

PEOPLE WHO BUILD



CONSTRUCTION SOIL AND WATER SUB- MANAGEMENT PLAN

PROJECT NAME

**TWEED VALLEY HOSPITAL PROJECT – HEALTH
HUB (TVHP HH)**

PROJECT NO.

**CLIENT – HI21816
ADCO - 3581**

CONSTRUCTION SOIL AND WATER MANAGEMENT PLAN



VERSION CONTROL

Rev. No.	Issue Date	Approved By	Position	Details
1	09/08/2022	[REDACTED]	Project Manager	Issued for Review
2	29/8/2022	[REDACTED]	Project Manager	Plans Added

ADCO PROJECT PERSONNEL CONSULTATION AND SIGN OFF

We, the undersigned, confirm that we have been consulted on the contents of this document, read and understood the contents of this document, and agree to implement the requirements of this Plan on this project site

Name	Position	Signature	Date

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1.0 INTRODUCTION

PURPOSE

ADCO Constructions implement an integrated safety and environmental management system on all projects. Our Construction Soil and Water Management Plan (CSWMP) has been developed to support the Environmental Management Plan (EMP) and address the management of construction soils and water during construction in a method that complies with local laws EPA legislation and where relevant, the Development Consent issued under the SSD.

SCOPE OF WORKS

The Health Hub project will be constructed within the main hospital precinct. The proposed site has been under Lendlease's control and as such the proposed site for the Health Hub is addressed under the Construction Soil and Water Management Plan (CSWMP) for the main hospital project.

The Project objective is to provide specialist out-patient services including Aboriginal health services, HARP, Oral Health and a separate Learning Development and Research (LDR) building along with associated infrastructure. The Project consists of:

- / Oral Health Department
- / HARP / HARM Department
- / Aboriginal Health Service
- / Learning, Research and Development
- / Connection and integration with the Main Hospital Building (MHB)

The core project objectives are to:

- / Improve self-sufficiency of services and minimise the need for patients to travel interstate for treatment
- / Support contemporary models of care to improve health outcomes
- / Deliver patient-centred healthcare, supported by an environment that fosters integrated service delivery
- / Improve utilisation of the workforce and develop an environment that will attract and retain a skilled and motivated workforce
- / Support development of increased clinical capability through learning, development, research and innovation

The Health Hub scope will generally deliver two linked buildings of approximately 3,500m² total area, as well as external landscaping, carparking and associated works.

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MANAGEMENT SYSTEM AND DOCUMENTATION

System documents which are referenced in this Plan or any associated Plan or Risk Register can be sourced by accessing the ADCO Constructions Intranet. (ADCO personnel only). Additional information can be obtained from the HSE Manager in each State.

ADCO PERSONNEL SIGN OFF

ADCO project personnel will be inducted into the requirements of this Plan and any associated Plan or Risk Register by the relevant Project Manager. Evidence of induction and discussion will be recorded within section '*ADCO Project Personnel Consultation and Sign off*'.

INFORMATION SUPPLY TO SUBCONTRACTORS

This Plan and any associated Plan or Risk Register (including any future revisions) will be supplied to subcontractors for review through the Aconex portal or another approved format.

PLAN REVIEW

This document will be reviewed on a periodic basis, not exceeding 6-monthly, to ensure its compliance to legislative and operational requirements of the project. Review and updates to this plan will initiate a change to the plan revision number and be recorded in the "Version Control" section of the document. Superseded Plans will be marked as such and will be located within the Management Plan Folder located in the Site Office.

SITE FILING

A hard copy of this Plan and any associated Plan or Risk Register (including any future revisions) will be held on site.

PLAN ARCHIVING

Copies of this and superseded Project Management Plans and associated Risk Registers will also be maintained (archived) by ADCO for a period of at least 24 months following an update completion.

2.0 PRINCIPAL CONTRACTORS DETAILS

Name	State	Address	ABN
ADCO Constructions Pty Ltd	Address	Level 5, 7 Bay Street	46 001 044 391
	Suburb	Southport	
	State	Queensland	

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Phone (07) 5577 0900

3.0 PROJECT INFORMATION

Project Description

The Project objective is to provide specialist out-patient services including Aboriginal health services, HARP, Oral Health and a separate Learning Development and Research (LDR) building along with associated infrastructure. The Project consists of:

- / Oral Health Department
- / HARP / HARM Department
- / Aboriginal Health Service
- / Learning, Research and Development
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- / Improve utilisation of the workforce and develop an environment that will attract and retain a skilled and motivated workforce
- / Support development of increased clinical capability through learning, development, research and innovation

The Heath Hub scope will generally deliver two linked buildings of approximately 3,500m² total area, as well as external landscaping, carparking and associated works.

Project Address

771 Cudgen Road, Kingscliff, NSW, 2487

Working Hours

Monday – Friday: 07:00 am – 06:00 pm (*application for early start possible via approval with HI / DPIE*)

Saturday – 08:00am – 01:00pm

Sunday / Public Holiday – Closed

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24hr Emergency Contact [REDACTED] (Site Manager) – [REDACTED]

SITE VIEW



Site Establishment Plan is subject to change throughout project delivery. Any changes will be communicated to workers through project consultative forums.

4.0 SITE EROSION AND SEDIMENT CONTROL

SEDIMENT CONTROL AND WATER QUALITY

To control the risk of erosion or sediment impacting on the natural environment, ADCO will:

- / Install erosion and sediment control devices (in accordance with the below) to mitigate and manage the impact of excess soils on nearby roads, surface water quality, air quality, fauna and flora.
- / Erosion and sedimentation controls to be progressively installed in accordance with the design plans.
- / Erosion and sediment controls will be maintained and monitored on a weekly basis or immediately following a rainfall event. Ensure that the handling and placement of excavated material is in accordance with WMS, and EPA requirements etc.

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- / Complete daily inspections of stockpiles, excavated areas and control methods for erosion and sediment management.
- / Residual to be disposed of in an appropriate manner.

Please refer **Annexure A** for preliminary RPEQ certified site-specific erosion and sediment control plans for implementation on this project.

CONTROLS ENTERING SITE

- / Identify vulnerable locations on site and install control devices to halt or alter course of water
- / Inspections prior to a major weather event
- / All weather access roads installed to traverse on sealed ground

CONTROLS EXITING SITE

- / Identify vulnerable drains, low points and stormwater runoff points.
- / Install control devices (i.e., silt fencing, bunding, diversion devices, sandbags, etc).
- / Daily inspections and maintenance of control
- / Shake down and wheel wash down station
- / Dewatering of the silt trap (Southwestern corner) will be through the use of submersible pumps pumping water to the existing field inlet (refer Annexure A)
Sediment controls will be installed around the existing inlet in accordance with the engineer requirements to minimise sediment entering the existing infrastructure.

CONTROLS FOR SITE ACCESS

Site access shall be via internal service roads that are constructed with the placement of CBR (road base) material providing a durable long-lasting platform that caps unsealed ground conditions. The placement of CBR to internal service roads will ensure access is maintained during weather events and assist with managing of overland flow impacted by construction activities.

MITIGATION STRATEGIES

Upon weather events warnings, the Site Manager shall complete an inspection on sediment and erosion controls around the site to ensure proper establishment prior to event. Should any areas require adjustment, the Site Manager will immediately co-ordinate with the incumbent civil contractor and complete any adjustments or future proofing. Plant and equipment shall be appropriately stored to ensure ease of access following conclusion of such events with internal access roads and walkways graded with CBR material to ensure access is available during and after inclement weather.

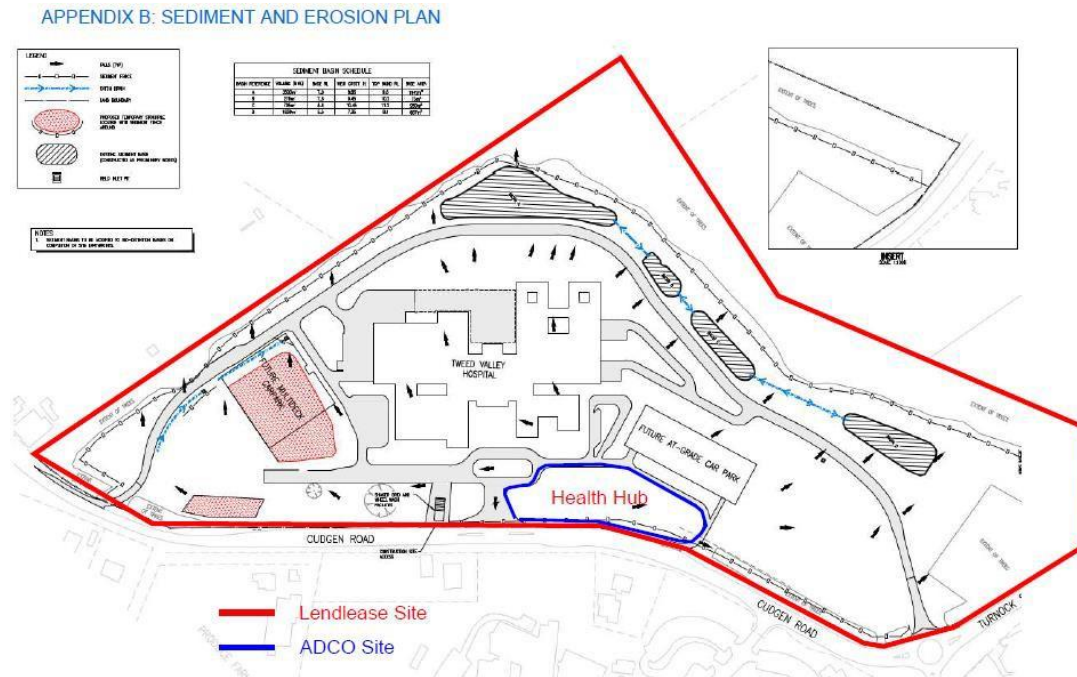
ADCO have a site establishment and sediment / erosion control strategy that addresses the confines of the ADCO site only. Lendlease Builders remain responsible for site wide management and monitoring as defined under Tweed Valley Hospital – Stage 2 Management Plan – Soil and Water 11/08/2020, Revision No:3.3.

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Inset below identifies the location of the Multideck Carpark (ADCO) and the extent of the main Hospital project (LLB). As depicted, ADCO's site remains internal to the main Hospital project site which is under control of Lendlease Builders.



Overall Site Plan

5.0 SITE REQUIREMENTS

OBJECTIVES AND TARGETS

Environmental Management On all projects, ADCO will manage construction activities and operations conducted in a manner which, so far as is practicable, minimises any impact upon natural or heritage protected environments. In general, construction activities will seek to:

- Minimise land disturbance.
- Where required (e.g. DA conditions), restore the area to pre-disturbed conditions.
- Protect flora and fauna ecosystems.
- Implement controls to prevent the pollution of surface and ground water quality.
- Implement air quality control measures (e.g. dust suppression, contained work area).

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Implement waste control / management strategies including (where practicable) recycling, recovering and re-using resources from waste.

Implement noise and vibration reduction strategies (where practicable).

Ensure compliance with all laws, regulations and rules pertaining to the environment that are applicable to the site.

Incident Management

Zero reportable incidents.

All incidents are reported to ADCO site management immediately on occurrence.

Incidents investigated within two hours of notification.

Corrective actions are implemented according to the ADCO risk management time frame.

Incident reports are completed within 7 days of occurrence.

Incident reports are closed out within 28 days of occurrence.

Preventative actions implemented across the project and noted in Incident Reports.

Waste Management

A form of waste minimisation, recycling and reuse program is established and promoted throughout the project period.

Where waste minimisation is a requirement of project compliance (e.g. green star), waste strategies are included in the site induction program.

Work activities are monitored for compliance through the Weekly Site Inspection.

Fauna and Flora Management

Where fauna and flora minimisation is a requirement of project compliance, work activities are completed with consideration and protection of the same.

Management requirements are included in the site induction program.

Work activities are monitored for compliance through the Weekly Site Inspection.

Air / Water and Vibration Management

Work activities are completed with nil to minimal impact on air and water quality in and around the site.

Mitigation strategies (e.g. dust suppression, nominated trade waste wash off areas and refuelling locations) are identified for the project and per work activity (i.e. SWMS).

Management requirements are included in the site induction.

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Work activities are monitored for compliance through the Weekly Site Inspection.

Monitoring devices shall be installed to report on and warn the project team where levels exceed permitted volumes

Cultural Heritage Management

Where heritage management is a requirement of project compliance, work activities are completed with due consideration and protection

Management requirements are included in the site induction program.

Work activities are monitored for compliance through the Weekly Site Inspection.

Employee Health and Wellbeing

Work activities which may impact on employee health and well-being are identified at project design / tender / commencement / construction stages.

Information and management requirements are included in the site induction program.

Work activities are monitored for compliance through the Weekly Site Inspection.

TRAINING REQUIREMENTS

Based on construction and project information identify any additional training that is required for the works:

Environmental Activities Nil additional training from those detailed in the ADCO HSE Management System has been identified to carry out the works

6.0 LEGAL AND OTHER REQUIREMENTS

COMPLIANCE

Risks, hazards and controls on this project will be implemented in accordance with legislation, Codes of Practice and Standards applicable in this State. Legislation, Codes of Practice and Standards which will be applied to this project are noted in the Environmental Risk Register.

IDENTIFICATION

The identification and assessment of environmental risks (aspects and impacts) that could eventuate during construction of the project will be completed by ADCO at all the following project stages:

- / Design
- / Tender
- / Project planning

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- / Project construction

Aspects and impacts will be assessed relative to:

- / The potential to cause the discharge or release of pollutants to water, air, or land.
- / The impact on flora, fauna or heritage.
- / The potential to impact on the surrounding neighbourhood (e.g. noise, vibration).

The identification, assessment and risk mitigation of environmental risks is documented in the Risk Register (Environmental).

MONITORING

Actions taken to mitigate environmental risks must be reviewed for ongoing compliance by the Project Manager, Site Manager and HSE Adviser. Verification of monitoring should be noted on the Weekly Site Inspection form

7.0 INCIDENT MANAGEMENT

REPORTING

The reporting of all incidents is mandatory on ADCO project sites.

Workers are advised at the site induction that all incidents – irrespective of type or severity – must be reported to the Site Manager or HSE Adviser immediately upon occurrence.

ADCO shall notify TSA immediately following any site incidents and advice upon corrective actions taken. Whatapp to be used as requested by HI.

MANAGEMENT

All incidents will be recorded by the Site Manager or HSE Adviser.

- / Environmental incidents will be recorded in the Incident Report located on HammerTech.

INVESTIGATION

Incidents recorded in an Incident Report must be investigated by the Site Manager and HSE Adviser. The investigation is intended to:

- / Collate information / documentation associated with the incident.
- / Identify non-conformances leading to the incident.
- / Identify corrective and preventative action to mitigate recurrence of the incident.
- / The extent to which additional positions (e.g. Project Manager, HSE Manager, Construction Manager) are involved in the investigation of an incident is dependent on the severity and complexity of the incident and the requirements for participation are noted within the ADCO Corporate HSE Management System.

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NOTIFICATION

Where an incident is notifiable under the WHS/ Environmental legislation of the state in which it occurred, notification to the regulator will be made by any of the following positions: HSE Manager, Construction Manager, State Manager.

MONITORING

The Project Manager, Site Manager and HSE Adviser are responsible for ensuring that actions (corrective / preventative) arising out of an incident investigation are implemented and monitored for compliance monitoring and review

8.0 MONITORING AND REVIEW

MONITORING

Progress against project targets is monitored by the project team (Project Manager, Site Manager, HSE Adviser) through:

- / Regular daily visual inspections of work activities
- / Completion of the Weekly Site Inspection report
- / Close out of identified actions for non-conformances
- / Site inspection prior to weather events
- / Site inspection following weather events

REVIEW

Confirmation of achievement of project targets is reviewed through:

- / Project audits.
- / Other internal or external audits (e.g. client, FSC).
- / HammerTech Reporting
- / A reduction in incident and non-conformances across the State and nationally.

INSPECTIONS

ADCO will complete daily and weekly workplace inspections to review and confirm compliance to approved work practices and controls.

- / Regular daily visual inspections of work activities and work areas will be completed by the Site Manager, HSE Adviser and Health and Safety Representative (if applicable)
- / Formal inspections will be completed by the Project Manager, Site Manager, HSE Adviser using the Weekly Site Inspection form.

The inspection is required to reflect the project's level of compliance to:

- / Control measures required per active work permits.

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- / Accepted subcontractor SWMS for high-risk work activities.
- / General site conditions
- / Conditions applicable under the SSD approval

AUDITS

Project audits completed by the HSE Manager are a formal a review of project compliance against select criteria of the Corporate HSE Management System.

Applicable projects are required to be audited against national and project criteria listed on the Audit Report which is located in HammerTech.

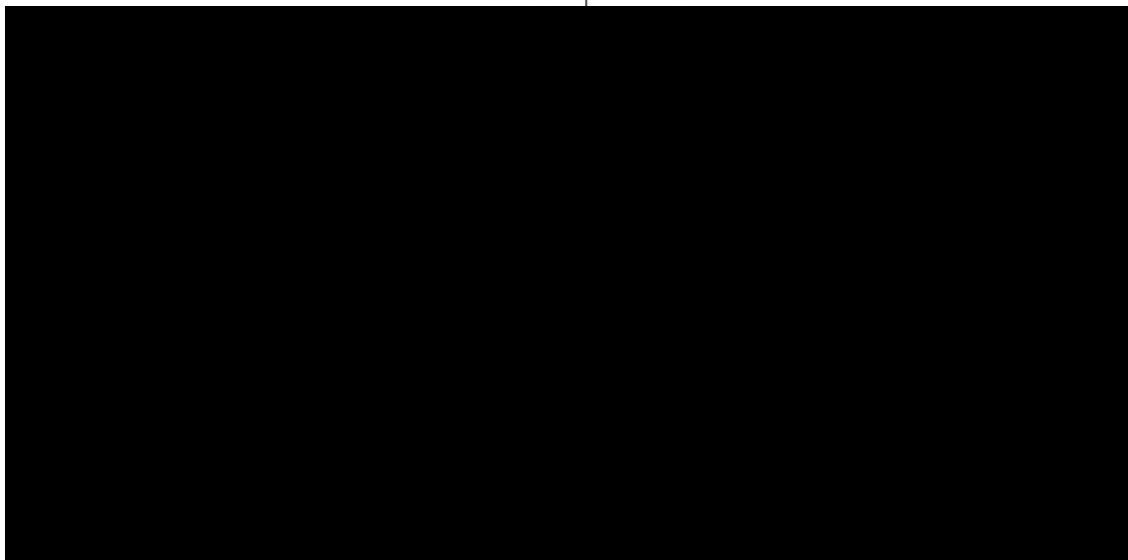
The level of compliance to the requirements of the Corporate HSE System is determined by the audit score achieved. Any corrective action (e.g. non-conformances) identified in the audit must, depending on the level of risk associated with the non-conformance, be addressed by the site team within a maximum of seven working days of receipt of the audit report.

Corrective actions and supporting evidence must be attached to the Audit Report in HammerTech.

9.0 PROJECT MANAGEMENT STRUCTURE

TWEED VALLEY HOSPITAL HEALTH HUB

PROJECT ORGANISATION CHART



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10.0 POSITION DESCRIPTION

Chief Executive Officer Provide commitment, leadership and direction in the development, implementation and management of the Corporate Management Systems, including but not limited to:

- / Development of a corporate strategic plan incorporating safety, environment, quality and health management risks and controls.
- / An assessment of the effectiveness of the Corporate Management Systems. (e.g. review of incidents and non-conformances to identify non-conformance trends and areas of improvement to the Corporate Management Systems.)
- / Full management obligations including continual improvement of the Corporate Safety, Environment and Quality Management Systems.
- / Ensure that appropriate resources are allocated to ensure compliance legislative requirements and the requirements of the Corporate Management Systems.
- / Ensure that resources are competent to deliver the requirements of the Corporate Management Systems.

State Manager Ensure that:

- / Corporate Management Systems are implemented at all levels in the State.
- / Appropriate resources are allocated to project teams to ensure compliance legislative requirements and the requirements of the Corporate Management Systems.
- / Project operations are in compliance with applicable state or federal legislation.
- / A review of the safety, environment, quality and health management performance of the State is completed regularly to identify non-conformances, trends and areas of improvement.

Construction Manager Ensure that:

- / Corporate Management Systems are implemented on projects within the State.
- / HSE requirements have been identified and accounted for during project tender processes.
- / Project operations are in compliance with applicable state or federal legislation.

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- / Appropriate resources are allocated to project teams to ensure compliance legislative requirements and the requirements of the Corporate Management Systems.
- / Project team personnel have received training to fulfil their duties and responsibilities with the Corporate Management Systems.
- / A review of the safety, environment, quality and health management performance of the State is completed regularly to identify non-conformances, trends and areas of improvement.

Health, Safety & Environment (HSE) Manager or Senior HSE Adviser

Ensure that:

- / Legislative requirements for HSE management are implemented and maintained on project sites.
- / The requirements of the Corporate HSE Management System are implemented on project sites.
- / Where required, project HSE requirements and risks are identified during project tender and/or trade tender processes and incorporated into project management plans.
- / Reviews of HSE performance are completed on all projects to ensure compliance with legislative and corporate requirements.

Project Manager

Ensure that:

- / HSE requirements are identified and assessed during trade tender evaluations.
- / In conjunction with the HSE Manager, project management plans are developed and implemented on projects.
- / Resources are allocated to implement and maintain the HSE requirements on the project.
- / ADCO project personnel have received training to fulfil their HSE responsibilities.
- / Project personnel are aware of current HSE legislation and their obligations.
- / HSE performance on the project is reviewed and non-compliant activities by employees and subcontractors are addressed.

Site Manager

Ensure that:

- / Legislative requirements for HSE management are implemented and maintained on the project site.
- / The requirements of project HSE Management Plans are implemented and managed on the project.
- / The requirements of the Corporate Management Systems are implemented and managed on the project.
- / Any issues which may arise over HSE requirements (legislative or Corporate) are managed on site.
- / Employees and subcontractors complete their work in compliance with legislative and Corporate Management System requirements.

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- / Open lines of communication and consultation are maintained with the HSE Adviser and other parties (i.e. subcontractors, employee representatives) to ensure that the site operates in a safe manner and in compliance with regulatory and corporate requirements.
- / HSE performance on the project is reviewed and non-compliant activities by employees and subcontractors are addressed.

HSE Adviser Ensure that:

- / Legislative requirements for HSE management are implemented and maintained on project sites.
- / The requirements of the Corporate Management Systems are implemented on project sites.
- / HSE performance on the project is reviewed and non-compliant activities by employees and subcontractors are addressed.

Health and Safety Representative (HSR) In general:

- / Participate in risk and hazard identification and control.
- / Participate in incident investigations and management.
- / Participate in workplace inspections (e.g. with the Committee, with the project team).
- / Participate in project consultative forums. (e.g. HSE Committee)
- / Consult with and represent workers (i.e. work group) in health and safety issues.

All Other Project Personnel All personnel are responsible for actively promoting and complying with Safety, Health and Environmental Management requirements as determined / advised / required by ADCO. Activities that all personnel are required to participate in include, but are not limited to:

- / Attend pre-start meetings.
- / Conduct pre-start tasks analysis.
- / Adhere to all permit requirements.
- / Report all hazards, near misses and incidents (including injuries).
- / Immediately stop any "at risk behaviour" identified during daily work activities.
- / Attend safety presentations and toolbox meetings.
- / Assist in achieving project HSE objectives and targets.

REFERENCE LEGISLATION

Acts and Regulations

- / Environment Protection and Biodiversity Conservation Act 1999
- / Environmental Protection and Biodiversity Conservation Regulations 2000
- / Environmental Protection Act 1994

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- / Environmental Protection Regulation 2008
- / Contaminated Land Act 1991
- / Environmental Protection Regulation 1987
- / Environmental Protection (Noise) Regulations 1997
- / Contaminated Sites Act 2003
- / Contaminated Sites Regulations 2006

Policy

- / Environmental Protection (Waste Management) Regulation 2000
- / Environmental Protection (Air) Policy 2008
- / Environmental Protection (Waste Management) Policy 2000
- / Plant Protection Regulation 2002
- / Environmental Protection (Noise) Policy 2008
- / Nature Conservation Act 1992
- / Environmental Protection (Water) Policy 2009

Cultural Heritage

- / The Native Title Act 1993 (Cth)
- / Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cth)
- / Aboriginal Cultural Heritage Act 2003
- / Torres Strait Islander Cultural Heritage Act 2003
- / Queensland Heritage Act 1992

HSE System References

Procedure

- / Environmental Management

General Requirements

- / Erosion and Sediment Management
- / Air Quality Management
- / Water Quality Management
- / Noise and Vibration Management
- / Contaminants
- / Heritage Management
- / Waste Management
- / Spills Management
- / Fauna and Flora Protection
- / Potable Water Management
- / Non-potable Water Management

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11.0 REFERENCE DOCUMENTS

Reference is made to the Construction Soil and Water Management Plan produced by Lendlease Builders (Revision 3.3 dated 11/08/2020) that addresses site wide conditions and method of management. The management plan produced by Lendlease Builder and approved under the main works Crown Certificate shall be applied to the management and control of the main site of works by the Managing Contractor (Lendlease).

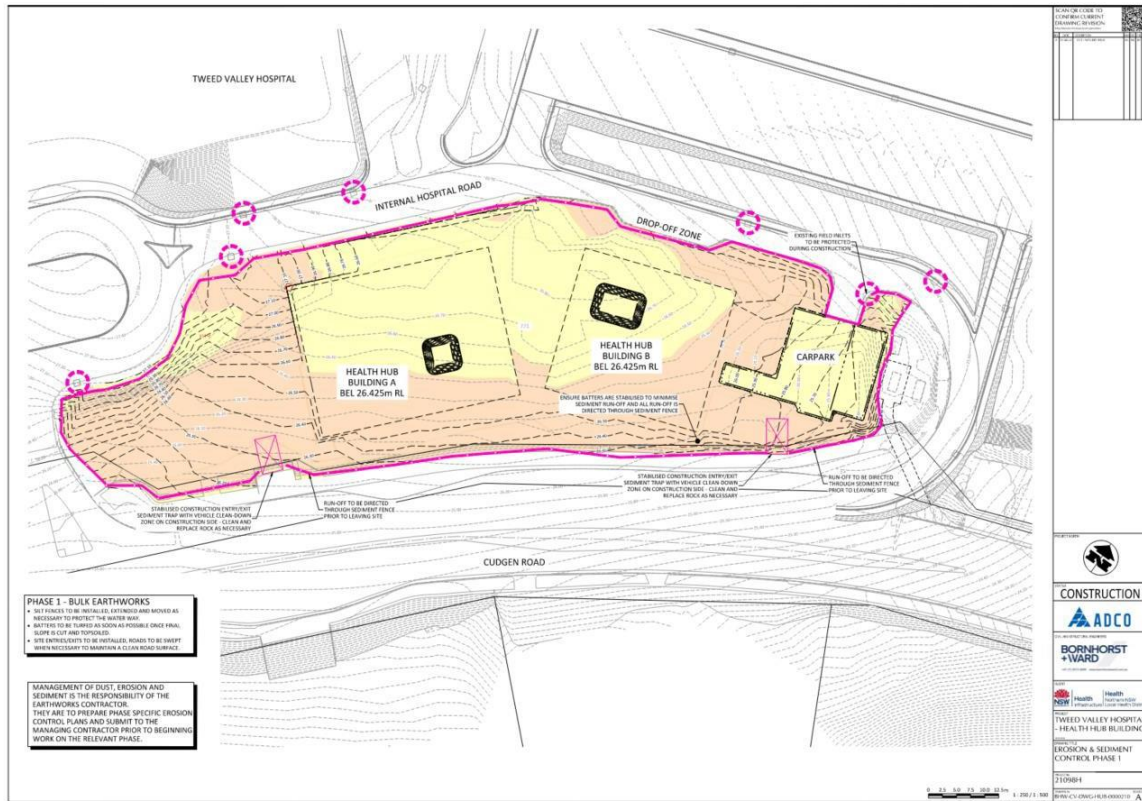
As the ADCO site is contained within the main hospital precinct, conditions of the approved Lendlease Builders Construction Soil and Water Management Plan remains relevant and must be adopted for all subject works on site.

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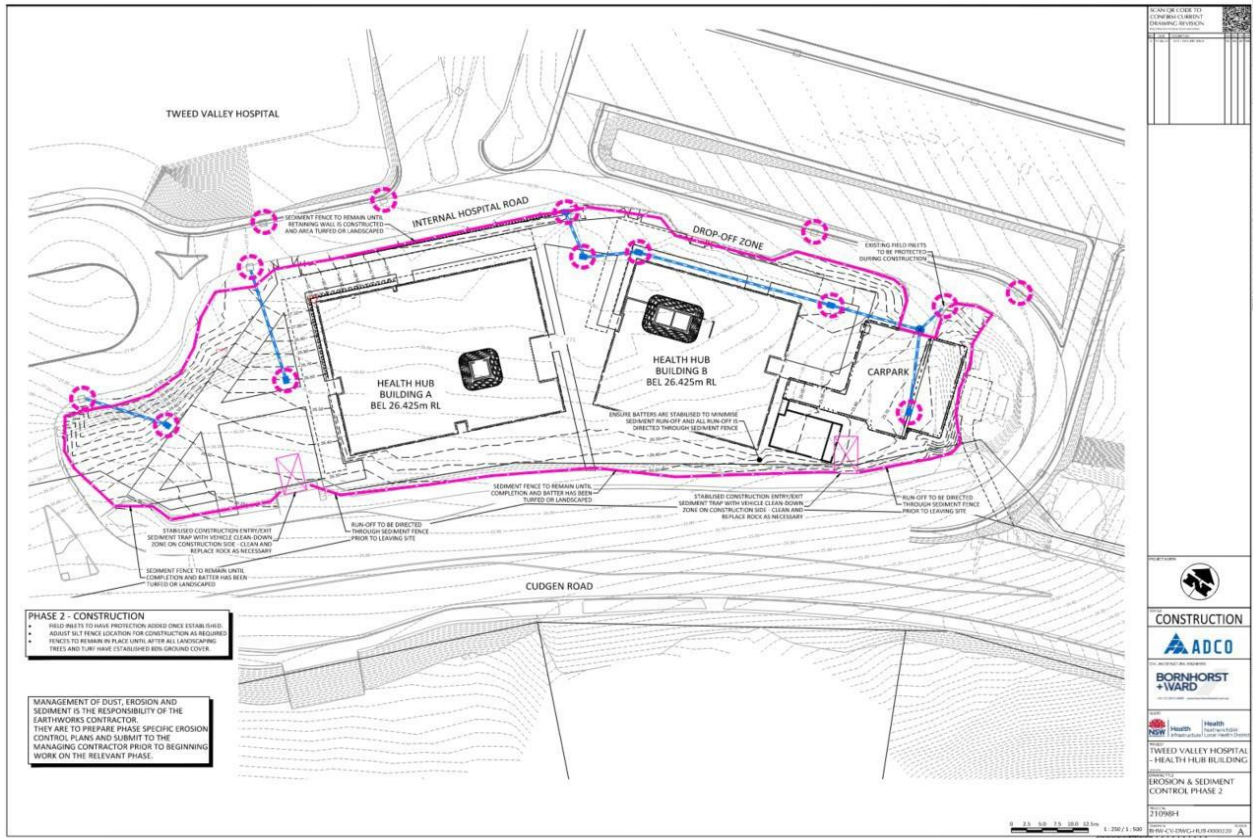
ANNEXURE A – EROSION AND SEDIMENT CONTROL PLANS



Bornhorst & Ward – Erosion & Sediment Control Plan – Phase 1

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Bornhorst & Ward – Erosion & Sediment Control Plan – Phase 2

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EROSION & SEDIMENTATION CONTROL NOTES

- GENERAL**
 - 1.1. REFER TO ALL DRAWINGS FOR TYPICAL CONSTRUCTION PHASE CONTROLS.
 - 1.2. TOPSOIL
 - 1.2.1. STRIP & STOCKPILE AVAILABLE TOPSOIL (UNOBTAINED AIR DRY DEPTH) EXPOSED FROM DISTURBED AREAS PRIOR TO BULK EARTHWORKS. GRADE BULK EARTHWORKS SURFACE SHALL EXCEED TO EXPOSED TOP OF EXISTING DRAINAGE. MINIMUM SLOPE ACROSS SITE TO BE 0.5%.
 - 1.2.2. ALL FOOTPRINT BATTERS & EARTHWORKS EXPOSED AREAS ARE TO BE TOPSOILED TO A MINIMUM DEPTH OF 100mm (LIGHTLY COMPACTED) TURFED WHERE APPLICABLE.
 - 1.3. SEDIMENT FENCES
 - 1.3.1. SEDIMENT FENCES TO BE PLACED AS SHOWN. SEDIMENT FENCES TO BE REPAIRED & EXCESSIVE SEDIMENT DEPOSITS REMOVED AS REQUIRED.
 - 1.3.2. IN THE EVENT OF WET WEATHER, INSTANT KERM FILTER WITH GRAVEL BARRING FROM DOWN TO TRAP IN CASE IF THE GRAVEL FILTER BECOMES CLOGGED WITH SEDIMENT DURING ITS USE. THE GRAVEL MUST BE POOLED AWAY FROM THE AREA & CLEANING REQUIRED.
 - 1.3.3. REGULAR VISUAL CHECKS OF ALL FENCES TO BE MADE ALONG WITH A CHECK AFTER ANY SIGNIFICANT STORM EVENT TO ENSURE INTEGRITY & PERFORMANCE.
 - 1.4. TURBING
 - 1.4.1. PRECISE TURBING TO EXPOSE SURFACE OF ALL BATTERS, FOOTPRINTS & IN-CUT & FILL BATTERS.
 - 1.4.2. FOOTPRINT BATTERS ARE TO BE TURBING WITH TOPSOIL & TURFED AS SOON AS PRACTICAL AFTER THE BATTERS HAVE BEEN COMPLETED. REMAINING EXPOSED BATTERS ON SITES WITH TOPSOIL TO BE MAINTAINED (HYDROSEALING) DURING CONSTRUCTION SEQUENCE.
 - 1.5. TEMPORARY CONSTRUCTION ENTRY / EXIT SEDIMENT TRAP
 - 1.5.1. TEMPORARY CONSTRUCTION ENTRY / EXIT SEDIMENT TRAP TO BE CONSTRUCTED ON DOWNSTREAM SIDE.
 - 1.5.2. SEDIMENTATION FENCES TO BE PLACED AS SHOWN. WHEEL TRACK DAMAGE OR LOSS OF PREVENTION.
 - 1.5.3. REMOVE SEDIMENT TO AVOID FLOODING FROM CATCH BASINS.
 - 1.5.4. REMOVE EXCESSIVE SEDIMENT FROM INTERIOR OF CATCH BASIN.
 - 1.5.5. ROAD RECEIVERS TO BE USED AS HULL ROAD.
 - 1.5.6. A CATCH BASIN BANK IS TO BE PROVIDED ON THE TOP SIDE OF ALL CUTS & DISCHARGED EITHER TO UNDISTURBED GRASS LANDS OR TO THE CROSS ROAD DRAINAGE.
 - 1.5.7. SUPPLEMENTARY EROSION & SEDIMENTATION CONTROL MEASURES MAY BE REQUIRED AT THE DISCHARGE OF THE TRAP.
 - 1.6. CONSTRUCTION SITE DETAIL
 - 1.6.1. ONE IDENTIFIED POINT ON CATCHMENT ROAD AS PER PHYSICAL DETAIL.
 - 1.6.2. WATER QUALITY SAMPLE POINTS TO BE IDENTIFIED PRIOR TO RELEASE OF ANY WATER FROM THE SEDIMENT POND. WATER QUALITY MUST LAY OFF THE FOLLOWING CRITERIA TO BE MET: TSS (TOTAL SOLIDS) & BOD (BIODIODEGRADABLE ORGANIC MATTER) TO BE MET. WATER QUALITY MUST LAY OFF THE FOLLOWING CRITERIA TO BE MET: TSS (TOTAL SOLIDS) & BOD (BIODIODEGRADABLE ORGANIC MATTER) TO BE MET. WATER QUALITY MUST LAY OFF THE FOLLOWING CRITERIA TO BE MET: TSS (TOTAL SOLIDS) & BOD (BIODIODEGRADABLE ORGANIC MATTER) TO BE MET.
 - 1.6.3. ALL WATER QUALITY DATA INCLUDING DATES OF ANALYSIS, TESTS & WATER RELEASE MUST BE MAINTAINED IN AN ON-SITE REGISTER. THE REGISTER IS TO BE MAINTAINED FOR THE DURATION OF THE APPROVED WORKS & BE AVAILABLE ON SITE FOR INSPECTION ON REQUEST.
 - 1.6.4. GRASS SEEDING IS TO ACHIEVE 70% COVER WITHIN 30 DAYS OF COMPLETION OF BATTERWORKS.
- FOLLOWING CONSTRUCTION**
 - 2.1. SEDIMENTATION FENCES TO BE MAINTAINED UNTIL TURBING IS COMPLETED & GRASS IS WELL ESTABLISHED.
 - 2.2. SEDIMENT BASINS TO BE CHECKED & DE-SILTED AFTER EVERY SIGNIFICANT STORM EVENT OR IN THE CASE OF NO SIGNIFICANT STORM EVENT, EVERY 12 WEEKS.

NOTE:
NOT WITHSTANDING THE DETAILS ON THESE DRAWINGS, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EROSION AND SEDIMENTATION CONTROL WITHIN THE SITE. THE CONTRACTOR SHALL COMPLETE ALL DESIGN MEASURES AND MORE AS ANY ADDITIONAL MEASURES AND MAINTENANCE REQUIRED TO KEEP THESE CONSTRUCTION STAGING. ALL COSTS IN RELATION TO EROSION AND SEDIMENTATION CONTROL ARE TO BE INCLUDED IN THE QUOTE.

REVISION RECORD

Revision No.	Description / Catchment	Author	Date
1	Initial Design	J. Ward	07/11/2018
2	Revised Design	J. Ward	07/11/2018
3	Final Design	J. Ward	07/11/2018

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CONSTRUCTION SITE DETAIL

ON GRADE KERB INLET SEDIMENT TRAP

ON GRADE KERB INLET SEDIMENT TRAP ON EXISTING ROADS

TEMPORARY CONSTRUCTION ENTRY / EXIT SEDIMENT TRAP

CUT OFF DRAIN END DETAIL

FIELD INLET SEDIMENT TRAP

FIELD INLET SEDIMENT TRAP: GEOTEXTILE

SILT FENCE ELEVATION

SILT FENCE RETURNS

EROSION CONTROL AT KERB

DIVERSION CHANNEL

MANAGEMENT OF DUST, EROSION AND SEDIMENT IS THE RESPONSIBILITY OF THE EARTHWORKS CONTRACTOR. THEY ARE TO PREPARE PHASE SPECIFIC EROSION CONTROL PLANS AND SUBMIT TO THE MANAGING CONTRACTOR PRIOR TO BEGINNING WORK ON THE RELEVANT PHASE.

THIS DRAWING IS BEST VIEWED IN COLOUR AND ON AN ELECTRONIC DEVICE

Scale: 1:50

Bornhorst & Ward Erosion & Sediment Control Notes & Details

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CONSTRUCTION SOIL AND WATER MANAGEMENT PLAN



DOCUMENT TITLE	ENVIRONMENTAL MANAGEMENT PLAN	DOCUMENT CREATED	18 FEBRUARY 2019
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