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REDFERN-WATERLOO AUTHORITY

DESKTOP REVIEW OF HAZARDOUS MATERIAL SURVEY REPORTS NORTH EVELEIGH RAIL YARDS

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**DESKTOP REVIEW OF HAZARDOUS MATERIAL SURVEY
REPORTS
NORTH EVELEIGH RAIL YARDS
WILSON STREET
DARLINGTON NSW 2008**

Prepared for
REDFERN-WATERLOO AUTHORITY

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NORTH EVELEIGH RAIL YARDS

DESKTOP REVIEW OF HAZARDOUS MATERIAL SURVEY REPORTS

EXECUTIVE SUMMARY

A review of documentation addressing Hazardous Materials at the North Eveleigh Rail Yards was requested by the Redfern-Waterloo Authority to update the existing hazardous material reports in light of recent remedial works. The adequacy of sampling conducted in previous surveys was re-evaluated from the perspective of proposed demolition works.

The original hazardous material survey of the buildings at the State Rail Authority NSW, Eveleigh Railway Workshops site, Wilson Street, Darlington NSW 2008 was conducted by Hibbs & Associates Pty Ltd and prepared for CH2M Hill Australia Pty Ltd in May 1998. Additional subsequent documentation concerning hazardous materials on the site was reviewed during the preparation of this report.

Hazardous materials include asbestos and synthetic mineral fibre (SMF) based materials, fluorescent light ballast capacitors containing the class of chemicals known as polychlorinated biphenyls (PCB's) and lead based paint systems. Asbestos containing materials are present in the majority of the buildings on site. SMF containing materials were identified in a number of the buildings at the site. The majority of the buildings on the site contained lead based paints applied to the internal and external walls, steel framework, ceilings and the exterior doors and frames. Many of the lead based paint systems noted on site were reported to be in a poor and deteriorated condition. Fluorescent light ballast capacitors containing the class of compounds known as polychlorinated biphenyls (PCB's) were detected in four of the buildings on the site.

The management, removal and disposal of asbestos and other hazardous materials in NSW is required to be conducted in accordance with the provisions of the NSW Occupational Health & Safety Regulation 2001 made under the NSW OHS Act 2000. This regulation includes a requirement to adhere to Codes of Practice published by the National Occupational Health and Safety Commission. The regulations require that the location of hazardous materials within a workplace is identified and recorded and the associated risks are assessed, controlled and reviewed at regular intervals.

The following recommendations are made:

- Prior to the demolition of a building or renovation works for adaptive reuse a site inspection of all areas is carried out to ascertain the current condition of the hazardous material identified. The assessment may include a review of available construction drawings and localised destructive sampling.
- A risk assessment is completed for all of the hazardous material items identified.
- Any further hazardous material surveys should include sampling of settled dust on structural building elements for other contaminants such as heavy metals.
- Hazardous materials should be removed prior to the commencement of any renovation or demolition works that may cause their disturbance.

NORTH EVELEIGH RAIL YARDS

DESKTOP REVIEW OF HAZARDOUS MATERIAL SURVEY REPORTS

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1.0 INTRODUCTION

This report presents comments and a review of the desktop update of the hazardous material survey report of the North Eveleigh Rail Yards site. This report is prepared for Redfern-Waterloo Authority by Hibbs & Associates Pty Ltd.

A review of documentation addressing Hazardous Materials at the Eveleigh Railway Yard was requested by the Redfern-Waterloo Authority to update the existing hazardous material reports in light of recent remedial works. The adequacy of sampling conducted in previous surveys was re-evaluated from the perspective of proposed demolition works and recommendations on any additional site investigations required are included in this document.

The North Eveleigh Workshops are accessed from Wilson Street, Darlington. The site is bounded by Wilson Street along the northern perimeter, the main south western railway track along the southern perimeter, Iverys Lane along western perimeter and residential dwellings (fronting Little Eveleigh St) on the east perimeter of the site. There are 21 separate buildings of various sizes located at the site that are included in the updated hazardous materials survey report.

It is understood that Redfern-Waterloo Authority intends to submit a Concept Plan for the development the site, and that this will include the demolition of some buildings and the adaptive reuse of others.

A diagram showing the layout of the site and location of each building included in the report is provided in Appendix 1.

2.0 DETAILS OF DOCUMENTATION REVIEWED

The following documents were reviewed during the preparation of the “Desktop Update of Hazardous Materials Survey Report, North Eveleigh Rail Yards”.

1. “Hazardous Materials Survey Report, State Rail Authority, Eveleigh Railway Workshops, Wilson Street, Darlington NSW 2008” prepared for CH2M Hill Australia Pty Ltd by Hibbs & Associates Pty Ltd in May 1998, Reference No. S1637.

This report is the basis for this desktop update of the hazardous material survey report of the site. All findings outlined in the above report are included in this report unless subsequent reports have definitively described a change in the location or condition of the hazardous material item.

2. “Hazardous Materials Audit of State Rail Authority Eveleigh Railway Workshops, Wilson Street, Darlington NSW, prepared for State Rail Authority of New South Wales by HLA-Envirosciences in December 1999, Project No H4606a.

This report contains a brief listing of the hazardous material items identified in each building and include a quantity for each item. This report is based on the findings of the Hibbs & Associates Pty Ltd report dated May 1998.

The quantities stated in the report prepared by HLA-Envirosciences are included with the relevant item in Section 6 of the updated Hazardous Materials Survey Report.

3. “Hazardous Materials Survey, Carriageworks at Eveleigh” prepared for Root Projects Australia Pty Ltd by Hibbs & Associates Pty Ltd in September 2004, Reference No. S3592.

This report is an update of the earlier report for the Blacksmiths’ Shop (Building 7) and Carriage Workshops Building (Building 8) only.

4. “Hazardous Materials Register, Eveleigh Carriage Workshops” prepared for Ministry for the Arts by Hibbs & Associates Pty Ltd in August 2005, Reference No. S3973.

This report was prepared following completion of hazardous material remedial works in the Carriage Workshops Building (Building 8).

5. “Interim Audit Advice 1, Remainder of the Site - North Eveleigh Rail Yard, NSW” prepared for Redfern Waterloo Authority by Rod Harwood, (a New South Wales Environment Protection Authority contaminated land accredited site auditor (accreditation number 03-04), employed by WSP Environmental Pty Limited in August 2007, Reference: 01-07-099L01.08.31 Interim Advice 1 31.

This document deals essentially with soil contamination which is not included within the scope of this report. It does however contain a list of thirty three (33) documents that were reviewed by the author. Reports 1, 2 and 3 above are included in this list. The report that relates to proposed hazardous material removal works in the Blacksmiths’ Shop (Building 7) prepared by SMEC in April 2006 was not reviewed. This building has received development consent for markets, arts and car parking uses and will be remediated as part of the required works.

3.0 UPDATE OF HAZARDOUS MATERIALS SURVEY REPORT

The documentation listed above has been reviewed and a report titled "Desktop Update of Hazardous Materials Survey Report, North Eveleigh Rail Yards, March 2008", Reference No. S5312 compiled.

The report is primarily based on an original hazardous material survey of the buildings at the State Rail Authority NSW, Eveleigh Railway Workshops site, Wilson Street, Darlington NSW 2008 conducted by Hibbs & Associates Pty Ltd and prepared for CH2M Hill Australia Pty Ltd in May 1998, Reference No. S1637. Additional subsequent documentation concerning hazardous materials on the site was reviewed during the preparation of the report. Findings quoted in the report, including the condition of hazardous materials identified, are as described in the documentation reviewed, and were current at the time the relevant reports were prepared.

An inspection of the site was not carried out during the preparation of this report to verify the findings of the documentation reviewed or assess the current condition of any of the hazardous material items listed.

4.0 SUMMARY OF FINDINGS OF HAZARDOUS MATERIALS SURVEY REPORT

4.1 Scope of Works

For the purpose of the report, hazardous materials include asbestos and synthetic mineral fibre (SMF) based materials, fluorescent light ballast capacitors containing the class of chemicals known as polychlorinated biphenyls (PCB's) and lead based paint systems.

Potential contaminated dust on structural elements, contaminated sediment in pits, tanks and vessels and sub surface contamination was not included in the scope of the current review.

4.2 Remedial Works Carried Out

The only remedial works carried out concerning hazardous building materials that were identifiable in the documentation reviewed were in Building 8, the Carriage Workshops. A hazardous material remediation project was carried out in this building in 2005.

This project included the removal of the majority of the asbestos containing materials. Loose and flaking paint was removed but lead based paints in good condition were left in situ.

It is understood that the Carpenters Workshop (Building 10) has also recently been developed, and is now used for training purposes for the construction and hospitality industries. The building also has consent to operate as a café.

4.3 Summary of Location of Hazardous Materials

Asbestos containing materials are present in the majority of the buildings on site. The principal asbestos material types included flat and corrugated asbestos cement (AC) sheeting, AC panels, gutters, flashings, zelemite electrical backing boards and vinyl asbestos floor tiles. These are typically bonded asbestos products. Very little friable asbestos was identified in the reports reviewed.

SMF containing materials were identified in a number of the buildings at the site. This material is used primarily as thermal insulation materials on the underside of roofs etc.

The majority of the buildings on the site contained lead based paints applied to the internal and external walls, steel framework, ceilings and the exterior doors and frames. Many of the lead based paint systems noted on site were found to be in a poor and deteriorated condition.

Fluorescent light ballast capacitors containing the class of compounds known as polychlorinated biphenyls (PCB's) were detected in four of the buildings on the site. The majority of fluorescent light fittings examined were either not fitted with any capacitor or were fitted with plastic capacitors that were not manufactured with PCB material.

5.0 ASSESSMENT OF CURRENT DOCUMENTATION

5.1 Legislative Framework

The management, removal and disposal of asbestos material in NSW is required to be conducted in accordance with the provisions of the NSW Occupational Health & Safety Regulation 2001 made under the NSW OHS Act 2000. This regulation includes a requirement to adhere to the following codes of practice published by the National Occupational Health and Safety Commission.

1. National Occupational Health and Safety Commission "Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC: 2018 (2005)]"
2. National Occupational Health and Safety Commission "Code of Practice for the Safe Removal of Asbestos 2nd Edition [NOHSC: 2002(2005)]"

The Code of Practice for the Management and Control of Asbestos in Workplaces includes the following requirements

- Persons with control of premises must ensure all asbestos containing materials in their workplaces are identified, as far as practicable, (Part 9). More specifically, there is a need to identify the locations of all asbestos containing materials, determine whether any inaccessible areas are likely to contain asbestos containing materials and identify the types and condition of asbestos containing materials.
- Persons with control of premises must keep an accurate register of asbestos containing materials on the premises, (Part 9.3).
- The register of asbestos containing materials, including any risk assessments, should be reviewed every 12 months or earlier where a risk assessment indicates the need for reassessment or any asbestos containing material has been disturbed or removed. A visual inspection of identified asbestos containing materials should be undertaken as part of any review, (Part 9.3.1).
- If asbestos containing materials are identified in a workplace, the person with control must ensure the associated risks are assessed. The risk assessment should take account of the identification information in the register of asbestos containing materials, including the condition of the asbestos containing materials, the likelihood of exposure and whether the nature or location of any work to be carried out is likely to disturb the asbestos containing materials, (Part 10).

5.2 Currency of Hazardous Materials Survey Report

The original survey report reviewed was prepared in May 1998 by Hibbs & Associates Pty Ltd and was used as a basis for the quantities quoted in the report completed by HLA-Envirosciences in December 1999.

With the exception of the report prepared by Hibbs & Associates Pty Ltd in September 2004 for Buildings 7 and 8 only there is no documentation that reviews the location or the condition of the hazardous materials identified in the original report which is almost ten years old.

A regular review of the condition of asbestos containing materials, including a site inspection, is a statutory requirement in NSW. This is relevant for occupied buildings or where work is being undertaken. The commonly accepted maximum time period between reinspection of bonded asbestos materials is three years.

5.3 Risk Assessment

The Occupational Health & Safety Regulation 2001 contains a requirement to document a risk assessment for any asbestos containing materials identified.

With the exception of very general statements none of the documentation reviewed contains a risk assessment for the hazardous materials identified on the site.

5.4 Sampling Regime

Comprehensive site inspections, including collection of sufficient representative samples for analysis, appear to have been carried out prior to completion of each of the reports reviewed. The site inspections were however carried out during normal operations and included only limited or no destructive sampling. The reports reviewed do contain reference to areas or items that were not accessible or were not able to be sampled. This is typical of hazardous material surveys intended for health risk assessments or auditing purposes.

It is understood that construction drawings of the buildings inspected were not available during the site inspections.

Whilst the buildings on the site are fairly simple structures they are likely to contain cavities or shafts that are only accessible by localised demolition. In addition there are likely to be areas where original construction materials have been enclosed by subsequent building alterations.

Other constraints during typical hazardous material surveys include height access and electrical safety.

If demolition works are planned it is normal practise to review any existing hazardous material survey reports to identify areas that were previously inaccessible and collect samples of materials not previously analysed. Any existing construction drawings should be reviewed during this review.

6.0 THE CONCEPT PLAN

Redfern-Waterloo Authority has developed a Concept Plan for the site. A plan of the proposal is provided In Appendix 1.

The proposal includes the adaptive reuse of the following buildings:

- Carriage Workshop (Building 8 - already remediated)
- Blacksmiths' Shop (Building 7 - development consent issued)
- Clothing Store (Building 1)
- Paint Shop (Building 12c)
- Scientific Services Building No.1 (Building 19)
- Chief Mechanical Engineer's Office Building (Building 20)
- Telecommunications Equipment Centre (Building 21).

All remaining buildings on the site will need to be demolished for the proposal.

7.0 RECOMMENDATIONS

The Hazardous Material Survey Report for the North Eveleigh Rail Yards has been updated by means of a desktop review of existing documentation. A site inspection was not carried out during this review.

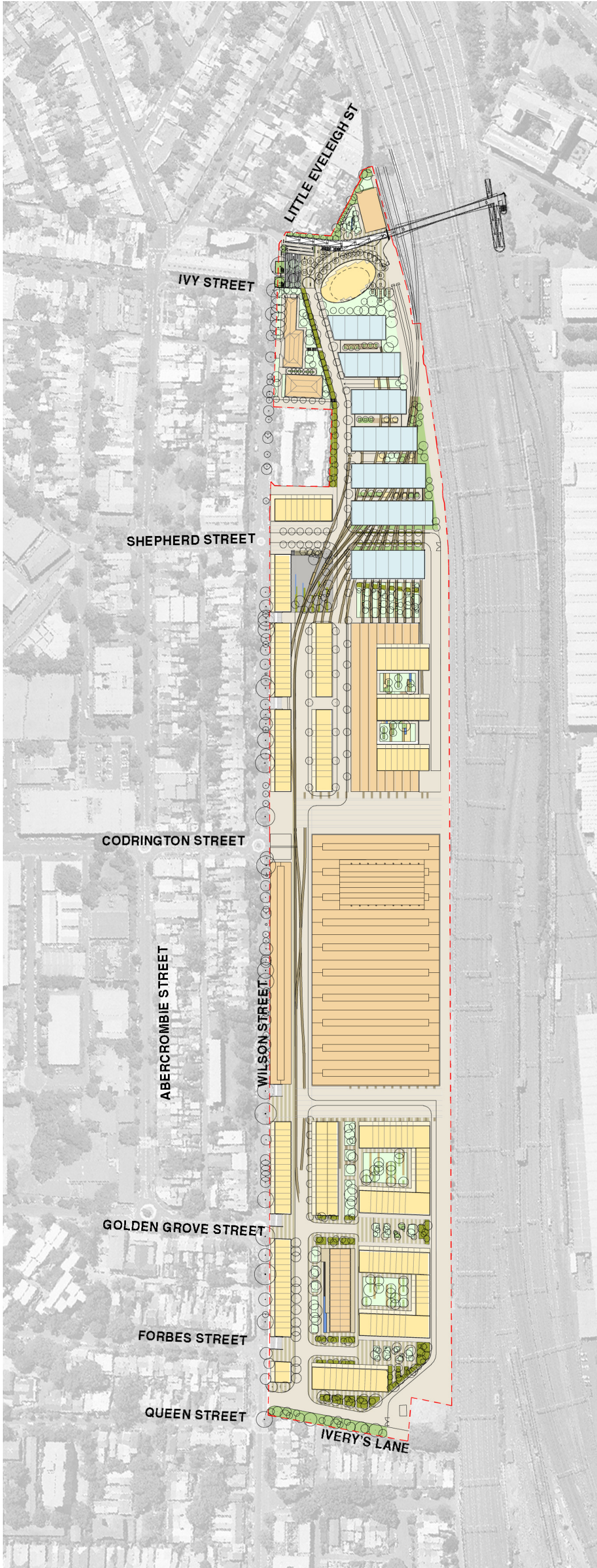
As a result of a review of the documents listed and a brief review of the proposed Concept Plan we make the following recommendations:

1. A site inspection of all areas is carried out to ascertain the current condition of the hazardous material identified. This inspection should be carried out prior to the demolition of the building or and renovation works for adaptive reuse.
2. Following the site inspection a risk assessment is completed for all of the hazardous material items identified. This risk assessment should take into account whether the buildings are to be demolished or re-used and if so the extent of the proposed renovation works.
3. Prior to any demolition works, any available original construction drawings are reviewed, and the areas scheduled for demolition are reinspected to identify shafts and cavities and other items that have not been sampled. Localised destructive sampling can then be scheduled in these areas prior to the demolition works commencing.
4. Given the nature of previous activities carried out on the site any further hazardous material surveys should include sampling of settled dust on structural building elements for other contaminants such as heavy metals.
5. Hazardous materials should be removed prior to the commencement of any renovation or demolition works that may cause their disturbance. Any removal of asbestos materials should be done in accordance with the requirements of the NOHSC "Code of Practice for the Safe Removal of Asbestos 2nd Edition [NOHSC: 2002(2005)]".

NORTH EVELEIGH RAIL YARDS

DESKTOP REVIEW OF HAZARDOUS MATERIAL SURVEY REPORTS




**APPENDIX 1: SITE LAYOUT AND CONCEPT
PLAN**

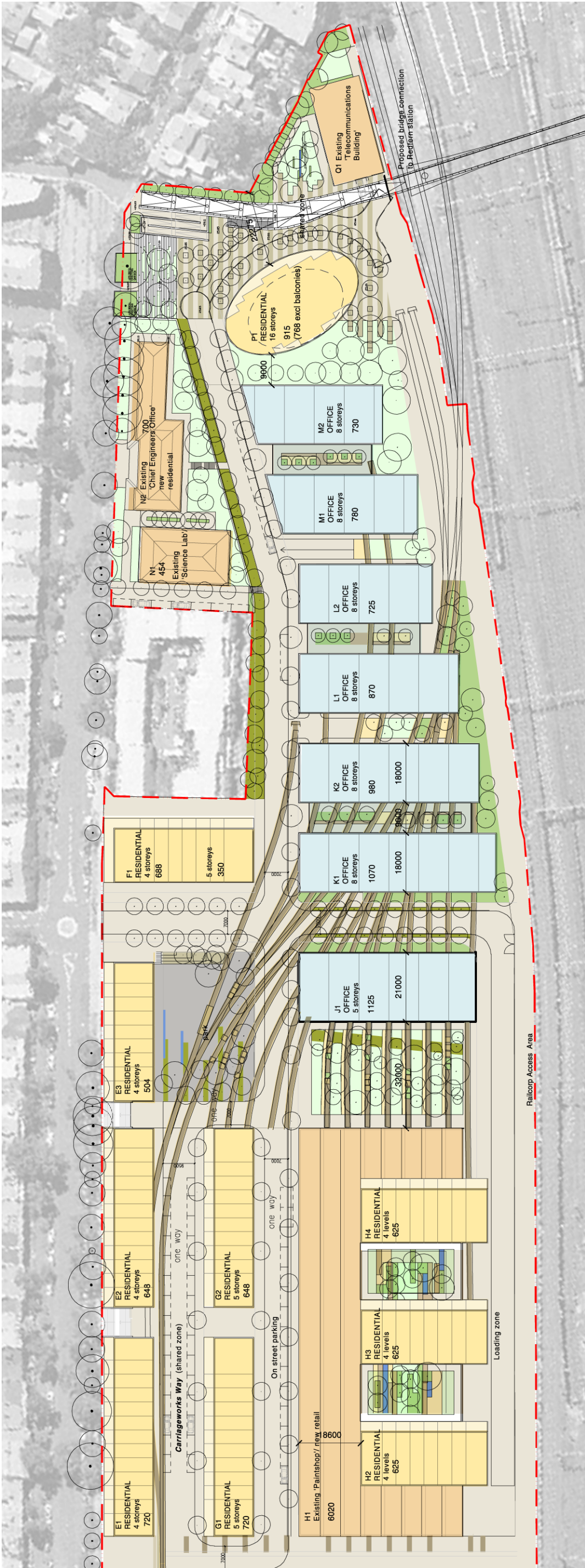


Land Use Plan
Scale 1:2500



Legend

- Residential 
- Office/ Retail 
- Heritage - adaptive reuse 



Land Use Plan
Eastern Site
Scale 1:1250

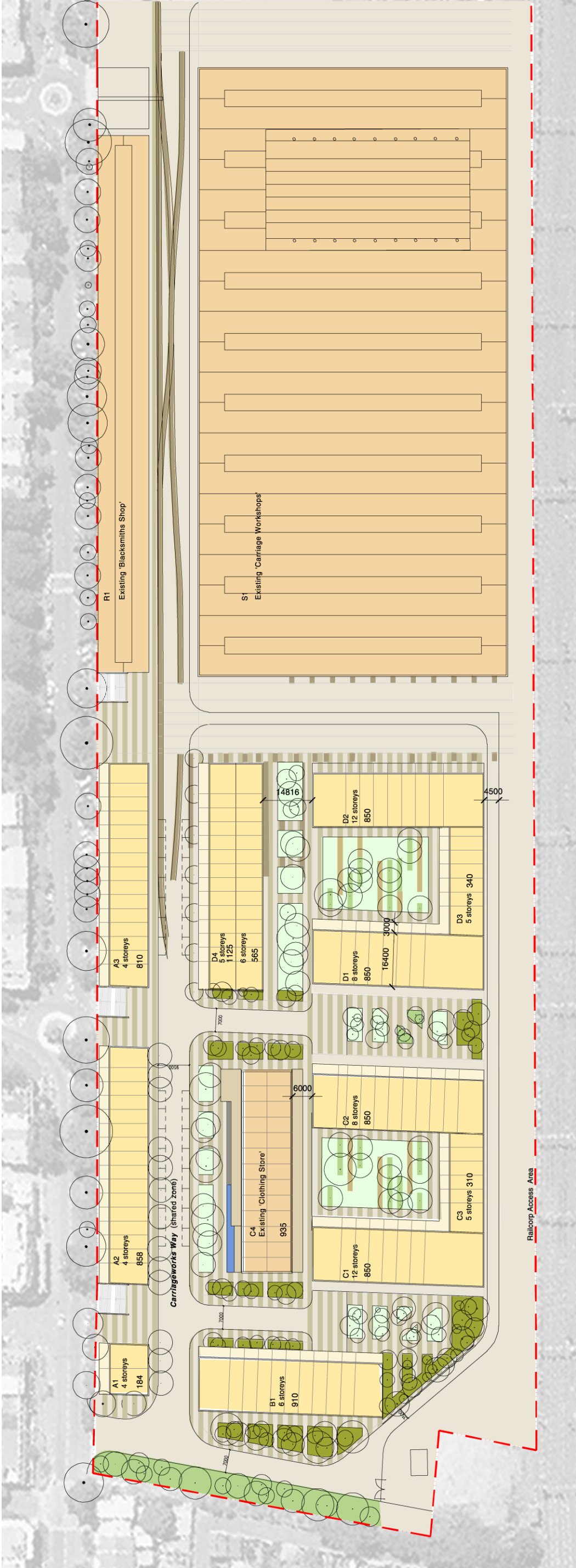


Legend

Residential

Office/ Retail

Heritage - adaptive reuse



Land Use Plan
Central and Western Sites
Scale 1:1250



- Legend
- Residential
 - Office/ Retail
 - Heritage - adaptive reuse