BARKER RYAN STEWART
TOTAL PROJECT SOLUTIONS
ABN 26 134 067 842

Conrad Gargett

Waste Management Plan

Alterations and Additions to Parramatta West Public School
Auburn & Young Streets, Parramatta

July 2018

PLANNING
PROJECT MANAGEMENT
ENGINEERING
CERTIFICATION

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Project No.	CC160183
Author	LW
Checked	KS
Approved	LW

Rev No.	Status	Date	Comments
1	Draft	15/05/2018	
2	Final	03/07/2018	

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SYDNEY
Suite 603, Level 6, 12 Century Circuit
Norwest Business Park NSW 2153
P (02) 9659 0005 F (02) 9659 0006
E sydney@brs.com.au

CENTRAL COAST
Studio 5, 78 York Street
East Gosford NSW 2250
P (02) 4325 5255
E coast@brs.com.au

HUNTER
Unit 1, 17 Babilla Close
Beresfield NSW 2322
P (02) 4966 8388 F (02) 4966 1399
E hunter@brs.com.au

brs.com.au

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SYDNEY
Suite 603, Level 6, 12 Century Circuit
Norwest Business Park NSW 2153
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E sydney@brs.com.au

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P (02) 4966 8388 F (02) 4966 1399
E hunter@brs.com.au

brs.com.au

1 Author and Project Details

AUTHOR DETAILS	
Name	Barker Ryan Stewart
Address	Suite 603, Level 6, 12 Century Circuit, Norwest Business Park, Baulkham Hills NSW 2153
Phone number(s)	02 9659 0005
Email	sydney@brs.com.au

DEVELOPMENT DETAILS	
Project Details	Alterations and Additions to Parramatta West Public School
Address of Development	Auburn & Young Streets, Parramatta
Existing Buildings and other structures currently on the site	The south site has the existing school buildings, demountables and landscaping. The north site has grass and vegetation.
Description of proposed development	The works on the south site include alterations to existing school buildings. The works on the north site include the construction of new home bases, administration and a school hall.

This development achieves the waste objectives set out in the DCP. The details on this form are the provisions and intentions for minimising waste relating to this project. All records demonstrating lawful disposal of waste will be retained and kept readily accessible for inspection by regulatory authorities such as council, OEH or WorkCover NSW.

Contact Name	Lisa Wrightson
Date	03/07/2018

2 Council Requirements

This Waste Management Plan (WMP) has been prepared having regard for the specific waste management objectives of the Holroyd Development Control Plan (DCP) 2013, which are:

- *O1. To meet the objectives of the Waste Avoidance and Resource Recovery Act 2001.*
- *O2. To control the management of waste by all proposals for demolition.*
- *O3. To control the management of waste by all development (including alterations and additions) requiring consent under Holroyd LEP 2013 and the EP&A Act1979, including but not limited to:*
  - *i) Dwelling houses;*
  - *ii) Medium density housing (including dual occupancy, integrated housing and residential flat buildings);*
  - *iii) Professional Consulting Rooms and Child Care Centres;*
  - *iv) Commercial development (including fit-outs);*
  - *v) Residential development within or adjacent to commercial areas;*
  - *vi) Industrial development (including fitouts);*
  - *vii) Any other application involving construction or fitting out of a premise.*
- *O4. To reduce the demand for waste disposal.*
- *O5. To maximise reuse and recycling of building/construction materials, household generated waste and industrial/commercial waste;*
- *O6. To require source separation and other design and location standards which complement waste collection and management services offered by Council and private providers;*
- *O7. To encourage building designs and construction techniques which will minimise waste generation;*
- *O8. To minimise the overall environmental impacts of waste;*
- *O9. To provide advice to intending applicants on how to prepare Site Waste Minimisation and Management Plans (SWMMP), detailing actions to minimise waste generation and disposal;*
- *O10. To provide advice to applicants on matters to be considered when assessing the waste implications of the variety of applications made under the Environmental Planning and Assessment Act;*
- *O11. To ensure that waste storage facilities are located appropriately and do not impact negatively on the streetscape.*
- *O12. To provide advice to intending applicants on how to reduce and handle waste during the demolition and construction phase; and*
- *O13. To assist in achieving Federal and State Government waste minimisation targets.*

The DCP does not have specific controls relating to waste management for schools however, this plan includes consideration of the waste generated through any demolition, construction and ongoing operation of the school and is consistent with the guiding waste management principles of:

- Reduce;
- Reuse;
- Recycle.

3 Demolition

3.1 Waste Generation

There is limited demolition that will occur on the site as it is mostly clear.

TYPE OF WASTE GENERATED	REUSE	RECYCLE	DISPOSAL	COMMENT
	Estimate Volume (m^3)	**Estimate Volume (m^3)**	**Estimate Volume (m^3)**	**Specify method of on-site reuse, contractor and recycling outlet and/or waste depot to be used**
Excavation material				Excavation is at construction stage.
Timber (Side façade / dressed)		3.5m^3		Transferred to a Material Recovery Facility or Council Waste Transfer Station.
Gyprock / Cladding		43m^3		Transferred to a Material Recovery Facility or Council Waste Transfer Station.
Concrete		5m^3		Any concrete waste will be crushed and transported to other construction sites or through a Material Recovery Facility.
Masonry (Hebel Block/Fibre cement sheeting/ Pavers / bricks)				Transferred to a Material Recovery Facility.
Tiles (roof)				Not applicable
Metal (roofing / framing / façade)		1m^3		Transferred to a Material Recovery Facility
Glass				Transferred to a Material Recovery Facility
Furniture				Furniture will be removed prior to demolition.
Fixtures / Fittings				Transferred to a Material Recovery Facility or Council Waste Transfer Station.
Floor coverings		57m^3		Transferred to waste management facility or recycling facility.
Packaging (used pallets / pallet wrap)				No packaging will be used during the demolition.
Garden organics	15m^3	26.5m^3		Reused as mulch on site or recycled through private contractor or through Council's green waste.
Containers (cans / plastic / glass)				Containers to be sorted and transferred to Council Waste Transfer Station
Paper / cardboard				Transferred to a Material Recovery Facility
Residual waste		1.5m^3	2.5m^3	Transferred to a Council Waste Management Facility.
Hazardous / special waste (specify)			TBA	Should any asbestos be found on the site it will be removed and disposed of by a qualified demolition removalist in accordance with the relevant standards.
Other				Transferred to a Council Waste Management Facility.

3.2 Waste Management

Waste management during demolition and construction will be provided as part of a construction management plan developed following approval and will include details of the reuse/ recycling contractor and the landfill site nominated for disposal of waste.

3.3 Waste Avoidance and Reduction

During the demolition process the following waste avoidance and reduction measures will be implemented where and if required:

- Only demolish the necessary parts of the buildings on site and reuse where possible the existing structures;
- Salvage materials for recycling and reuse during the demolition process; and
- The remaining waste to be transported to a recognised builders recycling yard or waste facility.

4 Construction

4.1 Waste Generation

TYPE OF WASTE GENERATED	REUSE	RECYCLE	DISPOSAL	COMMENT
	Estimate Volume (m³)	Estimate Volume (m³)	Estimate Volume (m³)	Specify method of on-site reuse, contractor and recycling outlet and/or waste depot to be used
Excavation material	300m³			Excavated materials will be reused as fill on other developments or on-site.
Timber (Side façade / dressed)		10.5m³		Transferred to waste management facility or recycling facility.
Gyprock / Cladding		4.5m³		Transferred to waste management facility or recycling facility.
Concrete		7m³		Any excess concrete will be retained in the truck and used elsewhere.
Masonry (Hebel Block/Fibre cement sheeting/ Pavers)		3.5m³		Transferred to waste management facility or recycling facility.
Tiles (roof)				No roof tiles being used.
Metal (roofing / framing / façade)		2.5m³		Transferred to waste management facility or recycling facility.
Glass				All glass will be made to order
Furniture				Not at this stage. Furniture will be ordered as required post construction.
Fixtures / fittings				Fixtures will be made to order.
Floor coverings		4.6m³	4.6m³	Transferred to waste management facility or recycling facility.
Packaging (used pallets / pallet wrap)		3.5m³	8m³	Pallets will be transferred to a Material Recovery Facility. Wrap and packaging will be a transferred to Councils Waste Management Facility.
Garden organics		2.5m³		Organics will be ordered to size in accordance with the quantity survey.
Containers (cans / plastic / glass)		3.5m³		Containers will be a transferred to Councils Waste Management Facility.
Paper / cardboard		5m³		Transferred to waste management facility or recycling facility.
Residual waste			15m³	Residual waste will be transferred to Councils Waste Management Facility.
Hazardous / special waste (specify)				No hazardous materials will be utilised in the construction.
Other				Not applicable

4.2 Waste Management

Waste management during demolition and construction will be provided as part of a construction management plan developed following approval and will include details of the reuse/ recycling contractor and the landfill site nominated for disposal of waste.

4.3 Waste Avoidance and Reduction

During the construction phase the following waste avoidance and reduction measures will be implemented:

- All fixtures and fittings will be made to measure;
- All materials will be ordered in accordance with a bill of quantities;
- Recycled materials will be utilised where ever possible;
- Measures will be taken to ensure the construction contractor is aware of the waste management procedures and adheres to appropriate guidelines.
- Salvage materials for recycling and reuse during the construction process; and
- The remaining waste to be transported to a recognised builders recycling yard or waste facility.

5 Ongoing Operation

5.1 Waste Generation

The below tables show the expected waste generation from the school considering the proposed development.

As neither Holroyd nor City of Parramatta have waste generation rates for school development within their Waste Management Guidelines, the waste generation rates were taken from Randwick City Council Waste Management Guidelines as they have a more comprehensive range of uses and rates.

DCP REQUIREMENTS	RECYCLABLES	GENERAL WASTE	GREEN WASTE
SCHOOL – 961 Students			
Amount generated (L per day)	0.5L per student 480.5L	1.5L per student 1,441.5L	Green waste will be reused on site or removed by a landscape contractor.
Amount generated (L per week)	2,402.5L based on a 5 day week	7,207.5L based on a 5 day week	
Number and size of bins	20 x 240L **Total Cycle 4,800L** Removed fortnightly OR 1 x 3,000L (3m^3) **Total Cycle 3,000L** Removed weekly	1 x 3,000L (3m^3) **Total Cycle 9,000L** Removed 3 times a week	

5.2 Waste Storage

BIN STORAGE AREA			
Frequency of collections	Recycling removed fortnightly or weekly	General Waste removed up to 3 times a week	Green Waste removed as required
Floor area for storage bins (m^2)	The storage area is located off Young Street for the general waste and recycling.		
Green Waste	An area has been provided for the storage of green waste.		
Bulky Waste	An area has been provided for the storage of bulky waste.		
Floor area required for manoeuvrability (m^2)	The storage area is wide enough for bins to move passed each other while leaving enough space for human passage between passing bins.		
Comment	**Recycle:** This development will provide adequate recycling bins to meet the minimum recycle requirements. **Waste:** This development will provide adequate waste bins to meet the minimum waste requirements.		

5.3 On-going Waste Removal Procedures

- The school cleaners will be allocated with the responsibility of transporting general waste from the classrooms, canteen and playground areas to the school waste storage area.
- The students and general assistant at the school will be allocated the responsibility of transporting recyclables from the classrooms, canteen and playground areas to the school waste storage area.
- The waste storage area is also the collection point for the general waste which is collected by a private contractor, Suez.
- The recycling bins are transferred to the street for collection on the allocated collection day and are collected by City of Parramatta Council.
- Details of the waste storage and collection points are shown on the architectural plans submitted with the development application.
- **Maintenance**: Management and cleaners shall be responsible for the maintenance of signage, the security of the waste storage area.
- **Hygiene:**
  - The school cleaners should provide regular bin cleaning. This should include a specialised filtration service to ensure pollutants are collected and appropriately disposed in accordance with EPA Guidelines.
  - A cleaning area has been provided within the waste storage area

5.4 Education

- Intelligible signage will be erected in the garbage storage areas to identify which bins should be used for different waste and recyclable materials in accordance with the Councils waste minimisation policy.
- Appropriate staff and cleaners will be supplied with a copy of this waste management plan to inform them on the concepts of waste minimisation and recycling.
- Appointed staff members and cleaners will monitor the waste areas and report to school management on any issues that require rectification.

6 Plans and Drawings

The following checklists are designed to help ensure WMP are accompanied by sufficient information to allow assessment of the application.

Drawings are to be submitted to scale, clearly indicating the location of and provisions for the storage and collection of waste and recyclables during:

- Demolition;
- Construction; and
- Ongoing operation.

DEMOLITION	TICK YES
Size and location(s) of waste storage area(s)	NA*
Access for waste collection vehicles	NA*
Areas to be excavated	√
Types and numbers of storage bins likely to be required	NA*
Signage required to facilitate correct use of storage facilities	NA*
CONSTRUCTION	**TICK YES**
Size and location(s) of waste storage area(s)	NA*
Access for waste collection vehicles	NA*
Areas to be excavated	√
Types and numbers of storage bins likely to be required	NA*
Signage required to facilitate correct use of storage facilities	NA*
ON-GOING OPERATION	**TICK YES**
Space	
Size and location of waste storage areas	√
Recycling bins placed next to residual waste bins	√
Space provided for access to and the manoeuvring of bins	√
Any additional facilities	√
Access	
Access route(s) to deposit waste in storage room/area	√
Access route(s) to collect waste from storage room/area	√
Bin carting grade not to exceed 10% and travel distance no greater than 100m	√
Location of final collection point	√
Clearance, geometric design and strength of internal access driveways and roads	√
Direction of traffic flow for internal access driveways and roads	√
Amenity	
Aesthetic design of waste storage areas, including being compatible with the main building/s and adequately screened and visually unobtrusive from the street	√
Signage – type and location	√
Construction details of storage rooms/areas (including floor, walls, doors, ceiling design, sewer connection, lighting, ventilation, security, wash down provisions, cross & longitudinal section showing clear internal dimensions between engaged piers and other obstructions, etc)	√

*Details provided at construction certificate stage.

Refer to the architectural plans for further detail.