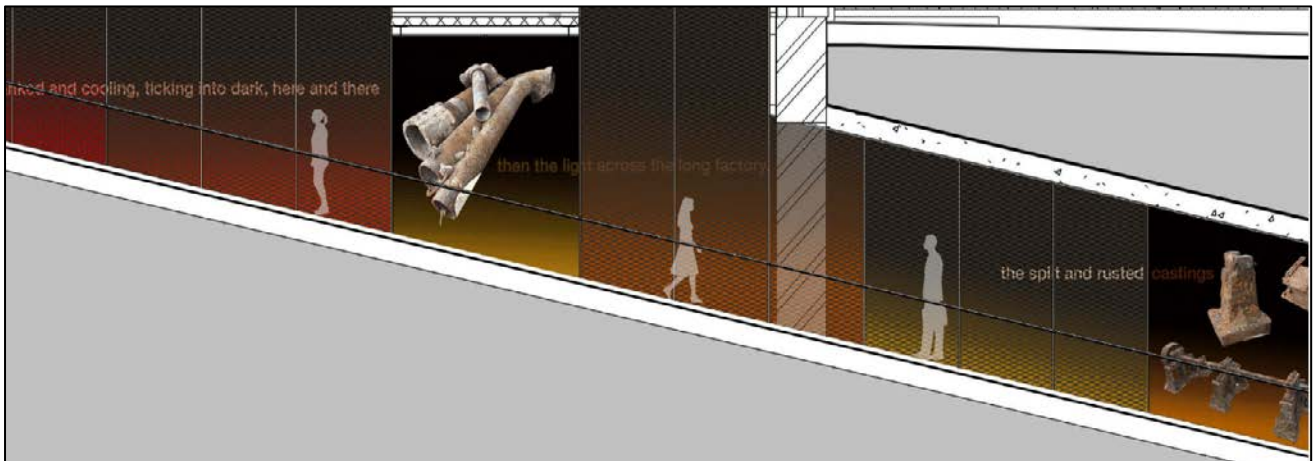


FIGURE 75: INITIAL CONCEPT IDEAS FOR THE 'THE FOUNDRY TUNNEL' (SOURCE: TRIGGERS 2017)

8.4.4. Amenity and Service 'Pods'

The proposed amenities will take the form of service 'pods'. These 'pods' will be located away from the central corridor that runs through the site from Bays 1-15, and will be physically located across every third bay. The reversible pods will be located between, and wrapped around the cast iron columns, supplemented by an access floor at each level, allowing for all services to be reticulated without disrupting the existing floor treatment. The 'pods' are designed to touch the heritage fabric lightly, so as not to permanently impact on the fabric of the columns. They will be self-contained and fully reversible.

The number and location of proposed facilities have been calculated in order to comply with minimum BCA requirements as well as meeting DDA compliance, on the basis of use, square meterage and projected population. The amenities have been divided into pods servicing different zones of the floor plate.

The pods have multiple functions, also housing much of the plant needed to service the spaces. The plant is located within a plant riser and services zone included around the perimeter of the 'pods', and on the roof of the pods, which will remain open to the roof trusses. The use of steel for the pods ensures they will be reversible, and removable.

Due to the BCA requirements of the proposed facilities, and the placement around the columns, some columns will be enclosed, however there will be no physical impact to the heritage fabric of the columns. Whilst the installation of the service 'pods' surrounding some existing columns are considered to have an impact on the readability of the affected columns, this design approach will reduce the visual impact of necessary services and amenities to several discrete locations within the site (rather than increasing visual impact by distribution at multiple locations across the floor plate). While the proposed service pods will have a visual impact on some of the enclosed columns, the overall redevelopment serves to return a large number of columns previously enclosed within private offices, back to the wider scale of the building.

Therefore, on balance, the loss of views to and from the cast iron columns and spaces affected by the pods, will be offset by the proposed functionality of the pods.

The building is also proposed to have false floors installed throughout all bays, in order to house the majority of the services for the building. This includes, but is not limited to, services for heating and cooling, such as thermal heating coils, and infrastructure for water, electricity, sewer, gas and waste management. The new floors will have a protective layer between the existing floor and the new, and can be reversed in the future, with no impact to the fabric below. Most floors in the building have been replaced and upgraded many times, even in Bays 1 and 2. Therefore, the physical and visual impacts are considered to be little to no in most locations across the building, apart from the covering of the railway tracks that run east-west in Bays 1 and 2. New floors will have a concrete finish, similar to the existing.

The final interpretative treatment of the floors in Bays 1-2 (as described in subsection 8.14.2 of this report), is a critical offset for ensuring that the railway tracks and other elements such as the floor pits (which will remain insitu but will be covered over), will be adequately interpreted, located and understood within the new floor. The insitu railway tracks within Bays 1 and 2 will be reinterpreted within the new floors, with the original tracks to be protected and kept insitu within the existing floors.

8.4.5. Enhancement of Entrances/Openings

Entrances/Openings—Physical

The proposed redevelopment includes the proposal to enlarge the internal openings along the central corridor spine between Bays 2 and 3 and Bays 4a and 5, and to create a new internal opening between Bays 2 and 3. The existing inter-bay walls are constructed of modern fabric, and therefore there will be no impact through these proposed works to any original heritage fabric.

The enlargement of the internal openings along the central corridor spine would be undertaken through the removal of infill modern fabric (currently consisting of modern in-fill block work, Figure 76), and the replacement with a glazed wall with minimal framing elements. A new mezzanine opening is proposed for between Bay 2 and 3, allowing disability access from the new lift in Bay 3 to the new mezzanine

heritage exhibition space. This new opening will require the demolition of modern fabric of the existing intertenancy wall only, and will be replaced with door treatment to match other internal doors within the development, i.e. glazed door with simple and minimal framing, design to encourage openness and views between and into bays.

Therefore, the proposed enhancement of new entrances and openings within Bays 3–4a is considered to have a neutral physical impact.

Entrances/Openings—Visual

The new entrances across the central spine of the building (i.e. between Bays 2 and 3 and Bays 4a and 5) have been designed to be an extension of the treatment of external openings, designed to be framed, infill-glazed elements, generally left in an open position, with an aim to create clear view lines along the central access spine, encouraging the open aesthetic of the Locomotive Workshop.

The replacement of the opening in the intertenancy wall between Bays 2 and 3 with a glazed wall and entrance, will encourage openness and transparency between the bays of the Locomotive Workshop, reminiscent of the original function of the building as a multifaceted collaborative machine, between which people and equipment would have always been moving, particularly along the rail tracks of main central corridor (as per the location of the new glazed intertenancy wall).

The existing opening between Bays 2 and 3 serves to visually closes Bays 1 and 2 from the remainder of the Locomotive Workshop. The installation of a new opening in this location, and the careful complementary design of the new wall and opening using glazed infill glass with minimal framing to detract from the heritage aesthetic of the building, will serve to visually reconnect Bays 1 and 2 with Bay 3 and beyond. Therefore, the enhancement of these entrances is considered to be a positive visual impact.

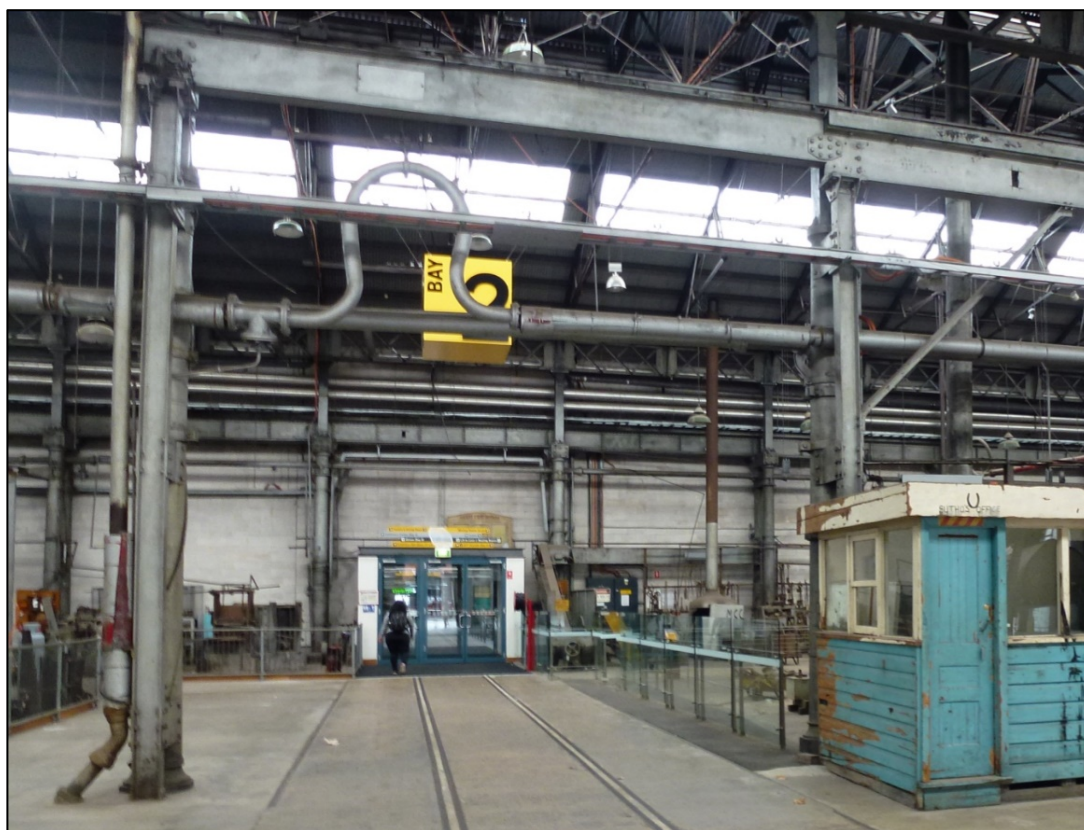


FIGURE 76: CURRENT OPENING AND EXISTING MODERN IN-FILL BLOCKWORK BETWEEN BAYS 2 AND 3 (SOURCE: ETHOS URBAN 2017)



FIGURE 77: CURRENT OPENING BETWEEN BAYS 2 AND 3, VIEW FROM BAY 3, EXISTING MODERN IN-FILL OFFICE FITOUT ON EITHER SIDE OF CENTRAL CORRIDOR (SOURCE: ETHOS URBAN 2017)

8.5. Changes to Roof Fabric

8.5.1. Roof Upgrade—Physical Impacts

As a significant element of the Locomotive Workshop, the design, aesthetics and functionality of the roof has been considered in great detail through the design phase of the project. It is understood that the visual impact of the vertical skylights throughout the Bays is a powerful aesthetic. Upgrades to the roof are proposed in order to improve thermal and daylight performance, while maintaining the integrity of the exposed roof trusses, and original shape, bulk and form of the roof profile. The proposed roof upgrade includes alterations in accordance with two different roofing strategies:

- the ‘Upgrade Strategy’, entailing the installation of insulation and new outer layer of metal sheeting installed; and
- the ‘Daylighting Strategy’, entailing the insertion of natural daylight ‘slots’.

The current structure of the roof of the Locomotive Workshop consists of two layers of sheet metal: the exterior which is a modern layer, added in the 1990s during the creation of the ATP; and the interior, which consists of original roof trusses and other associated historic fabric. There is no insulation between the two layers of roof which is a major limiting factor in controlling the thermal environment of the building.

Therefore, the roof ‘upgrade strategy’ has been designed to retain and conserve the internal roof fabric in the majority of the bays, with alterations only to the exterior roof sheeting in order to improve on the thermal stability of the building, without major intervention within the roof spaces of the building. The design proposes the removal of the exterior roof sheeting (modern fabric), to allow for the installation

of new insulation, followed by the installation of a new outer layer of metal sheeting that has a consistent colour, fabric and profile to that of the existing external roof.

The 'daylighting strategy' proposes the retention of the existing lantern skylight over the atrium in the southern half of Bay 4, and the replacement of this lantern skylight in the northern half with solid metal sheeting, in order to suit the needs of the supermarket below. In addition, installation of several skylight 'slots' are proposed over the east-west circulation spine in Bays 3 and 4a, to provide a more evenly distributed quality of light throughout the retail bays.

The actual structure of the roof and interior heritage fabric of the roof, including the trusses, soffits and other associated fabric will be retained through the proposed roof upgrade. Heritage louvres are to be retained, except where smoke ventilation louvres are required. Smoke attenuation louvres are required in some locations as determined by compliance with BCA standards, as per the fire engineering report.⁵⁴ While this will be a physical impact to heritage fabric with the replacement of parts of the heritage louvres with smoke attenuation louvres, this is a necessary impact in order to ensure the Locomotive Workshop building complies with fire safety regulations. Where smoke attenuation louvres are not required, the original heritage louvres will be retained.

The configuration of the skylight slots have been modelled by example on the existing roof conditions within the Large Erecting Shed (Figure 78), and will be constructed from polycarbonate sheeting or similar. Skylight slots have been located over bays which contain second floor retail, which benefit less from horizontal daylight sources, with view to maximizing daylight to these spaces. The central atria space within Bay 4 will benefit from the retention of the existing lantern skylight ensuring daylight is accessible at ground level as well as level 1.

Therefore, in terms of physical impact, the proposed roof treatment is considered to be neutral, as the majority of the fabric proposed to be affected will be the replacement of non-original, recent fabric with updated modern fabric to allow for improved natural lighting within the space. Only a small number of heritage louvres will be replaced with smoke attenuation louvres in order to comply with current fire safety regulations, which is considered to be a minor impact that is necessary from a safety perspective.



FIGURE 78: ROOF PROFILE OF THE LARGE ERECTING SHED (SOURCE: ETHOS URBAN)

⁵⁴ Prepared by Fire Engineering Professionals Pty Ltd, attached to EIS.

The proposed roof upgrade also includes the installation of new roof platforms in the roof valleys between Bays 3 and 4, and Bays 4 and 4a (northern half only), in order to support additional roof plant as required for the supermarket. These roof platforms have been determined by the Mirvac design team to be required in order to enable the necessary plant to be accommodated, without unnecessary intrusion into the heritage fabric of the building.

The installation of the roof platforms will require small penetrations to be made in the roof sheeting to allow columns to run to the ground, which will in turn be supported on existing footings below (therefore requiring no addition excavation of groundworks within the heritage floor) (Figure 79). The new roof platforms are therefore considered to be a negative physical impact, due to the requirement for irreversible penetrations in the roof in order to support the plant platform.

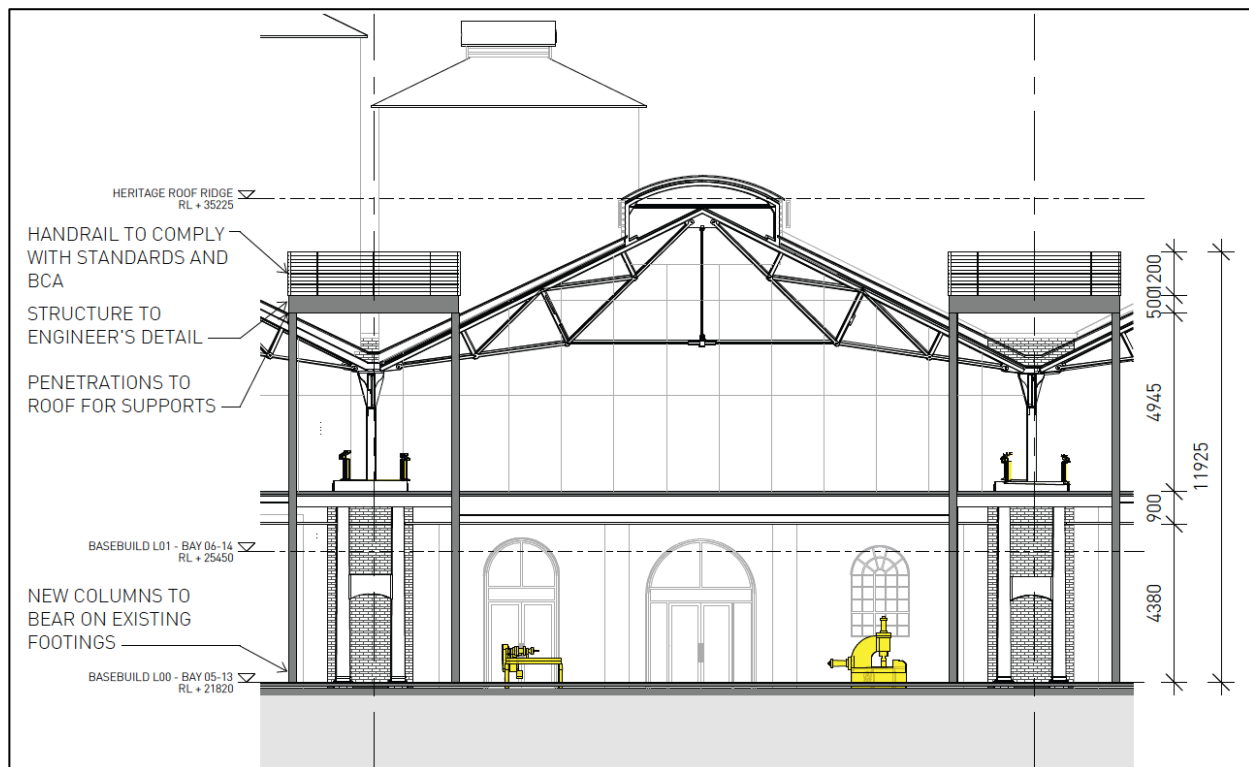


FIGURE 79: PROPOSED ROOF PLATFORM INSTALLATION (SOURCE: SISSONS)

8.5.2. Roof Upgrade—Visual Impacts

As discussed in Section 8.5.1 above, the proposed redevelopment of Bays 1–4a includes upgrades to the roof and daylighting strategy, installation of roof platforms for supermarket plant, and the replacement of some heritage louvres with smoke attenuation louvres to meet BCA requirements.

The installation of the daylight ‘slots’ is designed to improve quality of daylight to common spaces, allowing for even more daylight distribution, and is based on the same technique used within the Large Erecting Shed. It should also be noted that the approach to the roof upgrade is consistent between the eastern and western portion of the Locomotive Workshops (i.e. external roof sheeting upgrade and the installation of daylight ‘slots’).

While the installation of insulation and replacement of the new outer layer of metal sheeting of the roof would have a neutral visual impact (not being overly visible from any part of the site, replacing non-original heritage fabric with similar materials), the insertion of the daylight ‘slots’ will be visible from within the Locomotive Workshop, and will create a major change in how the roof skylights are currently

viewed in Bays 3 and 4a. This is due to the fact that the skylights, whilst not original, generally run vertically from north to south in each of the bays. Changing the aesthetic in these key locations, will result in a loss of the readability of the 'vertical' intention of the skylights in these locations.

The roof lighting of the Locomotive Workshop, particularly in the form of skylights, has, however, been altered numerous times over the years in order to accommodate different uses of the various bays during the function of the building as part of the wider ERW, and then again for the ATP redevelopment in the 1990s (Figure 80 to Figure 82). While a technique similar to the proposed daylight 'slots' has not been applied before within the building, it has been implemented at the Large Erecting Shed, and creates a sustainable level of natural light during the day.

The same daylight slot roof strategy has been proposed for the western portion of the Locomotive Workshop, proposing the daylight slots in the roof in Bays 6, 9 and 12. As a key part of the renewed use of the Locomotive Workshop as a place of innovation, it is consistent that a reconsideration of the best roof lighting application and techniques be applied in order to encourage the renewed function of the building. By reducing the roof skylights across the whole of the Locomotive Workshop from approximately 20% of the existing roof, to 5% maximum as proposed (including in Bays 3 and 4a) the roof lighting is intended to meet with the NABERS 5-Green Star certification (environmental sustainability) requirements. It will result in an energy efficient daylight strategy, which is a positive outcome, overall for the long-term environmental sustainability of the site.

Therefore, while the installation of the daylight 'slots' is considered to have a visual impact, on balance, it achieves:

- sustainable energy efficiency (through the major reduction in the need to supplement poor lighting with electricity);
- restricts impacts to new fabric, rather than original fabric;
- minimises the need to introduce major services and infrastructure for new office lighting throughout;
- impacts on a total of only 5% of the whole of the Locomotive Workshop roof area (including both the eastern and western portions of the building); and
- is consistent with the roof daylight strategy being employed by the Large Erecting Shed.

In conclusion, it is considered that the changes to the arrangement of the roof skylight, whilst having a visual impact, are an acceptable impact in order to achieve improved environmental outcomes. The changes to the skylights, are consistent with the history of changes to roof lighting over time in order to meet with the requirements of the users of the different bays. In addition, the changes to the skylights could be readily reversed in the future should future user requirements change.

It is recommended that prior to the implementation of any changes to the roof, an archival recording of the existing roof structure, including the placement of skylights should be undertaken.

The installation of the proposed external roof plant between Bays 3 & 4 and 4 & 4a will have a minor visual impact, internally, due to the requirement for the installation of supporting columns within the building itself. However, externally, as the roof plant is to be of steel construction to be situated within the existing roof valleys between the bays (of limited height which will not extend above the heritage roof ridge) the platforms will not be visible, from any of the surrounding areas, with the exception of a small portion of the railing (partially visible from the northern rail corridor as shown in Figure 83).

Therefore, while it is considered that the installation of the external roof plant will have a slight negative impact due to the internal visibility of the support columns, there will be no negative external visual impacts.



FIGURE 80: INTERIOR WORKSHOPS DURING ERW FUNCTION, VIEW TO HERITAGE TRUSSES AND ROOF SKYLIGHTS, DATE UNKNOWN (SOURCE: STATE LIBRARY OF NSW)

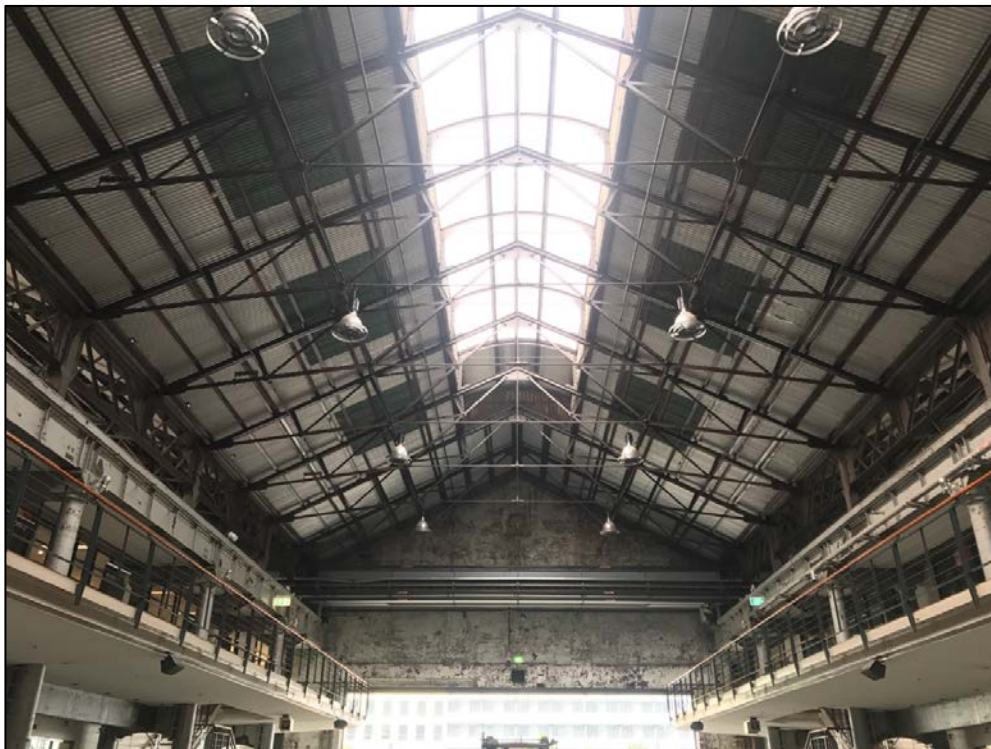


FIGURE 81: EXISTING POLYCARBONATE CURVED LANTERN ROOF FORMAT IN BAY 7 (SOURCE: ETHOS URBAN 2017)



FIGURE 82: EXISTING ROOF IN BAYS 1 AND 2 (SOURCE: CURIO 2016)



FIGURE 83: VISUALISATION OF PROPOSED VISIBLE PLANT RAILING PLATFORM FROM NORTH (SOURCE: SISSONS)

8.6. External Windows and Doors on Northern, Southern and Eastern Facades

8.6.1. External Doors—Physical Impact

The current development proposes the removal and replacement of all modern glass doors fronting Locomotive Street (southern façade) and Innovation Plaza (eastern façade). The existing modern glass doors that lead from the interior of Bay 4 and Bay 4a to Locomotive Street, and the modern glass doors and larger format modern glass openings from Bay 1 east to Innovation Plaza (Figure 84 and Figure 85), have been identified through the CMP of having little heritage value and are proposed for replacement. The majority of the doors from Bays 1 through to Bay 3 Bay 1 retain painted timber doors (Figure 86), which will continue to be retained and fixed in an open position internally. On the external, within the

existing opening, new contemporary lightweight glazed doorway will be installed, in order to recreate the sense of openness to the bays.

The upgrade of doors will have little to no physical impact on any significant fabric of the Locomotive Workshop, as they will be designed to sit within the existing openings of the building. Where possible, existing areas of attachment will be reused so that minor impacts to fabric as a result of creating new, more sympathetic contemporary doorways will have a neutral to minor physical heritage impact.

Overall, the removal and replacement of the external doors along the southern and eastern facades is considered to be a positive heritage outcome, retaining the existing character of the entrances to the bays of the Locomotive Workshop (through the retention of the wooden doors) while improving the openness of the Locomotive Workshop, and removing unsympathetic contemporary or intrusive modern fabric.

The large format modern roller door with glass panels in the northeast of Bay 1, fronting Innovation Plaza (Figure 87), is proposed to be replaced with a contemporary glazed door, similar in design, that will serve as the entrance to the loading dock in this location. The location and size of the existing door allows for its replacement with minimal impact to the heritage façade, reusing existing areas of attachment.

8.6.2. Alteration of External Doors—Visual Impact

The alteration of external doors of the eastern portion of the Locomotive Workshop, including the retention of existing timber doors in a fixed internal position, and the replacement of modern glass entry doors, is considered to constitute a positive visual impact to the southern and eastern facades of the Locomotive Workshop. The modern entry glass doors along the southern and eastern facades, and larger format glass openings along the eastern façade, are of modern fabric, and do not contribute to the heritage significance of the building, and in fact currently detract from the significance and architectural elements of the Workshop building.

The replacement of the modern glass doors will be sympathetic with and complementary to the original fabric of the building, facilitating a view of the Locomotive Workshop that corresponds more closely with the industrial architecture and heritage features of the building.



FIGURE 84: EXAMPLE OF EXISTING MODERN GLASS DOOR AND LARGER FORMAT OPENING (BAY 1 EAST, VIEW FROM INTERIOR)
(SOURCE: ETHOS URBAN 2017)



FIGURE 85: VIEW NORTH ALONG EASTERN FAÇADE OF LOCOMOTIVE WORKSHOP, EXAMPLE OF BRICKED OVER HERITAGE WINDOW TO BE RESTORED FOURTH OPENING TO RIGHT IN IMAGE
(SOURCE: CURIO 2016)



FIGURE 86: EXISTING CENTRAL TIMBER ENTRANCE DOORS IN BAY 1 FROM INNOVATION PLAZA, TO BE RETAINED IN FIXED OPEN POSITION N.B. CURRENT INTERNAL GLAZED PARTITION DOOR AS VISIBLE IN IMAGE TO BE REMOVED THROUGH PROPOSED DEVELOPMENT. (SOURCE: ETHOS URBAN 2017)



FIGURE 87: EXISTING LARGE FORMAT GLASS PANELLED ROLLER DOOR IN NORTHEAST OF BAY 1, PROPOSED FOR REPLACEMENT (SOURCE: CURIO 2016)

Typically, the new openings are proposed to entail a painted steel frame, offset from the original opening, in-filled with contemporary aluminum and glass infill. Larger format openings such as from the southern façade of Bays 4 and 4a, and the modern glass opening from Bay 1 to the eastern façade, will be upgraded with new contemporary steel and glass openings, as consistent with all revised modern openings.

The non-original, yet historic older fabric of the painted timber doors that exist at some entrances to the Locomotive Workshop, will be retained, and fixed in an open position internally. This will allow for the continuity in the treatment of the building façade and serve to open views to and from the Locomotive Building, while allowing the retention of the timber doors for interpretive purposes (with new complementary glass doors installed in front). The replacement of the existing modern entry doors with doors of a more lightweight contemporary design, will pay homage to the fact that many of the bays of the Locomotive Workshop would not originally have had doors, or would not have had them shut often, with locomotives constantly entering and exiting the building. The open position of the retained timber doors will also serve to achieve this aesthetic, while retaining historic fabric and allowing for a consistency of design approach and with the heritage character, across the entirety of the façade of the Locomotive Workshop.

The entrance to the loading dock will require the replacement of the current modern large format roller door with glass panels, opening from Bay 1 to the eastern façade in the northeast of the bay, with a similar, more contemporary, glazed door, to be consistent with the treatment of the rest of the door fabric.

Overall, the proposed visual impact of the changes to external doors within the eastern portion of the Locomotive Workshop is neutral to positive. It will serve create continuity along the whole of the southern and eastern façades (consistent with the proposed treatment of Bays 5–15 to match) and will ensure that the fabric of the building itself is highlighted.

The alterations to the modern external features of the eastern portion of the Locomotive Workshop will also function to activate the public domain along Innovation Plaza and the main thoroughfare, ‘ant track’, to and from Redfern Station. The alteration of the current modern glass doors, retention of the timber doors, and upgrade of the existing larger format window will serve to allow the public to see into the building as they pass by, creating a better external aesthetic and more obvious access points for the public.



FIGURE 88: VIEW NORTHWEST ALONG EASTERN FAÇADE OF LOCOMOTIVE WORKSHOP FROM INNOVATION PLAZA, ROLLER DOOR PROPOSED FOR REPLACEMENT FOR LOADING DOCK ENTRANCE, AND NORTHEASTERN BRICKED OVER WINDOW PROPOSED FOR RESTORATION (SOURCE: CURIO 2016)

8.6.3. External Heritage Windows

Existing heritage windows will be retained, in their entirety, along the northern façade, with minor repairs and restoration where required. Along the southern and eastern façades, the window frames will be retained, restored and reused. The frosted glass will, however, be replaced with clear glass in order to create transparency, better light access and view lines to and from the Locomotive Workshop. The removal of the frosted glass is a visual and physical impact that will be carefully managed, so as not to cause damage to the window frames. An archival recording that captures the building in its current state, prior to the removal of the glass should be undertaken. The salvage of glass for use in repairs on the northern façade, whilst difficult, may be possible.

Three bricked-up windows along the eastern façade of Bay 1 are proposed to be reopened and reinstated (Figure 85 and Figure 88). The new windows will be custom-made to match with the existing original heritage windows and overall aesthetic approach. The replacement of the bricked-up windows along the eastern facade with reconstructed windows will greatly improve the aesthetics and consistency of the eastern façade. Overall, the proposed visual impact of reinstating the window is extremely positive, as it will improve the aesthetics of the significant eastern façade, will create continuity along the whole of the Locomotive Workshop building (with intended update from Bays 5–15 to match) and will ensure that the fabric of the building itself is highlighted.

8.7. Changes to External Annex Structures

8.7.1. Corner Retail—Physical Impact

New external retail premises are proposed for the south-eastern corner of the Locomotive Workshop (along the southern façade, outside Bay 1). The envisaged corner retail would consist of a largely transparent, contemporary glass box, serving food and beverages, designed to form an active point of arrival into the site from the southeastern approach.

A brick services structure located directly adjacent to the existing lean-to will also be utilised as part of the new corner retail premises (Figure 89). The existing weatherboard front will be removed, and replaced with a contemporary glazed window to match the annex glass box. The new fabric of the corner retail will be contemporary and lightweight, touching the fabric of the heritage façade lightly within minimal impact, allowing reversibility if required.

While the proposed corner retail premises will require a change to existing building fabric, the only fabric to be impacted is the demolition of the non-original fabric of the existing lean-to, adjacent to Bay 1 (constructed in the 1950s) and changes to the later historic corrugated iron fabric of the annex.

The existing lean-to is unattractive, poorly interpreted, and does not encourage appreciation of the heritage fabric of the Locomotive Workshop in this location (Figure 90 and Figure 91), therefore the introduction of the modern fabric of the corner retail premises in this location is considered to be a positive physical impact. The existing lean-to houses currently the heritage guillotine (Figure 92). The guillotine will be retained in situ, interpreted and celebrated as a major feature within the new retail premises, with no physical impacts proposed.

The removal of the corrugated iron frontage (with windows) from the Bay 1 Annexe and its replacement with a new contemporary glazed treatment is a minor impact within a space, that was originally an open entrance through to Bay 1.

8.7.2. Corner Retail—Visual Impact

The retail space would be constructed of steel and glass (height to match parapet height of other existing annexes along south façade of Locomotive Workshop building), encouraging views to the heritage façade of the Locomotive Workshop building behind. The design will provide clear views to the historic guillotine contained within.

In addition, the proposed refurbishing of the openings along the eastern heritage façade between the new corner retail and Bay 1 South (i.e. as discussed in Section 8.6 above, constituting the retention of the existing heritage timber doors internally in an open position, with new steel and glass openings to the exterior) will encourage views directly into the Blacksmith from the corner retail, allowing visitors to have clear lines of sight to the intricate workings of the blacksmith, a trade that has functioned continuously within Bay 1 of the Locomotive Workshop for 130 years.

The corner retail space will improve views from the public domain to the heritage building in this location, and encourages views directly into the Locomotive Workshop. The new retail space is subservient in material, form and design to the Locomotive Workshops, and will activate this, previously unattractive, corner of the site. The appeal of, and activity associated with, the retail space will encourage visitation to the Locomotive Workshop. Once in the space, users, will be able to interact immediately with the heritage values of the site, through the significant visual presence and interpretation of the guillotine, as well through the visual interface to the Blacksmith. It is also likely to create a greater interest in the adjacent, Boilers and Boiler House, and the Pump House.

Therefore, it is considered that the provision of a light-weight glazed corner retail pavilion and changes to the corrugated frontage of Bay 1 annexe (see Figure 89) would be a very positive visual impact, creating an attractive and complementary visual aesthetic for the corner of the site, a vast improvement over the existing (Figure 93).



FIGURE 89: EXISTING BAY 1 BRICK ANNEXE ADJACENT TO 'LEAN-TO' (SOURCE: CURIO 2016)



**FIGURE 90: EXISTING 'LEAN-TO' AND ATTACHED BRICK ANNEX ON SOUTHEAST CORNER OF BAY 1, VIEW WEST ALONG LOCOMOTIVE STREET
(SOURCE: CURIO 2016)**



FIGURE 91: EXISTING FENCE AND IMAGERY ALONG FRONT OF 'LEAN TO' (SOURCE: CURIO 2016)



FIGURE 92: HERITAGE GUILLOTINE WITHIN EXISTING EXTERNAL 'LEAN-TO' ALONG SOUTHERN FAÇADE OF BAY 1 (SOURCE: ETHOS URBAN 2017)



FIGURE 93: PROPOSED BAY 1 CORNER RETAIL VISUALISATION (SOURCE: SISSONS)

8.8. Installation of External Illumination

8.8.1. External Illumination—Physical Impact

The proposed development for the eastern portion of the Locomotive Workshop includes the proposal to install and implement a carefully designed program of external building illumination for the Locomotive Workshop building. This lighting program will predominantly serve to accentuate key architectural features of the external façade of the building in order to assist in the activation of the public domain along Innovation Plaza and Locomotive Street, and to reinforce views to the Locomotive Workshop from the public domain of the ATP.

The lighting strategy has been developed by Point Of View (DA Lighting Report included within the Ethos Urban overall EIS for this project), in close consideration and acknowledgement of the significant heritage features and character of the Locomotive Workshop.

The general approach of the exterior lighting plan along the eastern façade (i.e. Innovation Plaza) of the Locomotive Workshops will include:

- in ground uplights to graze the pilasters and accent doorways;
- mounted window ledge lights to light the window reveal;
- linear LEDs to uplight the façade parapet;
- wall lights located over doorways; and
- uplighting to the boilers along the southeast of the façade.

The general approach of the exterior lighting plan along the southern façade (i.e. Locomotive Street) of Bays 1–4a would be consistent with that proposed for Bays 5–15, and will include:

- inground uplights to light pilasters and accent doorways;
- mounted window ledge lights to light the window reveal;
- linear LEDs to uplight the façade pediment;
- some integrated lighting within proposed signage (low glare and non-obtrusive lighting sympathetic to heritage facades);
- uplighting to heritage artefacts and proposed café in annex from Bay 1; and
- uplighting to boiler house and chimneys.

The strategy also proposes linear LEDs along the northern façade of the Locomotive Workshops to uplight the pediment and pendants, suspended from existing steel brackets.

In order to affix the proposed lighting, some minor impacts will be required, notably, in order to allow the illumination and celebration of the heritage facades at night, it is required to fix some lighting to the façade. However, in order to minimize impact to the façade, these fixing points will be focused where possible at grout or join lines on the vertical surfaces of the façade in order to prevent impact to the main façade. These fixing points will be treated to prevent and eliminate water ingress and any other potential impact. Stainless steel fixings would be used to avoid rusting, thereby avoiding any damage to the façade.

The installation of the external lighting will require limited impact, minor in nature, to the physical fabric of the Locomotive Workshop, (contained to only a few, isolated locations). This is offset by the overarching positive visual impact of accentuating and highlighting the heritage values of the building at night, linking the Locomotive Workshop into the public domain and encouraging public appreciation of the architectural values of the façade (as discussed below). The external lighting will be finalised in consultation with Mirvac's nominated heritage consultant.

8.8.2. External Illumination—Visual Impact

As described in Section 8.8.1 above, the proposed redevelopment of Bays 1–4a of the Locomotive Workshop also includes a program of external lighting, which will connect the Locomotive Workshop into the wider public domain, will also serve to highlight the heritage façade at night, in a manner sensitive to the façade, through the use of strategically located, low glare lighting in several different forms. The lighting plan also includes the installation of low glare, non-obtrusive signage lighting. The proposed lighting will tastefully illuminate elements of the heritage façade, highlighting significant elements and allowing and encouraging public appreciation of the significant external architecture in the evenings. In this way, it is considered that the proposed external lighting will have an extremely positive visual heritage impact.

8.9. Signage

Installation of External Signage

The proposed development is seeking approval for signage zones. Minimal signage is proposed to be located on the brick heritage fascia, restricted to 'Locomotive Workshop' signage along the southern façade at Bay 4 and above the main corridor entrance way along the eastern façade.

The signage is to be designed to be in keeping with the heritage aesthetic of the Locomotive Workshop building, utilising sympathetic materials and behind glazing panels where modern external doors occur

(positioned within the building, but visible externally). Signage is also proposed for along both exposed sides of the new corner retail on the southeastern corner of Bay 1 (Figure 94).

An additional opportunity for external signage has been identified as horizontal metal panels that form part of the new windows and door treatment.

The proposed signage, within the signage zones, will form part of a separate DA approval.



FIGURE 94: VISUALISATION OF PROPOSED SIGNAGE STRATEGY ALONG THE LOCOMOTIVE WORKSHOPS (SOURCE: SISSONS)

8.10. Public Domain Improvement

The public domain improvements as proposed through this SSDA are limited to a small curtilage adjacent to the southern and northern elevations of Bays 1–4a, into which the wider public domain design will be incorporated (to be addressed through a future DA). Proposed interpretative elements within the public domain are discussed separately in subsection 8.14.2.

The southern elevation (along Locomotive Street) within the Locomotive Workshops boundary (Bays 1–4a) will entail improvements to the paving and footpath network within the boundary of the site, constructed of simple, low-maintenance, sympathetic materials designed to integrate with the wider public domain. Where possible, the public domain works will utilize existing materials from the site such as existing brick pavers, and new materials working within the existing palette of bricks, asphalt and concrete in the existing public domain to revitalize and connect the new development works into the wider public domain, while remaining complementary to and sympathetic with the heritage character of the site.

Locomotive Street is currently a service street, however the proposed public domain improvements for the overall redevelopment of the ATP site will transform Locomotive Street into a major axis for

pedestrian traffic to service the new buildings, as well as the tenants of the Locomotive Workshops (see Figure 95).



FIGURE 95: DESIGN VISUALISATION OF SOUTHERN FAÇADE OF LOCOMOTIVE WORKSHOPS TO PUBLIC DOMAIN (SOURCE: SISSONS)

The ground treatment along the southern elevation of the Locomotive Workshop will be a continuation of the existing brick pavers along Locomotive Street, to stitch into existing brick pavers, and complement the existing heritage façade, while allowing ease of interface with the overall public works program for the wider precinct, once fully developed.

This SSDA includes consideration of a narrow curtilage adjacent to the eastern façade of the Locomotive Workshop building that bounds Innovation Plaza. Works to this eastern elevation of the public domain as part of this SSDA will be limited to repairs and making good of the public domain, should they be impacted by the proposed construction works, including new brick paving to match existing where necessary.

This development also includes consideration of the public domain area to the north of the Locomotive Workshop, along the northern right of way between the workshop and the train line. This is an area that is highly visible from the railway, however with little pedestrian or vehicular traffic, with limited visual or spatial connection to other areas of the public domain, generally fulfilling a 'back-of-house' function for the Locomotive Workshop.

Minimal streetscape elements are currently present along this northern elevation, with the main existing elements consisting of an asphalt road and metal mesh fence to the northern ATP boundary. Minimal upgrades are proposed for this area, generally retaining the streetscape in its current form, including making good of any existing elements and refreshing line markings as necessary.

Overall the proposed public domain works included within the current development proposal for Bays 1-4a of the Locomotive Workshop are consistent with the public domain works proposed for Bays 5-15, and will fit seamlessly within the site wide public domain works. The proposed ground treatments are subtle, and are sympathetic to the external facades of the Locomotive Workshop.

8.11. Impact to the Moveable Heritage Collection

The CMP identifies that the moveable heritage collection (including insitu machinery) within the Locomotive Workshop has suffered ‘a loss of context for the industrial components of the site’ as ‘much of the remaining machinery does not have an obvious connection to its location’ and that ‘the relationship between the machinery and the layout of the workshops and how the two work together has been obscured through relocation of most machinery’.⁵⁵

The intended treatment for the moveable heritage collection proposed as part of the redevelopment is to help re-establish context, where possible, and to improve the interpretation of how a piece of machinery or tool would have been used, not only individually, but as part of the whole process.

All machinery proposed to be relocated will be supervised by an expert in industrial heritage machinery to ensure that the fabric is not subject to accidental damage prior to, during, or after relocation. All changes to locations of machinery and smaller tools will be recorded, in accordance with the requirements of the HAMS and MCMP, with updates of new locations recorded in the S170 register. Specific impacts to Moveable Heritage Items are assessed in more detail below.

8.11.1. Bays 1 and 2

This section concerns solely the consideration of impacts to moveable heritage items currently located within Bays 1 and 2.

An analysis was undertaken by Trigger and Curio Projects, with assistance from Matt Mewburn, of Eveleigh Works (the current blacksmith) and Richard Butcher (former Locomotive Workshop Blacksmith), of the moveable heritage collection within Bays 1 and 2 to identify and reconfirm the provenance of each item, against the S170 register entries. This assisted with assessing how the proposed loading dock in Bays 1 and 2 North may impact on the moveable heritage collection and led to changes in the design of the loading dock so that minimal insitu items would be impacted. Figure 101 provides a map of the key collection items within Bays 1 and 2, and identifies which items in Bays 1 and 2 North relate to the Blacksmithing operations and which key items have been relocated from elsewhere. It clearly identifies which items are proposed to be relocated to facilitate the construction of the loading dock.

The location of the loading dock in Bays 1 and 2 will require the relocation of three insitu forges from Bay 2 North to Bay 2 South. The specific items are the Blacksmith Forge No. 4 + Coke Bin (Item no. 4745027), Forge No. 29 Coke Bin (Item no. 4745027) and Forge 30 Coke Bin (Item no. 4745367). Various other non-insitu items such as blacksmithing tools and a workbench also require relocation. The relocation of four insitu blacksmithing tool racks, one grinder, and nine displaced machines from the Spring Shop will also require relocation.

Mirvac has consulted with the blacksmith tenant in Bays 1 and 2 South to relocate several of these items to the blacksmith space for repair and reuse, including the three forges, the workbench, the grinder and some of the other blacksmithing tools (also described in subsection 8.12 of this report). The reintroduction of several items of machinery into functional use is a very positive heritage outcome and is supported by the CMP, which states that:

⁵⁵ GML 2013: 104

The opportunity remains within the Locomotive Workshop to ‘conserve the significance of items of the Machinery Collection [moveable heritage items] by returning them to use, taking into account relevant WHS, operational and amenity considerations.’⁵⁶

As a result, the relocation of insitu items from Bay 2 North to Bay 2 South for use by the blacksmith is considered to be a positive outcome that will keep the items in use, within an appropriate context.

The relocation of the Spring Shop machinery out of Bays 1 and 2, is positive for the integrity of the Blacksmith Workshop, as it will ensure that only those items relevant to the blacksmithing activities are interpreted within the floorplate of Bays 1 and 2. However, the displaced machinery will need to be relocated elsewhere within the building. The rest of the Spring Shop machinery within the Locomotive Workshop is housed in Bay 3, where it was located from c.1984 onwards. The relocation of the Spring Shop moveable heritage collection from Bays 1 and 2 will be finalised as part of the Stage 2 Interpretation Strategy.

While the proposed new heritage interpretation within Bays 1 and 2 North is considered to be a positive initiative with an overall positive visual impact in Bays 1 and 2, it is still acknowledged however, that some more traditional heritage enthusiasts, will feel the revision of the existing heritage interpretation including the relocation of numerous moveable heritage items from their current static display in Bays 1 and 2 North, to be a negative impact to the moveable heritage collection in this location.

8.11.2. Bay 3

There are currently four machinery items located in Bay 3; the Ryerson Spring-Forming Machine #1 and #2, the Whitlam Spring Coiler and the Spring Shop Rack, Coils and Tools. All four of these machinery items are currently located along the central corridor, protected and obscured by metal barriers (Figure 96 and Figure 97). While all four items are in relatively good condition, none are considered to currently be well interpreted in their current iteration. All four items would have originally been located within the spring shop, which was located in Innovation Plaza for the majority of the life of the ERW, relocated for the final few years of functioning to within Bay 3 (i.e. c. 1984).

The current redevelopment proposes the repositioning of all items within Bays 3-4, to enable the proposed changes for the Bay 3 retail space. This is considered to be a neutral impact, as the items are currently lacking broader context in their current position, with poor interpretation. It is proposed to reinterpret them within the redevelopment, in a more meaningful way, possibly, with the other items from the Spring Shop, as described in subsection 8.14. There will be no physical impact to the fabric of any item during their transfer to a new location.

The specific treatment and relocation of the whole collection of Spring Shop items (including those in Bays 1 and 2) will be considered in more detail as part of the Stage 2 Interpretation Strategy.

⁵⁶ GML 2013: 101



FIGURE 96: WHITLAM SPRING COILER AND SPRING SHOP RACK AND COILS IN REAR OF PHOTO, BAY 3 CENTRAL ACCESS CORRIDOR (SOURCE: CURIO 2016)



FIGURE 97: RYVERSON SPRING-FORMING MACHINE #1, BAY 3 CENTRAL ACCESS CORRIDOR (SOURCE: CURIO 2016)

8.11.3. Bay 4

There are currently six machinery items located in Bay 4; Hydraulic Press and Spring Tester, Spring Coiler (#1 and #2), Fielding and Pratt Hydraulic Spring Buckling Press, Rice & Co. Hydraulic Spring Buckling Press, and the Craven Bros Spring Disassembler.

All six of these machinery items are currently located along the central atrium in the north of Bay 4, protected and obscured by metal and timber barriers (Figure 98 and Figure 99). While all six items are in relatively good condition, none are considered to currently be well interpreted in their current iteration and none are insitu. All six items would have originally been located within the spring shop, which was located in Innovation Plaza for the majority of the life of the ERW, relocated for the final few years of functioning to within Bay 3 (i.e. c. 1984). In addition, all items are currently partially obscured by part of the modern in-fill offices, hidden beneath the stairs, or stored on the side of the atrium, poorly lit and with outdated interpretive panels. The protective barriers create a visual obstruction when trying to photograph the items.

The current redevelopment proposes the relocation of all six items to allow for the adaptive reuse of Bay 4 north as a new supermarket. This is considered to be a neutral impact as none of the items are currently insitu, and there will be no physical impact to the fabric of any item during their transfer to a new location within Bays 3-4. The specific treatment and relocation of the six items will be considered in more detail as part of the Stage 2 Interpretation Strategy.



FIGURE 98: MACHINERY UNDER STAIRS IN ATRIUM OF BAY 4 NORTH, FIELDING AND PRATT HYDRAULIC SPRING BUCKLING PRESS TO THE RIGHT, SPRING COILER (#1 AND #2) TO LEFT (SOURCE: CURIO 2016)

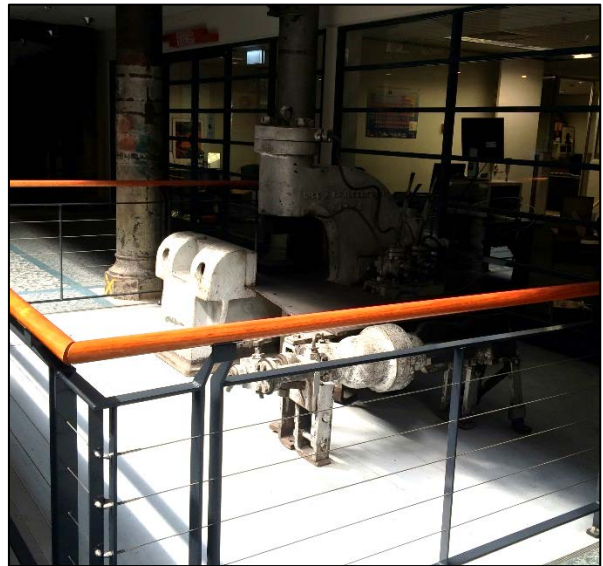


FIGURE 99: RICE AND CO. HYDRAULIC SPRING BUCKLING PRESS, CURRENTLY IN BAY 4 ATRIUM ALONG EASTERN WALL (SOURCE: CURIO 2016)

8.11.4. Bay 4a

A single item from the moveable heritage collection is currently located in the south of Bay 4a, along the southern wall of the existing auditorium; the Lang and Sons Spring Coiler MSC2 (Figure 100). While it is in relatively good condition, it is not considered to be well interpreted in its current iteration and is not insitu (having originally been located within the Spring Shop first in Innovation Plaza, then later in Bay 3). The current redevelopment proposes the relocation of this item in order to allow use of the general ground floor space of Bay 4a as retail space, as well as to improve the contextual location and heritage interpretation of this item.

The relocation of the Spring Coiler is considered to be a neutral impact as it is not currently located insitu, and there will be no physical impact to the fabric of the item during its transfer to a new location. As already stated, the specific relocation of the Spring Shop items (including those in Bays 1 and 2) will be consideration, holistically, and in more detail as part of the Stage 2 Interpretation Strategy.

Figure 102 and Figure 103 present the current locations of all existing machinery within the Locomotive Workshop, and the proposed revised machinery locations going forward. The plan of the revised machinery location is indicative of proposed relocation at the time of writing, however the exact location of these moveable heritage items will be confirmed as part of the Stage 2 Interpretation Strategy.

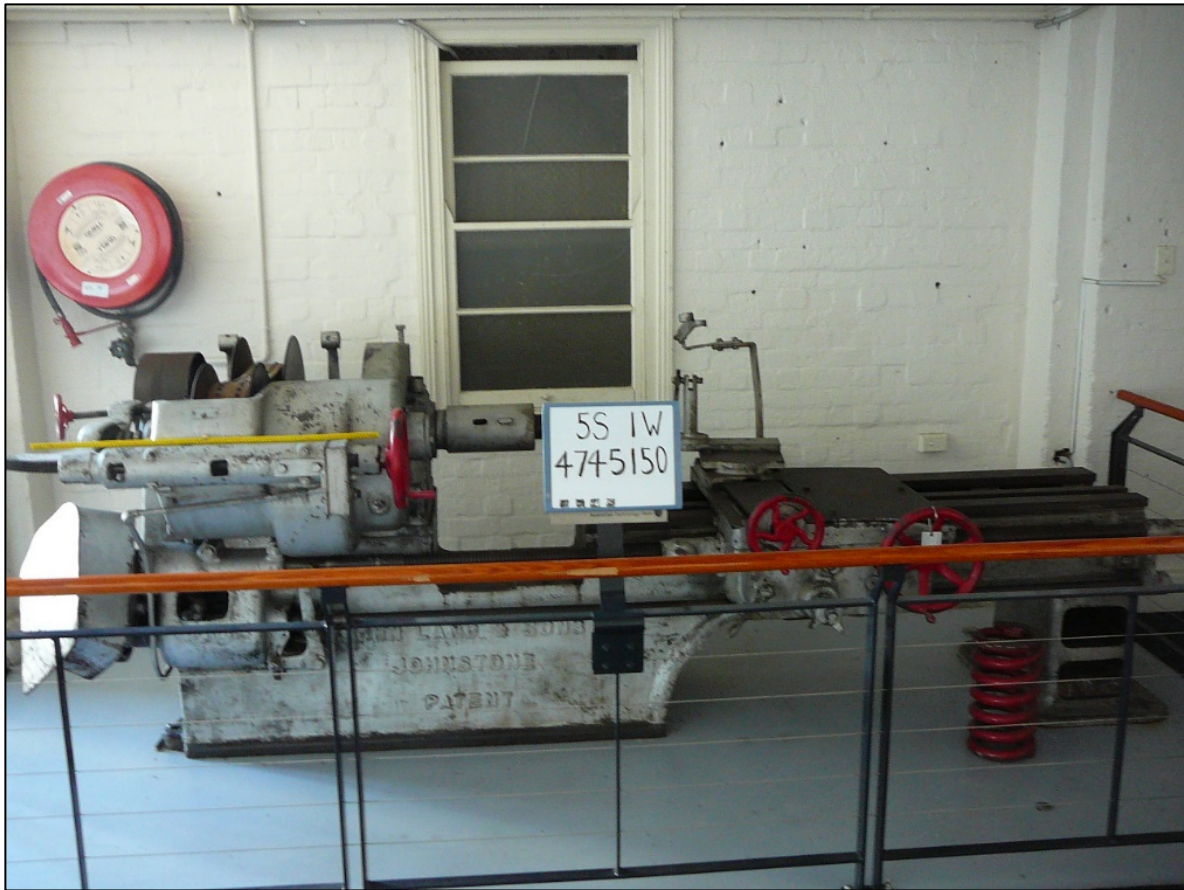


FIGURE 100: LANG AND SONS SPRING COILER MSC2 (SOURCE: ATP S170 REGISTER)