VEOLIA

Construction Environmental Management Plan-Preloading Stage

37 Grand Avenue Camellia

November 2016

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Quality Information

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Abbreviations

Abbreviations

ANZECC	Australia and New Zealand Environment and Conservation Council
Cr III	Chrome III
Cr (VI)	Hexavalent Chromium
DA	Development Application
DCP	Development Control Plan
DPE	Department of Planning and Environment
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
EP&A	Environmental Planning and Assessment Act 1979 and Regulation 2000
EPL	Environment Protection Licence
HSEP	Health, Safety and Environment Plan
IMP	Incident Management Plan
JSEA	Job Safety and Environmental Analysis
LEP	Local Environmental Plan
NIMS	National Integrated Management System
OEH	Office of Environment and Heritage
POEO	Protection of Environment Operations Act 1997 and Regulation
RMS	Roads and Maritime Services
Site	37 Grand Avenue Camellia
T	Tonnes
Veolia	Veolia Australia and New Zealand
WHS	Work Health and Safety Act and Regulation 2011
WM Act	Water Management Act 2000

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Introduction

1. Introduction

Veolia is proposing to construct the Material Recycling Facility (MRF) capable of processing 200,000 tonnes per annum (tpa) pf general solid waste on the site, primarily dry waste from the commercial and industrial sector. The development involves the construction of a new enclosed building to house a multi stage processing system, including combination of processing equipment designed to separate the waste into recyclables for transfer to secondary markets, with the potential to allow for a refuse derived fuel stream for energy recovery. Residual material will be sent to a suitably licensed disposal facility, whilst recyclable materials would be sent out for sale in the commodities market.

The NSW Department of Planning and Environment (DPE) has assessed the State Significant development (SSD 4964) and granted Development Consent for the 'State Significant' development on 6 July 2016 in accordance with section 89E of the Environmental Planning and Assessment Act 1979 (EP&A Act).

A geotechnical review of the Site ground conditions, it was determined that it will be necessary to pre-load the site, for a period of 6-12 months prior to construction of the Material Recycling Facility. Further, to meet the Councils flooding policy criteria, it is necessary to increase the ground levels on the Site, which this preloading will also address. Consequently the Construction of the MRF will be carried out in two stages which will occur up to 12 months apart:

1. Preloading of the Site
2. Construction of the MRF

This CEMP relates to the Stage 1 – Preloading of the Site and has been prepared to detail the management and control measures to be implemented, in association with the preloading on the Site. This CEMP will need to be updated a re-submitted to DPE for approval prior to Stage 2 of the development.

1.1 Scope and Objectives of the CEMP

This CEMP and supplementary plans have been prepared to satisfy the requirements of the Conditions of Development Consent (refer Appendix A) while demonstrating that sound environmental management shall be followed. The management and control measures to be implemented in a manner to minimise adverse impacts on the environment.

The objectives of this CEMP are to:

- Provide a working environmental management tool to follow during the preloading of the Site;
- Comply with relevant environmental legislation, including the Conditions of Consent relating to the Site;
- Provide a means of implementing the recommended mitigation measures for the key environmental issues, associated with preloading , identified in the Environment Impact Statement (EIS) ;
- Define roles and responsibilities of the project management team and contractors during the preloading of the Site;
- Provide a guide for the interaction with relevant government authorities and other relevant stakeholders, including the community during the Preloading of the Site.

The CEMP should be read in conjunction with its supporting plans, which are presented as separate documents in Appendix B including:

- Water Management Plan

This CEMP is a live document and outlines the management strategies and control measures which will be reviewed and updated, where necessary, to reflect changes introduced by the redevelopment project team, Site specific outcomes, non-conformances and recommendations arising out of inspections, meetings and audits.

Introduction

1.2 Relevant Environmental Legislation

1.2.1 Environmental Planning and Assessment Act 1979

The Department of Planning and Environment has assessed the Development Application for the construction and operations of a material recycling facility and granted Development Consent on 6 July 2016 in accordance with section 89E of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts including economic and socials impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the development.

1.2.2 Protection of the Environment Operations Act 1997

The *Protection of the Environment Operations Act 1997* (POEO Act) relates to the management of pollution and waste disposal in NSW administered by the EPA. Part 1 of Schedule 1 of the POEO Act defines premise based scheduled activities that require an Environment Protection Licence (EPL).

Protection of the Environment Operations (Clean Air) Regulation 2010

The *Protection of the Environment Operations (Clean Air) Regulation 2010* prescribes emission concentration limits which apply to industries. The only emissions expected to be released by the preloading works are those from machinery during preloading. All machines and equipment used during the preloading works would comply with the provisions of this Regulation.

Protection of the Environment Operations (Waste) Regulation 2005

The *Protection of the Environment Operations (Waste) Regulation 2005* requires tracking of certain waste within NSW and between participating states. Each party must be authorised to store, transport or receive the specific type of waste. Schedule 1 of the Regulation identifies the types of waste which apply. In addition, the Regulation has specific reporting and record-keeping requirements. It is an offence under the POEO Act to wilfully or negligently dispose of waste in a manner that harms or is likely to harm the environment. Veolia will manage any solid or liquid wastes generated from the preloading works, in accordance with the requirements of the POEO Act.

1.2.3 Waste Avoidance and Recourse Recovery Act 2001

The importance of responsible resource management, including maximisation of the utility of resources and associated minimisation of disposal to landfill, is highlighted in the *Waste and Resource Recovery Act 2001* (WARR Act). The WARR Act is the principal piece of legislation governing waste and resource management in NSW, and objectives of the Act include:

- Encouraging the most efficient use of resources;
- Reducing environmental harm;
- Ensuring that resources are managed against the waste hierarchy of avoidance, resource recovery, and then disposal;
- Diversion of waste from landfill;
- Ensuring industry takes part in reducing and dealing with waste,

- Achieving integrated, state-wide waste and resource management planning and service delivery.

1.2.4 Contaminated Land Management Act 1997

The general objective of the *Contaminated Land Management Act 1997* (CLM 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 the CLM Act, contamination of land is defined as:

> *the presence in, on or under the land of a substance at a concentration above the concentration at which the substance is normally present in, on or under (respectively) land in the same locality, being a presence that presents a risk of harm to human health or any other aspect of the environment (CLM Act, s5).*

Section 105 of the CLM Act provides for the preparation of guidelines by the EPA to guide the assessment of site contamination in NSW. A detailed Site assessment has been undertaken in accordance with the EPA contaminated land assessment guidelines. The assessment concluded that the Site would require remediation prior to operation as a materials recycling facility.

1.2.5 Fisheries Management Act 1994

The *Fisheries Management Act 1994* provides for the conservation of the State's aquatic resources. The Act requires that potential impacts on threatened species and aquatic habitat be addressed during the environmental planning and assessment process.

To evaluate the potential location and impact of the preloading works on the surrounding mangroves and any other flora and fauna species, an ecological assessment was completed as part of the planning assessment process. Based on this assessment, It is not anticipated that any significant impact will occur on threatened aquatic species or aquatic habitats.

1.2.6 Maritime Services Act 1935

The *Maritime Services Act 1935* established the former Maritime Services Board. This Board has now been dissolved and under this Act its powers have been returned to the Minister for the Environment and subsequently delegated to RMS. Under section 13TA of the Act it is an offence to undertake prescribed activities, including removal of soil, sand, gravel, stone, rock or other material from prescribed land, without the express written permission of RMS.

Prescribed land is defined as:

- *land that is within a distance of ten metres measured horizontally on the landward side:*
- *from the top of the bank of any non-tidal waters, or*
- *from high water mark on the shore of any tidal waters,*
- *being in each case waters of which the bed is vested in the Board' (s13TA).*

1.2.7 Heritage Act 1977

The *Heritage Act 1977* was introduced to conserve the environmental heritage of NSW. Environmental heritage is defined as including buildings, works, relics or places which are of historic, scientific, cultural, social, archaeological, architectural, natural or aesthetic significance to the State.

There are no state-listed heritage items within the Site or nearby. The impacts of the development on heritage items have been assessed and the results are discussed in Section 8.3 of the EIS. There will be no direct or indirect impacts on listed heritage items.

1.2.8 Sydney Water Act 1994

An Act to establish a State owned corporation in relation to the supply of water, the provision of sewerage and stormwater drainage systems and the disposal of waste water in Sydney and other regions and certain other matters; to provide for the transfer of assets, rights and liabilities of the Water Board; to amend the *State Owned*

Corporations Act 1989; to amend the *Government Pricing Tribunal Act 1992* in relation to the fixing of maximum prices for government monopoly services; to amend certain other Acts; to repeal the *Water Board Act 1987*; and for other purposes.

As part of Approved Consent SSD 4964 Part B Condition B4, A Section 73 Compliance Certificate under the *Sydney Water Act 1994* must be obtained from Sydney Water prior to the commencement of construction. As the preloading phase of the Site doesn't require any connection or has impact on the systems, so the Section 73 Compliance Certificate is not required at this stage and will be obtained prior to Stage 2 of the development

1.3 Environmental Assessment

The Environmental Impact Statement (EIS) prepared by CH2MHILL in February 2013 assessed the potential construction and operational impacts of the development, which includes Stage 1 of the construction – preloading works.

1.4 Conditions of Consent

Table 1-1 outlines the conditions of the Development Consent No: SSD 4964

Table 1-1 Development Consent Requirements

Condition	Requirement	CEMP Reference
Schedule 2 **Part A Administrative Conditions** **Obligation to minimise harm to the Environment**		
A1.	The Applicant shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or decommissioning of the Development;	Noted
Terms of Consent		
A2.	The Applicant shall carry out the Development in accordance with the: a) EIS; b) RTS; c) Site layout plans and drawings ; and d) Management and Mitigation Measures.	Noted
A3.	If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this consent shall prevail to the extent of any inconsistency	Noted
A4.	The Applicant shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of: a) any reports, plans, strategies, programs or correspondence that are submitted in accordance with this consent; and b) the implementation of any actions or measures contained in these reports, plans, strategies, programs or correspondence.	Noted
Limits of Consent		

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Condition	Requirement	CEMP Reference
A5.	This consent lapses 5 years after the date from which it operates, unless the Development has physically commenced on the land to which the consent applies before the date on which the consent would otherwise lapse under Section 95 of the Act.	Noted
Statutory Requirements		
A6	The Applicant shall ensure that all licences, permits, and approvals/consents are obtained as required by law and maintained as required throughout the life of the Development. No condition of this consent removes the obligation for the Applicant to obtain, renew or comply with such licences, permits or approvals/consents.	Noted
Building Code of Australia		
A7	The Applicant shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures are constructed in accordance with the relevant requirements of the *Building Code of Australia*.	Noted
Limits of Consent		
A8	**Waste limits** The Applicant shall not receive or process on the site more than 200,000 tonnes of waste per calendar year.	Not Triggered
A9	**Waste type** The Applicant shall not cause, permit or allow any materials or waste generated outside the site to be received at the site for storage, use, treatment, processing, reprocessing, or disposal on the site, except as expressly permitted by an EPL.	Not Triggered
A10	**Operation of Plant and Equipment** The Applicant shall ensure that all plant and equipment used for the Development is: a) maintained in a proper and efficient condition; and b) operated in a proper and efficient manner.	Noted
A11	**Demolition** The Applicant shall ensure that all demolition work is carried out in accordance with *Australian Standard AS 2601:2001: The Demolition of Structures*, or its latest version.	Noted
A12	**Staged Submissions of Plans or Programs** With the approval of the Secretary, the Applicant may: a) submit any strategy, plan or program required by this consent on a progressive basis; and/or b) combine any strategy, plan or program required by this consent	Noted
A12	**Surrender of Consents** In order for the development of land to proceed in a coordinated and orderly manner and to avoid potential conflicts with this consent, the Applicant shall and in the manner prescribed by clause 97 of the Regulation, surrender the development consents described in Table 1 prior to the issue of an Occupation Certificate for the Development	Noted

Introduction

<table>
<tr><th>Condition</th><th>Requirement</th><th>CEMP Reference</th></tr>
<tr><td></td><td>

Table 1-Consents to be surrendered

<table>
<tr><th>Determination date</th><th>DA Number</th><th>Details</th></tr>
<tr><td>3 December 1969</td><td>1054/J</td><td></td></tr>
<tr><td>26 May 1970</td><td>G114/70</td><td></td></tr>
<tr><td>23 July 1992</td><td>DA 39288/L91</td><td>Food waste recycling depot (grease trap plant)</td></tr>
<tr><td>15 March 1996</td><td>DA 96/00019/DJ</td><td>Upgrade of existing waste water treatment plant and the construction of two (2) vertical tanks</td></tr>
<tr><td>12 July 1996</td><td>DA 95/00886/DJ A</td><td>Relocate the already approved metal clad workshop towards the street frontage</td></tr>
<tr><td>28 October 1997</td><td>DA 97/00532/DJ</td><td>To erect an awning to an existing wash bay and
to extend an existing storage bay</td></tr>
<tr><td>9 July 2001</td><td>DA IT/01476/99</td><td>To extend and upgrade an existing liquid waste treatment facility</td></tr>
<tr><td>5 April 2005</td><td>DA/532/1997/A</td><td>Section 96 application to modify Council original approval and in increase the height of the storage bays</td></tr>
<tr><td>22 October 2007</td><td>DA/658/2007</td><td>Conversion of a vehicle workshop to a packaged waste store</td></tr>
<tr><td>4 December 2007</td><td>DA/848/2007</td><td>Alterations and additions including replacement of 3 liquid storage tanks, increase in the size of the bunded area, extension of soil bay awning and additional soil bays</td></tr>
</table>

</td><td></td></tr>
<tr><td>A14</td><td>

Meteorological Monitoring

Within 14 days of the issue of a Construction Certificate for the Development, the Applicant shall ensure that there is a suitable meteorological station on the site that complies with the requirements in the latest version of the *Approved Methods for Sampling of Air Pollutants in New South Wales. The Applicant shall operate the meteorological station for the life of the Development.*

</td><td>Not Triggered</td></tr>
<tr><td>A15</td><td>

Protection of Public Infrastructure

The Applicant shall:

</td><td>Not Triggered</td></tr>
</table>

Condition	Requirement	CEMP Reference
	a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the Development; and b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the Development.	
A16	**Site Audit Statement** Prior to the issue of a Final Occupation Certificate for the Development, the Applicant shall obtain from a Site Auditor, a Site Audit Statement and a Site Audit Report which demonstrates that the site is suitable for its intended use(s).	Not Triggered
Dispute Resolution		
A18	In the event of a dispute between the Applicant and a public authority, in relation to an applicable requirement in this consent or relevant matter relating to the Development, either party may refer the matter to the Secretary for resolution. The Secretary's determination of any such dispute shall be final and binding on the parties.	Noted
A18	**Developer Contributions** Prior to the issue of a Construction Certificate for the development, unless otherwise agreed with Council, the Applicant shall pay development contributions to Parramatta Council calculated in accordance with *Section 94A Development Contributions Plan (Amendment No. 4) Parramatta City Council 20 May 2015*.	Noted
Part B Environmental performance **Waste Management**		
B1	**Waste Monitoring Program** From the commencement of operation, the Applicant shall implement a Waste Monitoring Program for the Development. The program must: a) be prepared by a suitably qualified and experienced person(s) prior to the commencement of operation; b) include suitable provision to monitor the: (i) quantity, type and source of waste received on site; and (ii) quantity, type and quality of the outputs produced on site. c) ensure that: (i) all waste that is controlled under a tracking system has the appropriate documentation prior to acceptance at the site; and (ii) staff receive adequate training in order to be able to recognise and handle any hazardous or other prohibited waste including asbestos**.**	Not Triggered
B2	**Waste storage and processing** All processed and unprocessed waste must be stored within the building on the site.	Not Triggered
B3	**Pests, vermin and noxious weed management** The Applicant shall: a) implement suitable measures to manage pests, vermin and declared noxious weeds on	Section 4.7

Condition	Requirement	CEMP Reference
	the site; and b) inspect the site on a regular basis to ensure that these measures are working effectively, and that pests, vermin or noxious weeds are not present on site in sufficient numbers to pose an environmental hazard, or cause the loss of amenity in surrounding area.	
Soil and Water		
B4	**Compliance Certificate** A Section 73 Compliance Certificate under the *Sydney Water Act 1994* must be obtained from Sydney Water prior to the commencement of construction.	Section 1.2.8
B5	**Pollution of Waters** The Development shall comply with Section 120 of the POEO Act, which prohibits the pollution of waters, except as expressly provided in an EPL.	Noted
B6.	**Water Management Plan** Prior to the commencement of construction of the Development, the Applicant shall prepare a Water Management Plan to the satisfaction of the Secretary. The plan must: a) be prepared by a suitably qualified and experienced person(s) in consultation with Council; b) include the details of: (i) the Water Management System (see Condition B8); (ii) erosion and sediment control measures (see Condition B9); and (iii) bunding (see Condition B11).	Water Management Plan
B7.	The Applicant shall carry out the Development in accordance with the Water Management Plan approved by the Secretary (as revised and approved by the Secretary from time to time), unless otherwise agreed by the Secretary.	Noted
B8.	**Water Management System** The Applicant shall operate a Water Management System for the site. The system must: a) be designed by a suitably qualified and experienced person(s) in consultation with Council; b) include: (i) a berm at the front of the site, which is designed to prevent catchment flows up to the 1 in 20 year Average Recurrence Interval event from entering the site; (ii) drainage for surface water toward the Parramatta River where possible; (iii) one way devices to prevent the ingress of river water to the water management system; and (iv) clean surface water diversion around operational areas of the site	Not Triggered
B9	**Erosion and Sediment Control** The Applicant shall implement erosion and sediment control measures on-site in accordance with *Managing Urban Stormwater: Soils and Construction Vol 1.* (Landcom,	Water Management Plan

Condition	Requirement	CEMP Reference
	2004).	
B10	**Acid Sulphate Soils** The Applicant shall implement acid sulfate soils management measures in accordance with the guidance in the NSW Acid Sulfate Soil Management Advisory Committee's *Acid Sulfate Soil Manual.*	Not Triggered
B11	**Bunding** The Applicant shall store all chemicals, fuels and oils used on-site in appropriately bunded areas in accordance with the requirements of all relevant Australian Standards, and/or EPA's *Storing and Handling Liquids: Environmental Protection – Participant's Manual 2007.*	Not Triggered
B12	**Flood management** The Applicant shall ensure that: a) the finished floor level of any new building is a minimum of 0.5 metres above the 1 in 100 year Average Recurrence Interval flood level; and b) any part of a new structure is designed and constructed to be structurally sound during a flood event equivalent to the Probable Maximum Flood.	Not Triggered
B13	Prior to the commencement of construction of the Development, the Applicant shall prepare a flood emergency response plan to the satisfaction of the Secretary. The plan must: a) be prepared by a suitably qualified and experienced person(s) in consultation with Council; b) address the provisions of the *Floodplain Risk Management Guideline* (25 October 2007, Office of Environment and Heritage); c) include the details of the flood emergency responses for both construction and operation phases of the development; d) include details of: (i) site planning and design features; (ii) predicted flood levels; (iii) flood warning time and flood notification; (iv) evacuation and refuge protocols; and (v) awareness training for employees and contractors.	Not Triggered
B14	The Applicant shall carry out the Development in accordance with the flood emergency response plan approved by the Secretary (as revised and approved by the Secretary from time to time), unless otherwise agreed by the Secretary.	Noted
B15	The Applicant shall: a) ensure that only VENM, or ENM, or other material approved in writing by the EPA is used as fill on the site; b) keep accurate records of the volume and type of fill to be used; and	Section 2.3.1

Condition	Requirement	CEMP Reference
	c) make these records available to the Department upon request.	
Air Quality		
B16	**Odour** The Applicant shall ensure the Development does not cause or permit the emission of any offensive odour (as defined in the POEO Act)	Section 3.1.2
B17	**Air emissions mitigation** The Applicant shall: a) carry out the Development so that air and odour emissions are minimised during all meteorological conditions; and b) implement best management practice, including all reasonable and feasible air and odour emission mitigation measures to minimise emissions from the Development.	Section 4.1
B18	**Construction emission mitigation** During construction, the Applicant shall ensure that: a) all vehicles on site do not exceed a speed limit of 30 kilometres per hour; b) all loaded construction vehicles entering or leaving the site have their loads covered; and c) all loaded construction vehicles leaving the site are cleaned of dirt, sand and other materials before they leave the site, to avoid tracking these materials on public roads.	Section 4.2
B19	**Odour Audit** The Applicant shall carry out an Odour Audit of the Development no later than 6 months after operation of the Development. The audit must: a) be carried out by a suitably qualified, experienced and independent person(s), whose appointment has been endorsed by the Secretary; b) audit the Development in full operation; c) include a summary of odour complaints and any actions that were carried out to address the complaints; d) validate the Development against odour impact predictions in the EIS; e) review design and management practices in the Development against industry best practice for odour management; and f) include an action plan that identifies and prioritises any odour mitigation measures that may be necessary to reduce odour emissions.	Not Triggered
B20	Within six months of commissioning the Odour Audit, or as otherwise agreed by the Secretary, the Applicant shall submit a copy of the audit report to the Secretary, together with the Applicant's response to any recommendations contained in the audit report.	Not Triggered
B21	The Applicant shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of the Odour Audit report.	Not Triggered
Noise and Vibration		

Introduction

<table>
<tr><th>Condition</th><th>Requirement</th><th>CEMP Reference</th></tr>
<tr><td>B22</td><td>

Construction and operation hours

The Applicant shall comply with the construction and operation hours in Table 2 unless otherwise specified in the EPL and agreed in writing by the Secretary.

Table-2 Construction Hours

<table>
<tr><th>Activity</th><th>Day</th><th>Hours</th></tr>
<tr><td rowspan="3">Construction</td><td>Monday-Friday</td><td>7am to 6pm</td></tr>
<tr><td>Saturday</td><td>8am-1 pm</td></tr>
<tr><td>Sunday & Public Holidays</td><td>Nil</td></tr>
<tr><td>Operation (Waste processing)</td><td>Any day</td><td>6am to 10pm</td></tr>
<tr><td>Operation (Delivery & dispatch)</td><td>Any day</td><td>Any time</td></tr>
</table>

</td><td>Section 2.4</td></tr>
<tr><td>B23</td><td>Despite Condition B22, any activity may occur at any time if that activity is required to be performed by police or other authorities for safety reasons; and/or if there is an on-site emergency that poses an immediate danger to personnel or equipment; and/or the operation or personnel or equipment is endangered. In such circumstances, prior notification shall be provided to the EPA and any affected residents as soon as possible, or within a reasonable period in the case of emergency.</td><td>Noted</td></tr>
<tr><td>B24</td><td>

Noise mitigation

The Applicant shall:

a) implement best practice, including all reasonable and feasible noise management and mitigation measures to prevent and minimise operational, low frequency and traffic noise generated by the Development;

b) minimise the noise impacts of the Development during adverse meteorological conditions;

c) install a steel fence on the northern and north-eastern side of the truck path;

d) maintain the effectiveness of any noise suppression equipment on plant at all times and ensure defective plant is not used operationally until fully repaired; and

e) regularly assess noise emissions and relocate, modify and/or stop operations to ensure compliance with the relevant conditions of this consent.

</td><td>Section 4.3</td></tr>
<tr><td>B25</td><td>

Noise criteria

The Applicant shall ensure that the operational noise generated from the Development does not exceed the criteria in Table 3:

Table 3: Sleep Disturbance Criteria

<table>
<tr><td>Receiver/Location</td><td>Sleep Disturbance Criteria(LA1, 1min)</td></tr>
</table>

</td><td>Not Triggered</td></tr>
</table>

Condition	Requirement	CEMP Reference
	M1 John Street and M2 Milton Street: 56	
B26	**Vibration criteria** The Applicant shall ensure that vibration resulting from the Development does not exceed the continuous or impulsive vibration criteria in EPA's *Assessing Vibration: A Technical Guideline* (February 2006) at residential receivers.	Refer to section 4.3
Traffic and Access		
B27	**Operating Conditions** The Applicant shall ensure that: a) internal roads, driveways and parking (including grades, turn paths, sight distance requirements, aisle widths, aisle lengths and parking bay dimensions) associated with the Development are constructed and maintained in accordance with the latest versions of *Australian Standard AS 2890.1* and *AS 2890.2*; b) the swept path of the longest vehicle entering and exiting the subject site, as well as manoeuvrability through the site, is in accordance with *AUSTROADS Guide to Road Design*; c) the Development does not result in any vehicles queuing on the public road network; d) all vehicles are wholly contained on site before being required to stop; e) all loading and unloading of materials is carried out on site; f) turning areas in the car park are kept clear of any obstacles, including parked cars, at all times; g) all trucks entering or leaving the site with loads have their loads covered; h) all loaded vehicles leaving the site are cleaned of dirt, sand and other materials before they leave the site, to avoid tracking these materials on public roads; and i) all vehicles enter and leave the site in a forward direction.	Not triggered
Hazard and Risk		
B28	**Fire Management** The Applicant shall: a) implement suitable measures to minimise the risk of fire on-site; b) extinguish any fires on-site promptly; and c) maintain adequate fire-fighting capacity on-site.	Section 5.2.2
Visual Amenity		
B29	**Lighting** All external lighting associated with the Development shall be mounted, screened, and directed in such a manner so as not to create a nuisance to the surrounding environment, properties and roadways. The lighting shall be the minimum level of illumination necessary and shall comply with *Australian Standard AS 4282 1997*.	Not Triggered

Introduction

Condition	Requirement	CEMP Reference
Landscaping		
B30	Prior to the commencement of construction of the Development, the Applicant shall prepare a Landscape Management Plan to the satisfaction of the Secretary. The plan shall: a) detail the landscaping measures including vegetation that is to be planted to minimise the visual impact of the Development, particularly from adjoining premises and public vantage points; and b) include measures for monitoring and maintenance of revegetated areas.	Section 4.8
B31	The Applicant shall carry out the Development in accordance with the Landscape Management Plan approved by the Secretary (as revised and approved by the Secretary from time to time),unless otherwise agreed by the Secretary.	Not Triggered
Heritage		
B32	The Applicant shall cease all works on site in the event that any Aboriginal cultural object(s) or human remains are uncovered. If human remains are uncovered, you must immediately stop work, not further disturb the remains and notify NSW Police. OEH and the Aboriginal community must be contacted if the remains are suspected to be of Aboriginal origin. If other Aboriginal objects are discovered, you must immediately stop work, not further disturb the objects and notify OEH by calling Environment Line on 131 555. Works must not resume in the designated area until the relevant written consent is received from NSW Police and/or OEH. Any Aboriginal objects discovered must be registered on the Aboriginal Heritage Management Information System (AHIMS), in accordance with section 89A of the *National Parks and Wildlife Act 1974*.	Section 3.6.2& Section 4.6
B33	The Applicant shall: a) install and maintain a perimeter fence and security gates on the site; and b) ensure that the security gates on site are locked whenever the site is unattended.	Noted
Part C: Environment Management, Reporting & Auditing **Environment Management**		
C1	**Construction Environment Management Plan** Prior to the commencement of construction of the Development, the Applicant shall prepare a Construction Environmental Management Plan to the satisfaction of the Secretary. The Plan must: a) be prepared by a suitably qualified and experienced person(s); b) describe all activities to be undertaken on the site during construction, including a clear indication of construction stages; c) identify the statutory approvals that apply to the Development; d) outline all environmental management practices and procedures to be followed during construction (e.g. construction traffic management and construction noise and vibration management), including all reasonable and feasible mitigation measures to protect the amenity of the surrounding environment; e) detail how the environmental performance of construction will be monitored, and what actions will be taken to address identified adverse environmental impacts;	Noted Section 2.3.1 Section 1.4 Section 4 Section 6.3,6.4,6.5 & 6.6

Condition	Requirement	CEMP Reference
	f) describe of the roles and responsibilities for all relevant employees involved in construction; g) include arrangements for community consultation and complaints handling procedures during construction; and h) consolidate the construction related parts of any management plans and monitoring programs required in the conditions of this consent;	Section 5.1 Section 6.2 Section 1-Introduction, Section 1.1& Section 6.5
C2	The Applicant shall carry out the development in accordance with the Construction Environmental Management Plan approved by the Secretary (as revised approved by the Secretary from time to time), unless otherwise agreed by the Secretary.	Noted
C3	**Operational Environmental Management Strategy** Prior to the commencement of operation, the Applicant shall prepare an Operational Environmental Management Strategy to the satisfaction of the Secretary. This strategy must: a) be prepared by a suitably qualified and experienced person(s); b) provide a strategic framework for environmental management of the Development; c) identify the statutory approvals that apply to the Development; d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the Development; e) describe in general how the environmental performance of the Development would be monitored and managed; and f) describe the procedures that would be implemented to: (i) keep the local community and relevant agencies informed about the operation and environmental performance of the Development; (ii) receive, handle, respond to, and record complaints; (iii) resolve any disputes that may arise; (iv) respond to any non-compliance; and (v) respond to emergencies.	Not Triggered
C4	The Applicant shall carry out the Development in accordance with the Operational Environmental Management Strategy approved by the Secretary (as revised approved by the Secretary from time to time), unless otherwise agreed by the Secretary.	Not Triggered
C5	**Management Plan Requirements** The Applicant shall ensure that the environmental management plans/strategies required under this consent are prepared in accordance with any relevant guidelines and include: a) detailed baseline data; b) a description of: (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions); (ii) any relevant limits or performance measures/criteria;	Noted

Condition	Requirement	CEMP Reference
	(iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the Development or any management measures; (iv) the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria; c) a program to monitor and report on the: (i) impacts and environmental performance of the Development; (ii) effectiveness of any management measures; (iii) a contingency plan to manage any unpredicted impacts and their consequences; (iv) a program to investigate and implement ways to improve the environmental performance of the Development over time; d) a protocol for managing and reporting any: (i) incidents; (ii) complaints; (iii) non-compliances with statutory requirements; and (iv) exceedances of the impact assessment criteria and/or performance criteria; and (v) a protocol for periodic review of the plan.	
C6	The Secretary may waive some of the requirements in Condition C5 if they are unnecessary or unwarranted for particular management plans/strategies.	Noted
Reporting		
C7	**Incident Reporting** The Applicant shall notify, at the earliest opportunity, the Secretary and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the Development, the Applicant shall notify the Secretary and any other relevant agencies as soon as practicable after the Applicant becomes aware of the incident. Within 7 days of the date of the incident, the Applicant shall provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.	Section 5.4
C8	**Regular Reporting** The Applicant shall provide regular reporting on the environmental performance of the Development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.	Section 5.5
C9	**Independent Environmental Audit** Within 1 year of the date of this consent and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the Development. This audit must: a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary; b) led by a suitably qualified auditor, and include experts in fields specified by the	Section 6.4

Condition	Requirement	CEMP Reference
	Secretary; c) include consultation with the relevant agencies; d) assess the environmental performance of the Development and assess whether it is complying with the requirements in this consent, and any other relevant approvals and relevant EPL/s (including any assessment, plan or program required under the approvals); e) review the adequacy of any approved strategy, plan or program required under the abovementioned consents; and f) recommend measures or actions to improve the environmental performance of the Development, and/or any strategy, plan or program required under the consents.	
C10	Within three months of commissioning this audit, or as otherwise agreed by the Secretary, the Applicant shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.	Noted
C11	**Annual Review** Within 1 year of the date of this consent, and every year thereafter, the Applicant shall review the environmental performance of the Development. This review must: a) describe the Development that was carried out in the previous calendar year, and the Development that is proposed to be carried out over the next year; b) include a comprehensive review of the monitoring results and complaints records of the Development over the previous calendar year, which includes a comparison of the results against the: (i) the relevant statutory requirements, limits or performance measures/criteria; (ii) requirements of any plan or program required under this consent; (iii) the monitoring results of previous years; and (iv) the relevant predictions in the EIS; c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance; d) identify any trends in the monitoring data over the life of the Development; e) identify any discrepancies between the predicted and actual impacts of the Development, and analyse the potential cause of any significant discrepancies; and f) describe what measures will be implemented over the next year to improve the environmental performance of the Development.	Section 6.6
C12	**Revision of Strategies, Plans and Programs** Within 3 months of the submission of an: a) annual review under Condition C11 above; b) incident report under Condition C7 above; c) audit under Condition C9 above; or d) any modification to this consent,	Section 6.6

Condition	Requirement	CEMP Reference
	the Applicant shall review, and if necessary revise, the strategies, plans, and programs required under this consent.	
C13	The Applicant shall ensure that the operation of the Development is undertaken in accordance with all relevant updated and/or amended strategies, management plans and programs approved by the Secretary (or as revised and approved by the Secretary), unless otherwise agreed by the Secretary.	Noted
C14	**Access to the Information** The Applicant shall: a) ensure a 24 hour contact telephone number for the site is posted on the front fence of the site, and on its website; b) make copies of the following publicly available on its website: (i) the documents referred to in Condition A2; (ii) all current statutory approvals for the Development; (iii) all approved strategies, plans and programs required under the conditions of this consent; (iv) a comprehensive summary of the monitoring results of the Development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs; (v) a complaints register, updated on a monthly basis; (vi) the annual reviews of the Development; (vii) any independent environmental audit of the Development, and the Applicant's response to the recommendations in any audit; and (viii) any other matter required by the Secretary; and c) keep this information up to date.	Section 6.2

2. Project Overview

2.1 Site Description

The Site is located within the industrial precinct in the north-eastern part of the Camellia Peninsula; NSW. The Camellia Peninsula is an approximately triangular area of land bounded by the Parramatta River to the north, Duck River to the south and James Ruse Drive to the west. The Site is located on the north-eastern part of the Peninsula and fronts the Parramatta River.

The site was used until August 2009 as a waste liquid treatment plant and as depot for waste collection vehicles. Waste liquid treatment operations have since ceased, however the majority of infrastructure related to these operations is demolished (demolition works completed under Development Consent no: DA/459/2015,approved by the Parramatta city Council) except car park area at the rear and three existing liquid waste storage tanks along southern sections of western site boundary.

Identification information for the site is detailed below in table 2-1.

Table 2-1 Site Identification

Title	Details
Street Address	37 Grand Avenue, Camellia, NSW
Property Description	Lot 1 Deposited Plan (DP) 539890
Property Size	2,023 ha
Local Government Area	Parramatta Council
Current Land Use	Vacant
Subdivision	No subdivisions are planned
Zoning-Existing and ongoing	IN3 Heavy Industrial

2.2 Surrounding Land

The land uses of the areas surrounding the Site are described in the following table 2-2.

Table 2-2-Site Surrounds and Potential Receptors

Direction	Details
North	Parramatta River, with mangroves on foreshore (NSW Maritime land).The foreshore is approximately 2.5 metres below average site level. A ferry terminal is present directly opposite the site on the opposite side of the Parramatta River. Open space, residential and commercial/industrial properties are present on the opposite bank of the Parramatta River.
South	Grand Avenue, with industrial uses beyond: Sami Bitumen and SITA. A 1200mm diameter water main runs under Grand Avenue. Grand Avenue is approximately level with the site.
East	Asciano, container stacking, recently sold. The land is sealed has a ground level approximately between 0.6m and 0.8m higher than the site, at the boundary This land is also a declared Cr (VI) remediation site. The Parramatta River bends from the north of the site around to the east of the shipping container storage yard.

West	Along northern section of western site boundary: Concrete recycling facility, with a building and large stockpile adjacent to the boundary. Ground level is approximately 0.4 metre above site level Along southern section of western site boundary: Earth Power, foods waste processing. The ground level is approximately 2 metre higher that at the site.

Potential human receptors for contamination at the Site are predominantly the workers at the Veolia facility and potentially workers at adjacent properties. The closest sensitive human receptors reside approximately 215 m to the north-east of the Site, on the opposite side of the Parramatta River. Due to the dense industrial area along the riverbank of the Camellia peninsula, absence of pathways and dense mangrove vegetation the access for general public to the foreshore from Grand Avenue will be restricted. The identified receptor for the shallow groundwater and seepage water at the Site is the adjacent mangroves and Parramatta River.

2.3 Re-development

Veolia is proposing to develop a Material Recycling Facility (MRF) capable of processing up to 200,000 tonnes per annum (tpa) of general solid (non-putrescible) waste on the Site, primarily dry waste from the commercial and industrial sector.

The development involves the construction of a new enclosed building to house a multi-stage processing system and new stormwater management system. The multi-stage processing system will include a combination of processing equipment designed to separate the wash into recyclables for transfer to secondary markets. The MRF will reduce the volume of waste send to landfill and contribute to the local area in terms of employment and expenditure

2.3.1 Construction activities

Construction of the MRF will be carried out in two stages that include:

1. Preloading the Site
2. Construction of the MRF

Works during the preloading phase will involve ground compaction, followed by preloading and levelling the Site with imported fill materials. Imported fill used will be a well graded material with a maximum particle size of 100mm. Imported fill material will be only VENM, or ENM, or other material approved in writing by the EPA.

Details of the pre-loading and levelling are shown in drawings C020, C021, C022 (Refer to the Appendix C)

Along with raising the Site levels above the existing pavement, the filling placed over the Site will be left until consolidation settlement within the subsurface layers is achieved which is predicted to take between 6 and 12 months. Ground settlement will be monitored over the timeframe. Once monitoring results confirm that 90% of the consolidation settlement is reached, construction of the MRF will commence.

2.4 Construction Hours

The preloading activities will be restricted to the construction hours specified in the table 2-3.

Table 2-3 Operating Hours

Activity	Day	Hours
Construction	Monday - Friday	7:00am – 6:00pm
	Saturday	8:00am – 1:00pm
	Sunday & Public Holidays	Nil

3. Predicted Construction Impacts

Construction environmental impacts for the 37 Grand Ave Camellia were identified and evaluated in the EIS. This includes potential impacts based on the hours of construction, movements of personnel and the proposed plant and equipment to be utilised.

The results of the risk assessment indicated that cumulative impacts from the parameters like to cause environmental impact during the construction phase of the Site would be low to moderate.

The CEMP has been prepared on the basis of this and the management strategies detailed therein providing the mitigation measures for the likely environmental impacts.

A summary of the key environmental risks of this is provided in Table 3.1 below.

Table 3-1 Construction Key Environmental Risks

Issue	Construction Environmental Impacts	Comments
Air quality	Dust emissions and greenhouse gas emission associated with the construction of Site	Management strategy and control measure are presented in the Section 4.1
Noise and Vibration	Noise and vibration impacts	Management strategy and control measure are presented in the Section 4.3
Traffic	Impact on main site access road, local road network and onSite.	Management strategy and control measure are presented in the CTMP and section 4.2
Waste	Waste generation, litter. Asbestos containment material (preloading work)	Management strategy and control measure are presented in the CWMP, and section 4.5
Heritage	No	Management strategy and control measure are presented in, section 4.6.

A thorough assessment of potential environmental risks associated with any construction activities will be undertaken by the Contractor in consultation with Veolia prior to any Site works being undertaken.

This review included the following:

- Specified construction activities which are within the defined scope of works;
- Identified environmental aspects and impacts associated with that scope of works;
- Evaluated the inherent and residual risk associated with environmental hazards and specify mitigation measures for identified environmental risks.

The Contractor will be responsible for maintaining and updating the risk register following any change to scope or work method that affects the risk to environment.

Mitigation measures shall meet or exceed the standard set out in this CEMP.

A summary of all environmental parameters that were considered in the EIS with predicted impacts from the preloading phase of the Site development are highlighted below.

3.1 Air Quality

An assessment of the predicted air quality impacts during the construction phase of the Site was undertaken in the EIS (CH2MHILL, 2013). The modelling indicated that the identified air quality pollutant emissions from the preloading process are unlikely to have any significant or prolonged effect at any off-site receiver.

Predicted Impacts

3.1.1 Existing Environment

The Site was most recently used for bin maintenance and storage although these operations ceased in June 2012. The operational area of the Site is currently capped with concrete and asphalt which presents minimal opportunities for dust generation and dispersal. The construction zone consists of a grassed area along the foreshore of the Parramatta River and mudflats reaching a maximum of 5 m into the wetland area.

The closest EPA air quality monitoring site is located at Chullora, approximately 10 km to the south of the Site. This monitoring site monitored ozone, carbon monoxide, nitrogen monoxide, sulphur dioxide, nitrogen dioxide, fine particles, wind speed, wind direction, ambient temperature and relative humidity. Given the distance from the Site, this suite of air quality constituents is unlikely to be representative of the existing air quality at the Site. Monitoring for dust deposition, including the presence of trivalent chromium and hexavalent chromium has been undertaken at the Site during March and April 2012. This monitoring identified that the levels of total solids were above the EPA criteria for dust deposition (with recordings of 4.4 g and 6.1 g exceeding the 4 g/m2/month criteria limit (DEC, 2005)). However, this could be the result of the Site proximity to operations at Concrete Recyclers and the unsealed neighbouring site. No trivalent or hexavalent chromium was identified in dust deposition samples collected on the Site.

3.1.2 Construction Impacts

During preloading, the local air quality could potentially be impacted on as a result of the following:

- dust generation from preloading and levelling the Site with imported fill materials, ground compaction works and the movement of machinery and trucks;
- exhaust emissions (mainly diesel exhaust) from construction traffic and machinery.

Dust Generation

Preloading and levelling of the Site with the imported fill material will present opportunities for dust generation.

It is expected that any dust generated during construction will be localised to the construction zone along the embankment. The nearest residential areas, located 230 m north east of the Site, are not expected to be impacted by dust due to protection provided by the mangroves and the distance from the Site and the low potential for significant dust generation as a result of the wet nature of the excavated estuarine sediment. However, there is a potential for dust to affect construction contractor personnel.

Control measures to be implemented to manage dust generation during the preloading stage are discussed further in Section 4.1.

Odour

No fugitive odour emissions are anticipated during the preloading of the Site due to no potential odour source on Site during this stage, therefore odour controls have not been considered as part of this CEMP.

Exhaust Emissions

Exhaust emissions, such as diesel exhaust from construction traffic and machinery, have the potential to temporarily impact on local air quality during preloading.

Given the relatively low number of vehicles and machinery required for preloading compared to existing traffic at the Camellia industrial area, exhaust emissions are unlikely to cause significant impacts on the local and regional air quality. However, vehicle and machinery exhaust systems, will be maintained so that exhaust emissions comply with relevant standards and exhaust emissions are kept to a minimum.

3.2 Traffic

3.2.1 Existing Traffic Volumes

The main northern access to the Site is via Grand Avenue from James Ruse Drive. The intersection of James Ruse Drive and Grand Avenue is signalised where traffic can access areas to the north, west south or east. From this intersection, both the M4 Motorway and Parramatta Road can easily be reached. The main southern access to the Site links it from Parramatta Road via the Rosehill Gardens Racecourse.

3.2.2 Impact

Preloading of the Site is expected to take approximately 11 months, commencing late 2016. The anticipated traffic generated determined for the construction works is presented below.

It is noted here that there is likely to be variations in the amount of materials moved to and from the Site and thus there will be variations in the actual daily construction vehicle generation. An indicative construction timeline and truck volumes are summarised in Table 3-2 below

Table 3-2 Indicative Construction Timeline and Truck Volumes

Stages	Construction Activities	Maximum truck movements per day	Indicative timing
Stage 1	Preloading of the Site	60 truck movements/ day	over a 3-week period
Stage 2	Compaction	N/A	over a period of approximately 12 months
Stage 5	Removal of the excess material	5-10 truck movements/ day	over a period of 1 week

Construction traffic will have temporary noise impacts and may cause minor congestion/traffic disruptions in the surrounding areas. There is an existing carpark within the Site that will be utilised for construction traffic parking and deliveries.

Provided that mitigation measures outlined in Section 4.2 are undertaken, it is unlikely that the preloading would have a significant adverse impact on traffic in the area

3.3 Noise and Vibration

A noise assessment was conducted by Bridges Acoustics Pty Ltd to assess the predicted construction and traffic noise levels generated as a result of the construction works.

3.3.1 Existing Noise Environment

The Site is surrounded by Parramatta River to the north, EarthPower and Concrete Recyclers to the west, a vacant lot previously owned by Asciano that was previously a container handling facility to the east and the Shell Refinery to the south. Given the industrial nature of the area, the neighbouring properties are considered to be relatively insensitive to environmental noise. The nearest sensitive noise receivers are the residences located in and around John Street, Rydalmere (approximately 230 m from the Site).

3.3.2 Construction Noise Criteria

No exceedance in noise impact above background levels from construction noise emissions is anticipated as per the EIS findings. Should cumulative noise emissions from the preloading phase of the Site result in noise complaints, , a noise monitoring program shall be established to provide information to support ongoing noise management during construction works.

3.3.3 Noise Impacts

Due to the industrial nature of the area, the distance from residential dwellings and the fact the works will mainly be carried out at ground level, it is not expected that construction noise will cause a significant impact on the neighbouring properties. Construction noise will be temporary with an expected maximum schedule of 4 weeks. The following activities are likely to contribute to construction noise:

- vehicle and staff movements around the Site
- generator and intermittent compressor operation to power equipment onSite

3.3.4 Construction Vibration Criteria

The Construction Vibration criterion is developed in accordance with the EPA's Assessing Vibration: Technical Guideline (February 2006) at residential receivers which outlines that the continuous or impulsive vibration not to exceed the criteria in Table 3-3.

Table: 3-3 Construction Vibration Criterion

		Preferred values		**Maximum values**	
Location	Assessment period1	z-axis	x- and y-axes	z-axis	x- and y-axes
Continuous vibration					
Critical areas2	Day- or night-time	0.0050	0.0036	0.010	0.0072
Residences	Daytime	0.010	0.0071	0.020	0.014
	Night-time	0.007	0.005	0.014	0.010
Impulsive vibration					
Critical areas2	Day- or night-time	0.0050	0.0036	0.010	0.0072
Residences	Daytime	0.30	0.21	0.60	0.42
	Night-time	0.10	0.071	0.20	0.14

1-Daytime is 7.00 am to 10.00 pm and night-time is 10.00 pm to 7.00 am

3.3.5 Vibration Impacts

Ground vibration may be caused by compaction but is not anticipated to affect any residences, buildings or structures.

3.4 Water

During the preloading phase, it is unlikely that groundwater will be encountered or disturbed, the on Site, water will be managed as per the Water Management Plan (refer to Appendix B).

3.5 Waste

Under the POEO Act, it is an offence to 'without lawful authority, wilfully or negligently dispose of waste in a manner which harms or is likely to harm the environment'. Accordingly, the requirements of the POEO Act will need to be met during the project.

All waste material removed from Site is assessed and classified in accordance with NSW EPA Waste Classification Guidelines.

Types of waste material that could be generated during the preloading stage include:

- general construction waste such as excess preloading material;
- miscellaneous waste brought on-Site by workers such as food waste, paper, plastic and glass material

Management strategies for waste generated during the construction phase of the 37 Grand Avenue Camellia will be aimed at implementing effective controls, correct classification and disposal methods including reuse and recycling where possible. Any materials deemed beyond their useful life shall be disposed at the appropriately licensed facility.

3.6 Other Environmental Issues

3.6.1 **Visual Amenity**

The existing environment around the Site is dominated by industrial uses. The Site is bound by the EarthPower Technologies food waste facility and the Concrete Recyclers facility and depot to the west of the Site, an Asciano shipping container storage yard (now a vacant site) to the east, Grand Ave to the south beyond which is Shell Refinery and the Parramatta River to the north

Potential visual impacts and changes to the local amenity, as a result of the preloading phase of the Site, were assessed in the EIS (CH2MHILL, 2013). The construction area will not take place outside the existing property fence and thus will not affect the existing vegetation screening in place along the foreshore. As such, it is expected that the construction will not result in any significant visual impact for users of either the Parramatta River or those along the river's northern banks.

3.6.2 **Heritage**

Items of non-indigenous heritage value are listed in statutory registers and schedules that provide the individual heritage item with a level of statutory protection. In Australia, statutory protection of heritage items is applied at the national, state and local level. Statutory registers relevant to the Site include:

- National Heritage Register;
- NSW Heritage Register; and
- Parramatta LEP - 2011.

A search of the above registers provided no listings of heritage items on either the national or NSW heritage registers occurring on the Site.

4. Management Measures

The following measures will be implemented during preloading to minimise the environmental impacts of this stage of construction works that have been discussed in section 3.

4.1 Air Quality

- Construction personnel and relevant Veolia staff would be briefed on Site Management Plan, potential risks and management measures prior to work commencing. This briefing would outline the difference between inhalation and other pathways where contact with contaminants is possible (e.g. ingestion, dermal absorption).
- Personnel would wear appropriate personal protective equipment whilst on Site at all times during preloading.
- A Health, Safety and Environment Plan and risk assessment would be prepared and implemented by the nominated contractor prior to commencing preloading works.
- Dust mitigation measures, such as water suppression, water sprinkler systems or similar would be employed during the pre-loading phase, where required, to minimise any airborne dust generation and subsequent impact on neighbouring sites and workers. Moisture in soils increases aggregation and cementation of the particles, which reduces the potential for dust emissions.
- All the vehicles on Site do not exceed a speed limit of 30 kilometres per hour
- All the loaded construction vehicles entering or leaving the Site have their loads covered
- All the loaded construction vehicles leaving the Site are cleaned of dirt, sand and other materials before they leave the Site, to avoid tracking these materials on public roads
- Any dust complaints associated with the construction works would be investigated and acted upon as soon as possible after receipt of the complaint.
- Machinery and vehicles would not be left running when not in use.
- All vehicles and equipment would comply with the POEO Act and be fitted with properly maintained emission controls relevant to their date of manufacture.
- •Exhaust emissions from stationary equipment such as generators will be directed away from residential properties.
- No matter of any kind is to be burnt on Site.

4.2 Traffic

- The movement of construction related vehicles will be restricted to the construction hours as specified in table 2-3.

On Site Controls

- All material loading and unloading will occur within the construction Site. No loading or unloading will occur on any public roadways.
- Drivers will be advised of any changes to Site traffic controls during Site inductions and toolbox talks. The need for drivers to contact Site staff via UHF at the entry will ensure that there is opportunity to update drivers, with any recent changes to procedures.
- The maximum speed limit on Site during construction will be 30 kilometres per hour, however further restrictions may be imposed for specific areas or works phases on Site based on site risk assessments.

On Site Truck Movement

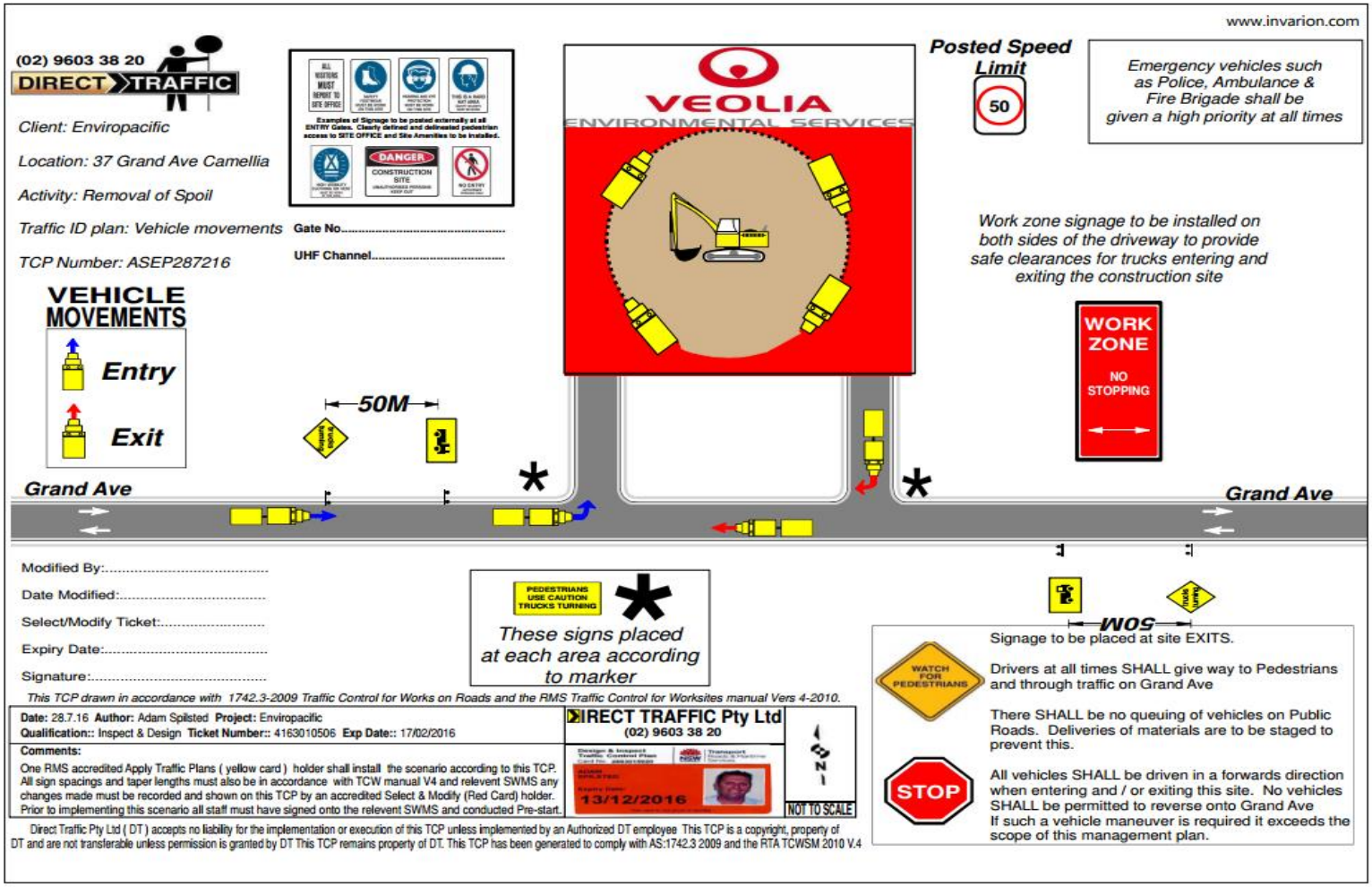
- Notifications for on-site truck movements will be managed via a combination of site induction and monitoring of truck movements by Contractor. The Site induction will be a pre-requisite for drivers

visiting the work site and establish the expected operating parameters covering the hazards identified in this plan.

- For staff working at the Site, a similar induction and subsequent toolbox talks would be conducted, as required during the work, to update staff when changes to the proposed worksites and or activities are planned.
- Workers within the Site would be separated from the primary circulation path for trucks dumping fill and the dump Site.
- Traffic management requirements for onsite roads will be identified, and an on-site vehicle movement plan in the form of a graphical representation will be developed and implemented based on these requirements. These plans will be updated as Site conditions change throughout the construction works, and will be communicated through Site inductions and toolbox talks.
- Private worker vehicles would be parked on Site in designated lay-down areas and away from the immediate construction zone in order to avoid congestion.

Management Measures

Construction Traffic Management Plan



Management Measures

4.3 Noise and Vibration

The following construction mitigation measures are recommended:

- Ensure no significant noise occurs on the Site outside the normal construction hours of 7am to 6pm Monday to Friday and 8:00am to 1:00pm on Saturday. No work is to be carried out on Sunday or public holidays.
- Choose appropriate machines for each task and adopt efficient work practices to minimise the total construction period and the number of noise sources on the Site.
- Avoid unnecessary noise due to idling engines and fast engine speeds when lower speeds are sufficient for the task.
- Regularly assess noise emissions and relocate, modify and/or sop operations to ensure compliance with the relevant conditions of this consent.
- Ensure all machines used on the Site are maintained in good condition, with particular emphasis on exhaust silencers, covers on engines and transmissions, and squeaking or rattling components. Excessively noisy machines would be repaired or removed from the Site.
- Machines with excessively noisy reverse alarms would similarly be modified or removed from the Site.
- Noise and vibration monitoring will be carried out at the residential area at the commencement of activities on Site. In the event of levels above the set limits for noise or vibration, a review of construction activities, plant and equipment will be undertaken to resolve the issue.

4.4 Water

- The installation of erosion and sediment control measures as outlined in Water Management Plan would minimise sediment runoff into the waterway.
- Any chemicals and fuels required for the construction works would be stored within watertight bunded areas away from designated stormwater lines or within double bunded containers.
- All chemicals stored on Site would be recorded on a register. The relevant Material Safety Data Sheets would also be kept on Site in accordance with the Work Health and Safety Regulation 2011.
- All chemicals and fuels would be stored within watertight bunded areas away from designated stormwater lines. Bunded areas for chemical storage would have impervious floors and have the capacity to retain 110% percent of the total volume of all liquids stored therein.
- Refuelling, fuel decanting and vehicle maintenance work would take place within a designated bunded area adjacent to the fuel tank away from the River with spill response kits available for immediate use in the event of a spill.
- A functioning 'spill kit' would be kept on Site at all times for immediate clean-up of accidental chemical/fuel spills. Any contaminated spill rags would be disposed of at an approved waste.

4.5 Waste

Management strategies for waste generated during the construction phase of the will be aimed at implementing effective controls, correct classification and disposal methods including reuse and recycling where possible.

4.6 Heritage

The following mitigation measures have been recommended to reduce or minimise impacts if items of heritage significance are encountered:

- If an item (or suspected item) of Indigenous heritage is discovered during the works, all work in that area will cease and the nominated Environmental Representative will be contacted as soon as possible to determine the subsequent course of action.

- If during the construction activities any items that are indicative of past human activity of considerable age are discovered, works are to be discontinued until the significance of the items is established. If the items are of Aboriginal origin (e.g. artefacts such as stone tool, worked bone and animal bones), the OEH is to be notified.

4.7 Pest, vermin and noxious weeds

Visual inspection for pest and vermin will be undertaken. Weed management will be undertaken during the Site preparation works to minimise weed establishment and invasions, and will include the following:

- Management of weed species on Site will be in accordance with the Noxious Weeds Act 1993.
- Equipment used for treating weed infestation will be cleaned prior to moving to a new area within the Site to minimise the likelihood of transferring any plant material and soil.
- Soil stripped and stockpiled from areas containing known weed infestations are to be stored separately and are not to be moved to areas free of weeds.

4.8 Landscape Vegetation Management Plan

As a part of the preloading of the Site no construction works will not take place outside the existing property fence and thus will not affect the existing vegetation screening in place along the foreshore. As such, it is expected that the preloading will not result in any significant visual impact for users of either the Parramatta River or those along the river's northern banks.

4.9 Acid Sulphate Management Strategy

As a part of the preloading of the Site no construction/excavation works will take place on Site, so it's unlikely that the acid sulphate soils will be encountered. Before the commencement of the construction works on the Site Acid Sulphate Management Strategy will be submitted as part of the CEMP to Planning for approval.

4.10 Flood Emergency Response Plan

As part of the stage 1- works it's only preloading of the Site that will be completed and no construction works will commence at this stage, as a results the Flood Emergency Response Plan is not triggered at stage 1-works of preloading.

5. Environmental Management

It is essential that all personnel associated with the preloading of the Site comply with the legal, contractual and environmental requirements presented by Veolia and addressed in this CEMP.

All necessary approvals with respect to the planning and implementation of the preloading stage of the Site will be obtained by Veolia and/or by the Contractor as directed by Veolia. All relevant conditions of licences, permits, consents and approvals are to be adhered to during demolition stages. Copies of all licences, consents, permits and approvals will be held on Site.

5.1 Roles and Responsibility

Responsibilities for implementation of the CEMP are summarised in Table 5-1 below.

Table 5-1 Summaries of Responsibilities

Action	Responsibility
Overall implementation of the CEMP	Project Manager and Contractor
Implement methodology for managing and/or disposing construction waste	Project Manager and / or Contractor.
Coordinate monitoring and compile reports	Environmental Representative (ER) and/or nominee
Identify Non Conformance and notify Construction Manager/Veolia Safety Health Environment Quality Representative	Contractor and ER and/or nominee
Authorise and confirm the implementation of mitigation measures	Project Manager
Develop specific Work Methods and carry out Job Specific Safety Analysis for site personnel	Contractor
Coordinate site health and safety monitoring and compile reports	Contractor

All personnel shall be responsible for the implementation of the CEMP. In addition to Table 5-1, the authorities and environmental responsibilities of key personnel for this project are noted below:

Project Manager

- Ensure that the Construction Environmental Management Plan is effectively implemented on the project;
- Appoint/nominate the Environmental Representative and/or site nominee;
- Report to senior management on the performance of the system and environmental breaches;
- Allocate project resources to handle environmental issues;
- Take action to resolve major non-conformances; and
- Ensure suppliers and contractors comply with requirements.

Environmental Representative (or nominee)

- Ensure that the CEMP is effectively established, implemented and maintained at the project level;

- Review and update the CEMP and associated documentation;
- Provide support to the project team to enable them to meet their environmental commitments;
- Ensure that site personnel receive appropriate environmental awareness training;
- Ensure that environmental records and files are maintained;
- Ensure that non-conformances are recorded and actioned;
- Completing environmental checklists; and
- Undertake environmental monitoring requirements of the licence.

Contractors/Sub-contractors

- Comply with all legal, contractual and environmental requirements;
- Comply with management / supervisory directions; and
- Participate in induction and training as directed.

All Construction Personnel

- Comply with the relevant Acts, Regulations and Standards.
- Comply with Veolia's Environmental Policy and procedures.
- Promptly report to management on any non-conformances and/or breaches of the system.
- Undergo induction and training in environmental awareness as directed by management.

5.2 Incident Response Plan

All incidents will be managed in accordance with an Incident Response Plan (IRP) as shown in Figure 5-1 below. This includes external and internal notification, recording, reporting and response process.

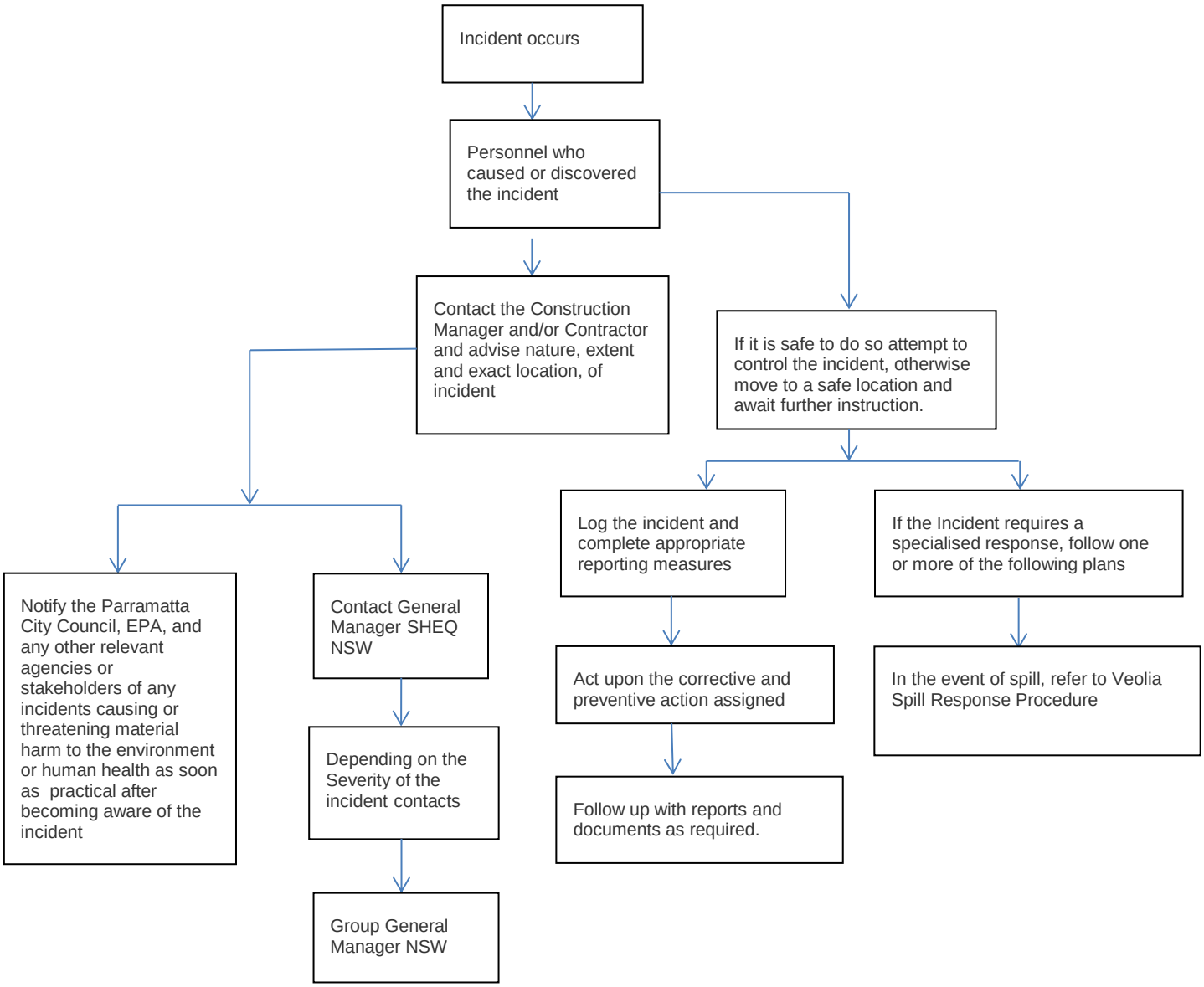


Figure 5-1 Construction Incident Response Plan

5.2.1 Spills

In the event of a liquid spill during preloading of Site, the emergency response, outlined in the Veolia Spill Response Procedure and/or the Contractor's relevant health, safety and environmental plans.

5.2.2 Fire or Explosion

In the event of a fire or explosion at the Site, the Incident response plan is outlined in figure 5-1 and the contacts provided in Section 5.3 of this plan.

5.3 Emergency Contacts

A list of personnel to be contacted during any Site or environmental emergencies has been compiled and presented in Table 5-2 below:

Table 5-2 Site Construction Emergency Contact

Contact	Position	Contact Details
TBA	Site Supervisor	TBA
Promit Biswas	Project Manager	0409 740 824
Ramona Bachu	NSW Environment Officer	ramona.bachu@veolia.com 0407 668 199
TBA	Principal Contractor/Builder	TBA

5.4 Incident Reporting

Veolia must notify the Secretary and any other relevant agencies or stakeholders of incidents causing or threatening material harm to the environment or human health as soon as practical after they become aware of the incident. Within 7 days of the date of the incident, the Applicant shall provide the Secretary and any relevant agencies with a detailed report on the incident.

5.5 Performance Reporting

During the construction phase of the Site, the Contractor or site nominee will collect and record all environmental performance data for Veolia's reporting obligations. Veolia will provide updates on the status of construction activities on Veolia's webpage (http://www.veolia.com.au/sustainable-solutions/community-development/camellia-recycling-centre)

5.6 Environmental Training

Upon commencement, all contractors shall be made aware of their environmental responsibilities and shall familiarise themselves with the requirements of the CEMP.

All contractors will receive induction/training in the following areas:

- Environmental Policy
- CEMP and related documents
- Significant project aspects, impacts and controls
- Emergency procedure and response
- Understanding the legal obligations

Personnel performing tasks that can cause significant environmental impacts shall be competent on the basis of appropriate education, training and/or experience.

Further requirements will be explained to contractors during a site induction and any training that may be required will be provided via toolbox meetings. All inductions and on-going training, if required, shall be recorded.

6. Implementation of the CEMP

6.1 Work Health and Safety Plan

A Work Health and Safety Management Plan (WHSP) and risk assessment shall be developed and implemented prior to commencement of construction at the Site.

The management of the risks identified as part of the EIS (CH2MHILL, 2013) in relation to site contamination issues, as well as general safety practices during the construction phase, controls to be implemented and the selection of appropriate personal protective equipment will be prepared by the Contractor in conjunction with Veolia and disseminated to all workers associated with the construction activities.

A training and induction program will be put in place to ensure that workers are inducted to the WHSP and made aware of their obligations under the *Work Health and Safety (WHS) Act 2012*, the WHS Regulation 2012, as well as all relevant codes of practices and standards. This will include:

- Being made aware of details of the site contamination, risks and management measures;
- Understanding the difference between inhalation and other pathways whether contact with contaminants is possible such as via ingestion or dermal absorption;
- Measures to minimise exposure pathways;
- Knowing first aid and emergency contact personnel;
- Methods to implement emergency stop work procedures;
- Awareness of incident notification and reporting processes;

All work, health and safety associated documentation such as Site Safety Procedures, Safe Work Method Statements, Job Safety Environmental Analyses, Site Hazard Identification and Assessment Reports will be prepared by the Contractor in consultation with Veolia. As required, relevant updates will be made to the WHSP.

Veolia is certified under ISO9001 Quality Management Systems (QMS), ISO14001 Environmental Management Systems (EMS) and Australian Standard AS4801 for Risk Management. All safety documentation prepared for the construction of the will need to adhere to the requirements of these standards, relevant legislation and industry best practice. This documentation will form part of the Veolia's National Integrated Management System which is the platform for housing all health, safety, environmental and quality policies, plans and procedures.

The WHSP will be reviewed and updated as required based on any additional risks identified.

6.2 Communication Measures

In additional to management measures already detailed in this plan to manage environmental and work health and safety, the following communication avenues will be employed during the construction phase of the Site.

6.2.1 **Communication**

With respect to the functioning of the project's EMS, all contractors and other interested parties shall be kept informed in the following manner:

Internal communication methods may include the following where applicable:

- Site meetings
- Project reports
- Performance Assessment Reports
- Audit reports, non-conformance reports
- Noticeboards
- Staff meetings (as required)

- Employee induction, training and tool box sessions (as required)
- Subcontractor coordination meetings

External communication methods may include the following where applicable:

- Community consultation and dissemination of information
- Public notices and announcements
- Meetings and correspondence with appropriate regulatory authorities
- Discussions with adjoining land owners / neighbours who may be affected by the project
- Veolia's webpage (http://www.veolia.com.au/sustainable-solutions/community-development/camellia-recycling-centre);
- Project's community phone line1800 252 040;
- Handling of complaints in accordance with Section 6.2.3

6.2.2 Community Liaison

In addition to the communication process discussed in section 6.2.1, Veolia will also shall keep neighbours informed of construction related activities and project progress through the established communication methods (community liaison meetings, newsletters or webpage).

6.2.3 Complaint Handling

Complaints or adverse reports received from any external source by the Site office shall be deemed to be public complaints. Community feedback will be possible through the dedicated project email address and Veolia's webpage.

The Project Manager shall be notified of all public complaints. All public complaints received (either written or verbal) will be documented to contain the following information:

- The nature and extent of the complaint.
- The method by which the complaint was made.
- The name and address of the person lodging the complaint.
- Details of location, date, time and effects of the complaint.
- The action taken to address the complaint including follow up contact with the complainant.

The Project Manager, or his nominee, shall investigate and determine appropriate corrective/preventive actions to be taken to address all complaints. The complainant shall be informed in writing the results of the investigation and action to be taken to rectify or address the matter(s). Where no action is taken the reasons why are to be recorded.

The Environmental Representative or site nominee shall establish and maintain a system of records which provides full documentation of complaint handling and responses to non-conformances, during the construction phases.

The Environmental Representative or site nominee will record and follow-up:

- Details of any complaints, including the complainant's name, address and contact number.
- Details of the response to complaints (including supplementary monitoring, corrective action).
- Weather conditions occurring at the time of the event, where relevant, relating to the complaint, including wind conditions and incidence of temperature inversion.

Details of all complaints received will be kept in the complaints register to ensure that a response is provided to the complainant as soon as practicable. The corrective action may involve supplementary monitoring to identify

the source of the non-conformance, and/or may involve modification of construction or operational techniques to avoid any recurrence or minimise its adverse effects.

The Environmental Representative or site nominee will make available a report on complaints to the local community and, upon request, relevant government agencies.

Records of complaints shall be filed in the complaints register which has been established to ensure any complaints are correctly recorded and addressed and shall be kept for at least four years after the complaint was made.

The contractor shall establish and maintain procedures for the collection, indexing, filing, storage and maintenance of site records. Archived records shall be kept in accordance with Veolia's document control procedures.

6.2.4 Access to Information

Information required to be made publicly available under the Consent will be accessible via the Veolia website. This information will includes management plans, monitoring results, complaints register and audits and reviews and will be kept up to date as required.

6.3 Monitoring Construction Activities

The monitoring of construction and preloading activities shall be undertaken to ensure environmental controls and mitigation measures are being effectively implemented on Site.

The effectiveness of Site environmental controls will be assessed on a regular basis. To document this, a number of checklists, registers and forms will be completed.

These will provide a means to evaluate and verify compliance with the relevant regulatory requirements and the contractual environmental requirements.

Any non-conformances identified during site inspections or through monitoring results will be investigated to determine the cause and to ascertain the necessary corrective actions.

6.4 Audits

Veolia has a National Integrated Management System (NIMS) which is certified under ISO 14001 Environmental Management System and therefore undertakes comprehensive monitoring of its management system and environmental performance. Accordingly a NIMS audit tool forms part of the annual governance program in NSW, to address the environmental performance of all Veolia facilities and is managed internally by the NSW Safety, Health, Environment, and Quality team. An audit schedule will be prepared to review the environmental performance of the Site during the construction and operation stages against all relevant legislative requirements. The CEMP compliance audits will be undertaken by suitably qualified and experienced NSW Safety, Health, Environment and Quality personnel not directly associated with the project and in accordance with the audit schedule.

6.5 Environmental Monitoring Schedule

The environmental monitoring schedule provides an outline of the monitoring programme to address all practicable measures to prevent and minimise harm to the environment as a result of the construction and preloading phase of the Site, in accordance with its regulatory requirements. Environmental Monitoring Schedule is identified in the table 6-1 below.

In the event pollutants are detected, monitoring is to occur. A monitoring report is to include the following:

- The locations and results of the potential pollutant monitoring.

- Tabulation of results, together with notes identifying the principal sources of potential pollutants.
- Summary of any measurements exceeding the criteria levels, and descriptions of the circumstances causing these exceedances.
- Details of corrective action applicable to criteria exceedances, and confirmation of its successful implementation. Where corrective action has not yet been implemented, it may be shown as pending, and the status of its implementation shall be carried forward to the site's reporting requirements.

Veolia must notify the Secretary, and any other relevant agencies or stakeholders of incidents causing or threatening material harm to the environment or human health as soon as practical after they become aware of the incident. Notification will initially be made via telephone. The contact telephone numbers are presented in section 5.3 of this CEMP.

Table 6-1 Environmental Monitoring Schedule

Environmental Parameters	Frequency	Type of Monitoring	Reference in the CEMP
Air quality and greenhouse gas emission	As required	Regular site inspection	Section 4.1
Construction vehicles movements	As required	Spot monitoring	Section 4.2
Noise	At the commencement of the activity and for ongoing project will be As required	Monitoring at the residential end at the commencement of the activity Regular site inspection Spot checks of noise intensive plant and equipment	Section 4.3
Vibration (vibratory rollers)	Once	At the commencement of the activity using Rollers	Section 4.3
Water	Two representative samples during event of basin overflow and as required	TSS, pH	Water Management Plan

6.6 Reporting and Review of the EMP

6.6.1 **Compliance Reporting**

Compliance reporting is required to produce systematic, comprehensive and informative reports on the environmental performance as a result of the activities undertaken on Site in accordance with legislative requirements. The reports required are summarised in Table 6-2.

The reporting parameters, frequency of reporting, and items to be included in the reports are also provided.

Table 6-2 Camellia MRF reporting requirements

Type of Report	Frequency	Distribution	Report Inclusions
Independent Environmental Audit	Every three years	Condition 9 of Part C DPE, EPA,	Assessment of environmental performance of facility
Annual Return and AEMR	Yearly	Condition C11 of Part C DPE EPL EPA	Annual Return Form; and An Annual Environmental Management Report (AEMR) including annual monitoring undertaken, summary of complaints, compliance with EPL conditions and overall environmental performance of the facility

6.6.2 Management Review

Management reviews of the EMP and the environmental performance of the Site will be scheduled annually to assess the continuing suitability, adequacy and effectiveness of the measures implemented.

The inputs to the management review process shall include (but not be limited to):

- internal and external audits findings;
- incidents management and investigation of non-conformance events, incidents, near misses and management of all complaints received;
- implementation of all compliance and legislative changes as identified at a corporate level; and
- trend analysis on operational data.

The output from the Management Review shall include any decisions and actions related to:

- possible changes to the management plans, procedures, practices, objectives and targets associated with the environmental management of the Site;
- improvement of the effectiveness of the Veolia management system and its processes; and,
- resource needs.

In addition to the yearly reviews, periodic meetings will be conducted to review all Site specific key performance indicators pertaining to the environment and relevant business systems. The following forums will form part of the management review process at the Site, conducted periodically by the site management, in conjunction with operators as required:

- Meetings;
- Toolbox talks;
- Hazard review groups;
- Serious incident reviews; and
- Miscellaneous environmental workshops

The following processes will be used for continual improvement:

- root cause identification and correction of incidents, complaints and issues of non-conformance
- root cause identification and prevention of potential incidents and non-conformances
- process/performance review, and
- enhancement of processes and generation of new initiatives.

Appendices

Appendices

- Appendix A - Conditions of Development Consent

Development Consent

Section 89E of the *Environmental Planning and Assessment Act 1979*

As delegate for the Minister for Planning under delegation executed 14 September 2011, the Planning Assessment Commission of New South Wales grants consent to the development application referred to in Schedule 1, subject to the conditions in Schedule 2.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the development.

Garry West
Member of the Commission

Andrew Hutton
Member of the Commission

Sydney 6 July 2016

SCHEDULE 1

Application No.:	SSD 4964
Applicant:	Veolia Environmental Services (Australia) Pty Ltd
Consent Authority:	Minister for Planning
Land:	37 Grand Avenue, Camellia (Lot 1 DP 539890)
Development:	Construction and operation of a materials recycling facility

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DEFINITIONS

Act	*Environmental Planning and Assessment Act 1979*
Applicant	Veolia Environmental Services (Australia) Pty Ltd, or anyone else entitled to act on this consent
Construction	The demolition of buildings or works, the carrying out of works, including bulk earthworks, and erection of buildings and other infrastructure covered by this consent
Council	Parramatta City Council
Department	Department of Planning and Environment
Development	The development that is approved by this development consent and as generally described in Schedule 1
EIS	The Environmental Impact Statement titled Camellia Recycling Centre prepared by CH2M Hill Australia Pty Ltd dated 22 February 2013
ENM	Excavated Natural Material
EPA	Environment Protection Authority
EPL	Environment Protection Licence under the *Protection of the Environment Operations Act 1997*
Feasible	Feasible relates to engineering considerations and what is practical to build
Heavy vehicle	Any vehicle with a gross vehicle mass of 5 tonnes or more
Heritage Item	An item as defined under the *Heritage Act 1977*, and assessed as being of local, State and/ or National heritage significance, and/or an Aboriginal Object or Aboriginal Place as defined under the *National Parks and Wildlife Act 1974.*
Incident	A set of circumstances that: • causes or threatens to cause material harm to the environment; and/or • breaches or exceeds the limits or performance measures/criteria in this consent
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Mitigation	Activities associated with reducing the impacts of the development prior to or during those impacts occurring
OEH	Office of Environment and Heritage
Operation	The receipt or processing of waste
POEO Act	*Protection of the Environment Operations Act 1997*
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
RTS	Response to Submissions Report titled Veolia Environmental Services prepared by CH2M Hill Australia Pty Ltd dated 3 December 2014
Secretary	Secretary of the Department, or nominee
Site	Land referred to in Schedule 1
Site Auditor	As defined in the *Contaminated Land Management Act 1997*
Site Audit Report	As defined in the *Contaminated Land Management Act 1997*
Site Audit Statement	As defined in the *Contaminated Land Management Act 1997*
VENM	Virgin Excavated Natural Material
Waste	As defined in the POEO Act

SCHEDULE 2

PART A ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

A1. The Applicant shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or decommissioning of the Development.

TERMS OF CONSENT

A2. The Applicant shall carry out the Development in accordance with the:
- a) EIS;
- b) RTS;
- c) Site layout plans and drawings (see Appendix A); and
- d) Management and Mitigation Measures (see Appendix B).

A3. If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this consent shall prevail to the extent of any inconsistency.

A4. The Applicant shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:
- a) any reports, plans, strategies, programs or correspondence that are submitted in accordance with this consent; and
- b) the implementation of any actions or measures contained in these reports, plans, strategies, programs or correspondence.

LIMITS OF CONSENT

A5. This consent lapses 5 years after the date from which it operates, unless the Development has physically commenced on the land to which the consent applies before the date on which the consent would otherwise lapse under Section 95 of the Act.

STATUTORY REQUIREMENTS

A6. The Applicant shall ensure that all licences, permits, and approvals/consents are obtained as required by law and maintained as required throughout the life of the Development. No condition of this consent removes the obligation for the Applicant to obtain, renew or comply with such licences, permits or approvals/consents.

BUILDING CODE OF AUSTRALIA

A7. The Applicant shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures are constructed in accordance with the relevant requirements of the *Building Code of Australia*.

LIMITS OF CONSENT

Waste limits

A8. The Applicant shall not receive or process on the site more than 200,000 tonnes of waste per calendar year.

Waste type

A9. The Applicant shall not cause, permit or allow any materials or waste generated outside the site to be received at the site for storage, use, treatment, processing, reprocessing, or disposal on the site, except as expressly permitted by an EPL.

OPERATION OF PLANT AND EQUIPMENT

A10. The Applicant shall ensure that all plant and equipment used for the Development is:
a) maintained in a proper and efficient condition; and
b) operated in a proper and efficient manner.

DEMOLITION

A11. The Applicant shall ensure that all demolition work is carried out in accordance with *Australian Standard AS 2601:2001: The Demolition of Structures*, or its latest version.

STAGED SUBMISSION OF PLANS OR PROGRAMS

A12. With the approval of the Secretary, the Applicant may:
a) submit any strategy, plan or program required by this consent on a progressive basis; and/or
b) combine any strategy, plan or program required by this consent.

SURRENDER OF CONSENTS

A13. In order for the development of land to proceed in a coordinated and orderly manner and to avoid potential conflicts with this consent, the Applicant shall and in the manner prescribed by clause 97 of the Regulation, surrender the development consents described in Table 1 prior to the issue of an Occupation Certificate for the Development.

Table 1 – Consents to be surrendered

Determination date	DA number	Details
3 December 1969	1054/J	
26 May 1970	G114/70	
23 July 1992	DA 39288/L91	Food waste recycling depot (grease trap plant)
15 March 1996	DA 96/00019/DJ	Upgrade of existing waste water treatment plant and the construction of two (2) vertical tanks
12 July 1996	DA 95/00886/DJ A	Relocate the already approved metal clad workshop towards the street frontage
28 October 1997	DA 97/00532/DJ	To erect an awning to an existing wash bay and to extend an existing storage bay
9 July 2001	DA IT/01476/99	To extend and upgrade an existing liquid waste treatment facility
5 April 2005	DA/532/1997/A	Section 96 application to modify Council original approval and in increase the height of the storage bays
22 October 2007	DA/658/2007	Conversion of a vehicle workshop to a packaged waste store
4 December 2007	DA/848/2007	Alterations and additions including replacement of 3 liquid storage tanks, increase in the size of the bunded area, extension of soil bay awning and additional soil bays

METEOROLOGICAL MONITORING

A14. Within 14 days of the issue of a Construction Certificate for the Development, the Applicant shall ensure that there is a suitable meteorological station on the site that complies with the requirements in the latest version of the *Approved Methods for Sampling of Air Pollutants in New*

South Wales. The Applicant shall operate the meteorological station for the life of the Development.

PROTECTION OF PUBLIC INFRASTRUCTURE

A15. The Applicant shall:
   a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the Development; and
   b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the Development.

SITE AUDIT STATEMENT

A16. Prior to the issue of a Final Occupation Certificate for the Development, the Applicant shall obtain from a Site Auditor, a Site Audit Statement and a Site Audit Report which demonstrates that the site is suitable for its intended use(s).

DISPUTE RESOLUTION

A17. In the event of a dispute between the Applicant and a public authority, in relation to an applicable requirement in this consent or relevant matter relating to the Development, either party may refer the matter to the Secretary for resolution. The Secretary's determination of any such dispute shall be final and binding on the parties.

DEVELOPER CONTRIBUTIONS

A18. Prior to the issue of a Construction Certificate for the development, unless otherwise agreed with Council, the Applicant shall pay development contributions to Parramatta Council calculated in accordance with *Section 94A Development Contributions Plan (Amendment No. 4) Parramatta City Council 20 May 2015*.

PART B ENVIRONMENTAL PERFORMANCE

WASTE MANAGEMENT

Waste Monitoring Program

B1. From the commencement of operation, the Applicant shall implement a Waste Monitoring Program for the Development. The program must:
- a) be prepared by a suitably qualified and experienced person(s) prior to the commencement of operation;
- b) include suitable provision to monitor the:
  - (i) quantity, type and source of waste received on site; and
  - (ii) quantity, type and quality of the outputs produced on site.
- c) ensure that:
  - (i) all waste that is controlled under a tracking system has the appropriate documentation prior to acceptance at the site; and
  - (ii) staff receive adequate training in order to be able to recognise and handle any hazardous or other prohibited waste including asbestos.

Waste storage and processing

B2. All processed and unprocessed waste must be stored within the building on the site.

Pests, vermin and noxious weed management

B3. The Applicant shall:
- a) implement suitable measures to manage pests, vermin and declared noxious weeds on the site; and
- b) inspect the site on a regular basis to ensure that these measures are working effectively, and that pests, vermin or noxious weeds are not present on site in sufficient numbers to pose an environmental hazard, or cause the loss of amenity in surrounding area.

Note: For the purposes of this condition, noxious weeds are those species subject to an order declared under the Noxious Weed Act 1993.

SOIL AND WATER

Compliance Certificate

B4. A Section 73 Compliance Certificate under the *Sydney Water Act 1994* must be obtained from Sydney Water prior to the commencement of construction.

Pollution of Waters

B5. The Development shall comply with Section 120 of the POEO Act, which prohibits the pollution of waters, except as expressly provided in an EPL.

Water Management Plan

B6. Prior to the commencement of construction of the Development, the Applicant shall prepare a Water Management Plan to the satisfaction of the Secretary. The plan must:
- a) be prepared by a suitably qualified and experienced person(s) in consultation with Council;
- b) include the details of:
  - (i) the Water Management System (see Condition B8);
  - (ii) erosion and sediment control measures (see Condition B9); and
  - (iii) bunding (see Condition B11).

B7. The Applicant shall carry out the Development in accordance with the Water Management Plan approved by the Secretary (as revised and approved by the Secretary from time to time), unless otherwise agreed by the Secretary.

Water Management System

B8. The Applicant shall operate a Water Management System for the site. The system must:
- a) be designed by a suitably qualified and experienced person(s) in consultation with Council;
- b) include:

(i) a berm at the front of the site, which is designed to prevent catchment flows up to the 1 in 20 year Average Recurrence Interval event from entering the site;
(ii) drainage for surface water toward the Parramatta River where possible;
(iii) one way devices to prevent the ingress of river water to the water management system; and
(iv) clean surface water diversion around operational areas of the site

Erosion and sediment control

B9. The Applicant shall implement erosion and sediment control measures on-site in accordance with *Managing Urban Stormwater: Soils and Construction Vol 1.* (Landcom, 2004).

Acid Sulfate Soils

B10. The Applicant shall implement acid sulfate soils management measures in accordance with the guidance in the NSW Acid Sulfate Soil Management Advisory Committee's *Acid Sulfate Soil Manual.*

Bunding

B11. The Applicant shall store all chemicals, fuels and oils used on-site in appropriately bunded areas in accordance with the requirements of all relevant Australian Standards, and/or EPA's *Storing and Handling Liquids: Environmental Protection – Participant's Manual 2007.*

Flood management

B12. The Applicant shall ensure that:
a) the finished floor level of any new building is a minimum of 0.5 metres above the 1 in 100 year Average Recurrence Interval flood level; and
b) any part of a new structure is designed and constructed to be structurally sound during a flood event equivalent to the Probable Maximum Flood.

Flood emergency response plan

B13. Prior to the commencement of construction of the Development, the Applicant shall prepare a flood emergency response plan to the satisfaction of the Secretary. The plan must:
a) be prepared by a suitably qualified and experienced person(s) in consultation with Council;
b) address the provisions of the *Floodplain Risk Management Guideline* (25 October 2007, Office of Environment and Heritage);
c) include the details of the flood emergency responses for both construction and operation phases of the development;
d) include details of:
(i) site planning and design features;
(ii) predicted flood levels;
(iii) flood warning time and flood notification;
(iv) evacuation and refuge protocols; and
(v) awareness training for employees and contractors.

B14. The Applicant shall carry out the Development in accordance with the flood emergency response plan approved by the Secretary (as revised and approved by the Secretary from time to time), unless otherwise agreed by the Secretary.

Imported soil

B15. The Applicant shall:
a) ensure that only VENM, or ENM, or other material approved in writing by the EPA is used as fill on the site;
b) keep accurate records of the volume and type of fill to be used; and
c) make these records available to the Department upon request.

AIR QUALITY

Odour

B16. The Applicant shall ensure the Development does not cause or permit the emission of any offensive odour (as defined in the POEO Act).

Air emissions mitigation

B17. The Applicant shall:

a) carry out the Development so that air and odour emissions are minimised during all meteorological conditions; and

b) implement best management practice, including all reasonable and feasible air and odour emission mitigation measures to minimise emissions from the Development.

Construction emissions mitigation

B18. During construction, the Applicant shall ensure that:

a) all vehicles on site do not exceed a speed limit of 30 kilometres per hour;

b) all loaded construction vehicles entering or leaving the site have their loads covered; and

c) all loaded construction vehicles leaving the site are cleaned of dirt, sand and other materials before they leave the site, to avoid tracking these materials on public roads.

Odour Audit

B19. The Applicant shall carry out an Odour Audit of the Development no later than 6 months after operation of the Development. The audit must:

a) be carried out by a suitably qualified, experienced and independent person(s), whose appointment has been endorsed by the Secretary;

b) audit the Development in full operation;

c) include a summary of odour complaints and any actions that were carried out to address the complaints;

d) validate the Development against odour impact predictions in the EIS;

e) review design and management practices in the Development against industry best practice for odour management; and

f) include an action plan that identifies and prioritises any odour mitigation measures that may be necessary to reduce odour emissions.

Note: The odour audit may be prepared so that it addresses the requirements of this consent and the EPL for the Development.

B20. Within six months of commissioning the Odour Audit, or as otherwise agreed by the Secretary, the Applicant shall submit a copy of the audit report to the Secretary, together with the Applicant's response to any recommendations contained in the audit report.

B21. The Applicant shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of the Odour Audit report.

NOISE AND VIBRATION

Construction and operation hours

B22. The Applicant shall comply with the construction and operation hours in Table 2 unless otherwise specified in the EPL and agreed in writing by the Secretary.

Table 2: Construction Hours

Activity		Day	Hours
Construction		Monday - Friday	7 am to 6 pm
		Saturday	8 am to 1 pm
		Sunday & Public Holidays	Nil
Operation	Waste processing	Any day	6 am to 10 pm
	Delivery and dispatch	Any day	Any time

B23. Despite Condition B22, any activity may occur at any time if that activity is required to be performed by police or other authorities for safety reasons; and/or if there is an on-site emergency that poses an immediate danger to personnel or equipment; and/or the operation or personnel or equipment is endangered. In such circumstances, prior notification shall be provided to the EPA and any affected residents as soon as possible, or within a reasonable period in the case of emergency.

Noise mitigation

B24. The Applicant shall:

a) implement best practice, including all reasonable and feasible noise management and mitigation measures to prevent and minimise operational, low frequency and traffic noise generated by the Development;

b) minimise the noise impacts of the Development during adverse meteorological conditions;

c) install a steel fence on the northern and north-eastern side of the truck path;

d) maintain the effectiveness of any noise suppression equipment on plant at all times and ensure defective plant is not used operationally until fully repaired; and

e) regularly assess noise emissions and relocate, modify and/or stop operations to ensure compliance with the relevant conditions of this consent.

Noise criteria

B25. The Applicant shall ensure that the operational noise generated from the Development does not exceed the criteria in Table 3:

Table 3: Sleep Disturbance Criteria

Receiver/Location	Sleep Disturbance Criteria ($L_{A1, 1min}$)
M1 John Street and M2 Milton Street	56

Vibration criteria

B26. The Applicant shall ensure that vibration resulting from the Development does not exceed the continuous or impulsive vibration criteria in EPA's *Assessing Vibration: A Technical Guideline* (February 2006) at residential receivers.

TRAFFIC AND ACCESS

Operating Conditions

B27. The Applicant shall ensure that:

a) internal roads, driveways and parking (including grades, turn paths, sight distance requirements, aisle widths, aisle lengths and parking bay dimensions) associated with the Development are constructed and maintained in accordance with the latest versions of *Australian Standard AS 2890.1* and *AS 2890.2*;

b) the swept path of the longest vehicle entering and exiting the subject site, as well as manoeuvrability through the site, is in accordance with *AUSTROADS Guide to Road Design*;

c) the Development does not result in any vehicles queuing on the public road network;

d) all vehicles are wholly contained on site before being required to stop;

e) all loading and unloading of materials is carried out on site;

f) turning areas in the car park are kept clear of any obstacles, including parked cars, at all times;

g) all trucks entering or leaving the site with loads have their loads covered;

h) all loaded vehicles leaving the site are cleaned of dirt, sand and other materials before they leave the site, to avoid tracking these materials on public roads; and

i) all vehicles enter and leave the site in a forward direction.

HAZARD AND RISK

Fire Management

B28. The Applicant shall:

a) implement suitable measures to minimise the risk of fire on-site;

b) extinguish any fires on-site promptly; and

c) maintain adequate fire-fighting capacity on-site.

VISUAL AMENITY

Lighting

B29. All external lighting associated with the Development shall be mounted, screened, and directed in such a manner so as not to create a nuisance to the surrounding environment, properties and roadways. The lighting shall be the minimum level of illumination necessary and shall comply with *Australian Standard AS 4282 1997*.

Landscaping

B30. Prior to the commencement of construction of the Development, the Applicant shall prepare a Landscape Management Plan to the satisfaction of the Secretary. The plan shall:

a) detail the landscaping measures including vegetation that is to be planted to minimise the visual impact of the Development, particularly from adjoining premises and public vantage points; and

b) include measures for monitoring and maintenance of revegetated areas.

B31. The Applicant shall carry out the Development in accordance with the Landscape Management Plan approved by the Secretary (as revised and approved by the Secretary from time to time), unless otherwise agreed by the Secretary.

HERITAGE

B32. The Applicant shall cease all works on site in the event that any Aboriginal cultural object(s) or human remains are uncovered. If human remains are uncovered, you must immediately stop work, not further disturb the remains and notify NSW Police. OEH and the Aboriginal community must be contacted if the remains are suspected to be of Aboriginal origin. If other Aboriginal objects are discovered, you must immediately stop work, not further disturb the objects and notify OEH by calling Environment Line on 131 555. Works must not resume in the designated area until the relevant written consent is received from NSW Police and/or OEH. Any Aboriginal objects discovered must be registered on the Aboriginal Heritage Management Information System (AHIMS), in accordance with section 89A of the *National Parks and Wildlife Act 1974*.

SECURITY

B33. The Applicant shall:

a) install and maintain a perimeter fence and security gates on the site; and

b) ensure that the security gates on site are locked whenever the site is unattended.

PART C ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Construction Environmental Management Plan

C1. Prior to the commencement of construction of the Development, the Applicant shall prepare a Construction Environmental Management Plan to the satisfaction of the Secretary. The Plan must:

a) be prepared by a suitably qualified and experienced person(s);
b) describe all activities to be undertaken on the site during construction, including a clear indication of construction stages;
c) identify the statutory approvals that apply to the Development;
d) outline all environmental management practices and procedures to be followed during construction (e.g. construction traffic management and construction noise and vibration management), including all reasonable and feasible mitigation measures to protect the amenity of the surrounding environment;
e) detail how the environmental performance of construction will be monitored, and what actions will be taken to address identified adverse environmental impacts;
f) describe of the roles and responsibilities for all relevant employees involved in construction;
g) include arrangements for community consultation and complaints handling procedures during construction; and
h) consolidate the construction related parts of any management plans and monitoring programs required in the conditions of this consent;

C2. The Applicant shall carry out the development in accordance with the Construction Environmental Management Plan approved by the Secretary (as revised approved by the Secretary from time to time), unless otherwise agreed by the Secretary.

Operational Environmental Management Strategy

C3. Prior to the commencement of operation, the Applicant shall prepare an Operational Environmental Management Strategy to the satisfaction of the Secretary. This strategy must:

a) be prepared by a suitably qualified and experienced person(s);
b) provide a strategic framework for environmental management of the Development;
c) identify the statutory approvals that apply to the Development;
d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the Development;
e) describe in general how the environmental performance of the Development would be monitored and managed; and
f) describe the procedures that would be implemented to:
   (i) keep the local community and relevant agencies informed about the operation and environmental performance of the Development;
   (ii) receive, handle, respond to, and record complaints;
   (iii) resolve any disputes that may arise;
   (iv) respond to any non-compliance; and
   (v) respond to emergencies.

C4. The Applicant shall carry out the Development in accordance with the Operational Environmental Management Strategy approved by the Secretary (as revised approved by the Secretary from time to time), unless otherwise agreed by the Secretary.

Management Plan Requirements

C5. The Applicant shall ensure that the environmental management plans/strategies required under this consent are prepared in accordance with any relevant guidelines and include:

a) detailed baseline data;
b) a description of:
   (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);
   (ii) any relevant limits or performance measures/criteria;

(iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the Development or any management measures;
(iv) the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;

c) a program to monitor and report on the:
   (i) impacts and environmental performance of the Development;
   (ii) effectiveness of any management measures;
   (iii) a contingency plan to manage any unpredicted impacts and their consequences;
   (iv) a program to investigate and implement ways to improve the environmental performance of the Development over time;

d) a protocol for managing and reporting any:
   (i) incidents;
   (ii) complaints;
   (iii) non-compliances with statutory requirements; and
   (iv) exceedances of the impact assessment criteria and/or performance criteria; and
   (v) a protocol for periodic review of the plan.

C6. The Secretary may waive some of the requirements in Condition C5 if they are unnecessary or unwarranted for particular management plans/strategies.

REPORTING

Incident Reporting

C7. The Applicant shall notify, at the earliest opportunity, the Secretary and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the Development, the Applicant shall notify the Secretary and any other relevant agencies as soon as practicable after the Applicant becomes aware of the incident. Within 7 days of the date of the incident, the Applicant shall provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

Regular Reporting

C8. The Applicant shall provide regular reporting on the environmental performance of the Development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.

INDEPENDENT ENVIRONMENTAL AUDIT

C9. Within 1 year of the date of this consent and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the Development. This audit must:

a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
b) led by a suitably qualified auditor, and include experts in fields specified by the Secretary;
c) include consultation with the relevant agencies;
d) assess the environmental performance of the Development and assess whether it is complying with the requirements in this consent, and any other relevant approvals and relevant EPL/s (including any assessment, plan or program required under the approvals);
e) review the adequacy of any approved strategy, plan or program required under the abovementioned consents; and
f) recommend measures or actions to improve the environmental performance of the Development, and/or any strategy, plan or program required under the consents.

C10. Within three months of commissioning this audit, or as otherwise agreed by the Secretary, the Applicant shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.

Annual Review

C11. Within 1 year of the date of this consent, and every year thereafter, the Applicant shall review the environmental performance of the Development. This review must:

a) describe the Development that was carried out in the previous calendar year, and the Development that is proposed to be carried out over the next year;

b) include a comprehensive review of the monitoring results and complaints records of the Development over the previous calendar year, which includes a comparison of the results against the:

(i) the relevant statutory requirements, limits or performance measures/criteria;

(ii) requirements of any plan or program required under this consent;

(iii) the monitoring results of previous years; and

(iv) the relevant predictions in the EIS;

c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;

d) identify any trends in the monitoring data over the life of the Development;

e) identify any discrepancies between the predicted and actual impacts of the Development, and analyse the potential cause of any significant discrepancies; and

f) describe what measures will be implemented over the next year to improve the environmental performance of the Development.

Revision of Strategies, Plans and Programs

C12. Within 3 months of the submission of an:

a) annual review under Condition C11 above;

b) incident report under Condition C7 above;

c) audit under Condition C9 above; or

d) any modification to this consent,

the Applicant shall review, and if necessary revise, the strategies, plans, and programs required under this consent.

Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the Development.

C13. The Applicant shall ensure that the operation of the Development is undertaken in accordance with all relevant updated and/or amended strategies, management plans and programs approved by the Secretary (or as revised and approved by the Secretary), unless otherwise agreed by the Secretary.

ACCESS TO INFORMATION

C14. The Applicant shall:

a) ensure a 24 hour contact telephone number for the site is posted on the front fence of the site, and on its website;

b) make copies of the following publicly available on its website:

(i) the documents referred to in Condition A2;

(ii) all current statutory approvals for the Development;

(iii) all approved strategies, plans and programs required under the conditions of this consent;

(iv) a comprehensive summary of the monitoring results of the Development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;

(v) a complaints register, updated on a monthly basis;

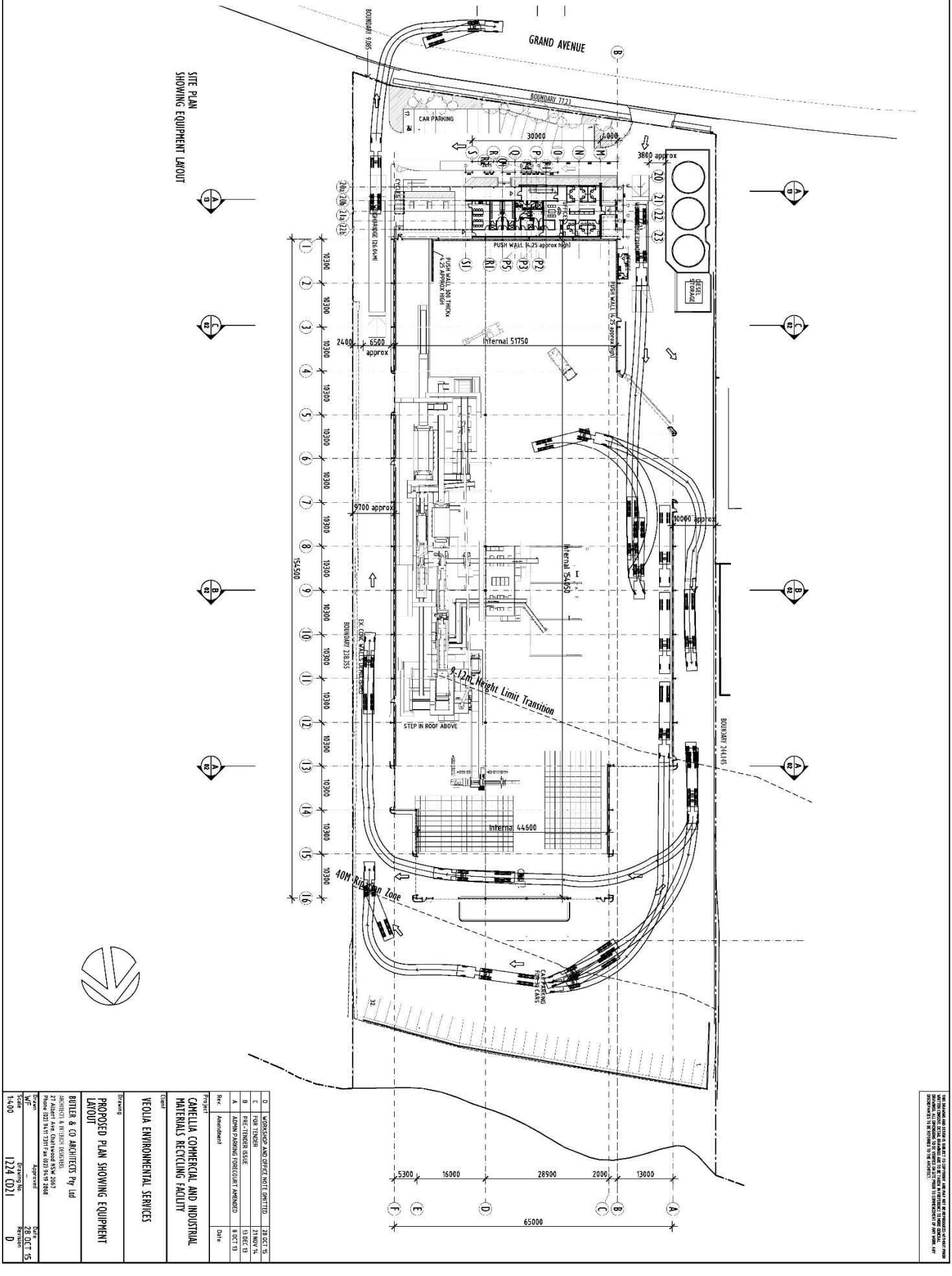
(vi) the annual reviews of the Development;

(vii) any independent environmental audit of the Development, and the Applicant's response to the recommendations in any audit; and

(viii) any other matter required by the Secretary; and

c) keep this information up to date.

APPENDIX A – SITE AND LAYOUT PLANS



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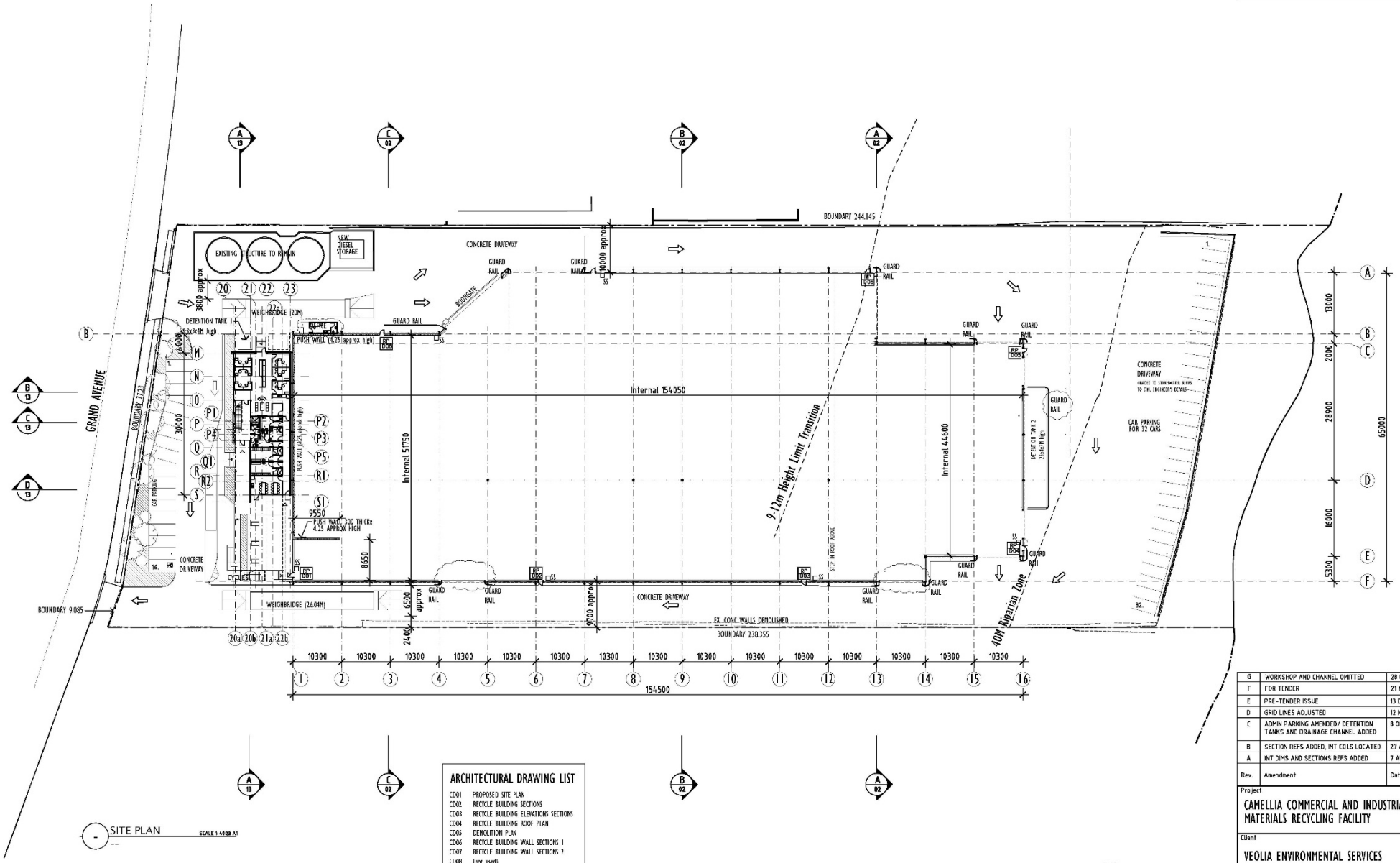

SITE PLAN SCALE 1:400 @ A1

ARCHITECTURAL DRAWING LIST

CD01	PROPOSED SITE PLAN
CD02	RECYCLE BUILDING SECTIONS
CD03	RECYCLE BUILDING ELEVATIONS SECTIONS
CD04	RECYCLE BUILDING ROOF PLAN
CD05	DEMOLITION PLAN
CD06	RECYCLE BUILDING WALL SECTIONS 1
CD07	RECYCLE BUILDING WALL SECTIONS 2
CD08	(not used)
CD09	WEIGHBRIDGE OFFICE
CD10	OFFICE GROUND FLOOR PLAN
CD11	OFFICE FIRST FLOOR PLAN & ROOF PLAN
CD12	OFFICE REFLECTED CEILING PLANS
CD13	OFFICE ELEVATIONS & SECTIONS
CD14	OFFICE WET AREA DETAILS 1
CD15	OFFICE WET AREA DETAILS 2
CD16	OFFICE WALL SECTIONS 1
CD17	OFFICE WALL SECTIONS 2
CD18	OFFICE STAIR DETAILS
CD19	OFFICE WINDOW SCHEDULE
CD20	OFFICE DOOR SCHEDULE
CD21	EQUIPMENT LAYOUT PLAN

13 DECEMBER 2013

Rev.	Amendment	Date
G	WORKSHOP AND CHANNEL OMITTED	28 OCT 15
F	FOR TENDER	21 NOV 14
E	PRE-TENDER ISSUE	13 DEC 13
D	GRID LINES ADJUSTED	12 NOV 13
C	ADMIN PARKING AMENDED/ DETENTION TANKS AND DRAINAGE CHANNEL ADDED	8 OCT 13
B	SECTION REFS ADDED, INT COLS LOCATED	27 AUG 13
A	INT DIMS AND SECTIONS REFS ADDED	7 AUG 13

Project
CAMELLIA COMMERCIAL AND INDUSTRIAL MATERIALS RECYCLING FACILITY

Client
VEOLIA ENVIRONMENTAL SERVICES

Drawing
PROPOSED SITE PLAN

BUTLER & CO ARCHITECTS Pty Ltd
ARCHITECTS & INTERIOR DESIGNERS
27 Albert Ave. Chatswood NSW 2067
Phone (02) 9411 7311 Fax (02) 9419 2868

Drawn	Approved	Date
WF	–	28 Oct 15
Scale	Drawing No.	Revision
1:400	1224 CD01	G

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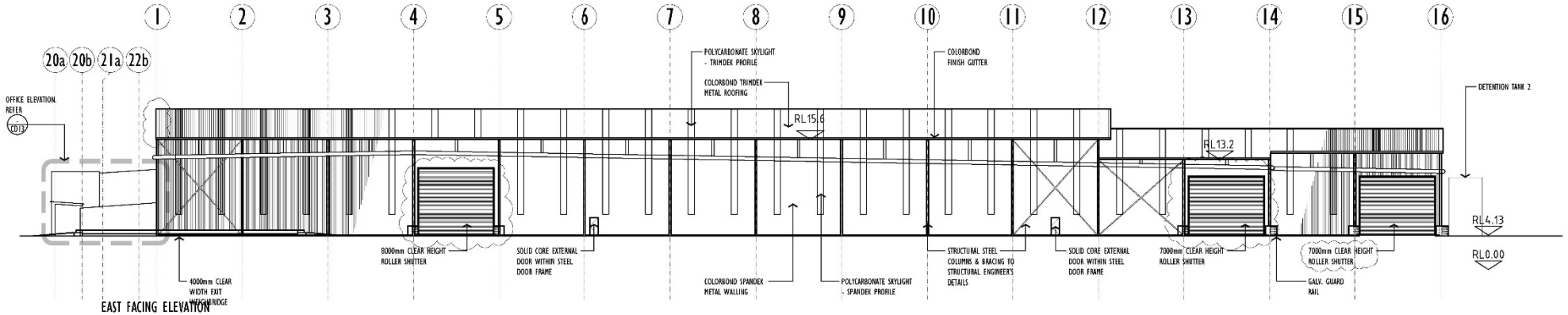
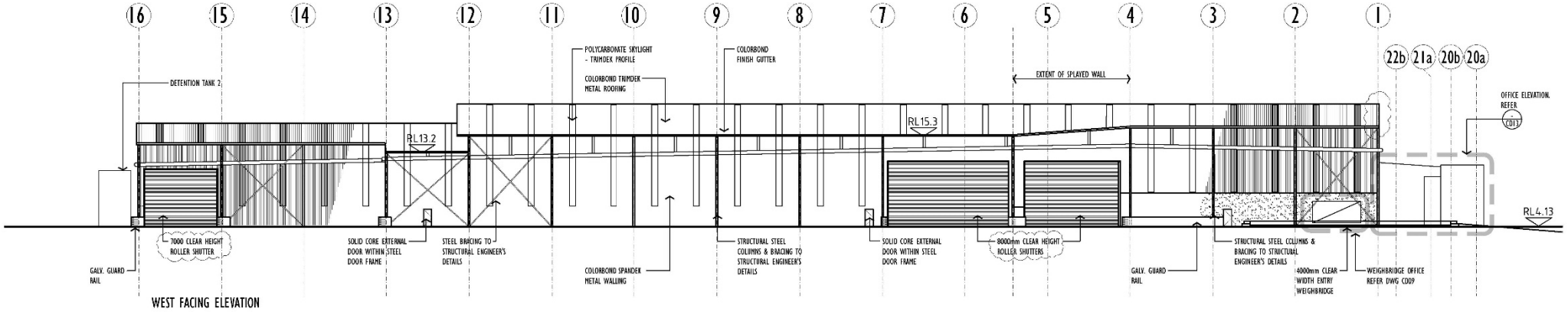


EAST FACING ELEVATION



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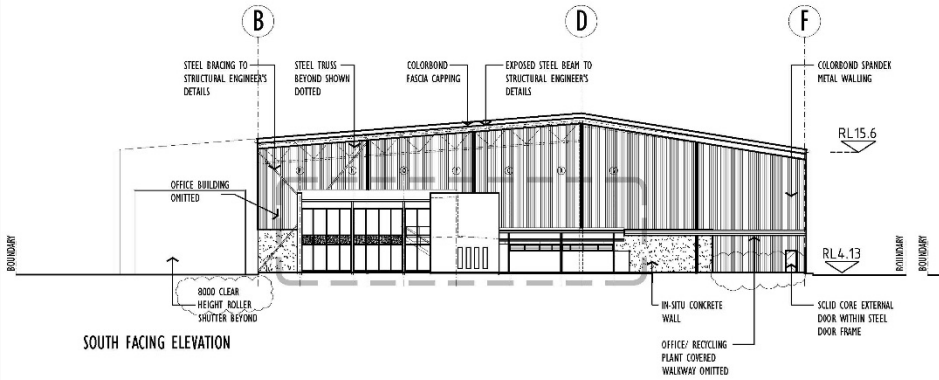
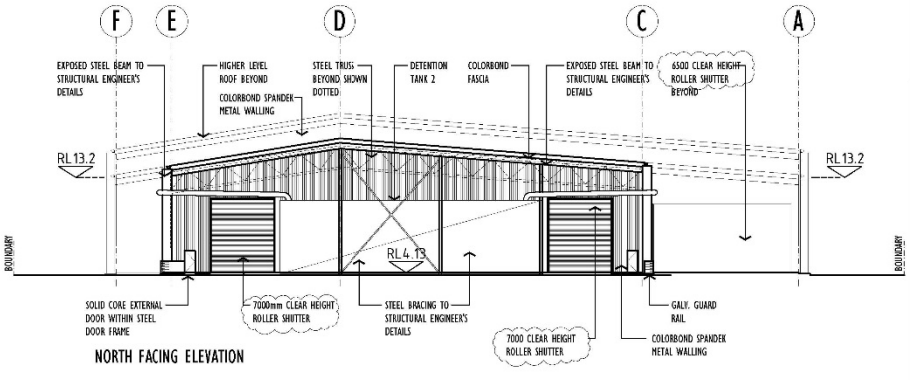


SOUTH FACING ELEVATION



NORTH FACING ELEVATION

Rev.	Amendment	Date
D	OFFICE NOTE OMITTED	28 OCT 15
C	FOR TENDER	21 NOV 14
B	PRE-TENDER ISSUE	13 DEC 13
A	PRELIM ISSUE	19 NOV 13

Project
CAMELLIA COMMERCIAL AND INDUSTRIAL MATERIALS RECYCLING FACILITY

Client
VEOLIA ENVIRONMENTAL SERVICES

Drawing
PROPOSED RECYCLING FACILITY ELEVATIONS

BUTLER & CO ARCHITECTS Pty Ltd
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Drawn	Approved	Date
WF	-	28 Oct 15
Scale	Drawing No.	Revision
1:250	1224 CD03	D

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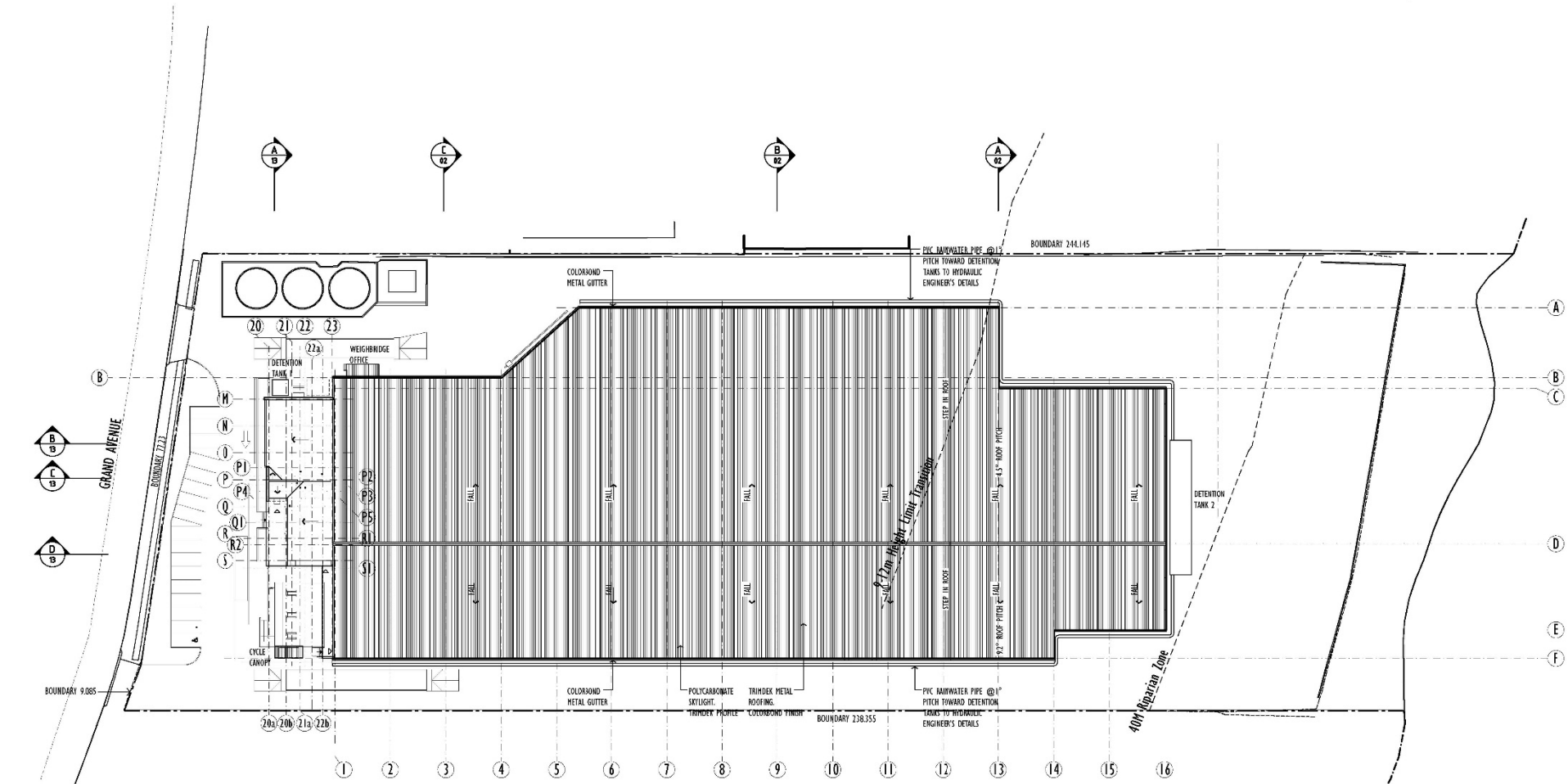

ROOF PLAN

Rev.	Amendment	Date
D	WORKSHOP AND CHANNEL OMITTED	28 OCT 15
C	FOR TENDER	21 NOV 14
B	PRE-TENDER ISSUE	13 DEC13
A	PRELIM	21 NOV13

Project
CAMELLIA COMMERCIAL AND INDUSTRIAL MATERIALS RECYCLING FACILITY

Client
VEOLIA ENVIRONMENTAL SERVICES

Drawing
PROPOSED ROOF PLAN

BUTLER & CO ARCHITECTS Pty Ltd
ARCHITECTS & INTERIOR DESIGNERS
27 Albert Ave. Chatswood NSW 2067
Phone (02) 9411 7311 Fax (02) 9419 2868

Drawn	Approved	Date
WF	–	28 Oct 15
Scale	Drawing No.	Revision
1:400	1224 CD04	D

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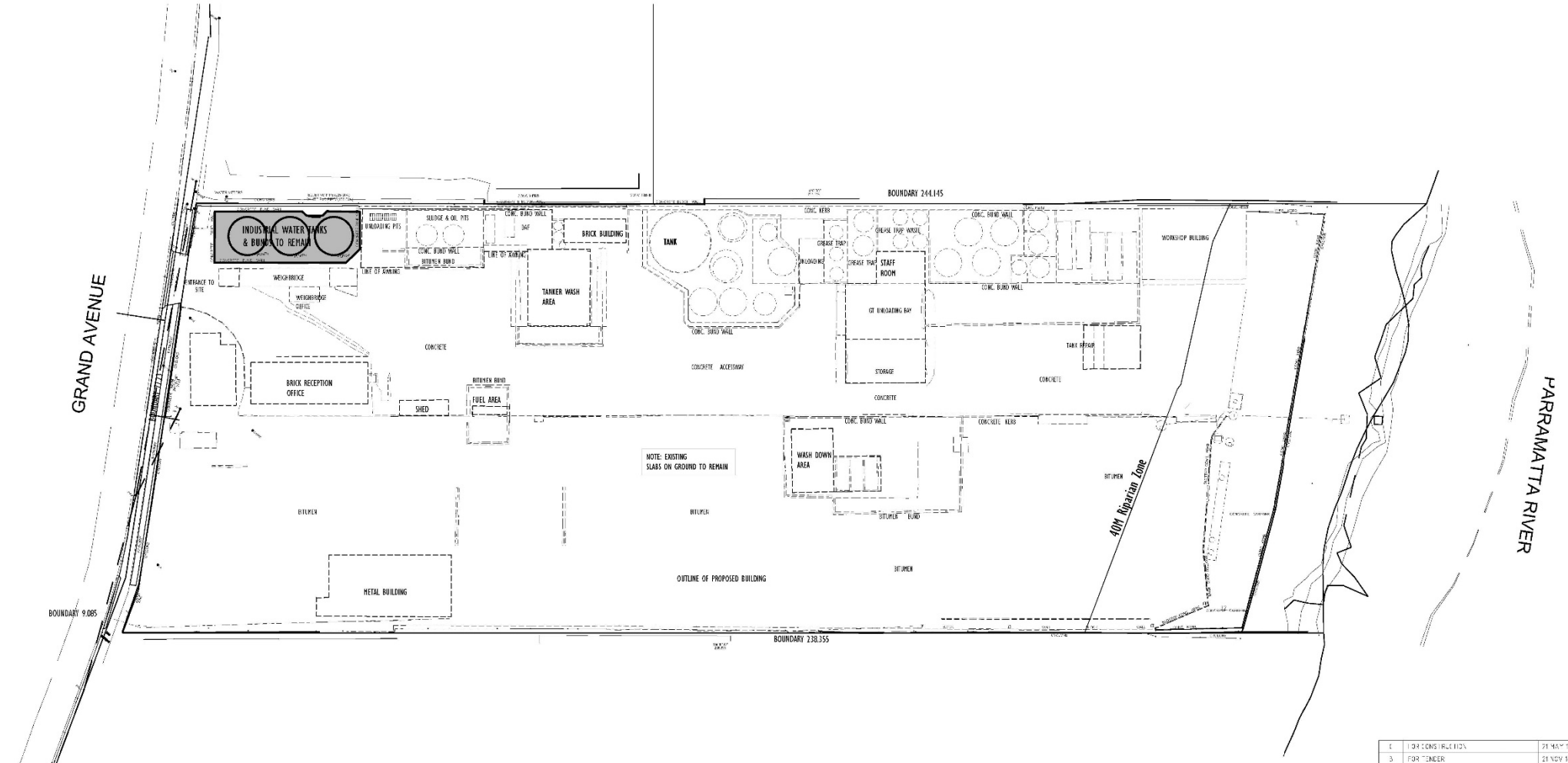

DEMOLITION PLAN

EXISTING BUILDINGS, TANKS & STRUCTURES TO BE DEMOLISHED.

REFER CIVIL DRAWINGS FOR PAVING RETENTION

Rev	Amendment	Date
C	FOR CONSTRUCTION	21 MAY 15
B	FOR TENDER	21 NOV 14
A	PRE-TENDER ISSUE	19 DEC 13

Project:

CAMELLIA COMMERCIAL AND INDUSTRIAL MATERIALS RECYCLING FACILITY

Client:

VEOLIA ENVIRONMENTAL SERVICES

Drawing:

DEMOLITION PLAN

BUTLER & CO ARCHITECTS Pty Ltd
ARCHITECTS & INTERIOR DESIGNERS
21 Alliance Ave. Cremorne NSW 2067
Phone (02) 9411 7311 Fax (02) 9419 2868

Drawn	Approved	Date
WF	–	21 May 15
Scale	Drawing No.	Revision
1:400	1224 CD05	C

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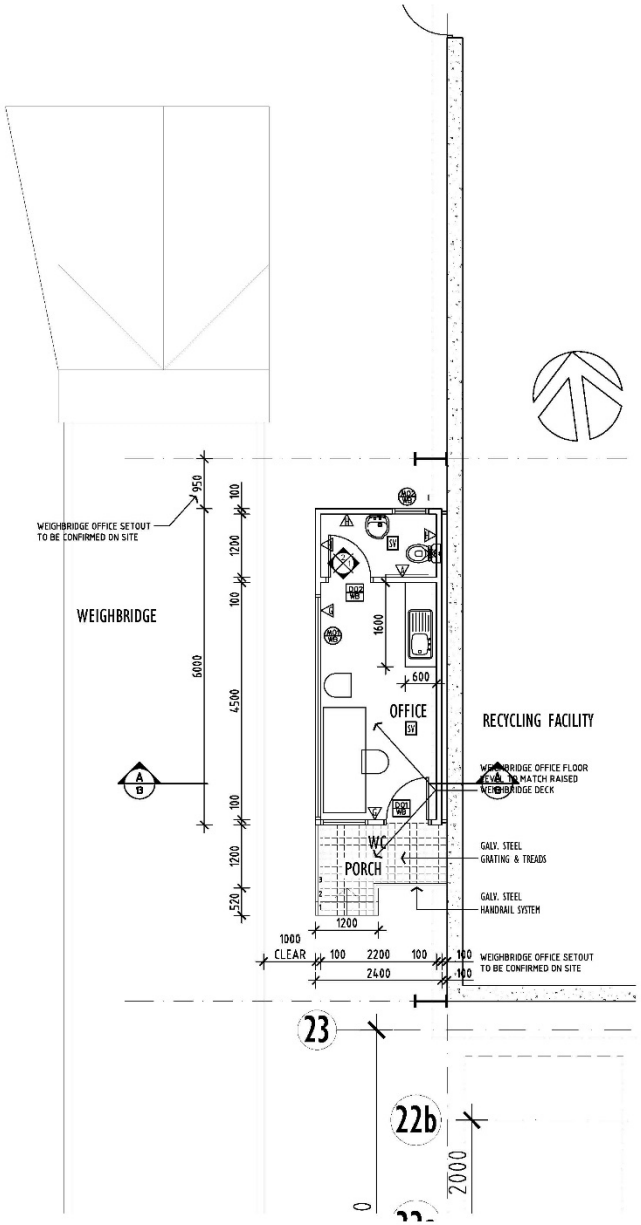
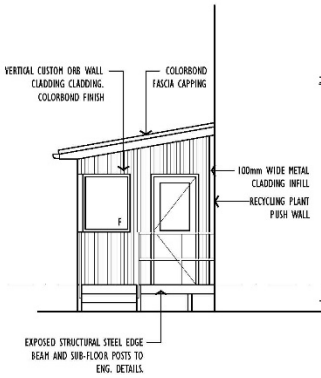
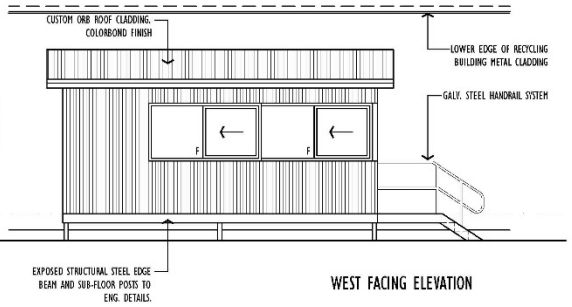


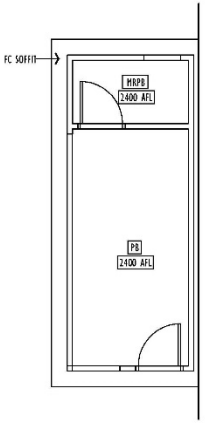
PROPOSED WEIGHBRIDGE FLOOR PLAN



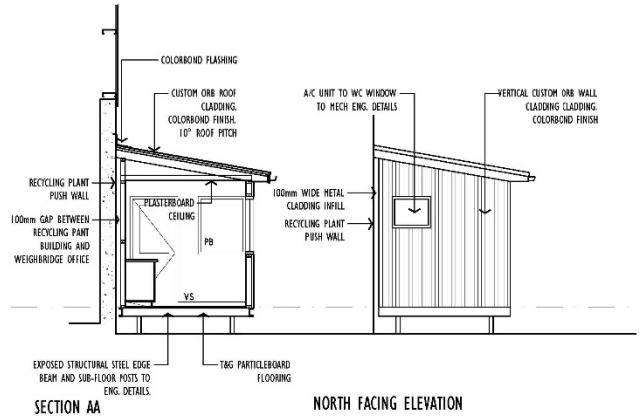
SOUTH FACING ELEVATION



WEST FACING ELEVATION

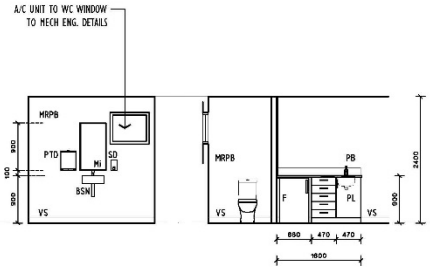


PROPOSED WEIGHBRIDGE REFLECTED CEILING PLAN



SECTION AA

NORTH FACING ELEVATION



ELEVATION 2 (WC)

ELEVATION 1 (TEA STATION / WC)

FLOOR FINISHES

- C — NEW CARPET TILES
- NEW ENTRY MATTING
- SV — NEW VINYL
- T — NEW TILES

WALL LEGEND

READ IN CONJUNCTION WITH KEY LINKING & INSULATION SECTIONS OF THE SPEC.

- 1 — METAL STUD PARTITION CLAD EXTERNALLY WITH COLORBOND FINISH CUSTOM ORB AND SOUNDTEX PLASTERBOARD LINING INTERNALLY, PAINTED. INSULATION AS SPEC.
- 2 — AS ABOVE BUT WITH MOISTURE RESISTANT PLASTERBOARD INTERNALLY

CEILING LEGEND

- PB — PLASTERBOARD CEILING PAINTED
- MRPB — MOISTURE RESISTANT PLASTERBOARD

Rev.	Amendment	Date
C	FOR TENDER	21 NOV 14
B	PRE-TENDER ISSUE	13 DEC 13
A	PRELIMINARY	6 DEC 13

Project
CAMELLIA COMMERCIAL AND INDUSTRIAL MATERIALS RECYCLING FACILITY

Client
VEOLIA ENVIRONMENTAL SERVICES

Drawing
PROPOSED WEIGHBRIDGE OFFICE

BUTLER & CO ARCHITECTS Pty Ltd
ARCHITECTS & INTERIOR DESIGNERS
27 Albert Ave. Chatswood NSW 2067
Phone (02) 9411 7311 Fax (02) 9419 2868

Drawn	Approved	Date
WF	–	21 Nov 14
Scale	Drawing No.	Revision
1:50	1224 CD09	C

APPENDIX B – MANAGEMENT AND MITIGATION MEASURES

Environmental Issue	Mitigation Measures
Air Quality & Odour	***Construction Mitigation Measures***
	Any disturbance required to the subsurface would be undertaken in accordance with the existing control measures, provided in the SSEMP and the RAP, which was prepared to protect workers from any potential exposure to contamination.
	Further identification of these areas would be undertaken as part of the Construction Environmental Management Plan.
	An industrial hygienist would be involved in the development of an asbestos management plan for the construction works and would be onsite at all times during the exposure of any materials under the capping layer.
	If required, the WorkCover Authority of NSW (WorkCover) would be notified in writing five days before any licensed asbestos removal work is commenced.
	Air monitors will be set up around the site to monitor key air quality parameter including dust and potential contaminants prior to exposure of the cap, and for the duration of the construction phase.
	Staff would be briefed on site contamination, risks and management measures prior to work commencing. This briefing would outline the difference between inhalation and other pathways where contact with contaminants is possible (e.g. ingestion, dermal absorption).
	Personnel would wear appropriate personal protective equipment whilst on site at all times during construction, including disposable dust masks and disposable coveralls during any disturbance of the cap.
	A Health and Safety Plan and risk assessment would be developed and implemented prior to construction commencing.
	During demolition works there is the potential for asbestos to be present on site. If suspected asbestos is encountered the following mitigation measures should be followed:
	Works should cease immediately until a licensed asbestos contractor can conduct removal of material;
	Appropriate personal protective equipment must be worn; and
	All removal works to be conducted in accordance with the Commonwealth's Work Health and Safety (WHS) Act and Regulation 2011 and the NSW WorkCover applicable How to Safely Remove Asbestos Code of Practice (WorkCover).
	Dust mitigation measures such as water suppression, would be employed during the construction phase to minimise any potential airborne dust and subsequent impact on neighbouring sites. Moisture in soils increases aggregation and cementation of the particles, which reduces the potential for dust emissions.
	Following the construction of the CRC, the site would again remain fully sealed to prevent any contact with contaminated soil and also assist in reducing the potential for dust impacts from the operation of the CRC.
	Time between ground disturbance and rehabilitation and the number of exposed surfaces will be minimised to prevent generation of dust.

Environmental Issue	Mitigation Measures
	All loads of excavated material, soil, fill and other erodible matter transported to or from the work site will be kept covered at all times during their transportation where required.
	Any dust complaints associated with the construction works will be investigated as soon as practical.
	Machinery and vehicles will not be left running when not in use.
	All vehicles and equipment must comply with the POEO Act 1997 and be fitted with properly maintained emission controls relevant to their date of manufacture.
	Exhaust emissions from stationary equipment such as generators will be directed away from residential properties.
	No matter of any kind is to be burnt on site.
	Operational Mitigation Measures
	All quality assurance picking stations and mobile equipment will have air conditioning, this will help to control air quality for employees within these confined areas.
	The building will have a dust suppression system installed within the receival and product areas.
Hazard & Risk Management	***Construction Mitigation Measures***
	The CEMP would include emergency response measures to be implemented during construction if required. All contractors would be trained in these measures prior to construction commencing.
	Fully stocked spill kits would be available at the premises and located in key areas. Spills to be cleaned up immediately. The spill kit must immediately be replenished when used.
	Operational Mitigation Measures
	The existing safety management measures and emergency response plans would be updated to reflect the proposed changes at the site.
	Fully stocked spill kits would be available at the premises and located in key areas. Spills to be cleaned up immediately. The spill kit must immediately be replenished when used.
	Faulty or unsafe equipment would be identified immediately and taken out of operation and replaced.
	Fire protection measures would include sprays, hoses and extinguishers. A Fire Brigade response would also be included in the emergency response plan.
	Fire protection equipment would be maintained as per the requirements of AS1851.
	All staff would be aware and trained in emergency response procedures for the site.
	All operators would be trained in fire prevention and fire fighting.
	Hot Work Permits would be required prior to undertaking any hot work.
	No smoking permitted and signs in the processing areas would be installed.

Environmental Issue	Mitigation Measures
	Scheduled inspections on electrical equipment / cords would be completed by a competent person and in accordance with manufacturer's instructions.
	All equipment would be fitted with appropriate safety switches (e.g. ensure residual current device is positioned between tools and general power outlets, emergency stop button).
	Service plant and equipment would be maintained as per manufacturer's requirements.
	Regular workplace inspections would be carried out to identify hazards and implement any necessary rectifications.
	All materials would be stored within enclosed structures to minimise impact of storm flooding.
	All visitors must report / sign-in to the office and be accompanied by site personnel at all times when on-site.
	Site security process / procedure would be clearly documented (e.g. security services).
	Security measures would include fencing, CCTV, security patrols, operator / driver vigilance.
Noise & Vibration	***Construction Mitigation Measures***
	A Construction Noise Management Plan would be developed.
	Noise monitoring will be conducted during construction.
	Construction works are to be carried out within the standard construction hours of 7am to 6pm Monday to Friday and 8am to 1pm Saturday. No work is to occur on Sundays or Public Holidays unless prior approval from EPA has been sought.
	Minimise construction-related vehicle movements on the site outside the normal construction hours identified above.
	Choose appropriate machines for each task and adopt efficient work practices to minimise the total construction period and the number of noise sources on the site. Avoid unnecessary noise due to idling diesel engines and fast engine speeds when lower speeds are sufficient for the task.
	Ensure all machines used on the site are maintained in good condition, with particular emphasis on exhaust silencers, covers on engines and transmissions and squeaking or rattling components. Excessively noisy machines should be repaired or removed from the site.
	Machines with excessively noisy reverse alarms should similarly be modified or removed from the site.
	Consult with nearest Rydalmere residences before work begins, including machines required on the site and the expected construction program.
	Should particular activities be required at night, every effort should be made to notify residents in advance, minimise noise during each event and carry out the activity as early as possible in the evening.
	Operational Mitigation Measures
	Ensure all machines used on the site are maintained in good condition, with particular emphasis on exhaust silencers, covers on engines and transmissions and squeaking or rattling components. Excessively noisy machines should be repaired or removed from the site.

Environmental Issue	Mitigation Measures
	Machines with excessively noisy reverse alarms should similarly be modified or removed from the site.
	Replace the existing cyclone fence at the northern end of the site with a 1.8 m steel fence (minimum 0.42 mm Base Metal Thickness) from the northwest corner of the property, aligned with the kerb along northern boundary, around to northeast corner of the property and finish level with the northeast corner of the CRC building.
	Maintain existing site speed limit of 20 km/hr and include no stopping requirement along the northern boundary for all heavy vehicles.
Waste	***Construction Mitigation Measures***
	Portable toilets would be provided on site for the workers, if existing site toilets are removed prior to new toilets being installed. Toilet waste from any portable is to be removed by an appropriately licensed contractor.
	All waste generated as a result of the proposed works would be managed in accordance with DECCW Waste Classification Guidelines (December 2009). All wastes will be securely stored to prevent pollutants from escaping.
	All contaminated waste would be managed in accordance with the measures outlined for contaminated material.
	Any waste (excluding toilet waste) generated each day would be stored in a suitable container and transported from the site to an appropriate facility. A sufficient number of suitable receptacles for general waste, hazardous waste and recyclable materials will be provided for waste disposal, including sufficient bins to allow separation of wastes for recycling.
	Concrete pumps would be cleaned in accordance with the POEO Act 1997.
	The contractor would be required to follow the Waste Resource Management Hierarchy principles of the Waste Avoidance and Recovery Act 2001.
	Waste streams would be sorted to maximise the recycling potential and minimise disposal costs.
	Any fuel, lubricant or hydraulic fluid spillages would be collected using absorbent material and the contaminated material disposed at a licensed waste facility. Apart from the material contained beneath the cap, no contaminated waste is to remain on site.
	Documents and records of the transport and fates of all materials removed from the site would be kept as proof of correct disposal and for environmental auditing purposes.
	The site would be left clean and free of weeds, debris and other rubbish at the end of the works.
	Sustainable initiatives are to be incorporated into the construction contract to encourage the contractor to source recycled material as part of construction activities.
	If suspected asbestos is encountered the mitigation measures outlined for air quality and contaminated material should be followed.
	Operational Mitigation Measures
	Any waste (excluding toilet waste) generated each day would be stored in a suitable container, with a lid, and transported from the site to an

Environmental Issue	Mitigation Measures
	appropriate facility or processed through the CRC. A sufficient number of suitable receptacles for general waste and recyclable materials will be provided for waste disposal, including sufficient bins to allow separation of wastes for recycling.
	Any fuel, lubricant, or hydraulic fluid spillages would be collected using absorbent material and the contaminated material disposed at a licensed waste facility. No contaminated waste is to remain on Site.
	The site would have an adequate quantity of spill kits and these will be restocked as needed.
Greenhouse Gas Emissions	***Construction Mitigation Measure***
	All trucks leaving the site carrying waste would be filled to the maximum amount allowable, to the extent that is practicable depending on the truck size, making certain that trucks are adequately covered in order to reduce the number of traffic movements required.
	The contractor would limit idling time of plant and equipment whilst onsite.
	The contractor would be required to include energy efficiency tips and requirements into the site environmental induction.
	The contractor would make certain that the only lighting left on overnight around the site office will be security or emergency/access lighting.
	Earthmoving equipment and on-site vehicles would be fitted with exhaust controls in accordance with the POEO (Clean Air) Regulation.
	The contractor would be required to check that all equipment is properly maintained so that unacceptable exhaust emissions do not occur in accordance with the POEO (Clean Air) Regulation.
	Incorporation of energy efficiency and GHG reduction measures would be monitored through the implementation of detailed design, procurement management and construction.
	Operational Mitigation Measures
	Investigate the feasibility of energy efficiency initiatives with suppliers of: • Lighting and heating, ventilation, and air conditioning (HVAC); and • Insulation.
	Power factor controls would be installed on machinery and less energy intensive process options would be selected.
	Natural lighting would be maximised where possible in the building.
	Sensors/timers would be installed on external and internal lighting and separate switches would be provided for lighting different functional zones where appropriate.
	The building would be fitted with recycled materials where possible, solar hot water, energy efficient rated applicants and artwork of recycled themes.
Soils, Geology & Contamination	***Contaminated Material Mitigation Measures***
	The existing SSEMP would be incorporated into the CEMP where relevant.
	An industrial hygienist would be involved in the development of an asbestos management plan for the construction works and would be onsite at all times during the exposure of the capping layer.

Environmental Issue	Mitigation Measures
	The WorkCover Authority of NSW (WorkCover) would be notified in writing five days before any licensed asbestos removal work is commenced. Only the licensed asbestos removalist can lodge the notification. The site would need to be classified as friable or non-friable by a suitably qualified occupational hygienist prior to the notification being prepared.
	Air monitors will be set up around the site prior to exposure of the cap.
	Personnel to understand and be briefed on Materials Safety Data Sheet (MSDS) for Cr (VI) during safety briefing.
	Wash facilities to be available immediately outside contaminated zone to wash splashes from skin. Contaminated clothes and shoes are not to be worn outside of the contaminated zone and should be cleaned daily.
	Staff would be briefed on site contamination, risks and management measures prior to work commencing. This briefing would outline the difference between inhalation and other pathways where contact with contaminants is possible (e.g. ingestion, dermal absorption).
	All equipment would be decontaminated once excavations have been completed.
	Surfaces would be wetted downs during excavation activities to control dust production.
	Personnel would wear appropriate personal protective equipment whilst on site at all times during construction, including disposable dust masks and disposable coveralls during disturbance of the capping layer.
	A Health and Safety Plan and risk assessment would be developed and implemented prior to construction commencing.
	Contaminated Groundwater Interception & Dewatering Mitigation Measures
	During the excavation phase of construction shallow groundwater may be encountered. Steps to minimise groundwater interception and dewatering will be taken into account during the detailed design, construction phase and post construction site management and may include:
	Prior to construction, materials handling plans will be prepared based upon the selected design. Materials handling procedures could include: • minimisation of the area of excavation and immediate backfilling • minimisation of groundwater drawdown • off-site disposal of surplus groundwater • neutralisation of excavated acid sulphate soils, or • off-site disposal of surplus excavated soil.
	During construction, if dewatering is required onsite, consultation will be undertaken with NOW to further ascertain licensing requirements. All water would be tested for contamination prior to disposal at an appropriate licensed waste facility, if required.
	General Construction Mitigation Measures
	Excavations onsite are to be kept to a minimum.
	Any excavated material would be placed in stockpiles on an impermeable surface to prevent leaching of contaminated material.
	Stockpiles would be covered with an impermeable covering and bunded to prevent loss of soil.

Environmental Issue	Mitigation Measures
	Stockpiles containing contaminated material would be signposted as contaminated material.
	A record of all site works including the status of any excavation or stockpiles would be maintained throughout the works in accordance with the existing SSEMP.
	Excavated material will be reused on site where possible. Any excavated material that requires disposal would be subject to waste classification under the EPA Waste Classification Guidelines 2014 and would be disposed of at an appropriate licensed facility.
	Disposal of any asbestos material would be undertaken by a licensed asbestos removalist.
	Sedimentation and erosion mitigation measures would be implemented during all construction work that has the potential to cause sedimentation and erosion.
	Permanent or temporary drainage works would be installed early in the construction program to minimise uncontrolled drainage and associated erosion. 'Clean' surface runoff would be diverted around and away from working areas to prevent erosion and 'dirty' runoff would be diverted away from work areas and into sediment control devices.
	The wheels of all vehicles would be cleaned prior to exiting the construction site where excavation occurs to prevent the tracking of mud. Where this is not practical, or excessive soil transfer occurs onto paved areas, street cleaning would be undertaken when necessary.
	Areas of exposed soil would be limited to those areas being actually worked.
	If possible, disturbed areas would be stabilised as soon as possible and in a progressive manner as works are completed.
	Earthworks would not take place during or after heavy rain when doing so is likely to cause soil erosion or soil structural damage. Under such circumstances, earthworks would stop and only recommence after the ground surfaces have sufficiently dried out.
	If any contamination (eg discoloured soil, strong chemical odours, refuse or leachate) is discovered during excavation, works would cease immediately and the nominated Environmental Representative would be notified to instruct the appropriate course of action.
	If any potential acid sulphate soil material is discovered during excavation, works would cease immediately and the nominated Environmental Representative is to be notified to advise of the appropriate course of action.
	An Acid Sulphate Soils Management Plan would be implemented for the duration of the construction.
	If required, salt-resistant building materials would be used in any saline risk areas.
	Post construction, the site specific environmental management plan will be updated to reflect any changed required to the current controls regarding excavation if required.
	Operational Mitigation Measures
	Periodically monitor discharges, especially dry weather discharges, from the storm drain system and periodically video survey the system to detect

Environmental Issue	Mitigation Measures
	potential damage and leakage. Establish a maintenance program as necessary to maintain the integrity of these drains.
	Erosion and sedimentation control measures would be implemented as required during maintenance activities.
	The diesel fuel tank and refuelling area would be appropriately bunded. All refuelling would take place within this area.
	A spill management plan would be developed for operation of the site. A spill kit would be provided onsite at all times. A refuelling procedure would also be developed and implemented for all refuelling activities undertaken
Hydrology	***Groundwater & Salinity***
	Removal of any water using a vacuum truck or similar, where necessary the water would then be classified, tracked and disposed of at an appropriate licensed facility
	Given the contaminated nature of the groundwater at the site, mitigation measures outlined for contaminated groundwater interception and dewatering would be implemented.
	Stormwater
	Refuelling, fuel decanting and vehicle maintenance work would take place within a designated bunded area adjacent to the fuel tank. If re-fuelling is necessary, it would be undertaken away from the River with spill response kits immediately available.
	A functioning 'spill kit' would be kept on site at all times for immediate clean up of accidental chemical/fuel spills. Any contaminated spill rags would be disposed of at an approved waste facility.
	Flooding
	Driveways and carparks would remain at existing levels (i.e. below the 100 year ARI level) with the exception of the site entry. At the Site entry, vehicular traffic will be required to drive over a “berm” which will be constructed to a top level of RL 3.76mAHD. In the 100 year ARI water will spill over the “berm” into the Site. The maximum depth on the top of the berm in the 100 year ARI is 0.06m.
	The kerb adjacent to Parramatta River would provide 500mm freeboard on the 100 year ARI flood event level to allow for uncertainty related to climate change or wave action.
	The minimum finished floor level (FFL) would be at RL 4.13 m, which is 500 mm above the 1 in 100 year flood level of RL 3.63 m AHD.
	The development would be constructed on imported fill that will ensure all FFLs are located 0.5m above the 100 year ARI. All fences will be flood compatible. All building and drainage components will be suitably designed to be structurally sound for all flood events.
	During a flood event greater than 1 in 100 year ARI, all on-site vehicles will be directed to move into the building, which will be constructed at a level above the 1 in100 year ARI.
	Reliable access and safe access will be available for pedestrians on the site to a level above the PMF level, with the FFL of the second floor to be a minimum of 7.0 AHD.

Environmental Issue	Mitigation Measures
	The Flood Emergency Response Plan will be updated prior to the operational phase of the facility.
	No storage of materials would be below the 100 year ARI flood level.
	Water Balance and Wastewater
	Rainwater tanks would be installed and the water used for any process water as well as garden maintenance, toilet flushing, grey water, fire, deluge system, dust suppression.
	Leachate tanks would be installed to capture any cleaning or dust suppression water that has come into contact with the waste.
	Water saving devices will be installed where appropriate.
	All chemicals stored on site would be recorded on a register. The relevant Material Safety Data Sheets would also be kept on site.
Traffic & Transportation	***Construction Mitigation Measures***
	A detailed construction traffic management plan will be prepared as part of the detailed plan in the CEMP.
	The requirements of the Roads Act 1993 will be followed at all times prior to and during all works (i.e. notice requirements, consultation and consent/concurrence requirements for works in, or closures of, public and classified roads).
	Work vehicles will not obstruct roadways or private driveways and will stay on formed roads or designated lay down areas.
	Private worker vehicles would be parked on the site and not on Grand Avenue.
	Operational Mitigation Measures
	Access and internal traffic arrangements will be designed to accord with the relevant Australian Standards.
	The provision of up to ten bicycle spaces for staff and visitors will be included into the detailed design of the site. The bicycle parking spaces will accordingly be designed in accordance with AS2890.3:1993.
Visual Amenity	***Construction Mitigation Measures***
	All vegetation clearing would be limited to only that which is necessary to undertake the works at the southern end of the site only.
	All work equipment and materials would be contained within the designated boundaries of the work site or works compound area(s).
	Accurate public information signs would be displayed while work is in progress and until site restoration has been completed.
	The spread of stockpiles, waste, and vehicle parking would be minimised during construction.
	Operational Mitigation Measures
	A landscaping plan would be developed as part of the detailed design of the Proposal. All landscaping would ensure that an effective cap is maintained below any vegetation. Vegetation will consist of shallow rooted native trees and grasses.
	The walls and roof of the new building are to be painted dark green in line with the foreshore vegetation and the existing tanker building. This would

Environmental Issue	Mitigation Measures
	help to reduce the visual impact of the building when viewed from the north side of the river.
	Highly reflective building surfaces, bright colours and unpainted metal would be avoided.
	All signs for the CRC would be located on Grand Ave. Signs would comply with relevant standards and be consistent in style. No signage is to be displayed on the foreshore side of the site so that it is visible from the river.
	Where required, external light fittings and fixtures would be selected and installed in a manner which directs lighting downwards and minimises impacts upon nearby residents, fauna or other adjacent land users
Socio-Economic Environment	***Construction Mitigation Measures***
	Work hours would be limited to the following: • 7am to 6pm, Monday to Friday • 8am to 1pm, Saturday • No work on Sundays and public holidays
	The Community Engagement Plan would be implemented and built upon during construction, including the communication channels of a dedicated phone line, email address and section on Veolia's website regarding the Proposal.
	Consultation would be maintained with key government and community stakeholders prior to work commencing, and throughout construction as necessary.
	Neighbouring landholders would be kept informed of the Proposal, the construction hours and duration of works. They will be supplied with a contact name and number for any queries relating to the works.
	Operational Mitigation Measures
	Education Centre would be made available to any interested community groups for tours and education programs.
	Viewing platforms, windows and see through walls from the education centre will be installed to enable tours of the facility to assist in informing interested parties of the processes involved in recovering resources at the site.
	Sustainable design initiatives, such as a green fit out and sponsored materials for the education centre would be featured in any site education programs.
Terrestrial & Aquatic Flora & Fauna	***Construction Mitigation Measures***
	Prior to construction works commencing staff would be inducted on the potential for the Green and Golden Bell Frog and the Grey Headed Flying Fox. To assist with species identification, photos of these species would be shown in this induction and included within the CEMP. If any threatened species (flora or fauna) are discovered during the works, all work would stop immediately and the nominated Environmental Representative would be notified. Work would only recommence once the impact on the species has been assessed and appropriate control measures have been implemented.
	The spreading of exotic vegetation would be controlled by using local topsoil in any site landscaping, where possible, and implemented weed management (for example by physically removing weeds by hand).

Environmental Issue	Mitigation Measures
	f any damage occurs to vegetation outside of the nominated work area (as shown in the CEMP), the nominated Environmental Representative would be notified so that appropriate remediation strategies can be developed and implemented.
	Weed removal would be undertaken using mechanical and manual means; herbicides shall only be used as a last resort.
	All weeds, weed propagules and other plant parts that are likely to regenerate would be bagged, removed from site and disposed of at a council approved/licensed waste disposal facility.
	All contractors undertaking weed removal or control would be trained or experienced in weed identification and removal (as per the Pesticide Act 1999).
	Any non-target species removed/killed as a result of weed control activities would be replaced.
	All vegetation damaged by works would be appropriately remediated with native vegetation.
	All plants used in landscaping would be shallow rooted native and indigenous to the region and in accordance with a landscaping plan which will be developed as part of the CEMP.
	Operational Mitigation Measures
	No additional operational mitigation measures are proposed.
Human Health	***Construction Mitigation Measures***
	A safety management plan would be implemented prior to construction.
	Operational Mitigation Measures
	Manual sorting requirements would be minimised where possible, and limited to light weight material.
	Appropriate Personnel Protective Equipment would be worn at all times where necessary.
	Sorting would be conducted in air conditioned cabins.
	Conveyors would be sized appropriately to minimise overloading.
	Safety would be considered during detailed design of the CRC, to include elements such as controls to effectively separate machinery from people, provide good lines of sight on picking lines, consideration of distances required to reach or twist to pick material.
	Safety controls would form part of the Operational Environmental Management Plan (OEMP)
Non-Indigenous Heritage	The following mitigation measures have been recommended to reduce or minimise impacts if items of heritage significance are encountered: • If an item (or suspected item) of non-Indigenous heritage is discovered during the works, all work in that area will cease and the nominated Environmental Representative will be contacted as soon as possible to determine the subsequent course of action. • An exclusion zone is to be formed along the existing northern fence line of the site to prevent access into the wetland area. All contractors would be made aware of the heritage significance of the wetland area and the former tram alignment. These items will be included in the CEMP and environmental site inductions.

Environmental Issue	Mitigation Measures
Indigenous Heritage	The following mitigation measures have been recommended to reduce or minimise impacts if items of heritage significance are encountered: • If an item (or suspected item) of Indigenous heritage is discovered during the works, all work in that area will cease and the nominated Environmental Representative will be contacted as soon as possible to determine the subsequent course of action. If during execution of the Proposal any items that are indicative of past human activity of considerable age are discovered, works are to be discontinued until the significance of the items is established. If the items are of Aboriginal origin (e.g. artefacts such as stone tool, worked bone and animal bones), the OEH is to be notified.

Appendices

- Appendix B – Water Management Plan

Camellia Materials Recycling Facility Water Management Plan

Phases 1A and 1B – Temporary Water Management System

17006-R01 Revision 0

Date: 20 September 2016

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Appendix

Appendix A – Phase 1A and 1B Water Management

1 Introduction

1.1 Context

This Water Management Plan (WMP) forms part of the *Camellia Material Recycling Facility (MRF) Phase 1 Preloading Construction Environmental Management Plan (CEMP)* (Veolia, 2016). This WMP has been prepared to meet the requirements of the *Development Consent Environmental Performance Conditions* items B6, B7 and B9 for 37 Grand Avenue, Camellia (Lot 1 DP 539890), Application No. SSD 4964.

1.2 Background

The Camellia Materials Recycling Facility (MRF) will ultimately comprise a large warehouse building and office block with floor constructed on engineered fill. The warehouse building will be constructed on engineered fill with a building floor level of RL 4.13m AHD which is 0.5m higher 100 year ARI flood level 3.63m AHD.

A Geotechnical Assessment completed by Douglas Partners (Douglas Partners, 2014) found that the placement of 1m of fill across the Site was expected to result in non-uniform settlement of between 50 and 200mm. Preload filling was proposed by Douglas Partners to consolidate soils over a period of approximately 12 months so that the proposed facility building slab may be cast directly onto proposed engineered fill.

1.3 Construction phasing

Veolia Environmental Services (Australia) Pty Ltd (Veolia) intends to construct the approved MRF as per the phases shown in Figure 1.1.

Figure 1.1 Construction Phasing

1.4 Scope of this WMP

This scope of this WMP is for Phase 1A Early Works and Phase 1B Site Consolidation.

2 Purpose and Objectives

2.1 Purpose

The purpose of this WMP is to describe how Veolia proposes to manage and protect soil and water quality during Phase 1A Early Works and Phase 1B Site Consolidation.

2.2 Objective

The key objective of the WMP is to implement a Temporary Water Management System (TWMS) and erosion and sediment controls to minimise the impacts on water quality downstream of the development within the scope permitted by the development consent.

To achieve this, Veolia will undertake the following:

- ensure appropriate measures are implemented to comply with all relevant legislation and other requirements as described in Section 3.1 of this WMP.
- ensure appropriate measures are implemented to address the relevant environmental performance criteria specified in the Development Consent (Section 3.2).
- ensure feasible and reasonable controls (Section 6) and procedures (Section 7) are implemented during construction activities to avoid or minimise potential erosion and sedimentation.

2.3 Targets

The following targets have been established for the management water during the construction period of the Camellia MRF:

- ensure full compliance with the relevant legislative requirements and Consent Conditions;
- meet water quality discharge parameters for all planned discharges; and
- ensure training on soil and water management is provided to all relevant personnel through site inductions.

3 Environmental requirements

3.1 Relevant legislation and guidelines

3.1.1 Legislation

Legislation relevant to soil and water management includes:

- Protection of the Environment Operations Act 1997 (POEO Act);
- Water Management Act 2000 (WM Act);
- Fisheries Management Act 1994 (FM Act); and
- Water Act 1912 (Water Act).

Relevant provisions of the above legislation that relate to the Camellia MRF are explained in Section 3.3 of the EIS (CH2M, 2013).

3.1.2 Guidelines

Guidelines, specifications and policy documents relevant to this WMP include:

- Managing Urban Stormwater, Soils and Construction “Blue Book” (Landcom, 2004).
- NSW Government Department of Primary Industries, Office of Water, Guidelines for Controlled Activities; and
- Department of Environment and Conservation, Approved Methods for the Sampling and Analysis of Water Pollutants in New South Wales (DEC, 2004a).

3.2 Development Consent – Environmental Performance Conditions

The Planning Assessment Commission has granted development consent for the construction and operation of a materials recycling facility at 37 Grand Avenue, Camellia (Lot 1 DP 539890). Schedule 2 Part B lists environmental performance measures to be implemented as part of the development. Relevant to this WMP are items B6, B7, and B9 listed below.

Water Management Plan

B6. Prior to the commencement of construction of the Development, the Applicant shall prepare a Water Management Plan to the satisfaction of the Secretary. The plan must:
   a. be prepared by a suitably qualified and experienced person(s) in consultation with Council;
   b. include the details of:
      i. the Water Management System (see Condition B8);
      ii. erosion and sediment control measures (see Condition B9); and
      iii. bunding (see Condition B11)

B7. The Applicant shall carry out the Development in accordance with the Water Management Plan approved by the Secretary (as revised and approved by the Secretary from time to time), unless otherwise agreed by the Secretary.

Erosion and sediment control

B9. The Applicant shall implement erosion and sediment control measures on-site in accordance with *Managing Urban Stormwater: Soils and Construction Vol 1.* (Landcom, 2004).

4 WMP consultation

Schedule 2 Condition B6 requires a WMP be submitted to Parramatta City Council for Consultation (this document).

This plan will be updated to address any comments received from Parramatta City Council.

5 Existing environment

5.1 Site description

The Site is located on the Camellia Peninsula as shown in Figure 5.1. The Site is bounded by Parramatta River (waterfront land) to the north, a vacant empty lot with a sealed pavement to the east, Grand Avenue to the south, and two existing industrial facilities to the west.

Figure 5.1 Site Location

The Site covers an area of approximately 20,230 square metres (m^2), and is approximately 85 metres (m) wide (east-west) and 238m long (north-south).

The Site is located on land within the 1% AEP. The 1% AEP flood level in Parramatta River is RL +3.63m AHD. Localised flooding may also occur due to heavy wet weather events.

Flooding currently affects the Site in two ways:

1. Fluvial flooding – flooding from Parramatta River (rising river waters) during very rare and extreme flooding events greater than the 1%AEP; and
2. Pluvial flooding (overland flow) – flooding from rainfall during frequent flooding events >1 EY within the local catchment (to the south-west) on the Camellia peninsula that is conveyed as overland flow along Grand Avenue.

The demolished Site has all previous buildings and above-ground structures removed with the exception of the three tanks in the south-eastern corner of the property adjacent to Grand Avenue and existing drainage infrastructure that extends above the natural surface level (NSL). The existing pavement NSL and building pads have remained. Water will continue to drain via the existing drainage system at the Site shown in Figure 5.2. The existing drainage system comprises a number of pits, pipes, On-Site Detention (OSD), isolation valve, oil & grease separator and outlet to Parramatta River.

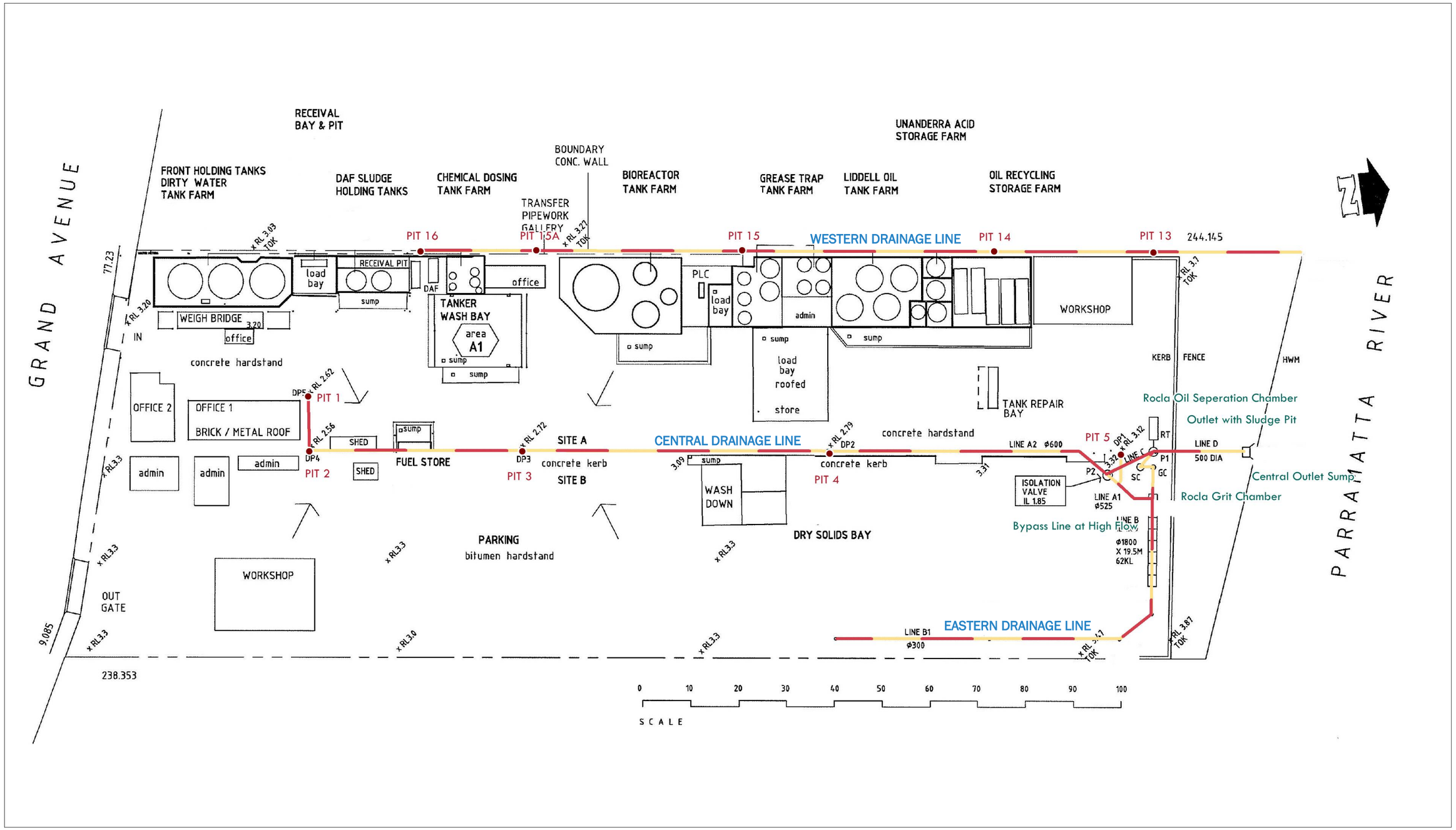

Figure 5.2 Existing drainage system

6 Temporary Water Management System (TWMS)

6.1 Water management drawings

Water management drawings that relate to Phases 1A and 1B are included in Appendix A. Drawings include:

- 1001 Phase 1B Earthworks layout plans
- 1002 Phase 1B Fill volume
- 1003 Phase 1B Sediment and Erosion Control Plan
- 1004 Phase 1B Typical Detail
- 1005 Phase 1A Staging Plan
- 1006 Phase 1A and 1B Notes

6.2 Phase 1A TWMS features

Phase 1A is envisioned to be developed in three stages as shown on dwg 1005. All features shown on Phase 1B dwgs 1001 – 1004 will be implemented progressively.

Initially all sediment and erosion control fencing, sand bags and shaker grids will be installed.

During construction of Stages 1 and 2, the lowest area of the Site (approximately bounded by the RL +2.8mAHD contour as shown on dwg 1005) will be used pool and collect site runoff for transfer to the sediment retention basin.

Stage 1 of the engineered fill will be constructed first. Stage 1 represents approximately 1/3 of the Site located closest to Parramatta River and contains the sediment retention basin, spillway and outlet riser tube. Whilst Phase 1A stage 1 is undergoing construction, a sediment fence will also temporarily be installed along the existing surface (NSL) to limit sediment washing off Stages 1 onto the existing surface during construction.

Stage 2 of the engineered fill will be progressively constructed. Stage 2 represents approximately 1/3 of the Site. Whilst Phase 1A stage 2 is undergoing construction, a sediment fence will also temporarily be installed along the existing surface (NSL) to limit sediment washing off Stages 2 onto the existing surface during construction.

Completion of Stage 3 construction will likely occur last. Stage 3 will be constructed so that any runoff during construction can either be diverted directly into catch drains or be collected in a low point and transferred into the sediment retention basin.

6.3 Phase 1B features

Veolia will implement the following water management features as part the Phase 1B Temporary Water Management System (TWMS):

- A sediment retention basin designed as per Landcom (2004);
- An outlet riser tube in the sediment retention basin that connects into existing Pit P1;
- Catch drains located around the top edges of the proposed engineered fill embankment to capture and receive runoff and direct runoff into the sediment retention basin; and
- The ability to reuse water contained within the sediment retention basin for Site watering and dust control.

Veolia will implement the following sediment & erosion control features in Phase 1B:

- Silt fencing erected along the Site Boundary;
- Silt fencing erected at the bottom the engineered fill embankment;

- Sand bags placed at 50m intervals in toe drains (along the base of the engineered fill) between sediment fences; and
- Geospray erosion control product or erosion control blanket keyed into the 1:1 engineered fill batter slopes or equivalent suitable material along 1:1 engineered batter.

7 WMP compliance management

7.1 Monitoring and records

The following monitoring and record keeping will be undertaken.

- During construction Phase 1A and 1B, all inspections of water management systems (including sediment and erosion controls) shall be documented. The water level in the sediment and erosion control basin shall also be documented.
- Following all rainfall of greater than 29.5mm over a five-day period[1], all sediment and erosion controls at the Site must be inspected and returned to good working order as described on dwg 1004 (Appendix A).
- At least two representative samples of basin outlet water shall be collected (during different consecutive events) when the basin is overflowing[2]. Samples shall be analysed for Total Suspended Solids (TSS). If TSS is observed to be less than 50 mg/L, then the basin is functioning as designed. If TSS is observed to be greater than 50mg/L, then flocculation or additional sediment and erosion control measures shall be implemented.

7.2 Training

All relevant employees and contractors working on site will undergo site induction training, which will cover issues relating to soil and water management including:

- the existence and requirements of this plan;
- relevant legislation;
- water quality management and protection measures; and
- procedures to be implemented in the event of an unexpected discovery of contaminated land.

Targeted training in the form of toolbox talks or specific training will also be provided to personnel with key roles in soil and water management onsite. Examples of training topics include:

- Soil and water management control installation methodology;
- working near or in drainage lines and creeks;
- emergency response measures in high rainfall events;
- preparedness for high rainfall events;
- lessons learnt from incidents and other events;
- spill response; and
- Identification of potentially contaminated material.

7.3 Weather monitoring

Rainfall will be measured and recorded in millimetres per 24-hour from 9am each day either using an On-Site gauge (once installed) or using latest weather observation data from the

[1] The 5 day, 80th percentile rainfall event
[2] As a 100% AEP event of 31mm in 90 minutes will cause the basin to overflow. The basin will also overflow if the outlet riser tube is not functioning correctly.

Australian Government Bureau of Meteorology Gauge 066124 Parramatta North (Masons Drive)[3] or another suitable nearby gauge. Results will be included as part of monitoring and records.

8 Review and improvement

8.1 Continuous improvement

Continuous improvement of this WMP will be undertaken through the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement.

The continuous improvement process is designed to:

- identify areas of opportunity for improvement of environmental management and performance;
- determine the cause or causes of non-conformances and deficiencies;
- develop and implement a plan of corrective and preventative action to address any non-conformances and deficiencies;
- verify the effectiveness of the corrective and preventative actions;
- document any changes in procedures resulting from process improvement; and
- make comparisons with objectives and targets.

8.2 WMP update and amendment

The processes described in Section 7 and 8 of this WMP and in the CEMP may result in the need to update or revise this WMP.

The approval of updates or revisions to the WMP will need to be considered in accordance with the *CEMP Phase 1 Preloading* (Veolia, 2016). Updates will be reviewed by the Veolia Environment Manager and Site Project Manager.

[3] http://www.bom.gov.au/products/IDN60801/IDN60801.94764.shtml

9 References

CH2M (2013), *Camellia Recycling Centre Environmental Impact Statement*, 22 February 2013.

Douglas Partners (2014), *Report on Geotechnical Assessment, Proposed Warehouse Building 37 Grand Ave Camellia*, Projct 73879.00, June 2014.

Landcom (2004), *Managing Urban Stormwater, Soils and Construction "Blue Book"*, 4th Edition, March 2004.

Veolia (2016), *Construction Environmental Management Plan (CEMP) Phase 1 Preloading.*

Appendix A – Phase 1A and 1B Water Management

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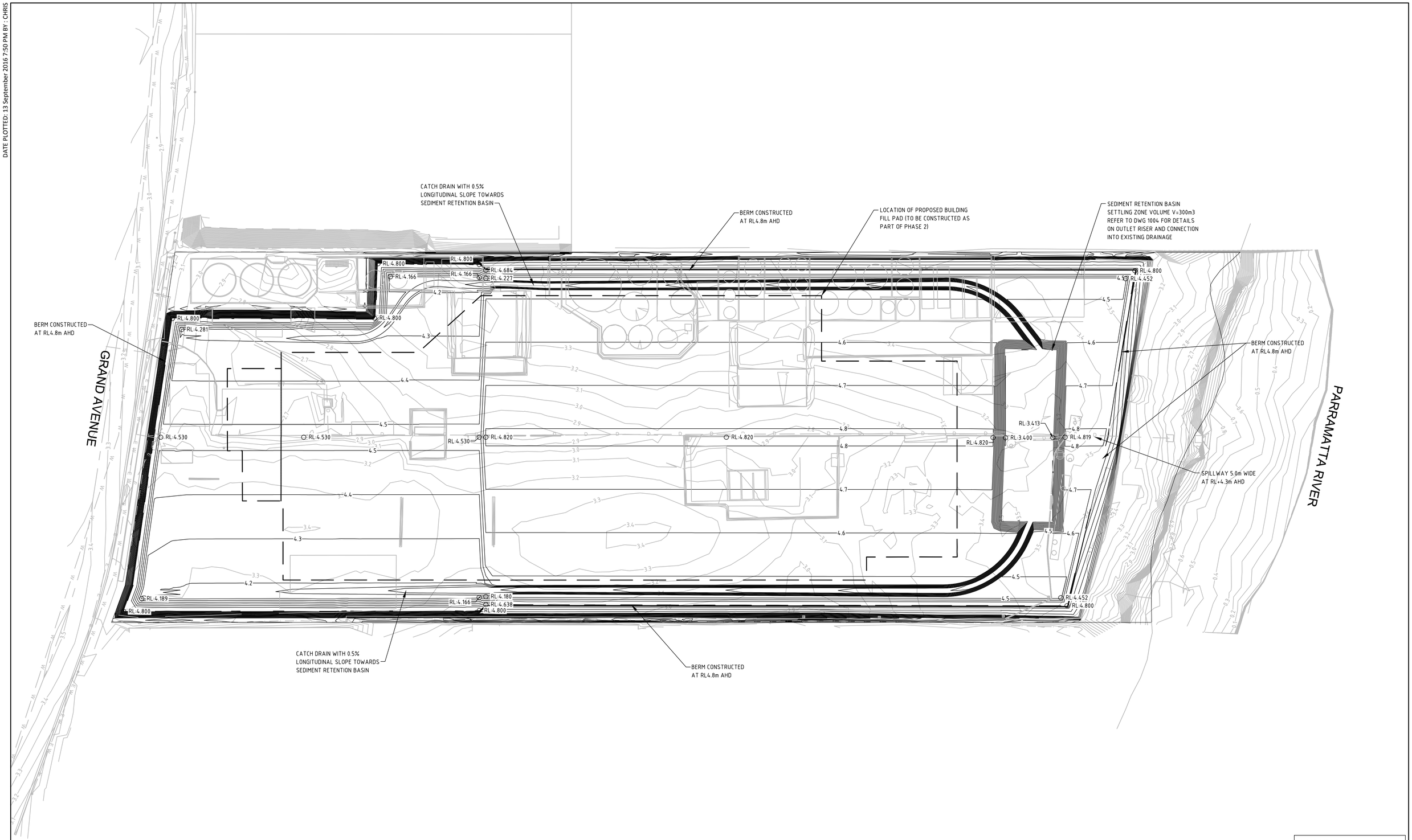

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Consult.in
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Drawn CJG	Date 01/09/2016	Client VEOLIA
Checked CJG	Date 01/09/2016	PHASE 1B PRELIMINARY EARTHWORKS LAYOUT PLAN
Designed MBF	Date 01/09/2016	
Verified MBF	Date 01/09/2016	CAMELLIA MATERIALS RECYCLING FACILITY
Approved MBF	Date 01/09/2016	37 GRAND AVENUE, CAMELLIA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES

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Drawing Number: 17006-1001
Revision: 0

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LEGEND:

NUMBER	MINIMUM ELEVATION (m)	MAXIMUM ELEVATION (m)	COLOUR	2D AREA (m2)	3D AREA (m2)	VOLUME (m3)
1	-0.323	-0.250		1.022	1.205	0.021
2	-0.250	0.000		480.794	499.701	20.747
3	0.000	0.250		498.453	594.689	4407.593
4	0.250	0.500		488.108	573.774	4300.253
5	0.500	0.750		849.403	942.286	4140.379
6	0.750	1.000		3015.415	3112.382	3750.294
7	1.000	1.250		4980.822	5060.201	2643.609
8	1.250	1.500		3998.474	4028.004	1519.265
9	1.500	1.750		2882.852	2896.970	638.289
10	1.750	2.193		1200.338	1212.997	120.415

CUT AND FILL VOLUMES:

AREA: 18404m2
CUT: 22m3
FILL: 21910m3
NET: 21888m3

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Checked	CJG	01/09/2016
Designed	MBF	01/09/2016
Verified	MBF	01/09/2016
Approved	MBF	01/09/2016

Client: VEOLIA

PHASE 1B
PRELIMINARY CUT AND FILL SHADING LAYOUT PLAN
CAMELLIA MATERIALS RECYCLING FACILITY

37 GRAND AVENUE, CAMELLIA

Status: PRELIMINARY
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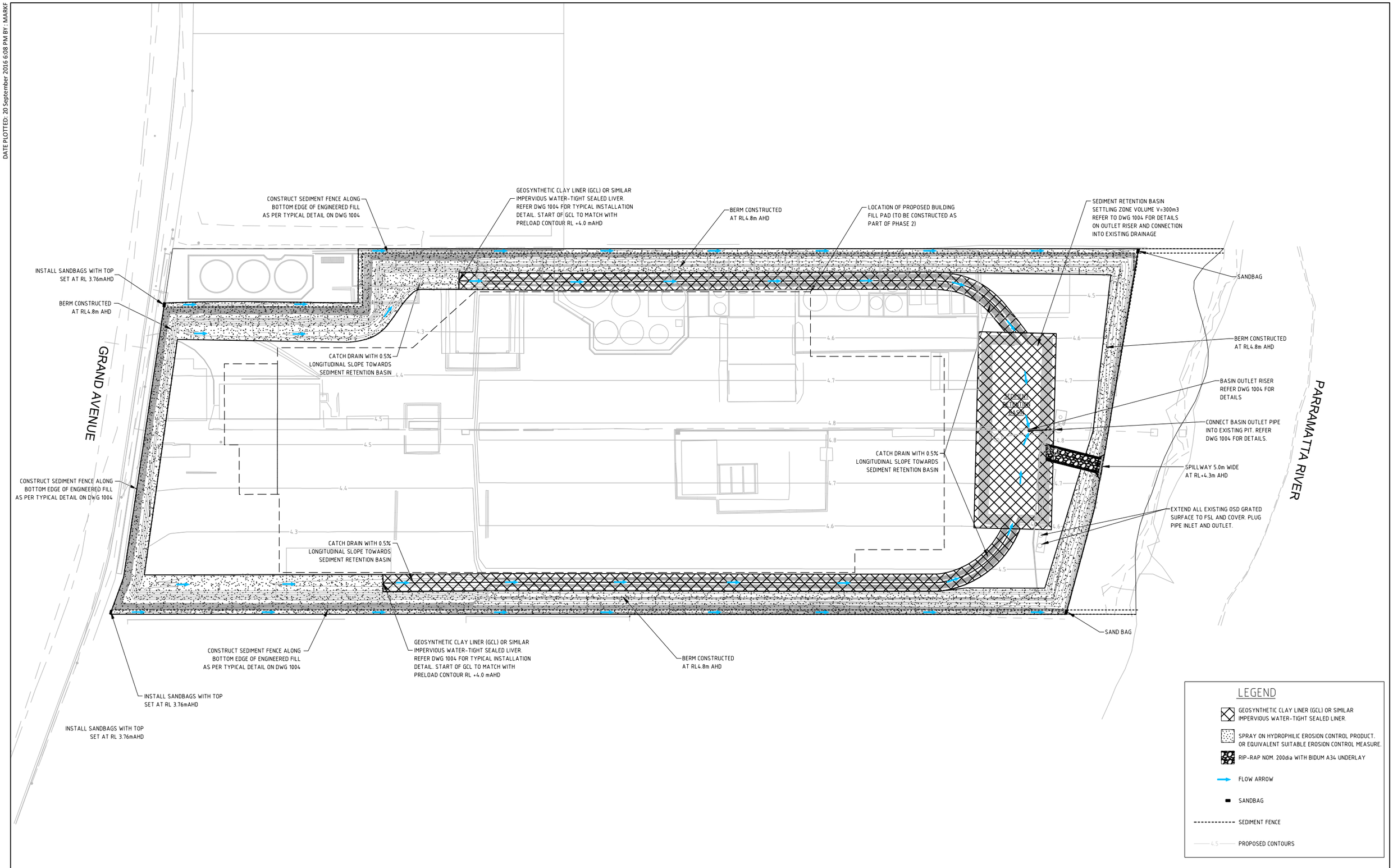

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		Date
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Checked	CJG	01/09/2016
Designed	MBF	01/09/2016
Verified	MBF	01/09/2016
Approved	MBF	01/09/2016

Client: VEOLIA

PHASE 1B
SEDIMENT AND EROSION CONTROL
LAYOUT
CAMELLIA MATERIALS RECYCLING FACILITY
37 GRAND AVENUE, CAMELLIA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES

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Drawing Number: 17006-1003
Revision: P1

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EROSION AND SEDIMENT CONTROL NOTES

GENERAL INSTRUCTIONS

1. THE SITE SUPERINTENDENT WILL ENSURE THAT SOIL AND WATER MANAGEMENT WORKS ARE LOCATED AS DOCUMENTED.

2. ALL WORK SHALL BE GENERALLY CARRIED OUT IN ACCORDANCE WITH:
   a. LOCAL AUTHORITY REQUIREMENTS;
   b. EPA REQUIREMENTS; AND
   c. LANDCOM (2004) "MANAGING URBAN STORMWATER, SOILS AND CONSTRUCTION", 4TH EDITION, MARCH 2004.

3. MAINTAIN THE EROSION CONTROL DEVICES TO THE SATISFACTION OF THE SUPERINTENDENT AND THE LOCAL AUTHORITY.

4. THE WATER IN THE SEDIMENT BASIN(S) SHALL BE LOWERED PERIODICALLY TO MAINTAIN THE STORAGE VOLUME REQUIRED FOR FINE SOILS.

5. AT ALL TIMES A WATER CART(S) SHALL BE MAINTAINED ON-SITE TO:
   a. WATER AREAS OF HYDROMULCH (IF REQUIRED)
   b. CONTROL DUST (IF REQUIRED)

WATERING OF MULCH, DUST OR VEGETATION MUST BE KEPT TO THE MINIMUM REQUIRED TO ACHIEVED SPECIFIED OUTCOMES. IN NO CASE SHALL AREAS BE OVER WATERED TO SATURATION OR TO THE POINT WHERE WATER PONDS ON THE SURFACE.

6. STORMWATER IN THE SETTLING ZONE SHALL BE DRAINAGE OR PUMPED OUT WITHIN 7 DAYS (NO LATER THAN 14 DAYS AS SITE CONDITIONS ALLOW) FOLLOWING RAINFALL EVENT IF THE NOMINATED WATER QUALITY TARGETS CAN BE MET. THE LOWER LEVEL OF THE SETTLING ZONE SHALL BE IDENTIFIED WITH A PEG THAT CLEARLY SHOWS THE LEVEL WHICH DESIGN CAPACITY IS AVAILABLE.

7. ON THE SUPERINTENDENT'S INSTRUCTIONS, AIDED FLOCCULATION SHOULD BE EMPLOYED WHERE EXTENDED SETTLING IS LIKELY TO FAIL TO MEET QUALITY STANDARDS WITHIN 5 DAYS.

8. STORED SEDIMENT SHALL NOT ENCROACH INTO THE SETTLING ZONE. SEDIMENT REMOVED FROM SEDIMENT BASINS SHALL BE DISPOSED IN PLACES THAT WILL NOT RESULT IN A FUTURE EROSION OR POLLUTION HAZARD.

9. WHEN STORMWATER PITS ARE CONSTRUCTED, PREVENT SITE RUNOFF ENTERING UNLESS SEDIMENT FENCES ARE ERECTED AROUND PITS.

10. CONTRACTOR IS TO ENSURE ALL EROSION & SEDIMENT CONTROL DEVICES ARE MAINTAINED IN GOOD WORKING ORDER AND OPERATE EFFECTIVELY. REPAIRS AND OR MAINTENANCE SHALL BE UNDERTAKEN AS REQUIRED; PARTICULARLY FOLLOWING STORM EVENTS.

LAND DISTURBANCE

11. WHERE PRACTICAL, THE SOIL EROSION HAZARD ON THE SITE WILL BE KEPT AS LOW AS POSSIBLE. TO THIS END, WORKS SHOULD BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:
   a. INSTALL A WIND FENCE ALONG THE BOUNDARIES.
   b. INSTALL A SEDIMENT FENCE ALONG THE BOUNDARIES (REFER DETAIL).
   c. CONSTRUCT STABILISED CONSTRUCTION ENTRANCE TO LOCATION AS DETERMINED BY SUPERINTENDENT/ENGINEER (REFER DETAIL).
   d. INSTALL SEDIMENT BASIN AS SHOWN ON PLAN.
   e. INSTALL SEDIMENT TRAPS AS SHOWN ON PLAN.
   f. UNDERTAKE SITE DEVELOPMENT WORKS IN ACCORDANCE WITH THE ENGINEERING PLANS. WHERE POSSIBLE PHASE THE DEVELOPMENT SO THAT LAND DISTURBANCE IS CONFINED TO A REAS OF WORKABLE SIZE.

EROSION CONTROL

12. DURING WINDY WEATHER, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.

13. FINAL SITE LANDSCAPING WILL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS FROM COMPLETION OF CONSTRUCTION ACTIVITIES.

SEDIMENT CONTROL

14. STOCKPILES WILL NOT BE LOCATED WITHIN 2 METRES OF HAZARD AREAS, INCLUDING LIKELY AREAS OF CONCENTRATED OR HIGH VELOCITY FLOWS SUCH AS WATERWAYS. WHERE THEY ARE BETWEEN 2 AND 5 METRES FROM SUCH AREAS, SPECIAL SEDIMENT CONTROL MEASURES SHOULD BE TAKEN TO MINIMISE POSSIBLE POLLUTION TO DOWNSLOPE WATERS, E.G. THROUGH THE INSTALLATION OF SEDIMENT FENCING.

15. ANY SAND USED IN THE CONCRETE CURING PROCESS (SPREAD OVER THE SURFACE) WILL BE REMOVED AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS FROM PLACEMENT.

16. WATER WILL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS IT IS RELATIVELY SEDIMENT FREE, I.E. THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED THROUGH AN APPROVED STRUCTURE.

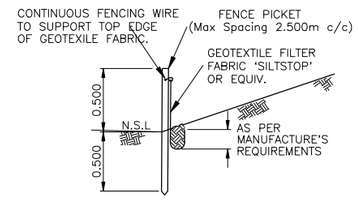
17. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES WILL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.
OTHER MATTERS.

18. ACCEPTABLE RECEPTORS WILL BE PROVIDED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER.

19. ANY EXISTING TREES WHICH FORM PART OF THE FINAL LANDSCAPING PLAN WILL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY:
   a. PROTECTING THEM WITH BARRIER FENCING OR SIMILAR MATERIALS INSTALLED OUTSIDE THE DRIP LINE;
   b. ENSURING THAT NOTHING IS NAILED TO THEM; AND
   c. PROHIBITING PAVING, GRADING, SEDIMENT WASH OR PLACING OF STOCKPILES WITHIN THE DRIP LINE EXCEPT UNDER THE FOLLOWING CONDITIONS.

DUST CONTROL NOTE

20. CONTRACTOR TO MAINTAIN ALL CONSTRUCTION ACCESSWAYS AND STOCKPILE SURFACES IN MOIST (NOT WET) STATE TO MINIMISE FORMATION OF EXCESSIVE DUST.



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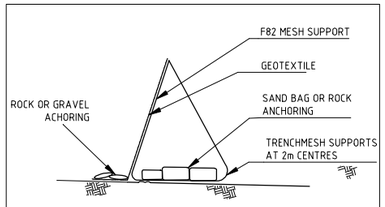

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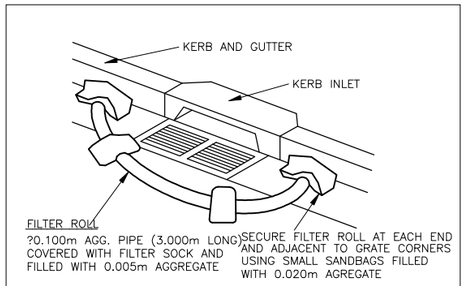

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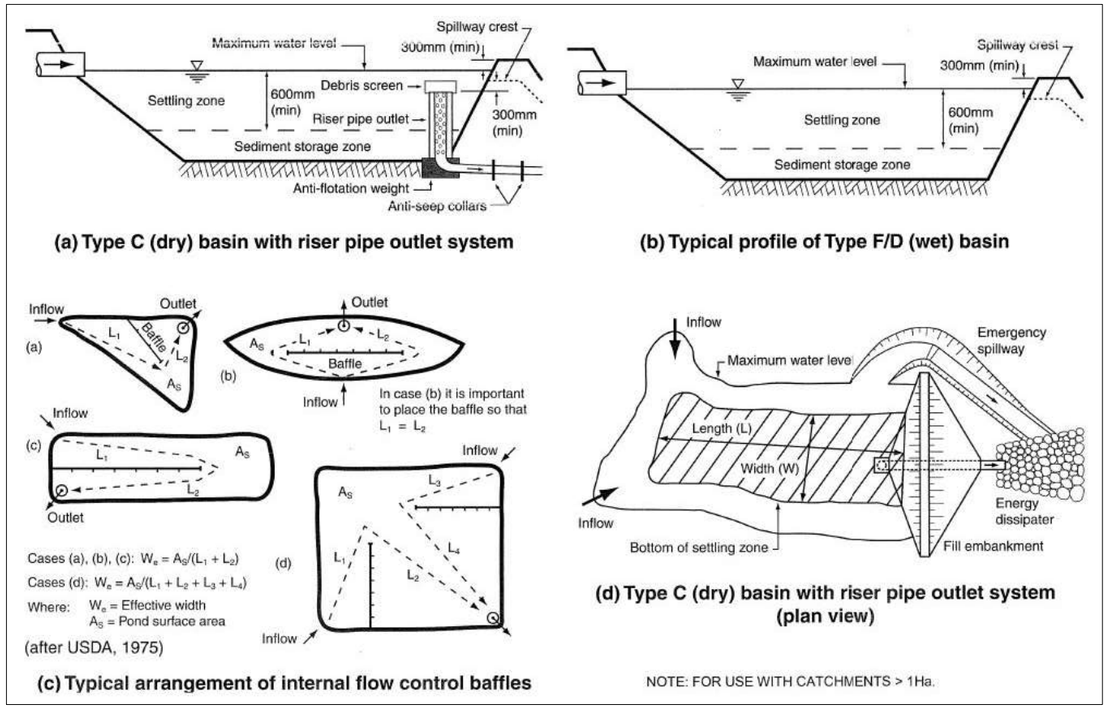

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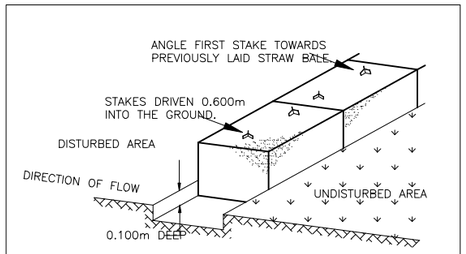

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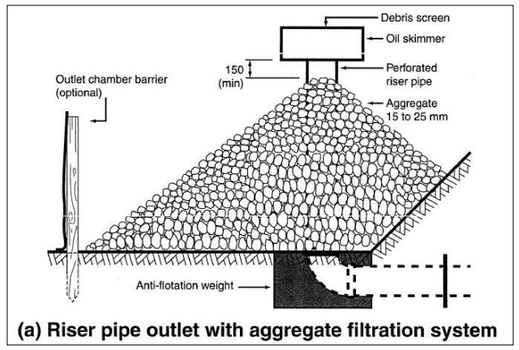

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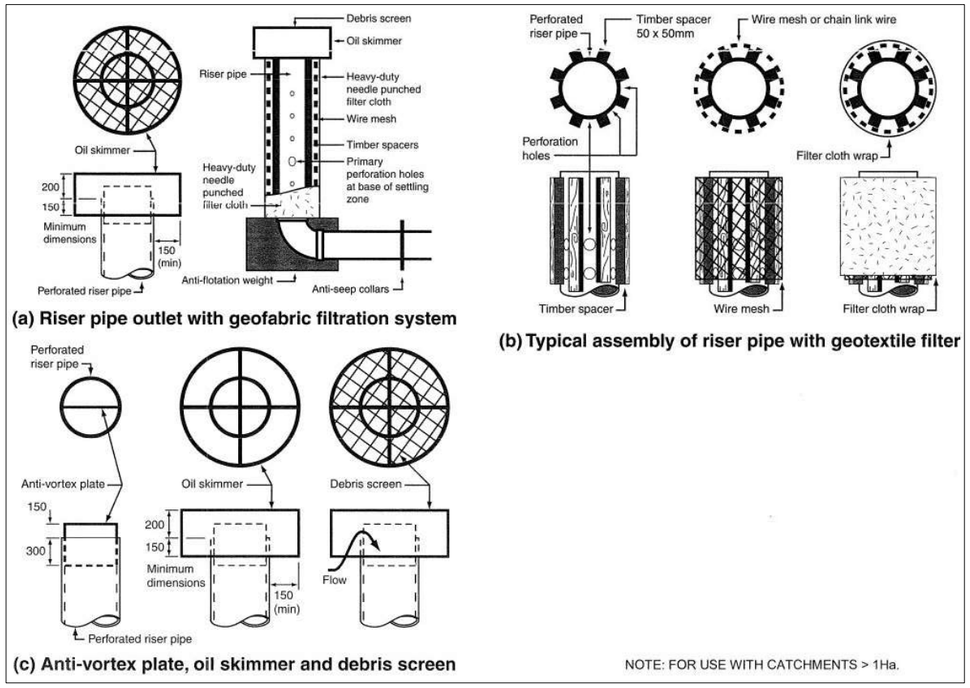

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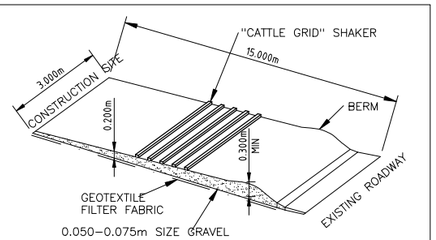

SHAKE DOWN PAD
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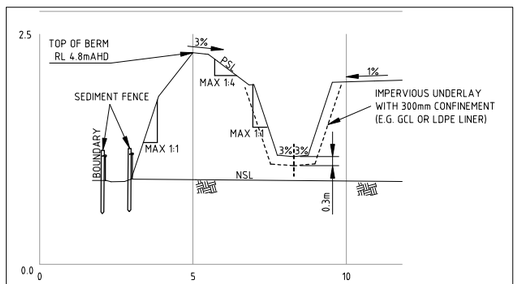

TYPICAL SECTION THROUGH
CATCH DRAIN AND BERM
SCALE: N.T.S.

Rev	Date	Description	Des.	Verif.	Appr.
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0 10 20 30 40m
SCALE 1:400

NORTH

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Checked	CJG	01/09/2016
Designed	MBF	01/09/2016
Verified	MBF	01/09/2016
Approved	MBF	01/09/2016

Client: VEOLIA

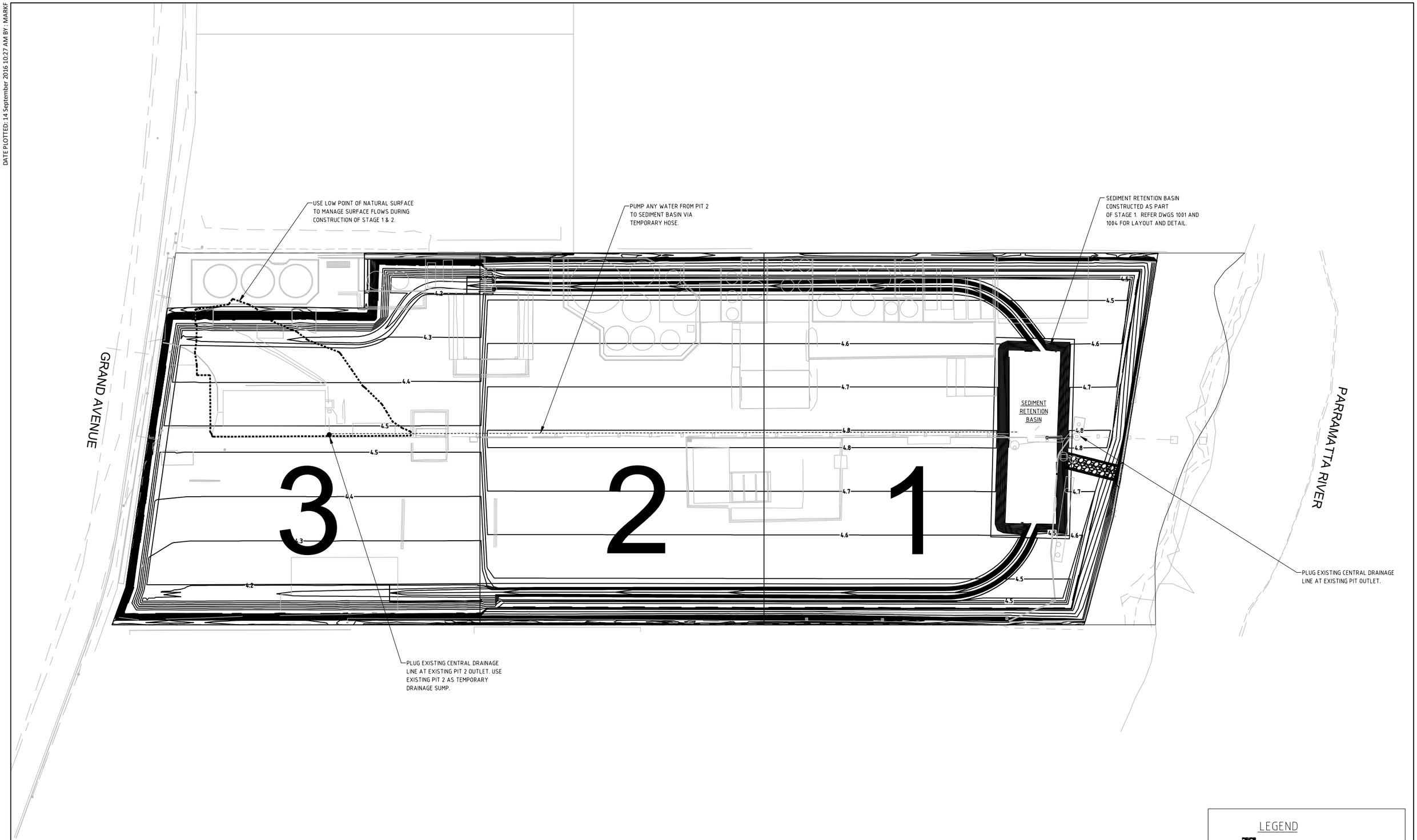
PHASE 1A AND 1B
SEDIMENT AND EROSION CONTROL
TYPICAL DETAIL
CAMELLIA MATERIALS RECYCLING FACILITY
37 GRAND AVENUE, CAMELLIA

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Register	Scale	Size
A.H.D.	----	1:400	A1

Drawing Number: 17006-1004
Revision: P0

DATE PLOTTED: 14 September 2016 10:27 AM BY : MARKF



LEGEND

RIP-RAP NOM. 200dia WITH BIDUM A34 UNDERLAY

4.5 PROPOSED CONTOURS

Rev	Date	Description	Des.	Verif.	Appr.
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Approved	MBF	Date 13/09/2016

Client: VEOLIA

PHASE 1A
EXAMPLE EARTHWORKS STAGING PLAN

CAMELLIA MATERIALS RECYCLING FACILITY
37 GRAND AVENUE, CAMELLIA

Status: PRELIMINARY
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DATE PLOTTED: 14 September 2016 11:34 AM BY : MARKF

INSTALLATION OF RISER PIPE

1. DRILL DE-WATERING HOLES IN THE RISER AS SPECIFIED ON THE PLAN.

2. EXCAVATE ANTI-FLOATATION PIT.

3. SECURELY ATTACH THE RISER TO THE CONDUIT OR CONDUIT STUB TO MAKE WATERTIGHT STRUCTURAL CONNECTION. SECURE ALL CONNECTIONS BETWEEN CONDUIT SECTIONS BY APPROVED WATER TIGHT ASSEMBLIES.
4. ATTACH THE ANTI-SEEP COLLARS TO THE CONDUIT AS SHOWN ON THE APPROVED PLAN, OR OTHERWISE AS SPECIFIED.

5. PLACE THE CONDUIT AND RISER ON A FIRM, SMOOTH FOUNDATION OF IMPERVIOUS SOIL. DO NOT USE PERVIOUS MATERIAL SUCH AS SAND, GRAVEL, OR CRUSHED ROCK AS BACKFILL AROUND THE CONDUIT OR ANTI-SEEP COLLARS.

6. PLACE FILL MATERIAL AROUND THE CONDUIT IN 100MM LAYERS AND COMPACT AROUND THE PIPE TO AT LEAST THE SAME DENSITY AS THE ADJACENT EMBANKMENT. ENSURE APPROPRIATE CARE IS TAKEN NOT RAISE FROM FIRM CONTACT WITH ITS FOUNDATION WHEN COMPACTING UNDER THE PIPE HAUNCHES.

7. PLACE A MINIMUM DEPTH OF 600MM OF LIGHTLY COMPACTED BACKFILL MATERIAL OVER THE CONDUIT BEFORE CROSSING IT WITH CONSTRUCTION OF EQUIPMENT.

8. ANCHOR THE RISER IN PLACE BY CONCRETE OR OTHER SATISFACTORY MEANS TO PREVENT FLOTATION. ENSURE THAT ANTI-FLOTATION MASS IS AT LEAST 110% OF THE WATER MASS DISPLACED BY THE RISER PIPE OUTLET SYSTEM, INCLUDING THE VOLUME DISPLACED BY THE ANTI-FLOATATION WEIGHT.

9. IN NO CASE SHOULD THE CONDUIT BE INSTALLED BY CUTTING A TRENCH THROUGH THE BASIN AFTER THE EMBANKMENT IS COMPLETED.

10. ATTACH ANTI-VORTEX DEVICE AND TRASH GUARD TO RISER AND AS REQUIRED (REFER TO DRAWING 1004).
MAINTENANCE

11. CHECK ALL VISIBLE PIPE CONNECTIONS FOR LEAKS, AND REPAIR AS NECESSARY.

12. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE BASIN AND RISER.

13. SUBMERGED INFLOW PIPES MUST BE INSPECTED AND DE-SILTED (AS REQUIRED) AFTER EACH INFLOW EVENT.
REMOVAL

14. DISPOSE OF ALL MATERIALS IN A MANNER THAT WILL NOT CREATE AN EROSION OR POLLUTION HAZARD.

SEDIMENT BASIN

MATERIALS

EARTH FILL: CLEAN SOIL WITH EMERSON CLASS 2(1), 3, 4, OR 5, AND FREE OF ROOTS, WOODY VEGETATION, ROCKS AND OTHER UNSUITABLE MATERIAL. SOIL WITH EMERSON CLASS 4 AND 5 MAY NOT BE SUITABLE DEPENDING ON PARTICLE SIZE DISTRIBUTION AND DEGREE OF DISPERSION. CLASS 2(1) SHOULD ONLY BE USED UPON RECOMMENDATION FROM GEOTECHNICAL SPECIALIST. THIS SPECIFICATION MAYBE REPLACED BY AN EQUIVALENT STANDARD BASED ON THE EXCHANGEABLE SODIUM PERCENTAGE.

RISER PIPE: MINIMUM 250mm DIAMETER.

SPILLWAY ROCK: HARD, ANGULAR, DURABLE, WEATHER RESISTANT AND EVENLY GRADED ROCK WITH 50% BY WEIGHT LARGER THAN THE SPECIFIED NOMINAL (d50) ROCK SIZE. LARGE ROCK SHOULD DOMINATE, WITH SUFFICIENT SMALL ROCK TO FILL THE VOIDS BETWEEN THE LARGER ROCK. THE DIAMETER OF THE LARGEST ROCK SIZE SHOULD BE NO LARGER THAN 1.5 TIMES THE NOMINAL ROCK SIZE. THE SPECIFIC GRAVITY SHOULD BE AT LEAST2.5. GEOTEXTILE FABRIC: HEAVY-DUTY, NEEDLE-PUNCHED, NON-WOVEN FILTER CLOTH, MINIMUM 'BIDIM' A24 OR EQUIVALENT.
CONSTRUCTION.

1. NOTWITHSTANDING ANY DESCRIPTION CONTAINED WITHIN THE APPROVED PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SATISFYING THEMSELVES AS TO THE NATURE AND EXTENT OF THE SPECIFIED WORKS AND THE PHYSICAL AND LEGAL CONDITIONS UNDER WHICH THE WORKS WILL BE CARRIED OUT. THIS SHALL INCLUDE MEANS OF ACCESS, EXTENT OF CLEARING, NATURE OF MATERIAL TO BE EXCAVATED, TYPE AND SIZE OF MECHANICAL PLANT REQUIRED, LOCATION AND SUITABILITY OF WATER SUPPLY FOR CONSTRUCTION AND TESTING PURPOSES, AND ANY OTHER LIKE MATTERS AFFECTING THE CONSTRUCTION OF THE WORKS

2. REFER TO APPROVED PLANS FOR LOCATION, DIMENSIONS, AND CONSTRUCTION DETAILS. IF THERE ARE QUESTIONS OR PROBLEMS WITH THE LOCATION, DIMENSIONS, OR METHOD OF INSTALLATION, CONTACT THE ENGINEER OR RESPONSIBLE ON-SITE OFFICER FOR ASSISTANCE.

3. BEFORE STARTING ANY CLEARING OR CONSTRUCTION, ENSURE ALL THE NECESSARY MATERIALS AND COMPONENTS ARE ON THE SITE TO AVOID DELAYS IN COMPLETING THE POND ONCE WORKS BEGIN.

4. INSTALL REQUIRED SHORT-TERM SEDIMENT CONTROL MEASURES DOWNSTREAM OF THE PROPOSED EARTHWORKS TO CONTROL SEDIMENT RUNOFF DURING CONSTRUCTION OF THE BASIN.

5. THE AREA TO BE COVERED BY THE EMBANKMENT, BORROW PITS AND INCIDENTAL WORKS, TOGETHER WITH AN AREA EXTENDING BEYOND THE LIMITS OF EACH FOR A DISTANCE NOT EXCEEDING FIVE (5) METRES ALL AROUND MUST BE CLEARED OF ALL TREES, SCRUB, STUMPS,ROOTS,DEAD TIMBER AND RUBBISH AND DISPOSED OF IN A SUITABLE MANNER. DELAY CLEARING THE MAIN POND AREA UNTIL THE EMBANKMENT IS COMPLETE.

6. ENSURE ALL HOLES MADE BY GRUBBING WITHIN THE EMBANKMENT FOOTPRINT ARE FILLED WITH SOUND MATERIAL, ADEQUATELY COMPACTED, AND FINISHED FLUSH WITH THE NATURAL SURFACE. CUT-OFF TRENCH:
EMBANKMENT:

7. NOT APPLICABLE

8. NOT APPLICABLE

9. NOT APPLICABLE

10. NOT APPLICABLE

11. SCARIFY AREAS ON WHICH FILL IS TO BE PLACED BEFORE PLACING THE FILL.

12. ENSURE ALL FILL MATERIAL USED TO FORM THE EMBANKMENT MEETS THE SPECIFICATIONS CERTIFIED BY A SOIL SCIENTIST OR GEOTECHNICAL SPECIALIST.

13. THE FILL MATERIAL MUST CONTAIN SUFFICIENT MOISTURE SO IT CAN BE FORMED BY HAND INTO A BALL WITHOUT CRUMBLING. IF WATER CAN BE SQUEEZED OUT OF THE BALL, IT IS TOO WET FOR PROPER COMPACTION. PLACE FILL MATERIAL IN 150 TO 250mm CONTINUOUS LAYERS OVER THE ENTIRE LENGTH OF THE FILL AREA AND THEN COMPACT BEFORE PLACEMENT OF FURTHER FILL.

14. PLACE RISER PIPE OUTLET SYSTEM, IF SPECIFIED, IN APPROPRIATE SEQUENCE WITH THE EMBANKMENT FILLING. REFER TO SEPARATE INSTALLATION SPECIFICATIONS.

15. UNLESS OTHERWISE SPECIFIED ON THE APPROVED PLANS, COMPACT THE SOIL AT ABOUT 1.% TO 2% WET OF OPTIMUM AND TO 95% MODIFIED OR 100% STANDARD COMPACTION.

16. WHERE BOTH DISPERSIVE AND NON-DISPERSIVE CLASSIFIED EARTH-FILL MATERIALS ARE AVAILABLE, NON-DISPERSIVE EARTH-FILL MUST BE USED IN THE CORE ZONE. THE REMAINING CLASSIFIED EARTH-FILL MATERIALS MUST ONLY BE USED AS DIRECTED BY SUPERINTENDENT.

17. WHERE SPECIFIED, CONSTRUCT THE EMBANKMENT TO AN ELEVATION 10% HIGHER THAN THE DESIGN HEIGHT TO ALLOW FOR SETTLING; OTHERWISE FINISHED DIMENSIONS OF THE EMBANKMENT AFTER SPREADING OF TOPSOIL MUST CONFORM TO THE DRAWING WITH A TOLERANCE OF 75mm FROM THE SPECIFIED DIMENSIONS.

18. ENSURE DEBRIS AND OTHER UNSUITABLE BUILDING WASTE IS NOT PLACED WITHIN THE EARTH EMBANKMENT.

19. AFTER COMPLETION OF THE EMBANKMENT ALL LOOSE UNCOMPACTED EARTH-FILL MATERIAL ON THE UPSTREAM AND DOWNSTREAM BATTER MUST BE REMOVED PRIOR TO SPREADING OF TOPSOIL.

20. TOPSOIL AND REVEGETATE/STABILISED ALL EXPOSED EARTH AS DIRECTED WITHIN THE APPROVED PLANS.

SPILLWAY CONSTRUCTION:

21. THE SPILLWAY MUST BE EXCAVATED AS SHOWN ON THE PLANS, AND THE EXCAVATED MATERIAL IF CLASSIFIED AS SUITABLE, MUST BE USED IN THE EMBANKMENT, AND IF NOT SUITABLE IT MUST BE DISPOSED OF INTO SPOIL HEAPS.

22. ENSURE EXCAVATED DIMENSIONS ALLOW ADEQUATE BOXING-OUT SUCH THAT THE SPECIFIED ELEVATIONS, GRADES, CHUTE WIDTH, AND ENTRANCE AND EXIT SLOPES FOR THE EMERGENCY SPILLWAY WILL BE ACHIEVED AFTER PLACEMENT OF THE ROCK OR OTHER SCOUR PROTECTION MEASURES AS SPECIFIED IN THE PLANS.

23. PLACE SPECIFIED SCOUR PROTECTION MEASURES ON THE EMERGENCY SPILLWAY. ENSURE THE FINISHED GRADE BLENDS WITH THE SURROUNDING AREA TO ALLOW A SMOOTH FLOW TRANSITION FROM SPILLWAY TO DOWNSTREAM CHANNEL.

24. IF A SYNTHETIC FILTER FABRIC UNDERLAY IS SPECIFIED, PLACE THE FILTER FABRIC DIRECTLY ON THE PREPARED FOUNDATION. IF MORE THAN ONE SHEET OF FILTER FABRIC IS REQUIRED, OVERLAP THE EDGES BY AT LEAST 300mm AND PLACE ANCHOR PINS AT MINIMUM 1m SPACING ALONG THE OVERLAP. BURY THE UPSTREAM END OF THE FABRIC A MINIMUM 300mrn BELOW GROUND AND WHERE NECESSARY, BURY THE LOWER END OF THE FABRIC OR OVERLAP A MINIMUM 300mm OVER THE NEXT DOWNSTREAM SECTION AS REQUIRED. ENSURE THE FILTER FABRIC EXTENDS AT LEAST 1000mm UPSTREAM OF THE SPILLWAY CREST.

25. TAKE CARE NOT TO DAMAGE THE FABRIC DURING OR AFTER PLACEMENT. IF DAMAGE OCCURS, REMOVE THE ROCK AND REPAIR THE SHEET BY ADDING ANOTHER LAYER OF FABRIC WITH A MINMIMUM OVERLAP OF 300mm AROUND THE DAMAGED AREA. IF EXTENSIVE DAMAGE IS SUSPECTED, REMOVE AND REPLACE THE ENTIRE SHEET.

26. WHERE LARGE ROCK IS USED, OR MACHINE PLACEMENT IS DIFFICULT, A MINIMUM 100mm LAYER OF FINE GRAVEL, AGGREGATE, OR SAND MAY BE NEEDED TO PROTECT THE FABRIC.

27. PLACEMENT OF ROCK SHOULD FOLLOW IMMEDIATELY AFTER PLACEMENT OF THE FILTER FABRIC. PLACE ROCK SO THAT IT FORMS A DENSE, WELL-GRADED MASS OF ROCK WITH A MINIMUM OF VOIDS. THE DESIRED DISTRIBUTION OF ROCK THROUGHOUT THE MASS MAY BE OBTAINED BY SELECTIVE LOADING AT THE QUARRY AND CONTROLLED DUMPING DURING FINAL PLACEMENT.

28. THE FINISHED SLOPE SHOULD BE FREE OF POCKETS OF SMALL ROCK OR CLUSTERS or LARGE ROCKS. HAND PLACING MAY BE NECESSARY TO ACHIEVE THE PROPER DISTRIBUTION OF ROCK SIZES TO PRODUCE A RELATIVELY SMOOTH, UNIFORM SURFACE. THE FINISHED GRADE OF THE ROCK SHOULD BLEND WITH THE SURROUNDING AREA. NO OVERFALL OR PROTRUSION OF ROCK SHOULD BE APPARENT.

29. ENSURE THAT THE FINAL ARRANGEMENT OF THE SPILLWAY CREST WILL NOT PROMOTE EXCESSIVE FLOW THROUGH THE ROCK SUCH THAT THE WATER CAN BE RETAINED WITHIN THE SETTLING BASIN AN ELEVATION NO LESS THAN 50mm ABOVE OR BELOW THE NOMINATED SPILLWAY CREST ELEVATION.
ESTABLISHMENT OF SETTLING POND:

30. THEAREA TO BE COVERED BY THE STORED WATER OUTSIDE THE LIMITS OF THE BORROW PITS MUST BE CLEARED OF ALL SCRUB AND RUBBISH. TREES MUST BE CUT DOWN STUMP HIGH AND REMOVED FROM THE IMMEDIATE VICINITY OF THE WORK.

31. ESTABLISH ALL REQUIRED INFLOW CHUTES AND INLET BAFFLES, IF SPECIFIED, TO ENABLE WATER TO DISCHARGE INTO THE BASIN IN A MANNER THAT WILL NOT CAUSE SOIL EROSION OR THE RE-SUSPENSION OF SETTLED SEDIMENT.

32. INSTALL A SEDIMENT STORAGE LEVEL MARKER POST WITH A CROSS MEMBER SET JUST BELOW THE TOP OF THE SEDIMENT STORAGE ZONE (AS SPECIFIED ON THE APPROVED PLANS). USE AT LEAST A 75mm WIDE POST FIRMLY SET INTO THE BASIN FLOOR.

33. IF SPECIFIED, INSTALL INTERNAL SETTLING POND BAFFLES. ENSURE THE CREST OF THESE BAFFLES IS SET LEVEL WITH, OR JUST BELOW, THE ELEVATION OF THE EMERGENCY SPILLWAY CREST.

34. INSTALLALLAPPROPRIATE MEASURES TO MINIMISE SAFETY RISK TO ON-SITE PERSONNEL AND THE PUBLIC CAUSED BY THE PRESENCE OF THE SETTLING POND. AVOID STEEP, SMOOTH INTERNAL SLOPES. APPROPRIATELY FENCE THE SETTLING POND AND POST WARNING SIGNS IF UNSUPERVISED PUBLIC ACCESS IS LIKELY OR THERE IS CONSIDERED TO BE AN UNACCEPTABLE RISK TO THE PUBLIC.

MAINTENANCE OF SEDIMENT BASIN

1. INSPECT THE SEDIMENT BASIN DURING THE FOLLOWING PERIODS:
   (i) DURING CONSTRUCTION TO DETERMINE WHETHER MACHINERY, FALLING TREES, OR CONSTRUCTION ACTIVITY HAS DAMAGED ANY COMPONENTS OF THE SEDIMENT BASIN. IF DAMAGE HAS OCCURRED, REPAIR IT.
   (ii) AFTER EACH RUNOFF EVENT. INSPECT THE EROSION DAMAGE AT FLOW ENTRY AND EXIT POINTS. IF DAMAGE HAS OCCURRED, MAKE THE NECESSARY REPAIRS.
   (iii) AT LEAST WEEKLY DURING THE NOMINATED ALL NECESSARY SHORT-TERM SEDIMENT WET SEASON (IF ANY) OTHERWISE AT LEAST CONTROL MEASURES DOWNSTREAM OF THE FORTNIGHTLY. SEDIMENT BASIN.
   (iv) PRIOR TO, AND IMMEDIATELY AFTER, PERIODS OF 'STOP WORK' OR SITE SHUTDOWN.

2. CLEAN OUT ACCUMULATED SEDIMENT WHEN IT REACHES THE MARKER BOARD/POST, AND RESTORE THE ORIGINAL STORAGE VOLUME. PLACE SEDIMENT IN A DISPOSAL AREA OR, IF APPROPRIATE, MIX WITH DRY SOIL ON THE SITE.

3. DO NOT DISPOSE OF SEDIMENT IN A MANNER THAT WILL CREATE AN EROSION OR POLLUTION HAZARD.

4. CHECK ALL VISIBLE PIPE CONNECTIONS FOR LEAKS, AND REPAIR AS NECESSARY.

5. CHECK ALL EMBANKMENTS FOR EXCESSIVE SETTLEMENT, SLUMPING OF THE SLOPES OR PIPING BETWEEN THE CONDUIT AND THE EMBANKMENT; MAKE ALL NECESSARY REPAIRS.

6. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE BASIN AND RISER.

7. SUBMERGED INFLOW PIPES MUST BE INSPECTED AND DE-SILTED (AS REQUIRED) AFTER EACH INFLOW EVENT.

REMOVAL OF SEDIMENT BASIN

1. WHEN GRADING AND CONSTRUCTION IN THE DRAINAGE AREA ABOVE A TEMPORARY SEDIMENT BASIN IS COMPLETED AND THE DISTURBED AREAS ARE ADEQUATELY STABILISED, THE BASIN MUST BE REMOVED OR OTHERWISE INCORPORATED INTO THE PERMANENT STORMWATER DRAINAGE SYSTEM. IN EITHER CASE, SEDIMENT SHOULD BE CLEARED AND PROPERLY DISPOSED OF AND THE BASIN AREA STABILISED.

2. BEFORE STARTING ANY MAINTENANCE WORK ON THE BASIN OR SPILLWAY, INSTALL ALL NECESSARY SHORT-TERM SEDIMENT CONTROL MEASURES DOWNSTREAM OF THE SEDIMENT BASIN.

3. ALL WATER AND SEDIMENT MUST BE REMOVED FROM THE BASIN PRIOR TO THE DAM'S REMOVAL. DISPOSE OF SEDIMENT AND WATER IN A MANNER THAT WILL NOT CREATE AN EROSION OR POLLUTION HAZARD.

4. BRING THE DISTURBED AREA TO A PROPER GRADE, THEN SMOOTH, COMPACT, AND STABILISE AND/OR REVEGETATE AS REQUIRED TO ESTABLISH A STABLE LAND SURFACE.

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Client VEOLIA

PHASE 1A AND 1B
NOTES

CAMELLIA MATERIALS RECYCLING FACILITY
37 GRAND AVENUE, CAMELLIA

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A.H.D.	----	1:400	A1

Drawing Number 17006-1006
Revision P0

Appendices

- Appendix C – Preloading Drawings