37°57'07"S
145°09'19"E

Residential Apartment Building: 1-5 Kintore Street, Springvale

Waste Management Plan

6 June 2024
Prepared for Tango A1 Pty Ltd

IMP2311051WMP01F01a.docx

Impact

Company Information

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Document Information

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1 Introduction

1.1 Engagement

IMPACT® have been engaged by Tango A1 Pty Ltd to prepare a Waste Management Plan (WMP) for the proposed apartment building located at 1-5 Kintore Street, Springvale.

1.2 Scope of Engagement

This Waste Management Plan has been prepared to accompany a town planning submission.

In preparing this assessment we have referenced the following:

- Development plans prepared by AOA Christopher Peck Architects.
- Sustainability Victoria's 'Waste Management and Recycling in Multi-Unit Developments Better Practice Guide'.

2 Existing Conditions

2.1 Location

The subject site is located on the eastern side of Kintore Street in Springvale as illustrated in Figure 1.

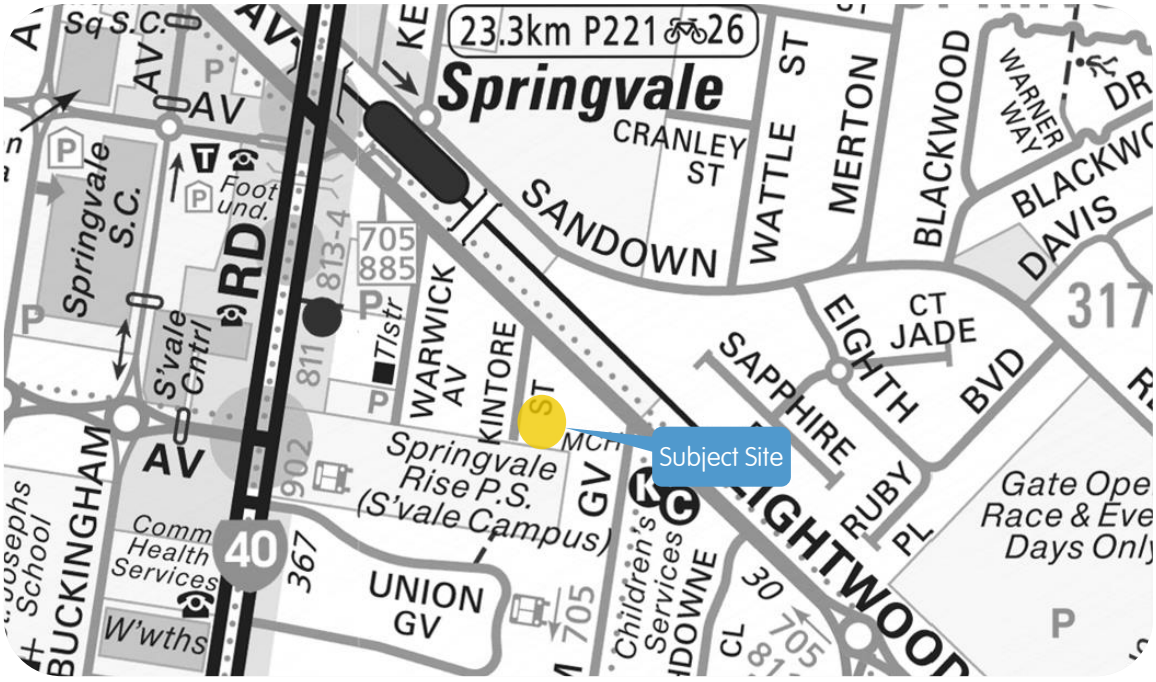


Figure 1 Location of Subject Site

The site is asymmetrical with a frontage of approximately 53 metres to Kintore Street.

Neighbouring land uses are generally commercial to the north and east, with the Springvale Rise Primary School also located immediately to the south.

3 Development Proposition

3.1 Use and Yield

The proposal considers developing the subject site as a 7-storey residential apartment building.

Specifically, a total of 87 dwellings are proposed, including:

- 49 x 1-bed apartments;
- 29 x 2-bed apartments; and
- 9 x 3-bed apartments.

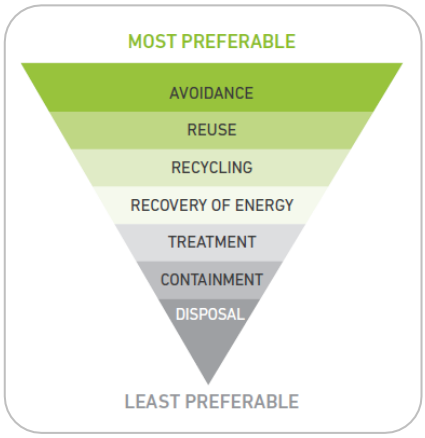
In addition, a small ground floor office tenancy is proposed. Specifically, we understand that the proposed building will be run and operated by the developer, who plans to use this office area to support their residents.

4 Objectives

The primary objective of this WMP is to:

- Identify all potential waste streams likely to be generated on site; and
- Provide a description of how waste is likely to be stored, handled, processed and disposed of, or reused and recycled.

This WMP seeks to establish principles by which the design, provision and maintenance of services and infrastructure that enable garbage, recycling, organics and bulky waste services to be operated at the development site in the best possible way in order to improve resource recovery and align with the principles of waste hierarchy.



5 Waste Generation

To estimate the likely waste generation rates for the proposal, reference is made to Sustainability Victoria's 'The Guide to Best Practice for Waste Management in Multi-Unit Developments'. Specifically, this guide recommends the following waste generation rates for the uses proposed at the subject site:

- Residential Dwelling
  - 1-bed
    - 80 L garbage
    - 80 L recycling
  - 2-bed
    - 100 L garbage
    - 100 L recycling
  - 3-bed
    - 120 L garbage
    - 120 L recycling
- Office
  - Garbage 10 L / 100sq.m / day
  - Recycling 10 L / 100sq.m / day.

A recent strategic shift at both Council and State government requires all new developments to consider further separation of these waste streams to include food organics and glass waste.

In this regard, reference is made to both the Better Practice Guidelines, and City of Melbourne Waste Generation Rates[1]. Specifically, the Better Practice guide notes that approximately 35% of residential garbage was comprised of food waste, with rates provided by City of Melbourne suggesting that realistic diversion rates would be 25%.

For the purposes of glass waste, we note that rates provided by the City of Melbourne suggest that approximately 30% of residential recycling is comprised of glass waste.

Noting the above, the following waste generation rates have been adopted for the proposed development:

Table 1 Adopted Waste Generation Rates

Component	Garbage	Organics	Recycling	Glass
1-Bed Apartment	60 L / week	20 L / week	56 L / week	24 L / week
2-Bed Apartment	75 L / week	25 L / week	70 L / week	30 L / week
3-Bed Apartment	90 L / week	30 L / week	84 L / week	36 L / week
Office	10 L / 100sq.m / day		10 L / 100sq.m / day	

Application of these rates to the proposed development, yields the below weekly waste estimates:

Table 2 Projected Weekly Waste Generation

Component	No.	Garbage	Organics	Recycling	Glass
1-Bed Apartment	49	2,940 L	980 L	2,744 L	1,176 L
2-Bed Apartment	29	2,175 L	725 L	2,030 L	870 L
3-Bed Apartment	9	810 L	270 L	756 L	324 L
Residential Subtotal		5,925 L	1,975 L	5,530 L	2,370 L
Office	135 sq.m	95 L*		95 L*	

* Assumes office is in operation 7 days a week.

[1] https://www.melbourne.vic.gov.au/SiteCollectionDocuments/waste-generation-rates-2021

6 Equipment and Systems

6.1 Waste Management

6.1.1 General Comments

Residents will be provided with a dual chute system (one for garbage and one for recycling) which will be accessible at each level of the development.

These chutes will transfer waste from each residential level down into a communal bin storage area located within the building basement.

The Building Manager will be responsible for monitoring bins and rotating (as required) the bins beneath bin chutes to ensure that they do not overflow.

A private contractor will be engaged by the Building Manager to manage the collection, storage and disposal of waste generated by the development.

6.2 Bins & Bin Storage General

6.2.1 Bin Dimensions

To minimise the number of bins required and collected, it is recommended that a combination of 1,100 L, 660 L, 360 L and 240 L Mobile Garbage Bins (MGBs) be used.

Details for the size of each of these proposed bins are provided in Table 3. Bin sizes are based on dimensions provided within the Better Practice Guide (we note that these are indicative only, and that dimensions will vary from manufacturer to manufacturer).

Table 3 Bin Dimensions

Bin Size	Height	Width	Depth
240 L MGB	1,080 mm	580 mm	735 mm
360 L MGB	1,100 mm	600 mm	885 mm
660 L MGB	1,250 mm	1,370 mm	850 mm
1,100 L MGB	1,470 mm	1,370 mm	1,245 mm

A private bin collection arrangement is recommended; thus, the bin colours can be adopted from options provided in AS4123.7 and labelled accordingly to identify the waste generator and site address.

6.2.2 Bin Storage

As above, a communal bin storage area is proposed within the basement level car park.

The bin storage area has been proposed with a total area of approximately 21 square metres, and has been designed to allow for the following distribution of bins:

- Garbage
  - 1 x 1,100 L MGB & 1 x 660 L MGB
- Food Organics
  - 3 x 240 L MGB
- Recycling
  - 1 x 1,100 L MGB & 1 x 360 L MGB
- Glass
  - 3 x 240 L MGB

The location of this bin room and distribution of bins is illustrated at Figure 2 and to scale at Appendix A.

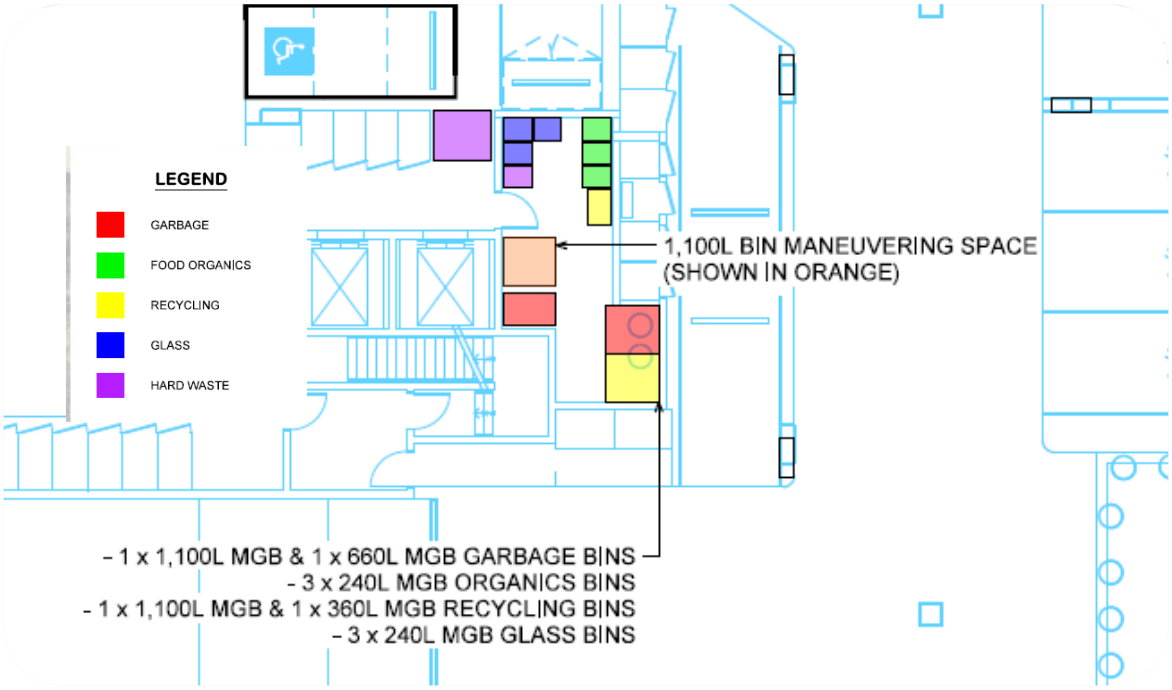


Figure 2 Proposed Bin Store

Hard Waste

In addition to the above waste room, we note that a separate area dedicated to the temporary storage of hard waste is also provided within the basement.

This area measures approximately 2 square metres, and will allow for residents to store their hard waste whilst the Building Manager organises for a hard waste collection to occur.

6.3 Collection Arrangements

6.3.1 Collection Frequency

The bin details and collection frequency for each waste type and stream are summarised in Table 4.

Table 4 Waste Collection Frequency

Component	Weekly Waste Generation	Bin Capacity	Collection Frequency
Garbage	6,020 L	1,760 L	4 Times per Week
Food Organics	1,975 L	720 L	
Recycling	5,625 L	1,460 L	
Glass Waste	2,370 L	720 L	

6.3.2 Collection Times

To reduce the impact of collection vehicle movements within the site, waste collections are to be undertaken at periods which sit outside of peak traffic at the site. Specifically, collections should be undertaken after the AM commuter peak period and before the PM peak period.

Waste shall also be collected at times in accordance with the City of Greater Dandenong Local Laws

6.3.3 Waste Disposal

Residential Waste

It is expected that residents will sort their waste into the four respective waste streams (garbage, recycling, food organics and glass waste).

Each dwelling shall be provided with a kitchen caddy and compostable caddy liners to assist with the segregation of food waste generated by residents before being placed in the assigned waste bin.

Residents are expected to dispose of their more common waste streams (garbage and recycling) via the dual chute systems that are provided on each level.

Residents will dispose of the less common waste streams (glass and food organics) by transferring their waste directly into the respective bins within the communal bin store area.

Office Waste

The proposed office tenancy (which will house the Building Manager and other staff to support the building) will be responsible for sorting and storing garbage and recycling within smaller bins within the office area.

At the end of each day, the Building Manager (or an appropriately inducted staff member) should transfer waste from these bins to the larger bins kept within the communal bin storage area.

6.3.3.1 Bin Chutes

The detailed design of the proposed chute system must be appropriately designed and documented by a reputable chute manufacturer to the manufacturer's specifications and design in accordance with the relevant Australian Standards.

The chute supplier shall supply and fix safe-operating instructions to each intake-door and place a warning sign on each chute outlined.

For improved safety, each chute outlet shall be shrouded with a suitable rubber skirt and designed to minimise the effect of falling waste into the associated bin (and to stop dispersion of debris).

Access to each chute outlet shall be restricted to trained personnel only, to prevent unauthorised access to chutes and bins.

6.3.4 Waste Collection

Waste shall be collected within the development, with a private waste collection contractor engaged.

Waste bins shall be collected by a rear-lift small rigid vehicle with the following dimensions:

- Nominal Length 6.4 m long
- Nominal Height 2.1 m high
- Nominal Gross Vehicle Mass 6.4 tonnes
- Collection Height Clearance 2.5 m high

The waste collection vehicle will enter the site in a forward direction, manoeuvring around the site before reversing back adjacent to the bin store area.

Once the waste collection is complete, the collection vehicle will navigate back around and out of the site onto Kintore Street in a forward direction.

A swept path analysis, provided as Appendix B confirms that the development plans make adequate provision for the safe and convenient manoeuvring of this design vehicle.

Note: The Building Manager shall be responsible for managing the waste system and for developing and implementing adequate safe operating procedures.

6.3.5 Communication Strategy

Each of the proposed bin chutes will be clearly marked and signed with the appropriate signage (indicatively shown below, or equivalent.

Additionally, the communal bin storage area will be clearly marked and signed with the appropriate signage as indicatively shown below, or equivalent.

Residents will be instructed by the Building Manager to adhere to these requirements.

6.4 Responsibility

A summary of the responsibilities for waste management within the site are described (generally) as follows:

- The Building Manager
  - Will be responsible for implementing the Waste Management Plan.
  - Shall engage an appropriate contractor to conduct waste collection services, replacements or upgrades.
  - Will be responsible for the upkeep and maintenance of the chute system (organising maintenance and repair as required).
  - Shall organise and inform any future (or existing as needed) residents about the buildings Waste management Plan, the disposal strategies and services offered.
  - Will be responsible for coordinating collections and collection times with the waste contractor - providing the contractor with a key / swipe card to accesst he car park area and waste room as relevant.
- Residents
  - Will be responsible for sorting and disposing of their own waste into the respective chute (and bins) as relevant.
  - Will be responsible for coordinating and corresponding with the Building Manager to organise any hard waste disposal.
  - Shall attend information / induction sessions with regards to the waste management systems and this waste management plan.
- Staff
  - Will be responsible for sorting and disposing of their own waste into the respective smaller bins within their tenancy.
    - Elected / appropriately trained staff will be responsible for transferring waste from these bins to the communal bin store as required.
  - Shall attend information / induction sessions with regards to the waste management systems and this waste management plan.

6.4.1 Information for Occupants

The Building Manager shall publish / distribute educational materials to:

- Inform residents about the waste management systems and the use / location of the associated equipment.
- Details on how to dispose of the other (less common) waste streams.
- Improve facility management results (lessen equipment damage, reduce lit erring, and achieve cleanliness, etc).
- Advise users to sort and recycle waste with care to reduce cross contamination.

6.5 Amenity Management

6.5.1 Washing, Ventilation and Vermin-Prevention Measures

Further to the above, the Building Manager shall ensure that bins and storage areas are kept in a clean state with access doors and bin-lids to be kept closed (where possible), to minimise odours and discourage vermin.

Further, waste areas shall feature

- Ventilation in accordance with Australian Standard AS1668.
- Tight fitting doors (all other openings shall have vermin-proof mesh or similar).
- Smooth, slip resistant and appropriately drained flooring.
- A graded bin-wash area, hosecok, hose and a suitable floor-waste connected tin accordance with the relevant authority requirements. The bin and wash areas may overlap, as stored bins can be moved so that a bin can be washed.
    - Alternatively, a contractor can be engaged by the Building Manager to wash and sanitise waste bins as required - the contractor will be responsible for containing and disposing of any contaminated water.
- A water-flushing nozzle with accessible water cock shall be provided at the head of each chute.

6.5.2 Noise Reduction Measures

All bins are to be kept within their allocated bin rooms at all times except at collection. All bins will e equipped with rubber wheels for quiet rolling during transfers.

The hours of waste collections shall be as specified in Council's local laws and / or in accordance with the Victorian EPA Noise Control Guideline, which sets out the following requirements:

- Collection occurring once a week should be restricted to the hours: 6am to 6pm Monday to Saturday.
- Collections occurring more than once a week should be restricted to the hours: 7am to 6pm Monday to Saturday.
- Compaction should only be carried out while on the move.
- Bottles should not be broken up at the point of collection.
- Routes which service entirely residential areas should be altered regularly to reduce early morning disturbance.
- Noisy verbal communication between operators should be avoided where possible

6.5.3 Stormwater Pollution Prevention

To prevent stormwater pollution, each resident / the Building Manager (as appropriate) will be required to:

- Ensure all waste is disposed into chutes & Building Manager rotate bins to ensure no overflow.
- Ensure that rubbish and recycling items are secured so that they can't blow away into the car park during collections.
- Keep bins closed to prevent animals from searching through waste.
- Make sure any bin spillage is cleaned up using dry absorbent materials (such as sand, sawdust or paper towel, as required).

6.5.4 Other Waste Streams

6.5.4.1 Hard Waste

It is expected that hard waste services will also be provided by a private contractor, under the supervision of the Building Manager.

There is a separate dedicated storage area for the dedicated (temporary) storage of hard waste measuring approximately 2 sqm, as indicated in Figure 2.

As noted above, it is expected that any hard waste transfers (or other waste not suitable for the chute) will be undertaken under the supervision of the Building Manager.

6.5.4.2 Charity Goods & E-Waste

The Better Practice Guide suggests that larger multi-unit developments with more than 50 apartments should provide space for one (1) charity bin. Most charities offer a free service, including bin supply and collection, and will generally collect clothing, used furniture and home wares in good condition.

Consequently, we recommend that a 240 L MGB charity be provided within the communal bin store area or hard waste store. The charity bin shall be supplied by the nominated charity organisation.

An additional 240 L MGB could also be provided in these areas for the disposal of any e-waste generated at the site.

No dedicated spot is currently shown for either of these bins, however we note that there is space within either the communal bin store or proposed hard-waste area if required.

6.6 Contact Information

6.6.1 Council

City of Greater Dandenong	Local Council	ph 8571 1000

6.6.2 Suppliers / Contractors

Citywide Service Solutions Pty Ltd	Private waste collector	ph 03 9261 5002
iDump:	Private waste collector	ph 1300 443 867
Kartaway	Private waste collector	ph 1300 362 362
Waste Wise Environmental	Private waste collector	ph 03 9359 1555
Elephant's Foot	Chute supplier	ph 02 9780 3500
Wastech Engineering Pty Ltd	Chute supplier	ph 1300 465 465
Sulo MGB Australia	Bin supplier	ph 1300 364 886

6.6.3 Other Useful Contacts

Safety Australia	OH&S consultant	ph 1300 385 128
FJP Safety Advisors Pty Ltd	OH&S consultant	ph 03 9255 3660
Sustainability Victoria		ph 1300 363 744 Online www.sustainability.vic.gov.au

7 Limitations

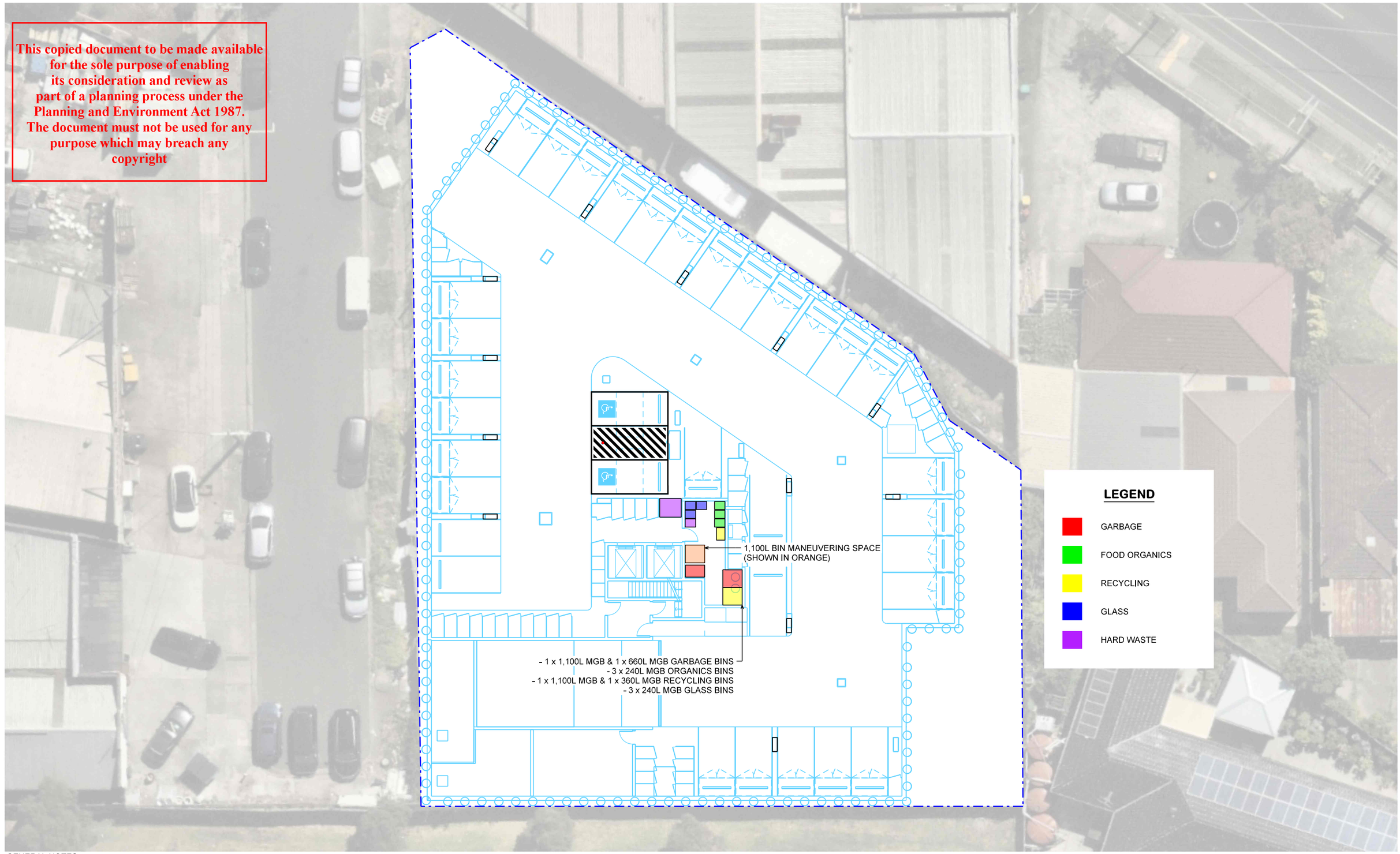
This Waste Management Plan is intended to inform and accompany a town planning application.

The waste generation data presented in this report are estimates only based on the existing operations. Actual waste generation characteristics could vary month to month depending on demand and productivity. Accordingly, it is our expectation that the Building Manager / Site Operator will adjust the recommended strategy to respond to actual operational conditions post development. These adjustments could include, but are not limited to increasing the number of bins and or increasing the collection frequency - Subject to Council Approval.

To this end, Subject to Council request, changes in legal requirements, changes in the development's needs and / or waste patterns (waste composition, volume or distribution), or to address unforeseen operation issues, the operator shall be responsible for coordinating the necessary Waste Management Plan revisions, including (if required):

- A waste audit and new waste strategy;
- Revision of the waste systems (bin sizes / quantity / streams / collection frequency);
- Re-education of tenants;
- Revision of the services provided by the waste collector(s); and
- Any necessary statutory approval(s).

APPENDIX A
Scaled Site Plan



GENERAL NOTES:
1. ALL DIMENSIONS ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. LOCAL ROADS - KINTORESTREET (SPEED ZONE 50KM/H).
3. BASE INFORMATION FROM NEARMAP AERIAL PHOTOGRAPHY DATED 02.15.2024 AND AOA DRAWING NO. 23023_1-5 Kintore Street Springvale_-Sheet - A-119 - PLAN - BASEMENT 01.dwg DATED 06.05.2024

ADVERTISED PLAN

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MELWAY ONLINE REF:MAP 80 A10

SCALE
1:250 @ A3

Client
TANGO

Date **2024-05-13**
Drawn / Approved **WH / WD**

Project
MEDIUM DENSITY RESIDENTIAL DEVELOPMENT
1-5 KINTORE STREET, SPRINGVALE
CITY OF GREATER DANDENONG

Title
WASTE MANAGEMENT PLAN
SITE LAYOUT PLAN
BASEMENT LEVEL

Status
PRELIMINARY

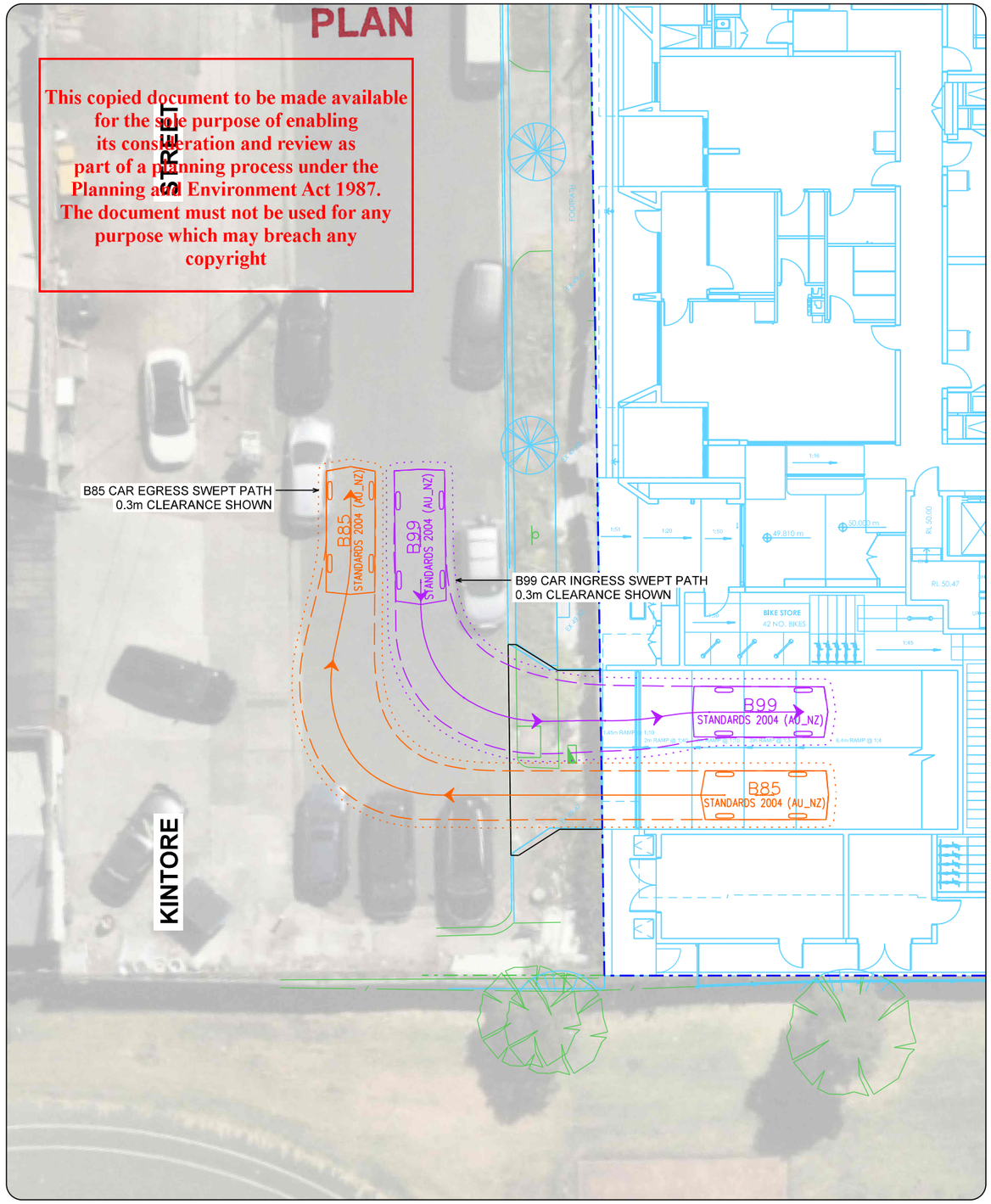
Drawing Number
IMP2311051 - DRG-04-01

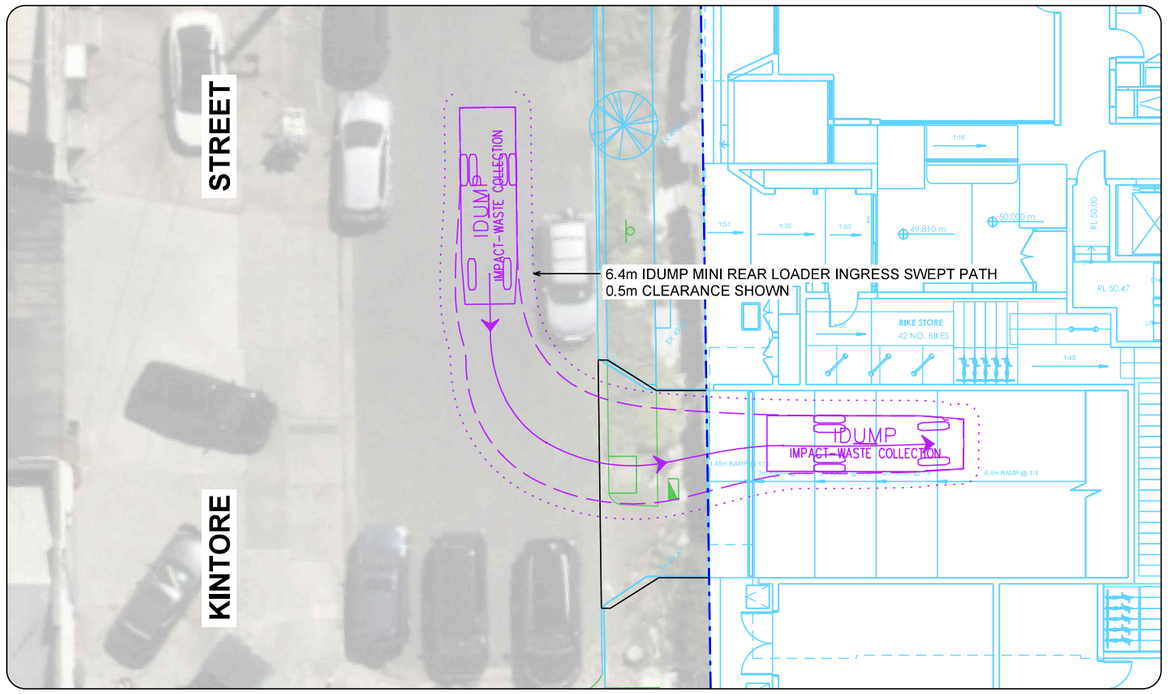
Revision
A

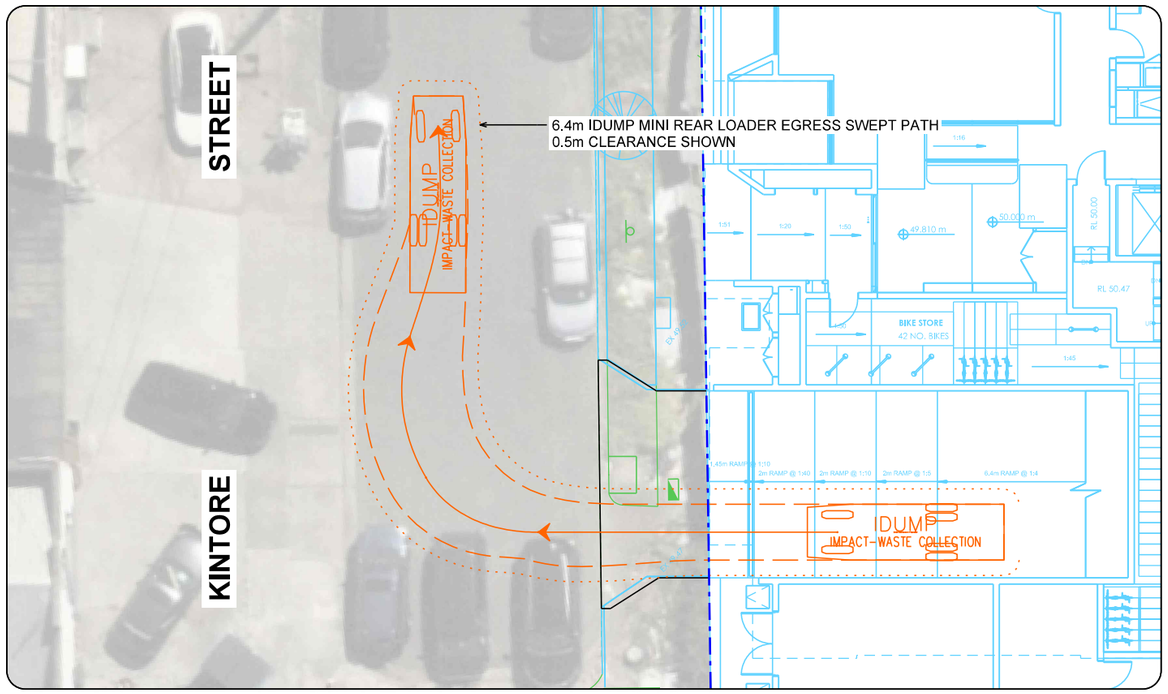
APPENDIX B
Swept Path Analysis

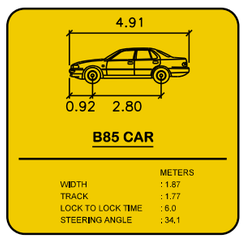
Design Vehicle: 6.4 Metre Mini-Rear Loader

ADVERTISED PLAN









B85 CAR

	METERS
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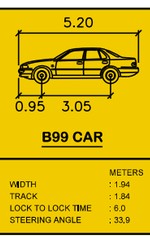
STEERING ANGLE	: 34.1



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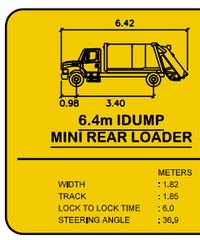

6.4m IDUMP MINI REAR LOADER

	METERS
WIDTH	: 1.82
TRACK	: 1.85
LOCK TO LOCK TIME	: 6.0
STEERING ANGLE	: 36.9

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MELWAY ONLINE REF:MAP 80 A10

SCALE

1:200 @ A3

Client
TANGO

Date **2024-05-13**
Drawn / Approved **WH / WD**

Project
MEDIUM DENSITY RESIDENTIAL DEVELOPMENT
1-5 KINTORE STREET, SPRINGVALE
CITY OF GREATER DANDENONG

Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
B85, B99 CAR AND 6.4m IDUMP - DESIGN VEHICLES

Status
PRELIMINARY

Drawing Number
IMP2311051 - DRG-02-02

Revision
B

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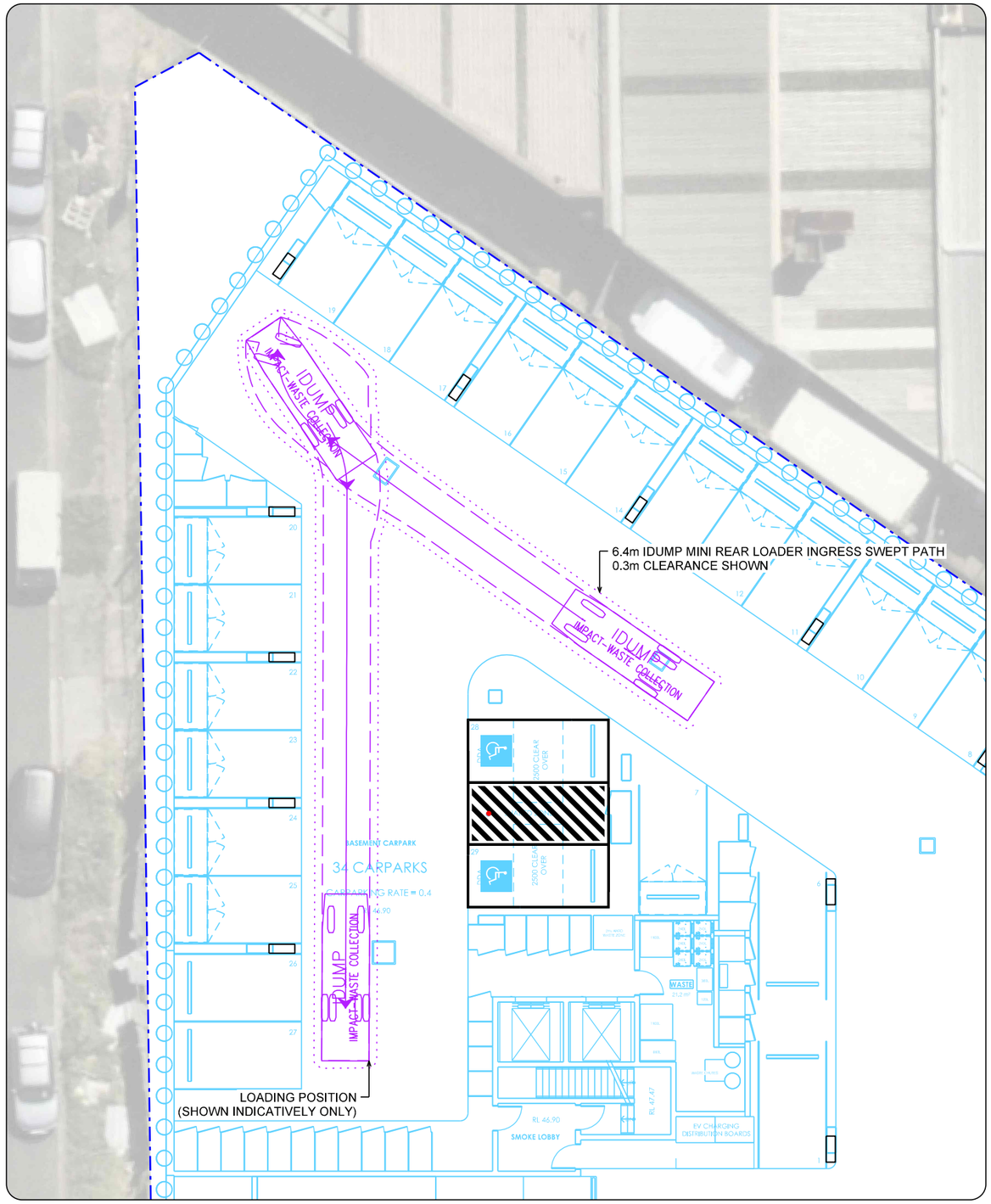

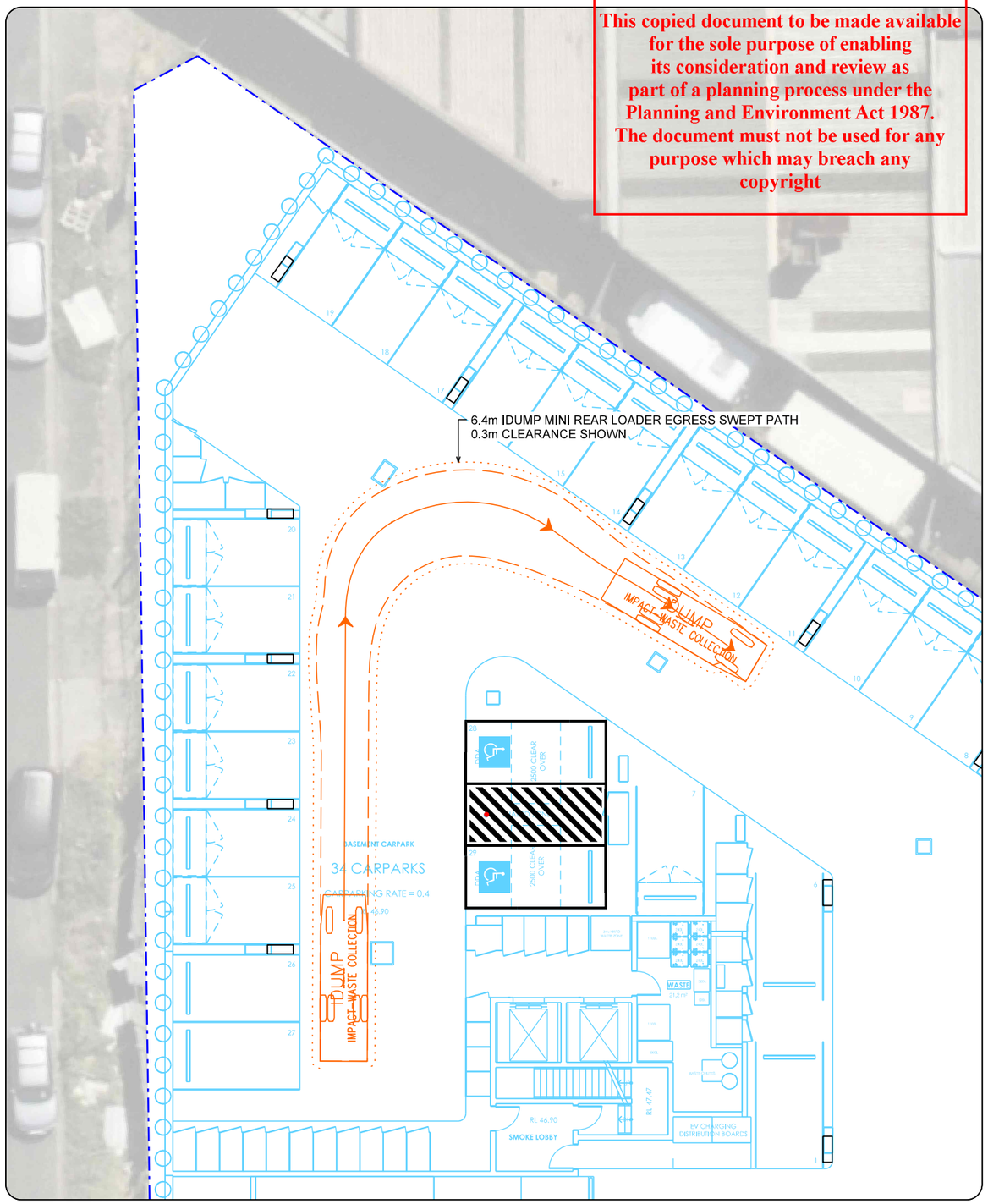

ADVERTISED PLAN

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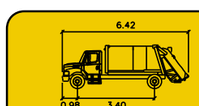

6.4m IDUMP MINI REAR LOADER

	METERS
WIDTH	: 1.82
TRACK	: 1.85
LOCK TO LOCK TIME	: 6.0
STEERING ANGLE	: 36.9

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MELWAY ONLINE REF: MAP 80 A10

SCALE
1:200 @ A3

Client
TANGO

Date **2024-05-13**
Drawn / Approved **WH / WD**

Project
MEDIUM DENSITY RESIDENTIAL DEVELOPMENT
1-5 KINTORE STREET, SPRINGVALE
CITY OF GREATER DANDENONG

Title
TRAFFIC AND TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
6.4m IDUMP MINI REAR LOADER - DESIGN VEHICLE

Status
PRELIMINARY

Drawing Number
IMP2311051 - DRG-01-04

Revision
B