Industrial Warehouse Development Alspec Warehouse

Waste Management Plan

31 July 2024

HB&B Property

Alspec Industrial Warehouse Development

Waste Management Plan

31 July 2024

Our Ref:

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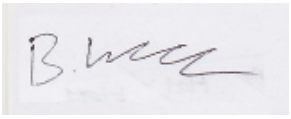

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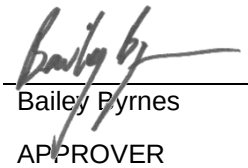

Bailey Byrnes

APPROVER

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0.1	11/03/2024	Draft report	B. Williams	B. Byrnes
1.0	29/05/2024	SSDA Submission	B. Williams	B. Byrnes
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Acronyms and Abbreviations

Acronym	Definition
AIBP	Alspec Industrial Business Park
DCP	Development Control Plan
MGB	Mobile Garbage Bin - Small bins that have two wheels so can only be moved forwards and backwards (not sideways).
WMP	Waste Management Plan

1 Introduction

Arcadis has been engaged by HB&B Property Ltd to prepare a Waste Management Plan (WMP) for the proposed Alspec warehouse (Lot 1) development at 221 Luddenham Road, Orchard Hills.

This WMP has been prepared to support the SSDA to be submitted to Penrith City Council and applies to the waste generated from the demolition and construction stages of the Development.

1.1 Scope

This WMP details:

- Waste generating activities during the demolition, construction and operational stage and the likely types of waste to be generated
- Estimated volumes for reuse, recycling and disposal
- Mitigation measures aligned with the waste management hierarchy
- Servicing arrangements including the transfer and collection of waste

1.2 Sources of information

Table 1-1 below lists the key sources of information and documents that have informed this WMP.

Table 1-1: Key sources of information

Aspect	Source
Proposed site details	• Architectural Drawing (Nettletontribe) – Number 13241_ALSPEC_WAREHOUSE_DA_BINDER dated 05/06/2024
Floor space usage	• Architectural Drawing (Nettletontribe) – Number 13241_ALSPEC_WAREHOUSE_DA_BINDER dated 05/06/2024
Development requirements and guidelines	• Penrith Council's DCP Industrial, Commercial and Mixed-Use Waste Management Guidelines
Industrial waste generation rates	• Hills Shire Development Control Plan 2012- Appendix A • Penrith Council's DCP Industrial, Commercial and Mixed-Use Waste Management Guidelines • the City of Sydney's Guidelines for Waste Management in New Developments
Current Alspec waste management practices	• RFI issued from HB&B – Response 10/04/2024 • RFI issued from HB&B – Response 17/04/2024

2 Context

2.1 Location

The subject site is located on Luddenham Road, south of Patons Lane, in Orchard Hills. Located approximately 30 kilometres west of Parramatta CBD, the proposed Alspec warehouse (Lot 1) is part of the larger Alspec Industrial Business Park (AIBP) development. The AIBP site is irregular in shape, with frontages across both Luddenham Road and Patons Lane.

The subject site is broadly rectangular in shape, with a total area of 83,563m^2. The site has a private vehicle driveway entry/exit on Patons Lane, in addition to a frontage to an internal road within the AIBP site. The internal access road provides access to the broader road network via Patons Lane and Luddenham Road.

The site location is shown in Figure 2-1, with the location of the Alspec warehouse site within the AIBP development shown in Figure 2-3

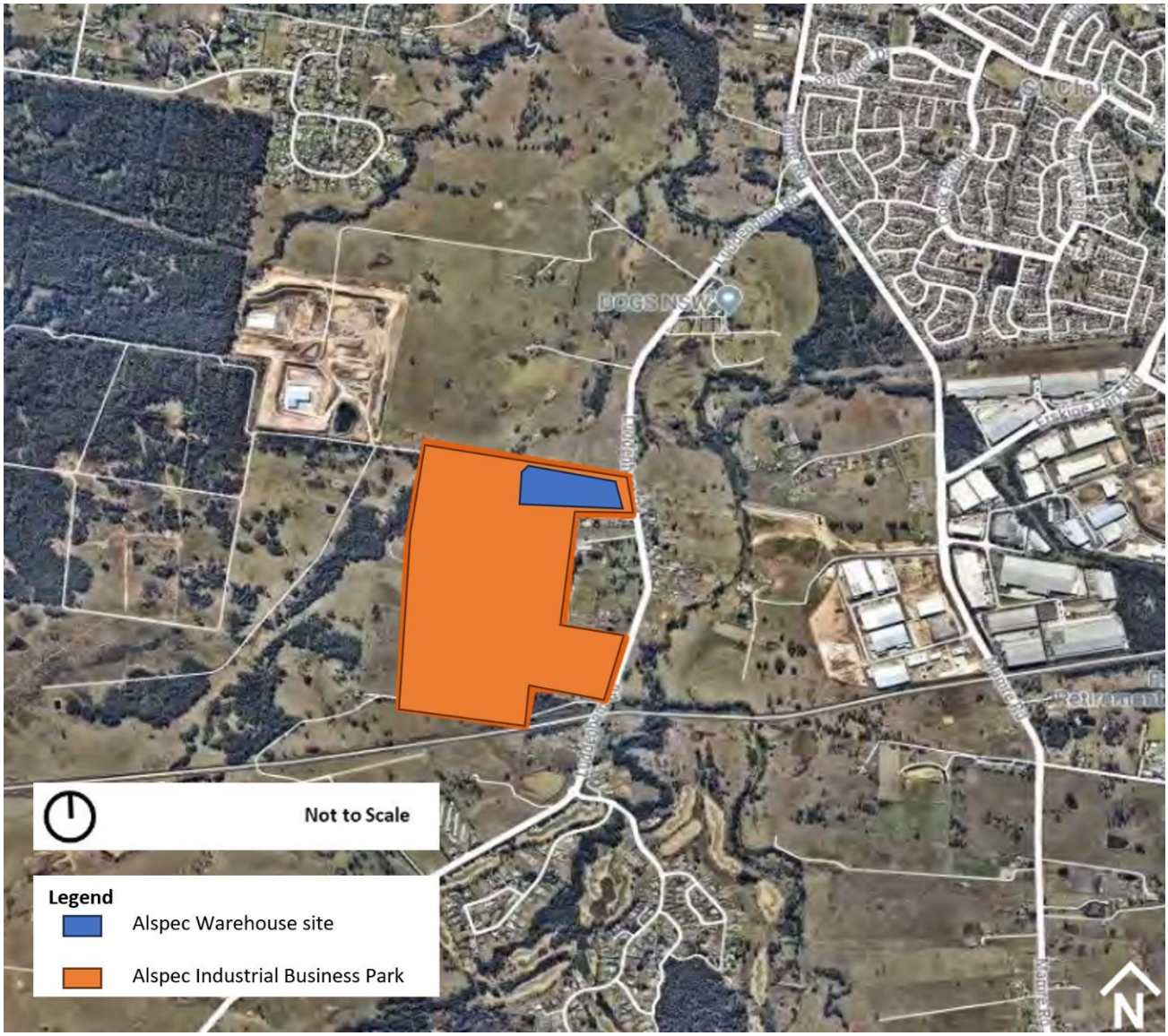


Figure 2-1 AIBP Site Location

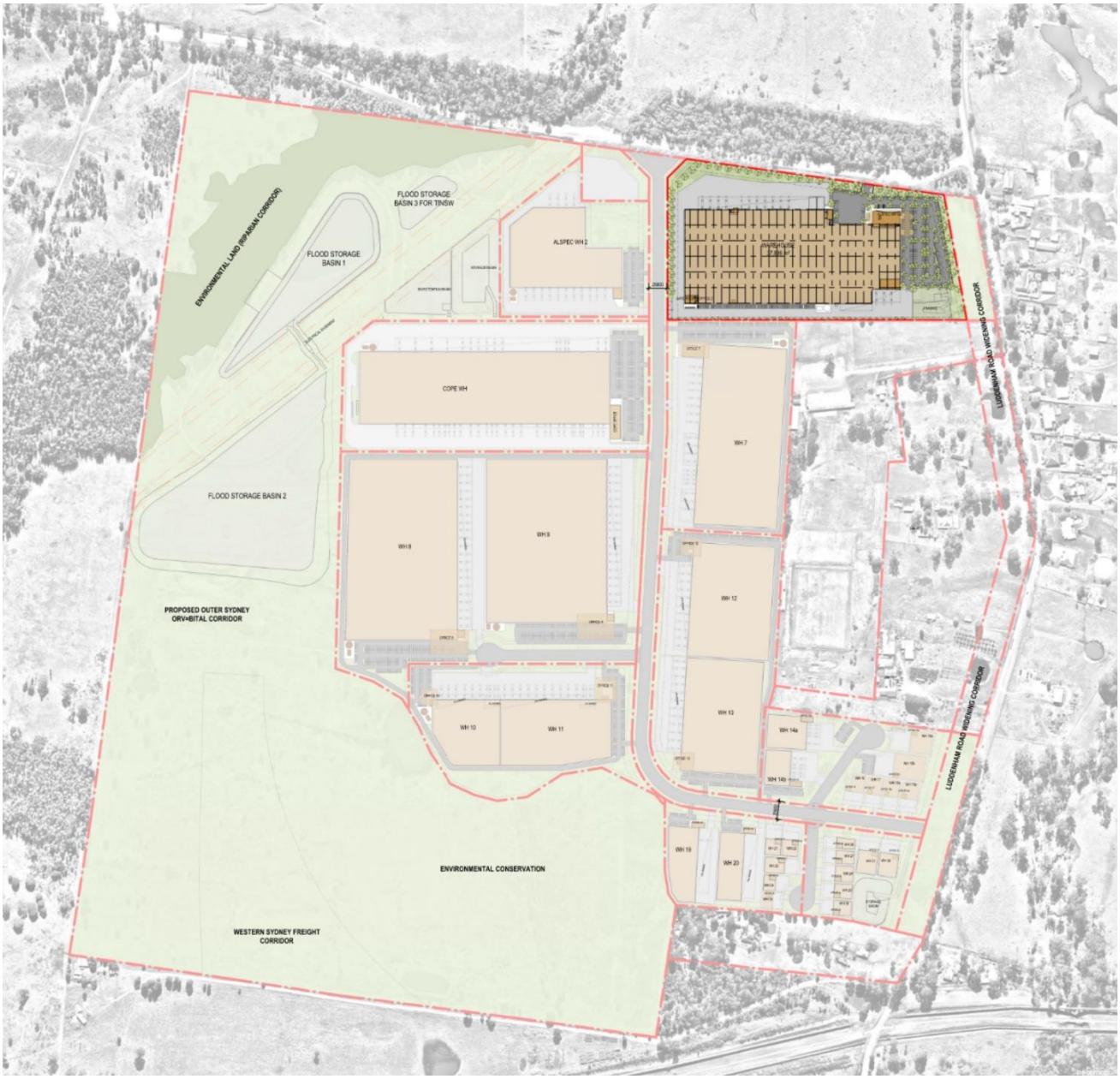


Figure 2-2 Location of Alspec site within the AIBP development

2.2 Zoning and Land Use

As shown in Figure 2-3, the subject site is in a General Industrial Zone (E4). The region surrounding the site is a mix of Environmental Conservation (C2) and Rural Landscape Zone (RU2). To the east of Mamre Road, the more common land uses are General Industrial (IN1) and Low Density Residential (R2).

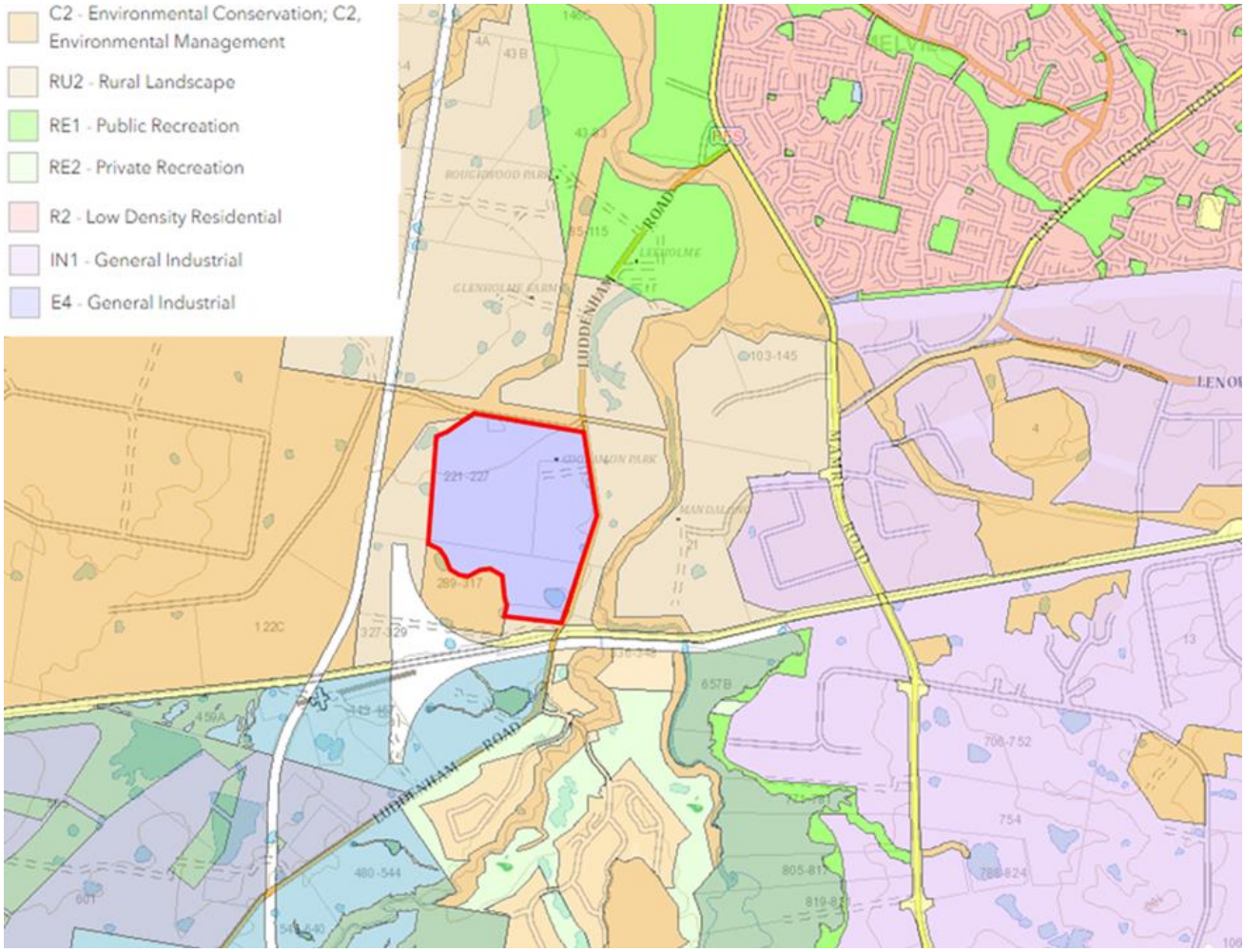


Figure 2-3 Land Zoning Map (Source: ePlanning Spatial Viewer - NSW Planning Portal)

2.3 Waste management approach

The objective for waste management across the Project is to prioritise the prevention and minimisation of waste generation, followed by the effective management of wastes (storage, handling, transport, recycling and disposal) in a manner that minimises impact on the environment.

The NSW EPA waste management hierarchy has been adopted as the guiding framework for waste management of this Project, depicted in Figure 2-4. This hierarchy underpins the objectives of the *Waste Avoidance and Resource Recovery Act 2001* and is a key element for guiding waste management practices in New South Wales.

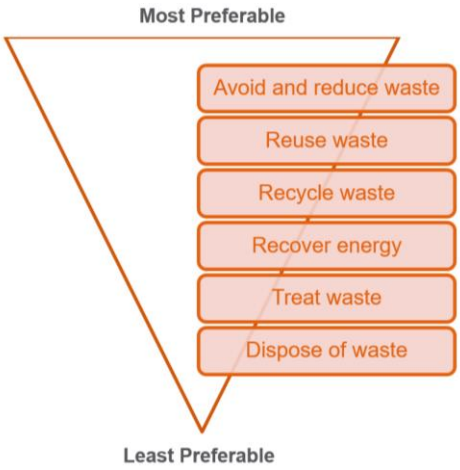


Figure 2-4 Waste management hierarchy (NSW EPA)

3 Proposed Development

The proposal Is for the development of an 8.3-hectare parcel of land and is part of the wider AIBP development. The Alspec warehouse development will comprise of a single-storey warehouse and office land uses, as well as supporting car parking for both heavy vehicles and cars.

A summary of the land use mix for the Alspec Warehouse development is provided in Table 3-1.

Table 3-1 Indicative land use mix for Alspec Warehouse development

	Land Use	Total building GFA (m^2)
Alspec Warehouse Proposal	Warehouse	37,836
	Office	2,575
	Carpark – Heavy Duty	17,594
	Carpark – Light Duty	11,191

The total land use GFAs separated by type for the proposal are:

- Total Building = 40,411 m^2
- Total Carpark = 28,785 m^2
- Total Landscape = 12,041 m^2
- Total Site Area = 83,563 m^2

A copy of the architectural drawings used in completing this WMP are provided in Appendix A.

4 Construction waste management

4.1 Waste generation

This section identifies, classifies and quantifies the waste streams likely to be generated during the construction of the proposed development.

4.1.1 Demolition Waste

The proposed development will be constructed on land that is generally greenfield in nature, with some existing structures on developed land. A small area of the broader AIBP development site is occupied by residential buildings, which would be cleared under a separate Development Application for earthworks as part of the broader AIBP site works.

Waste generation and management relating to demolition or site preparation works for the proposed development will be addressed in another development application.

4.1.2 Construction waste

Penrith Council's guidelines do not provide generation rates for construction waste. For the purposes of this assessment, the construction waste generation rates from the *Hills Shire Development Control Plan 2012- Appendix A* have been adopted.

The waste generation rates for the proposed site uses are summarised in Table 4-1.

Table 4-1 Construction waste generated per 1000m² floor area

Land Use	Timber	Concrete	Bricks	Gyprock	Sand/ Soil	Metal	Other
Warehouse	0.25	2.1	1.65	0.45	4.8	0.6	0.5
Office	5.1	18.8	8.5	8.6	8.8	2.75	5

Using the waste generation rates in the table above, the approximate construction waste quantities for the Project have been calculated. The calculated quantities and the recommended management approach for each stream is provided in Table 4-2.

Table 4-2 Summary of construction waste generation and management

Materials	Volume generated (m3)	Reuse?	Recycle?	Disposal?	Typical waste management
Excavation (eg soil, rock)	240	✓	✓		Excavated soil and rock can be reused on- site or in other civil applications or landscaping.
Green waste	<10	✓	✓		Minimal garden organic waste from landscaping.
Bricks	85	✓	✓		Extraneous bricks can be reused in other developments. Broken bricks can be crushed into aggregate for use in civil construction applications.
Concrete	120	✓	✓		Concrete can be crushed into aggregate for reuse on- site or in other civil applications or landscaping.
Timber	21	✓	✓		Timber to be separated wherever possible to enhance resource recovery. Surplus and offcut material returned to manufacturer for reuse.
Plasterboard	30	✓	✓	✓	Good quality plasterboard pieces can be reused in building construction. Plasterboard can also be recycled into gypsum products. Painted plasterboard can be recycled if paper coverings and other contaminants are removed from the gypsum core
Metal (ferrous and non-ferrous)	30	✓	✓		Metals can be recycled and would be transported to a suitably licensed facility.
Other • Glass	30	✓	✓		Glass can be crushed at an external construction and demolition (C&D) waste facility to produce glass sand. Otherwise, extraneous, good quality glass panels can be reused in other building applications
• Fixtures and fittings		✓	✓		Fixtures and fittings to be reused wherever possible or returned to manufacturer
• Floor coverings		✓		✓	Good quality floor coverings can be reused in other construction applications. Poor quality floor coverings are suitable for disposal only.
• Packaging			✓	✓	Packaging such as cardboard is largely suitable for recycling. Some soft plastics may be recycled. Styrofoam and other plastic packing materials are not recyclable and must be disposed of carefully. Proper storage and disposal of Styrofoam is required to prevent windblown litter within the site and in the local area.
Hazardous/ special waste	Unknown			✓	Appropriate management methods to be undertaken should hazardous or special waste be found at the site.

4.2 Waste management

4.2.1 Waste minimisation

Where possible, the construction contractor should review material ordering to ensure appropriate volumes of construction materials are purchased for the development. Excess material such as brick, concrete, timber, and finishings like paint or floor coverings that are unused or in good quality may be returned to the supplier or resold or retained for other projects.

To align with Penrith Council's DCP, an 80% target for recycling and reuse for construction stages has been set for the proposed development. The construction contractor will be responsible for monitoring levels of wastage and meeting the 80% target for recycling and reuse of materials.

Practices that can be adopted to achieve this target include:

- Maximising the re-use and recycling of existing materials as part of material section
- Planning deliveries to ensure the right quantity of materials is provided at the right time in the construction process to avoid damage and wastage, and returning unused materials
- Considering the full lifecycle of the development in planning for the re-use and recycling of materials.

4.2.2 Waste storage

All demolition and construction waste generated on site will be stored in bins by material type. Bins will largely constitute skip bins of a range of sizes, and for smaller waste streams 240L MGBs will be provided. Special and problem wastes (such as liquids and hazardous wastes) will not be disposed of via skip bins and will be managed separately in accordance with the waste type and legislative requirements.

Figure 4-1 provides an indicative location of construction waste storage for the proposed development.

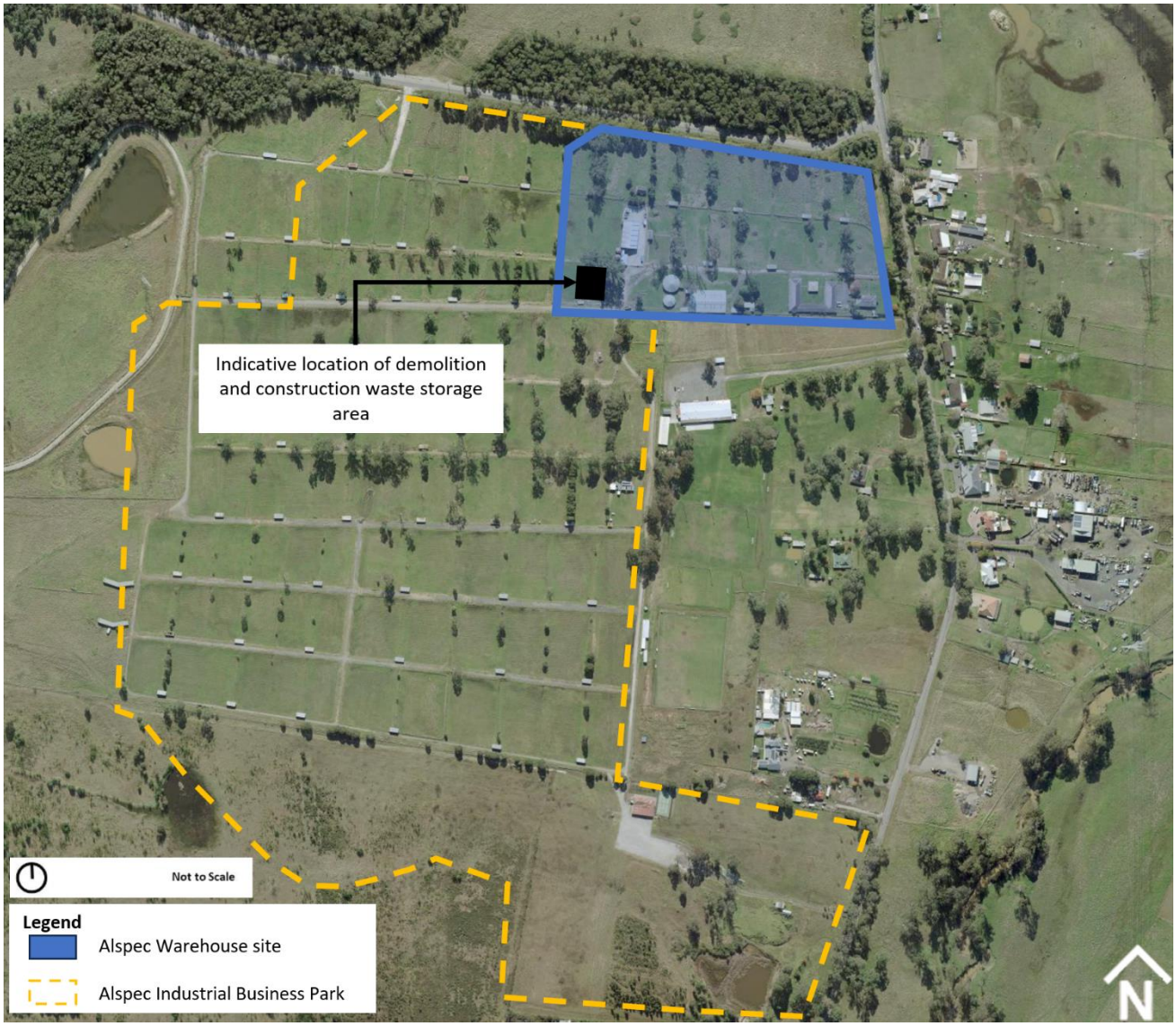


Figure 4-1 Indicative location of construction waste storage area

The construction and demolition waste storage area are to be confirmed by the construction management team upon commencement of construction works and may be relocated as each stage commences. At a minimum, the waste storage area location selection will consider environmental factors including slope, drainage, location of watercourses, proximity to native vegetation and amenity impacts (such as dust emissions from waste and noise from collection) on occupants of neighbouring properties.

Bins will be clearly marked in accordance with the contents and be positioned in an area that is easily accessible for collection vehicles, away from stormwater drainage infrastructure, clear of overhead obstacles, and covered when not in use to avoid the risk of creating windblown litter.

Examples of bin signage are provided in Figure 4-2 below.

Figure 4-2: Example signage for construction waste bins

4.2.3 Waste collection

A waste contractor will be engaged to perform waste collection services at the site throughout the demolition and construction stages. Vehicle access to the waste storage area will be via the Site Access Road via a temporary driveway on Patons Lane.

Waste collection will be performed by an appropriately licensed waste collection contractor and all wastes will be transported to appropriately licensed facilities, suitable for each waste type. The waste collection contractor will be responsible for transportation of waste in accordance with the requirements of the Protection of the Environment Operations Act 1997.

All wastes that cannot be reused or recycled will be disposed of in accordance with the Protection of the Environment Operations Act 1997 and the Waste Avoidance and Resource Recovery Act 2001. Waste will be disposed at an EPA approved waste management facility following classification.

Hazardous waste will be removed by an accredited contractor and treated or disposed of at an EPA licensed facility.

4.2.4 Special or hazardous wastes

A preliminary assessment of the current site does not indicate the presence of any hazardous building materials such as asbestos. However, a protocol for unexpected hazardous waste finds (such as asbestos) will be prepared and followed in order to minimise potential harm to human health or the environment.

Any hazardous waste found will be removed and transported by appropriately licensed and accredited contractors, in accordance with relevant legislation.

4.2.5 Waste contractor and waste facilities

Contractors engaged for the collection and transportation of waste materials generated from demolition and construction stages are to be selected in consideration of past and current environmental performance, qualification and licensing, and destination and fate of wastes. Contractors that prioritise reuse and recycling of materials will be given higher preference.

The construction contractor will also be responsible for retaining waste dockets from the waste collection contractor.

Waste facilities, where the choice is made by the developer, will be chosen with high regard to recovery rates, environmental performance, and proximity to the Site.

Potential options for receiving waste facilities include Bingo Recycling on Patons Lane directly west of the site, or further afield at Bingo Recycling in Kemps Creek, Breen Resources in Kurnell, or Bingo Recycling in Alexandria.

4.2.6 Record keeping

This WMP will be retained on-site during the demolition, excavation and construction phases of the development, along with other waste management documentation (e.g. contracts with waste service providers).

Responsibility for the WMP, waste documentation and processes during construction will be with the site manager or builder.

Accurate records will be kept of wastes generated throughout demolition and construction stages. Construction waste dockets to confirm which facility received the material for recycling or disposal are to be retained onsite in accordance with State Government waste requirements. A log book will be maintained that details:

- Time and date of each trip where waste is removed from the site
- A description of waste and quantity
- The facility that will receive the waste
- The intended use of the waste (reuse, recycled, stockpiled or disposed)
- Reference number (such as invoice or receiving facility reference number), vehicle registration and company name.

Waste management documentation, the logbook and associated dockets and receipts will be made available for inspection by an authorised Council Officer at any time during site works. Details of waste types, volumes and destinations will be recorded in a Waste Management Register. An example Waste Management Register is available in Appendix B.

5 Operational Waste Management

5.1 Waste Generation

This section identifies, classifies, and quantifies the waste streams generated during the development's operation. Waste generations per month for the last 5 months have been adopted from previous Alspec warehouse operations in Eastern Creek, as part of an RFI response dated 17/04/2024. The existing Alspec Eastern Creek Distribution Centre has a GFA = 26,860m^2. Table 5-1 shows monthly waste invoices and the average of the operational waste volumes against each waste stream.

Table 5-1 Waste generation for the existing Eastern Creek Alspec site (GFA = 26,860 m2)
Source: Alspec RFI response dated 17/04/2024

Waste Stream Eastern Creek Alspec Site (GFA = 26,860m^2)	Nov-23 (Tonnes)	Dec-23 (Tonnes)	Jan-24 (Tonnes)	Feb-24 (Tonnes)	Mar-24 (Tonnes)	Average (Tonnes)
General	23.88	15.42	9.44	12.74	18.24	**15.94**
Recycle	2.03	2.83	4.26	3.21	1.32	**2.73**
Timber	8.9	9.34	8.9	7.14	10.74	**9.00**
TOTAL	**34.81**	**27.59**	**22.6**	**23.09**	**30.3**	**27.68**
DIVERSION	**10.93**	**12.17**	**13.16**	**10.35**	**12.06**	**11.73**
DIVERSION %	**31.40%**	**44.11%**	**58.24%**	**44.82%**	**39.80%**	**44%**
LANDFILL	**23.88**	**15.42**	**9.44**	**12.74**	**18.24**	**15.94**

Waste stream generations from the data above have been pro-rated per 100m^2 of GFA, so they can be scaled to indicate the expected waste generations for this proposal (GFA = 40,411 m^2). The rates determined are as follows:

- General waste = 0.06 tonnes/100m^2 GFA
- Recycling = 0.01 tonnes/100m^2 GFA
- Timber = 0.03 tonnes/100m^2 GFA

Table 5-2 summarises the use of these rates to determine the waste stream quantities for Alspec Warehouse Lot 1. Conservative conversion factors have been applied to report each waste stream in litres (L), aligning with the *Penrith DCP Industrial, Commercial and Mixed-Use Waste Management Guidelines*.

Table 5-2 Estimated waste stream generations for Alspec Warehouse Lot 1

Alspec Warehouse Lot 1 (this proposal) GFA = 40,411 m^2	Waste Stream	Average per month (Tonnes)	Conversion Factor	Average per month (L)
	General	23.87	0.15	**159,151**
	Recycle	4.09	0.063	**64,898**
	Timber	13.48	0.307	**43,905**
	TOTAL	41.46	N/A	**267,954**

A summary of the increased average waste stream the approximate weekly waste quantities for the proposed development have been calculated. The operational waste quantities were also calculated based on the below assumptions:

- A month comprising 30 days of operation
- A week comprising 7 days of operation

The estimated quantities of operational waste generated by the proposed development is provided in Table 5-3.

Table 5-3 General, recycling and timber waste volumes for Alspec Warehouse Lot 1 operations

Waste Stream	Average waste per day (L/day)	Average waste per week (L/week)
General	5,305	37,135
Recycle	2,163	15,143
Timber	1,464	10,245
Total	8,932	62,523

Small quantities of the following waste streams are expected to be generated in the office spaces:

- E-waste such as electronic equipment
- Toner cartridges
- Problem wastes such as batteries and fluorescent light tubes

This waste should be managed and stored within the bulky waste storage area in the Warehouse, with monitoring in place for the collection and removal of these wastes once sufficient volumes have been generated.

While no food waste has been identified in the calculations above, Penrith Council's DCP requires food scraps to be placed in specialised containment bins and collected on a regular basis. To minimise food waste in the general waste stream, it is recommended that the food is separately collected for composting offsite or disposed via landfill.

5.1.1 Extrusion Press

An aluminium extrusion press will be operational 24/7 at the proposed development site. Information received via RFI response from Alspec on 10/4/2024, reported that the maximum processing power of the extrusion press processes 52.9 tonnes of raw material per day. Furthermore, the waste generation from the use of the machinery is anticipated to be 15% of the 52.9 tonnes, meaning 7.94 tonnes per day of aluminium scrap/chip can be produced. **Adopting a conservative conversion factor from tonnes to litres of 0.9 for the aluminium waste to be recycled, results in an average volume of 8,225 L of recyclable metal waste per day**.

Due to the high volume of recyclable metal waste produced from the site, dedicated recycling front loader bins and daily waste collection frequencies are recommended, as detailed in Section 5.4. Recycled aluminium from the operations of the warehouse will be aligned with the objectives and aims of the *NSW Waste and Sustainable Materials Strategy 2041*, reducing CO_2 emissions, smog and water usage.

5.1.2 Vertical Paint Line

A vertical paint line will also be operational at the site. Indicative waste generations from this piece of machinery have been provided from existing paint lines in Melbourne in Sydney:

- Solid waste from the treatment system – approx. 0.9 tonnes per month. General waste.
- Waste powder – approx. 1.5 tonnes per month. General waste.

The waste generation quantities from the vertical paint line are to be managed via the general waste storage bins provided within the site, as detailed in Section 5.4.

5.2 Bulky Waste Management

The Penrith DCP requires additional storage space to be provided for bulky waste materials that cannot be disposed of in the general or recyclable waste stream. This includes, broken or disused furniture, and broken storage containers. It is assumed that wooden pallets are being collected and reused by freight companies, so storage of this waste type has not been accounted for in the bulky waste area.

Penrith Council's guidelines do not provide storage area dimensions for bulky waste. For the purposes of this assessment, the storage area dimensions for bulky waste from the City of Sydney's Guidelines for Waste Management in New Developments has been adopted.

For storing bulky waste, the adopted guidelines require:

- 4 m^2 for developments between 100m^2 and 2,000m^2, and
- An additional 4m^2 for developments over 2,000m^2 and for every 20,000m^2 of building space.

Using the above specifications 12m^2 of area is recommended to be allocated for bulky waste storage for proposed development.

5.3 Problem Waste Management

Problem wastes such as batteries and fluorescent light tubes would need to be managed as part of the site wide waste management system by site management and would be stored in the bulky waste storage area on the ground floor. Alspec is responsible for transporting these wastes to the bulky waste storage area, and the site waste manager would be responsible for monitoring these waste types and arranging collection of these wastes once sufficient volumes have been generated.

5.4 Waste Storage

Waste storage containers and frequencies are to be adopted from the current Alspec Warehouse located in Eastern Creek. Slight adjustments to the bin quantities/frequencies have been made to account for the increased size of the site, in addition to the aluminium recyclable waste from the extrusion press. Waste container types, quantities and pick up frequencies for the proposed development are summarised in Table 5-4 below.

Table 5-4 Waste storage infrastructure and collection frequency (source: Alspec RFI dated 17/04/2024)

Quantity	Container Type	Waste Type	Total Capacity (L)	Pickup Frequency
2	Front Loader 6.0M	Recycle (Aluminium extrusion press scrap/chip)	12,000	Daily
4	Front Loader 3.0M	Recycle (Cardboard, etc)	12,000	3 per week (Mon, Wed, Fri)
1	B30	General Waste 30M Bulk Bin	30,000	2 per week (Mon, Thurs)
1	B30	Timber 30M Bulk Bin	30,000	1 per week

				(Wed)
8	TIPPLER 1.5M	Site Use Bin	12,000	SITE USE ONLY
22	Rear Loader bins 240L	Site Use Bin	5,280	SITE USE ONLY
8	Rear Loader bins 660L	Soft Plastic	5,280	ON CALL
1	Baler Plastics	Soft Plastic	N/A	ON CALL
1	Plastic Bin Liners	660L size	N/A	ON CALL
1	Front Loader 3.0M	Contaminated CB	3,000	ON CALL
4	Rear Loader 240L	Secure Document	960	ON CALL
1	Front Loader 4.5M	General Waste	4,500	1 per week (Wed)

Small residual waste and recycling receptacles will be dispersed across each office floor as necessary, near desks and in common areas such as in the kitchen or near printers. These receptacles will be emptied by cleaning staff or a maintenance manager into larger 30m^3 bins located in the waste storage area at the end of each day.

Warehouse waste would be stored in the Rear Loader 240L bins around the site before being transferred to the 30m^3 general waste bin at the end of each day. Any recycling waste from warehouse use will be placed in Front Loader 3.0m^3 recycling bins, prior to being transferred to the waste storage area at the end of each day.

Timber waste is to be stored directly into the designated 30m^3 bulk bin. Bulky waste would be temporarily stored in an interim waste storage area and transferred to the waste storage area at the end of each day.

Indicative waste storage areas in accordance with the above and Penrith Council's requirements is provided in Figure 5-1.

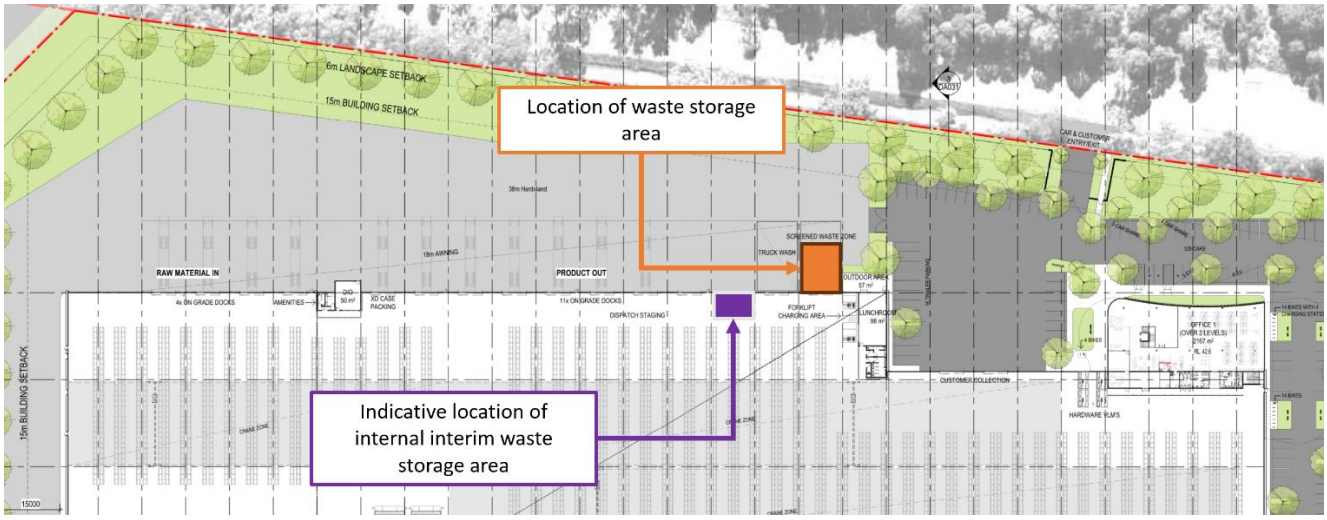


Figure 5-1 Proposed waste area

5.5 Waste Servicing and access

A suitably licensed and qualified private waste contractor will be engaged to collect waste generated during standard operation of the site.

Waste vehicles would enter the site from the truck entry driveway on the internal Access Road. Once they have entered the site, waste vehicles will then take a left, travelling north along the hardstand, wrapping around towards the east. The screen waste zone will be to the right, at the north-eastern section of the hardstand. The waste collection vehicle will then be able to perform in and out turning movements at the northern section of the hardstand and exit the site from the truck exit driveway back onto the internal Access Road, mirroring the entry vehicle path.

The proposed waste vehicle path of travel is provided in Figure 5-2.

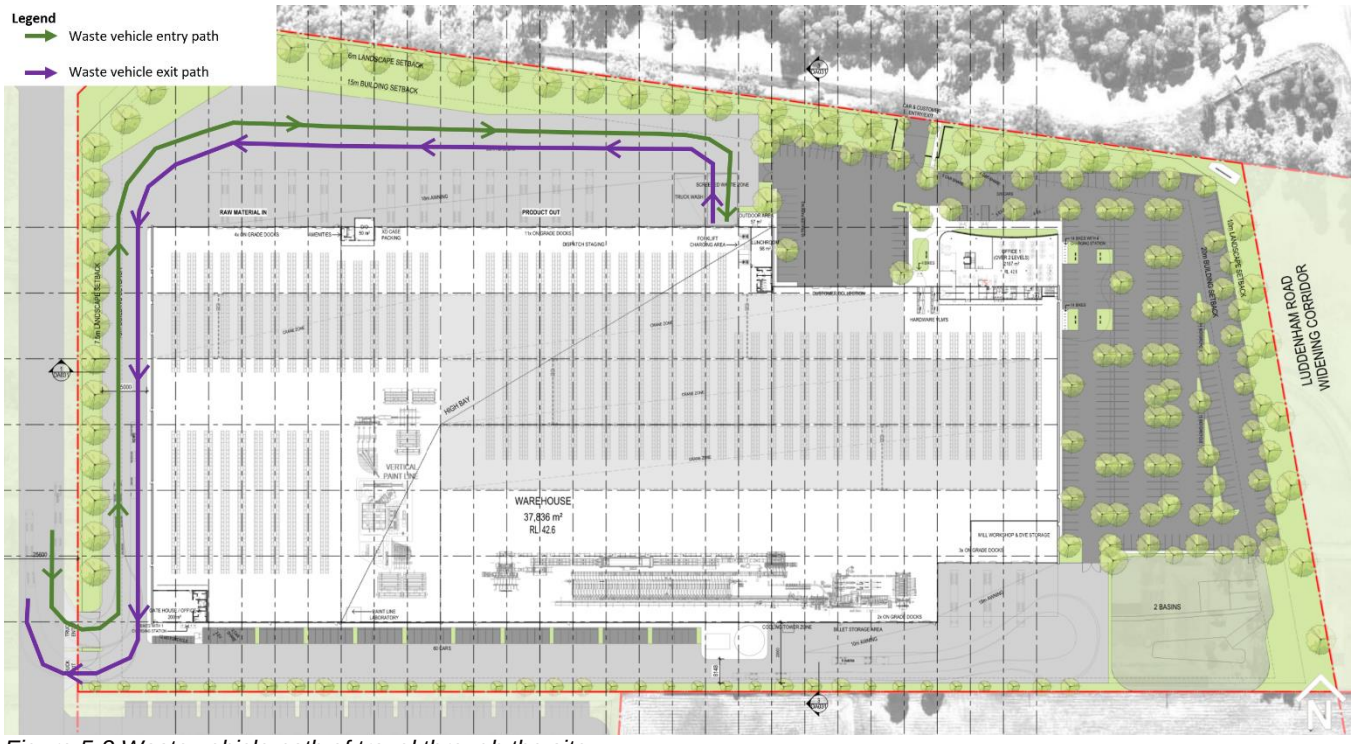


Figure 5-2 Waste vehicle path of travel through the site

Waste vehicles will enter and exit the site in a forward direction, with minimal reversing manoeuvres required for vehicles to correctly position within the collection point. All waste collection activities would occur fully within the confines of the site, in an area clearly marked loading areas.

The access and hardstand areas have been designed to safely accommodate a B-Double vehicle moving through the site and would therefore be able to accommodate both hooklift and front-loading waste collection vehicles. Typical waste collection vehicle dimensions, as informed by *AS2890.2 Parking facilities: off-street commercial vehicle facilities* are provided in Figure 5-3 below, for reference.

Vehicle type	Rear-loading	Side-loading*	Front-lift-loading	Hook truck	Crane truck
Length overall (m)	10.5	9.6	11.8	10.0	10.0
Width overall (m)	2.5	2.5	2.5	3.0	2.5
Travel height (m)	3.9	3.6	4.8	4.7	3.8
Height in operation (m)	3.9	4.2	6.5	7.1	8.75
Vehicle tare weight (t)	13.1	11.8	16.7	13.0	13.0
Maximum payload (t)	10.0	10.8	11.0	14.5	9.5
Turning circle (m)	25.0	21.4	25.0	25.0	18

* The maximum reach of a side arm is 3 m.

Sources: JJ Richards, SUEZ, MacDonald Johnson, Cleanaway, Garwood, Ros Roca, Bingo and Edbro. Figures shown represent the maximum dimensions for each vehicle type.

Figure 5-3 Typical large collection vehicle dimensions

Collection of the 3m^3 bin is expected to occur via a 10.5m front lift truck. A clearance of 5.5m is required to ensure the lift action can be completed without interference from vertical obstructions over the waste area.

Collection of the 31m^3 RORO skip bins will be accommodated by a 9m HRV hook truck. A clearance of up to 8.5m is required to ensure the lift action can be completed without interference from vertical obstructions over the waste area.

The access and hardstand areas have been designed to safely accommodate a B-Double vehicle moving through the site and would therefore be able to accommodate both hooklift and front-loading waste collection vehicles.

Problem waste produced at the site will be collected by appropriately licensed specialised services.

Once a private waste contractor is engaged, a valid waste and recycling collection contract is recommended to demonstrate disposal at a waste facility lawfully able to accept it. Written evidence of the valid contract should be kept on-site.

5.6 Roles and Responsibilities

The broad roles and responsibilities in the waste management strategy of the site are summarised in Table 5-5.

Table 5-5: Operational waste responsibilities at the site

Responsibility	Person responsible
Management of waste within each tenancy	Tenancy staff and/or their contracted cleaners
Appropriate disposal of each waste type in tenancy bins	Tenancy staff and/or their contracted cleaners
Transfer of bins between interim waste storage areas and communal	Tenancy staff and/or their contracted cleaners
Management of wastes not identified in Section 5	Tenancy staff and/or their contracted cleaners
Management of wastes in the communal waste room (including bulky waste)	Building management and/or their contracted cleaners

Inspection of bins and equipment	Building management contracted cleaners
Cleaning of bins	Building management contracted cleaners
Engagement of waste collection contract	Building management

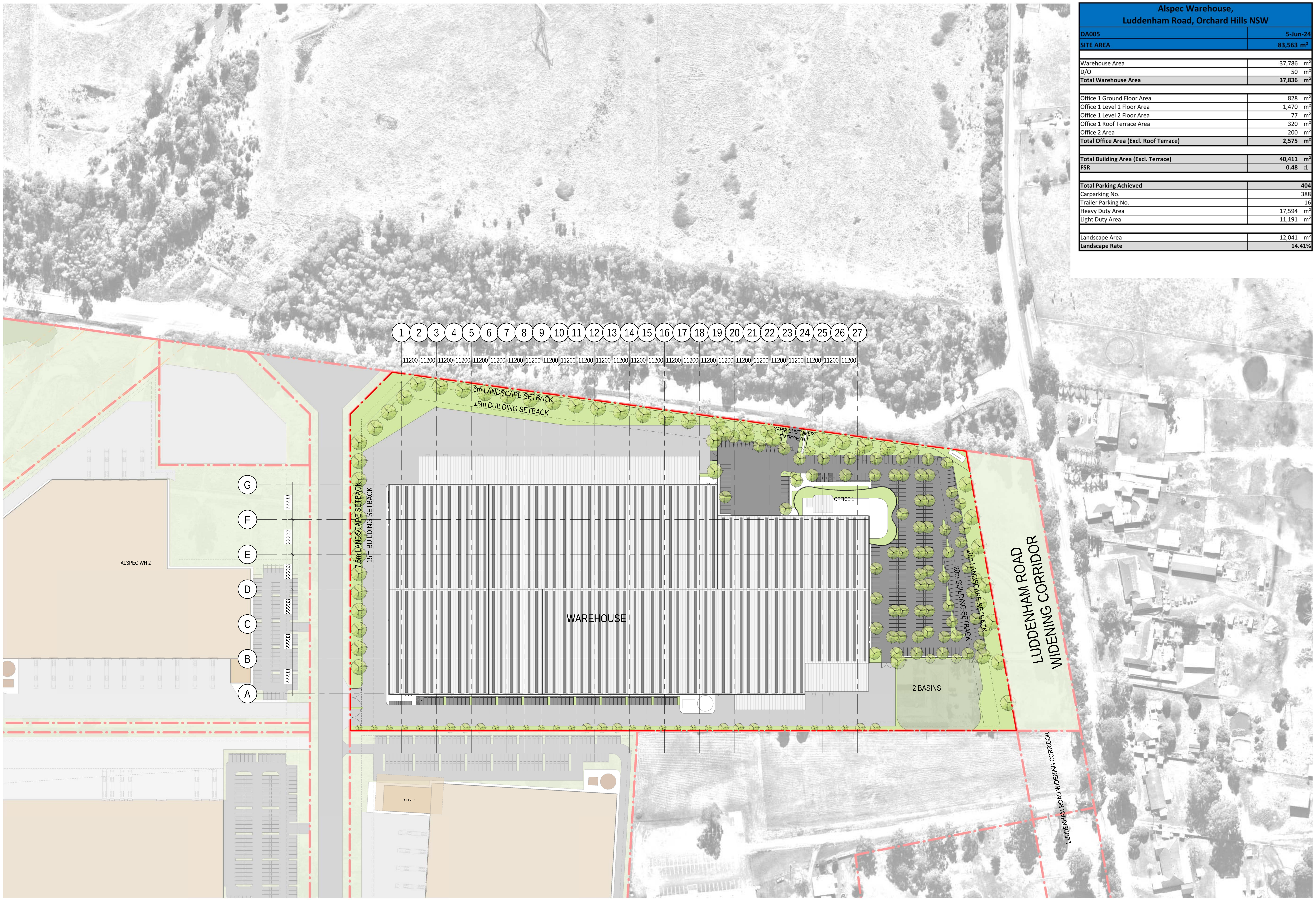
5.7 Waste Management System Summary

The various waste streams generated on-site are summarised as follows:

- **General waste -** General office waste shall be placed within a tied plastic bag prior to transferring into the general waste bin. Smaller receptables will be situated throughout the office and warehouse to aid in collection. For general warehouse waste, large items will be transferred directly to the RORO bins for collection.
- **Recycling:** All recyclables will be transferred directly to the RORO bins for collection. Depending on recycling waste generated, future consideration of separate commingled bins for different streams (including paper, cardboard, mixed plastic, glass, aluminium, steel) should be considered.
- **Paper and cardboard:** Paper and cardboard can represent more than 75% of all recyclables generated by industrial uses. It may be suitable to incorporate a separate paper and cardboard collection or cardboard baler to reduce waste collection costs and improve resource recovery potential. All cardboard should be flattened prior to placement into the RORO bin. A cardboard baler could be considered by site management to improve storage efficiency of this waste stream.
- **Plastic (stretch and bubble wrap) –** the proposed development is expected to generate a plastic film waste which can be managed with a separate collection. A 1m3 bag and frame setups for collection by specialist contractor should be considered as part of the broader waste management strategy.
- **Garden Waste:** Minimal garden waste is expected to be generated on site. Any garden waste generated through the maintenance of landscaped areas around the site would be managed and removed by the landscape management contractor.
- **Food Waste:** Minimal food waste is expected to be generated on site. It is recommended that any food waste or excess food is separately collected for composting offsite or disposed via landfill.
- **Bulky and other hazardous waste -** The disposal of hard, bulky, liquid or potentially hazardous wastes shall be organised as necessary by site facilities management. A storage area has been provided within the development to accommodate the storage of bulky waste prior to collection.

Appendix A - Site Plans

Alspec Warehouse, Luddenham Road, Orchard Hills NSW	
DA005	**5-Jun-24**
SITE AREA	**83,563 m²**
Warehouse Area	37,786 m²
D/O	50 m²
Total Warehouse Area	**37,836 m²**
Office 1 Ground Floor Area	828 m²
Office 1 Level 1 Floor Area	1,470 m²
Office 1 Level 2 Floor Area	77 m²
Office 1 Roof Terrace Area	320 m²
Office 2 Area	200 m²
Total Office Area (Excl. Roof Terrace)	**2,575 m²**
Total Building Area (Excl. Terrace)	**40,411 m²**
FSR	**0.48 :1**
Total Parking Achieved	**404**
Carparking No.	388
Trailer Parking No.	16
Heavy Duty Area	17,594 m²
Light Duty Area	11,191 m²
Landscape Area	12,041 m²
Landscape Rate	**14.41%**



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Client

AIBP. HB+B PROPERTY

Issue	Description	Date
C	ISSUE FOR SSDA	04/07/2024
B	ISSUE FOR SSDA	04/06/2024
A	ISSUE FOR SSDA	29/05/2024
P9	DRAFT	22/05/2024
P8	DRAFT	01/05/2024
P7	DRAFT	26/03/2024
P6	DRAFT	15/03/2024
P5	DRAFT	26/02/2024
P4	DRAFT	22/02/2024
P3	DRAFT	12/02/2024
P2	DRAFT	01/02/2024
P1	DRAFT	16/01/2024

SSDA

Project Name
ALSPEC WAREHOUSE

Project Address
AIBP, Luddenham Road, Orchard Hills NSW 2748

Key Plan

0 2000 5000

Drawing Title:
SITE PLAN

Author: MJ | Checker: NG | Sheet Size: A1 | Scale: 1:1000

Drawing Number: **13241_DA005** | Issue: **C**

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Appendix B – Waste Management Register

Date	Time	Waste Classification*	Waste Description	Quantity (tonnes and/or m^3)	Waste Use (reuse, recycled, stockpiled or disposed)	Transporter	Receiving Facility	Invoice Number and/or Receiving Facility Reference

About Arcadis

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