

HORSLEY LOGISTICS PARK

**Lot 201 Warehouse 1
Jalco Home Care Manufacturing Facility SSDA**

Prepared for:

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BASIS OF REPORT

This report has been prepared by SLR Consulting Australia Pty Ltd (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with ESR (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

DOCUMENT CONTROL

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1 Introduction

1.1 Overview

SLR Consulting Australia Pty Ltd (SLR) has been commissioned by ESR (Aust) Pty Ltd (the Client) to prepare a waste management plan (WMP) in support of State Significant Development Application (SSDA) for the fit out and use of Warehouse 1 on Lot 201 (the Project) for the purpose of general industry at the ESR Horsley Logistics Park located at 327-335 Burley Road, Horsley Park.

This WMP is only for operational activities for Warehouse 1 of Lot 201 and has been prepared using architectural drawings supplied by the Client and attached in **Appendix A**. Separate WMPs apply for site preparation, construction and operational activities on all other Lots.

This WMP complies with the requirements of the Secretary's Environmental Assessment Requirements (SEARs) relevant to this project. The relevant requirements of the SEARs issued for the SSDA-10436-Mod-1 are addressed in this report as shown in **Table 1**.

Table 1 SSD-10436-Mod-1 Conditions for Waste Management

SSD Conditions for Waste Management	Relevant Sections in this WMP
- Details of the quantities and classification of all waste streams to be generated on site during the development	Section 5.2 and 5.3
- Details of waste storage, handling and disposal during the development	Section 5.4, 5.5, 5.6, 5.7, 5.8
- Details of the measures that would be implemented to ensure that the development is consistent with the aims, objectives and guidance in the NSW Waste and Sustainable Materials Strategy 2041.	Section 3 and Section 5

1.2 Objectives

The principal objective of this WMP is to identify all potential wastes likely to be generated at the Project site only during the operational phases, including a description of how waste would be handled, processed and disposed of, or re-used or recycled, in accordance with Fairfield City Council's (Council) requirements.

The objectives of this WMP are as follows:

- Identify potential waste types likely to be generated during the operational phases of the Project
- Provide advice on how identified wastes should be handled, identified, processed, disposed of, reused or recycled in accordance with Council requirements, relevant Australian codes and standards and better practice waste minimisation principles
- Encourage waste avoidance and minimisation through advice on design, ordering and planning, and
- Help implement safe and practical options for waste collection from the Project by Council or private waste servicing contractors.

1.3 Review of WMP

This WMP is not a static document. It is a working document that requires review and updating to ensure ongoing suitability for the proposed on-going operations at the site.

This WMP will be reviewed and updated:

- To remain consistent with waste and landfill regulations and guidelines
- If changes are made to site waste and recycling management, or
- To take advantage of new technologies, innovations and methodologies for waste or recycling management.

Copies of the original WMP and its future versions should be retained by the building manager. Changes made to the WMP, as well as the reasons for the changes made, should be documented by the building manager as part of the review process.

2 Project Description

2.1 Overview of Proposed Development

The Client is developing an industrial estate at 327-335 Burley Road, Horsley Park as part of the ESR Horsley Logistics Park. The Client has sought approval for the proposed whole industrial estate via an SSDA. This WMP applies specifically to fit out and future use of Warehouse 1 of Lot 201.

2.2 Overview of Proposed Operations

Based on communication with the Client, SLR understands the Warehouse 1 in Lot 201 will function as a part manufacturing and bottling site for liquid detergents with a warehouse and distribution component, and will be operated by Jalco Powders Pty Ltd.

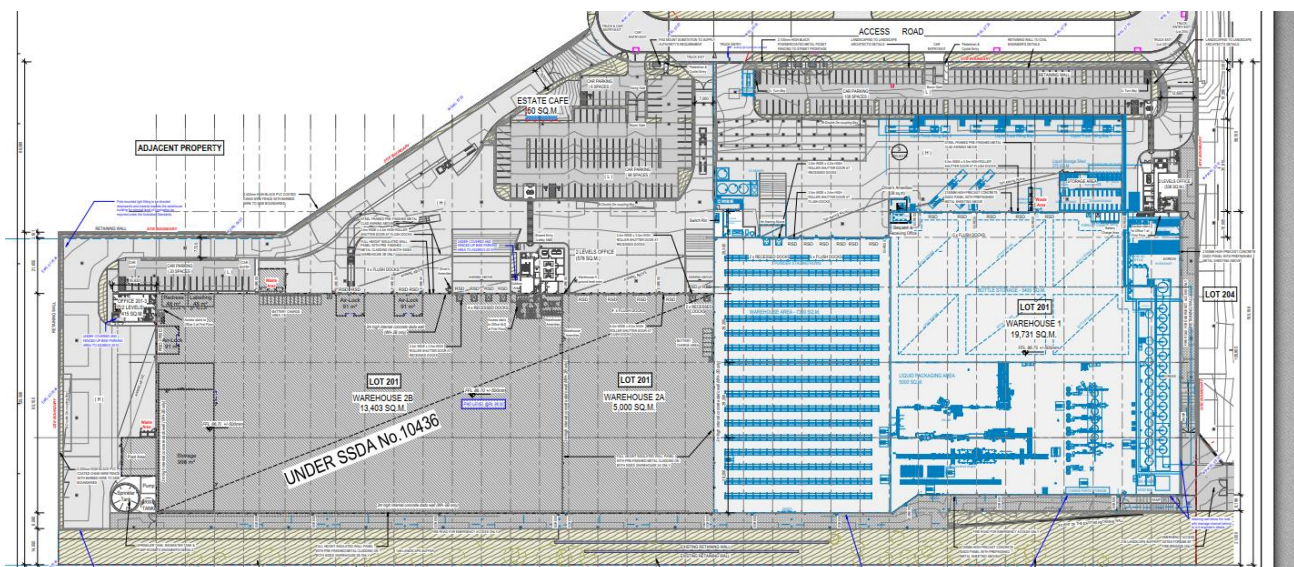


Figure 1 Lot 201 Site Plan

3 Better Practice Waste Management and Recycling

3.1 Waste Management Hierarchy

This WMP has been prepared in line with the waste management hierarchy shown in **Table 2**, which summarises the objectives of the *Waste Avoidance and Resource Recovery Act 2001*.

The waste management hierarchy comprises the following principles, from most to least preferable:

- Waste **avoidance**, prevention or reduction of waste generation. Achievable through better design and purchasing choices.
- Waste **reuse**, reuse without substantially changing the form of the waste.
- Waste **recycling**, treatment of waste that is no longer usable in its current form to produce new products.
- Energy **recovery**, processing of residual waste materials to recover energy.
- Waste **treatment**, reduce potential environmental, health and safety risks.
- Waste **disposal**, in a manner that causes the least harm to the natural environment.

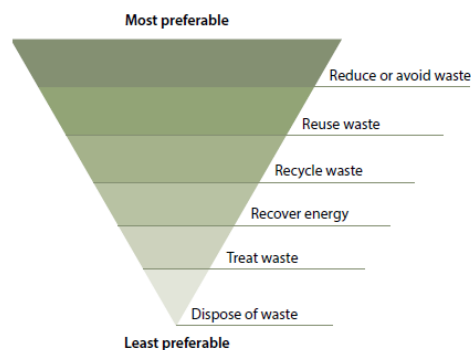


Image from NSW EPA (2014) NSW Waste Avoidance and Resource Recovery Strategy 2014-21.

Figure 2 Waste management hierarchy

3.2 Benefits of Adopting Better Practice

Adopting better practice principles in waste minimisation offers significant benefits for organisations, stakeholders and the wider community. Benefits from better practice waste minimisation include:

- Improved reputation of an organisation due to social and environmental responsibility.
- Lowered consumption of non-renewable resources.
- Reduced environmental impact, for example, pollution, from materials manufacturing and waste treatment.
- Reduced expenses from lower waste disposal.
- Providing opportunities for additional revenue streams through beneficial reuse.

4 Waste Legislation and Guidance

The legislation and guidance outlined in **Table 1** below should be referred to during the operational phases of the Project.

Table 2 Legislation and guidance

Legislation and Guidance	Objectives
Council legislation and guidelines	
Secretary Environmental Assessment Requirements (SEARs)	SEARs provide the additional requirements that must be completed when a critical state significant infrastructure project is submitted in a DA in NSW. The objective of SEARs submissions is to achieve better environmental outcomes by focusing on environmentally sensitive areas and areas of the greatest community concern. The provisions of the SEARs must be met for DA approval including the provision of a construction and operational waste management plan.
State Environmental Planning Policy (Western Sydney Employment Area) (SEPP) 2009 ¹	This Policy aims to protect and enhance the land to which this Policy applies for employment purposes. The particular aims of this Policy are as follows— (a) to promote economic development and the creation of employment in the Western Sydney Employment Area by providing for development including major warehousing, distribution, freight transport, industrial, high technology and research facilities, (b) to provide for the co-ordinated planning and development of land in the Western Sydney Employment Area, (c) to rezone land for employment, environmental conservation or recreation purposes, (d) to improve certainty and regulatory efficiency by providing a consistent planning regime for future development and infrastructure provision in the Western Sydney Employment Area, (e) to ensure that development occurs in a logical, environmentally sensitive and cost-effective manner and only after a development control plan (including specific development controls) has been prepared for the land concerned, (f) to conserve and rehabilitate areas that have a high biodiversity or heritage or cultural value, in particular areas of remnant vegetation.
Fairfield Local Environmental Plan 2013 (FLEP 2013) ²	The Fairfield LEP came into force for the local government area in 2013 and guides land use and development by zoning land, identifying what land uses are allowed in each zone, and specifying development standards such as maximum height and minimum lot sizes. LEPs are the main planning tool to shape the future of development in Fairfield City.
Fairfield Citywide Development Control Plan 2013 ³	The Fairfield DCP came into effect in 2013 and provides greater planning detail for developments, supplementing the zoning and development standards contained within the FLEP 2013. The DCP helps promote better development throughout the city, protecting the community's lifestyle and enjoyment of town centres and neighbourhoods. One of the objectives of the DCP is to assist in reducing Fairfield's ecological footprint by encouraging the diversion of waste from landfill. This WMP specifically addresses the waste management guidelines in chapter 9 for industrial use.
State and National legislation and guidelines	
Building Code of Australia (BCA) and relevant Australian Standards	The BCA has the aim of achieving nationally consistent, minimum necessary standards of relevant health and safety, amenity and sustainability objectives efficiently.
Council of Australian Governments National Construction Code 2019	The National Construction Code 2019 sets the minimum requirements for the design, construction and performance of buildings throughout Australia.

¹ <https://legislation.nsw.gov.au/view/whole/html/inforce/current/epi-2009-0413>

² <https://www.legislation.nsw.gov.au/view/html/inforce/current/epi-2013-0213>

³ https://www.fairfieldcity.nsw.gov.au/files/assets/public/documents/plan_build/fairfield-citywide-dcp-2013-amendment-no.22-21-september-20203.pdf

Legislation and Guidance	Objectives
NSW EPA's Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities 2012	These better practice guidelines present information on waste minimisation and resource recovery as well as information on commonly used waste management provisions. The guidelines also provide benchmarks for assessing waste production rates in Australia.
NSW Waste and Sustainable Materials Strategy 2041: Stage 1 – 2021-2027	Replacing the <i>NSW Waste Avoidance and Resource Recovery Strategy (2014-21)</i> (see below), the NSW Waste and Sustainable Materials Strategy 2041 focuses on the transition of NSW to a circular economy. The strategy focuses on minimising what is thrown away, and to use and reuse resources more efficiently, making them as productive as possible. The strategy identifies the need to identify infrastructure needs, the mandating of separation of some organic waste streams, and incentivising biogas generation from waste materials.
NSW EPA (2014) NSW Waste Avoidance and Resource Recovery Strategy 2014-21	The <i>NSW Waste Avoidance and Resource Recovery Strategy 2014-21</i> is aimed at ultimately 'improving environment and community well-being by reducing the environmental impact of waste and using resources more efficiently' by presenting a framework intended to avoid and reduce waste generation, increase recycling, divert more waste from landfill, manage problem wastes better, reduce litter and reduce illegal dumping.
NSW EPA Resource Recovery Orders and Resource Recovery Exemptions	<p>The NSW EPA has issued a number of resource recovery orders and resource recovery exemptions under the POEO (Waste) Regulation 2014 for a range of wastes that may be recovered for beneficial re-use. These wastes typically include those from demolition and construction works, as well as operational wastes such as food waste.</p> <ul style="list-style-type: none"> Resource recovery orders present conditions which generators and processors of waste must meet to supply the waste material for beneficial re-use. Resource recovery exemptions contain the conditions which consumers must meet to use waste for beneficial re-use.
NSW EPA's Waste Classification Guidelines 2014	The NSW EPA <i>Waste Classification Guidelines</i> assists waste generators to effectively manage, treat and dispose of waste to ensure the environmental and human health risks associated with waste are managed appropriately and in accordance with the <i>POEO Act 1997</i> and its associated regulations.
<i>Protection of the Environment Operations Act (POEO) 1997 and Amendment Act 2011</i>	The <i>POEO Act 1997</i> and <i>POEO Amendment Act 2011</i> are administered by the NSW Environment Protection Authority (NSW EPA) to enable the NSW Government to establish instruments for setting environmental standards, goals, protocols and guidelines. They outline the regulatory requirements for lawful disposal of wastes generated during the demolition, construction and operational phases of a development, as well as the system for licencing waste transport and disposal.
The Work Health and Safety Regulation 2011	The Work Health and Safety Regulation 2011 provide detailed actions and guidance associated with the topics discussed in <i>The Work Health and Safety Act 2011</i> . The primary aim of the regulation is to protect the health and safety of workers and ensure that risks are minimised in work environments. Workplaces are to ensure that they are compliant with the requirements specified in the regulations. The regulations discuss items such as actions that are prohibited or obligated in work environments, the requirements for obtaining licences and registrations, and the roles and responsibilities of staff in workplaces.

Legislation and Guidance	Objectives
<i>Waste Avoidance and Resource Recovery Act 2001</i>	<p>The <i>Waste Avoidance and Resource Recovery Act 2001</i> aims to promote waste avoidance and resource recovery and repeals the <i>Waste Minimisation and Management Act 1995</i>. Specific objectives of the <i>Waste Avoidance and Resource Recovery Act 2001</i> include:</p> <ul style="list-style-type: none">• Encouraging efficient use of resources• Minimising the consumption of natural resources and the final disposal of waste by encouraging the avoidance of waste and the reuse and recycling of waste• Ensuring industry and the community share responsibility in reducing/dealing with waste, and• Efficiently funding of waste/resource management planning, programs and service delivery. <p>As of 2016, the addition to the Act of Part 5 defines the legislative framework for the 'Return and Earn Container Deposit Scheme' whereby selected beverage containers can be returned to State Government authorities for a monetary refund.</p>

5 Operational Waste Management

5.1 Targets for Resource Recovery

Targets for new development are expected to contribute to state specific targets. The NSW Waste and Sustainable Materials Strategy 2041 (DPIE, 2021) sets a target of:

- 80% average recovery rate from all waste streams by 2030.

Analysis by DPIE (2021) indicates that commercial and industrial waste recovery rates in 2018-2019 were 53%.

It is anticipated that the waste minimisation measures in the following sections will assist the Project to meet these targets. Waste reporting and audits can be used to determine the actual percentage of wastes that have been recycled during the construction and site preparation stage of the Project. Each commercial and industrial development can contribute to this NSW State target through an effective waste management plan.

5.2 Waste Streams and Classifications

The operation of the Project is anticipated to generate the following broad waste streams:

- Domestic wastes generated by employees, including food wastes
- Bulk packaging wastes, including polystyrene, plastic wrapping and cardboard boxes
- Office waste
- Garden organic waste from landscaped areas
- Bulky waste items such as furniture and e-waste, and
- Stores, plant and general maintenance wastes.

Potential ongoing waste types, their associated waste classifications, and management methods are provided in **Table 6**. For further information on how to determine a waste's classification, refer to the NSW EPA (2014) Waste Classification Guidelines. Suggestions for recycling drop off locations and contacts can be found on <https://businessrecycling.com.au/> for each waste type.

Table 3 Potential waste types, classifications and management methods for operational waste

Waste Types	NSW EPA Classification	Proposed Management Method
General Operations		
Clean office paper	General solid (non-putrescible) waste	Paper recycling at off-site licensed facility
Cardboard including bulky cardboard boxes	General solid (non-putrescible) waste	Cardboard recycling at off-site licensed facility
Recyclable beverage containers, glass and plastic bottles, aluminium cans, steel cans	General solid (non-putrescible) waste	NSW container deposit scheme 'Return and Earn', container recycling at off-site licensed facility
Food waste	General solid (putrescible) waste	Compost on or off-site or dispose to landfill with general garbage

Waste Types	NSW EPA Classification	Proposed Management Method
Batteries	Hazardous waste	Off-site recycling, alternatively contact the Australian Battery Recycling Initiative for more information
Mobile Phones	Hazardous waste	Off-site recycling; can be taken to the Mobile Muster program. Contact Mobile Muster for more information
Bulky polystyrene	General solid (non-putrescible) waste	Off-site recycling or disposal at landfill
Furniture	General solid (non-putrescible) waste	Off-site reuse or disposal to landfill
E-waste	Hazardous waste	Off-site recycling
Printer toners and ink cartridges	Hazardous waste	Off-site recycling, free disposal box or bags and pickup service exists for printer toners and ink cartridges
General garbage, including non-recyclable plastics	General solid (putrescible and non-putrescible) waste	Disposal at landfill
Maintenance		
Spent smoke detectors ⁴	General solid (non-putrescible) waste, or Hazardous waste (some commercial varieties)	Disposal to landfill, or off-site disposal at licensed facility
Glass, other than containers	General solid (non-putrescible) waste	Off-site recycling
Light bulbs and fluorescent tubes	Hazardous waste	Off-site recycling or disposal, contact FluoroCycle ⁵ or Lamp Recyclers ⁶ for more information
Cleaning chemicals, solvents, area wash downs, empty oil or paint drums, chemical containers	Hazardous waste if containers used to store Dangerous Goods (Class 1, 3, 4, 5 or 8) and residues have not been removed by washing or vacuuming. General solid (non-putrescible) waste if containers cleaned by washing or vacuuming.	Transport to comply with the transport of Dangerous Goods Code applies in preparation for off-site recycling or disposal at licensed facility.
Garden organics - lawn mowing, tree branches, hedge cuttings, leaves	General solid (non-putrescible) waste	Reuse on-site or contractor removal for recycling at licenced facility

⁴ The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) require that when more than 10 smoke alarms (particularly americium-241 sources) are collected for bulk disposal they must be treated as radioactive waste and the requirements of the National Health and Medical Research Council's Code of practice for the near-surface disposal of radioactive waste in Australia (1992) must be met.

⁵ <https://www.fluorocycle.org.au/>

⁶ <https://www.lamprecyclers.com.au/>

5.3 Estimated Quantities of Operational Waste

The estimated quantities of operational waste for Warehouse 1 of Lot 201 are provided in a WMP prepared by Jalco Powders Pty Ltd⁷ based on operations at their current site in shown in **Appendix B**. Based on communications with the Client, it is understood that the operations and quantities of generated waste and recycling will be similar in Warehouse 1 of Lot 201 as they are in Jalco Powders Pty Ltd's operations currently undertaken at another premises.

The waste streams and estimated quantities shown in **Table 4** are based on the quantities provided in the WMP prepared by Jalco Powders Pty Ltd.

Table 4 Estimated quantities of operational general waste and recycling of Warehouse 1

Estimated quantities	Recyclables (L/day)						General waste (L/day)		Other (L/day)	
	Cardboard	Plastics	Bulker bag	Empty containers	Other recyclables	Metal	Wooden pallets	Other general waste	Liquid ⁸	DAF plant solid waste
Uncompacted	8,877	14,000	32,800	8,088	200	110	13,636	18,004	27	219
Compacted	2,219	3,500	8,200	-	-	-	-	-	-	-

To minimise packaging waste generated in the recyclables stream, it is recommended that packing waste is returned to the suppliers where possible. Standard pallets are recommended to be returned to their owners and non-standard and broken pallets are to be stockpiled and collected as required by a private waste contractor.

If additional collection services are required, such as secured document destruction, these can be organised with a private waste contractor who can provide additional bins and take collected waste to an off-site licenced facility.

The Project is anticipated to produce minimal quantities of garden organics, less than 100 L per week. This waste will be taken by a landscaping contractor who will dispose of it at an off-site licenced facility.

5.4 Waste Storage Area Size

Waste storage and collection of the waste and recycling generated from Warehouse 1 is to be undertaken as outlined in the existing WMP of Jalco Powders Pty Ltd⁹. This waste storage system is based on the existing waste generation quantities shown in **Table 4**. The existing waste storage system, including collection frequencies, currently operated by Jalco Powders Pty Ltd and to be applied in Warehouse 1, is shown in **Table 5** below.

Table 5 Recommended storage area for weekly operations of Warehouse 1

Waste Stream		Collection per week	Storage system
Recyclables	Cardboard	2	1 x compacter, and 9 x 1 m ³ bins
	Plastics	5	4 balers

⁷ Jalco Homecare / Jalco Powders Pty Ltd, Waste Management Plan, JHF-WMP-001-00, November 2019

⁸ It is assumed that the liquid is not hazardous and cannot be discharged to sewer

⁹ Jalco Homecare / Jalco Powders Pty Ltd, Waste Management Plan, JHF-WMP-001-00, November 2019

Waste Stream		Collection per week	Storage system
	Bulker bag	2	1 screw compactor
	Empty containers	2	Staging area only. IBC and drums stored in designated racking.
	Other recyclables	1	1 x 1 m ³ bin
General waste	Wooden pallets	2	Staging area
	Other general waste	5	11 x 1.5 m ³ bin
Metal	Metal	As needed	1 x 10 m ³ bin
Liquid	Liquid	As needed	1000 L tank
DAF plant solid waste	DAF plant solid waste	As needed	40,000 L tank

The locations of the waste and recycling storage system in Jalco Powders Pty Ltd's existing development are shown in the drawings attached in **Appendix B**. As shown in the drawings, the waste storage system is incorporated in the existing footprint of the development. In accordance with waste management best practice, SLR recommends that the architectural drawings, attached in **Appendix A**, are updated to show the anticipated specifications for the waste storage and collection of Warehouse 1, as shown in **Table 5**. The anticipated waste storage system of Warehouse 1 is to be incorporated in the footprint of Warehouse 1, similar to that shown in **Appendix B**. Following the revision of the architectural plans, SLR recommends that this WMP is updated.

5.5 Bulky and Hazardous Waste Management

Sufficient space will be provided in the Project for the storage of large and/or bulky items and hazardous wastes that cannot be disposed of in the general waste or recyclable streams. This would include broken pallets, furniture, shelving, monitors, batteries, fluorescent tubes and smoke detectors.

Building management may consider organising a separate casual collection service for as required, to remove bulky waste items, or engaging a contractor to collect and transport these items for reuse, recycling or disposal.

5.6 Waste Storage Room Location

In accordance with better practice waste management and recommendations from Council's DCP, the waste storage area should be located so that:

- It is away from adjoining residential dwellings
- It does not cause any negative impacts, in terms of visual appearance, noise or smell, to adjoining properties, or to the street
- It is near any on-site loading bays
- It is convenient, safe, functional and directly accessible to users in each tenancy and servicing collection staff, but inaccessible to the public
- It avoids pedestrian or vehicular traffic hazards likely to be caused by waste collection and storage,

SLR recommends the architectural plans for this Project are updated to show the waste storage areas recommended in **Section 5.4**. Following the revision of the architectural plans, SLR recommends that this WMP is updated.

5.7 Waste Storage Area Features

In accordance with best practice waste management and Council's DCP, the Project's waste storage areas should have the following features:

- Be designed so that the floors and walls can be washed on a regular basis
- Include separation facilities for waste to be divided into separate waste streams in order to recycle materials
- Blend into the design of the wider development and the surrounding streetscape
- Be well lit and well-ventilated
- Fully enclosed and walled
- Adequate vermin prevention measures
- Reduce potential noise and odour impacts
- Enhance safety for the public
- Be connected to a water outlet for washing purposes
- Equipped with a hot and cold tap-based water supply centralised mixing valve
- Floor graded to a central drainage point which is connected to the sewer
- Have water discharge from washing flow to a sewer approved by the relevant authority
- Waterproofed and sealed non-slip floor constructed in accordance with the Building Code of Australia.
- Waste equipment is protected from theft and vandalism
- Be fully enclosed, walled and not permit through access to other on-site waste infrastructure
- Adequate lighting and natural or mechanical ventilation in accordance with the Building Code of Australia
- Provide administrative management, including signage to ensure appropriate use
- Be screened from public areas to reduce the impacts of noise, odour and visual amenity, and
- Flexible in design to allow for future changes in operation, tenancies and uses.

5.8 Waste Servicing

The following general waste servicing access requirements should be implemented:

- Waste will be removed regularly.
- Arrangements should be in place so that the waste and recycling storage rooms are not accessible to the general public.

In accordance with best practice waste management, the following is recommended for the access provisions for of waste collection vehicles:

- Collection vehicles should be able to enter and exit the collection area in a forward direction
- Drawings should show the site's entry point, vehicle's route of travel and manoeuvring

- Swept path models should illustrate how a standard waste collection vehicle will enter, service and exit the site
- Unobstructed access, adequate driveways and ramps of sufficient strength to support waste collection

Hazardous 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.

5.9 Waste Avoidance, Reuse and Recycling Measures

5.9.1 Waste Avoidance

Waste avoidance measures include:

- Participating in take-back services to suppliers to reduce waste further along the supply chain
- Avoiding printing where possible
- Review of packaging design to reduce waste but maintain 'fit for purpose'
- Providing ceramic cups, mugs, crockery and cutlery rather than disposable items
- Purchasing consumables in bulk to avoid unnecessary packaging
- Presenting all waste reduction initiatives to staff as part of their induction program, and
- Investigating leased office equipment and machinery rather than purchase and disposal.

5.9.2 Re-use

Possible re-use opportunities include establishing systems with in-house and supply chain stakeholders to transport products in re-useable packaging where possible.

5.9.3 Recycling

Recycling opportunities include:

- Collecting and recycling e-wastes
- Flatten or bale cardboard to reduce number of bins required
- Paper recycling trays provided in office areas for scrap paper collection and recycling
- Collecting printer toners and ink cartridges in allocated bins for appropriate contractor recycling, and
- Development of 'buy recycled' purchasing policy.

5.10 Communication Strategies

Waste management initiatives and management measures should be clearly communicated to building managers, owners, employees, customers and cleaners. Benefits of providing this communication include:

- Improved satisfaction with services

- Increased ability and willingness to participate in recycling
- Improved amenity and safety
- Improved knowledge and awareness through standardisation of services
- Increased awareness or achievement of environmental goals and targets
- Reduced contamination of recyclables stream
- Increased recovery of recyclables and organics material, if implemented, and
- Greater contribution to targets for waste reduction and resource recovery, the environment and heritage conservation.

To realise the above benefits, the following communication strategies should be considered:

- Use consistent signage and colour coding throughout the Project
- Ensure all staff are trained in correct waste separation and management procedures
- Provide directional signage to show location of and routes to waste storage area
- General waste and co-mingled recycling bins should be clearly labelled and colour-coded to ensure no cross contamination, where applicable
- Employees and cleaners should adhere to the WMP for compliance, in consultation with management, and
- Repair signs and labels promptly to avoid breakdown of communications.

5.11 Signage

In accordance with best practice waste management, the waste storage and collection areas should be provided with appropriate signage. These signs should clearly identify waste management procedures and provisions to contractors, tenants and visitors should be distributed around the Project.

Signs which clearly identify waste management procedures and provisions to staff and visitors should be distributed around the Project. Key signage considerations are:

- Clear and correct labelling on all waste and recycling bins, indicating the correct type or types of waste that can be placed into a given bin, as shown in **Figure 3**
- Signposts and directions to location of waste storage areas
- Clear signage in all waste storage areas to instruct users how to correctly separate waste and recycling
- Maintaining a consistent style colour scheme and system for signs throughout the Project, and
- Emergency contact information for reporting issues associated with waste or recycling management.

Colour-coded and labelled bin lids are necessary for identifying bins. All signage should conform to the relevant Australian Standard and use labels approved by the NSW EPA¹⁰. The design and use of safety signs for waste rooms and enclosures should comply with Australian Standard AS 1319 Safety Signs for the Occupational Environment and clearly describes the types of materials designated for each bin.

¹⁰ NSW EPA waste signage and label designs <http://www.epa.nsw.gov.au/wastetools/signs-posters-symbols.htm>



Figure 3 Example of bin labels for operational waste

5.12 Monitoring and Reporting

Monitoring is recommended to ensure waste and recycling management arrangements and provisions for the Project are functional, practical and are maintained to the standard outlined in this plan, at a minimum.

Visual assessments of bins and bin storage areas should be conducted by the building manager, at minimum:

- Weekly, in the first two months of operation to ensure the waste management system is sufficient for the operation, and
- Every six months, to ensure waste is being managed to the standards outlined in this document.

In addition, audits are to be conducted on a half-yearly basis to ensure WMP provisions are maintained.

Quantities of waste and recycling associated with disposal of waste and recycling, including dockets, receipts and other physical records should be recorded by the Building Manager. This is to allow reviews of the waste management arrangements and provisions at the site over time. Records of waste disposal should also be available to regulatory authorities such as the NSW Environmental Protection Authority and SafeWork NSW, upon request.

Any deficiencies identified in the waste management system, including, but not limited to, unexpected waste quantities, is to be rectified by the Building Manager as soon as it is practical. Where audits show that recycling is not carried out effectively, management should carry out additional staff training, signage re-examination and reviews of the waste management system where the audit or other reviewing body has deemed necessary. If this waste management plan no longer sufficiently meets the needs of the Project, review and updates to maintain suitability must be undertaken.

5.13 Roles and Responsibilities

It is the responsibility of the Building Manager, or equivalent role, to implement this WMP and a responsibility of all warehouse tenants and staff to follow the waste management procedures set out by the WMP. SLR recommends that all subcontractors enlisted by the Client are to have roles and responsibilities identified and the Project's waste management system clearly explained. A summary of recommended roles and responsibilities are provided in **Table 6**.

Table 6 Operational waste management responsibility allocation

Responsible Person	General Tasks
Management	Ensure the WMP is implemented throughout the life of the operation.
	Update the WMP on a regular basis (e.g. annually) to ensure the Plan remains applicable.
	Undertake liaison and management of contracted waste collections.
	Organise internal waste audits on a regular basis.
	Manage any complaints and non-compliances reported through waste audits etc.
	Perform inspections of all waste storage areas and waste management equipment on a regular basis.
	Organise cleaning and maintenance requirements for waste management equipment.
	Monitor bins to ensure no overfilling occurs.
	Ensure effective signage, communication and education is provided to alert visitors, employees and cleaners about the provisions of this WMP and waste management equipment use requirements.
	Monitor and maintain signage to ensure it remains clean, clear and applicable.
	Ensure waste and recycling storage rooms are kept tidy.
	Ensure that regular cleaning and daily transfer of bins is being undertaken by the cleaners
	Ultimately responsible for the management of all waste management equipment, cleaning requirements, waste transfer and collection arrangements.
Cleaners and Staff	Removal of general waste, recyclables, cardboard waste and hazardous waste from floor areas for transfer to centralised waste and recycling collection rooms daily or as required.
	Cleaning of all bins and waste and recycling rooms on a weekly basis or as required.
	Compliance with the provisions of this WMP.
Gardening Contractor, as applicable	Removal of all garden organics waste generated during gardening maintenance activities for recycling at an off-site location or reuse as organic mulch on landscaped areas.

APPENDIX A

CLIENT ARCHITECTURAL DRAWINGS

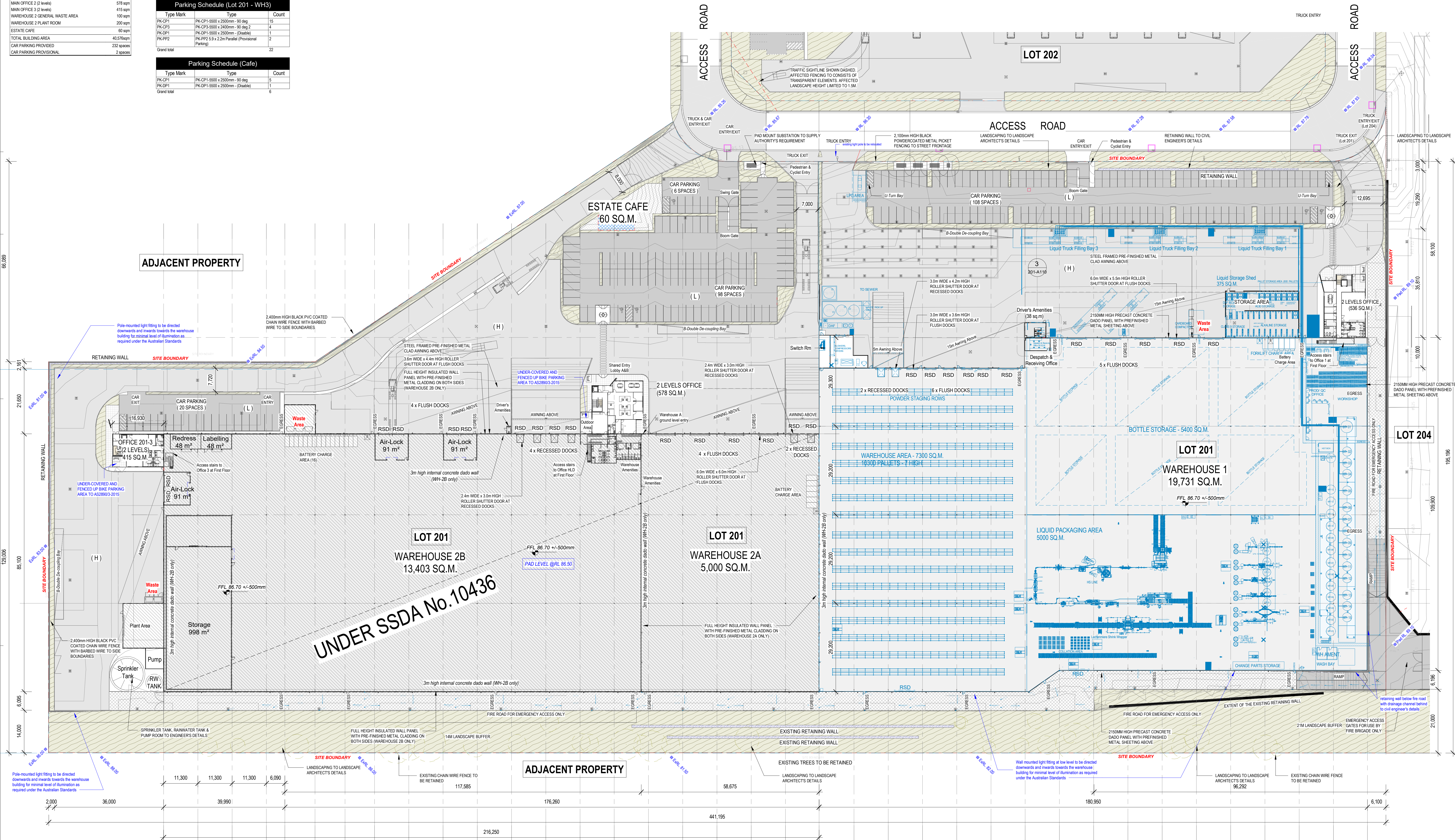
DEVELOPMENT SUMMARY (LOT 201)		
SITE 1 AREA (Warehouse 1)	36,582 sqm	
SITE 2 AREA (Warehouse 2 & 3 & Cafe Site)	40,728 sqm	
SITE AREA (Lot 201 Total)	77,310 sqm	
EFFICIENCY	52.48%	
WAREHOUSE 1	19,731 sqm	
MAIN OFFICE 1 (2 Level)	536 sqm	
WAREHOUSE 1 DRIVERS AMENITIES	38 sqm	
WAREHOUSE 1 Switch & Compressor Room	140 sqm	
WAREHOUSE 1 Storage Area	375 sqm	
WAREHOUSE 2	18,403 sqm	
MAIN OFFICE 2 (2 levels)	578 sqm	
MAIN OFFICE 3 (2 levels)	415 sqm	
WAREHOUSE 2 GENERAL WASTE AREA	100 sqm	
WAREHOUSE 2 PLANT ROOM	200 sqm	
ESTATE CAFE	60 sqm	
TOTAL BUILDING AREA	40,576sqm	
CAR PARKING PROVIDED	232 spaces	
CAR PARKING PROVISIONAL	2 spaces	

Parking Schedule (Lot 201 WH1)		
Type Mark	Type	Count
PK-CP1	PK-CP1-5500 x 2500mm - 90 deg	106
PK-CP1	PK-CP1-5500 x 2500mm - (Disable)	2
Grand total		108

Parking Schedule (Lot 201 WH2)		
Type Mark	Type	Count
PK-CP1	PK-CP1-5500 x 2500mm - 90 deg	96
PK-CP1	PK-CP1-5500 x 2500mm - (Disable)	2
Grand total		98

Parking Schedule (Lot 201 - WH3)		
Type Mark	Type	Count
PK-CP1	PK-CP1-5500 x 2500mm - 90 deg	15
PK-CP1	PK-CP1-5500 x 2500mm - 90 deg 2	4
PK-CP1	PK-CP1-5500 x 2500mm - (Disable)	1
PK-PP2	PK-PP2 5.5 x 2.2m Parallel (Provisional Parking)	2
Grand total		22

Parking Schedule (Cafe)		
Type Mark	Type	Count
PK-CP1	PK-CP1-5500 x 2500mm - 90 deg	5
PK-CP1	PK-CP1-5500 x 2500mm - (Disable)	1
Grand total		6



1 Site Facilities Plan (Lot 201)
MS-A010 1:500 @B1



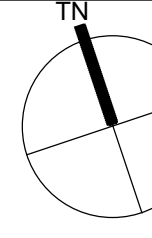
PROJECT MANAGER

PROJECT ESR HORSLEY LOGISTIC PARK
ADDRESS 327-335 BURLEY ROAD
HORSLEY PARK NSW
PROJECT NUMBER 200226

Rev	Description	Date
P17	SSDA modifications.	30.04.21
P18	Warehouse 1 floor added.	27.05.21
P19	Waste area annotated.	03.06.21
P20	Engineering info (gradients & levels) added to site plan.	28.06.21
P21	WH-1 access driveway splay amended to suit traffic movement.	08.07.21
P22	WH1 Tenancy plant floor added.	30.07.21

HL Architects Pty Ltd. This drawing is confidential and is subject to copyright. It may not be copied, used, reproduced or transmitted in any way or in any form without the express permission of HL Architects Pty Ltd.
General Notes:
Architectural drawings to be read in conjunction with all other consultants' detailed drawings, specifications & reports.
Do not scale this drawing. Verify all dimensions on site.
Refer all discrepancies to HLA before commencing any work.

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DRAWING TITLE LOT 201 SITE & FACILITY PLAN
DRAWING NUMBER 200226 - DA - 201-A100

DRAWN AB
CHK HL
ISSUE

DEVELOPMENT APPLICATION

P22

APPENDIX B
WASTE AND RECYCLING STORAGE SYSTEM IN
JALCO POWDERS PTY LTD'S EXISTING
DEVELOPMENT

WASTE MANAGEMENT PLAN

JALCO HOMECARE/ JALCO POWDERS PTY LTD

JHF-WMP-001-00


Version 0

November 2019

Reviewed & Updated By	
Name	Avishek Biswas
Position	WHSE Advisor
Authorized By	
Name	Shane Roberts
Position	Operations Manager

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 <div>a division of</div> 	JHF-WMP- 001-01 JALCO HOMECARE WASTE MANAGEMENT PLAN
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1. Total volume of waste streams generated and storage requirements for ongoing operation

(Reference: Appendix A of Holroyd Development Control Plan 2013 Part A dated August 2013)

	State	Recyclables					General waste		Other/ Irregular		
		Cardboard	Plastics	Bulker Bag	Empty containers (IBC/ Drums)	All other recyclable items	Wooden Pallets (single use)	All other general waste	Metal	Liquid	DAF plant solid waste
Amount generated (L per unit per day)	Current state	8877	14000	32800	8088	200	13636	18004	110	27	219
Amount generated (L per development per week)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Any reduction due to compacting equipment	Future/ Steady state	2219	3500	8200	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Frequency of collections (per week)	Current state	2	5	2	2	1	2	5	As needed	As needed	0.08
Number and size of storage bins required	Future/ Stead state	1 Compactor and 9 x 1m3 staging bins	4 balers approximately	1 screw compactor	Staging area only; IBC and drums will be put in designated racking	1 x 1m3 bin	Staging area only	11 x 1.5 m3 Veolia bin	1 x 10m3 bin		40 KL tank

 <div>a division of</div> 	JHF-WMP- 001-01 JALCO HOMECARE WASTE MANAGEMENT PLAN
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	State	Recyclables					General waste		Other/ Irregular		
		Cardboard	Plastics	Bulker Bag	Empty containers (IBC/ Drums)	All other recyclable items	Wooden Pallets (single use)	All other general waste	Metal	Liquid	DAF plant solid waste
Floor area required for storage bins (m2)	Future/ Stead state	20	7	2	3	1	4	22	10	N/A	N/A
Floor area required for manoeuvrability (m2)	Future/ Stead state	13	13	13	13	13	13	13	13	N/A	N/A
Height required for manoeuvrability (m)	Future/ Stead state	3.5	0.5	0.5	4.5	0.5	2.25	0.5	0.5	N/A	N/A

2. Operational procedures for ongoing waste management on site

2.1 Scope

This procedure details future state of waste management plan on site with reference to the site layout. Waste streams are divided as per below:

1. Recyclables
2. General waste
3. Metal
4. Liquid
5. Trade waste

2.2 Waste stream management and removal will include

- Waste streams shall be segregated at source as practicable
- Compaction technology will be used to reduce the footprint of waste storage footprint as practicable.
- All waste contractors (transport and treatment facility) must have a current EPA licence.
- Materials which are classified as hazardous / restricted must be disposed of according to regulatory requirement.

2.2.1 Waste Stream 1: Recyclables

2.2.1.1 Cardboard

- Point of collection of cardboard
 - o Product manufacturing: 2 bins to be provided for collection
 - o Product filling: 5 bins to be provided for collection
 - o Product packaging: 2 bins to be provided for collection
- Intermediate processing and transfer
 - o Transfer from 1m³ bin at source to cardboard compactor located under the awning at centre driveway
 - o The compactor shall discharge the material into an adjacent storage bin which will be collected weekly.
- Removal
 - o Removal of bin onto dedicated collection vehicle for transport to offsite recycling facility

2.2.1.2 Plastics

- Point of collection of plastic
 - o Product filling: 3 balers to be provided
 - o Product packaging: 1 baler to be provided
- Intermediate processing and transfer
 - o From baler to staging of baled items adjacent to the compactor for weekly pick-up
- Removal

- Loading of baled items via forklift to truck for offsite recycling

2.2.1.3 Bulker bag

- Point of collection of bulker bag
 - Product manufacturing: 1 baler to be provided
- Intermediate processing and transfer
 - From baler to staging of baled items adjacent to the compactor for weekly pick-up
- Removal
 - Loading of baled items via forklift to truck for offsite recycling

2.2.1.4 Empty containers (IBC/ Drums)

- Point of collection of empty containers
 - Product manufacturing
- Intermediate processing and transfer
 - Drums and IBCs from manufacturing to intermediate staging under awning beside liquid shed
 - Drums then shrink wrapped and placed warehouse racking
- Removal
 - Loading via forklift to truck for offsite recycling

2.2.1.5 All other recyclable waste

- Point of collection of other recyclables
 - Product filling: 1 bin to be provided
- Intermediate processing and transfer
 - Staged in the western driveway
- Removal
 - Loading via forklift to truck for offsite recycling

2.2.2 Waste Stream 2: General waste

2.2.2.1 Wooden pallets (single use)

- Point of collection of wooden pallets
 - Product manufacturing
- Intermediate processing and transfer
 - Inside the building in powder manufacturing
- Removal
 - Loading of pallets via forklift to truck for offsite disposal
- Site is Working with suppliers to eliminate use of single use wooden pallets from site.

2.2.2.2 Other general waste

- Point of collection of general wastes
 - Product manufacturing: 3 bins to be provided
 - Product filling: 3 bins to be provided

- Product packaging: 2 bins to be provided
- DAF: 1 bin to be provided
- Outdoor: 1 30m³ bin and 1 1.5m³ bin
- Intermediate processing and transfer
 - All small bins shall be emptied on 30 m³ bin located on the Western driveway daily.
- Removal
 - Exchange of the 30m³ waste bins to occur daily

2.2.3 Waste Stream 3: Metal waste

- Point of collection of metal
 - Maintenance workshop, single small skip
- Intermediate processing and transfer
 - Located adjacent to maintenance workshop if needed
- Removal
 - Removal of the skip by qualified recycler when full.

2.2.4 Waste Stream 4: Liquid waste

- Point of collection of liquid
 - Product manufacturing
- Intermediate processing and transfer
 - Inside the building in powder manufacturing
- Removal
 - Loading of pallets via forklift to truck for offsite disposal as required

2.2.5 Waste Stream 5: Trade waste plant residual material

- Point of collection of waste
 - Waste-water treatment plant
- Intermediate processing and transfer
 - Storage tanks
- Removal
 - Unloading directly to tanker every quarter

3. Revision History

Date	Description	Revision No.	Author
29/11/2019	New document	0	Avishek Biswas

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