BARKER RYAN STEWART

Request for Secretary's Environmental Assessment Requirements

Scoping Study for Proposed Resource Recovery Facility

MET Recycling - HEZ

January 2022

ENGINEERING
PLANNING
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CERTIFICATION

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1 Introduction

1.1 Applicant Details

This request for Secretary's Environmental Assessment Requirements (SEAR's) Scoping Study has been prepared on behalf of

Applicant:	**MET Central Coast Pty Ltd**
Applicants ABN:	76 656 031 257
Applicants Address:	c/of LCI Partners, Level 3, 239 Church Street, Parramatta NSW 2150

1.2 About MET Central Coast Pty Ltd / Met Recycling

MET Central Coast Pty Ltd / Met Recycling is a private company, owned and operated locally within Australia.

The MET Recycling team currently operates out of its state-of-the-art recycling facility at 134 Carnarvon Street, Silverwater and services construction projects across the Greater Sydney area. The new facility proposed at the Hunter Employment Zone (HEZ) will be in addition to the Silverwater Facility and service the Hunter, Central Coast and Sydney regions.

MET diverts and recycles in excess of 99 per cent of the building waste materials it processes from construction sites which would otherwise become landfill. These materials are turned into eco-friendly products for use in future residential, civil, and infrastructure construction projects through sustainable recycling processes.

MET Recycling contribute to the wider sustainability of the NSW and Australian construction industry by recycling building materials from construction sites and producing new products that can be incorporated into residential, civil and infrastructure projects. By recycling waste from current and ongoing construction projects, MET Recycling can help to promote a more sustainable construction process as we strive toward a circular economy.

1.3 Summary Description of Project

It is proposed to lodge a State Significant Development Application for a resource recovery facility for the storage, processing and supply of a range of recycled construction products.

The proposed resource recovery facility will have an annual processing capacity of 550,000 tonne. Material processed on site will be sourced from construction projects in the Hunter, Central Coast and Sydney regions.

Works associated with the facility will include, vegetation clearing, site levelling, external and internal road works, on-site storage and processing areas, new office building and two recycling sheds, car parking and associated landscaping.

1.4 Site Information

The site forms part of Lot 2 DP1142708 as shown in Figure 1.

The proposed development site will comprise an area of approximately 10ha.

The proposed site is almost rectangular in shape with a width of approximately 385m and depth of approximately 300m.

The site has frontage to Bromage Road an unsealed private road that extends west from HEZ Drive.

The site contains remnant bushland to be cleared as part of the development.

The topography generally slopes from west to east.

There are no structures or improvements on the site.

Figure 1: Site Air Photo (source SIX Maps)

2 Strategic Context

2.1 Justification

Cessnock Local Environmental Plan (CLEP) 1989 (Amendment No. 60) – Hunter Employment Zone (HEZ) was gazetted on the 28th March 2002 wherein the subject land was zoned for industrial/employment generating development, conservation purposes and National Park.

The HEZ has been identified through various planning studies as an ideal location for industrial uses due to a number of distinguishing characteristics:

- Relative isolation from other sensitive receptors, offering potential to accommodate industry that requires physical separation to avoid conflicts between land uses.
- Strategic positioning within the Lower Hunter Region and its various industrial centres.
- Potential to be well serviced by Hunter Valley transport corridors including road and rail.
- Close proximity to a skilled labour markets and essential services.

The provision of a state significant resource recovery facility in the HEZ will help 'kick start' development of this strategically important site, as well as provide economic and sustainability benefits for the wider community.

The NSW Waste Avoidance and Resource Recovery Act 2001 aims to encourage efficient use of resources and reduce environmental harm, through the principles of ecologically sustainable development and considering resource management options against the hierarchy of avoid, reuse and dispose.

The proposal is consistent with these objects as it promotes the responsible management of waste material and reduces the waste stream ending up in landfill.

Resource recovery and recycling also has many benefits from an economic, social and environment perspective, as it:

- diverts recyclable and reusable wastes from landfill,
- provides a commercial return that contributes to the economy of NSW; and
- provides permanent employment for local residents.

2.2 Regional and Local Planning Context

2.2.1 Hunter Regional Plan 2036

The Hunter Regional Plan has identified the need for employment to be concentrated in areas with infrastructure that has the capacity to support future growth of approximately 61,500 extra jobs by 2036.

The HEZ is zoned industrial, has existing road and utilities available for connection and is well positioned away from residential land uses to avoid potential land use conflicts with industrial development.

The proposal is therefore considered to be consistent with the Plan.

2.2.2 Local Planning Context

The Cessnock LEP and DCP planning provisions include zoning and development controls for the HEZ.

DCP 2010 - E6: Hunter Economic Zone (HEZ) seeks to promote and foster:

a) *major industrial development or employment generating development that is accessible to urban centres and arterial roads and that retains the potential for rail access;*

b) employment opportunities; and
c) new development that incorporates the principles of ecologically sustainable development.

The proposed resource recovery facility is entirely consistent with the above principles.

2.3 Locality

The site is located within an industrial estate known as the Hunter Economic Zone (HEZ).

The HEZ is one of the largest industrial estates in Australia comprising approximately 900ha of industrial zoned land and 2,300ha of conservation and National Park zoned land to provide a buffer for industrial development.

The HEZ is located within the Tomalpin locality and borders the towns of Weston in the north, Kurri Kurri to the north-east and Pelaw Main to the east. The major centre of Cessnock is located west of the site. Refer to Figures 2 and 3 below.

Surrounding land is zoned IN1 Industrial but is currently undeveloped.

The closest operational land uses are the HEZ Power Station (approx. 250m north-east) and Ullrich Aluminium (approx. 600m north-east) as shown on Figure 1.

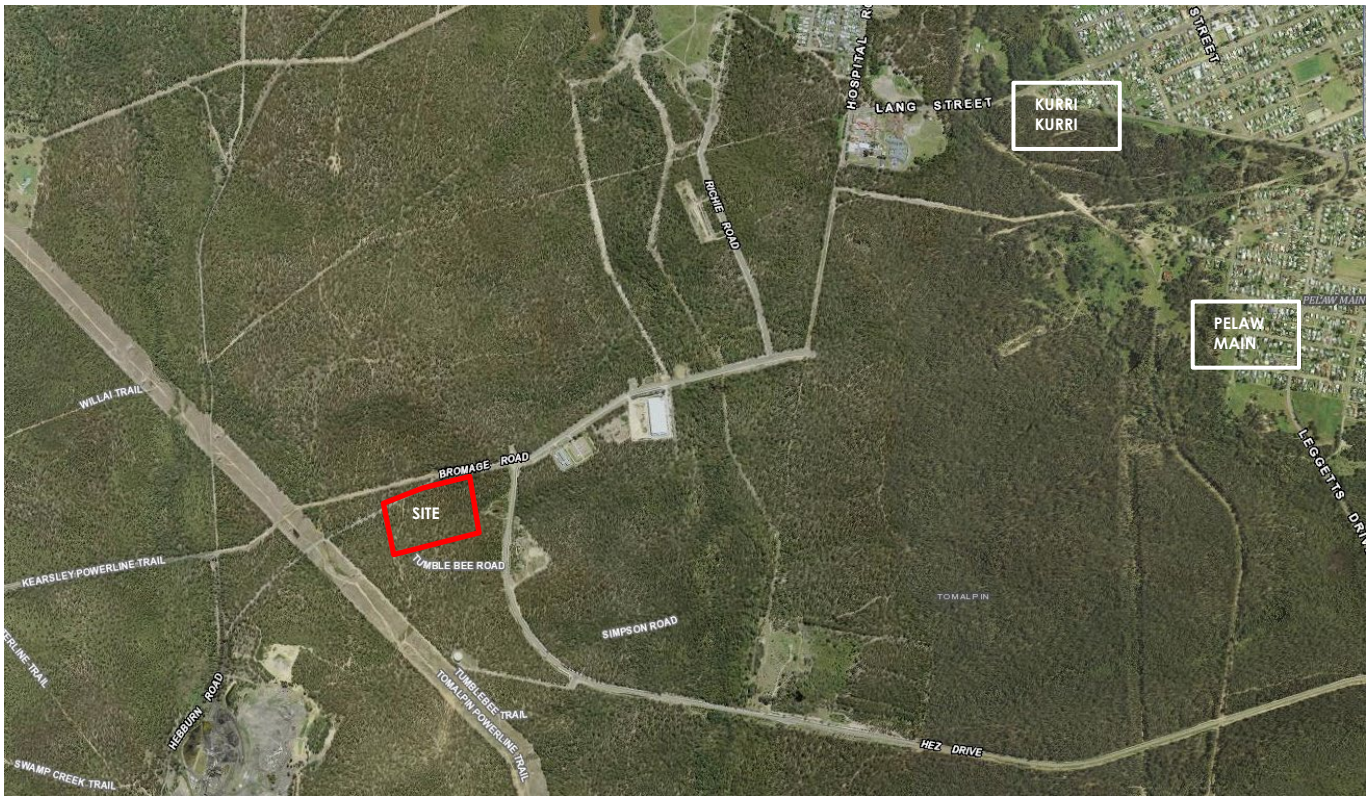


Figure 2: Locality Air Photo (source SIX Maps)

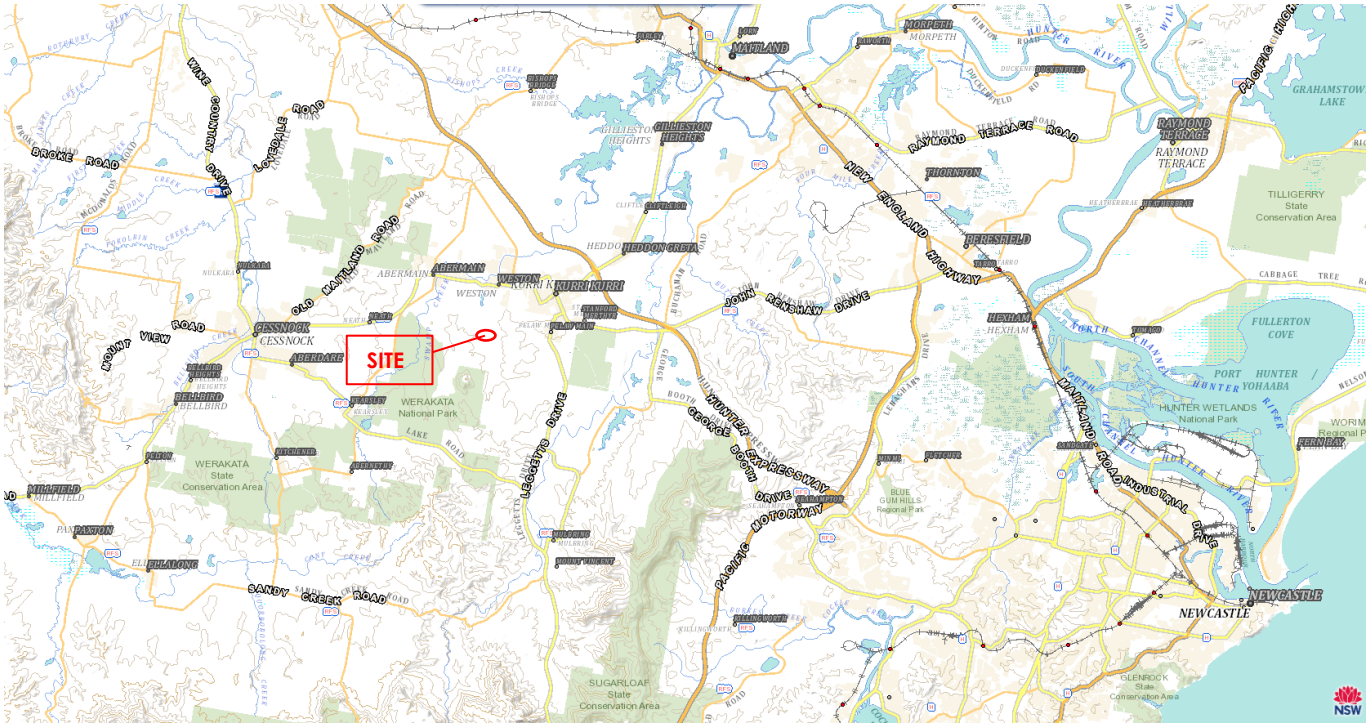


Figure 3: Regional Map (source SIX Maps)

2.4 Important Natural or Built Features

As outlined above, the HEZ includes 2,300ha of conservation and National Park zoned land to provide a buffer for industrial development.

The nearest residential land is located approximately 1.7km from the development site, to the north-east at Kurri Kurri.

2.5 Hazards and Environmental Risks

Site hazards and environmental risks are discussed in Section 6.0 of this report. Hazards and environmental risks requiring further consideration include:

- Bushfire;
- Soil erosion and water quality;
- Ecology;
- Aboriginal archaeology;
- Traffic generation;
- Noise; and
- Dust.

2.6 Cumulative Impacts

Cumulative impacts associated with this development include biodiversity impacts, noise, dust and traffic movements.

The proposed resource recovery facility will be one of the first developments of comparable scale in the area and cumulative impacts will be relatively minimal at this stage of the development of the HEZ.

The rezoning of the HEZ would have considered cumulative impacts from progressive industrial development. As a result, 2,300ha of surrounding land was zoned E2 Conservation and E1 National Park to maintain biodiversity and provide sufficient buffers to residential land from cumulative impacts associated with the build out of the 900h industrial zoned land.

Note: Some zone descriptions are being renamed in accordance with the Standard Instrument (Local Environmental Plans) Amendment (Land Use Zones) Order 2021 and will be considered within the EIS.

2.7 Voluntary Planning Agreements

No Voluntary Planning Agreements are proposed as part of this proposed development.

3 Project

3.1 Proposed Development

3.1.1 Overview

The proposed development is a resource recovery facility with an annual processing capacity of 550,000 tonne.

Operational activities will include storage, processing and supply of a range of recycled products.

A summary of the materials received "raw feed" and resultant recycled product is provided in Table 1 below.

Table 1: Raw Feed and Recycled Product Summary

RAW FEED	RECYCLED PRODUCT
B&D waste (Building & Demolition waste) and C&D (Construction & Demolition waste) Sourced from construction and demolition of infrastructure projects, including civil projects, commercial and residential development. Recovered materials from the B&D waste and C&D waste includes bricks, concrete, asphalt, rock, soil, timber, steel, glass, plastic, plasterboard, ceramics, metal, paper and cardboard.	Refer below for list of recycled products from the specific raw feed materials.
General Solid Waste CT1 Solid waste that is non-putrescible, including: • Concrete • Brick • Sandstone • Terracotta • Sand • Soil • Clay	MET's turf underlay is made from sand and soil materials. During the recycling process, these materials are screened to remove rocks, pebbles, and larger particles to create a turf underlay product that that is suitable for underlay application Turf underlay will help to encourage turf to grow and remain healthy. As topsoil is often removed during construction, integrating turf underlay into construction projects will help to re-establish turf on-site.
	DGS20 (sub-base) and recycled DGB20 (base course), as well as non-spec road base.
	Construction and decorative aggregate products in different sizes to suit different applications and project requirements (10, 20, or 40/70mm). MET Recycling's recycled aggregate products can be used for decorative mulch, drainage, pipe embedment, and backfill material
	MET's Recycled Bedding Sand (meets RMS R11 specification & Recycled Dust is available in 8.5mm minus), and is suitable for use in pathways, driveways, pipe bedding, and paving. It can also be used as a base material for artificial lawns.

RAW FEED	RECYCLED PRODUCT
General Solid Waste CT2 Materials—classified as restricted waste, and hazardous waste – Waste to be washed and separated to remove/reduce the chemical levels so the material can be crushed/screened and tested so it can be applied to land under the EPA's orders & exemptions Special waste (asbestos waste) will not be received at the site.	The washed and separated material for reuse for drainage aggregate, bedding material, pipe embedment, sub bases, underlay. The remaining contaminated material is transported to an EPA approved landfill for disposal. The material is reloaded and rejected and is documented and recorded under MET Asbestos rejected load register. As per EPA requirements Enhanced Soil is a blend of recycled soil, compost and manures which will be used as a garden, turf underlay, top dressing material
Glass	Glass Sand – finished material will be used in pipe embedment, sub bases, sand blasting, concrete sand, filter systems
Green Waste	Mulched and composted so can be used as a nutrient and soil builder
Timber	Shredded into wood chip for mulch and bedding material
Metal	Collected and recycled through metal recycler
Plastics	Collected and bailed up for reuse in producing of plastic
Paper and cardboard	Collected and recycled through paper and cardboard recycler

3.1.2 Civil and Construction Works

The proposed works include:

- Clearing of on-site vegetation;
- Bulk earthworks for vehicle entry and development pad;
- Road work upgrades to Bromage Road, extending west from an existing roundabout at HEZ Drive to the site entry. Roadworks will include bitumen sealing and upgrades to Cessnock City Council engineering standards.
- Entry/exit driveway and internal manoeuvring;
- 3 x weighbridges and weighbridge hut;
- Car park for approximately 52 cars;
- Single storey transportable office building;
- Rain water tanks and on-site detention facilities;
- Stockpiling areas for waste storage and processing (concrete pad and 3m high concrete walls around each stockpile area);
- Product bays for storage of recycled product (concrete pad and 3m high concrete walls around each product bay);
- Shed 1 – storage, recycling and processing shed for building and demolition waste (approx. 10,000m²);
- Shed 2 – storage, recycling and processing shed for glass (approx. 4,000m²);
- Machinery and equipment workshop (approx. 900 m²);
- Landscaping works will include vegetated buffers along front, side and rear setback boundaries, comprising a mix of retained vegetation (where possible), native shrubs and grasses; and
- Water, sewer, power and telecommunication connections are proposed to service the site.

Details on the proposed site layout are shown in the site plan at Appendix B and Figure 4 below.

Further details on the proposed works are provided below.

3.1.3 Built Form

The proposed office building will be a single storey modular building (approx. 500m²).

Shed 1 will be used for storage, recycling and processing building and demolition waste and will have the following characteristics:

- 15m maximum height
- Masonry and metal walls with metal roof
- Concrete slab floor
- Floor area of approximately 10,000m²

Shed 2 will be used for storage, recycling and processing of glass and will have the following characteristics:

- 15m maximum height
- Masonry and metal walls with metal roof
- Concrete slab floor
- Floor area of approximately 4,000m²

A machinery and equipment storage shed is proposed with the following characteristics:

- 8m maximum height (approx.)
- Metal walls with metal roof
- Concrete slab floor
- Floor area of approximately 900m²

The proposed floor area of all buildings and the product bays is approx. 37,800m².

The product bays occupy a footprint of 5,000m², but are excluded from GFA calculations as they are not enclosed on all sides.

The proposed GFA is therefore approximately 32,800m².

Based on a site area of 10.13ha, the resultant FSR is 0.32:1.

3.1.4 Site Operations

Material will be received at the site from construction and demolition projects for temporary storage, processing, recycling and supply.

Material will be delivered to the site by SRV, MRV, HRV and 19m articulated vehicles.

Delivered material will be weighed and checked prior to stockpiling in sorted locations.

On-site processing will include, sorting, crushing, grinding, processing and stockpiling for later distribution.

Machinery to be used on-site include crushers, screens, excavators, loaders, shredders, washing plant, stackers and sorters.

Approximately 90-100 construction jobs will be generated during the construction phase.

The estimated number of operational jobs will range between 30 to 50.

The proposed operational hours are 24hrs / 7 days a week.

Figure 4: Excerpt from Site Layout Plan for Proposed Resource Recovery Facility

Site plan and building massing plans are provided at Appendix B.

A summary of site processes for each recycled product is provided in Table 2 below.

Table 2: Summary of Site Processes

MATERIAL	STORAGE	PROCESS & ENVIRONMENTAL MANAGEMENT	FINISHED STORED PRODUCTS	PLANT MACHINERY TRANSPORT
CT2 GENERAL SOLID WASTE:	APPROX. 30m x 30m; 900 SQM FULLY BUNDED CONCRETE PAD 3m HIGH WALLS (BACK AND SIDES)	1. Truck delivery via weighbridge and stockpile unloaded 2. Screen material 3. Wash material to remove contaminants within concrete floor and bunded area with drainage to holding tank. 4. Water is directed to water treatment system (flocks, chlorinates and alkalines water on site, removes heavy metals) 5. Treated water is captured and reused on site 6. Clean soil is stockpiled for sale 7. Remaining contaminated material is transported to EPA licenced facility for CT2 waste	Stockpile	Excavator, Loader, Weighbridge, Wash plant, Trucks
CT1 GENERAL SOLID WASTE (RECYCLABLE):	APPROX. 30m x 50m; 1,500 SQM FULLY BUNDED CONCRETE PAD 3m HIGH WALLS (BACK AND SIDES)	1. Truck delivery via weighbridge and stockpile unloaded 2. Screen material 3. Separate material 4. Wash material to remove contaminants within concrete floor and bunded area with drainage to holding tank. 5. Water is directed to water treatment system (flocks, chlorinates and alkalines water on site, removes heavy metals) 6. Treated water is captured and reused on site 7. Stockpile recovered soils for sale	Stockpile recovered soils Reprocessing: - Brick, concrete, asphalt - Timber - Waste	Excavator, Loader, Skid Steer, Tele Handler, Weighbridge, Crusher, Screen, Conveyor & Stacker, Wash plant, Shredder, Trucks
GENERAL SOLID WASTE:	APPROX. 60m x 50m; 3,000 SQM FULLY BUNDED CONCRETE PAD 3m HIGH WALLS (BACK AND SIDES)	1. Truck delivery via weighbridge and stockpile unloaded 2. Screen material	Bays: - Recyclable soil - Turf underlay	Excavator, Loader, Weighbridge, Screen, Stacker, Wash plant, Trucks

MATERIAL	STORAGE	PROCESS & ENVIRONMENTAL MANAGEMENT	FINISHED STORED PRODUCTS	PLANT MACHINERY TRANSPORT
CONCRETE:	APPROX. 50m x 50m; 2,500 SQM 3m WALL ON 3 SIDES	1. Truck delivery via weighbridge and stockpile unloaded 2. Crush concrete 3. Screen product 4. Separate product 5. Process into recycled material 6. Stockpile for sale	Bays: - Recycled Dust - Aggregates Roadbase	Excavator, Loader, Tele Handler, Weighbridge, Crusher, Screen, Conveyor & Stacker, Trucks
BRICKS:	APPROX. 50m x 50m; 2,500 SQM 3m WALL ON 3 SIDES	1. Truck delivery via weighbridge and stockpile unloaded 2. Crush bricks 3. Screen product 4. Separate product 5. Process into recycled material 6. Stockpile for sale	Bays: - Recycled Dust - Aggregates - Road base	Excavator, Loader, Tele Handler, Weighbridge, Crusher, Screen, Conveyor & Stacker, Trucks
ENHANCED SOIL:	APPROX. 60m x 60m PER BAY; 3,600 SQM FULLY BUNDED	1. Truck delivery via weighbridge and stockpile unloaded 2. Industrial screening process removes GSW leaving only soil in stockpile (Screened GSW then recycled via process listed above) 3. Soil undergoes further treatment with recycled products such as gypsum, mulch or manure blended into the soil providing the product with essential organic components required to create the ideal, enriched soil for end-use 4. End products including topsoil, turf underlay and garden mix is sold into a range of commercial, residential and industrial applications including urban developments, rail & airport infrastructure, parks & gardens, commercial precincts and residential subdivisions	Stockpile Transfer	Excavator, Loader, Weighbridge, Trucks
GREEN WASTE:	APPROX. 60m x 60m PER BAY;	1. Truck delivery via weighbridge and stockpile unloaded 2. Shred green waste 3. Stockpile product for sale	Windrow compost	Excavator, Loader, Weighbridge,

MATERIAL	STORAGE	PROCESS & ENVIRONMENTAL MANAGEMENT	FINISHED STORED PRODUCTS	PLANT MACHINERY TRANSPORT
	3,600 SQM FULLY BUNDED			Screen, Conveyor & Stacker, Shredder, Trucks, Windrow Tractor
GLASS RECYCLING AND PROCESSING:	SHED 2: APPROX. 60m X 65m; 4,000 SQM HEIGHT: 13m FULLY ENCLOSED WITH ROLLER DOORS	1. Truck delivery via weighbridge and stockpile unloaded within Shed 2 2. Glass material processed through an industrial washing plant to remove any sugars or remaining contaminants 3. Water is directed to water treatment system (flocks, chlorinates and alkalines water on site, removes heavy metals) 4. Material then processed through an impact crusher circuit producing the final end product called manufactured sand 5. Final product then sold for use as aggregate material in road building and other construction products such as asphalt sand, concrete sand, bedding sand, side and overlay	Stockpile glass sand	Excavator, Loader, Weighbridge, Crusher, Screen, Conveyor & Stacker, Wash plant, Trucks
BUILDING AND DEMO WASTE:	SHED 1 APPROX. 10,000 SQM HEIGHT: 13m DRIVE-IN DROP OFF FULLY ENCLOSED WITH ROLLER DOORS 3-4m CONCRETE WALLS, METAL CLADDING ABOVE	1. Truck delivery via weighbridge and stockpile unloaded within Shed 1 2. Screen B&D and C&D waste 3. Separate waste to stockpile soils or reprocess brick, concrete, asphalt, timber and waste Note: separated raw feed materials are processed in accordance with the specific raw feed material types listed in this table.	Bays: - Soils Reprocessing: - Brick, Concrete, Asphalt - Timber Waste	Excavator, Loader, Skid Steer, Tele Handler, Weighbridge, Screen, Conveyor & Stacker, Shredder, Trucks
PLASTIC WASTE	SHED 1 FOR B&D WASTE	1. Collected and received into site by truck 2. Sorted based on type to avoid contamination	Bailed cleaned plastic	Excavator with Grabs, Loader, Baler,

MATERIAL	STORAGE	PROCESS & ENVIRONMENTAL MANAGEMENT	FINISHED STORED PRODUCTS	PLANT MACHINERY TRANSPORT
		3. Washed before further processing, to remove non-plastic waste 4. Water is directed to water treatment system (flocks, chlorinates and alkalines water on site, removes heavy metals) 5. Compounded into plastic bales, ready for processing 6. Stored ready for shipment to plastic recycler to shred, wash, sterilise and extrude for reuse in producing of plastic		Weighbridge, Trucks
PAPER & CARDBOARD	SHED 1 FOR B&D WASTE	1. Collected and received into site by truck 2. Sorted based on type 3. Compounded into bales, ready for processing 4. Stored ready for shipment to paper & cardboard recycler	Bailed paper & cardboard	Excavator with Grabs, Loader, Baler
METAL WASTE	SHED 1 FOR B&D WASTE	1. Collected and received into site by truck 2. Sorted from the waste to become raw material 3. Stored in large skip bin 4. Skip bin goes to metal recycler	Hook/skip bin storage: Metal	Excavator with Grabs, Pulveriser, Manitou, Weighbridge, Trucks
TIMBER	APPROX. 25m x 25m; 5,000 SQM (8 BAYS) 3m WALL ON 3 SIDES – PRODUCTION BAYS	1. Collected and received into site by truck 2. Sorted to remove treated timber from the stockpile (only un-treated timber is processed into recycled mulch products, non-recyclable timber is sent to waste) – trommell screen used to sort and add air to make mulch lighter/drier 3. Eligible timber is processed through an industrial mulching plant, producing wood chip timber mulch 4. Finished product is then stockpiled ready for sale, and sold for horticultural, agricultural, landscaping and general gardening purposes	Bays: Timber chips	Excavator with Grabs, Shredder, Dye Machine, Trommell screen, Weighbridge, Trucks

The equipment list for the proposed operations is described in Table 3 below.

See Appendix C for specifications of proposed plant and equipment.

Table 3: Summary of Proposed Equipment List

Component (*Please include the equipment type and the model name if possible*)	**Description of Component** (*what is the function of the equipment and why is it required for the project?*)	Qty	CT2 Restricted	CT1	GSW	Brick, Concrete, Asphalt	Recovered Soils	Green Waste	Glass	B&D, C&D	Plastic	Metal	Timber	ENM	VENM	NOTES
Kleeman Jaw Crusher MC 120I	Primary crusher that breaks the material into 75mm minus before putting into secondary impact crusher	1				■			■							Note 1
Keestrack K8 Frontier Screener	Screens & separates products into different material types	2		■	■	■	■		■	■						
Keestrack C6 Frontier Screener	Screens & separates products into different material types	2		■	■	■	■		■	■						
Custom Built Weighbridge	Weighs trucks in & out for material weight	3	■	■	■	■	■	■	■	■	■	■	■	■	■	
Wheel Bath	Sprays water onto truck wheels to clean them before they go onto weighbridge	2	■	■	■	■	■	■	■	■	■	■	■	■	■	
Sumitomo Excavator - 35T	Moves dirt - loads/feeds plant	6	■	■	■	■	■	■	■	■	■	■	■	■	■	Note 2
Sumitomo Excavator - 25T	Moves dirt - loads/feeds plant	2	■	■	■	■	■	■	■	■	■	■	■	■	■	Note 3

Component (*Please include the equipment type and the model name if possible*)	**Description of Component** (*what is the function of the equipment and why is it required for the project?*)	Qty	CT2 Restricted	CT1	GSW	Brick, Concrete, Asphalt	Recovered Soils	Green Waste	Glass	B&D, C&D	Plastic	Metal	Timber	ENM	VENM	NOTES
Isuzu FRR500 Street Sweeper (exact model tba)	Cleans street	1														
Rammer RPV 30S Pulveriser	Breaks up concrete into smaller pieces before loaded into processor	1														
Keestrack S5 Stacker	Conveyor to minimise handling of material	2														
Terex Finlay Radial Stacker	Conveyor to minimise handling of material	1														
Hino 300 Series. Rego AT12PF Service Truck	Fitter dash mechanic mobile service truck	1														
Security Cameras & CCTV	Security system and cameras for site and staff safety and security	1														
Manitou Forklift MT-730H	Lifts skip bins and takes pallets off trucks	2														Note 4
375KL water tank & fittings	Holds water for water treatment system	1														
Iveco Acco Fuel Truck with 9000L Diesel Tank mounted	Mobile fuelling unit	1														
Transportable Portable Office buildings	Office building to house staff on site and weighbridge office	1														
Spray stream Water Cannon Model SS60iMP	Mobile dust mister, sprays & oscillates to suppress dust	1														
Kleeman Mobirex MR130 evo2 Impact Crusher	Secondary crusher for making roadbase	1														
Kleeman Mobiscreen MS703r	Screens material into 10mm, 20mm, aggregates & crushers dust or sand down to nominal size	1														
2004 Iveco Water Truck with 13000 Ltr Water cart tank with	Truck with a water tank to supress dust	1														

Component (*Please include the equipment type and the model name if possible*)	**Description of Component** (*what is the function of the equipment and why is it required for the project?*)	Qty	CT2 Restricted	CT1	GSW	Brick, Concrete, Asphalt	Recovered Soils	Green Waste	Glass	B&D, C&D	Plastic	Metal	Timber	ENM	VENM	NOTES
Magnum Spray mounted (Model unknown - 1300ltr as minimum)																
Kleeman MS21Z-AD Screener	Screen & separate materials into different nominal sizes	1														
Water Recycling Treatment System	Flocks water and chlorinates & alkalines water on site, takes out heavy metals in water	1														
Weather Station QAMS Met Master Pro 1000	Shows wind direction, wind speed, rainfall	1														
Caterpillar 966M Wheel Loader MY12	Moves material and loads trucks	4														
Ford Ranger Ute Rego DNF73D	Staff vehicles for sales team & managers	2														
Wash plant	Washes soil - to remove contaminates	2														Note 5
Terex Ecotec TTS 620T Trommell screen	Cylinder shape to sorts material as it is fed through. Wet material tumbles around and air is added & mulch becomes lighter/drier	1														
Wastech X series X30 Vertical baler (model TBC)	Used to compress plastic waste into dense and compact bales	1														
Caterpillar 982M Wheel Loader	Moves material and loads trucks and plant	2														
Vermeer HG6800TX High speed grinder	High speed horizontal grinder for green waste (with dye drum & spray attachments)	1														
Terex Ecotec mid speed shredder TDSV20	Shreds green waste and timber, and c&d waste	1														

Component (*Please include the equipment type and the model name if possible***)**	**Description of Component (***what is the function of the equipment and why is it required for the project?***)**	**Qty**	**CT2 Restricted**	**CT1**	**GSW**	**Brick, Concrete, Asphalt**	**Recovered Soils**	**Green Waste**	**Glass**	**B&D, C&D**	**Plastic**	**Metal**	**Timber**	**ENM**	**VENM**	**NOTES**

Required for identified waste stream

Required for yard operations full time

Note 1: for glass, a hammer or other specialised crusher will be required

Note 2: multiple required per waste stream and grabs required for plastic/metal/timber

Note 3: multiple required per waste stream and grabs required for plastic/metal/timber

Note 4: this is the larger forklift

Note 5: separate machines, one for glass and one for soils - cannot overlap to stop cross contamination

3.1.5 Haulage Routes

Recycled materials will be sourced from construction and demolition sites in the Hunter, Central Coast and Sydney regions.

The specific waste source location will vary depending on the specific location of each C&D project.

The haulage routes are separated into five (5) regions, with the following estimated breakdown of truck deliveries from each region:):

- East -Newcastle and Lake Macquarie, **30%**
- North-east – Port Stephens and Mid-Coast, **5%**
- North – Kurri Kurri and Maitland area, **5%**
- West – Cessnock and upper Hunter, **10%**
- South – Central Coast and Sydney **50%**

Based on Met Recycling's experience with their existing facility located at Silverwater, the estimated percentage of different types of trucks that will travel to and from the site are:

- B-Doubles **30%**
- Articulated **60%**
- HRV **5%**
- MRV **3%**
- SRV **2%**

Met Recycling estimate an average truck tonnage size of 35T.

Accordingly, the weekly truck movements to and from the site would be approximately 550 per week (when the site reaches optimal capacity of 500,000 tonne per annum).

The EIS will be supported with a detailed traffic impact analysis including SIDRA intersection analysis of haulage routes.

Haulage route plans are provided below.

Eastern Haulage Routes – Newcastle and Lake Macquarie

- Route 1: A15 (Griffiths Rd), M15 (Hunter Expressway), B68 (John Renshaw Dr), Leggetts Drive
- Route 2: A37 (Lookout Rd), A15 (Newcastle Rd), M15 (Hunter Expressway), B68 (John Renshaw Dr), Leggetts Drive
- Route 3: B89 (King St), B68 (John Renshaw Dr), Leggetts Drive
- Route 4: A43 (Hannell St), A1 (New England Highway, B68 (john Renshaw Dr), Leggetts Drive

Figure 5: Eastern Haulage Routes – Newcastle and Lake Macquarie

North-Eastern Haulage Routes – Port Stephens and Mid-Coast

- Route 1: A1 (Pacific Highway), B68 (John Renshaw Dr), Leggetts Drive
- Route 2: Tomago Road, A1 (Pacific Highway), B68 (John Renshaw Dr), Leggetts Drive
- Route 3: B63 (nelson Bay Rd), A43 (Maitland Rd), A1 (New England Highway), B68 (John Renshaw Dr), Leggetts Drive

Figure 6: North-Eastern Haulage Routes – Port Stephens and Mid-Coast

Northern Haulage Routes - Kurri Kurri, Maitland

- Route 1: A43 (New England Hwy), Cessnock Road, B68 (Victoria Street), Leggetts Drive
- Route 2: B68 (Mitchell Ave), Leggetts Drive

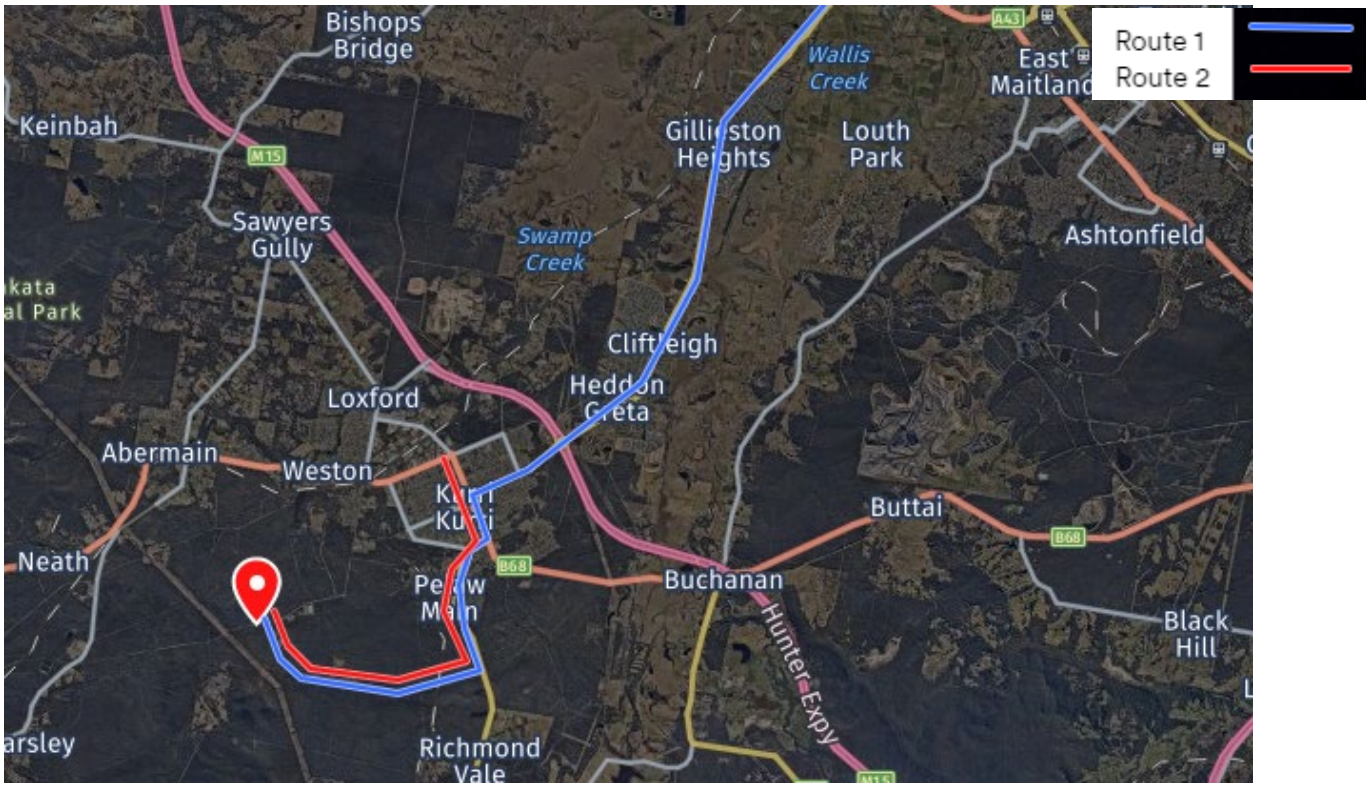


Figure 7: Northern Haulage Routes – Kurri Kurri, Maitland

Western Haulage Routes – Cessnock, Singleton, Upper Hunter

- Route 1: M15 (Hunter Expressway), B68 (John Renshaw Dr), Leggetts Drive
- Route 2: B82 (Lake Rd), Leggetts Drive

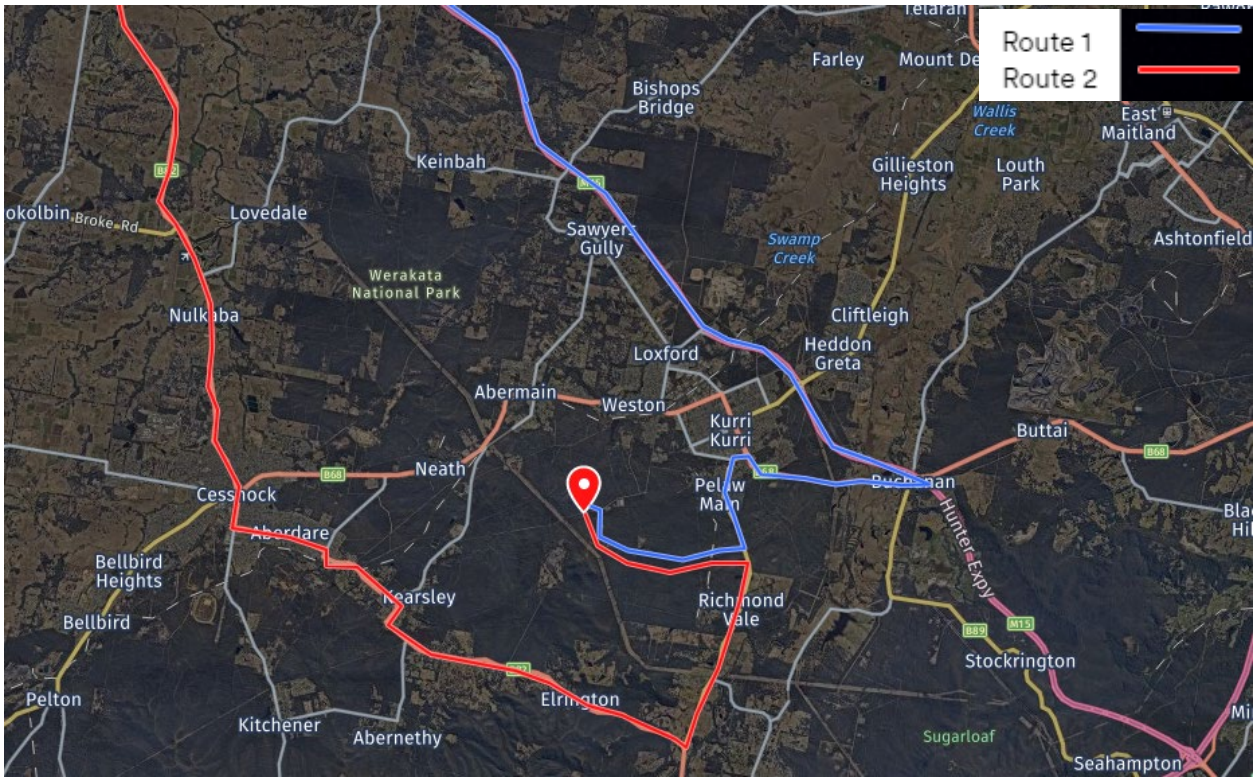


Figure 8: Werstern Haulage Routes – Cessnock, Singleton, Upper Hunter

Southern Haulage Routes – Central Coast and Sydney

- Route 1: M1 (Pacific Motorway), B82 (Leggetts Dr)

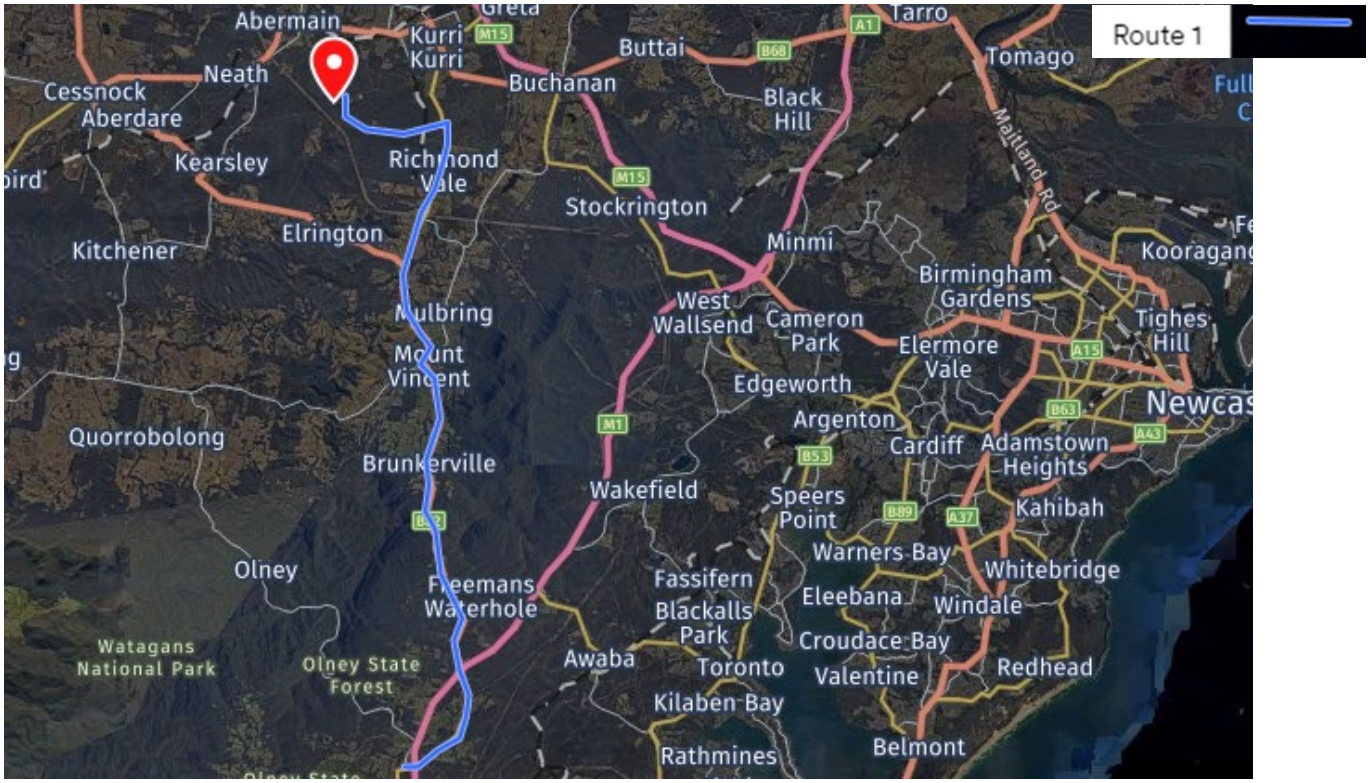


Figure 9: Southern Haulage Routes – Central Coast and Sydney

3.1.6 Environmental Management

The recycling facility will operate in accordance with a Health, Safety and Environmental Management System (HSEMS).

The recycling facility will also require an Environmental Protection Licence (EPL) as a scheduled activity under Schedule 1 of the Protection of the Environment Operations Act 1997, should the application be approved. Refer section 4.11 below for further details.

3.1.7 Construction Management Plan

The proposed development will be constructed in accordance with a Construction Management Plan, a draft of which will accompany the application. The Construction Management Plan will seek to minimise disturbances to surrounding developments and the amenity of the area during the civil works and construction phases.

4 Statutory Context

4.1 Environmental Planning and Assessment Act 1979

Section 4.36, Development that is State significant development, of the Environmental Planning and Assessment Act 1979 states:

> ***4.36*** *(1) For the purposes of this Act,* ***State significant development*** *is development that is declared under this section to be State significant development.*
> *(2) A State environmental planning policy may declare any development, or any class or description of development, to be State significant development.*
> *(3) The Minister may, by a Ministerial planning order, declare specified development on specified land to be State significant development, but only if the Minister has obtained and made publicly available advice from the Independent Planning Commission about the State or regional planning significance of the development.*
> *(4) A State environmental planning policy that declares State significant development may extend the provisions of the policy relating to that development to State significant development declared under subsection (3).*

In accordance with clause 4.36(2) the proposed development is described as State significant development (SSD) under SEPP (State and Regional Development) 2011, refer section 4.14 below for further details.

4.2 Schedule 3, Environmental Planning & Assessment Regulation 2000

As the proposal is classified as SSD, the designated development classifications under Schedule 3 of the of the Environmental Planning and Assessment Regulation 2000 do not apply.

However, if the proposal was not classified as SSD, the proposal would be classified as designated development under clause 16(1)(a).

16 Crushing, grinding or separating works

(1) Crushing, grinding or separating works, being works that process materials (such as sand, gravel, rock or minerals) or materials for recycling or reuse (such as slag, road base, concrete, bricks, tiles, bituminous material, metal or timber) by crushing, grinding or separating into different sizes—

(a) that have an intended processing capacity of more than 150 tonnes per day or 30,000 tonne per year*, or*

(b) that are located—

(i) within 40 metres of a natural waterbody or wetland, or

(ii) within 250 metres of a residential zone or dwelling not associated with the development.

Further, if the proposal was not classified as SSD, the proposal would be classified as designated under clause 15(b).

15 Contaminated soil treatment works

Contaminated soil treatment works (being works for on-site or off-site treatment of contaminated soil, including incineration or storage of contaminated soil, but excluding excavation for treatment at another site)—

(a) that treat or store contaminated soil not originating from the site on which the development is proposed to be carried out and are located—

(i) within 100 metres of a natural waterbody or wetland, or

(ii) in an area of high watertable or highly permeable soils, or

(iii) within a drinking water catchment, or

(iv) on land that slopes at more than 6 degrees to the horizontal, or
(v) on a floodplain, or
(vi) within 100 metres of a dwelling not associated with the development, or

(b) that treat more than 1,000 cubic metres per year of contaminated soil not originating from the site on which the development is located, *or*

(c) that treat contaminated soil originating exclusively from the site on which the development is located and—
(i) incinerate more than 1,000 cubic metres per year of contaminated soil, or
(ii) treat otherwise than by incineration and store more than 30,000 cubic metres of contaminated soil, or
(iii) disturb more than an aggregate area of 3 hectares of contaminated soil.

4.3 Protection of the Environment Operations Act 1997

The POEO Act is the key piece of environmental protection legislation administered by the EPA. The principle objectives of the POEO Act are to:

- *Protect, restore and enhance the quality of the environment, while having regard to the principles of ecologically sustainable development (ESD).*
- *Provide increased opportunities for public involvement and participation in environment protection.*
- *Reduce risks to human health and prevent the degradation of the environment.*
- *Assist in the achievement of the objectives of the Waste Avoidance and Resource Recovery Act 2001 (NSW).*

The proposed resource recovery and waste storage facility is a scheduled activity in accordance with Schedule 1 of the POEO Act and will require an Environment Protection Licence (EPL).

Consultation will be undertaken with the EPA as part of the EIS process.

4.4 Contaminated Land Management Act 1997

The general object of this Act is to establish a process for investigating and, where appropriate, remediating land that the EPA considers to be contaminated significantly enough to require regulation under Division 2 of Part 3.

Land contamination that is not deemed significant enough to be regulated by the EPA can be handled under the planning and development framework, including State Environmental Planning Policy No. 55 - Remediation of Land and the Managing Land Contamination - Planning Guidelines. See details under SEPP No 55 – section 4.4.

4.5 Rural Fires Act 1997 & Planning for Bushfire Protection

The subject site is located within a designated bushfire prone area.

The proposal does not require authorisation under section 100B of the Rural Fires Act 1997 in respect of bush fire safety, because clause 4.41 of the EP&A Act, 1979 does not require this authorisation for State significant development.

Notwithstanding the above, a bushfire threat assessment report can be included in the SSD submission to minimise potential impacts from bushfire. Potential on-site fire sources will also need to be considered as part of the fire safety measures for the site operations.

4.6 Biodiversity Conservation Act 2016

Previous ecological investigations of the HEZ were undertaken during the rezoning and site specific DCP/EMS phase.

The subject site has been identified as being suitable for industrial development and does not form part of areas identified for environmental protection.

A Biodiversity Assessment Report (BDAR) will be prepared for the SSD submission having regard for site characteristics and the previously completed ecology investigations.

4.7 Environment Protection Biodiversity Conservation Act 1999

The EPBC Act requires concurrence with the Australian Government Environment Minister when a proposed development has the potential to significantly impact on a matter of national environmental significance (MNES), MNES include world heritage properties, wetlands of international importance, and listed threatened species and ecological communities. Approval from the Minister is in addition to any relevant approvals sought under NSW legislation.

4.8 National Parks and Wildlife Act 1974

The National Parks and Wildlife Act 1974 (NPW Act) is the primary piece of legislation protecting Aboriginal cultural heritage in NSW. Under the NPW Act it is an offence to harm (destroy, deface, or damage) or desecrate an Aboriginal object or Aboriginal place, or in relation to an object, move the object from the land on which is has been situated.

Known Aboriginal objects and sites are recorded on Office of Environment & Heritage's Aboriginal Heritage Information Management System (AHIMS). Refer section 5.8 below for further details. Note: clause 4.41 of the EP&A Act, 1979 does not require an Aboriginal heritage impact permit under section 90 of the National Parks and Wildlife Act 1974, for State significant development.

4.9 Roads Act 1993

Section 138 of the NSW Roads Act 1993 requires the consent of the appropriate roads authority for any works or activities in a public road reserve.

Bromage Road is a private road that extends west from an existing roundabout at HEZ Drive (also a private road) to the site entry. Roadworks will include bitumen sealing and upgrades to Cessnock City Council engineering standards.

4.10 Water Management Act

Under Part 3 of Chapter 3 a person must obtain a permit for water use approval, water management work approval or activity approval.

A water management work approval includes water supply work approvals, drainage work approvals and flood work approvals. The application does not involve any drainage works or flood mitigation works. Further, clause 4.41 of the EP&A Act, 1979 does not require a water use approval under section 89, a water management work approval under section 90 or an activity approval (other than an aquifer interference approval) under section 91 of the Water Management Act 2000, for State significant development.

The proposed development does not involve works that require a water supply approval or a water use approval.

No building works are proposed on waterfront land and consultation with the Natural Resource Access Regulator is not required in this instance.

4.11 Waste Avoidance and Resource Recovery Act 2001

The NSW Waste Avoidance and Resource Recovery Act 2001 aims to encourage efficient use of resources and reduce environmental harm, through the principles of ecologically sustainable development and considering resource management options against the hierarchy of avoid, reuse and dispose.

The proposal is consistent with these objects as it promotes the responsible management of waste material and reduces the waste stream ending up in landfill.

4.12 Heritage Act 1977

The subject land does not contain nor is it within the curtilage of or in the vicinity of any State Heritage Register items.

Clause 4.4(2) of the EP&A Act, 1979 states:

> *Division 8 of Part 6 of the Heritage Act 1977 does not apply to prevent or interfere with the carrying out of State significant development that is authorised by a development consent granted after the commencement of this Division.*

4.13 Coal Mine Subsidence Compensation Act 2017

The site is identified as being within the Tomalpin Mine Subsidence District.

Consultation with Mine Subsidence Board will be undertaken during the EIS preparation to determine any possible affectation to the development site and whether any mitigative measures are required for the future development.

4.14 State Environmental Planning Policy (State and Regional Development) 2011

In accordance with clause 8(1) SEPP SRD, development is declared to be State significant development for the purposes of the Act if:

(a) the development on the land concerned is, by the operation of an environmental planning instrument, not permissible without development consent under Part 4 of the Act, and
(b) the development is specified in Schedule 1 or 2.

The proposed development is classified as State significant development under schedule 1, clause 23(3) of SEPP SRD:

23 Waste and resource management facilities
(3) Development for the purpose of resource recovery or recycling facilities that handle more than 100,000 tonnes per year of waste.

4.15 SEPP No. 33 – Hazardous and Offensive Development

SEPP No. 33 seeks to ensure that in determining whether a development is a hazardous or offensive industry, any measures proposed to be employed to reduce the impact of the development are taken into account, and to ensure that in considering any application to carry out potentially hazardous or offensive

development, the consent authority has sufficient information to assess whether the development is hazardous or offensive and to impose conditions to reduce or minimise any adverse impact.

The proposal is not considered to be a *potentially hazardous industry*:

> ***potentially hazardous industry*** *means a development for the purposes of any industry which, if the development were to operate without employing any measures (including, for example, isolation from existing or likely future development on other land) to reduce or minimise its impact in the locality or on the existing or likely future development on other land, would pose a significant risk in relation to the locality—*
> *(a) to human health, life or property, or*
> *(b) to the biophysical environment,*
> *and includes a hazardous industry and a hazardous storage establishment.*

Based on an initial review, the development can be managed to ensure it doesn't meet the definition of *potentially offensive industry*. Further consideration will be undertaken during the EIS phase to confirm whether any mitigative measures will be required.

> ***potentially offensive industry*** *means a development for the purposes of an industry which, if the development were to operate without employing any measures (including, for example, isolation from existing or likely future development on other land) to reduce or minimise its impact in the locality or on the existing or likely future development on other land, would emit a polluting discharge (including for example, noise) in a manner which would have a significant adverse impact in the locality or on the existing or likely future development on other land, and includes an offensive industry and an offensive storage establishment.*

4.16 SEPP No. 55 – Remediation of Land

Clause 7 of State Environmental Planning Policy No. 55 – Remediation of Land requires the consent authority to consider whether land is contaminated during the development application process.

It is our understanding that the site has not previously been used for any contaminating land use activities. However, a preliminary site assessment will be required to determine any potential site contamination.

4.17 SEPP No. 64 – Advertising & Signage

Business identification signage may be incorporated into the SSD submission. Accordingly, the provisions of SEPP 64 will be considered as part of the EIS documentation.

4.18 SEPP (Infrastructure) 2007

State Environmental Planning Policy (Infrastructure) 2007 (ISEPP) aims to facilitate the effective delivery of infrastructure across the State.

Clause 104 of the Infrastructure SEPP requires Transport for NSW (TfNSW) to be notified of an application for traffic generating development, which includes waste or resource management facilities of 'any size or capacity'. The clause applies to development specified in Column 1 of the Table to Schedule 3 that involves:

> *(a) new premises of the relevant size or capacity, or*
> *(b) an enlargement or extension of existing premises, being an alteration or addition of the relevant size or capacity.*

Therefore, referral to the TfNSW under clause 104 is required in this instance.

The land is zoned IN1 - General Industrial under the provisions of Cessnock Local Environmental Plan 2010. In accordance with clause 121(2) development for the purposes of a resource recovery facility is permissible with consent in the IN1 General Industrial zone. A *resource recovery facility* has the same meanings as in the Standard Instrument.

4.19 SEPP (Koala Habitat Protection) 2021

SEPP Koala Habitat Protection aims to encourage the conservation and management of areas of natural vegetation that provide habitat for koalas to support a permanent free-living population over their present range and reverse the current trend of koala population decline.

The ecology/BDAR assessment submitted with the SSD will consider whether the proposal will impact on areas of natural vegetation that provide habitat for koalas; and whether any mitigative measures or plans of management are required.

4.20 SEPP (Vegetation in Non-Rural Areas) 2017

The aims of this Policy are:

(a) to protect the biodiversity values of trees and other vegetation in non-rural areas of the State, and
(b) to preserve the amenity of non-rural areas of the State through the preservation of trees and other vegetation.

The ecology/BDAR assessment submitted with the SSD will consider biodiversity values of trees and vegetation impacted by the development.

4.21 Cessnock Local Environmental Plan 2011

Relevant LEP clauses are discussed in Table 4 below.

Table 4: Relevant Cessnock LEP Clauses

LEP CLAUSE	COMMENT
2.3 Zone objectives and Land Use Table	The site is zoned IN1 General Industrial. Refer zoning map in Figure 10 below. The proposed resource recovery facility is consistent with the zone objectives of: • *To provide a wide range of industrial and warehouse land uses.* • *To encourage employment opportunities.* • *To minimise any adverse effect of industry on other land uses.* • *To support and protect industrial land for industrial uses.* • *To encourage sustainable major industrial development and major employment generating development.*

LEP CLAUSE	COMMENT
	The resource recovery facility is permissible subject to development consent in the IN1 General Industrial zone.
4.1A Subdivision in the Hunter Economic Zone	*(1) This clause applies to land identified as "Hunter Economic Zone" on the Hunter Economic Zone Map and within Zone IN1 General Industrial or Zone SP2 Infrastructure.* *(2) Development consent must not be granted for the subdivision of land to which this clause applies unless the consent authority is satisfied that—* *(a) the use of the land after the subdivision will be the same use permitted under an existing development consent for the land, or* *(b) a development application has been lodged to carry out development on the land for the purpose for which it is to be subdivided.* This clause is not applicable in this instance as the SSD Application does not propose to subdivide the land.
4.3 Height of buildings	Not adopted
4.4 Floor space ratio	Not adopted
5.10 Heritage conservation	The site does not contain any listed items of environmental heritage. Aboriginal archaeology will need to be considered as part of any future SSD application.
7.1 Acid sulfate soils	The site is not classified as containing acid sulfate soils.
7.2 Earthworks	Any application for proposed earthworks will be required to have regard for the clause objective: *to ensure that earthworks for which development consent is required will not have a detrimental impact on environmental functions and processes, neighbouring uses, cultural or heritage items or features of the surrounding land.*

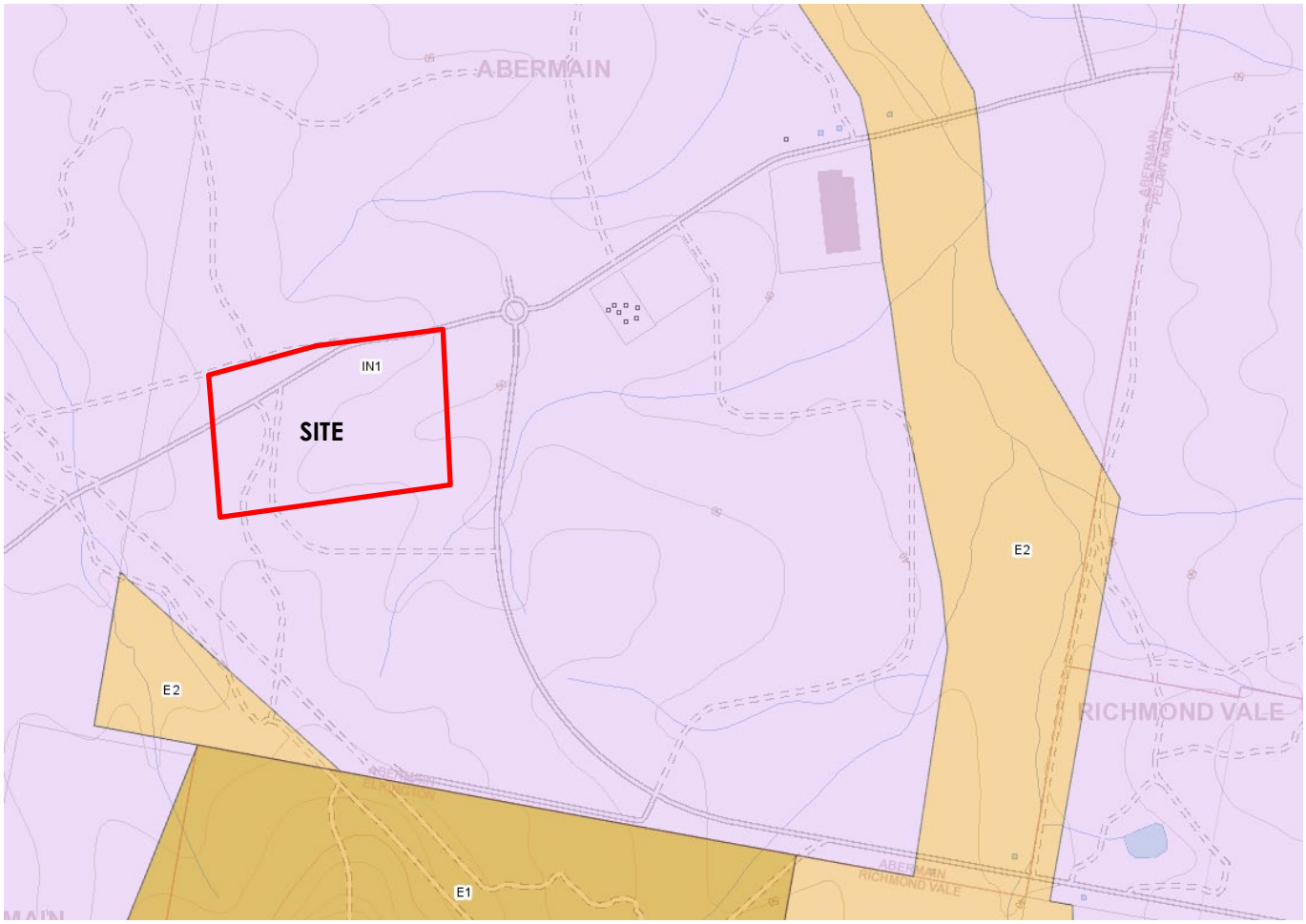


Figure 10: Cessnock LEP Zoning Map Extract

4.22 Cessnock Development Control Plan 2010

Although DCP's are not required to be considered in SSD applications, the proposal will have regard for Cessnock DCP 2010 and the following specific requirements:

- Cessnock DCP - E6: Hunter Economic Zone (HEZ);
- HEZ Environmental Management Strategy (EMS); and
- HEZ EMS Sectoral Strategies.

5 Engagement

Engagement and consultation with stakeholders is recognised as an integral part of the application process. Key stakeholders will be consulted in the preparation of the Environmental Impact Statement (EIS).

The site is relatively isolated from any neighbours and the entire HEZ precinct is held under common private ownership.

Initial consultation was undertaken with the landowner resulting in the preferred location of the development site being selected to complement future development of the HEZ.

Cessnock City Council has been involved in the rezoning of the land and the development of a precinct specific DCP. Initial discussions have been held with staff members (including Angela Peterson) and it was

agreed that meetings will be held with Councils development section, post SEAR's.

The nearest residential land uses are located approximately 1.7km north-east of the site and buffered from industrial development by a contiguous E2 (now C2) zoned green corridor. Local residents will be consulted during the EIS phase to gain feedback on environmental, social and economic impacts associated with the development.

Stakeholders that may be consulted during the EIS process include:

- Cessnock City Council;
- Transport for NSW;
- NSW Office of Environment and Heritage (or equivalent);
- Mine Subsidence Board;
- Hunter Water;
- Rural Fire Service;
- Environment Protection Authority;
- Local Aboriginal Land Council; and
- Residents, business owners and community groups in the surrounding areas.

6 Proposed Assessment of Impacts

6.1 Land Contamination Issues

As outlined above, a preliminary contamination assessment will be prepared in accordance with SEPP 55. Further details of any required remediation and recommended mitigation and/or management measures will be provided with the EIS.

6.2 Geotechnical

Geotechnical investigations will be included with the EIS submission. Recommendations from the geotechnical investigations will be relied on to inform the development layout and any required mitigation measures.

6.3 Tree Removal and Ecology

A Biodiversity Assessment Report (BDAR) will be prepared and included in the EIS. Subject to the findings of the BDAR, the layout of the development may be modified to address the findings of the ecological assessment.

6.4 Built Form and Landscaping

The built form will include a relocatable administrative building and industrial sheds. Building heights, dimensions materials and finishes are provided in section 4.0 and plans included at Appendix B.

Landscape setbacks will be provided to surrounding boundaries. The landscaping may comprise a mix of retained vegetation and complementary plantings, subject to further investigation.

Architectural and landscaping plans will be included with the EIS.

6.5 Parking, Traffic and Access

Two way vehicle access is proposed off Bromage Road.

Dual weigh stations approximately 19m in length will be setback from the site entry for weighing vehicles entering and exiting the site.

A car park for approximately 52 cars will be located adjacent to the site office.

A detailed traffic and parking impact assessment will accompany the EIS. As outlined in section 3.1.5 this will include a comprehensive assessment of haulage routes and SIDRA intersection analysis.

6.6 Infrastructure and Servicing

The subject site is able to be serviced by water, sewer, power and telecommunication services as required.

- Water is available via a pressurised water main and there is a water reservoir onsite (up hill from the development site)
- Power is available via the existing Ausgrid network / via underground cables connected to a nearby sub-station.
- Sewer trunk mains are constructed and in place connecting to a pump station and to Kurri Kurri via a rising main. A gravity system will have to be extended from the site to the pump station.

Further details will be included in the EIS outlining service connections, pipe sizing and routes, and the associated works proposed to adequately service the site.

6.7 Stormwater

Water sensitive urban design (WSUD) measures will be implemented to maintain downstream water quality.

As outlined in Table 2, water quality management will include:

- Wash material to remove contaminants within concrete floor and bunded area with drainage to holding tank.
- Water is directed to water treatment system (flocks, chlorinates and alkalines water on site, removes heavy metals).
- Treated water is captured and reused on site.
- Any surplus water will be collected in pits and pipes and directed to an on-site detention basin. Sediment and gross pollutant are captured in this basin by a trash screen and sediment sump before being further treated by a Gross Pollutant Trap to remove sediment, gross pollutants and hydrocarbons.

Storm water collected from roof areas will be discharged to rainwater tanks.

Water collected in the rainwater tanks will be reused on-site for dust suppression.

Any overflow from the rainwater tanks will be discharged by a level spreader to landscaped areas.

Supporting information to be included with the EIS includes a Stormwater Management Report describing the approach to the stormwater management on the site, as well as a stormwater design plan and relevant calculations for the on-site stormwater detention and water quality facilities.

6.8 Heritage

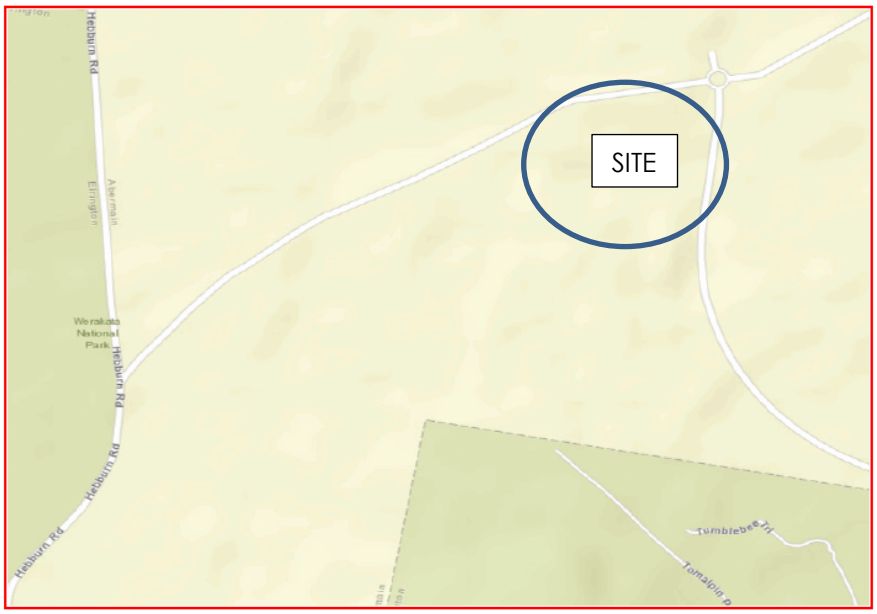
As outlined above, the subject site (future subdivided site) does not contain any items of environmental heritage but there are two heritage listed items in the HEZ locality:

- Collieries of the South Maitland Coalfields/Greta Coal Measures Group (1340721) (Neath Colliery) Significance: Local
- South Maitland Railway System Significance: Local

The site is not located in proximity of the above-mentioned heritage items and a Heritage Impact Statement is not considered necessary.

An AHIMS search was completed, and no known Aboriginal objects or Aboriginal places are recorded on or within 200m of the site. However, the entire lot with a buffer of 200m, has 21 recorded sites

An Aboriginal Cultural Heritage Assessment Report will be required as part of the SSD submission to determine whether any unidentified Aboriginal objects or Aboriginal places are likely to be affected by the proposal and to recommend mitigative measures, if required,



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

Figure 11: AHIMS Search

6.9 Scenic Quality

The HEZ is currently characterised by relatively dense native vegetation comprising approximately 900ha of industrial zoned land and 2,300ha of conservation and National Park zoned land to provide a buffer for industrial development.

As the site is progressively developed the bushland scenic qualities of the industrial zoned land will be replaced by industrial buildings and associated car parks, paved areas and storage facilities.

Landscape buffers will be provided to the Bromage Road frontage, side and rear boundaries to provide effective landscape screening and reflect the vegetated characteristics of the site.

6.10 Acoustic Impact

Sources of noise generation from the development may include:

- Truck movements for loading and unloading of recyclable materials;
- Car movements to and from the site;
- Operation of heavy machinery for stockpiling, crushing, grinding , processing and stockpiling.

An Acoustic Assessment will be included with the EIS taking into consideration potential noise generating sources during demolition, construction and the ongoing operation of the development.

Recommendations from the acoustic assessment will be incorporated into the site management and building design to mitigate adverse acoustic impacts on sensitive receptors.

6.11 Construction Management

Construction works will include:

- Tree clearing and site levelling;
- Building construction; and
- Civil works.

A preliminary construction management plan will be included in the EIS addressing construction management issues and how the builder and contractors will manage potential impacts caused by the site and building works.

The CMP will address mitigation measures relating to the potential impacts of construction on the environment and the public, including noise and vibration, air pollution, water pollution, waste and recycling measures and traffic management. It will guide project managers, contract superintendents and contractors responsible for the construction of the proposed development in preparing the final CMP based on detailed design and conditions of development consent.

6.12 Air Quality

Air quality impacts from the development are limited to dust generation and vehicle emissions.

Water carts will be used for regular water of exposed areas to suppress dust. Where possible, modern vehicles will be used to minimise vehicle emissions.

The site is physically separated from residential areas by dense bushland and air quality impacts on sensitive receivers is not considered to be significant.

An air quality assessment will be prepared and submitted as part of the EIS documentation.

6.13 Bushfire

The site is identified as bush fire prone land and a bushfire assessment will be included in the EIS.

The proposed office and storage sheds will be designed and constructed having regard for Planning for Bushfire Protection 2019 guidelines.

6.14 Social & Economic Benefit

The development will generate substantive economic benefits for the Lower Hunter through initial job

creation during the construction phase and long term job opportunities during the operational phase.

The positive economic benefits associated with job creation will also contribute to social wellbeing.

Resource recovery and recycling also has many benefits from an economic, social and environment perspective, as it:

- diverts recyclable and reusable wastes from landfill,
- diverting these wastes from landfill preserves space within landfills and extends the operational life of landfills;
- provides a commercial return that contributes to the economy of NSW; and
- provides permanent employment for local residents.

The project has an estimated Capital Investment Value (CIV) of approximately $38M.

A Quantity Surveyors statement will be supplied as part of the SSD submission confirming the estimated CIV.

6.15 Amenity

The development will be located within the HEZ, comprising approximately 900ha of industrial zoned land and 2,300ha of conservation and National Park zoned land to provide a buffer for industrial development.

Surrounding land is zoned IN1 Industrial but is currently mainly undeveloped.

The closest operational land uses are the HEZ Power Station (approx. 250m north-east) and Ullrich Aluminium (approx. 600m north-east).

The nearest residential land is located approximately 1.7km from the development site, to the north-east at Kurri Kurri.

The proposed development site is therefore appropriately located within an industrial precinct and well separated from sensitive receptors to maintain amenity for existing and future residents.

7 Conclusion

The proposal represents the rational, orderly and economic use of the land.

The proposed resource recovery and recycling facility will divert recyclable and reusable wastes from landfill, generate employment and contribute to the progressive development of the Hunter Economic Zone.

The site is isolated from sensitive receptors and can be developed without impacting on the amenity of residents in surrounding areas.

Appropriate mitigative measures can be implemented to minimise environmental impacts including biodiversity, noise and vibration, air pollution, water pollution, waste and recycling measures and traffic management.

8 References

- *Cessnock DCP 2010 - E6: Hunter Economic Zone (HEZ)- Cessnock City Council*
- *Environmental Management Strategy Hunter Employment Zone 2004– Cessnock Council*
- *HEZ EMS Sectoral Strategies 2004 – SKM*
- *HEZ Waste Management and Resource Recovery Strategy 2003 - GHD*
- *HEZ Noise, Vibration, Lighting and Electrical Interface Strategy 2004 – SKM*
- *https://legislation.nsw.gov.au (Acts, Statutory Instruments and Environmental Planning Instruments)*
- *https://www.metrecycling.com.au*
- *NSW Government's Waste Avoidance and Resource Recovery Strategy 2014–21 NSW EPA*
- *Planning for Bush Fire Protection 2019 – NSW RFS*
- *Reforms to the construction waste recycling sector: Explanatory paper October 2017 – NSW EPA*
- *State Significant Development Guidelines July 2021- DPIE*
- *Social Impact Assessment Guideline for State Significant Projects July 2021- DPIE*
- *Undertaking Engagement Guidelines for State Significant Projects July 2021- DPIE*

Appendix A – Scoping Summary Table

Table 5: Scoping Summary

Level of Assessment	Matter	Engagement	Relevant Government plans, policies and guidelines	Scoping report reference
Standard	Land contamination	General	• SEPP 55 – Remediation of Land • Managing Land Contamination: Planning Guidelines SEPP 55 – Remediation of Land (Department of Urban Affairs and Planning and Environment Protection Authority, 1998) • Guidelines for Consultants Reporting on Contaminated Sites (Office of Environment and Heritage, 2000) • Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997 (Department of Environment and Climate Change, 2009)	Section 6.1
Standard	Geotechnical	General	• Cessnock DCP 2010 • Subsidence Advisory NSW - Development Application – Merit Assessment Policy 2018	Section 6.2
Standard	Ecology	General	• Commonwealth EPBC 1.1 Significant Impact Guidelines – Matters of National Environmental Significance (Commonwealth of Australia, 2013) • Biodiversity Conservation Act 2016 • EPBC Act 1999 • SEPP Koala Habitat Protection • Hunter Economic Zone Habitat Management Strategy 2005 • Environmental Management Strategy Hunter Employment Zone 2004– Cessnock Council	Section 6.3
Standard	Built form and landscaping	General	• Environmental Planning and Impact Assessment Practice Note: Socio-economic Assessment (Roads and Maritime Services, 2013). • Refer to scoping report for further discussion on approach to assessment • SEPP 64 – Advertising and Signage	Section 6.4
Standard	Parking, traffic and access	General	• SEPP Infrastructure • Guide to Traffic Management – Part 3 Traffic Studies and Analysis (Austroads, 2013) • NSW Bicycle Guidelines (RTA, 2003) • Guide to Traffic Generating Developments Version 2.2 (RTA, 2002).	Section 6.5

Level of Assessment	Matter	Engagement	Relevant Government plans, policies and guidelines	Scoping report reference
			• Environmental Management Strategy Hunter Employment Zone 2004– Cessnock Council	
Standard	Infrastructure and servicing	General	• SEPP State and Regional Development 2011 • Refer to scoping report for further discussion on approach to assessment	Section 6.6
Detailed	Water quality, flooding and drainage	General	• Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (Department of Environment and Climate Change, 2008) • Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC / ARMCANZ, 2000) • Using the ANZECC Guidelines and Water Quality Objectives in NSW (Department of Environment and Conservation, 2006). • Acid Sulphate Soils Assessment Guidelines (Department of Planning, 2008) • Managing Land Contamination: Planning Guidelines SEPP 55 – Remediation of Land (Department of Urban Affairs and Planning and Environment Protection Authority, 1998) • Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom, 2004) • Managing Urban Stormwater: Soils and Construction Volume 2 (Department of Environment and Climate Change, 2008) • Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom 2004) and Volume 2 (A. Installation of Services; B. Waste Landfills; C. Unsealed Roads; D. Main Roads; E. Mines and Quarries) (DECC 2008) • NSW Government's Floodplain Development Manual (2005). • Environmental Management Strategy Hunter Employment Zone 2004– Cessnock Council	Section 6.7
Standard	Heritage	Specific	• Heritage Act 1977 • NPWS Act 1974	Section 6.8

Level of Assessment	Matter	Engagement	Relevant Government plans, policies and guidelines	Scoping report reference
			• NSW Skeletal Remains: Guidelines for Management of Human Remains (Heritage Office, 1998) • Criteria for the Assessment of Excavation Directors (NSW Heritage Council, 2011).	
Standard	Scenic quality	General	• Refer to scoping report for further discussion on approach to assessment	Section 6.9
Standard	Acoustic impact	General	• Construction Noise Strategy (Transport for NSW, 2012) • Interim Construction Noise Guideline (Department of Environment, Climate Change and Water, 2009) • NSW Industrial Noise Policy (Environment Protection Authority, 2000) • NSW Road Noise Policy (Environment Protection Authority, 2011) • Assessing Vibration: A Technical Guideline (Department of Environment and Conservation, 2006) • Environmental Noise Management Assessing Vibration: A Technical Guideline (Department of Environment and Conservation, 2006) • HEZ Noise, Vibration, Lighting and Electrical Interface Strategy 2004 - SKM	Section 6.10
Standard	Construction management	General	• Refer to scoping report for further discussion on approach to assessment • Environmental Management Strategy Hunter Employment Zone 2004– Cessnock Council	Section 6.11
Standard	Air quality	General	• The Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA 2016) • HEZ Air Quality Management Strategy 2004 • Environmental Management Strategy Hunter Employment Zone 2004– Cessnock Council	Section 6.12
Standard	Bushfire	General	• Planning for Bush Fire Protection 2019 • Environmental Management Strategy Hunter Employment Zone 2004	Section 6.13

Level of Assessment	Matter	Engagement	Relevant Government plans, policies and guidelines	Scoping report reference
Detailed	Social and economic impacts	Specific	• Social Impact Assessment Guidelines for State Significant Projects (Department of Planning Industry and Environment, 2021)	Section 6.14
Standard	Hazards and risks - waste	General	• SEPP 33 Hazardous and Offensive Development • Waste Classification Guidelines (DECCW, 2009) • HEZ Waste Management and Resource Recovery Strategy 2003 • Environmental Management Strategy Hunter Employment Zone 2004	Section 4.19

Appendix B –Site Plan and Building Massing

Subset ID and Name	**DRAWING No.**	**DESCRIPTION**
0 GENERAL	001	COVER PAGE
0 GENERAL	005	SITE PLAN - GROUND FLOOR PLAN
0 GENERAL	006	HAULAGE ROUTE PLAN
0 GENERAL	007	MASSING PERSPECTIVE

KURRI KURRI RESOURCE RECOVERY FACILITY
MET RECYCLING CENTRE

SITE AREA: 101,300m^2
PROPOSED FSR: 0.37 : 1
PROPOSED GFA: 37,800m^2

LEGEND

PROPOSED BUILDINGS

No. 1	OFFICE BUILDING HEIGHT: SINGLE STOREY
No. 2	WORKSHOP BUILDING HEIGHT - MAX HEIGHT 8m TBC
No. 3	SHED 1: BUILDING & DEMO WASTE BUILDING HEIGHT - 17m
No. 4	SHED 2: GLASS RECYCLING & PROCESSING BUILDING HEIGHT - 17m
No. 5	WEIGH BRIDGE OFFICE HUT

PROPOSED WASTE SECTIONS

No. 6	CT2: GENERAL SOLID WASTE (RECYCLABLE) 3m HIGH WALL
No. 7	CT1: GENERAL SOLID WASTE 3m HIGH WALL
No. 8	GENERAL SOLID WASTE 3m HIGH WALL
No. 9	CONCRETE WASTE 3m HIGH WALL
No. 10	BRICK WASTE 3m HIGH WALL
No. 11	GREEN WASTE 3m HIGH WALL
No. 12	ENHANCED SOIL WASTE 3m HIGH WALL

PRODUCTION BAY

No. 13	8 BAYS; 25m x 25m PER BAY FULLY BUNDED CONCRETE PAD MATERIALS TO INCLUDE CRUSHER DUST, SAND, TURF UNDERLAY, 10mm AGG, ROAD BASE, MULCH CHIP, DGB

PROPOSED FACILITIES

No. 14	52 SPACE CAR PARKING
No. 15	RAINWATER TANK - DIA. 16m; APPROX 600kL

PROPOSED GFA	37,840m²
PROPOSED FSR	0.37:1

0.
-

SITE PLAN - GROUND FLOOR
1:2000

NOTE
The Builder shall check all dimensions and levels on site prior to construction. Notify any errors, discrepancies or omissions to the architect. Refer to written dimensions only. Do not scale drawings. Drawings shall not be used for construction purposes until issued for construction. This drawing reflects a design by Texco Design Pty Ltd and is to be used only for work when authorised in writing by Texco Design Pty Ltd.

All boundaries and contours are subject to survey drawing. All levels to Australian Height Data. It is the contractors responsibility to confirm all measurements on site and locations of any services prior to work on site.

Project Partners
Refer to consultant documentation when directed

- Builder	- #Builder
- Planning Consultant	- **#Planning Consultant**
- Structural Engineer	- #Structural Engineer
- Mechanical Engineer	- #Mechanical Engineer
- Hydraulic Engineer	- **#Hydraulic Engineer**
- Fire Engineer	- #Fire Engineer
- Fire Service	- #Fire Service
- Electrical Engineer	- #Electrical Engineer
- Landscape Designer	- **#Landscape Consultant**
- Traffic Engineer	- **#Traffic Engineer**
- Surveyor Consulant	- **#Surveyor**

RevID	Issue Date	Approved by	Rev. Note
01	9/11/2021	TZ	ISSUED FOR DISCUSSION
02	1/12/2021	TZ	ISSUED FOR DISCUSSION

Project Designer
TEXCO DESIGN
Nom Arch: NSW ARB 11348
E: office@texcodesign.com.au
P: +61 449 984 889

N
TRUE NORTH

Drawn | Checked	NS |
Revision Date:	1/12/2021
Project NO.	2148
Project Status	CONCEPT DESIGN
Client	Mr. Ian Stewart
Site:	#Site Full Address
Climate Zone	5
Wind Region	A

PAPER
A3
1:2000

DRAWING TITLE :
GENERAL
SITE PLAN - GROUND FLOOR PLAN

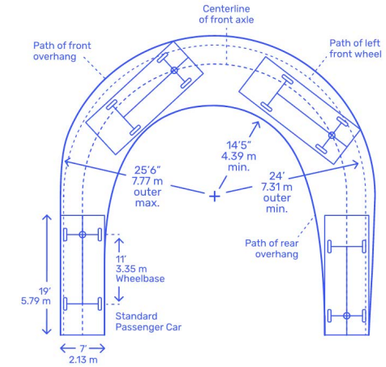
PROJECT NAME :
KURRI KURRI RECYCLING CENTRE

REVISION NO.
02

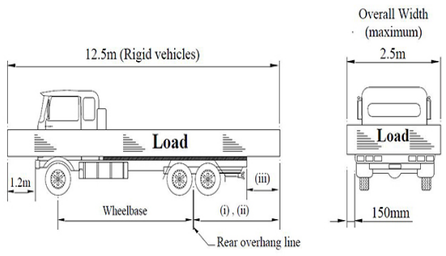
DRAWING NO.
005

LEGEND

- PRIMARY VEHICULAR ROUTE THROUGH CARRIAGEWAY / LOOP ROAD
- ACCESS TO PRODUCT BAY & WASTE & SHED 2
- ACCESS TO SHED 1
- ACCESS TO PRODUCT BAYS & TURNING BAY
- ONE-WAY ROAD
- TWO-WAY ROAD
- ENTRY POINTS FOR PODUCTION BAYS



PASSENGER TURNING PATH SWEEP PATH 180 DEGREES - REFERENCE



OVERSIZE/OVERMASS VEHICLE - RIGID STANDARD DIMENSION - REFERENCE

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HAULAGE ROUTE - GROUND FLOOR
1:2000

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Project Designer
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Nom Arch: NSW ARB 11348
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P: +61 449 984 889

N
TRUE NORTH

Drawn | Checked	NS |
Revision Date:	1/12/2021
Project NO.	2148
Project Status	CONCEPT DESIGN
Client	Mr. Ian Stewart
Site:	#Site Full Address
Climate Zone	5
Wind Region	A

PAPER
A3
1:2000,
1:6079.06

DRAWING TITLE :
GENERAL
HAULAGE ROUTE PLAN

PROJECT NAME :
KURRI KURRI RECYCLING CENTRE

REVISION NO.
02

DRAWING NO.
006

LEGEND

PROPOSED BUILDINGS

No. 1 OFFICE
BUILDING HEIGHT: SINGLE STOREY

No. 2 WORKSHOP
BUILDING HEIGHT - MAX HEIGHT 8m TBC

No. 3 SHED 1: BUILDING & DEMO WASTE
BUILDING HEIGHT - 17m

No. 4 SHED 2: GLASS RECYCLING & PROCESSING
BUILDING HEIGHT - 17m

No. 5 WEIGH BRIDGE OFFICE HUT

PROPOSED WASTE SECTIONS

No. 6 CT2: GENERAL SOLID WASTE (RECYCLABLE)
3m HIGH WALL

No. 7 CT1: GENERAL SOLID WASTE
3m HIGH WALL

No. 8 GENERAL SOLID WASTE
3m HIGH WALL

No. 9 CONCRETE WASTE
3m HIGH WALL

No. 10 BRICK WASTE
3m HIGH WALL

No. 11 GREEN WASTE
3m HIGH WALL

No. 12 ENHANCED SOIL WASTE
3m HIGH WALL

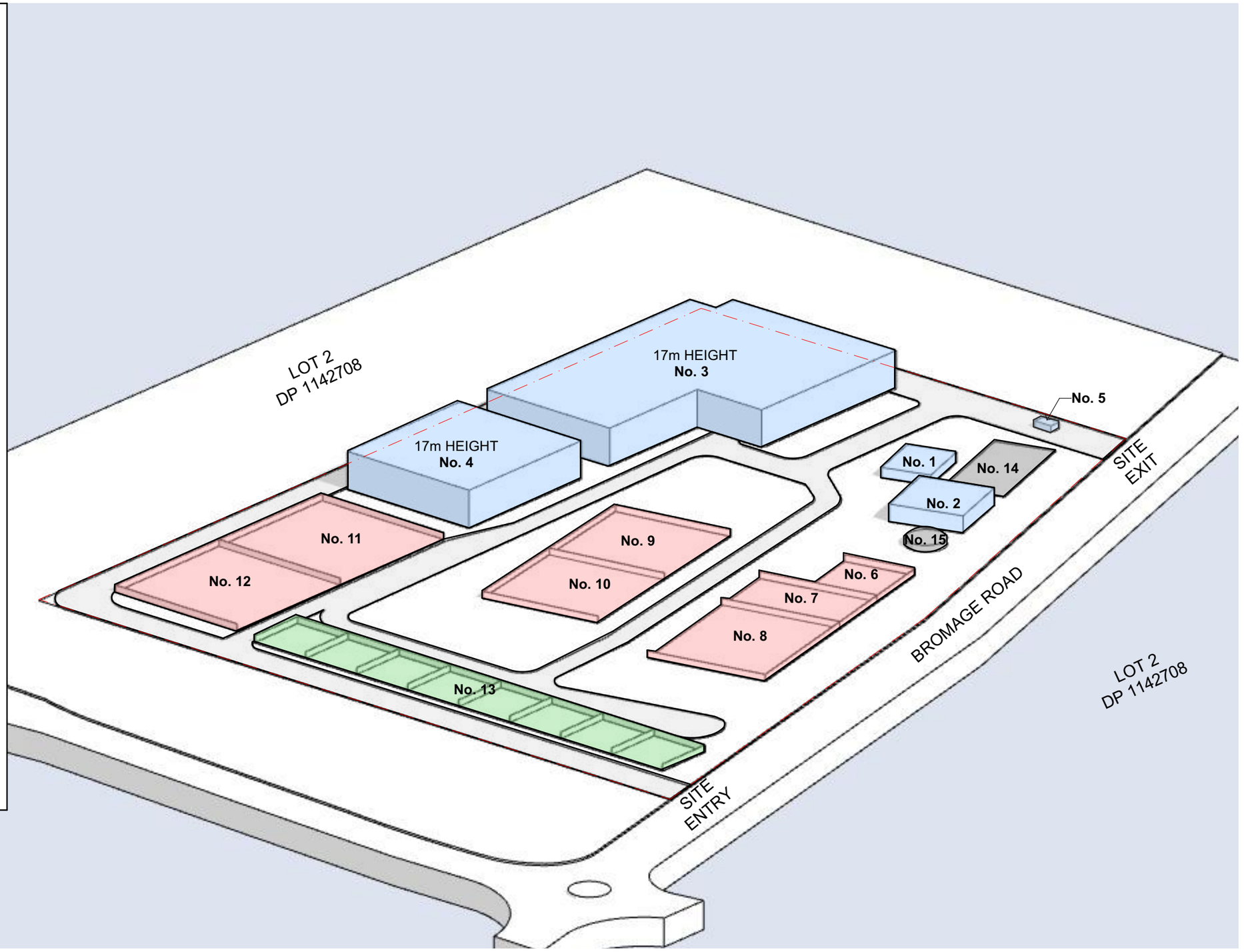
PRODUCTION BAY

No. 13 8 BAYS; 25m x 25m PER BAY
FULLY BUNDED CONCRETE PAD
MATERIALS TO INCLUDE CRUSHER DUST, SAND, TURF UNDERLAY, 10mm AGG, ROAD BASE, MULCH CHIP, DGB

PROPOSED FACILITIES

No. 14 52 SPACE CAR PARKING

No. 15 RAINWATER TANK - DIA. 16m; APPROX 600kL



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N
TRUE NORTH

Drawn | Checked NS |
Revision Date: 1/12/2021
Project NO. 2148
Project Status CONCEPT DESIGN

Client Mr. Ian Stewart
Site: #Site Full Address
Climate Zone 5
Wind Region A

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A3
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DRAWING TITLE :
GENERAL
MASSING PERSPECTIVE

PROJECT NAME :
KURRI KURRI RECYCLING CENTRE

REVISION NO.
02

DRAWING NO.
007

Appendix C – Proposed Plant and Equipment Specifications

Trommell Screen

TRANSPORT DIMENSIONS
Width: 2.5m (8' 2")
Height: 4.0m (13' 2")
Length: 12.0m (39' 4")
Weight: 19,000kg (41,888 lbs)

TRANSPORT DIMENSIONS (TRACKED MACHINE)
Width: 3.0m (9' 10")
Height: 3.4m (11' 2")
Length: 10.5m (34' 5")
Weight: 24,000kg (52,911 lbs) approx.

WORKING DIMENSIONS
Width: 6.9m (22' 8")
Length: 15.5m (51')
Feed height: 2.85m (9' 4")

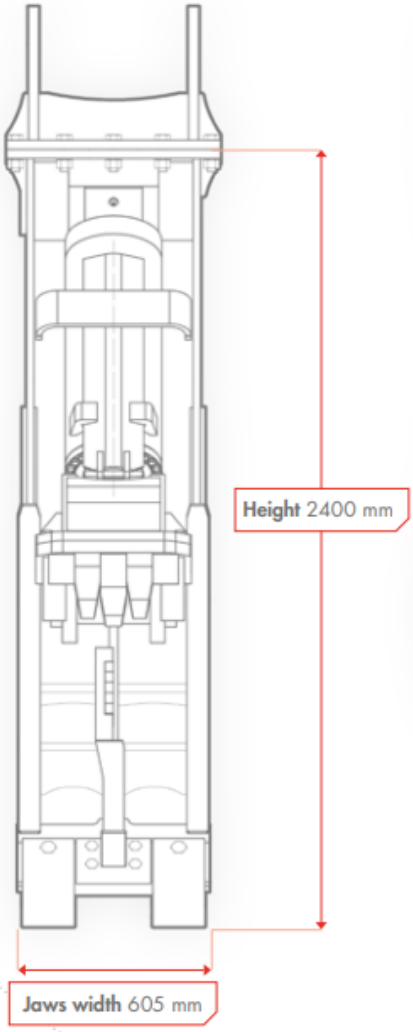
WORKING DIMENSIONS (TRACKED MACHINE)
Width: 6.9m (22' 8")
Length: 14.1m (46' 5")
Feed height: 2.85m (9' 4")

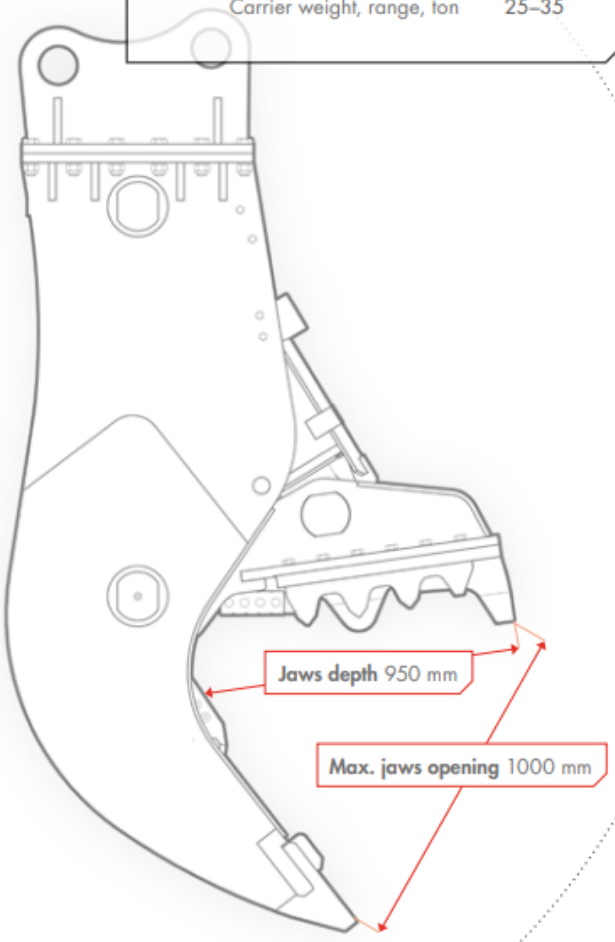
Rammer RPV30S Pulveriser

RPV30S

SPECIFICATIONS

Working weight, kg	3100
Operating pressure, bar	280–320
Oil flow, l/min	220–280
Blade length, mm	180
Replaceable tips	yes
Carrier weight, range, ton	25–35





Water cannon for dust

4.8 Technical specs Spraystream 50i ,60i

Standard dimensions	
Height	225 cm
Width	160 cm
Depth	155 cm
Weight	450 /480 kg
Dimensions with mounted wheelset	
Height	238 cm
Width	208 cm
Depth	235 cm
Additional weight:	90 kg
Dimension with lifting bracket	
Additional height	20cm
Additional weight	30 kg
Nozzles (Qty.)	30

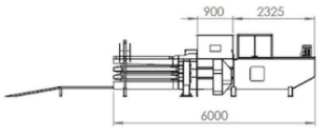
Baler

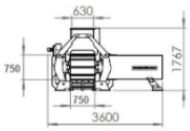
Baler specs

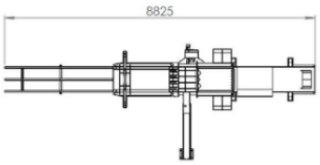
Technical Specifications

Main Motor Power	1 x 22KW /30HP
Bale size (w x h x l)	750mm x 750mm x variable bale length mm
Main RAM Cycle Time	32 secs
Oil Tank Capacity	700 litres
Press Capacity at 50kg/3	1.2-1.5 Tonnes/hour
Bale Weight	275-350kg/bale
Number of Wires	4 horizontal wires
Wire Bending System	Hydraulic Push-Cutting Folding
Total Force	Max 50 Tonnes

Dimensions







Hunter Mayer

From: Thomas Johnstone
Sent: Saturday, 27 November 2021 9:03 AM
To: Jason O'Sullivan; Hunter Mayer
Subject: Plant Specs for Kurri Kurri

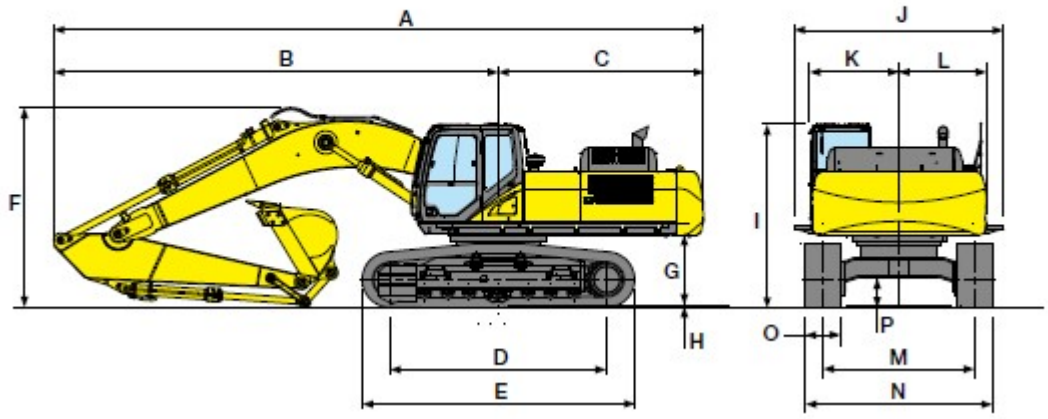
This is half of the list of machines on the email will have the rest for Monday

See List of machines and Specs

Excavators

- 35t Excavator – Sumitomo Sh350

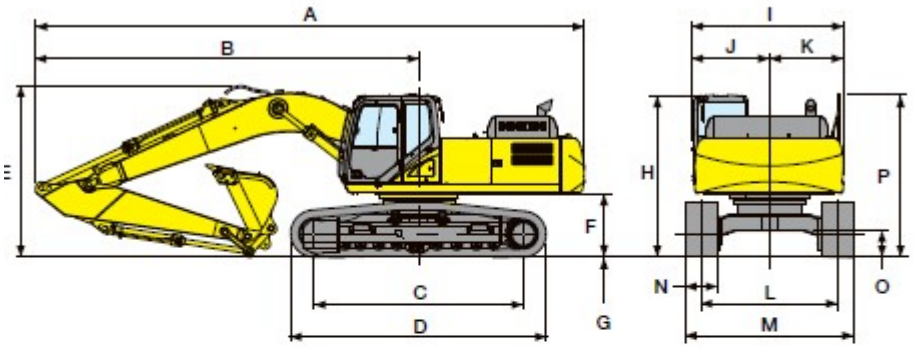
Dimensions



Model	SH330-6		SH350LC-6	
Arm length	2.63 m	3.25 m	2.63 m	3.25 m
A Overall length	11,230 mm	11,140 mm	11,230 mm	11,140 mm
B Length from centre of machine (to arm top)	7,700 mm	7,620 mm	7,700 mm	7,620 mm
C Length from centre of machine (to rear end)	3,520 mm			
D Centre to centre of wheels	3,720 mm		4,040 mm	
E Overall track length	4,650 mm		4,980 mm	
F Overall height	3,640 mm	3,420 mm	3,640 mm	3,420 mm
G Clearance height under upper structure	1,200 mm			
H Shoe lug height	36 mm			
I Cab height	3,130 mm			
J Upper structure overall width	3,030 mm			
K Width from centre of machine (left side)	1,540 mm			
L Width from centre of machine (right side)	1,490 mm			
M Track gauge	2,600 mm			
N Overall width	3,200 mm			
O Std. shoe width	600 mm			
P Minimum ground clearance	460 mm			

25t Excavator – Sumitomo Sh250

Dimensions

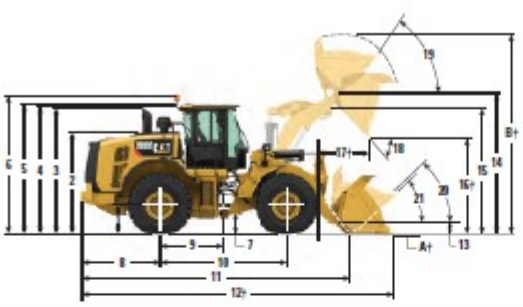


Modal		SH250-6	
Arm length	2.50 m	3.00 m	3.52 m
A Overall length	9,980 mm	9,930 mm	9,910 mm
B Length from centre of machine (to arm top)	7,040 mm	6,990 mm	6,970 mm
C Centre to centre of wheels		3,840 mm	
D Overall track length		4,650 mm	
E Overall height (to top of boom)	3,310 mm	3,150 mm	3,310 mm
F Clearance height under upper structure		1,100 mm	
G Shoe lug height		26 mm	
H Overall height (to top of cab)		3,000 mm	
I Upper structure overall width		2,770 mm	
J Width from centre of machine (left side)		1,430 mm	
K Width from centre of machine (right side)		1,340 mm	
L Track gauge		2,590 mm	
M Overall width		3,190 mm	
N Std. shoe width		600 mm	
O Minimum ground clearance		440 mm	
P Overall height (to top of handrail)		3,020 mm	

Caterpillar 966M Loader

Dimensions

All dimensions are approximate.

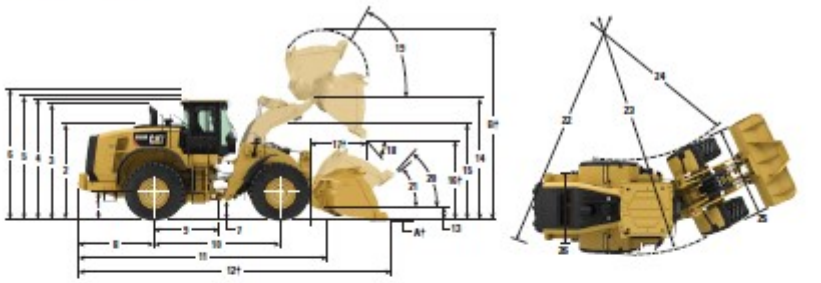


		Standard Lift		High Lift	
1	Height to Axle Centerline	799 mm	2'7"	799 mm	2'7"
2	Height to Top of Hood	2818 mm	9'3"	2818 mm	9'3"
3	Height to Top of Exhaust Pipe	3522 mm	11'7"	3522 mm	11'7"
4	Height to Top of ROPS	3587 mm	11'9"	3587 mm	11'9"
5	Height to Top of Product Link Antenna	3636 mm	11'11"	3636 mm	11'11"
6	Height to Top of Warning Beacon	3859 mm	12'8"	3859 mm	12'8"
7	Ground Clearance	434 mm	1'5"	434 mm	1'5"
8	Center Line of Rear Axle to Edge of Counterweight	2180 mm	7'2"	2500 mm	8'2"
9	Center Line of Rear Axle to Hitch	1775 mm	5'10"	1775 mm	5'10"
10	Wheelbase	3550 mm	11'8"	3550 mm	11'8"
11	Overall Length (without bucket)	7289 mm	23'11"	8109 mm	26'8"
12	Shipping Length (with bucket level on ground)*†	8750 mm	28'9"	9570 mm	31'5"
13	Hinge Pin Height at Carry Height	630 mm	2'1"	778 mm	2'7"
14	Hinge Pin Height at Maximum Lift	4235 mm	13'11"	4793 mm	15'9"
15	Lift Arm Clearance at Maximum Lift	3643 mm	11'11"	4140 mm	13'6"
16	Dump Clearance at Maximum Lift and 45° Discharge*†	2991 mm	9'9"	3549 mm	11'7"
17	Reach at Maximum Lift and 45° Discharge*†	1353 mm	4'5"	1328 mm	4'4"
18	Dump Angle at Maximum Lift and Dump (on stops)*	49 degrees		48 degrees	
19	Rack Back at Maximum Lift*	62 degrees		71 degrees	
20	Rack Back at Carry Height*	50 degrees		49 degrees	
21	Rack Back at Ground*	42 degrees		39 degrees	
22	Clearance Circle (radius) to Counterweight	6804 mm	22'3"	6804 mm	22'3"
23	Clearance Circle (radius) to Outside of Tires	6761 mm	22'2"	6761 mm	22'2"
24	Clearance Circle (radius) to Inside of Tires	3770 mm	12'4"	3770 mm	12'4"
25	Width over Tires (unloaded)	2991 mm	9'10"	2991 mm	9'10"
26	Tread Width	2230 mm	7'4"	2230 mm	7'4"

Caterpillar 982M – Loader

980M Dimensions

All dimensions are approximate.



		Standard Lift		High Lift	
1	Height to Axle Centerline	892 mm	2'11"	892 mm	2'11"
2	Height to Top of Hood	3110 mm	10'3"	3110 mm	10'3"
3	Height to Top of Exhaust Pipe	3746 mm	12'4"	3746 mm	12'4"
4	Height to Top of ROPS	3813 mm	12'7"	3813 mm	12'7"
5	Height to Top of Product Link Antenna	3891 mm	12'10"	3891 mm	12'10"
6	Height to Top of Warning Beacon	4112 mm	13'6"	4112 mm	13'6"
7	Ground Clearance	453 mm	1'5"	453 mm	1'5"
8	Center Line of Rear Axle to Edge of Counterweight	2469 mm	8'2"	2469 mm	8'2"
9	Center Line of Rear Axle to Hitch	1900 mm	6'3"	1900 mm	6'3"
10	Wheelbase	3800 mm	12'6"	3800 mm	12'6"
11	Overall Length (without bucket)	7964 mm	26'2"	8164 mm	26'10"
12	Shipping Length (with bucket level on ground)*†	9493 mm	31'2"	9799 mm	32'2"
13	Hinge Pin Height at Carry Height	621 mm	2'1"	678 mm	2'3"
14	Hinge Pin Height at Maximum Lift	4539 mm	14'10"	4760 mm	15'7"
15	Lift Arm Clearance at Maximum Lift	3795 mm	12'5"	4010 mm	13'1"
16	Dump Clearance at Maximum Lift and 45° Discharge*†	3273 mm	10'9"	3493 mm	11'5"
17	Reach at Maximum Lift and 45° Discharge*†	1481 mm	4'11"	1484 mm	4'11"
18	Dump Angle at Maximum Lift and Dump (on stops)*	52 degrees		55 degrees	
19	Rack Back at Maximum Lift*	61 degrees		61 degrees	
20	Rack Back at Carry Height*	48 degrees		48 degrees	
21	Rack Back at Ground*	40 degrees		39 degrees	
22	Clearance Circle (dia) to Counterweight	13 700 mm	45'0"	13 700 mm	45'0"
23	Clearance Circle (dia) to Outside of Tires	14 806 mm	48'7"	14 806 mm	48'7"
24	Clearance Circle (dia) to Inside of Tires	8252 mm	27'1"	8252 mm	27'1"
25	Width Over Tires – Maximum (unloaded)	3265 mm	10'9"	3265 mm	10'9"
	Width Over Tires – Maximum (loaded)	3296 mm	10'10"	3296 mm	10'10"
26	Tread Width	2440 mm	8'0"	2440 mm	8'0"

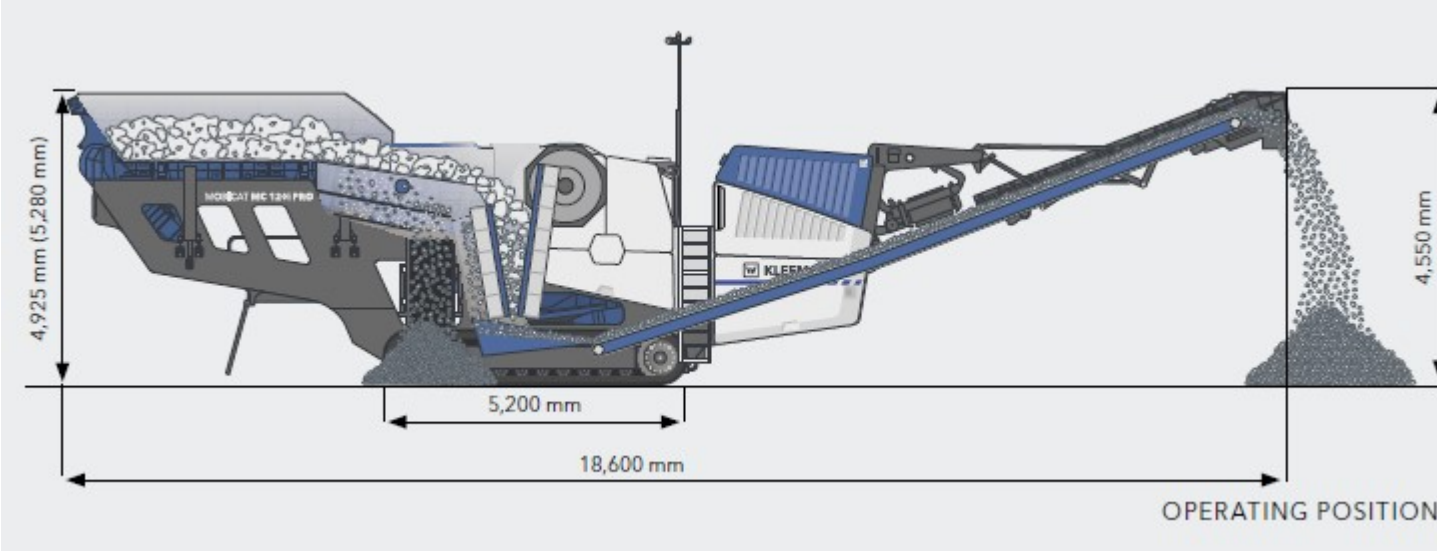
Telehandler

Manitou – MT730H

Capacities		
Max. capacity		
Max. lifting height		
Max. outreach	r1	
Weight and dimensions		
Overall length to carriage	l11	
Overall length (with forks)	l1	
Overall width	b1	
Overall height	h17	
Wheelbase	y	
Ground clearance	m4	
Overall cab width	b4	
Tilt-up angle	a4	
Tilt-down angle	a5	
External turning radius (over tyres)	Wa1	
Unladen weight (with forks)		
Standard tyres		
Forks length / width / section	l / e / s	
Performance		

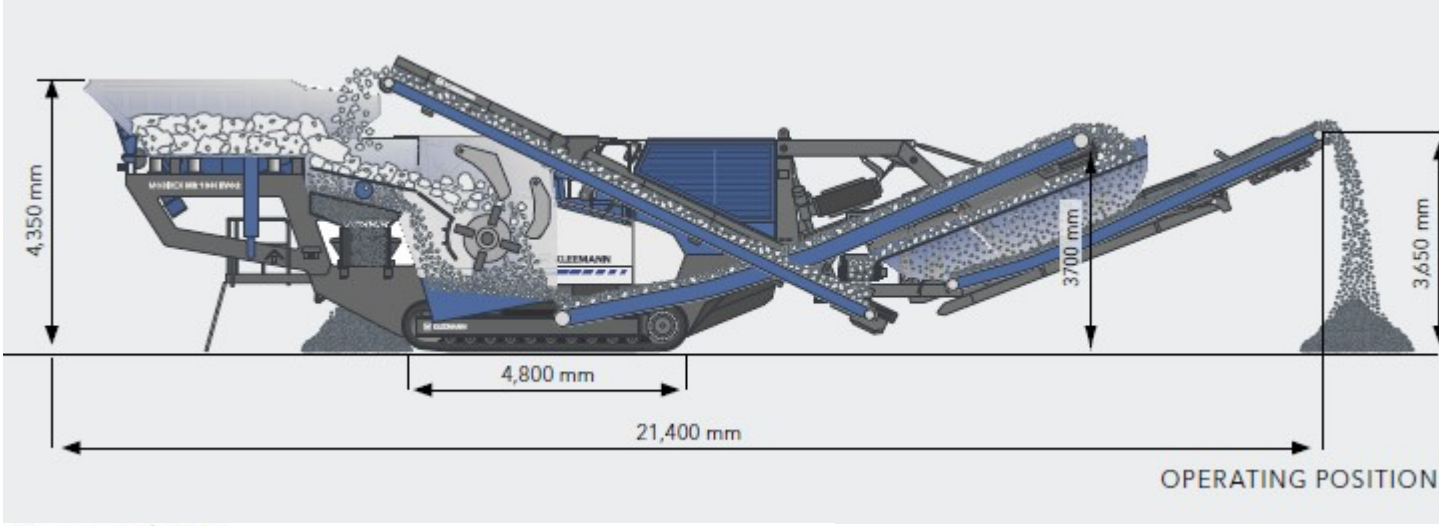
Crushers – mobile plant – fixed plant would be a custom build.

Kleemann – Jaw Crusher – Mobicat - MC120I



Power supply unit	
Drive concept	diesel-electric
Drive output of Scania diesel engine (kW)	368 - 410[4)]
Generator (kVA)	500
Transport	
Transport height approx. (mm)	4,100
Transport length approx. (mm)	18,700
Max. transport width (mm)	3,000
Transport weight of basic plant – max. configuration (kg)	72,500 - 85,500

Kleeman – Impact Crusher – Mobirex MR130 evo2

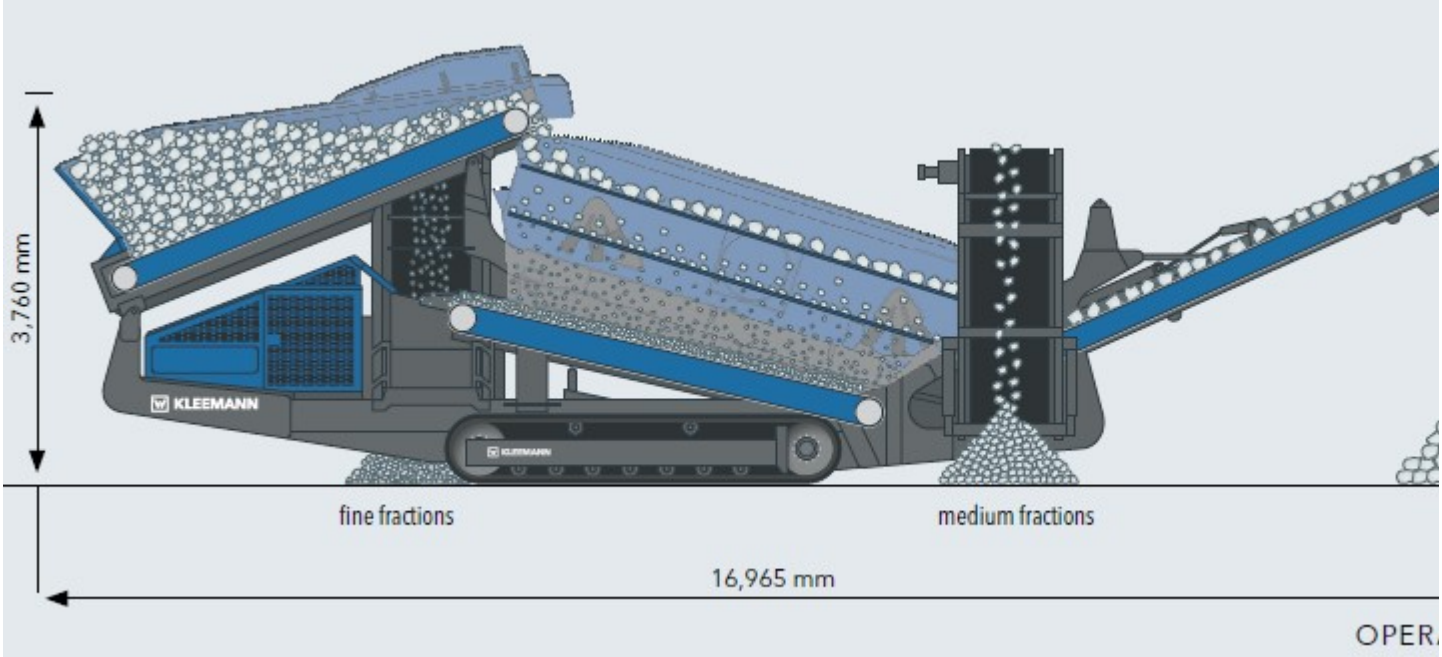


Power supply unit	
Drive concept	Diesel direct[4)]
Drive output of Scania diesel engine (kW)	368 - 410[5)]
Generator (kVA)	135

Transport	
Transport dimensions without options	
Transport height (mm)	3,750
Transport length (mm)	18,385
Transport width	3,000
Transport dimensions with secondary screening unit	
Transport length with screening unit (mm)	21,620
Transport width with screening unit (mm)	3,150 - 3,400
Transport weight screening unit (kg)	6,500
Transport weight of basic plant – max. configuration (kg)	49,500 - 64,500

Screens – scalping screens

Kleemann MS21Z

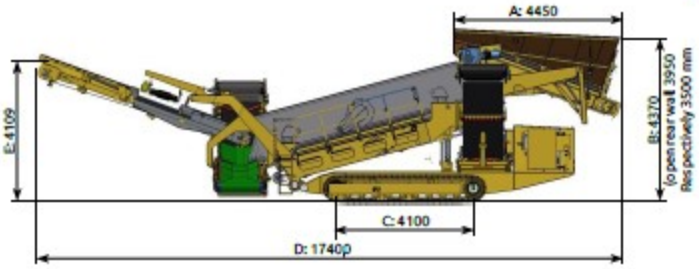


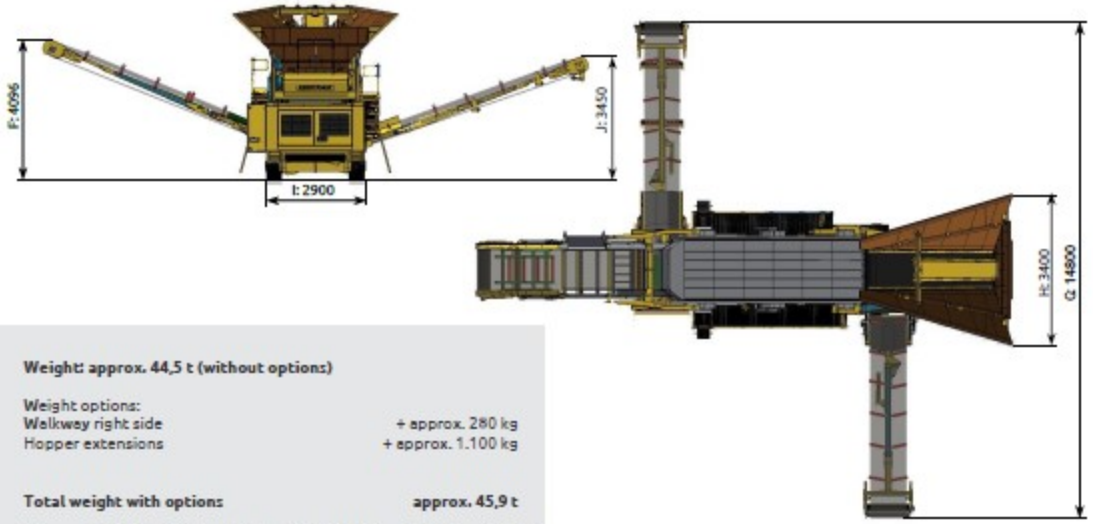
Drive	
Drive concept	diesel-hydraulic
Powerpack CAT (Tier 3, 4f) (kW)	165
Transport	
Transport height approx. (mm)	3,490
Transport length approx. (mm)	16,965
Transport width approx. (mm)	3,020
Transport weight approx. (kg)	37,500

Keestrack K8

DIMENSIONS:

OPERATION:





Weight: approx. 44,5 t (without options)

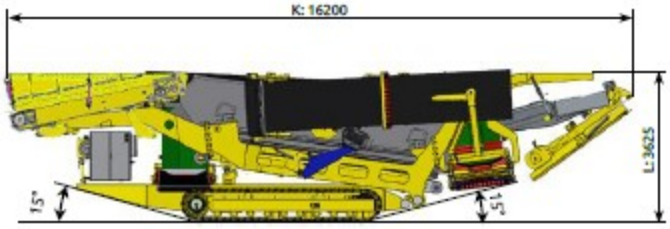
Weight options:

Walkway right side	+ approx. 280 kg
Hopper extensions	+ approx. 1.100 kg

Total weight with options **approx. 45,9 t**

Transport width with stockpile belt LSL 1000 mm: 3.000 mm (8'10")

TRANSPORT:

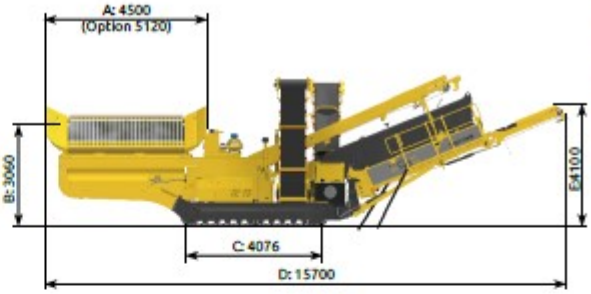


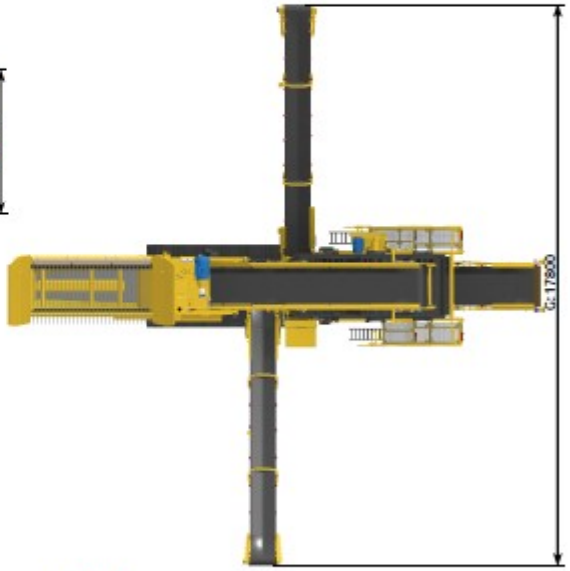
Classifying screens

Kesstrack C6

DIMENSIONS

OPERATION:





Weight: approx. 28 t (without options)

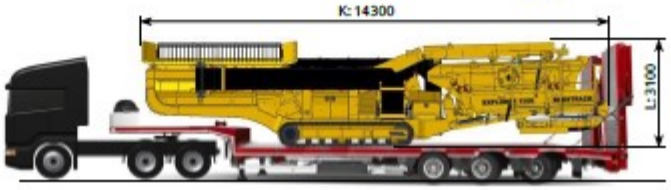
Weight options:

Magnetic separator MCL 12 KT 8	+ approx.	2.350 kg
Feeding width extension	+ approx.	60 kg
Wear lining hopper	+ approx.	230 kg

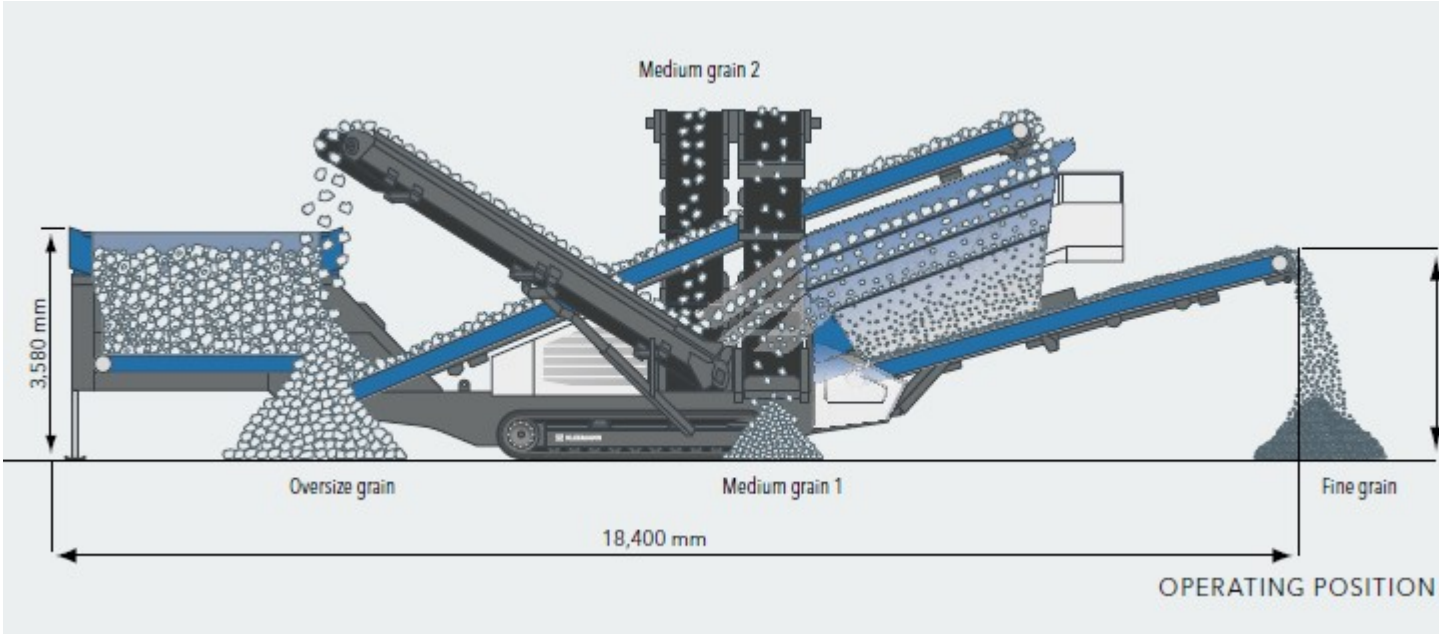
Total weight with options **approx. 30,65 t**

Transport width **2.730 mm (8'11")**

TRANSPORT:



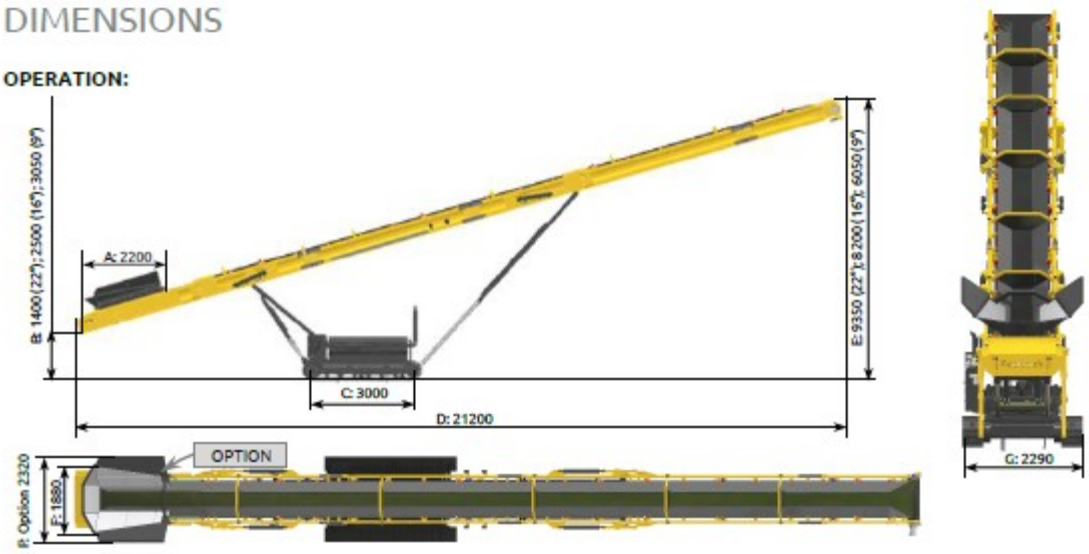
Kleemann Mobiscreen MS703



Power supply unit	
Drive concept	Diesel-hydraulic
MS 703: Deutz (Tier 3/Stage IIIA) (kW)	73
MS 703i: Deutz (Tier 4f/Stage IV) (kW)	73
Transport	
Transport height approx. (mm)	3,400
Transport length approx. (mm)	16,525
Transport width approx. (mm)	3,200
Transport weight of basic plant – max. configuration (kg)	33,500 - 41,000

Conveyors and stackers
Conveyors will most likely be custom built.
Stackers

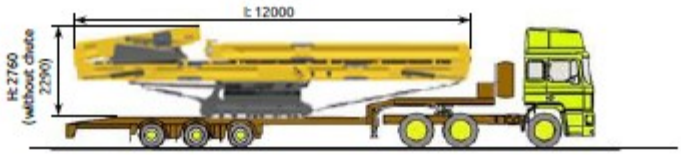
Keestrack S5



Weight: approx. 12 t (without options)

Weight options:	
Wear lining feeding chute	+ approx. 193 kg
Increased feeding chute	+ approx. 200 kg
Additional feeding station	+ approx. 260 kg
Track pads	+ approx. 306 kg
Total weight with options	**approx. 13 t**
Transport width	**2.290 mm (9'10")**

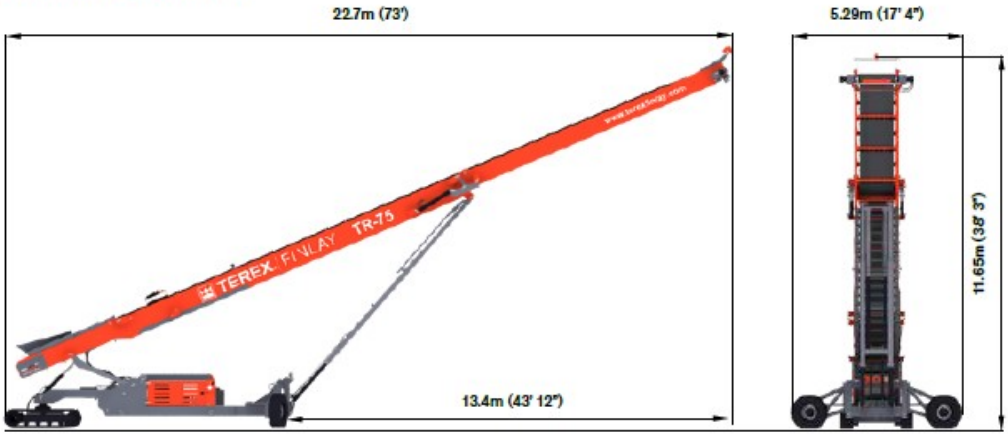
TRANSPORT:



Terex Finlay radial stacker

TRANSPORT DIMENSIONS

WORKING DIMENSIONS



SPECIFICATION:

Conveyor Length:	22.9M (75 ft)
Net Engine Power:	
Tier 3: Stage 3A CAT 4.4 engine:	4 cylinder diesel engine developing 83kw (111hp) @1800rpm
Tier 4F/ Stage IV:	Caterpillar C4.4 - 4 cylinder diesel engine developing 82kW (110 Hp) @ 1800 RPM
Portability:	Tracked

Shredders
Terex Ecotec Mid speed shredder – TDSV20

TRANSPORT DIMENSIONS
Length: 10545mm (34' 7")
Width: 2800mm (9' 2")
Height: 3400mm (11' 2")
Weight: 37,000Kg (81,400lbs) (dependent on options)

WORKING DIMENSIONS
Length: 13630mm (44' 8") (product belt @ 35°)
Width: 2800mm (9' 2")
Feed Height: 3400mm (11' 2")
Discharge Height: 3900mm (12' 10") - 1700mm (5' 7")

POWERPACK
Engine: • Scania DC13 Tier 4 Final (368kW / 493HP) (U.S. and EU.) • Scania DC13 Tier 3 (371kW / 497HP) (EU Only.)
CleanFix variable pitch cooling fan
Shredder drive: Twin Hydrostatic (independent shaft drive)
Fuel capacity: 500l

High Speed horizontal grinder for green waste
Vermeer HG6800TX

LENGTH
14.7 m (Transport)

WIDTH
3.1 m (Transport)

HEIGHT
3.7 m (Transport)

WEIGHT
41,730 kg

FUEL TYPE
Diesel

POWER
950 hp (708 kw)

Regards,

TJ
Site Manager
MET Recycling Pty Ltd
PO Box 6547, Silverwater NSW 1811
Email: ***Tj@metrecycling.com.au***
Phone: ***1300 638 123***

Appendix D – Site Photos

The following photographs show the site and surrounding development.

Photograph 1: South-eastern view along Bromage Road and development site.

Photograph 2: Western view along Bromage Road. Development site to left of photo.
(Source: Google Maps)

Photograph 3: South-western view of HEZ Drive and Bromage Road roundabout.
South-western view of HEZ Drive (left of photo) and Bromage Road (right of photo) roundabout. Development site will be accessed off Bromage Road. (Source: Google Maps)

Photograph 4: Looking south along HEZ Drive from the roundabout.
(Source: Google Maps)