DICKENS SOLUTIONS

(REF – 20133)

AMENDED
WASTE MANAGEMENT PLAN

URBAN LINK ARCHITECTS
(ROLZ GROUP PTY LTD)

PROPOSED MIXED USE RESIDENTIAL & COMMERCIAL DEVELOPMENT
@
1-3 MARSDEN STREET & 3 MARK STREET LIDCOMBE

SEPTEMBER 2022

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TABLE OF CONTENTS

PART 1 – OVERVIEW AND PROPOSAL

1.1 INTRODUCTION

This Waste Management Plan (WMP) describes in detail the manner in which all waste and other materials resulting from the demolition, construction and on-going use of the building on the site are to be dealt with.

The aims and objectives of this WMP are to: -

a) Satisfy all State and Local Government regulatory controls regarding waste management and minimisation practices,
b) Promote the use of recyclable materials in the excavation, demolition, construction and on-going operation of the building,
c) Maximise waste reduction, material separation, and resource recovery in all stages of the development,
d) Ensure the design of waste and recycling storage facilities are of an adequate size, appropriate for the intended use of the building, hygienic with safe and manoeuvrable access:
e) Ensure that the provision of waste and recycling services to the completed buildings are carried out in an efficient manner, which will not impact negatively on the health, safety and convenience of all stakeholders.

This WMP is prepared in accordance with: -

- Auburn Local Environment Plan 2010,
- Auburn DCP 2010 – Waste,
- The 'Better Practice Guide for Resource Recovery in Residential Buildings published by the NSW EPA (April 2019),
- Current industry standards and practices for the storage and collection of waste within Multi Unit Dwellings and Mixed Unit Development, and,
- The objective of ensuring that all waste management facilities and collection services will provide an outcome that will be effective and efficient, as well as promote the principles of health, safety and convenience.

The land upon which the development is proposed is located within the Cumberland (formerly Auburn) LGA.

This Waste Management Plan has been prepared for a Development Application to be submitted to Cumberland Council for the construction of a fourteen (14) storey building of mixed residential and commercial components at 1,1a and 3 Marsden Street and 2 Mark Street, Lidcombe, containing: -

- 100 x 1, 2 and 3 bed room units,
- 84 x Co-Living Housing rooms,
- Ground floor commercial space of approximately 866sqm,
- Three (3) basement levels, with provision for parking, services and ancillary facilities, and,
- Associated infrastructure.

This Amended WMP is dated 8 February 2022, and has been developed in accordance with the Architectural Drawings prepared by Urban Link Architects – Project 20-038 – Revision A – dated 23/11/21.

1.2 HISTORY

The original Waste Management Plan was dated 8 February 2022, and was submitted to Council as part of the DA Package for the proposed development.

On 16 August 2022, Cumberland Council provided correspondence an E-Mail to the Applicant in the form of a Request for Further Information (RFI) in relation to a number of waste management issues, specifically that the waste management plan (REF - 20133) should be in line with Cumberland DCP Part G8 Waste Management and not the Auburn DCP 2010 – Waste.

These issues are listed below in **BOLD FACE TYPE** with a response tom each issue below each matter.

Item 1 – Garbage Chute

The applicant has proposed to not install a garbage chute system but instead utilise a manual waste transport system. As per Cumberland DCP, Part G8 section 3.4 Waste Chute and Service Room requirements', a chute system is required in residential flat buildings with 4 or more storeys. The development, therefore, needs to incorporate a garbage chute system.

RESPONSE – Notwithstanding Council's requirement for the provision of a chute system is respectfully requested that this this requirement be relaxed in this instance due to the merits of the bin transportation system proposed in Part 4.

In regard to the above, it is noted that Council has approved a development at 9-15 Raphael Street, Lidcombe with a similar bin transportation as proposed with this development.

Item 2 – Waste Generation

Council recommends that the applicant amends the proposed bin configuration from sections 4.2 and section 5.8 given the requirement to have a chute system.

The applicant should also follow Part G8 Waste Generation in section 3.3 Residential for RFB's 20+ units in Table 2. Council recommends that there should be 3 collections a week for waste and once a week for recycling.

RESPONSE – Subject to Council's concurrence in relation to Item 1, all waste and recycling generation rates have been calculated in accordance with Council's DCP.

Item 3 – Bulky Waste

A bulky waste storage room must be provided in line with DCP requirement Part G8 Bulk waste storage area requirements C30, currently, the architectural drawings show insufficient bulky storage room of 11sqm:

Bulky waste storage area needs to be designed based on the following calculation: 10m2 of space for up to 40 units and then 2m2 for every additional 10 units.

RESPONSE – The Waste Management Plan has been amended to incorporate the above requirements. The Bulky Waste Area is located in the basement has indicated on the Architectural Drawings – it has an area of 48sqm (equivalent to 190 units) and is accommodated on the ground floor

Item 4 – Collection Area

As the bins will be serviced onsite at the loading area, council recommends the applicant follows the DCP Part G8 s3.6 Collection Area Requirements and section 3.7 Collection vehicle Requirements. Council notes that the applicant in s5.8.4.2 of the WMP indicates loading bay suitability for a HRV with 10.4m long rear loading space. This does not comply with councils requirement for a 10.5m HRV.

A swept path analysis for a 10.5m HRV with a height clearance of 4.5m must clearly be demonstrated in the Architectural Plans, Waste Management Plan, and Traffic and Transport Management Plan. If a hook lift bin is to be used, the height clearance will increase and greater height clearance will be required.

RESPONSE – The Architectural Drawings and Waste Management Plan have been amended to incorporate the above requirements. Refer to relevant parts of the WMP as detailed below.

Item 5 – Commercial Waste Management

The applicant is required to engage a commercial waste contractor to service the site and not Council as indicated by the indicated in the waste management plan.

RESPONSE – The Waste Management Plan has been amended to incorporate the above requirements. Refer to relevant parts of the WMP as detailed below.

This Amended Waste Management Plan (Revision 2) is dated 15 September 2022, and been revised to address all of the waste management issues as part of Council's RFI.

1.3 PROJECT & PROPERTY DESCRIPTION

This Waste Management Plan (WMP) has been specifically designed for the development described below: -

PROJECT DESCRIPTION	**14 Storey Mixed Use Residential and Commercial Building**
NUMBER OF UNITS	**- 100 x 1, 2 and 3 bed room units,** **- 84 x Co-Living Housing rooms,** **- Ground floor commercial space of approximately 866sqm,** **- Three (3) basement levels, with provision for parking, services and ancillary facilities, and,** **- Associated infrastructure.**
PROPERTY DESCRIPTION	**The development is to be constructed over four (4) existing lots at Lots 7-12, Section 2, DP 846, No's 1, 1A, & 3 Marsden Street and 2 Mark Street, Lidcombe**
STREET ADDRESS	**1-3 Marsden St & 2 Mark St, Lidcombe**
DIMENSIONS	**- Front (South) Boundary – 69.04m,** **- Rear (North) Boundary – 69.04m,** **- Side (East) Boundary – 35.36m, and,** **- Side (West) Boundary – 35.36m.**
AREA	**2,441sqm (Survey)**
LGA	**Cumberland (formerly) Auburn Council**
ZONING	**Zone B4 – Mixed Use**
PLANNING INSTRUMENTS	**Auburn LEP 2010** **Auburn Development Control Plan 2010**

The site is situated approximately 100m to the south-east of the Lidcombe Town Centre the main suburban western railway line and Lidcombe Railway Station. The site is located on the south-eastern corner of Marsden and Marks Streets, Lidcombe, approximately 50m north of James Street and a similar distance west of East Street and the Rookwood Cemetery.

The site is occupied by a number of buildings an structures including single dwelling houses and a brick and masonry factory building, all of which are to be demolished to make way for the proposed building. Upon its consolidation, the development will occupy all sites.

The immediate surrounding development consists of a variety of land uses comprising of low density, medium and high density residential, as well as light industrial and commercial activities.

1.4 APPLICANTS DETAILS

APPLICANT	**Rolz Group Pty Ltd** **C/- Urban Link Architects**
ADDRESS	**Level 10, 11-15 Deane Street, Burwood. NSW. 2134.**
TELEPHONE	**02 9745 2014**
E-MAIL	**Christiane@urbanlink.com.au**

1.5 PROPOSAL

The proposal involves the construction of a fourteen (14) storey building of mixed residential and commercial components at 1,1a and 3 Marsden Street and 2 Mark Street, Lidcombe, containing: -

- 100 x 1, 2 and 3 bed room units,
- 84 x Co-Living Housing rooms,
- Ground floor commercial space of approximately 866sqm,
- Three (3) basement levels, with provision for parking, services and ancillary facilities, and,
- Associated infrastructure.

Egress from the building will be onto Marsden Lane on eastern side of the development.

The proposed development incorporates residential components in the form of:

- 84 x Co-Living Housing rooms on Levels 1-3, and,
- 100 x 1, 2 and 3 bed room residential units from Level 4 to Level 14.

The commercial component comprises of five (5) commercial units on the ground floor.

Separate arrangements will be made for each of the three (3) components.

Commercial waste and recycling facilities are located on the ground floor of the complex as indicated on the Architectural Drawings.

A licensed private waste and recycling collection contractor will provide all commercial waste and recycling services to the development.

It is proposed to demolish all buildings and structures on all sites.

The project consists of: -

a) The demolition of all existing buildings on the site,
b) The removal of all demolished materials in accordance with this WMP,
c) The excavation of the site to construct the basement levels for car parking and other services,
d) The construction of the fourteen (14) storey building,
e) The provision of landscaping, driveways, concrete pathways and other elements associated with the development, and,
f) The on-going use of the building.

PART 2 – DEMOLITION

2.1 DEMOLITION – GENERAL REQUIREMENTS

It is recognised that Sydney has an ever-increasing waste problem, and this practice is not sustainable. In alignment with current NSW waste management legislation, this WMP aims, where possible, to promote waste avoidance, reuse and the recycling of material, particularly during the course of demolition and construction works.

Part 2.2 on Pages 8, 9, 10, 11, 12, 13 and 14 of this WMP describes the manner in which waste is to be managed during the course of the demolition of the existing structures.

The processes outlined in Part 2.2 are to be read in conjunction with and comply with the Development Consent issued in respect of the proposal. It will be the developer's overall responsibility to ensure compliance in this regard.

All material moved offsite shall be transported in accordance with the requirements of the Protection of the Environment Operations Act (1997).

Approved receptacles of an appropriate size will be located on site for the collection of food scraps, beverage containers, and other waste generated on site by workers.

2.2 BUILDINGS TO BE DEMOLISHED

Current structures on the site are: -

- No 1 Marsden Street – a single storey brick and tile dwelling attached front veranda, detached sheds, concrete paving, front and rear garden areas, some trees, miscellaneous vegetation, and metal fencing,
- No 1A Marsden Street – a single storey brick and tile dwelling, covered area at the rear of the dwelling, concrete patio, detached garage with access from Marsden Lane, concrete paving, front and rear garden areas, some trees, miscellaneous vegetation, and metal perimeter fencing,
- No 3 Marsden Street – a two (2) storey brick and tile dwelling, detached garage at the rear with access from Marsden Lane, front and rear and grassed areas, some trees and miscellaneous vegetation, and metal fencing, and,
- No 2 Mark Street – a large two (2) storey brick and masonry building with a metal roof currently used as a martial arts facility, concrete apron adjacent to Marsden Lane and small landscaped area, concrete driveway

It is proposed to demolish all buildings and structures on all sites.

2.3 MANAGEMENT OF HAZARDOUS MATERIALS

There may be reasonable potential for hazardous building materials to be present in the buildings to be demolished. The generation, storage, treatment and the disposal of hazardous waste (including asbestos) will be conducted in accordance with relevant waste legislation administered by the NSW EPA and any applicable WH&S legislation administered by Work Cover NSW

All friable and non-friable asbestos-containing material shall be handled and disposed of off-site at an EPA licensed waste facility by an EPA licensed contractor in accordance with the requirements of the Protection of the Environment Operations

(Waste) Regulation 2014 and the Waste Classifications Guidelines – Part 1 'Classifying Waste (EPA 2014) and any other instrument as amended.

All friable hazardous waste arising from the demolition process shall be removed and disposed of in accordance with the requirements of Work Cover NSW and the EPA, and with the provisions of:

a) Work Health and Safety Act 2011,
b) NSW Protection of the Environment Operations Act 1997 (NSW), and,
c) NSW Department of Environment and Climate Change Environmental Guidelines; Assessment, Classification and Management of Liquide and Non-Liquid Wastes.

2.4 DEMOLITION – RECYCLING, REUSE & DISPOSAL DETAILS

The following details prescribe the manner in which all material involved in the demolition of the building will be dealt with, and includes: -

a) An estimate of the types and volumes of waste and recyclables to be generated,
b) A site plan showing sorting and storage areas for demolition waste and vehicle access to these areas (see Part 2.3 of this Plan),
c) How excavation and demolition waste materials will be reused, and, or recycled and where residual wastes will be disposed (see below), and,
d) The total percentage of demolition waste that will be reused or recycled.

It is noted that the quantities of materials detailed in this part (Part 2.2) are estimates only, based on current industry standards and quantity analysis, and may vary due to the prevailing nature of site constraints, weather conditions, and any other unforeseeable activities associated with the demolition works, which are beyond the control of the developer, including but not being limited to theft, accidents, and, or, other acts of misadventure. Notwithstanding any of the above, the developer will provide Council with all details in relation to any major variations in this regard.

1. Excavated Materials & Overburden

Volume / Weight	785 cubic metres / 1,335 Tonnes
On Site Reuse	Yes. Keep and reuse topsoil for landscaping. Shore on site. Use some for support of retaining walls (Excavated Materials are only to be used if the material is not contaminated or has been remediated in accordance with any requirements specified by any Environmental Consultancy engaged to carry out any contamination assessment of excavated material).
Percentage Reused or Recycled	To be determined (see above comments)
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646).

2. Green Waste

Volume / Weight	60 cubic metres / 9 Tonnes
On Site Reuse	To be separated. Chipped and stored on site for re-use in landscaping.
Percentage Reused or Recycled	90%
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646), or, Jacks Gully Waste Management Centre, Richardson Road, Narellan (Tel 1300 651 116)

3. Concrete , Masonry / Bricks (Walls, etc.)

Volume / Weight	500 cubic metres / 500 Tonnes
On Site Reuse	Clean and remove lime mortar from bricks. Re-use in new footings. Broken bricks for internal walls. Crush and reuse as drainage backfill. Crushed and used as aggregate.
Percentage Reused or Recycled	75% - 90%
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646)

4. Concrete (Slabs, Driveways, etc)

Volume / Weight	150 cubic metres / 360 Tonnes
On Site Reuse	Existing driveways to be retained during construction. Crushed and used as aggregate, drainage backfill.
Percentage Reused or Recycled	60% - 75%
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646).

5. Timber

Volume / Weight	125 cubic metres / 50 Tonnes
On Site Reuse	Re-use for formwork and studwork, landscaping, shoring.
Percentage Reused or Recycled	65% - 90%
Off Site Destination	Artistic Popular Furniture, 10 Raglan Road, Auburn (Tel 02 96443054) or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646).

6. Plasterboard & Fibro

Volume / Weight	100 cubic metres / 33.5 Tonnes
On Site Reuse	Nil – All material to be disposed of off-site
Percentage Reused or Recycled	To be determined (dependent on asbestos content)
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544
Off Site Destination (Asbestos)	or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646), or, Jacks Gully Waste Management Centre, Richardson Road, Narellan (Tel 1300 651 116) or, Enviroguard, Cnr Mamre and Erskine Roads, Erskine Park (Tel 02 9834 3411).

7. Metals / Steel / Guttering & Downpipes

Volume / Weight	150 cubic metres / 75 Tonnes
On Site Reuse	No
Percentage Reused or Recycle	60% - 90%
Off Site Destination	Boral Recycling, 3 Thackeray Street, Camelia (Tel 9529 4424) or, Hallinan's Recycling Centre, 37 Lee Holm Road, St.Marys (Tel 02 9833 0883) or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 651 116)

8. Tiles/Roofing Material

Volume / Weight	75 cubic metres / 56.25 Tonnes
On Site Reuse	Broken up and used as fill, aggregate, driveways.
Percentage Reused or Recycle	80% - 90%
Off Site Destination	Obsolete Tiles, 3 South Street, Rydalmere. (Tel 02 9684 6333) or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 651 116)

9. Fixture & Fittings (Doors Fittings, Other Fixtures, etc)

Volume	150 cubic metres / 50 Tonnes
On Site Reuse	Broken up and used as fill.
Percentage Reused or Recycle	80% - 90%
Off Site Destination	Hallinan's Recycling Centre, 37 Lee Holm Road, St.Marys (Tel 02 9833 0883) or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 651 116)

10. Glass, Electrical & Light Fittings, PC Items, Ceramics, etc

Volume / Weight	120 cubic metres / 40 Tonnes
On Site Reuse	No
Percentage Reused or Recycle	To be determined (dependent upon nature of material)
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646), or, Jacks Gully Waste Management Centre, Richardson Road, Narellan (Tel 1300 651 116).

11. Residual Waste

Volume / Weight	225 cubic metres / 225 Tonnes
On Site Reuse	No
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646), or, Jacks Gully Waste Management Centre, Richardson Road, Narellan (Tel 1300 651 116)
Notes on calculation of volume of residual waste	1. In calculating the amount of residual waste produced from the demolition of all buildings on site, it is estimated that approximately 10% of it, will be residual waste. 2. As all of the materials vary in weight per volume, a figure of 1 cubic metre of material is equal to 1 tonne in weight has been used.

The facilities and agencies that have been nominated to receive the materials listed above have been identified within the NSW waste industry as being a facility or agency that will accept the materials specified in each respective table.

The developer understands that any costs associated with the transportation and receival of these materials will be their responsibility.

The developer is under no obligation to use any nominated facility or agency, but should any alternative arrangements be made, it will be the developers' responsibility to ensure that all demolished materials removed from the site are disposed of, or processed, appropriately.

The developer will keep a written record of all documentation associated with the transportation, disposal and processing of all materials associated with the demolition of all structures on site.

2.5 DEMOLITION – ON SITE STORAGE OF MATERIALS

During the demolition stage of the project, an area will be set aside on the site as a compound for the on-site storage of materials prior to their removal from the site. This compound will provide for: -

- Material sorting,
- Segregation of materials that may be hazardous and which will be required to be disposed of,
- Recovery equipment, such as concrete crushers, chippers, and skip bins,
- Material storage, and,

- Access for transport equipment.

Appropriate vehicular access will be provided on and off site, and to the compound, to enable the efficient removal of reusable, recyclable, and waste materials.

Prior to the commencement of demolition works, the developer will provide Council with a 'Site Plan for the On-Site Storage of Materials at Demolition'. This plan will show in detail the location of each area within the compound, set aside for the segregated storage of all materials involved in the demolition of all buildings on the site.

2.6 DEMOLITION – EXCAVATED MATERIAL

All excavated material removed from the site, as a result of the demolition of all buildings, must be classified in accordance with the Department of Environment, Climate Change and Water NSW Waste Classification Guidelines prior to their removal, transportation and disposal to an approved waste management facility.

All relevant details must be reported to the PCA.

PART 3 – CONSTRUCTION

3.1 CONSTRUCTION – GENERALLY

Upon completion of all demolition works, construction of the building will commence with the excavation of the site for the basement levels of the building. All materials sourced from these activities will be disposed of in accordance with the information provided in Part 3.2 on pages 15, 16, 17, 18, 19 and 20 of this WMP.

Additionally, all materials used in the construction of the building that are not required to be incorporated into it, shall be recycled, reused or disposed of in accordance with these provisions, and the requirements of the Protection of the Environment Operations Act (1997). It will be the developer's overall responsibility to ensure compliance in this regard.

Mobile Bins of an appropriate size will be located on site for the collection of food scraps, beverage containers, and other waste generated on site by workers.

3.2 CONSTRUCTION – RECYCLING, REUSE & DISPOSAL DETAILS

The following details prescribe the manner in which all materials surplus to the construction of the building will be dealt with, and includes: -

a) An estimate of the types and volumes of waste and recyclables to be generated,
b) A site plan showing sorting and storage areas for construction waste and vehicle access to these areas (see Part 3.3 of this Plan),
c) How excavated and other materials surplus to construction will be reused or recycled and where residual wastes will be disposed (see below), and,
d) The total percentage of waste surplus to construction to be reused or recycled.

1. Excavated Materials

Volume / Weight	20,000 cubic metres / 48,765 Tonnes
On Site Reuse	Yes. Keep and reuse topsoil for landscaping. Shore on site. Use some for support of retaining walls (Excavated Materials are only to be used if the material is not contaminated or has been remediated in accordance with any requirements specified by any Environmental Consultancy engaged to carry out any contamination assessment of excavated material).
Percentage Reused or Recycled	To be determined (see above comments)
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646).

2. Bricks

Volume / Weight	10 cubic metres / 10 Tonnes
On Site Reuse	Clean and remove lime mortar from bricks. Broken bricks for internal walls. Crush and reuse as drainage backfill. Crushed and used as aggregate.
Percentage Reused or Recycle	75% - 90%
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646).

3. Concrete

Volume / Weight	5 cubic metres / 12 Tonnes
On Site Reuse	Existing driveway to be retained during construction. Crushed and used as aggregate, drainage backfill.
Percentage Reused or Recycled	60% - 75%
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646), or, Jacks Gully Waste Management Centre, Richardson Road, Narellan (Tel 1300 651 116)

4. Timber

Volume / Weight	10 cubic metres / 4 Tonnes
On Site Reuse	Re-use for formwork and studwork, and for landscaping
Percentage Reused or Recycled	65% - 90%
Off Site Destination	Artistic Popular Furniture, 10 Raglan Road, Auburn (Tel 02 96443054) or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646).

5. Plasterboard & Fibro

Volume / Weight	12 cubic metres / 4 Tonnes
On Site Reuse	Nil – all to be disposed of off-site
Percentage Reused or Recycled	To be determined
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646), or, Jacks Gully Waste Management Centre, Richardson Road, Narellan (Tel 1300 651 116)

6. Metals / Steel / Guttering & Downpipes

Volume / Weight	15 cubic metres / 3.75 Tonnes
On Site Reuse	No
Percentage Reused or Recycled	60 – 90%
Off Site Destination	Boral Recycling, 3 Thackeray Street, Camelia (Tel 9529 4424) or, Hallinan's Recycling Centre, 37 Lee Holm Road, St.Marys (Tel 02 9833 0883) or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 651 116)

7. Roof Tiles / Tiles

Volume / Weight	8 cubic metres / 6 Tonnes
On Site Reuse	Broken up and used as fill.
Percentage Reused or Recycled	80% - 90%
Off Site Destination	Obsolete Tiles, 3 South Street, Rydalmere. (Tel 02 9684 6333) or, Hallinan's Recycling Centre, 37 Lee Holm Road, St.Marys (Tel 02 9833 0883) or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 651 116)

8. Plastics

Volume / Weight	9 cubic metres / 1.5 Tonne
On Site Reuse	Nil
Percentage Reused or Recycled	80% - 95%
Off Site Destination	Recycle Works, 45 Parramatta Road, Annandale (Tel 02 9517 2711)

9. Glass, Electrical & Light Fittings, PC items

Volume / Weight	15 cubic metres / 3 Tonne
On Site Reuse	No
Percentage Reused or Recycled	70% - 90%
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646).

10. Fixture & Fittings (Doors Fittings, Other Fixtures, etc)

Volume	24 cubic metres / 8 Tonnes
On Site Reuse	Broken up and used as fill.
Percentage Reused or Recycle	80% - 90%
Off Site Destination	Hallinan's Recycling Centre, 37 Lee Holm Road, St.Marys (Tel 02 9833 0883) or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 651 116) or, Recycle Works, 45 Parramatta Road, Annandale (Tel 02 9517 2711)

11. Pallets

Volume / Weight	50 cubic metres / 16 Tonne
On Site Reuse	No
Percentage Reused or Recycle	90% - 100%
Off Site Destination	To an approved agency, or agencies, for reuse and resale.

12. Residual Waste

Volume / Weight	2,100 cubic metres / 2,100 Tonnes
On Site Reuse	No
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Blacktown Waste Services, 920 Richmond Road, Marsden Park. Tel 9835 4544 or, Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646), or, Jacks Gully Waste Management Centre, Richardson Road, Narellan (Tel 1300 651 116)
Notes on calculation of volume of residual waste	1. In calculating the amount of residual waste produced from the demolition of all buildings on site, it is estimated that approximately 10% of it, will be residual waste. 2. As all of the materials vary in weight per volume, a figure of 1 cubic metre of material is equal to 1 tonne in weight has been used.

It is noted that the quantities of materials detailed in this section (Part 3.2) are estimates only, based on current industry standards and quantity analysis, and may vary due to the prevailing nature of construction constraints, weather conditions, and any other unforeseeable activities associated with the construction of the buildings, which are beyond the control of the developer, including but not being limited to theft, accidents, and other acts of misadventure.

Notwithstanding any of the above, the developer will provide Council with all details in relation to any major variations in this regard.

The developer will keep a record of all documentation associated with the transportation, disposal and processing of all materials surplus to the construction of the building.

Should any of the facilities nominated above, for any reason be unable to accommodate the receipt of these materials, the developer will be responsible for making alternative arrangements that will ensure that all materials, excess to construction requirements, that are removed from the site are disposed of, or processed, appropriately.

Additionally, during the construction of the building, every effort will be made to reduce and minimise the amount of building materials excess to its construction.

3.3 CONSTRUCTION – ON SITE STORAGE OF MATERIALS

During the construction of the buildings, an area will be set aside on the site as a compound for the on-site storage of materials prior to their removal from the site. This compound will provide for: -

- Material sorting,
- Segregation of materials that may be hazardous and which will be required to be disposed of,
- Recovery equipment, such as concrete crushers, chippers, and skip bins,
- Material storage, and,
- Access for transport equipment.

Appropriate vehicular access will be provided on and off site, and to the compound, to enable the efficient removal of reusable, recyclables, and waste materials.

Prior to the commencement of construction works, the developer will provide Council with a 'Site Plan for the On-Site Storage of Materials at Construction'. This plan will show in detail the location of each area within the compound, set aside for the segregated storage of all materials involved in the demolition of all buildings on the site.

3.4 CONSTRUCTION – EXCAVATED MATERIAL

All excavated material removed from the site, as a result of any activities associated with the construction of the building, must be classified in accordance with the Department of Environment, Climate Change and Water NSW Waste Classification Guidelines prior to removal, transportation and disposal to an approved waste management facility.

All relevant details must be reported to the PCA.

PART 4 – WASTE TRANSPORTATION SYSTEM

4.1 OVERVIEW

In lieu of installing a garbage chute system in the building, it is proposed to incorporate a waste management transportation system that will provide a convenient, effective and efficient mechanism for the management of waste throughout the building.

Council has previously indicated that it requires a garbage chute for all developments over four (4) storeys in height, which may be a garbage chute system.

It is not proposed to install a chute in this proposal as the developer has indicated that based on previous experience over many years, they have not been a successful option. In this regard, it is their considered opinion that chutes in many cases may not be the best option in terms of a waste transportation system in high-rise buildings. As such it is not intended to provide for garbage chutes into the building design.

Although Garbage Chutes have been used in high-density buildings in Australia for many years, there are manual handling alternatives that provide efficient, effective and practical outcomes in terms of waste transportation systems.

Some of the disadvantages of chutes include:

- Costly to install,
- Difficult to clean and maintain,
- Requires constant operation,
- Can be incompatible in terms of building design, adding more cost,
- Only suitable for small waste material,
- Prone to blockage,
- Potential of added fire risk,
- Cost and inconvenience of repairs in the maintenance,
- and break down are costly to install, are prone require a great deal of maintenance,
- Compaction,
- Capacity to manage large volumes of waste (even with linear systems),
- Noise and odour, and,
- Lack of control and management systems.

This document aims to demonstrate that such a manual handling system can provided a suitable alternative to the chute system, by offering a manual process that is underpinned by the use of technology and processes that will enhance operational efficiencies, and improve recycling rates, as well as the manner in which all material is managed.

This system will also offer residents and tenants a convenient way of transporting their waste from their units to their ‘on-floor’ waste and recycling compartments, which are well within accepted travel distances. The maximum distance any resident has to travel from their unit to a compartment will be 8.6m in the East Core units and 12.5m in the West Core Units.

In lieu of chutes Waste and Recycling Compartments will be located on each residential floor for residents to deposit their waste and recycling material into respective 240-litre mobile waste (red lid) and recycling (yellow lid) bins located next to each other in each compartment.

The installation of chutes has aimed to provide a convenient mechanism for the residents of residential flat buildings to dispose of the waste and recycling. The processes outlined in this Part (Part 4) aim to demonstrate the effectiveness of the alternatives proposed.

The process outlined herein are no way intended to denigrate or discourage the use of chute systems, but are merely to indicate that there are just as efficient alternatives, which are solely based on user preferences.

4.2 WASTE & RECYCLING MANAGEMENT SYSTEM – CO-LIVING HOUSING ROOMS

The building has a total of fourteen Levels (including the Ground Floor).

From Level 1 to Level 3, the building will be occupied by the tenants of 83 x co-living housing rooms. This Part (Part 4.2) deals with the waste and recycling management system for these rooms.

From Levels 4 to 14, the building is separated into two (2) cores – an East Core and a West Core. There are 50 units in each core.

4.2.1 Waste Management – Levels 1-3 Co-Living Housing Rooms

Based on the required waste generation rates for the co-living housing rooms (70-litres of space per room per week), it is anticipated that all rooms will generate at a rate of 4,760 litres of waste per week, or 680 litres per day. As there are 3 levels of the building containing the co-living housing rooms, each level will generate 226.67-litres of waste per day.

There will be 3 x 240-litre waste bins provided to each floor level of the building, which will provide a total capacity of 720-litres. In order to ensure the system functions effectively and there is no spillage, each compartment on each of level of the building will be inspected at least one (1) time per day.

4.2.2 Recycling Management – Levels 1-4 Co-Living Housing Rooms

Based on the required recycling generation rates for co-living housing rooms (35-litres of space per room per week), it is anticipated that all rooms will generate at a rate of 2,380 litres of waste per week, or 340 litres per day. As there are 3 levels of the building containing the co-living housing rooms, each level will generate 113.34-litres of waste per day.

There will be 3 x 240-litre waste bins provided to each floor level of the building, which will provide a total capacity of 720-litres.

In order to ensure the system functions effectively and there is no spillage, each compartment on each of level of the building will be inspected at least one (1) time every two (2) days.

4.2.3 Waste and Recycling Compartments

Waste and Recycling compartments will be provided on each level (Levels 1 to 3) of the building. Within each compartment will be 3 x 240-litre waste bins and 3 x 240-litre recycling bins. The occupants of the rooms will deposit their waste and recycling material into the respective bins.

4.2.4 Bin Transfer

The Building Manager or their authorised representative will monitor all activities associated with the use and operation of each compartment, the depositing of waste and recycling into the respective bins, and that the system operates effectively.

The Building Manager or their authorised representative will be responsible for transferring full waste bins and recycling bins from the compartment into the Residential WSA.

Appropriate signage will be provided in all waste and recycling compartments informing all tenants of their obligations and in particular depositing their waste and recycling material into the respective bins.

4.3 WASTE & RECYCLING MANAGEMENT SYSTEM – RESIDENTIAL UNITS

On Level 1 and from Level 4 to Level 14, the building will be constructed in two (2) cores and will contain 100 x 1, 2 and 3 bed room units – 50 in each core. This Part (Part 4.3) deals with the waste and recycling management system for these 100 x 1, 2 and 3 bed room units.

4.3.1 Waste Management – Ground Floor

There are two (2) x one (1) bed room units on the ground floor, which do not have access to a waste and recycling compartments. The residents of each of these units will be responsible for transporting their waste and recycling material from their units and depositing their material into the respective bins located in the Residential Bin Room.

4.3.2 Waste Management – Levels 4-14 (Both Cores)

Based on the required Council's waste generation rates for residential flat buildings (120-litres of space per unit per week), it is anticipated that the 50 units in each core of the building will generate waste at a rate of 6,000 litres of waste per week, or 857.15 litres per day.

As there are 10 levels of the building containing these units, each level will generate approximately 78-litres of waste per day.

There will be 1 x 240-litre waste bin provided to each floor level of the building, which will provide a total capacity of 240-litres.

In order to ensure the system functions effectively and there is no spillage, each compartment in each core on each of level of the building will be inspected at least one (1) time per day.

4.3.3 Recycling Management – Levels 4-14 (Both Cores)

Based on the required Council's recycling generation rates for residential flat buildings (60-litres of space per unit per week), it is anticipated that the 50 units in each core of the building will generate waste at a rate of 3,000 litres of waste per week, or 428.57-litres per day.

As there are 10 levels of the building containing these units, each level will generate approximately 39-litres of waste per day.

There will be 1 x 240-litre waste bin provided to each floor level of the building, which will provide a total capacity of 240-litres.

In order to ensure the system functions effectively and there is no spillage, each compartment in each core on each of level of the building will be inspected at least one (1) time every two (2) days.

4.2.3 Waste and Recycling Compartments

Waste and Recycling compartments will be provided in each core, on each level (Levels 4 to 14) of the building. Within each compartment will be 1 x 240-litre waste bin and 1 x 240-litre recycling bin.

The residents of each unit will deposit their waste and recycling material into the respective bins located on each of the ten (10) levels.

4.3.3 Bin Transfer

The Building Manager or their authorised representative will monitor all activities associated with the use and operation of each compartment, in each core and on each level, the depositing of waste and recycling into the respective bins, and that the system operates effectively.

The Building Manager or their authorised representative will be responsible for transferring full waste bins and recycling bins from the compartment into the Residential WSA.

Appropriate signage will be provided in all waste and recycling compartments informing all tenants of their obligations and in particular depositing their waste and recycling material into the respective bins.

4.4 ON GOING MANAGEMENT & MAINTENANCE

The Owners will be responsible for all issues associated with the on-going management and maintenance of all waste and recycling compartments and all activities associated with them.

The Building Manager or their authorised representative will be responsible for transferring all full waste and recycling bins from all waste and recycling compartments on all levels of the building into the respective waste and recycling bin storage areas of the Residential Waste Storage Area on the Ground Floor, where they will be stored prior to collection.

Full waste and recycling bins removed from each compartment will immediately be replaced with an empty one.

The Building Manager or their authorised representative will also be responsible for:

a) The depositing of waste and recycling material into the respective bins, in order to ensure that there will be no spillage, and that the system operates effectively,
b) Displaying signage indicating appropriate use of all waste management systems, including what is and what is not recyclable.
c) Educating occupants in the correct use of all waste and recycling management systems,
d) Providing regular maintenance, including cleaning, and,

e) Regular inspection of all compartments, and the waste storage areas to ensure that all waste and recyclables are managed appropriately.

A system of Closed-Circuit Video Monitors (CCTV) will be installed in the WSA.

This system will be connected to an automated software platform located at the main of office of the Strata Management Company.

4.5 INFRASTRUCTURE

In accordance with Council requirements, the following infrastructure will be incorporated into the design of all waste storage areas and compartments:

1. Suitable door access for the service of bins,
2. All floors will be finished with a non-slip and smooth and even surface covered at all intersections,
3. The floor will be graded to a central drainage point connected to the sewer,
4. Rooms will be fully enclosed and roofed with a minimum internal room height in accordance with the BCA 2016,
5. Rooms are to be provided with an adequate supply of water through a centralised mixing valve with hose cock, and.
6. Incorporation of adequate light and ventilation in accordance with requirements of the BCA 2016.

All waste handling activities (including the transfer of recycling bins) will be undertaken by representatives of the Owners Corporation.

PART 5 – ON GOING USE OF BUILDING

5.1 OBJECTIVES

1. To ensure that the storage, amenity and management of waste is sufficient to meet the needs of the development.
2. To ensure that all waste management activities are carried out effectively and efficiently, and in a manner, that promotes the principles of health, safety and convenience.
3. To promote waste minimisation practices.

5.2 ASSUMPTIONS

In preparing this proposal, the following assumptions have been made: -

1. The proposal involves the construction of a fourteen (14) storey building of mixed residential and commercial components.
2. There are two (2) elements to the residential component – co-living housing rooms and residential flat buildings
3. The commercial component comprises of five (5) commercial units located on the ground floor with a combined floor area of 866sqm.
4. As there are separate residential and commercial components to the development, separate waste management arrangements will be made for each.
5. Two (2) separate Waste Storage Areas (WSA's) have been provided. One for the residential component of the building, and one for commercial.
6. The co-living housing component consists of 84 x rooms, and all rooms are located on Levels 1 to 3 of the building.
7. The residential flat building component are located on the Ground Floor (2 x units) and Levels 4 to 14 and are separated into two (2) separate cores – East Core and West Core.
8. The West Core of the building contains 50 units.
9. The East Core of the building contains 50 units.
10. From Level 1 to Level 3, the building will be occupied by the tenants of 84 x co-living housing rooms.
11. From Levels 4 to 14, the building is separated into two (2) cores – an East Core and a West Core as indicated above, there are 50 units in each core.
12. It is not intended to install garbage chutes in the building. In lieu of chutes a Waste Management Transportation System will be incorporated into the building as detailed In Part 4.
13. From Levels 1 to 3, waste and recycling compartments are provided, in which 3 x 240-litre waste bins and 3 x 240-litre recycling bins are provided for the occupants of the co-living housing rooms to dispose of their waste and recycling material.
14. From Levels 4 to 14, waste and recycling compartments are provided for both cores of the building, in which 1 x 240-litre waste bin and 1 x 240-litre recycling bin are provided in each, for residents to dispose of their waste and recycling material.
15. All bins allocated for the disposal of all waste and recycling material generated from the use of the residential component of the building will be stored in separate areas of the Residential Garbage Room on the Ground Floor of the building as indicated on the Architectural Drawings.

16. All residential waste material will be stored in 9 x 1100-litre mobile bins.
17. All residential recycling material will be stored 38 x 240-litre mobile bins.
18. Residential waste services will be provided twice weekly.
19. Residential recycling services will be provided weekly.
20. Cumberland (Auburn) Council will provide all waste and recycling services to the residential component of the development.
21. The number and size of bins have been calculated from information provided by Cumberland (formerly Auburn) Council, by Council staff and from information contained in the Auburn DCP 2010.
22. All residential waste and recycling collections will take place from a waste collection area (Loading Bay) located immediately in front of the Residential Garbage Room
23. All bins will be presented for servicing and returned to the Residential Garbage Room members of Council's collection team as soon as servicing has been completed.
24. The Owners Corporation will appoint a Building Manager/Caretaker to manage all waste management activities in accordance with this WMP.
25. The Commercial Waste Storage Area (CWSA) located on the ground floor of the building next to the Services Room as indicated on the Architectural Drawings.
26. All commercial waste and recycling collections will take place from a waste collection area (Loading Bay) located immediately in front of the RBCA.
27. A licensed private waste collection contractor will provide all waste and recycling services to the commercial component of the development.

5.3 WASTE HANDLING & MANAGEMENT

A cabinet will be located within each residential unit so that a receptacle, or receptacles, may be stored or housed in a convenient and practical location within the unit, for the reception of waste and recyclable material.

5.4 WASTE & RECYCLING – SERVICE REQUIREMENTS

All waste and recycling materials will be stored in approved receptacles of an appropriate size as specified in this WMP. The lids of the bins shall be closed at all times to reduce litter, stormwater pollution, odour and vermin.

The Council in general requires that colour coded receptacle lids that distinguish each service component are to be provided: -

- Waste Service – Red Lidded receptacle,
- Recycling Service – Yellow Lidded receptacle, and,
- Green Waste – Green Lidded receptacle.

No formal green waste service will be provided to the building. All green waste will be disposed of privately by a contractor to be appointed by the Owners Corporation.

It will be the responsibility of the Owners Corporation to ensure that all green waste is removed from the complex in an appropriate manner.

5.5 WASTE & RECYCLING GENERATION – CO-LIVING HOUSING COMPONENT

The following table (Table 1) specifies the criteria for waste and recycling generation rates (as specified in the Better Practice Waste Management – Waste and Recycling Generation Rates for Co-Living Housing: -

- Waste – 70 litres of bin space per room per week; and,
- Recycling – 35 litres of bin space per unit per week.

TABLE 1 – WASTE & RECYCLING GENERATION RATES

SERVICE TYPE	UNITS	BIN SPACE PER UNIT	TOTAL SPACE REQUIRED	BINS SIZE	SERVICES PER WEEK	BINS REQUIRED	BINS PROVIDED
Waste	84	70	5,880	1100	2	2.67	3
Recycling	84	35	2,940	240	1	12.25	13

5.6 WASTE & RECYCLING GENERATION – RESIDENTIAL FLAT BUILDING UNITS

The following table (Table 2) specifies the criteria for waste and recycling generation rates (as specified by Auburn Council) for residential flat buildings, based on: -

- Waste – 120 litres of bin space per unit per week; and,
- Recycling – 60 litres of bin space per unit per week.

All waste and recycling generation rates were obtained from discussions with and advice from Council staff, and from information contained in Auburn Council's DCP 2014 – Part 7.2 'Waste Minimisation & Management'.

TABLE 1 – RESIDENTIAL WASTE & RECYCLING GENERATION RATES

SERVICE TYPE	UNITS	BIN SPACE PER UNIT	TOTAL SPACE REQUIRED	BINS SIZE	SERVICES PER WEEK	BINS REQUIRED	BINS PROVIDED
Waste	100	120	12,000	1100	2	5.45	6
Recycling	100	60	6,000	240	1	25.00	25

5.7 RESIDENTIAL WASTE & RECYCLING – SERVICE ARRANGEMENTS

In order to meet Council's servicing arrangements for both residential elements of the building for the 84 x co-living housing rooms, and the 100 x 1, 2 and 3 bed room units the following services will be required:

- Waste Services – 9 x 1100-litre waste bins, serviced two (2) days per week, and,
- Recycling Services – 38 x 240-litre recycling bins, serviced one (1) day per week.

5.8 PROVISION OF RESIDENTIAL WASTE & RECYCLING SERVICES

5.8.1 Waste and Recycling Collection Service Provider Details

Cumberland Council will provide all residential waste and recycling services to the complex.

5.8.2 Details of Mobile Containers

All waste and recycling services will be provided from 660 mobile bins, of an approved design standard. In relation to the size and design of the waste and recycling mobile bins, the following technical information is provided: -

CONTAINER TYPE	HEIGHT (metres)	DEPTH (metres)	WIDTH (metres)
240 litre mobile container	1.080	0.735	0.585
1100 litre mobile container	1.470	1.245	1.370

5.8.3 Waste & Recycling Requirements

Waste and recycling requirements are provided in the table below.

SERVICE	NUMBER OF CONTAINERS	COLLECTION FREQUENCY
Waste Service	9 x 1100-litre mobile containers	Twice per week
Recycling Service	38 x 240-litre mobile containers	Weekly

5.8.4 Location, Design, and Construction of Waste Storage and Collection Areas

Details of all Waste Storage Area provided to facilitate all waste and recycling storage and collection activities, are listed below.

5.8.4.1 Residential Garbage Room (RGR)

The RGR is located on the ground floor of the building adjacent to the driveway into the building. It is a large mainly rectangular structure with an area of approximately 51sqm. Within its confines will be storage space for 9 x 1100-litre waste bins and 38 x 240-litre recycling bins.

In assessing the size and design of the RGR it is considered that it is of a sufficient size and dimension to adequately store and manoeuvre (for collection and return) all of the required number of bins and ancillary facilities.

The RGR will be fully enclosed, adequately ventilated and constructed with be concrete floor and concrete or cement rendered walls covering the floor. The floor will be graded and drained to an approved sewer connection incorporating a sump and galvanised grate cover or basket, and a hot and cold hose cock will be provided within the room.

Natural and mechanical ventilation will be required to be installed within the RGR in accordance with the provisions of the Building Code of Australia.

5.8.4.2 Collection Area / Loading Bay

All residential waste and recycling bins will be serviced from a dedicated loading bay on the ground floor of the site as indicated on the Ground Floor Plan. The loading bay has been designed to accommodate Council's 10.4m long rear loading HRV collection, which will reverse into the site from Marsden Lane, service the bins and

exit the site in a forward direction.

The servicing of bins will take place from the Loading Bay, without obstructing vehicle movements in and out of the basements below.

All internal access, parking and servicing arrangements are to comply with all relevant Australian Standards.

A mobile traffic barrier will be provided to the front section of the Collection Bay to prevent any vehicle from parking on or near it. The barrier will be maintained by a Building Manager or Caretaker appointed by the Owners Corporation. The Building Manager or Caretaker will be responsible for setting up the barrier and removing it to coincide with collection activities.

5.8.5 Servicing Arrangements – Waste Collections

All waste services will be provided by Cumberland (Auburn) Council using a HRV collection vehicle, that will enable all collections to be carried out effectively and efficiently, and in a manner that will aim not impact negatively on the principles of health, safety or convenience.

A member of Council's waste collection team will be responsible for presenting the bins for servicing and returning them to the RGR after collection.

On each collection day, all waste bins will be removed from the RGR, and placed onto a designated collection area adjacent to the Collection Bay. The bins will then be serviced by the collection vehicle.

The waste bins will be serviced twice weekly, on days to be determined by the Council.

Waste bins will be returned to the RGR immediately after they have been serviced.

All 9 x 1100-litre mobile waste bins will be serviced on each collection day.

5.8.6 Servicing Arrangements – Recycling Collections

All recycling services will be provided by Cumberland (Auburn) Council using a HRV collection vehicle, that will enable all collections to be carried out effectively and efficiently, and in a manner that will aim not impact negatively on the principles of health, safety or convenience.

A member of Council's waste collection team will be responsible for presenting the bins for servicing and returning them to the RGR after collection.

On each collection day, all recycling bins will be removed from the RGR, and placed onto a designated collection area adjacent to the Collection Bay. The bins will then be serviced by the collection vehicle.

The recycling bins will be serviced weekly, on a day to be determined by the Council.

Waste bins will be returned to the RGR immediately after they have been serviced.

All 38 x 240-litre mobile recycling bins will be serviced on each collection day.

5.9 GREEN WASTE

No formal green waste service will be provided to the building. All green waste will be disposed of privately by a contractor to be appointed by the Owners Corporation.

It will be the responsibility of the Owners Corporation to ensure that all green waste is removed from the complex in an appropriate manner.

5.10 BULKY WASTE STORAGE

Secure storage spaces are required to be provided for each residential unit in accordance with the provisions of Council's DCP 2010.

This space may be used to store bulky waste items that can be disposed of as part of any Council Clean Up services to be provided to this complex.

Consistent with these requirements, a Bulky Waste Storage Area has been provided for residents to place unwanted materials awaiting collection and removal. This area is located immediately next to RGR. It is a fully enclosed structure fitted with a doorway with a minimum width of 1.5 metres, with an area of approximately 48 cubic metres.

All residents of the building will be provided with unrestricted 24-hour access to this facility.

The Building Manager / Caretaker will monitor this area regularly to ensure that all materials stored within its confines are done so in a manner that will not adversely impact on the health, safety, and convenience. Regular maintenance of this area will be carried out.

The Owners Corporation will also be responsible for liaising with Council and arranging 'Clean Ups' to ensure the efficient and regular removal at these materials. It will be the responsibility of the occupants of individual residential units, to dispose of this material, appropriately. Clean Up collections will be undertaken as directed by Council.

5.11 COMMERCIAL WASTE & RECYCLING SERVICES

5.11.1 Details of Commercial Land Uses

Five (5) commercial units will be located within the building.

The tenancies are a mix of commercial, office and retail land uses. Particulars of each tenancy is outlined in Table 4.

TABLE 4 – COMMERCIAL TENANCIES

TENANCY	PROPOSED USE	LOCATION	FLOOR AREA (Square Metres)
G01	Commercial	Ground Floor	433
G02	Commercial	Ground Floor	197
G03	Commercial	Ground Floor	120
G04	Office	Ground Floor	60
G05	Office	Ground Floor	56

5.11.2 Waste & Recycling Generation Rates

The Table below (Table 5) details the waste and recycling generation rates for the commercial land uses proposed.

These rates have been obtained from the Better Practice Guide for Waste Management in Mixed Use and Multi Unit Dwellings, as published by the NSW Department of Environment and Climate Change, in conjunction with the Model Development Control Plan and Local Approvals Policy, The Combined Sydney Regional Organisations of Councils (1996).

These rates have been used as Council's DCP does not currently provide for them

TABLE 5 – FORMULA FOR CALCULATION WASTE & RECYCLING GENERATION RATES FOR COMMERCIAL LAND USES

SERVICE	LAND USE	WASTE & RECYCLING GENERATION RATES
Waste	Office	10.0 litres of waste per 100sqm of floor area per day
Waste	Retail	50.0 litres of waste per 100sqm of floor area per day
Waste	Café / Takeaway	80.0 litres of waste per 100sqm of floor area per day
Waste	Restaurant	400.0 litres of waste per 100sqm of floor area per day
Recycling	Office	10.0 litres of recyclable material per 100sqm of floor area per day
Recycling	Retail	25.0 litres of recyclable material per 100sqm of floor area per day
Recycling	Café / Takeaway	40.0 litres of recyclable material per 100sqm of floor area per day
Recycling	Restaurant	240.0 litres of recyclable material per 100sqm of floor area per day

5.11.3 Commercial Waste and Recycling Service Requirements

At this stage, the nature of the end use activities is unknown. However, in order to calculate waste and recycling rates for the individual units, the following assumptions will be made:

- Unit 1 will be assumed to be a takeaway food shop,
- Units 2 and 3 will be specialty retail shop not selling food, and,
- Units 4 and 5 will be assumed to be used for office accommodation.

The following Table (Table 6) on page 31 details the proposed waste service arrangements based on the above activities and the waste generation rates prescribed the Plan that are proposed to be carried out at the development.

TABLE 6 – COMMERCIAL WASTE GENERATION RATES

ACTIVITY	FORMULA	CALCULATION	LITRES PER WEEK
G1 Takeaway Food Shop	80L per 100sqm of floor area per day	80 / 100 x 433 x 7	2,424.80
G2 & G3 Retail Shops	50L per 100sqm of floor area per day	50 / 100 x 207 x 6	621.00
G4 & G5 Offices	10L per 100sqm of floor area per day	10 / 100 x 116 x 6	69.60
Total Litres of Waste Generated per Week			**3,115.40**
Service Requirements		**1 x 1100-litre mobile waste bins 3 Services per Week**	
Total Litres of Waste Serviced per Week		**3,300 litres Serviced per Week**	

The following Table (Table 6) details the proposed recycling service arrangements based on the above activities and the waste generation rates prescribed the Guide in relation to the land use activities proposed to be carried out at the development.

TABLE 6 – RECYCLING GENERATION RATES

ACTIVITY	FORMULA	CALCULATION	LITRES PER WEEK
G1 Takeaway Food Shop	80L per 100sqm of floor area per day	40 / 100 x 433 x 6	1,212.40
G2 & G3 Retail Shops	50L per 100sqm of floor area per day	50 / 100 x 207 x 6	621.00
G4 & G5 Offices	10L per 100sqm of floor area per day	10 / 100 x 116 x 6	69.60
Total Litres of Recycling Generated per Week			**1,903.00**
Service Requirements		**1 x 1100-litre mobile recycling bins 2 Services per Week**	
Total Litres of Recycling Serviced per Week		**2,200 litres Serviced per Week**	

5.7.4 Provision of Commercial Waste and Recycling Services

All commercial waste and recycling services will take place as specified in Tables 5 and 6 above on the following basis:

- Waste Services – 1 x 1100-litre mobile waste bins serviced three (3) times per week, and,
- Recycling Services – 1 x 1100-litre mobile recycling bin serviced two (2) times per week.

All commercial waste and recycling bins will be removed from the Commercial Bin Room (CBR) and conveyed to a waiting collection vehicle located in the loading bay.

The proprietors or lessees of each commercial unit or office will enter into a Service Level Agreement with the contractor and will keep written evidence on site of this agreement with the contractor for the regular collection and disposal of all waste and recycling material generated from these activities. A copy of this agreement will be provided to the Council.

All commercial waste and recycling services will be provided in a manner that will not adversely impact on the principles of health, safety or convenience. All services will be carried out by a licensed private waste and recycling collection contractor.

5.7.5 Storage of Commercial Waste and Recycling Bins

The Commercial Bin Room (CBR) is located on the Ground Floor of the building as indicated on the Architectural Drawings.

The CBR is a rectangular shaped structure measuring 4.5m x 4.0m, with an area of approximately 18sqm. Within its confines will be space for:

- 1 x 1100-litre mobile waste bins,
- 1 x 1100-litre mobile recycling bins, and,
- Associated infrastructure.

Service door access into the CBR will be a minimum of 1.5m in width.

Commercial waste and recycling bins will be colour coded to reflect the nature of each service component.

The Owners Corporation will be responsible for ensuring that all commercial waste and recycling services are undertaken in an efficient manner that will promote the principles of health, safety and convenience and not impact negatively on the amenity of the complex and its surrounds.

Access to the commercial bin storage area will be restricted to the tenants of the commercial or office units and the Building manager or their representative.

Appropriate signage will be erected within the complex advising all occupants that access to the CBR is restricted to occupants of the commercial component of the building only.

The servicing of all bins will take place without causing a disruption to vehicular movement in an out of the basement.

5.12 ON GOING OPERATION, USE & MAINTENANCE OF WASTE MANAGEMENT FACILITIES

All waste management facilities will be maintained in a clean and hygienic condition that will promote the principles of health, safety and convenience.

In order to achieve these objectives, the following facilities and devices will be required: -

1. The walls and floors of all Bin Rooms are to be constructed of smooth faced masonry or concrete, and all walls will be painted with light coloured and washable paint.
2. The junction between all floors and walls will be coved and sealed up to 100mm above the floor level, in order to eliminate the build-up of dirt and grime.
3. A floor waste, connected to the Sydney Water drainage system in accordance with that Authority's requirements, will be provided to all bin rooms.
4. Appropriate washing facilities will be provided to all bin rooms, including appropriate plumbing and drainage fixtures and fittings, and the provision of running water.
5. All bin rooms and the collection area will be washed and cleaned on a regular basis.
6. All mobile bins will be washed and cleaned on a regular basis.
7. All electrical equipment, including the provision of lighting, will be installed in accordance with the relevant Australian Standards.

8. Natural and mechanical ventilation will be required to be installed within all bin rooms in accordance with the relative provisions of the BCA.
9. Appropriate signage will be displayed in both basements clearly identifying waste and recycling bins and the bin rooms and collection area.
10. Appropriate signage will be erected within the bin rooms providing instruction to residents on how to use waste and recycling facilities, including what is and what is not recyclable.
11. The Owners Corporation will appoint a Building Manager/Caretaker to manage all waste management activities in accordance with this WMP.
12. The Owners Corporation will be responsible for ensuring that all waste and recyclable matter and materials are placed and stored within the appropriate containers provided.

PART 6 – SUMMARY

6.1 SUMMARY

In summarising this proposal, the following information is provided:

1. Cumberland Council have advised that all activities associated with the installation of waste management facilities and the provision of waste management services are to take place in, and from, the bin rooms and collection area located on the ground floor of the complex.
2. This Waste Management Plan has been developed and documented in accordance with the Councils directions.
3. The number and size of bins have been calculated from information provided by Cumberland (Auburn) Council.
4. All residential waste and recycling services will be provided by Cumberland Council.
5. All commercial residential waste and recycling services will be provided by a licensed private waste and recycling collection contractor.
6. The Owners Corporation will be responsible for ensuring that all on-going waste management activities are carried out in accordance with the provisions of this Waste Management Plan.

This is a unique development with a unique set of arrangements for its waste management activities.

The measures set out in this WMP aim to demonstrate that all such activities will be carried out effectively and efficiently, in a healthy, safe and convenient manner, to acceptable community standards, and to the requirements of Cumberland Council.
