



Waste Management Plan
Cumberland & Carlingford West Schools
Date: 4 April 2024

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1 DOCUMENT CONTROL

All changes made to the Project Construction Waste Management Plan are recorded in the amendment table below. The version number and date of revision for the current document revision are shown in the footer of the document.

1.1 Revision History

Revision	Date	Description of changes	Prepared by	Approved by
0	20/10/2023	For Review	Stephen Lai	Stewart Agus
2	4/12/2023	SSDA Conditions Update	SL	SA
3	4/4/2024	Updated post audit 1	SL	SA

1.2 Management reviews

Review date	Details	Reviewed by
20/10/2023	Issued For Review	Damian Vella
4/4/24	Issued for update	Damian Vella

1.3 Controlled copies

Name	Position	Date	Revision

2 DEFINITIONS AND ABBREVIATION

Term/Abbreviation	Definition
CWMP	Construction Waste Management Plan
HSE	Health, Safety and Environment
EPA	Environment Protection Authority
OEH	Office of Environment and Heritage
RCo	Roberts Co
The Project	Cumberland and Carlingford West Schools

Table 01 – Terms of reference, definitions and abbreviations.

3 PURPOSE AND APPLICATION

This Construction Waste Management Plan (CWMP) for Cumberland and Carlingford West Schools (“**The Project**”) describes the Roberts Co system for managing and minimising waste impacts of its activities, meeting its legislative and contractual obligations. In particular, the plan has been developed to address requirements of Condition B17 from the project conditions of approval.

DA Consent No.	Consent Condition of Approval
SSD-43065987	B16

Table 02 – Development Application – Condition of Approval

Consent Condition	Location	Ref
B16. The Construction Waste Management Sub-Plan (CWMSP) must address, but not be limited to, the procedures for the management of waste including the following:		
(a) the recording of quantities, classification (for materials to be removed) and validation (for materials to remain) of each type of waste generated during construction and proposed use for materials to remain;	Section	7.5.1
(b) information regarding the recycling and disposal locations; and	Section	8
(c) confirmation of the contamination status of the development areas of the site based on the validation results.	Section	9

3.1 Project Scope

CWPS

Construction of four new buildings in the north-west portion of the site known as Buildings W, X, Y and Z. These buildings range from one to three storeys and contain a variety of uses including general learning spaces, library, amenities, staff rooms and combined canteen, OSHC, gym and hall.

CHS

Construction of two new buildings in the south-east portion of the site know as buildings Y and Z. These buildings range from one to five storeys and contain a variety of uses including general and specialists learning spaces, library, staff and student amenities, and combined lecture theatre, canteen, OSHC, and gym/ hall.

4 OBJECTIVES AND TARGETS

4.1 Objectives

The objective of this CWMP is to ensure that all risks associated with construction waste management are considered and managed effectively during construction.

This CWMP seeks to ensure that construction waste is managed effectively to prevent any negative environmental impact on the surrounding environment or receiving resource recovery and waste facilities.

This CWMP aims to satisfy the following objectives:

- Address the requirements of planning approval condition B16;
- Address the requirements of the relevant environmental legislation as it applies to this project;
- Summarise potential impacts on the environment from the proposed works, and;
- Document environmental procedures to control potential environmental impacts.

4.2 Targets

The following targets have been identified in terms of waste management for the project;

- Waste products are recovered and reused on site where reasonable and practical;
- Undertaken recovery / recycling of all recyclable materials such as concrete, steel, aluminium, paper and plastics. This may be undertaken on site or at an offsite recovery facility;
- All residual waste products are sent to appropriately licensed destinations for recycling, reuse, treatment or disposal;
- No contamination incident occurring as a result of waste storage, transport or disposal;
- No rejection of loads by the receiving facility for non-compliant wastes;
- Regulated wastes stored, transported, tracked and disposed of as per regulated waste legislation;
- No construction waste/litter to leave the site in an uncontrolled manner;
- Documentation of the intended management of wastes e.g., avoid, reduce, reuse, recycle or dispose to ensure waste is managed in accordance with accepted standards and appropriately implemented waste control measures, and;

- Implementation of waste minimisation initiatives where practical.

5 LEGAL AND OTHER REQUIREMENTS

The waste legislation and regulatory framework relevant to the appropriate jurisdiction can be found in via the following links:

NSW	Waste Avoidance and Resource Recovery 2001 (WARR)1
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Website Links

NSW www.legislation.nsw.gov.au/view/html/inforce/current/act-2001-058

VIC www.sustainability.vic.gov.au/about-us/our-mission/our-strategies/statewide-waste-and-resource-recovery-infrastructure-plan-swrrip

5.1 Environmental Legislation (Acts)

All material that is imported to or exported from the Cumberland and Carlingford West Schools will be undertaken in strict accordance with the requirements of the following;

NSW	Protection of the Environment Operations (POEO) Act 1997
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This includes:

- Ensuring waste is classified appropriately and in accordance with relevant guidelines;
- Waste materials are disposed of correctly at the appropriately licensed facilities, and;
- Other materials are removed to facilities lawfully able to accept such materials.

5.2 Environmental Regulations

The proposed works shall be undertaken in accordance with the following regulations;

NSW	Protection of the Environment Operations (Waste) Regulations 2014
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5.3 Waste Classification Guidelines, Part 1: Classifying Waste

All wastes generated and proposed to be disposed off-site shall be assessed, classified and managed in accordance with this guideline.

5.4 Asbestos Regulations

Asbestos containing materials shall be undertaken in accordance with the requirements of the:

NSW	<ul style="list-style-type: none"> – Work, Health and Safety Act 2011 – Work, Health and Safety Regulation 2017 – Code of Practice - How to safely remove Asbestos, December 2011 – Waste Classification Guidelines: Part 1: Classifying Waste (DECC 2008)
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6 WASTE CLASSIFICATION

Waste is generally classified on the basis of its potential harm to the environment. A summary of the waste classification requirements is provided below.

6.1 NSW

Waste Classification	Description
Special Waste	<ul style="list-style-type: none"> – Special waste includes asbestos waste and waste tyres. – Asbestos waste means any material or material that contains the fibrous form of mineral silicates. – Waste Tyres is any used, rejected or unwanted tyres including shredded or tyre pieces.
Liquid Waste	<ul style="list-style-type: none"> – Liquid waste means any waste that: – Has an angle of repose of less than 5 degrees, or – Becomes free-flowing at or below 60 degrees Celsius or when it is transported, or – Is not generally capable of being picked up by a spade or shovel.
General Solid Waste (putrescible)	<ul style="list-style-type: none"> – Household waste that contains putrescible organics waste from litter bins collected by local councils.
General Solid Waste (non-putrescible)	<ul style="list-style-type: none"> – Glass, plastic, rubber, plasterboard, ceramics, bricks, concrete or metal – Paper or cardboard – Grit, sediment, litter and gross pollutants from stormwater treatment devices, stormwater management systems that has no free liquids – Garden & wood waste – Containers previously containing dangerous goods, as defined under the Australian Code for the Transport of Dangerous Goods by Road and Rail, where residues have been appropriately removed by washing or vacuuming drained – Oil filters (mechanically crushed), rags and oil-absorbent materials that only contain non-volatile petroleum hydrocarbons and have no free liquids – Drained motor oil containers that do not contain free liquids

Waste Classification	Description
	<ul style="list-style-type: none"> – Synthetic fibre waste from fibreglass, polyesters and other plastics and is packaged securely to prevent dust emissions, that is confirmed as not being asbestos waste – Virgin excavated natural material – Building and demolition waste – Asphalt waste, including asphalt from road construction and waterproofing works – Cured concrete waste from batch plants – Fully cured and set thermosetting polymers and fibre-reinforcing resins, glues, paints, coatings and inks

Table 03 – Waste Classifications (NSW)

Further details on the classification of waste can be found in the OEH's Waste Classification Guidelines 2008.

7 WASTE MANAGEMENT

7.1 Waste Sources

The following information in this section outlines the anticipated waste and management options to address the generated waste. All waste will be removed progressively with minimal amount stored on site.

Waste that is not removed immediately will be stored in designated areas in proprietary storage facilities until it is reused or removed.

Waste will be classified according to the OEH Waste Classification Guidelines (2008).

Waste Category	Waste Generated	Classification
Waste produced from the demolition of the existing structures and roadways	<ul style="list-style-type: none"> – Concrete – Asphalt / bitumen – Steel – Brick – Internal fittings 	General Solid
Waste from on-site maintenance and servicing of plant and equipment – note minor servicing only. Major servicing to be completed off site. (non-liquid)	<ul style="list-style-type: none"> – Drained and crushed oil filters and grease tubes – Used and defective parts – Oil soaked rags – Used oil absorbent materials 	General Solid
Waste from crib sheds and office areas	<ul style="list-style-type: none"> – Food scraps, waste wrappers, waste-paper towels 	General Solid Putrescible
Office and packaging waste (non-liquid)	<ul style="list-style-type: none"> – Paper, cardboard, glass, plastic (no food scraps etc) 	General Solid

Waste Category	Waste Generated	Classification
Waste from construction activities (non-liquid)	<ul style="list-style-type: none"> – Waste is not contaminated or mixed with any other type of waste and does not contain asbestos – Plasterboard – Concrete pour residues – Aggregates – Damaged and off cuts of PVC pipes – Rejected or defective precast concrete – Steel waste – Used Geotextile – Timber waste 	General Solid
Any waste that meets the criteria for assessment as dangerous goods under the Australian Code for the Transport of Dangerous Goods by Road and Rail	<ul style="list-style-type: none"> – Poisonous (toxic) substances and corrosive substances – Non-sag epoxy mortar binder – Synthetic rubber-based adhesive – Epoxy resins – Batteries 	Hazardous

Table 05 – Sources of Waste

7.2 Waste Minimisation and Recycling

The following strategies will be implemented on site to minimise the generation of waste:

- Include project waste strategy in the project induction;
- Establishment of a combined waste collection system by a reputable service provider;
- Appropriate quantities of materials will be ordered to minimise wastage;
- Quality of materials supplied will be controlled to reduce rework and problems due to quality and additional material consumption;
- Prefabricated elements used where practical and reasonable;
- Establishment of comingled recycling receptacles for packaging and food container waste;
- Waste steel will be separated and disposed of into the steel recycling bin provided on site;
- Form work will be reused as often as possible;
- Waste timber and formwork will be sent to a recycling facility;
- Waste concrete will be sent to a recycling facility;
- Any green waste is to be mulched and removed from site. Where possible, with regard to the species, it is to be reused for landscaping purposes off site, and;
- Recycling of general waste such as paper, cardboard, aluminium cans and similar materials from offices and site facilities. Source separation will be provided for these facilities as shown below.



7.3 Waste Storage and Handling

During demolition and excavation, waste will be removed by a suitably licensed contractor and sent to pre-approved waste and resource recovery facilities. The handling, storage and transport of hazardous materials and waste shall be in accordance with Roberts Co Project Work, Health and Safety Management Plan, the National Code of Practice, the relevant Safety Data Sheet (SDS) on the product and the hazardous materials management procedures.

During construction, Roberts Co will provide the appropriate bins required dependent on the stage of the project including (but not limited to) skip bins, tipper bins, wheelie / Otto bins, recycling bins and food scrap bins throughout the duration of the project.

The type of bin will be required for the various activities being carried out;

- 240L bins will be utilised during the structure phase on the decks to be fed into 1.5m³ site bins;
- 240L bins during typical floor services and fit out stages to be fed into 1.5m³ site bins;
- 240L bins during the finishes to completion to be fed into 1.5m³ site bins; and
- The bins above will be progressively fed into 15m³ Marrells throughout the project.

Storage of waste oils and chemicals shall be in a purpose built secured bunded area. The capacity of the bunded area is to be at least 110% of the chemical stored within. An emergency response spill kit shall be located adjacent to the bunded area.

All storage containers and locations for the various waste streams shall be clearly labelled to ensure that mixing of wastes is avoided.

All material removed during the de-silting of drainage structures and sediment structures shall be disposed of in an approved disposal area on site.

Where spoil material is to be removed from the site for offsite disposal, Roberts Co must ensure that the waste is classified in accordance with the OEH Waste Classification Guidelines.

7.4 Waste Forecast – Construction Phase

The objectives during demolition, excavation and construction waste management are to;

- Reduce the demand for waste disposal during demolition and construction;
- Maximise resource recovery through reuse and recycling;
- Assist in achieving Federal and Local Government waste minimisation targets in accordance with overarching regulations and plans;
- Document wastes that may be generated as part of the demolition and construction works (identification and proposed disposal method and destination), and;
- Aim to be awarded 2 credit points for Waste Management as stipulated under Green Star Office version 3. Two credit points are awarded where 90% of waste, by weight, generated on-site during the construction phase is re-used or recycled.

The above target will be achieved through maintained and consistent reuse and recycling efforts throughout the entire construction phase. Other construction and demolition related issues such as impact of the development on surrounding land used and public streets are addressed in the Construction Management Plan.

7.5 Types and quantities of waste

The following estimates of waste type and quantities have been made based on the anticipated extent of demolition and construction works. Demolition and Construction waste generation data has been provided by RCo based on similar projects of comparable type and size.

7.5.1 Excavation types and quantities of waste materials

There is no demolition associated with this project.

Table 05 identifies the types of materials likely to be generated during excavation. Accurate records of amount, type and destination of waste materials will be recorded and retained throughout the scope of works.

Material types	Anticipated Quantities
Soil (ENM)	20,000 m3
Concrete, Bricks, Tiles,	2,500 m3

Table 05 - Proposed waste material types and estimated generation.

7.5.2 Construction types and quantities of waste materials

An indicative forecast of generated waste generated throughout the construction activities is located in table 06 below. The table (06) represents the waste material type, estimated volumes calculated in recyclable

percentages. The anticipated recycling and reuse rate for construction waste is 90% as per the project waste objective target set out in section 7.4 of this plan.

The estimated generation of construction waste is based on an average of 170m³ per month over a 18-month construction duration. Therefore, an estimated waste total of 3,060 m³ will be generated with the following estimated breakdown of waste type.

Waste Material types	Percentage (Approx.)
Heavy Recyclable Materials (soil, dirt, sand, rubble, brick, concrete, tiles, marble, stone)	28%
Light Recyclable Materials (cardboard, paper, plastic, plasterboard)	24%
Metals (ferrous, non-ferrous)	13%
Recyclable Timber / Green Waste	25%
Land Fill Waste	10%
Total Recycled Waste	90%

Table 06 - Waste Management and Resource Recovery Plan. A 90% recycling and reuse rate is expected.

8 WASTE RECORDS

Records of waste disposal must be maintained. All material that leaves the site must be classified and its disposal or recovery location recorded. Waste records are recorded on a central register.

Where any external waste contractors are used by Roberts Co, a copy of the relevant environment protection licence and disposal forms shall be obtained and verified.

All records will be filed, stored, and archived in accordance with the Roberts Co project filing index. In any case, records will be maintained for a minimum of four (4) years.

Further reference to Bingo Waste Management Plan for rubbish removal. Copy available within RCO office.

9 CONTAMINATION STATUS

The remediation action plan prepared for the project has been updated on 08 February 2023 to include the results of a data gap assessment that has since been carried out as recommended by the DSI and outlined in the RAP.

The remediation objective, devised in accordance with CRC CARE (2019a) are to:

- 1) Address potentially unacceptable risks to relevant environmental values from contamination; and
- 2) Render the site suitable, from a contamination perspective, for the proposed redevelopment and land use (continued public and secondary school)

The RAP provides details of the work that will be required at the site to meet the remediation objectives.

INTEGRATED MANAGEMENT SYSTEM
CONSTRUCTION WASTE MANAGEMENT PLAN
CUMBERLAND AND CARLINGFORD WEST SCHOOLS

The environmental consultant had previously undertaken a detailed site investigation which identified areas which required further investigation as well as an area of environmental concern which may require remediation.