Review of Environmental Factors

Barton Park Precinct

Appendix I: Waste Management Plan (Dickens Solutions, 2021

August 2021

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DICKENS SOLUTIONS

DRAFT
WASTE MANAGEMENT PLAN

MODE DESIGN
(BAYSIDE COUNCIL)

PROPOSED REDEVELOPMENT
BARTON PARK SPORTING FACILITY
@
88-96 BESTIC STREET
BANKSIA

AUGUST 2021

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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 construction and on-going operational use of the building on 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.

This WMP is prepared in accordance with: -

- Rockdale City Local Environmental Plan 2011;
- Rockdale City Council Technical Specification – Waste Minimisation and Management 2011;
- All Conditions of Consent to be issued under the approved Development Consent; and,
- Relevant requirements of The Better Practice Guide for Waste Management in Commercial and Industrial Buildings; 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.

This Waste Management Plan (WMP) has been prepared for a Development Application to be submitted to Bayside Council for the redevelopment of an existing sporting complex and facilities at Barton Park, 88-96 Bestic Street, Banksia. The proposed development comprises of:

- The demolition of existing grandstand and associated structures,
- Construction of new sporting amenities building, change rooms, seating canteen, change rooms, and storage areas,
- Provision of new sporting amenities, including playing fields, tennis courts, and associated infrastructure,
- Provision of new passive recreation areas, playgrounds, car-parking and vehicular access, and,
- Public domain improvements, picnic areas, seating, and fitness areas.

This WMP is dated 23 August 2021.

1.2 PROJECT & PROPERTY DESCRIPTION

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

DESCRIPTION	**Redevelopment of existing active and passive sporting and recreation facilities.**
DETAILS	**- The demolition of existing grandstand and associated structures,** **- Construction of new sporting amenities building, change rooms, seating canteen, change rooms, and storage areas,** **- Provision of new sporting amenities, including playing fields, tennis courts, and associated infrastructure,** **- Provision of new passive recreation areas, playgrounds, car-parking and vehicular access, and,** **- Public domain improvements, picnic areas, seating, and fitness areas.**
LOCATION	**88-96 Bestic Street, Banksia (Barton Park)**
STREET ADDRESS	**Lot 1 in DP576148, and Lot 100, DP1133869, 88-96 Bestic Street, Banksia**
SITE AREA	**19,000sqm (Approx.)**
LGA	**Bayside Council**
ZONING	**RE1 – Public Recreation**
PLANNING INSTRUMENTS	**Rockdale LEP 2011** **Rockdale Development Control Plan** **State Regional Environmental Plan 33 (Cooks River SREP33).**

The site is located to the west of the Sydney Kingsford Smith Airport and 10km south of the Sydney CBD. It extends between the Spring Street Drain on the north, Bestic Street on the south, West Botany Street on the west and Muddy Creek to the east.

Banksia is a residential area within the Bayside LGA, comprised mainly of low density development with some unit development. The site is 1km from the Banksia Railway Station and town centre, 1km to the foreshore of Cook Park in Kyeemagh, and adjacent to the banks of Muddy Creek and within the Rockdale Wetlands Corridor.

It is a short distance the Rockdale town centre and Brighton-Le-Sands both of which are approximately 1.5km away. To the east is Botany Bay and the bay foreshore.

1.3 APPLICANTS DETAILS

APPLICANT	**Mode Design Architects (on behalf of Bayside Council)** **C/- Mr Tim Williams** **Level 5, 111-117 Devonshire Street, Surry Hills. NSW. 2010.** **Tel 02 8396 9500**
E-MAIL	**twilliams@modedesign.com.au**

1.4 PROPOSAL

The proposal involves the redevelopment of an existing sporting complex and facilities at Barton Park, 88-96 Bestic Street, Banksia. The proposed development comprises of:

- The demolition of existing grandstand and associated structures,
- Construction of new sporting amenities building, change rooms, seating canteen, change rooms, and storage areas,
- Provision of new sporting amenities, including playing fields, synthetic courts, and associated infrastructure,
- Provision of new passive recreation areas, playgrounds, car-parking and vehicular access, and,
- Public domain improvements, picnic areas, seating, and fitness areas.

The works associated with the refurbishment of the complex comprise of:

- Demolition of existing amenities and facilities,
- Refurbishment and upgrading of the entire area of approximately 19ha,
- Construction of a new grandstand and seating,
- Club house and facilities,
- Four (4) new 'state-of-art' turf playing fields, premium lighting,
- Multi-purpose synthetic courts and tennis courts,
- Passive recreation and fitness areas,
- Public amenities, Play space areas,
- Associated services, and,
- The provision of waste management facilities.

Access to the site is from Bestic Street connecting to arterial roads West Botany Street to the west and General Holmes Drive to the east. The end of the airport runway is approximately 600m to the north-east.

This Waste Management Plan addresses all of the issues associated with the demolition of the existing structures, refurbishment, upgrading of facilities, new buildings and structures and the provision of all items, fixtures, and fittings, associated with the ongoing use of the site.

This Waste Management Plan has been developed not only to satisfy Council's requirements, but also to ensure that all on-going waste management activities associated with the development are carried out and conducted in accordance with best practice industry standards, and all relevant regulatory requirements.

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, 11, 12 and 13 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 DEMOLITION – EXTENT OF WORKS

The site occupies an area of 19 hectares and will involve extensive works over the entire site, which includes:

- The demolition of existing grandstand and associated structures,
- Demolition of existing amenities and facilities,
- Removal of the embankment around the southern perimeter of the gassed former stadium arena – this soil embankment may contain contaminated materials and as such will be dealt with under the provisions of Part 2.3 of this Plan,
- Site excavation for roadworks, drainage, and other applicable infrastructure, and,
- The removal of other miscellaneous buildings, structures, fencing, articles and materials that will be excess to the regeneration and refurbishment of the site.

2.3 MANAGEMENT OF HAZARDOUS WASTE

Due to the age and construction of the existing buildings, structures and materials 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: -

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, Gravel, etc

Volume / Weight	1,000 cubic metres / 1,700 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, Lucas Heights Waste Management Centre, New Illawarra Road, Lucas Heights. (Tel 1300 651 116), or, Bingo Industries, 38 McPherson Street, Banksmeadow. (Tel 1300 424 646)

2. Green Waste

Volume / Weight	500 cubic metres / 75 Tonnes
On Site Reuse	To be separated. Chipped and stored on site for re-use in landscaping.
Percentage Reused or Recycled	To be Determined / dependent on weed status.
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Lucas Heights Waste Management Centre, New Illawarra Road, Lucas Heights. (Tel 1300 651 116), or, Bingo Industries, 38 McPherson Street, Banksmeadow. (Tel 1300 424 646) or, Jacks Gully Waste Management Centre, Richardson Road, Narellan (Tel 1300 651 116)

3. Bricks, Concrete Blocks, Masonry

Volume / Weight	250 cubic metres / 250 Tonnes
On Site Reuse	Nil – all tb disposed of, off-site
Percentage Reused or Recycled	75% - 90%
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Lucas Heights Waste Management Centre, New Illawarra Road, Lucas Heights. (Tel 1300 651 116), or, Bingo Industries, 38 McPherson Street, Banksmeadow. (Tel 1300 424 646), or, Jacks Gully Waste Management Centre, Richardson Road, Narellan (Tel 1300 651 116)

4. Concrete (Bitumen)

Volume / Weight	250 cubic metres / 600 Tonnes
On Site Reuse	Nil – all to be disposed of, off-site.
Percentage Reused or Recycled	75% - 90%
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Quality Recycled Demolitions, 34 Woodfield Boulevarde, Caringbah (Tel 02 9542 7203) or, Bingo Industries, 38 McPherson Street, Banksmeadow. (Tel 1300 424 646) or, Second Hand Building Centre, Rear 432b West Botany Street, Rockdale. or, Lucas Heights Waste Management Centre, New Illawarra Road, Lucas Heights. (Tel 1300 651 116)

5. Timber

Volume / Weight	160 cubic metres / 64 Tonnes
On Site Reuse	Re-use for formwork and studwork, landscaping, shoring.
Percentage Reused or Recycled	To be determined
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Quality Recycled Demolitions, 34 Woodfield Boulevarde, Caringbah (Tel 02 9542 7203) or, Bingo Industries, 38 McPherson Street, Banksmeadow. (Tel 1300 424 646) or, Second Hand Building Centre, Rear 432b West Botany Street, Rockdale. or, Lucas Heights Waste Management Centre, New Illawarra Road, Lucas Heights. (Tel 1300 651 116)

6. Plasterboard & Fibro

Volume / Weight	100 cubic metres / 33.5 Tonnes
On Site Reuse	No. All materials will be processed off-site
Percentage 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, Quality Recycled Demolitions, 34 Woodfield Boulevarde, Caringbah (Tel 02 9542 7203)
Off Site Destination (Asbestos)	or, Bingo Industries, 38 McPherson Street, Banksmeadow. (Tel 1300 424 646) or, Second Hand Building Centre, Rear 432b West Botany Street, Rockdale. or, Lucas Heights Waste Management Centre, New Illawarra Road, Lucas Heights. (Tel 1300 651 116).

7. Metals / Steel / Guttering & Downpipes

Volume / Weight	1,200 cubic metres / 400 Tonnes
On Site Reuse	No
Percentage Reused or Recycle	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) Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Quality Recycled Demolitions, 34 Woodfield Boulevarde, Caringbah (Tel 02 9542 7203) or, Bingo Industries, 38 McPherson Street, Banksmeadow. (Tel 1300 424 646) or, Second Hand Building Centre, Rear 432b West Botany Street, Rockdale. or, Lucas Heights Waste Management Centre, New Illawarra Road, Lucas Heights. (Tel 1300 651 116)

8. Roof Tiles / Tiles

Volume / Weight	55 cubic metres / 41.25 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, Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Quality Recycled Demolitions, 34 Woodfield Boulevarde, Caringbah (Tel 02 9542 7203) or, Bingo Industries, 38 McPherson Street, Banksmeadow. (Tel 1300 424 646) or, Second Hand Building Centre, Rear 432b West Botany Street, Rockdale. or, Lucas Heights Waste Management Centre, New Illawarra Road, Lucas Heights.

9. Fixture & Fittings, etc)

Volume	40 cubic metres / 10 Tonnes
On Site Reuse	No. All material will be processed or disposed of 0ff-site.
Percentage Reused or Recycle	80% - 90%
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, Quality Recycled Demolitions, 34 Woodfield Boulevarde, Caringbah (Tel 02 9542 7203) or, Bingo Industries, 38 McPherson Street, Banksmeadow. (Tel 1300 424 646) or, Second Hand Building Centre, Rear 432b West Botany Street, Rockdale. or, Lucas Heights Waste Management Centre, New Illawarra Road, Lucas Heights. (Tel 1300 651 116)

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

Volume / Weight	75 cubic metres / 26.25 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, Quality Recycled Demolitions, 34 Woodfield Boulevarde, Caringbah (Tel 02 9542 7203) or, Bingo Industries, 38 McPherson Street, Banksmeadow. (Tel 1300 424 646) or, Second Hand Building Centre, Rear 432b West Botany Street, Rockdale. or, Lucas Heights Waste Management Centre, New Illawarra Road, Lucas Heights. (Tel 1300 651 116)

11. Residual Waste

Volume / Weight	365 cubic metres / 365 Tonnes
On Site Reuse	No
Off Site Destination	Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112 or, or, Bingo Industries, 38 McPherson Street, Banksmeadow. (Tel 1300 424 646) or, Lucas Heights Waste Management Centre, New Illawarra Road, Lucas Heights. (Tel 1300 651 116) or, Other approved and licensed 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 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 2.2) 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 demolition 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 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 materials excess to construction 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

The construction stage of the development comprised of the following activities, and involved:

- Demolition and removal of materials excess to construction;
- Refurbishment and upgrading of the entire area of approximately 19ha,
- Construction of a new grandstand and seating,
- Club house and facilities,
- Four (4) new 'state-of-art' turf playing fields, premium lighting,
- Multi-purpose synthetic courts, and tennis courts,
- Passive recreation, and fitness areas,
- Public amenities, Play space areas,
- Associated services, and,
- The installation of electrical and IT equipment; and,
- The provision of waste management facilities.

All activities associated with removal and disposal of materials excess to the construction process will be processed and or disposed of at an approved facility or facilities. It is considered that the majority of materials involved in the construction process, and that are excess to it, have the ability to be reused or recycled.

All materials used in the refurbishment of the site (including buildings) that are not required to be incorporated into it, shall be recycled, reused or disposed of in accordance with 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. Additionally, during construction works, every effort will be made to reduce and minimise the amount of building materials excess to construction.

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 Table (Table 1- Processing and Disposal details – Materials Excess to Construction) details prescribe the manner in which all materials surplus to the construction of the building will be dealt with, and includes: -

1. An estimate of the types, volumes and weight of materials and recyclables to be generated;
2. The estimated total percentage of waste surplus to construction to be reused or recycled; and,
3. Destination and reuse details.

TABLE 1 – PROCESSING AND DISPOSAL DETAILS – MATERIALS EXCESS TO CONSTRUCTION

Waste Type	Volume (Sqm)	Weight (Tonne)	Estimated % to be Recycled	Destination & Reuse
Excavation material	See Part 2	N/A	N/A	All materials to be processed off site at a licensed facility that is approved to accept the material specified.
Timber	5.0	2.00	80%-90%	
Concrete	5.0	12.00	80%-90%	
Bricks	6.5	6.50	80%-90%	
Tiles	5.0	3.75	80%-90%	
Metal	5.0	1.00	75%-90%	
Glass	5.0	1.65	50%-60%	
Furniture	1.0	0.35	N/A	
Fixtures and fittings	2.5	0.80	80%-90%	
Floor coverings	1.0	0.33	N/A	
Packaging, Pallets	Nil	N/A	N/A	
Garden organics	Nil	N/A	N/A	
Containers	Nil	N/A	N/A	
Paper/cardboard	2.5	0.50	80%-90%	
Residual waste	5.0	5.00	Nil	
Hazardous Waste	Nil	N/A	N/A	
Other (specify)	N/A	N/A	N/A	

It is noted that the quantities of materials detailed above are estimates only, based on current industry standards and quantity analysis, and may vary due to the prevailing nature of construction constraints, and any other unforeseeable activities associated with the construction works.

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

The facilities and agencies that receive the materials listed above are to be a facility or agency that is licensed to accept the materials specified.

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

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.

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.

Based on the above information, it is anticipated that between 75% and 85% of all materials excess to construction needs will be able to be recycled or re-used, well above the Council's required targets.

3.3 LICENSED WASTE MANAGEMENT AND RECYCLING FACILITIES.

The facilities nominated below are appropriately licensed to receive the materials nominated in Table 1 of Part 3.2 on page 7.

1. Blacktown Waste Services, 920 Richmond Road, Marsden Park.
   Tel 9835 4544

2. Bingo Industries, 3-5 Duck Street, Auburn, or 38 McPherson Street, Banksmeadow.
   Tel 1300 424 646

3. Brandown, Lot 9 Elizabeth Drive, Kemps Creek.
   Tel 02 9826 1256

4. Jacks Gully Waste Management Centre, Richardson Road, Narellan.
   Tel 1300 651 116

5. Lucas Heights Waste Management Centre, New Illawarra Road, Lucas Heights.
   Tel 1300 651 116

6. Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek.
   Tel 8887 6112

7. Quality Recycled Demolitions, 34 Woodfield Boulevarde, Caringbah (Tel 02 9542 7203)

8. Second Hand Building Centre, Rear 432b West Botany Street, Rockdale.

The facilities and agencies that receive the materials listed above are, licensed and generally able, to accept the materials specified.

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

Based on the above information, it is anticipated that between 80% and 90% of all materials excess to construction needs will be able to be recycled or re-used, well above the Council's required targets.

The appointed contractor 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 excess to the construction of the building.

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

PART 4 – ON GOING USE OF BUILDING

4.1 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 will promote the principles of health, safety and, convenience.
3. To promote waste minimisation practices.

4.2 ASSUMPTIONS

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

1. The proposal involves the redevelopment of an existing sporting complex and facilities, comprising of:

a) The demolition of existing grandstand and associated structures,
b) Construction of new sporting amenities building, change rooms, seating canteen, change rooms, and storage areas,
c) Provision of new sporting amenities, including playing fields, tennis courts, and associated infrastructure,
d) Provision of new passive recreation areas, playgrounds, car-parking and vehicular access, and,
e) Public domain improvements, picnic areas, seating, and fitness areas.

2. The total area of the precinct comprises of approximately 19,000sqm (1.9ha).
3. State-of-the-art waste storage and collection facilities will be provided to enhance all waste management activities and operations associated with the use of the site.
4. All mobile waste and recycling bins required for the on-going operation of the entire facility will be stored within the confines of a dedicated Waste Storage and Collection Area as indicated on the Architectural Drawings.
5. A number of Dual Mobile Bin Enclosures containing 1 x 240-litre red lidded waste bin and 1 x 240-litre yellow lidded recycling bin will be provided in strategic locations throughout the site for patrons to disposed of their waste and recycling material at any time.
6. All full waste and recycling bins will be transferred from the enclosures to the Waste Collection Area for storage prior to servicing.
7. All waste and recycling collections will take place from the WSA.
8. The Waste Collection Area is located adjacent to the driveway into the site on the northern side of Car Park 2 as indicated on the Architectural Drawings.
9. All waste material will be stored for servicing in an appropriate number of either 1100-litre capacity, depending upon the size and scope of site activities in any given period.
10. All recycling material will be stored for serving in an appropriate number of either 240-litre or 1100-litre capacity mobile bins, depending upon the size and scope of site activities in any given period.
11. Unless otherwise specified all waste and recycling services will be provided by Bayside Council's waste and recycling collection contractor.
12. All waste services will be provided as directed by Council.
13. All recycling services will be provided as directed by Council.

14. All waste and recycling generation rates for the use of the site have been calculated as detailed in Part 4.5 on pages 18 and 19.
15. The proprietor of the facility will develop an Event Management Plan (EMP) for each event to be conducted at the facility. This EMP will include provisions for management all waste and recycling activities associated with the conduct of any event, including the servicing of all waste and recycling bins allocated to each event.
16. If the waste and recycling material generated from the use exceeds the waste generation rates specified in this WMP, the frequency of collections may need to be increased. Any increase in the frequency of collections will be determined by the Council in consultation with the proprietors of the Restaurant.

4.3 WASTE HANDLING & MANAGEMENT

The proprietors of the facility will be responsible for ensuring that an appropriate number of Dual Mobile Bin Enclosures containing 1 x 240-litre red lidded waste bin and 1 x 240-litre yellow lidded recycling bin, are provided in strategic locations throughout the site for patrons to disposed of their waste and recycling material at any time.

Appropriate signage will be erected in a prominent place throughout the site to assist all attendees in ensuring that all waste and recyclable material is placed into the appropriate bins.

4.4 WASTE & RECYCLING GENERATION RATES

Based on research undertaken by Dickens and a review of the NSW Design Guide and from information published by the NSW Government Architect there appear to be no specific guidelines for calculating specific waste and recycling generation rates for land use activities associated with the establishment of a sporting facility such as the one proposed.

Additionally due to the size, scope and nature of the facility, waste and recycling generation will be dependent upon how often the facility is used. It is also considered that the consumption patterns of the facilities users will determine how much waste and recycling material is generated.

As the facility will primarily be used for active sporting and passive recreation usage, the articles that generate waste would mainly consist of:

- Organic food scraps (waste stream),
- Discarded sporting accessories, such as strapping material, bandages, packaging, and associated materials (waste stream),
- Discarded glass and plastic food and beverage containers (recycling stream),
- Cardboard and paper packaging recycling stream), and,
- Miscellaneous waste such as takeaway food scraps, paper wrappers (chip and confectionary wrapping and packaging (waste stream).

The facility will most likely be used seven (7) days per week, both day and night for a variety of activities, including:

- Training for competitive sports (football, AFL, basketball, netball)
- Competition matches (football, AFL, basketball and netball) – mainly weekends, with netball and basketball nightly,

- Tennis – daily, both day and night,
- Athletics – training, and,
- Passive recreation – running and walking.

It could be assumed that the facility would cater for anywhere between 500 and 2,500 persons during any given week, depending upon the time of year, and the nature of activities. As such an assumption will need to be made on the average number of users per day and the waste and recycling generated by each user. In this regard a review of existing facilities of a similar size and scope to the one proposed as well as a review of existing data published by the EPA a number of LGA's and research undertaken by Dickens Solutions would indicate that the following waste and generation rates could be reasonably applied:

- Waste – 1.5-litres per person per visit (per day), and
- Recycling 3.0-litres per person per visit (per day).

Based on an average attendance of 500 person per day, it is recommended that (initially), the following waste and recycling generation rates to the facility be applied.

The following table (Table 1) specifies the service requirements for the provision of waste and recycling services based on the information provided above.

TABLE 1 – WASTE SERVICE REQUIREMENTS

Waste Stream	Generation Rate	Number of Users Per Day	Calculation	Service Requirements
WASTE	1.5-litres per person per Day	500	1.5 x 500 x 7 = 5,250	5,250-ltrs to be serviced per Week
RECYCLING	3.0-litres per person per Day	500	3.0 x 500 x 7 = 10,500	10,500-ltrs to be serviced per Week

Based on the above, all servicing requirements are to be undertaken in accordance with the following table (Table 2) – Summary of Service Requirements.

TABLE 2 – SUMMARY OF WASTE & RECYCLING SERVICE REQUIREMENTS

SERVICE	NO OF BINS	BIN SIZE (Litres)	COLLECTION FREQUENCY	REQUIRED WEEKLY SPACE	WEEKLY SPACE PROVIDED
WASTE	3	1100	Two (2) Per Week	5,250.00	**6,600**
RECYCLING	5	1100	Two (2) Per Week	10,500.00	**11,000**

Alternate bins sizes and, or collection frequencies, may be employed to achieve these rates. However, appropriate records are to be maintained to ensure that all service requirements are achieved.

It is recommended that Council review the first twelve (12) months of the facilities usage as it applies to waste management activities, and as a result of this review any changes to waste management collection frequencies be applied as required.

4.5 PROVISION OF WASTE & RECYCLING SERVICES

4.5.1 Waste and Recycling Collection Service Provider Details

Bayside Council will provide all waste and recycling services to the facility.

4.5.2 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)
240-litre mobile container	1.080	0.735	0.585
1100-litre mobile container	1.470	1.070	1.240

4.5.3 Location, Design, and Construction of Waste Storage Area

The Waste Storage Area (WSA) is located on the northern side of the building as indicated on the Architectural Drawings. It has a floor area of approximately 9sqm and has sufficient space to store all of the required number and size of bins for servicing.

All mobile bins required for the on-going operation of the restaurant will be stored in a designated are within the confines of this WSA.

All waste and recycling material will be removed by the proprietors or employees of the restaurant, at the conclusion of each day's activities, and placed into the appropriate waste or recycling bin.

An enclosed space is to be provided within the premises for the storage of an appropriate number of receptacles for each stream (i.e. separate receptacles for general waste, food waste and recycling), sufficient for one days' material. This space is not to be located within the food preparation area or the dining area.

4.5.4 Servicing Arrangements – Waste Collections

All general waste services will take place from a loading bay adjacent to the pathway into the site from the existing West Car Park. Access to the WSA is from this pathway.

Waste bins will be collected two (2) days per week, on days to be determined by the contractor in conjunction with the proprietor. A Service Agreement will be entered into between the proprietor and the contractor, and a copy of this Agreement will be provided to Council, upon Council's request.

Both 2 x 1100-litre mobile general waste bins will be presented for servicing on each collection day by a member of the Contractors' collection team. The waste bins will be returned to the WSA as soon as servicing has been completed.

It will be the responsibility of the proprietor to ensure that all general waste services are provided in accordance with the requirements of this WMP.

4.5.5 Servicing Arrangements – Recycling Collections

All recycling services will take place from a loading bay adjacent to the pathway into the site from the existing West Car Park. Access to the WSA is from this pathway.

Recycling bins will be collected one (1) day per week, on a day to be determined by

the contractor in conjunction with the proprietor. A Service Agreement will be entered into between the proprietor and the contractor, and a copy of this Agreement will be provided to Council, upon Council's request.

All 5 x 1100-litre mobile recycling bins will be presented for servicing on each collection day by a member of the Contractors' collection team. The recycling bins will be returned to the WSA as soon as servicing has been completed.

It will be the responsibility of the proprietor to ensure that all recycling services are provided in accordance with the requirements of this WMP.

4.6 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 requirements will apply: -

1. The walls and floor of the Waste Storage Area (WSA) will be constructed of an approved material.
2. The WSA is be washed and cleaned on a regular basis.
3. All mobile bins will be washed and cleaned on a regular basis.
4. Any electrical equipment, including the provision of lighting, will be installed in accordance with the relevant Australian Standards.
5. Appropriate signage will be displayed in a prominent position within the restaurant identifying the location of the WSA, as well as providing instruction to employees on how to use waste and recycling facilities, including what is and what is not recyclable.
6. The proprietor 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 has been developed and documented in accordance with Council requirements.
2. The WMP has been developed and documented in order to meet the requirements of all of Council's policies in relation to the provision of waste management facilities, specifically Rockdale Technical Specification for Waste Management.
3. Based on research undertaken by Dickens and a review of the NSW Design Guide and from information published by the NSW Government Architect there appear to be no specific guidelines for calculating specific waste and recycling generation rates for land use activities associated with the establishment of a sporting facility such as the one proposed. Accordingly all waste ab=n recycling generation rates have been calculated as detailed in Part 4.5 on pages 18 and 19 of this WMP.
4. All waste and recycling services will be provided by Council.
5. The WMP aims to promote the use of recyclable materials in the excavation, demolition, construction, and on-going operation of the building.
6. 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.
7. The WMP aims to ensure that the provision of waste and recycling services to the completed building is carried out in an efficient manner, which will promote the principles of health, safety, and convenience.
8. The proprietor of the restaurant 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.

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 Bayside Council.
