# Denhams Beach Duplex Construction Management Plan

# Lot 2 DP 773132

# 217a Beach Road, Denhams Beach

**Prepared for: Colbert** 



September 2023 Project No. 681

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### **Document Verification**

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# **1.0 Introduction**

This Construction Management Plan (CMP) has been developed for the bulk earthworks and proposed building construction at 217a Beach Road Denhams Beach (referred here on as "the Project".

The subject site is located at Lot 2 DP 773132, 217a Beach Road Denhams Beach (Refer Figure 1). The Site is approximately 1070sqm with the southern half relatively flat (~RL 25 AHD) and the northern half grading down to high tide level (~RL 2 AHD).

The proposed works include:

- Stage 1 Site establishment
- Stage 2 Bulk Earthworks, Retaining Structures
- Stage 3 Driveway Construction & Services (water, sewer, stormwater, electricity)
- Stage 4 Building Construction

Refer to the Civil Design Plans and Architectural Plans for details.



Figure 1: Subject site locality.



The CMP outlines the proposed works staging and the management practices and procedures to be implemented and followed during construction including:

- Contact details of Site personnel;
- Materials and Equipment;
- Hours of work;
- Site safety;
- traffic and pedestrian management;
- dust control measures;
- Noise and Vibration control measures
- Sediment and Erosion Control Measures
- Plan of Management (Environmental monitoring program)

The CMP addresses the above aspects and as a working document, will be subject to ongoing revision throughout the life of the project.



# 2.0 Project Phases

### 2.1 Stage 1 – Site establishment

#### 2.1.1 Existing Services

Existing services (water, sewer, Telstra, NBN & electrical) will be located and protected.

#### 2.1.2 Tree Protection and Project Works Area

Tree protection and extents of the Project Works Area will be established, clearly marked and maintained in accordance the Construction Certificate plans.

#### 2.1.3 Site Access

Site access will be via the existing vehicle layback off Beach Road fronting the Site. A contractor laydown area is to be established within the Project Works Area for deliveries (concrete pumping, steel etc).

A Traffic Management Plan (TMP) will be required outlining access and egress to the Site and specific procedures for large machinery and deliveries. This shall include specific traffic and pedestrian control measures to suit the Site and construction activity. This may include the location of cranes, hoardings, perimeter fencing, storage areas, hoisting zones and site sheds

#### 2.1.4 Site Fencing and Amenities

Temporary A-Class hoarding, site fencing and gates will be installed to the boundaries of the Project Site area. Site shed and amenities will be established subject to the amount of personnel working on the Site.

Appropriate safety signage will be maintained in working areas at all times.

#### 2.1.5 Sediment and Erosion Controls

Approved Sediment and Erosion Controls will be installed prior to any excavation works.

# 2.2 Stage 2 – Bulk Earthworks, Retaining Structures & Sewer Realignment Works

#### 2.2.1 Sewer Realignment Works

Sewer realignment works will be required for the Project. These works will extend through the Site and onto Beach Road. It is likely that these works will be undertaken by Council through a Private Works Order. The staging of these works is critical as excavation works will be required in close proximity to existing and proposed structures.

#### 2.2.2 Bulk earthworks

Bulk earthworks shall be undertaken to minimise the exposure of disturbed areas.

The construction contractor should be aware of weather forecast conditions to reduce the risk of sediment laden runoff.

Stormwater control measures shall be monitored and maintained during construction to ensure any captured sediment is removed and the structures are performing as per intended.



#### 2.2.3 Retaining and Foundation Structures

Retaining and foundation structures will be required for the proposed dwellings and the protection of sewer infrastructure and adjacent properties. In situ columns and vertical walls will be required. Steps will include ground preparation, form edge-boards, vapour barrier, termite barrier, reinforcement, allowance for service penetrations, pouring and movement joints.

# 2.3 Stage 3 – Driveway Construction & Services (water, sewer, stormwater, electricity)

#### 2.3.1 Driveway Construction & Services

Services shall be suppled, installed and connected to existing infrastructure in accordance with Construction Certificate Plans and Service Provider approval.

Driveway will be installed in accordance with approved plans and Section 138 Certificate.

#### 2.4 Stage 4 – Building Construction

#### 2.4.1 Building Construction

Building construction including floors, walls, roofs and services will be undertaken in accordance with the approved plans.



# **3.0 Construction Activities**

### 3.1 Contact details of Site Manager

Contact Details of the Site Manager shall be provided below. This person shall be responsible for compliance with the CMP.

Name:

Contact number:

Email:

### **3.2** Materials and Equipment

Materials for the works are likely to include:

- Concreting
- Blockwork
- Steel beams and columns
- Fencing (sediment and security)
- Geotextile fabric (e.g. bidim)
- Crushed rock and sand bedding material
- Rock rip-rap
- Topsoil
- Coir Logs (including stakes / star pickets / anchors)
- Erosion matting (e.g. Jute)

Plant / equipment for the works are likely to include:

- Crane
- Range of excavators (5T 20T)
- Delivery & Earthmoving trucks (Rigid/ truck & dog)
- Bobcat
- Water truck
- 4WD vehicles
- Small compactor
- Chainsaws
- Hand tools
- Generators

#### 3.3 Hours of work

Construction activities would generally be undertaken during recommended standard hours for construction work, which are:

- 7 am to 6 pm, Monday to Friday
- 8 am to 1 pm, Saturday
- No work on Sundays or public holidays



## 3.4 Site Safety Management

A Site specific Work Health & Safety (WHS) Management Plan will be developed by the Contractor before the project commences. A WHS management plan is a written set of guides for managing site health and safety matters. The plan should outline the risks associated with the Project and the various procedures that are in place to ensure that the site is kept as safe as possible (e.g. Safety inspections, contractor SWMS approval, evacuation procedures, project risk matrix). The safety plan must be understood by every worker on the site and be made available at all times.

The WHS Management Plan must contain:

- names of persons at the workplace whose positions or roles involve specific health and safety responsibilities, for example, site supervisors, project managers, first aid officers;
- arrangements for consultation, cooperation and coordination;
- arrangements for managing incidents;
- site-specific health and safety rules and how people will be informed of the rules;
- arrangements to collect and assess, monitor and review SWMS;

It may also include information on:

- the provision and maintenance of a hazardous chemicals register, safety data sheets and hazardous chemicals storage;
- the safe use and storage of plant;
- obtaining and providing essential services information;
- workplace security and public safety;
- ensuring workers have appropriate licences and training to undertake the construction work.

### 3.5 Traffic and Pedestrian Management

The Site offers one entry/exit location via Beach Road. The Site manager will be responsible for monitoring and coordinating all vehicles entering and exiting the Project.

A Traffic Management Plan (TMP) will be required outlining access and egress arrangements to the Site. The TMP shall also include specific traffic and pedestrian control measures to suit the Site and Project construction activities. This may include the location of cranes, hoardings, perimeter fencing, storage areas, hoisting zones and site sheds.

Long term road closures are not envisaged however authorised short term land closures may be required for large machinery and deliveries.



## **3.6 Dust Control Measures**

The potential for dust generation will occur from surface disturbance with the requirement for excavation and levelling. Material transported to and from the Site has the potential to affect residents, transport routes and/or water quality.

As part of the soil and water management plan prepared for the site, management of windblown dust should be considered. This can be managed through the use of covers over truck loads and any stockpiled soils.

The following mitigation measures should be employed to reduce any potentially adverse air quality impact from dust during construction:

- Ensure all trucks transporting material to Site have adequate covers over loads;
- Stockpiles should be kept to a minimum and covered if possible;
- Excess spoil should be promptly removed from Site; and
- Exposed areas should be either be covered, sealed or stabilised by fast growing native grasses or approved vegetation as soon as practicable.

### **3.7** Noise and Vibration control measures

Noise and vibration from the construction process may impact on surrounding building tenants. Noise and vibration activities that will occur during construction will include:

Delivery truck movements and construction machinery including trucks and excavators.

Nice mitigation strategies will be employed as follows:

- Excavation and filling works shall be undertaken using non-percussive methods where achievable;
- Plant used intermittently during construction activities such as trucks and excavators will be turned off in periods between works activities rather than left idling;
- Adherence to permitted works times;
- Noise awareness training for all Site staff including subcontractors as part of general Site induction ad tool-box meetings; and
- Regular and effective plant /equipment maintenance in order to ensure all machinery is in good working order and does not generate excess noise/vibration.



## 3.8 Sediment and Erosion Control Measures

Management measures during construction are critical to the protection of the adjacent bushland and coastal area, particularly with regards to sediment controls.

Truck shaker grids are intended for the entry/exit gate to remove tyre mud/material prior to entering Beach Road.

Erosion and sediment controls shall be installed and maintained in accordance with the approved construction plans.

The construction contractor should be aware of weather forecast conditions and minimise the exposure of disturbed areas and risk of sediment laden runoff.

Stormwater control measures shall be monitored and maintained during construction to ensure any captured sediment is removed and the structures are performing as per intended.

Sediment and erosion controls shall remain in place until all disturbed areas are established and have vegetative cover.

## 3.9 Plan of Management (Environmental monitoring program)

A Plan of Management has been developed outlining the environmental actions for the Project and responsible persons, refer Appendix A.

The Plan of Management includes induction obligations, monitoring of air, noise, erosion and water quality.

The Plan of Management includes:

- Requirements for environmental monitoring including site inspections and completion of weekly environmental checklists, refer Appendix B; and
- Environmental Incident Report Form, refer Appendix C.

Appendix A – Plan of Management (Environmental Monitoring Program)

# PLAN OF MANAGEMENT (Environmental Monitoring Program)

Project: 217a Beach Road, Denhams Beach

No.	Action	Responsibility	When action applies (monitor internally as required; report weekly according to Environmental Checklist)	Nominated Person Responsible
1	LEGAL OBLIGATIONS			
1.1	Implement and fulfil conditions in approvals.	Site Manager	Prior to start	
1.2	General duty of care, environmental responsibility. Ensure that site contractors fulfil reporting procedures and demonstrate due diligence by implementing management procedures outlined in this Plan of Management. Audit, report and amend the CMP as required.	Site Manager	At all times	
1.3	Duty to notify - If an environmental incident occurs that causes significant environmental harm there is a need to notify Council. The Project Manager should be notified in the first instance. List contact details for Council, keep details at the site office.	Site Manager	Prior to start	
1.4	Appoint contact person to receive comments and complaints. Maintain a register of public complaints received. Act on all complaints and provide feedback to all complainants. The complaints record should be made available to Council on request.	Site Manager	At all times	

No.	Action	Responsibility	When action applies (monitor internally as required; report weekly according to Environmental Checklist)	Nominated Person Responsible
2	INDUCTION/TRAINING OBLIGATIONS			
2.1	Make all staff aware of their environmental responsibilities and measures to minimise environmental impacts.			
	Site induction for all staff to ensure that all care and due diligence would be taken to minimise or prevent pollutant material from entering waterways. Induction to include and ensure implementation of works according to site method statements, environmental safeguards/policies, and the inspection and maintenance of erosion and sediment controls if required. Also address duty of all operators to notify of pollution incidents, identify an environmental incident report sheet.	Site Manager	During Project Induction	
3	WATER POLLUTION	·		
3.1	Storage of vehicles will be undertaken in appropriate areas and in a manner that prevents or minimises pollution to waters. All precautions to eliminate fuel or other spills are to be taken. This includes restricting re-fuelling activities to designated areas on-site where possible. Appropriate spill containment information (Material Safety Data Sheet MSDS) and/or spill kits kept on site.			
	Plant and equipment shall be refuelled offsite or in the vehicle compound in a bunded area which will be located at a distance greater then 50m from any flow paths and not on slopes greater than 10%.	Site Manager	At all times	
	The construction contractor should be aware of weather forecast conditions and minimise the exposure of disturbed areas and risk of sediment laden runoff.			
3.2	Imported fill (if required) to be free from contamination and validated prior to importation.	Site Manager	At all times	
3.3	Keep all containers holding fuels, oils and chemicals in existing Site sheds.	Site Manager	At all times	

No.	Action	Responsibility	When action applies (monitor internally as required; report weekly according to Environmental Checklist)	Nominated Person Responsible
3.4	<b>Dangerous/hazardous goods storage/transport</b> - goods identified for the proposed works include diesel and liplex (grease). The storage and handling of these materials will be undertaken according to the appropriate MSDS. A schedule of all hazardous materials (as defined in the Waste Minimisation & Management Act 1995) in use in the works and their MSDS's is to be maintained and kept in an accessible location where the materials are stored.	Site Manager	At all times	
3.6	<b>Emergency response and spill contingency - Undertake spill management control under the</b> <b>Incident Management Plan for the site</b> . Spill kits will be issued at designated locations on the site. Potential spills include diesel, oil, grease etc. See (Appendix C) for Incident Management Plan.	Site Manager	At all times	
4	SOIL MANAGEMENT (EROSION AND SEDIMENTATION)			
4.1	A <b>Sediment and Erosion Control Plan</b> will be prepared, implemented and periodically reviewed to prevent movement of sediment offsite and into waterways/drains. It will address sediment generated from cut/fill activities, topsoil stockpiling, vehicle access/traffic (sediment trapped on vehicle tyres) and wet weather construction hazards. All erosion/sediment controls are from the Landcom's "Managing Urban Stormwater: Soils and Construction" 2004 (Blue Book). Controls are to be designed and installed on site prior to commencement of construction. All erosion/sediment controls to remain in place until disturbed areas are stabilised and/or vegetated.	Site Manager	Prior to start and at all times (*monitor on a daily basis – refer Checklist)	
5	AIR POLLUTION			
5.1	All care and due diligence would be taken to minimise or prevent air pollution.			
	Dust and odour suppression controls will be undertaken on site according to the CMP			
	Controls will include (but are not limited to) keeping vehicle access to sealed roads or to designated access points.	Site Manager	nager At all times	
	Dust & odour sources may include sediment/fill/topsoil, cement, sewage, vehicle emissions.			
5.2	Any vehicle transporting waste or other materials that may produce odours or dust shall be covered during transportation.	Site Manager	At all times	

No.	Action	Responsibility	When action applies (monitor internally as required; report weekly according to Environmental Checklist)	Nominated Person Responsible
5.3	Exhaust emissions from vehicles shall be minimised. Service and maintain all plant, equipment, vehicles and machinery in accordance with manufacturer's specifications.	Site Manager	At all times	
6	NOISE POLLUTION & VIBRATION			
6.1	All care and due diligence would be taken to prevent or minimise noise and vibration impacts on the community.			
	Plant and equipment must be in compliance with the <i>Protection of the Environment Operations</i> ( <i>Noise Control</i> ) <i>Regulation 2000</i> and with the exhaust noise limits in the DEC Noise Control Manual.	Site Manager	Site Manager	
	Select plant that has good acoustic performance and high efficiency mufflers. All plant is to be well maintained.			
	Limit construction, excavation and demolition activities to approved operation hours.			
7	WASTE MANAGEMENT			
7.1	Excess vegetative waste must be removed from site to an appropriate disposal area.			
	Litter - covered bins to be provided.			
	Manage and dispose of site waste in accordance with local authority requirements at collection specified points.			
	Waste oil shall be sent to approved recyclers.			
	Where possible virgin excavated natural material (VENM) will be reused on Site. Prior to disposal a waste classification of the soils to be removed from Site will be provided.	Site Manager	At all times	
	Waste materials will be sorted on site and care will be taken to avoid cross contamination with recyclables.			
	The Contractor will provide skips primarily for metal, cardboard, concrete and masonry. Recyclables to be recovered are likely to consist of off cuts of materials such timber, steels, pipes, plasterboard, tiles and miscellaneous packaging.			

No.	Action	Responsibility	When action applies (monitor internally as required; report weekly according to Environmental Checklist)	Nominated Person Responsible
8	NON-CONFORMANCE & CORRECTIVE ACTIONS			
8.1	<ul> <li>Investigate environmental incidents as follows:</li> <li>identify the cause of the incident;</li> </ul>			
	<ul> <li>assess the impact and identify the necessary corrective action;</li> <li>advise Council if any substantial pollution occurs;</li> <li>identify the personnel responsible for carrying out the corrective action;</li> <li>implement the corrective action;</li> <li>modify procedures to avoid a repetition of the environmental incident;</li> <li>record any proposed changes to environmental procedures.</li> </ul>	Site Manager	As required	
	An Incident Report Form must be completed (refer Appendix D)			
9	AUDITS & INSPECTIONS			
9.1	Conduct inspection of the site with Environmental Weekly Checklist (refer Appendix C)	Site Manager	Monthly	
9.2	Conduct audits CMP	Southeast Engineering	As required	
9.3	Update and amend CMP as necessary	Southeast Engineering	As required	

**Appendix B – Environmental Weekly Checklist** 

# **ENVIRONMENTAL WEEKLY CHECKLIST**

# Project: 217a Beach Road, Denhams Beach

Notes:

This checklist is to be used as a guide for the day-to-day monitoring of environmental issues on site by the Site Manager.

The checklist is to be completed, reviewed and signed at the end of each week and filed as a component of the project's records.

The weekly checklist applies to the entire site until construction and planting has been completed and established. After this time the monitoring/reporting component of the CMP will be re-assessed. As some activities become completed some items in the weekly checklist may no longer be applicable, and the CMP Coordinator advised as such.

Week Ending: .....

Action	Yes/ No/ NA	Comments/ Actions
GENERAL OBLIGATIONS		
Have all site managers, operators and staff undergone site induction and are aware of the appropriate method statements/procedures and environmental responsibilities that apply to their work? Has a written record been kept?		
Has any stage of work been completed? If so, has CMP Coordinator been notified?		
WATER POLLUTION		
Are vehicles stored in an appropriate area to void flow paths and not on slopes greater than 10%		
Is equipment refuelled in the designated refuelling areas / maintained offsite?		
Are appropriate spill containment information (MSDS) and/or spill kits kept on site?		
Are site managers and operators aware of spill kit locations and procedures (such as the Incident Management Plan)?		
Is chemical/fuel storage appropriately located at least 50m distance away from water flow paths nor on slopes above 10%?		
Is a schedule of hazardous chemicals maintained?		

Action	Yes/ No/ NA	Comments/ Actions
EROSION AND SEDIMENTATION		
Daily check rainfall forecast on Bureau of Meteorology website. Check for rainfall depths and intensities, and plan for site management.		
If >15mm in one day forecast then prepare site for potential temporary work stoppage. Ensure that sediment fences and diversion drains are functioning correctly.		
Are erosion and sedimentation controls designed and installed according to Blue Book specifications prior to commencement of works and according to design specifications (including diversion drains where appropriate)?		
Are controls functioning and trapping approximately 80- 90% of sediment?		
Are sediment fences in good condition and retaining sediment?		
Are erosion/sedimentation controls installed at vehicle entry/exits points?		
Are embankment areas stable?		
Are stockpiles located away from water flow paths and controls used to prevent sediment escaping (eg silt fences, spray grass, sediment basin)?		
Have failing controls been replaced?		
Are inspections of erosion and sediment controls conducted daily?		
AIR POLLUTION		
Is dust suppressed on disturbed areas (including stockpiles and fill placement areas)?		
Are vehicle loads covered, as required, to prevent air pollution?		
Is machinery inspected and maintained to prevent noxious emissions?		
Machinery on site is not left idling when not in use: is this statement correct?		
NOISE & VIBRATION		
Are construction activity times being complied with?		
Are all work activities limited to the approved time periods?		

Action	Yes/ No/ NA	Comments/ Actions
Are all reasonable practicable steps to reduce construction noise and vibration taken?		
WASTE MANAGEMENT		
Is waste reused on site where possible?		
Is waste separation occurring on site?		
Is all litter generated on site being disposed of using on site, covered bins?		
Is the site tidy and free from windblown waste?		
Are waste materials leaving site covered to prevent windblown litter as required?		
Is waste is being disposed to appropriate waste management centres?		
EMERGENCY/ INCIDENT RESPONSE		
Were emergency/ incident procedures implemented as required?		
INCIDENTS		
Are Incident Reports completed and investigated?		

SIGNED: .....

DATE:

(Site Manager)

# **REVIEW/ SYSTEM CHECK:**

Environmental Weekly Checklist has been reviewed.

All necessary non-conformance reports (NCRs) have been raised.

DATE:

.....

(Project Manager)

# Appendix C – Environmental Incident Report Form

# **ENVIRONMENTAL INCIDENT REPORT FORM**

## Project: 217a Beach Road, Denhams Beach

Environmental incidents include events where there is, has or is likely to be a leak, spill or other escape of a substance; a complaint about air or noise emissions from activities or road operation; dumping of waste and unauthorised removal of vegetation.

Incident Report No:					
Section 1: (To be filled in by	Site Man	agement).			
Date of incident:	/ /		Time of i	ncident:	AM/PM
Exact location of the incid	ent:				
Type of activity:					
How was incident notified?	! (eg Cour	ncil employee, Community)			
Name and phone number o	of complai	inant:			
Details of the incident ( <i>Wha</i>	at happen	ed and what was the cause?	Category (3	3):	
Chemical spill (including		Contaminated water		Noise complaint	C
Air Emission		Unauthorised Vegetation		Other	0
Description of the incident (	Attach pa	ages if required)			
Suggested corrective/preve	ntive acti	ons ( <i>Attach pages if required</i> )			
Signed:					Date:
Name:			Position	:	
Section 2 (To be filled in by	Project N	lanager).			
Was Council notified? Yes/	No <b>on</b>	// by Phone 🛛 Writt	en Report	□ In person □	
Other authorities notified?					
Follow up actions undertak	en				
Signed:					Date:

Position:

Name: