DICKENS SOLUTIONS

(REF – 22093)

WASTE MANAGEMENT PLAN

URBAN LINK ARCHITECTS
(METRO CORP D & C PTY LTD)

MIXED USE
RESIDENTIAL & COMMERCIAL
DEVELOPMENT
@
349-357 BEAMISH STREET
CAMPSIE

MAY 2022

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PART 1 – OVERVIEW AND PROPOSAL

1.1 INTRODUCTION

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

The aims and objectives of this WMP are to: -

1. Satisfy all State and Local Government regulatory controls regarding waste management and minimisation practices.
2. Promote the use of recyclable materials in the excavation, demolition, construction and on-going operation of the building.
3. Maximise waste reduction, material separation, and resource recovery in all stages of the development.
4. 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.
5. 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.

The land on which the development is proposed is located within the Canterbury Bankstown LGA

This WMP is prepared in accordance with: -

- Draft Consolidated Canterbury Bankstown Local Environment Plan 2020,
- Draft Canterbury Bankstown DCP 2020, and relevant waste management guidelines,
- All conditions of consent for the approved Development Application, and,
- 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-Use Developments.

This WMP has been prepared for an Application under the provisions of Section 4.55 of the EP & A Act to modify an approved Development Consent issued by Canterbury-Bankstown Council for the construction of a six (6) storey building of mixed residential and commercial components at 349-357 Beamish Street, Campsie, comprising of:

- 45 x studio apartments and 1, 2 and 3 bed-room residential units,
- Two (2) ground floor commercial units with a combined area of 725sqm,
- Two (2) basement level for car parking, storage, servicing and ancillary facilities, and,
- Associated infrastructure.

This WMP is dated 28 May 2022 and is to be submitted to Council with the DA Package for the S4.55 Modification. The WMP has been prepared in accordance with the Architectural Drawings prepared by Urban Link Architects – Project No 20-135 – Revision F.

1.2 PROJECT & PROPERTY DESCRIPTION

This Waste Management Plan (WMP) has been specifically designed for: -

PROJECT DESCRIPTION	**Six (6) Storey Mixed Use Residential and Commercial Building**
NUMBER OF UNITS	**- 45 x residential units,** **- Ground Floor Commercial Units,** **- Two (2) basement Levels, and,** **- Associated infrastructure.**
PROPERTY DESCRIPTION	**The development is to be constructed over four (4) existing lots at 349-357 Beamish Street, Campsie.**
STREET ADDRESS	**349-357 Beamish Street, Campsie.**
DIMENSIONS	**Refer to Site and Survey Plans**
AREA	**1,448.9 (Survey)**
LGA	**Canterbury-Bankstown Council**
ZONING	**Zone B4 – Mixed Use**
PLANNING INSTRUMENT	**Canterbury Bankstown Draft LEP 2020** **Canterbury Bankstown Draft DCP 2020**

1.3 APPLICANTS DETAILS

APPLICANT	**Metrocorp Developments & Constructions Pty Ltd** **C/- Mr Michael Samaha**
ADDRESS	**C501, Level 5, 16 Railway Parade, Burwood. NSW. 2134.**
TELEPHONE	**02 9030 6390**
E-MAIL	**michaels@prodject.com.au**

The site is located on the eastern side of Beamish Street, Campsie, towards the northern end of the Campsie CBD. It is a short distance south of Canterbury Road Unara Street to the south and Hill Street to the north and Unara Lane at the rear. The Campsie railway station is approximately 1km south

The immediate surrounding development consists primarily of retail and commercial land uses, with a mix of newer medium and high-density mixed-use developments within this precinct. To the south and south-west of the site there is a mix of medium and low-density dwellings.

Currently on the site are two (2) x three (3) storey residential flat buildings and a single storey building. All buildings and structures on both sites will be demolished and removed.

1.4 PROPOSAL

The proposal consists of the construction of a six (6) storey building of mixed residential and commercial components, comprising of:

- 45 x studio apartment, 1, 2 and 3 bed-room residential units,
- Two (2) ground floor commercial units with a combined area of 725sqm,
- Two (2) basement level for car parking, storage, servicing and ancillary facilities, and,
- Associated infrastructure.

Vehicular entry and egress to, and from the building will be onto Unara Lane at the rear eastern side of the site.

As there are both residential and commercial components to the building, separate waste management arrangements will be made for each.

All residential waste and recycling services will be provided by Canterbury Bankstown Council from a dedicated loading area on the southern side adjacent to the laneway. Commercial waste and recycling collection services will be provided by a licensed private waste and recycling collection contractor. Separate areas will be provided for the commercial component of the development.

Currently on the site are two (2) x three (3) storey residential flat buildings and a single storey building. All buildings and structures on both sites will be demolished and removed.

The project involves:

1. The demolition of all existing buildings on site.
2. The removal of all demolished materials in accordance with this WMP.
3. The excavation of the site to construct two (2) basements level for car parking and other services.
4. The construction of a five (5) storey building.
5. The provision of stormwater drainage systems, landscaping, driveways, concrete pathways, and other elements associated with the development.
6. The on-going use of the building.

PART 2 – DEMOLITION

2.1 DEMOLITION

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 6, 7, 8, 9, 10 and 11 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

Currently on the site are two (2) x three (3) storey residential flat buildings and a single storey building. All buildings and structures on both sites will be demolished and removed.

2.3 MANAGEMENT OF HAZARDOUS MATERIALS

Due to the age and construction of the existing buildings on the site, there is reasonable potential for hazardous building materials to be present in the buildings to be demolished. Accordingly, 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: -

1. An estimate of the types and volumes of waste and recyclables to be generated;
2. A site plan showing sorting and storage areas for demolition waste and vehicle access to these areas (see Part 2.3 of this Plan);
3. How excavation and demolition waste materials will be reused, and, or recycled and where residual wastes will be disposed (see below); and,
4. 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	700 cubic metres / 1,190 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	20 cubic metres / 3.0 Tonne
On Site Reuse	To be separated. Chipped and stored on site for re-use in landscaping.
Percentage Reused or Recycled	90%
Off Site Destination	Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646) or, Australian Native Landscapes, Lot 22, Martin Road, Badgerys Creek (Tel 02 4774 8484)

3. Bricks

Volume / Weight	285 cubic metres / 285 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 Recycle	75% - 90%
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).

4. Concrete

Volume / Weight	850 cubic metres / 2,040 Tonnes
On Site Reuse	Existing driveway to be retained during construction. Crushed and used as aggregate, drainage backfill.
Percentage Reused or Recycled	70% - 75%
Off Site Destination	Brandown, Lot 9 Elizabeth Drive, Kemps Creek (Tel 02 9826 1256) or, 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).

5. Timber

Volume / Weight	50 cubic metres / 20 Tonnes
On Site Reuse	Re-use for formwork and studwork, and for landscaping
Percentage Reused or Recycled	65% - 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).

6. Plasterboard & Fibro

Volume / Weight	40 cubic metres / 14 Tonnes
On Site Reuse	Nil All to be processed off-site
Percentage Reused or Recycled	To be determined – depended on quantities of asbestos
Off Site Destination (Including Asbestos)	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).

7. Metals / Steel / Guttering & Downpipes

Volume / Weight	175 cubic metres / 175 Tonnes
On Site Reuse	No
Percentage Reused or Recycled	60 – 90%
Off Site Destination	Sydney Wide Scrap Metal, 4/18 Alfred Street, Chipping Norton (Tel 9738 9771) or, Boral Recycling, 3 Thackeray Street, Camelia (Tel 9529 4424) or, Hallinan's Recycling Centre, 37 Lee Holm Road, St. Marys (Tel 02 9833 0883)

8. Roof Tiles / Tiles

Volume / Weight	40 cubic metres / 30 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)

9. Plastics

Volume / Weight	40 cubic metres / 10 Tonne
On Site Reuse	Nil
Percentage Reused or Recycled	80% - 95%
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. Glass, Electrical & Light Fittings, PC items

Volume / Weight	120 cubic metres / 40 Tonne
On Site Reuse	No
Percentage Reused or Recycled	70% - 90%
Off Site Destination	To an approved agency, or agencies.

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

Volume	100 cubic metres / 35Tonnes
On Site Reuse	Broken up and used as fill.
Percentage Reused or Recycle	80% - 90%
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).

12. Residual Waste

Volume / Weight	250 cubic metres / 250 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, other authorised facility
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 13, 14, 15, 16, 17 and 18 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	5,600 cubic metres / 9,520 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	10 cubic metres / 1.5 Tonne
On Site Reuse	To be separated. Chipped and stored on site for re-use in landscaping.
Percentage Reused or Recycled	90%
Off Site Destination	Bingo Industries, 3-5 Duck Street, Auburn (Tel 1300 424 646) or, Australian Native Landscapes, Lot 22, Martin Road, Badgerys Creek (Tel 02 4774 8484) or, Jacks Gully Waste Management Centre, Richardson Road, Narellan (Tel 1300 651 116)

3. Bricks

Volume / Weight	10 cubic metres / 10 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 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).

4. Concrete

Volume / Weight	10 cubic metres / 24 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).

5. 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	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).

6. Plasterboard & Fibro

Volume / Weight	20 cubic metres / 6.5 Tonnes
On Site Reuse	Nil – All to be processed off-site
Percentage Reused or Recycled	To be determined
Off Site Destination	Ecocycle, 155 Newtown Road, Wetherill Park (Tel 02 0757 2999) or, 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).

7. 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	Sydney Wide Scrap Metal, 4/18 Alfred Street, Chipping Norton (Tel 9738 9771) or, Boral Recycling, 3 Thackeray Street, Camelia (Tel 9529 4424) or, Hallinan's Recycling Centre, 37 Lee Holm Road, St. Marys (Tel 02 9833 0883)

8. 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)

9. Plastics

Volume / Weight	6 cubic metres / 1 Tonne
On Site Reuse	Nil
Percentage Reused or Recycled	80% - 95%
Off Site Destination	Ecocycle, 155 Newtown Road, Wetherill Park (Tel 02 0757 2999) or, 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, Recycle Works, 45 Parramatta Road, Annandale (Tel 02 9517 2711)

10. Glass, Electrical & Light Fittings, PC items

Volume / Weight	6 cubic metres / 1 Tonne
On Site Reuse	No
Percentage Reused or Recycled	70% - 90%
Off Site Destination	To an approved agency, or agencies.

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

Volume	25 cubic metres / 8 Tonnes
On Site Reuse	Broken up and used as fill.
Percentage Reused or Recycle	80% - 90%
Off Site Destination	Recycle Works, 45 Parramatta Road, Annandale (Tel 02 9517 2711)

12. 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.

13. Residual Waste

Volume / Weight	600 cubic metres / 600 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)
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 construction.

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.

PART 4 – ON GOING USE OF BUILDING

4.1 OBJECTIVES

1. To ensure 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 efficiently, and in a manner that is efficient, and promotes the principles of health, safety, and convenience.
3. To promote waste minimisation practices.

4.2 ASSUMPTIONS

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

1. The development The proposal consists of the construction of a six (6) storey building of mixed residential and commercial components.
2. The residential component comprises of 45 x studio apartments and 1, 2 and 3 bed-room units.
3. The commercial component comprises of:
   a) One (1) ground floor commercial unit with an area of 516sqm, and,
   b) One (1) ground floor commercial unit with an area of 207sqm.
4. As there are both residential and commercial components to the development, separate waste management arrangements will be made for each.
5. For the residential portion of the building all waste and recycling bins will be stored within the confines of a Residential Waste Room (RWR) located at the rear of the ground floor as indicated on the Architectural Drawings.
6. All residential waste and recycling bins will be stored within the confines of the RWR at all times.
7. All residential waste material will be stored in 9 x 660-litre mobile waste bins.
8. All residential recycling material will be stored in 7 x 660-litre mobile recycling bins.
9. All green waste (FOGO) services will be stored in 2 x 240-litre mobile green waste bins.
10. All residential waste bins will be serviced one (1) day per week.
11. All residential recycling bins will be serviced one (1) day per week.
12. All green waste (FOGO) services will be provided one (1) day per fortnight.
13. The number and size of bins have been calculated from information provided in the Canterbury DCP 2012 – Part B9 (dii) – Waste Management.
14. All residential waste and recycling services will take place from a dedicated loading bay at the rear of the site with access from Unara Lane.
15. Canterbury Bankstown's waste and recycling contractor will provide all residential waste and recycling services to the residential portion of the building.
16. The Owners Corporation will appoint a Building Manager whose responsibilities will include the supervision of all waste management services and facilities.
17. The Building Manager will ensure that access is available to the Bin Presentation Area all collection days.
18. All details in relation to waste management issues for the commercial portion of the building are detailed in Part 4.9 on pages 24 to 27 of this WMP.

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

4.3 RESIDENTIAL WASTE HANDLING & MANAGEMENT

As part of the kitchen fit-outs of each unit, cabinets will be provided within the unit so that separate and clearly marked and distinguishable waste and recycling containers will be accommodated.

This is aimed to encourage residents to source separate their waste and recycling materials in a convenient and efficient manner. Additionally, sufficient space will be provided within each unit for the storage of a minimum of one (1) day's waste and recycling material.

4.4 RESIDENTIAL WASTE & RECYCLING – SERVICE REQUIREMENTS

All waste and recycling materials will be stored in approved receptacles of an appropriate size. 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.

4.5 RESIDENTIAL WASTE & RECYCLING – SERVICE ARRANGEMENTS

The following table (Table 1) specifies the criteria for waste and recycling generation rates (as specified in Council's DCP 2012, based on:

- Waste – 110-litres of bin space per unit per week,
- Recycling – 82.50-litres of bin space per unit per week, and,
- Green Waste – 2 x 240-litre mobile bins.

The number and size of bins have been calculated from information provided in the Canterbury DCP 2012 – Part B9 (dii) – Waste Management:

- Waste – One x 660-litre bin per six (6) units, and,
- Recycling – One (1) x 660-litre bin per eight (8) units.

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	49	110.00	5,390.00	660	1	8.17	9
Recycling	49	82.50	4,042.50	660	1	6.13	7
FOGO	49	N / A	N / A	240	0.50	2.00	2

The following table (Table 2) specifies the proposed bin servicing requirements for the building and is based on the above waste and recycling generation rates:

TABLE 2 – PROPOSED SERVICING ARRANGEMENTS

WASTE	RECYCLING	GREEN WASTE
9 x 660-litre bins One (1) Service per Week	7 x 660-litre bins One (1) Service per Week	2 x 240-litre bins One (1) Service per Fortnight

4.6 PROVISION OF WASTE & RECYCLING SERVICES

4.6.1 Waste and Recycling Collection Service Provider Details

Canterbury Bankstown Council will provide all residential waste and recycling services to the building.

4.6.2 Details of Mobile Containers

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)
660-litre mobile container	1.270	1.050	1.370

4.6.3 Waste & Recycling Requirements

Waste and recycling requirements are provided in the table below.

SERVICE	NUMBER OF CONTAINERS	COLLECTION FREQUENCY
Waste Service	9 x 660-litre mobile containers	Weekly
Recycling Service	7 x 660-litre mobile containers	Weekly
Green (FOGO) Services	2 x 240-litre mobile containers	Fortnightly

4.6.4 Location, Design, and Construction of Residential Waste Room (RWR)

The Residential Waste Room (RWR) provides space for the storage of all residential waste and recycling bins prior to their collection.

The RWR is located on the rear eastern side of the ground floor adjacent to Unara Lane. It is a fully enclosed rectangular structure measuring 10.5m x 4.0m with an area of approximately 42.00qm. It is located approximately 1.00m from the laneway. It will be fitted with a 2.0m access doorways and provide space for:

- 9 x 660-litre waste bins,
- 7 x 660-litre recycling bins, and,
- 2 x 240-litre green waste (FOGO) bins.

All electrical equipment, including the provision of lighting, will be installed in accordance with the relevant Australian Standards.

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

4.6.5 Bin Collection Details

All collection and servicing activities will take place from the Laneway on the eastern side of the site. The Residential Waste Room (RWR) is located approximately 1.00m from the laneway.

All waste and recycling services will take place from this area, utilising Council's wheel out / wheel back collection service.

Council's contractor will be provided with a set of keys so that access to the RWR can be gained. The Building Manager will ensure that access is available to the RWR at all times.

The bin presentation area has been designed and will be constructed in accordance with the provisions of Parts B9.4 and B9.6 of Councils DCP (30 January 2017).

4.6.6 Servicing Arrangements – Residential Waste Collections

All waste services will be provided by Canterbury Council's waste collection contractor using a 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.

On each collection day, all waste bins will be removed from the RWR by a member of Council's collection team, utilising Council's 'wheel out / wheel back' collection service.

The contents of the waste bins will then be placed into Councils collection vehicle. Council operators will return the waste bins to the Bin Collection Area on completion of servicing.

The waste bins will be serviced one (1) day per week on a day to be determined by Council.

All 9 x 660-litre waste bins will be presented for servicing on each collection day.

4.6.7 Servicing Arrangements – Residential Recycling Collections

All recycling services will be provided by Canterbury Council's waste collection contractor using a 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.

On each collection day, all waste bins will be removed from the RWR by a member of Council's collection team, utilising Council's 'wheel out / wheel back' collection service.

The contents of the recycling bins will then be placed into Council's collection vehicle. Council operators will return the recycling bins to the Bin Collection Area on completion of servicing.

The recycling bins will be serviced one (1) day per week on a day to be determined by Council.

All 7 x 660-litre recycling bins will be presented for servicing on each collection day.

4.6.8 Servicing Arrangements – Residential Green Waste Collections

All green waste (FOGO) services will be provided by Canterbury Council's waste collection contractor using a 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.

On the evening prior to each collection day, all green waste bins will be presented to Unara Lane for servicing by the Building Manager, no earlier than 4.00pm.

The green waste bins will be serviced one (1) day per fortnight on a day to be determined by Council.

Both 240-litre green waste bins will be presented for servicing on each collection day.

4.7 BULKY WASTE STORAGE

Secure storage spaces are required to be provided for each residential unit in accordance with the provisions of Council's DCP 2012.

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

Consistent with these requirements, a bulky waste storage area have been provided for residents to place unwanted materials awaiting collection and removal.

The bulky waste area is located next to the Residential Waste Room (RWR) on the ground floor level of the site as indicated on Architectural Drawings.

It has a floor area of approximately 21.60sqm. It will be an enclosed structure, partially constructed of caged wire and is fitted with a 2.0m access doorway.

All residents of the complex will be provided with unrestricted 24-hour access to this facility. It will be the responsibility of the occupants of individual residential units, to dispose of this material, appropriately.

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.

The Owners Corporation will also be responsible for liaising with Council in relation to 'Clean Up' arrangements and frequencies, in order to ensure the efficient and regular removal at these materials.

All material presented to the kerbside as part of Council's clean-up collection programs will be done so, strictly in accordance with Council's requirements. Material will only be presented for clean-up collections, by the Building Manager / Caretaker, or their representative, at the time and date prescribed by Council.

Further information in relation to Council's clean up services can be obtained from their website at www.cbcity.nsw.gov.au

4.8 COMMERCIAL WASTE & RECYCLING SERVICES

4.8.1 Details of Commercial Land Use

The commercial portion of the building comprises of two (2) commercial ground floor units:

- Commercial 1 – with an area of 518sqm, and,
- Commercial 2 – with an area of 207sqm.

Details of each activity are provided in Table 3 below.

TABLE 3 – RETAIL/COMMERCIAL DETAILS

DESCRIPTION	PROPOSED USE	LOCATION	FLOOR AREA (Square Metres)
Commercial 1	Restaurant	Ground Floor	518
Commercial 2	Office Accommodation	Ground Floor	207

4.8.2 Commercial Waste and Recycling Generation Rates

As required by Council, all waste and recycling generation rates have been calculated in accordance with the Better Practice Guide for Resource Recovery in Residential Buildings, published by the NSW EPA (April 2019) – Table F3 – Commercial and Industrial Waste and Recycling Generation Rates.

The Table below (Table 4) details the waste and recycling generation rates for the commercial land uses as required by Council.

TABLE 4 – FORMULA FOR CALCULATION WASTE & RECYCLING GENERATION RATES FOR COMMERCIAL LAND USES

SERVICE	LAND USE	WASTE & RECYCLING GENERATION RATES
Waste	Restaurant	400-litres of waste per 100sqm of floor area per day
Waste	Office	10-litres of waste per 100msqm of floor area per day
Recycling	Restaurant	280-litres of waste per 100sqm of floor area per day
Recycling	Office	15-litres of waste per 100msqm of floor area per day

4.8.3 Commercial Waste Services

All commercial waste services will be provided in accordance with the waste generation rates as prescribed in Tables 3 and 4. The following table (Table 5) specifies the criteria for waste generation rates, and the service requirements as a result of applying the waste generation rates to all units.

TABLE 5 – WASTE GENERATION RATES

ACTIVITY	FORMULA	CALCULATION	LITRES PER WEEK
Restaurant	400-litres per 100sqm per day	400 x 518 / 100 x 6	12,432.00
Office	10-litres per 100sqm per day	10 x 207 / 100 x 6	124.20
Total Litres of Waste Generated per Week			**12,556.20**
Service Requirements		**Refer to Paragraph Below**	
Total Litres of Waste Serviced per Week		**13,440-litres Serviced per Week**	

As the restaurant (Commercial 1) will be the major generator of waste, it is recommended that it be provided with 3 x 1100-litre mobile waste bins to be serviced four (4) days per week, which will account for 13,200-litres to be serviced each week.

The office unit (Commercial Unit) will be provided with 1 x 240-litre mobile waste bin to be serviced one (1) day per week.

The Proprietors of each unit will be required to enter into a Service Level Agreement with the contractor, and written evidence of the Agreement will be kept on the premises, in order to demonstrate that the regular collection and disposal of all waste generated from these activities, has taken place.

All commercial waste services, are to be undertaken in a manner that will not adversely impact on the principles of health, safety or convenience.

All waste services will be carried out so as not to impede or impact on vehicular and pedestrian traffic movement throughout, and adjacent to the development.

4.8.4 Commercial Recycling Services

All commercial waste services will be provided in accordance with the waste generation rates as prescribed in Tables 3 and 4.

The following table (Table 6) specifies the criteria for waste generation rates, and the service requirements as a result of applying the waste generation rates to all units.

TABLE 6 – RECYCLING GENERATION RATES

ACTIVITY	FORMULA	CALCULATION	LITRES PER WEEK
Restaurant	280-litres per 100sqm per day	280 x 518 / 100 x 6	8,702.40
Office	15-litres per 100sqm per day	15 x 207 / 100 x 6	186.30
Total Litres of Recycling Generated per Week			**8.888.70**
Service Requirements		**Refer to Paragraph Below**	
Total Litres of Waste Serviced per Week		**9,040-litres Serviced per Week**	

As the restaurant (Commercial 1) will be the major generator of waste, it is recommended that it be provided with 2 x 1100-litre mobile waste bins to be serviced four (4) days per week, which will account for 8,800-litres to be serviced each week.

The office unit (Commercial Unit) will be provided with 1 x 240-litre mobile waste bin to be serviced one (1) day per week.

The Proprietors of each unit will be required to enter into a Service Level Agreement with the contractor, and written evidence of the Agreement will be kept on the premises, in order to demonstrate that the regular collection and disposal of all waste generated from these activities, has taken place.

All commercial recycling services, are to be undertaken in a manner that will not adversely impact on the principles of health, safety or convenience.

All recycling services will be carried out so as not to impede or impact on vehicular and pedestrian traffic movement throughout, and adjacent to the development.

4.8.5 Commercial Waste Rooms (CWR's)

Two (2) dedicated Commercial Waste Rooms (CWR's) are provided for the commercial component of the development:

CRW 1 – Commercial Unit 1

CRW1 is located on next to Commercial Unit 1 and is provided to house all waste and recycling bins required to meet Council's servicing standards.

The CWR is located on the ground floor as indicated on the Architectural Drawings. It is a fully enclosed L shaped structure with an area of approximately 18.5sqm. It will be fitted with a 2.0m access doorways and provide space for:

- 4 x 1100-litre mobile waste bins, and,
- 2 x 1100-litre mobile recycling bins.

All electrical equipment, including the provision of lighting, will be installed in accordance with the relevant Australian Standards.

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

CRW 2 – Commercial Unit 2

CRW2 is located on at the rear of Commercial Unit 2 and is provided to house all waste and recycling bins required to meet Council's servicing standards.

The CWR is located on the ground floor as indicated on the Architectural Drawings. It is a fully enclosed rectangular structure with an area of approximately 18.5sqm. It will be fitted with a 2.0m access doorways and provide space for:

- 1 x 240-litre mobile waste bin, and,
- 1 x 240-litre mobile recycling bin.

4.8.6 Commercial Waste Collection

All commercial waste and recycling collections will be collected from the loading bay, adjacent to the CWR.

The loading bay has been designed to accommodate rear loading MRV waste and recycling collection vehicles.

As required by Council, all collection vehicles will enter and exit the building in a forward direction. Collection and servicing activities will take place as follows: -

a) The Collection vehicle will enter the building from Unara Lane on the rear eastern entry to the site,
b) Once into the building, a member of contractor's collection team, will remove the bins from the CWR and place the contents of the respective bins into the body of the collection vehicle.
c) Once the bins have been serviced, the collection vehicle will exit the collection area and exit the building in a forward direction.
d) All internal access, parking and servicing arrangements are to comply with all relevant Australian Standards.

4.9 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. All waste storage areas will be designed in accordance with the requirements of Part B9 of the Canterbury DCP 2012.
2. The walls and floors of the Residential Waste Storage Area and the Commercial Waste Storage Area (WSA), are be constructed of smooth faced masonry or concrete, and all walls will be painted with light coloured and washable paint.
3. 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.
4. A floor waste, connected to the Sydney Water drainage system in accordance with that Authority's requirements, will be provided to both WSA's, and the floors will be graded to drain into it.
5. Appropriate washing facilities will be provided to both WSA's, including appropriate plumbing and drainage fixtures and fittings, and the provision of running water.
6. The WSA's are to be washed and cleaned on a regular basis.
7. All mobile bins will be washed and cleaned on a regular basis.
8. All electrical equipment, including the provision of lighting, will be installed in accordance with the relevant Australian Standards.
9. Natural and mechanical ventilation will be required to be installed within each WSA in accordance with the relative provisions of the Building Code of Australia.
10. Appropriate signage will be displayed in both basements clearly identifying waste and recycling bins and the waste storage areas.
11. Appropriate signage will be erected within both WSA's, providing instruction to residents on how to use waste and recycling facilities, including what is and what is not recyclable.
12. The Building Manager will be responsible for ensuring that all waste and recyclable matter and materials are placed and stored within the appropriate containers provided.

PART 5 – SUMMARY

5.1 SUMMARY

In summarising this proposal, the following information is provided:

1. This Waste Management Plan (WMP) has been developed and documented in accordance with: -

a) Canterbury Local Environment Plan 2012;
b) Part B9 of the Canterbury DCP 2012 – Waste Management;
c) All Conditions of Consent for the DA to be issued in respect of the development; and,
d) The 'Better Practice Guide for Waste Management in Multi Unit Dwellings and Mixed-Use Developments.

2. The WMP aims to promote the use of recyclable materials in the excavation, demolition, construction and on-going operation of the building.

3. The WMP aims to 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.

4. The WMP aims to ensure that the provision of waste and recycling services to the completed buildings are carried out in an efficient manner, which will promote the principles of health, safety and convenience.

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 efficiently and effectively, in a healthy, safe and convenient manner, to acceptable community standards, and to the requirements of the Canterbury-Bankstown Council.