22 December 2020

Eric Hausfield
Suite 7, 76 Henry Street,
Penrith NSW 2751
Land Development Certificates

IVANHOE ESTATE - DEVELOPMENT CONSENT SSDA 8903
CONDITION B40 – CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN (CEMP)
CONDITION B43 – AIR QUALITY AND ODOUR MANAGEMENT PLAN (AQOMP)
CONDITION B44 – CONSTRUCTION WASTE MANAGEMENT PLAN (CWMP)
CONDITION B45 – CONSTRUCTION SOIL AND WATER MANAGEMENT PLAN (CSWMP)

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

B40. Prior to the commencement of any works, the Applicant shall prepare and implement a **Construction Environmental Management Plan** (CEMP) for the development and be submitted to the Certifier. The CEMP must be prepared in consultation with, and address the relevant requirements of, Council. The CEMP must:

a) describe the relevant stages and phases of construction including work program outlining relevant timeframes for each stage/phase;

b) describe all activities to be undertaken on the site during site establishment and construction of the development;

c) include a Dust Management Plan, incorporating the mitigation measures outlined in the Air Quality Assessment, prepared by WSP, dated October 2018

d) clearly outline the stages/phases of construction that require ongoing environmental management monitoring and reporting;

e) detail statutory and other obligations that the Applicant is required to fulfil during site establishment and construction, including approvals, consultations and agreements required from authorities and other stakeholders, and key legislation and policies;

f) be prepared in consultation with Council and include specific consideration of measures to address any requirements of Council during site establishment and construction;

g) describe the roles and responsibilities for all relevant employees involved in the site establishment and construction of the works;

h) detail how the environmental performance of the site preparation and construction works will be monitored, and what actions will be taken to address identified potential environmental impacts, including but not limited to noise, traffic and air impacts;

i) include measures to ensure adequate groundwater entitlement is sourced in order to account for groundwater flows into the construction excavations, unless any exemption applies;

j) management of groundwater during construction;

k) document and incorporate all relevant sub environmental management plans (Sub-Plans), control plans, studies and monitoring programs required under this part of the consent; and

l) include arrangements for community consultation and complaints handling procedures during construction.

The **CEMP** must not include works that have not been explicitly approved in the development consent. In the event of any inconsistency between the consent and the CEMP, the consent shall prevail.

Prior to the commencement of works, a copy of the CEMP must be submitted to the Planning Secretary.

AIR QUALITY AND ODOUR MANAGEMENT PLAN

B43. Prior to the commencement of any works, an **Air Quality and Odour Management Plan** (**AQOMP**) must be prepared and submitted to the Certifier. The **AQOMP** must recommend measures to minimise and manage any odours arising from excavation, stockpiling and removal of contaminated soils including, but not limited to:

(a) staged excavation to limit the surface area of exposed odorous material;

(b) application of odour suppressants;

(c) effective covering of stockpiles and truckloads of excavation spoil; and

(d) expedited removal of odorous material from the development to a facility legally able to accept those wastes.

The **AQOMP** must include proactive and reactive management strategies, key performance indicators, monitoring measures, record keeping, response mechanisms, contingency and compliance reporting measures.

CONSTRUCTION WASTE MANAGEMENT PLAN

B44. Prior to the commencement of any works and prior to the issue of any Crown Building Works for each building, the Applicant must prepare a **Construction Waste Management Plan** (**CWMP**) in consultation with Council. A copy of the plan must be provided to the Certifier. The **CWMP** must include, but is not limited to, the following information:

(a) the estimated volume or weight of materials that will be reused, recycled or removed from the site;

(b) on-site material storage areas during construction;

(c) materials and methods used during construction to minimise waste;

(d) provide details demonstrating compliance with the relevant legislation, particularly with regard to the removal of asbestos and hazardous waste, the method of containment and control of emission of fibres to the air;

(e) nomination of the end location of all waste and recycling generated from a facility authorised to accept the material type for processing or disposal; and

(f) identification within the **CWMP** of the responsibility for the transferral of waste and recycling bins within the property to the collection point.

All requirements of the approved **CWMPs** must be implemented during the excavation and construction of the development.

CONSTRUCTION SOIL AND WATER MANAGEMENT PLAN

B45. A **Construction Soil and Water Management Plan** (**CSWMP**) must be prepared to manage soil and water impacts during construction of the development. The **CSWMP** must be prepared in consultation with Council, prior to the issue of a Crown Building Works Certificate for each building.

The **CSWMP** must be prepared in accordance with the provisions of the "Blue Book" Part 1 [Landcom (2004) Managing Urban Stormwater: Soils and Construction, 4th edition]. The **CSWMP** must consider likely stages of the works and provide for appropriate control of sediment and erosion for each stage and include, but not be limited to:

(a) location and extent of all necessary sediment and erosion control measures for the site;
(b) catchment plan;
(c) sediment basin(s) locations including details showing how runoff from the entire site will be directed to the sediment basin(s). Requirements for sediment basins are specified below;
(d) all relevant details and calculations of the sediment basins including sizes, depths, flocculation, outlet design, all relevant sections, pump out systems, and depths;
(e) all details of basement and other excavation pump out and dewatering treatment systems including flocculation and any proposed discharge from the site from dewatering and pump out systems. Requirements for dewatering are specified below;
(f) identification and management of any stormwater run-on to the site from adjacent sites;
(g) location of any temporary stockpiles (soil, spoil, topsoil or otherwise) and accompanying sediment and erosion control measures;
(h) location and details of all vehicle wash down bays and associated erosion and sediment control measures such as earthen bunds; and
(i) a daily and weekly site inspection checklist consistent with IECA Best Practice Erosion and Sediment Control documents.

A Sediment Basin is required for every catchment discharging from the site as part of any **CSWMP**. Sediment basin(s) are to be designed as follows:

(a) according to the NSW Blue Book (section 6.3.4 and Appendix E). The calculations of the sediment basin size must be submitted with the **CSWMP**;
(b) using type D soils (unless otherwise demonstrated by an analysis of site soils by a qualified geotechnical);
(c) for all events up to the peak flow rate from the 1 in 10-year ARI event for the site for the 5-day rainfall event; and
(d) to include a gypsum flocculent to be added to the sediment basin in accordance with Appendix E of the Blue Book.

Dear Eric,

In accordance with Development Consent SSDA 8903 **Condition B40, B43, B44 and B45** please find attached the Integrated Management Plan prepared by Mainland Civil Pty Ltd addressing each of the conditions listed above. We have attempted to consult with Council as required regarding conditions B40, B44 and B45, however we have had no response from them to date.

Kind Regards,

Tim Saviane | **Project Manager** | **Mainland Civil**
P 02 8566 1111 | M 0422 418 072 | F 02 8566 1100
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192-194 Railway Parade, Kogarah, NSW 2217 | PO Box 529, Kogarah NSW 2217

Tim Saviane

From: Tim Saviane
Sent: Tuesday, 22 December 2020 12:52 PM
To: cityofryde@ryde.nsw.gov.au
Cc: 'Peter.Statham@fraserspropery.com.au'; 'Joe.Avgoustis@fraserspropery.com.au'; 'chris.koukoutaris@fraserspropery.com.au'; Peter Josevski
Subject: RE: SSDA 8903 - Condition B40 B44 B45 - Integrated Management Plan

Attention: City of Ryde Council,

I am writing to you in regards to the Development Consent SSDA 8903 for the Ivanhoe Estate Project. More specifically the document provided to you on the 10th December 2020 relating to the Integrated Management Plan in which we requested your consultative input as required for condition B40, B44, and B45 of the development consent. As of this date we are yet to receive a response to this document submission and make the assumption that you have no further input to add to this document. As such we intend to progress with the formalisation of this document noting that we had attempted to consult with Council on the matter.

Please feel free to contact myself if you require any further information on this matter or at any time should you wish to provide any input into this document.

Regards,

Tim Saviane | **Project Manager** | **Mainland Civil**
P 02 8566 1111 | M 0422 418 072 | F 02 8566 1100
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Web | www.mainlandcivil.com.au
192-194 Railway Parade, Kogarah, NSW 2217 | PO Box 529, Kogarah NSW 2217

From: Peter Josevski
Sent: Thursday, 10 December 2020 5:03 PM
To: cityofryde@ryde.nsw.gov.au
Cc: 'Peter.Statham@fraserspropery.com.au' <Peter.Statham@fraserspropery.com.au>;

'Joe.Avgoustis@fraserspropery.com.au' <Joe.Avgoustis@fraserspropery.com.au>; 'chris.koukoutaris@fraserspropery.com.au' <chris.koukoutaris@fraserspropery.com.au>; Tim Saviane <Tim_Saviane@mainlandcivil.com.au>
Subject: SSDA 8903 - Condition B40 B44 B45 - Integrated Management Plan

Attention: City of Ryde Council,

I am writing to you with regards to the Development Consent SSDA 8903 for the Ivanhoe Estate project. In accordance with condition B40, B44 & B45 of this development consent, please find attached the Integrated Management Plan for your review and consultation. Could you please let me know once you have reviewed this plan if there are any amendments you require to be made.

Regards

Peter Josevski | **Project Engineer** | **Mainland Civil**
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INTEGRATED MANAGEMENT PLAN

Ivanhoe Estate – Macquarie Park

Frasers Property
Ivanhoe Place, Macquarie Park

10 December 2020
Revision E

Document control shall be in accordance with Mainland Civil's HSEQ Standards, ensuring:

- The Integrated Management Plan (IMP) is maintained and up to date;
- The current version of the IMP is readily available to managers, employees and key stakeholders; and
- The site HSEQ Manager will retain all superseded (obsolete) pages the IMP for a minimum of 7 years.

Project Document Register				
Date	Rev	Prepared By	Project Manager signoff	HSEQ Manager signoff
2 November 2020	A	Mitch Cole	Tim Saviane	Mitch Cole
12 November 2020	B	Mitch Cole	Tim Saviane	Mitch Cole
18 November 2020	C	Adrian Grdic	Tim Saviane	Mitch Cole
2 December 2020	D	Salvatore Panto	Tim Saviane	Mitch Cole
10 December 2020	E	Peter Josevski	Tim Saviane	Mitch Cole

Register of Amendments					
Date	Page/ Form No.	Version	Description of Amendments	Prepared By	Approved By
02/12/20	s	D	Amendments highlight in yellow	S.P	T.S
08/12/20	10-12	E	Update to wording of section 1.8 - Location of regulatory documents.	P.J	T.S
08/12/20	10-12	E	Update to section 1.8 - Legal and other requirements added and listed	P.J	T.S
09/12/20	13-14	E	Update to section 1.9 – Description of scope items	P.J	T.S
09/12/20	35	E	Update to table 4.7.1 - HRCW activities listed	P.J	T.S
10/12/20	46	E	Update to section 5.4.2 – mitigations updated and reference to WSP Air Quality Assessment.	P.J	T.S
09/12/20	51	E	Update to table 5.6.2. update Volumes to be used on site	P.J	T.S
09/12/20	51	E	Update to section 5.6.4 – removed word 'reusing'	P.J	T.S
09/12/20	49	E	Update to wording of 5.5.4 Vibration	P.J	T.S
09/12/20	31	E	Update to wording of 3.10.1 Update to Policies	P.J	T.S
09/12/20	31	E	Update to wording of 3.10.2 Update to AS/NZS ISO 19011:2014	P.J	T.S
09/12/20	63	E	Update to section 5.8.2. Suppressant methods and types	P.J	T.S
09/12/20	52	E	Update to section 5.6.6 – Comments on asbestos added	P.J	T.S
09/12/20	62	E	Update to section 5.7.5.1 – reference to stockpile location reference to 5.7.2.d	P.J	T.S
10/12/20	37	E	Update to section 4.7.6.1.1 vehicle wash down bay reference. Reference to section 5.7.2.d	P.J	T.S
10/12/20	61	E	Update to section 5.7.4 groundwater entitlement comments	P.J	T.S
10/12/20	10-12, 43	E	Update to section 5.3 reference to legislation & COPs and references listed in section 1.8.	P.J	T.S
10/12/20	62,104	E	Update to section 5.7.6 – reference to EICA and implementation of weekly site checklist in Appendix C	P.J	T.S
10/12/20	3-4	E	Update to Development Consent Clause	P.J	T.S

Distribution Register			
Version No	Date of Issue	Name of Recipient	Position / Organisation
A	2.11.2020	Joe Avgoustis	Project Manager, Frasers Property
B	12.11.2020	Joe Avgoustis	Project Manager, Frasers Property
C	18.11.2020	Joe Avgoustis	Project Manager, Frasers Property
D	03.12.2020	Joe Avgoustis	Project Manager, Frasers Property
E	10.12.2020	Joe Avgoustis	Project Manager, Frasers Property

The Integrated Management Plan (IMP) is developed in conjunction with Development Consent SSD 8903, the table below lists Development Consent clauses and references the relevant IMP sections within this document.

Development Consent Clause	**IMP Ref**
B40 a) CEMP – Describe the relevant stage and phases of construction including work program outlining relevant timeframes for each stage/phase;	1.10
B40 b) CEMP – describe all activities to be undertake on the site during site establishment and construction of the development	1.9
B40 c) CEMP **–** include a dust management plan, incorporating the mitigation measure outline in the Air Quality Assessment, Prepared by WSP, dated October 2018	5.4 5.4.2
B40 d) CEMP **–** clearly outline the stages/phases of construction that require ongoing environmental management monitoring and reporting	5.1, 5.6.2, 5.7.6, 5.6.7.5, 5.8.4, 5.8.8, 7.7
B40 e) CEMP **–** detail statutory and other obligations that the Applicant is required to fulfil during site establishment and construction, including approvals, consultations and agreements required from authorities and other stakeholders, and key legislation and policies	1.8
B40 f) CEMP **–** be prepared in consultation with council and include specific consideration of measures to address any requirements of Council during site establishment and construction	See point B40 d) above
B40 g) CEMP **-** describe the roles and responsibilities for all relevant employees involved in the site establishment and construction of the works	1.13
B40 h) CEMP **-** detail how the environmental performance of the site preparation and construction works will be monitored, and what actions will be taken to address identified potential environmental impacts, including but not limited to noise, traffic and air impacts	5.1, 5.4, 5.5, 5.7, 5.8, 4.8, 5.6.7, 5.6, 6.0
B40 i) CEMP **-** include measures to ensure adequate groundwater entitlement is sourced in order to account for groundwater flows into the construction excavations, unless any exemption applies;	5.7.4
B40 j) CEMP **-** management of groundwater during construction	5.7.2
B40 k) CEMP **-** document and incorporate all relevant sub environmental management plans (Sub-Plans), control plans, studies and monitoring programs required under this part of the consent; and	Refer to point B40 h) above
B40 l) CEMP **-** include arrangements for community consultation and complaints handling procedures during construction.	2.3.2
B40 i) CEMP **-** include measures to ensure adequate groundwater entitlement is sourced in order to account for groundwater flows into the construction excavations, unless any exemption applies	5.7.4
B43 a) AQOMP – Staged excavation to limit surface area of exposed odorous material	5.8.1
B43 b) AQOMP – Application of odour suppressants	5.8.2
B43 c) AQOMP – Effective covering of stockpiles and truckloads of excavation spoil	5.8.3, 5.4.2

B43 d) AQOMP – Expedited removal of odorous material from the development to a facility legally able to accept those wastes.	5.8.2
B44 a) CWMP – Estimated volume/weight of materials that will be reused, recycled or removed from site.	5.6.2
B44 b) CWMP – Onsite material storage areas during construction	5.6.7.3
B44 c) CWMP – Materials and methods used during construction to minimise waste	5.7.4
B44 d) CWMP – Provide details demonstrating compliance with relevant legislation, particularly with regard to the removal of asbestos and hazardous waste, method of containment and control of emission of fibres to the air	1.8, 5.6.7
B44 e) CWMP – Nomination of the end of location of the end location of all waste and recycling generated from a facility authorised to accept the material type for processing or disposal	5.6.6
B44 f) CWMP – Identification within the CWMP of the responsibility for the transferral of waste and recycling bins within the property to the collection point	5.6.6
B45 a) location and extent of all necessary sediment and erosion control measures for the site	5.7.2
B45 b) catchment plan	5.7.2, 5.7.3
B45 c) sediment basin(s) locations including details showing how runoff from the entire site will be directed to the sediment basin(s).	5.7.2
B45 d) all relevant details and calculations of the sediment basins including sizes, depths, flocculation, outlet design, all relevant sections, pump out systems, and depths	5.7.3
B45 e) all details of basement and other excavation pump out and dewatering treatment systems including flocculation and any proposed discharge from the site from dewatering and pump out systems	5.7.4
B45 f) identification and management of any stormwater run-on to the site from adjacent sites	5.7.4
B45 g) location of any temporary stockpiles (soil, spoil, topsoil or otherwise) and accompanying sediment and erosion control measures	5.7.2
B45 h) location and details of all vehicle wash down bays and associated erosion and sediment control measures such as earthen bunds	5.7.2
B45 i) a daily and weekly site inspection checklist consistent with IECA Best Practice Erosion and Sediment Control documents	5.7.6
B59 Prior to the commencement of any works and following additional testing (Condition B55) an updated Unexpected Contamination Finds Protocol, prepared by a suitably qualified and experienced expert, shall be provided to the certifier. The UFP must be implemented for the duration of construction works.	5.3
B64 The applicant shall comply with any notification requirements to Safe Work NSW concerning the handling and removal of asbestos.	5.3
B65 Prior to the commencement of any work, the applicant is required to satisfy the requirements of the Protection of the Environment Operations (Waste) Regulation 2014 with particular reference to part 7 asbestos wastes.	1.8.C.6

CONTENTS

ACONOMYNS & ABBREVIATIONS

AS	Australian Standard
ASS	Acid Sulphate Soils
CLM	Contaminated Land Management
DA	Development Application
EIS	Environmental Impact Statement
EMS	Environment Management System
ENM	Excavated natural materials
EPA	NSW Environment Protection Authority
HSEQ	Health, Safety, Environment & Quality
HSR	Health and Safety Representative
IMP	Integrated Management Plan
ITP	Inspection Test Plan
PASS	Potential Acid Sulphate Soils
PM	Mainland Civil Project Manager
POEO Act	Protection of the Environment Operations Act 1997
PPE	Personal protective equipment
RMS	Roads and Maritime Services
SDS	Safety Data Sheet
SOP	Standard Operating Procedures
SWEMS	Safe Work and Environmental Method Statement
TCP	Traffic Control Plan
TMC	Road and Maritime Services Traffic Management Centre
TMP	Traffic Management Plan
VMP	Vehicle Movement Plan

APPENDIX

Appendix A	Mainland Policies
Appendix B	Project risk register
Appendix C	Weekly site safety and environmental walk
Appendix D	Emergency Evacuation Plan
Appendix E	Mainland Civil Site Safety rules

1 INTRODUCTION

1.1 DEVELOPMENT OVERVIEW

The Ivanhoe Estate Macquarie Park project involves the construction of roads and services to facilitate future developments and includes bulk excavation for a building basement. This project is stage 1A of multiple residential/commercial developments that will be constructed within the Ivanhoe Estate development. The site is bordered by Epping Road along the south-western boundary and by Shrimptons Creek on the south-eastern boundary, approximately 8.2 Hectares in area.

1.2 MAINLAND CIVIL

Mainland Civil is a National Civil Engineering Contractor, engaged by Frasers Property as the principal contractor for Ivanhoe Estate project to complete site establishment and civil excavation and construction works.

1.3 HEALTH, SAFETY, ENVIRONMENT AND QUALITY CERTIFICATION

Mainland Civil is certified under ISO 9001:2015 Quality Management Systems, ISO 14001 Environmental Management Systems and ISO 45001 Occupational Health and Safety Management System.

1.4 MAINLAND POLICIES

Mainland Civil have developed seven company policies to establish expectations and to provide guidance on how to consistently handle workplace situations and how employees will be treated. These policies are reviewed annually in consultation with Safety and Environmental Management and Managing Directors.

The policies are outlined in the site inductions to all site personnel and are displayed on the site notice boards, lunch rooms and site management plans, to be available to relevant interested parties, as appropriate. A copy of the Polices are available in Appendix A

- Work Health and Safety Policy
- Injury Management Policy
- Environmental Policy
- Quality Policy
- Drugs and Alcohol Policy
- Workplace Harassment Policy
- WHSE Consultation Policy

1.5 PROCUREMENT PROCESS

The following key measures will be considered in the procurement process for all supplies, subcontractors and direct purchase of materials:

- The hierarchy of waste avoidance, reduction, reuse, and recycling will be incorporated into all aspects of the Projects (waste management measures are detailed further within the Construction Waste Management Plan - Section 5.7);
- Suppliers and subcontractors will be made aware of Mainland Civil's environmental requirements and their obligations as an environmental supplier. Project specific information relating to the environmental requirements will be included in procurement and subcontract documentation through the contract and scope of works and the performance of suppliers and subcontractors measured and reported;
- Suppliers of chemicals and hazardous substances will be required to submit Safety Data Sheets (SDS) with delivery or prior to chemicals arriving at site. This may include plant and machinery hazardous chemicals such as ; diesel, oil or petrol;
- Ensure that purchase orders and agreements include environmental requirements as necessary; and
- Where practical and in consultation with the site HSEQ Manager and engineering personnel, select materials which minimise the impact on the environment.

1.6 PROJECT OBJECTIVES AND TARGETS

Mainland Civil have established and will maintain objectives and targets that will be implemented on site. The company's quality, safety and environmental objectives and targets have been listed in Section 2, 3 and 4 of this Integrated Management Plan. These have been developed for construction activities associated with Ivanhoe Estate and are set out in the IMP safety and environmental management sub-plans. They are realistic, minimise any hazards and risks and ensure the facilitation of continual improvement and have been developed based on the following requirements:

- Requirements in the statutory consent/approvals;
- Ivanhoe Estate project objectives
- Contractual requirements;
- Frasers Property lease conditions;
- Legal requirements; and
- Significant safety and environmental aspects and impacts.

1.7 INTEGRATED MANAGEMENT PLAN (IMP)

This Integrated Management Plan describes the strategy, methods, controls, and requirements for the execution of the project. It stands alone as the master document for site activities, and refers to company procedures for system based activities.

The IMP is reviewed and signed-off by the HSEQ Manager and Project Manager prior to the first issue. The Project Manager who has the overall responsibility to deliver the project will induct the project team on the requirements of the Integrated Management System and relevant legal references in the Integrated Management Plan.

Site specific information from the IMP will be discussed with site workers during the site induction and documented in Safe work method statements, Tool box discussions, pre-starts, safe work procedure and on-site

training. Any changes to the IMP which is relevant to site employees will be presented during at site tool-box discussion.

1.8 LEGAL AND OTHER REQUIREMENTS

Below **Table 1.8** outlines some of the key legal requirements and other obligations that are applicable to Mainland Civil's activities undertaken at during the Ivanhoe Estate construction activities. A soft copy of the below documents is accessible at the Mainland Civil Site office. All personnel inducted into the site specific induction will be consulted into where and how these can be accessed. A soft copy will be accessible to personnel visiting site in the Mainland site office.

Table 1.8 - Legal and Other Requirements

#	Title	Key Requirements
A	**Commonwealth Laws**	
A.1	*Work Health and Safety Act 2011 and Regulations NSW 2017*	The WHS Act and WHS Regulations provide a framework to secure the health and safety of workers and workplaces by protecting workers and other persons against harm to their health, safety and welfare through the elimination of risks arising fromwork, in accordance with the principle that workers and other persons
A.2	*Environment Protection and Biodiversity Conservation Act 1999* and *Regulations 2000*	Sets out the assessment and approval process for sites that have or are world or national heritage listed, threatened species or ecological communities, migratory species, commonwealth marine areas and nuclear sites.
A.3	*National Greenhouse and Energy Reporting Act 2007* and *Regulations 2008*	Describes the requirements for companies to report on energy use and emission of greenhouse gases. Mainland Civil is obligated to report on energy consumption or greenhouse gas emissions.
A.4	*National Environment Protection Council (NEPC) National Environment Protection (Assessment of Site Contamination) Measure 1999 (Amended 2013)*	This Measure provides a consistent approach to the assessment of site contamination to ensure sound environment management practises by the community and stakeholders. Provides information on providing adequate protection of human health and the environment, where site contamination has occurred, through the development of an efficient and affective nation
B	**National Codes of Practice**	
B.1	*National Code of Practice for the Storage and Handling of Workplace Dangerous Goods*	Requirements for the storage and handling of dangerous goods and references applicable Australian Standards, e.g. AS 1940-2017 The storage and handling of flammable and combustible liquids.
B.2	*National Code of Practice for the Control of Workplace Hazardous Substances*	Provides practical guidance and advice on how to comply with the National Standard for the Control of Workplace Hazardous Substances.
B.3	*National Code of Practice: How to manage work health and safety risks*	Provides guidance how to manage work and safety risks in the workplace
B.4	*National Code of Practice: Excavation Work*	Provides guidance how to manage health and safety risks associated with excavation work
B.5	*National Code of Practice: Managing noise and preventing hearing loss at work code of practice*	Provides guidance how to manage noise and preventing hearing loss in the workplace.
B.6	*National Code of Practice: Managing the work environment and facilities*	Provides practical guidance for persons conducting a business or undertaking on how to provide and maintain a physical work environment that is without risks to health and safety

#	Title	Key Requirements
B.7	*National Code of Practice: Managing the risk of plant in the workplace*	Practical guidance on how to manage health and safety risks of plant once it is in the workplace, from plant installation, commissioning and use through to decommissioning and dismantling
B.8	*National Code of Practise: How to safely remove asbestos*	Provide practical guidance how to manage the safe removal of asbestos from workplaces.
B.9	*National Code of Practise: How to Manage and Control Asbestos in the Workplace*	Provides practical guidance for persons conducting a business r undertaking on how to manage risks associated with asbestos and asbestos contaminated material at the workplace and thereby minimise the incidence of asbestos related diseases.
B.10	*National Code of Practice: Managing the risk of falls at workplaces*	Provides a practical guidance to persons conducting a business or undertaking, on how to manage health and safety risks arising from falls, and information on a range of control measures to eliminate or minimise the risks.
B.11	*Nation Code of Practise: Managing electrical risk in the workplace*	Provides practical guidance for persons conducting a business or undertaking on managing electrical risks in the workplace.
C	NSW Legislation	
C.1	*Contaminated Land Management Act 1997*	The Contaminated Land Management (CLM) Act regulates the investigation and remediation of contaminated land and the various instruments the NSW Environmental Protection Authority (EPA) can use to investigate and order the remediation of contamination land. Section 60 imposes a duty on a person who has conducted activities on land that have resulted in contamination to inform the EPA. This duty also applies to the owner of land. Mainland Civil has a contractual duty to inform the Frasers Property, who has a duty to inform the EPA of any contamination resulting from activities at their sites.
C.3	*Environmentally Hazardous Chemicals Act 1985*	The primary legislation for specifically regulating environmentally hazardous chemicals throughout their life cycle.
C.4	*National Environment Protection Council (NSW) Act 1985*	Provides for the establishment of a National Environment Protection Council that has power to make national environment protection measures. The NSW Government will implement national environment protection measures (NEPMs) in NSW in a variety of ways, including via legislation. NEPMs implemented using EPA legislation include those relating to: • monitoring of ambient air quality; • assessment of site contamination; • used packaging materials; • movement of controlled waste; and • National pollutant inventory.
C.5	*Protection of the Environment Operations Act 1997 (POEO Act)*	This Act is the key environmental regulatory instrument in NSW and describes requirements for air, noise, water, and waste and land pollution. The POEO Act aims to prevent pollution but also provides a two-tiered system to regulate pollution. The EPA is responsible for regulating higher environmental risk activitielisted in Schedule 1 by licensing, while local authorities and other public authorities regulate the lower risk non-scheduled activities. Chapter 5 classifies offences into three tiers for water, air, noise and land pollution including waste and litter disposal. Section 148 provides details of the general duty to notify the EPA or the local Council of environmental incidents. This duty applies

#	Title	Key Requirements
		to any incidents occurring on Patrick land where 'material harm' to the environment is caused or threatened.
C.6	*Protection of the Environment Operations (Waste) Regulation 2014*	The main parts of the Waste Regulation relevant to Frasers Property activities include: • Proximity Principle: Offence for transport of waste; • Prescribed wastes for land pollution offence; and • Reduced licensing thresholds for waste activities. Mainland Civil has a duty to ensure wastes are disposed of appropriately and records maintained.
C.7	*Sydney Water Act 1994*	This Act is applicable to the discharge of wastewater to sewer from industrial/commercial premises.
C.8	*Waste Avoidance and Resource Recovery Act 2001*	This Act promotes waste avoidance and resource recovery by developing waste avoidance and resource recovery strategies and programs, such as the extended producer responsibility scheme for industry. This Act allows the development and implementation of state-wide waste reduction strategies (Parts 3 and 4) and extended producer responsibility schemes (Section 15). Mainland Civil may choose to follow the following waste hierarchy: • Avoidance of unnecessary resource consumption; then • Resource recovery (including reuse, reprocessing, recycling and energy recovery); and then • Disposal.
C.9	*NSW EPA (2014) – Waste Classification Guidelines – Part 1: Classifying Waste*	This guidelines provides a step by step procedure on classifying wastes into groups that pose similar risk to the environment and human health facilities their management and appropriate disposal.
D	NSW Codes of Practice	
D.1	*NSW Governmnet Codes of Practice – Construction Work (2019)*	This code provided practical guidance on how to achieve the standards of work health and safety required under the WHS ACT and the Work Health Safety Regulation and effective ways to identify and manage risks.
D.2	*WorkCover NSW (2014) – Managing Asbestos in or on soil*	This guide provide general guidance on the assessment and management of asbestos in soil.
D.3	*NSW Government Code of Practise – How to Manage and Control Asbestos in the Workplace (2019)*	This Code provides practical guidance to PCBUs on how to manage risks associated with asbestos, asbestos containing material (ACM) and asbestos-contaminated dust or debris (ACD) at the workplace and thereby minimise the incidence of asbestos-related diseases such as mesothelioma, asbestosis and lung cancer.
D.4	*NSW Government Code of Practise – How to safely remove asbestos (2019)*	This Code provides practical guidance to PCBUs on how to manage health and safety risks associated with removing asbestos or asbestos-containing materials (ACM) from workplaces.
E	Other Legislation, COP & Guidelines	
E.1	*Western Australia Department of Health (WA DoH) (2009) - Guidelines for the Assessment, remediation and Management of Asbestos – Contaminated Sites in Western Australia & Summary Update (2018)*	This Document, prepared by the Western Australian (WA) Department of Health (DOH), provides guidance for the investigation, remediation and management of asbestos-contaminated sites, and it is based on both Australian and international best practices tailored to Western Australian conditions.

1.9 SCOPE OF WORKS

The scope of the IMP covers the construction activities associated with the Ivanhoe Estate construction package, including:

39 weeks construction duration

- Site Establishment – Works will involve establishing a site compound consisting of amenities for site personnel which will be utilised for the duration of the works. Perimeter temporary security fencing will be established along the works boundary to delineate construction areas and non-construction areas.
- Service Locating – Prior to any demolition and excavation works, a service locating team equipped with specialist equipment will scan the work footprint to ensure all known services are marked on the ground, surveyed and a drawing is generated. This also allows for any unknown services to be located. The site team use this information in addition to all as constructed drawings and forward onto the relevant stakeholders within the project.
- Tree Removal – Works will involve marking of trees for removal only and establishing tree protection zones for tree to be retained. This work will be carried out in accordance with the Ecological Arboriculture Impact Assessment Report. Prior to any tree removal works commences, a site specific walk will be conducted to ensure the above hold points have been met.
- Strip & stockpile existing topsoil & mulch for reuse – This work will involve stripping of topsoil throughout the work footprint and stockpiling at the designated stockpile area. This topsoil will be utilised through out to project to line future batters. Mulch generated from the tree clearing works will be utilised as part of the site landscaping.
- Demolish existing pavements – The existing asphalt roads will be demolished to allow for bulk excavation and construction of the proposed 2 x roads. This will involve stripping and removing existing road asphalt, removing road base material and demolition of the existing kerb and gutters.
- Cap existing water and remove redundant services – Prior to bulk excavation commencing, the existing water service into Ivanhoe Estate will be capped. This will enable the bulk excavation works to commence. Part of the service locating works mentioned above will identify services within the works area. Service that are redundant will be removed.
- Bulk excavation to road 39,500m3 – Using heavy earthmoving equipment, the existing ground formation will be excavated in accordance with the design drawings to shape the two new roads forming part of the development. Excess material generated from these works will be transported away from site.
- Service installation - Upon the completion of bulk excavation works, provisions for utilities will be installed within roads 1 and 2. The services will include the installation of infrastructure to suit sewer, stormwater, water, electricity and NBN communications for the future developments within Ivanhoe Estate.

- Install kerbs and asphalt to new road – The road pavements will be built above the bulk excavation once all service infrastructure has been installed. The road pavement will be constructed as per the pavement profile, built up using a series of sub base course, base course followed by topping with asphalt.
- Install pavers to road and parking bays – The remaining pavement works will be installed which will involve placing granite pavers to pedestrian crossings, driveway crossovers and parking bays. Other streetscape requirements will also be installed at this stage of the works.
- Design and construct shoring wall to basement – To enable bulk excavation to the A1 basement excavation, the design of the shoring wall will be required to be completed through consultation with design consultants. By installing a shoring wall, this ensures that the surround property and infrstucre is protected.
- Bulk Excavation 42,775m3 to basement – Upon completion of the shoring works, using heavy earthmoving equipment, excavation will commence. This will involve progressively and systematically excavating towards the bottom of the bulk excavation basement. As excavation is under way, shotcrete shoring and temporary anchoring will also be installed as part of the temporary retention system.

1.10 CONSTRUCTION STAGING & TIMEFRAME

The project will be staged into four main work areas. Stage 1 will incorporate the relocation of the existing car park for the onsite sales suit, the construction of the sediment basin and the road works towards the North East of the property. Stage 2 will incorporate the roadworks towards the South West of the property and stage 3 will involve the bulk excavation of the A1 Building. Approximate timeframes for each of these stages will be as follows:

Stage 1 – Roadworks – Week 1 to Week 26

Stage 2 – Roadworks – Week 8 to Week 26

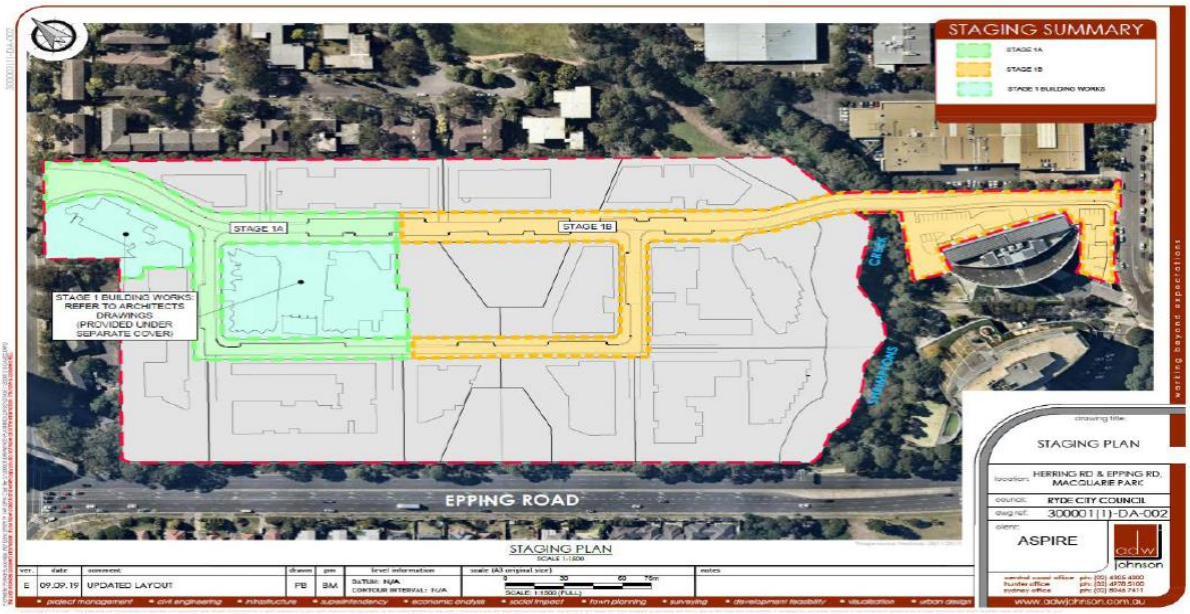
Stage 3 – Bulk Excavation to A1 – Week 23 to Week 40

1.11 CONSTRUCTION SITE LOCATION

Table 1.10– Construction Site Location

Construction site address	Ivanhoe Place, Macquarie Park

Stage 1A of the Staging Plan forms this contract for civil works and Building A1 bulk earthworks



1.11.1 CONSTRUCTION HOURS

Restricted hours

Mainland Civil will only undertake construction activities associated with the project that would generated an audible noise at any residential premises during the following hours shown in the table below:

Table 1.11 – Restriction to Work Hours

Hours of Operation – Construction	
Monday – Friday inclusive	7:00am – 7:00pm
Saturday	8:00am – 4:00pm
Sunday and Public Holidays	At no time

1.11.2 SEEKING APPROVAL TO WORK OUTSIDE THE RESTRICTED HOURS

Mainland Civil, through Frasers Property may seek approval to conduct construction activities audible at residential premises outside the specified hours on a case-by-case basis. In seeking approval, Mainland Civil will demonstrate a need for activities to be conducted during varied hours and how local acoustic amenity will be protected, as well as details of how the EPA's requirements with respect to the variation of hours have been addressed.

1.11.3 EQUIPMENT AND MACHINERY

The equipment and machinery likely to be used for construction of Ivanhoe Estate, and stored on the construction site, will include:

- Excavator
- Skid steer
- Dump truck
- Crane
- Water cart
- Roller
- Concrete truck
- Concrete Pump
- Dozer
- Grader
- Hand tools; and
- Storage containers (chemicals etc.)

1.12 KEY PERSONNEL & STAKEHOLDER CONTACT DETAILS

1.12.1 CONSTRUCTION PERSONNEL CONTACT DETAILS:

Contact names and details for key construction (and project) personnel are detailed in **Table 1.12.1**

Table 1.12.1 – Construction Personnel and Contact Details

Mainland Civil Project Team (on site)		
Site Supervisor	Max Scampino	0414 808 098
Construction Manager	Brett Talbot	0419 014 037
Project Manager	Tim Saviane	0422 418 072
Project Engineer	Peter Josevski	0450 609 464
Site Engineer	Salvatore Panto	0415 544 805
Mainland Civil Project Team (off site)		
Director	Stuart Muir	0418 455 062
HSEQ Manager (Return to Work Coordinator)	Mitch Cole	0401 160 994
Frasers Property **Project Team**		
Project Manager	Joe Avgoustis	

1.13 ROLES, RESPONSIBILITIES & AUTHORITIES

For effective implementation of the IMP experienced members of the Mainland Civil team will be assigned roles for the management of Safety, environmental and quality risks by applying controls and processes. All Managers

and Site Supervisors will be responsible and accountable for the effective implementation of the project's aspects and as such the defined responsibilities are:

ON SITE:

Project Manager: Tim Saviane

- Monitor the implementation of the project IMP and report to the Construction Manager and HSEQ Manager on all Safety and Environmental issues;
- Allocate sufficient human and financial resources to implement the IMP;
- Conducts meetings with Project Site Team and HSEQ Manager and all other site personnel at separate but regular intervals, at which safety, environmental and quality issues are discussed on the agenda;
- With the Project Team and HSEQ Manager, undertake a risk assessment and SWEMS on each high risk activity within Mainland Civil's scope of works, in relation to their safety and environmental impacts;
- Provide and maintain and physical work environment that is without risk to health, safety and environmental providing adequate facilities and equipment for workers;
- Provide copies of the IMP to the Frasers Property for their approval;
- Providing leadership to the Project in following and supporting the IMP in a public manner to help develop a positive environmental culture supporting environmental policy and review the performance reports and take strategic actions to continuously improve the IMP
- Monitoring and adapting to results from inspection and testing in relation to various specifications and QA methodology
- Liaison with relevant suppliers and testing authorities to record and adhere to quality

HSEQ Manager Mitch Cole

- The overall control of the Project and the IMP.
- The site Environment, and Safety representative.
- Provide and maintain and physical work environment that is without risk to the environment providing adequate facilities and equipment for workers.
- Reviewing and approving the IMP;
- Assist the Project management team in the develop of a risk assessment and SWEMS on each high risk activity within Mainland Civil's scope of works, in relation to their safety hazards and environmental impact;
- Conduct investigations into Incidents and Near Misses and assist with the completing of the Non-conformance Report;
- Action all safety and environmental rectifications as listed in either the Mainland Civil Site safety and Environmental Evaluations Checklist or the HSEQ Committee Minutes;
- Identify in advance, any training required for specific tasks to be performed on site, including facilitating training for managers and employees on human resources practices and procedures as required;
- Report to the National HSEQ Manager any serious environmental issues;
- Attend annual meeting with the National HSEQ Manager, Construction Manager, Project Manager Team where environmental issues are discussed; and
- In conjunction with the Construction Manager, manage staff grievances and complaints, including conducting internal investigations as required.
- Monitoring and adapting to results from inspection and testing in relation to various specifications and QA methodology
- Responsible for issuing and following up on non-conformance reports

Senior Project Engineer: Peter Josevski

- Assist the Project management team in the development of risk assessment and SWEMS on each high risk activity within Mainland Civil's scope of works, in relation to their environmental impact;
- Report to the Project Manager all safety and environmental issues identified on site; and
- With the Project Team and HSEQ Coordinator, undertake a risk assessment and SWEMS on each high risk activity within Mainland Civil's scope of works, in relation to their safety hazards and environmental impact.
- Monitoring and adapting to results from inspection and testing in relation to various specifications and QA methodology
- Liaison with relevant suppliers and testing authorities to record and adhere to quality

Signed: 

Site Engineer: Sal Panto

- Being the primary contact point in relation to the HSEQ performance of the construction phase of the project;
- Assist the Project management team in the development of the IMP and safety and Environmental method statements;
- managing procedures and practices for receiving and responding to complaints and inquiries in relation to the environmental performance project;
- Reporting all environmental incidents and near misses to the Frasers Property and Mainland HSEQ Manager
- Facilitating an induction and training program for relevant persons involved with the construction phases;
- Requiring reasonable steps to be taken to avoid or minimise unintended or adverse environmental impacts, and failing the effectiveness of such steps, to direct that relevant actions be ceased immediately should an adverse impact on the environment is likely to occur; and
- ensuring all personnel are inducted into the Project environmental requirements prior to commencement of works on site.
- Monitoring and adapting to results from inspection and testing in relation to various specifications and QA methodology
- Responsible for producing and implementing Inspection and Test Plans (ITP's)

Site Supervisor: Max Scampino

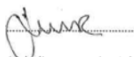
- Attend safety and environmental emergencies on site;
- Provide and maintain a physical work environment that is without risk to the environment providing adequate facilities and equipment for workers;
- With the Project Team and HSEQ Coordinator, undertake a risk assessment and SWEMS on each high risk activity within Mainland Civil's scope of works, in relation to their environmental impact;
- Maintain employee awareness to environmental issues by conducting site inductions, daily pre-starts and toolbox meetings with the site personnel;
- Ensure that all activities are conducted in accordance with the established SWEMS;
- Action all environmental rectifications as identified through non-conformances, safety and environmental checklists or the HSE Site Committee Minutes; and
- Investigate hazards and ensure that corrective actions are taken to eliminate or control the associated risks.
- Monitoring and adapting to results from inspection and testing in relation to various specifications and QA methodology

OFF SITE

Director: Stuart Muir

- Report to the Managing Director on any safety, environmental and quality issues;

- In conjunction with the Construction Manager, Workplace Relations and Human Resources, develop, maintain and promote HR policies and procedures in accordance with legislative requirements;
- Ensure that all personnel that are employed are competent in the tasks they are employed to perform;
- Ensuring that best practice principles are being implemented to construct a high quality finished product
- The business activities are conducted with knowledge of all known environmental risks and other risks that may be controlled through a formal reporting process; and
- Attend Contract or weekly Frasers Property meetings (if required) to address HSEQ matters when required.

Signed: 

Construction Manager: Brett Talbot

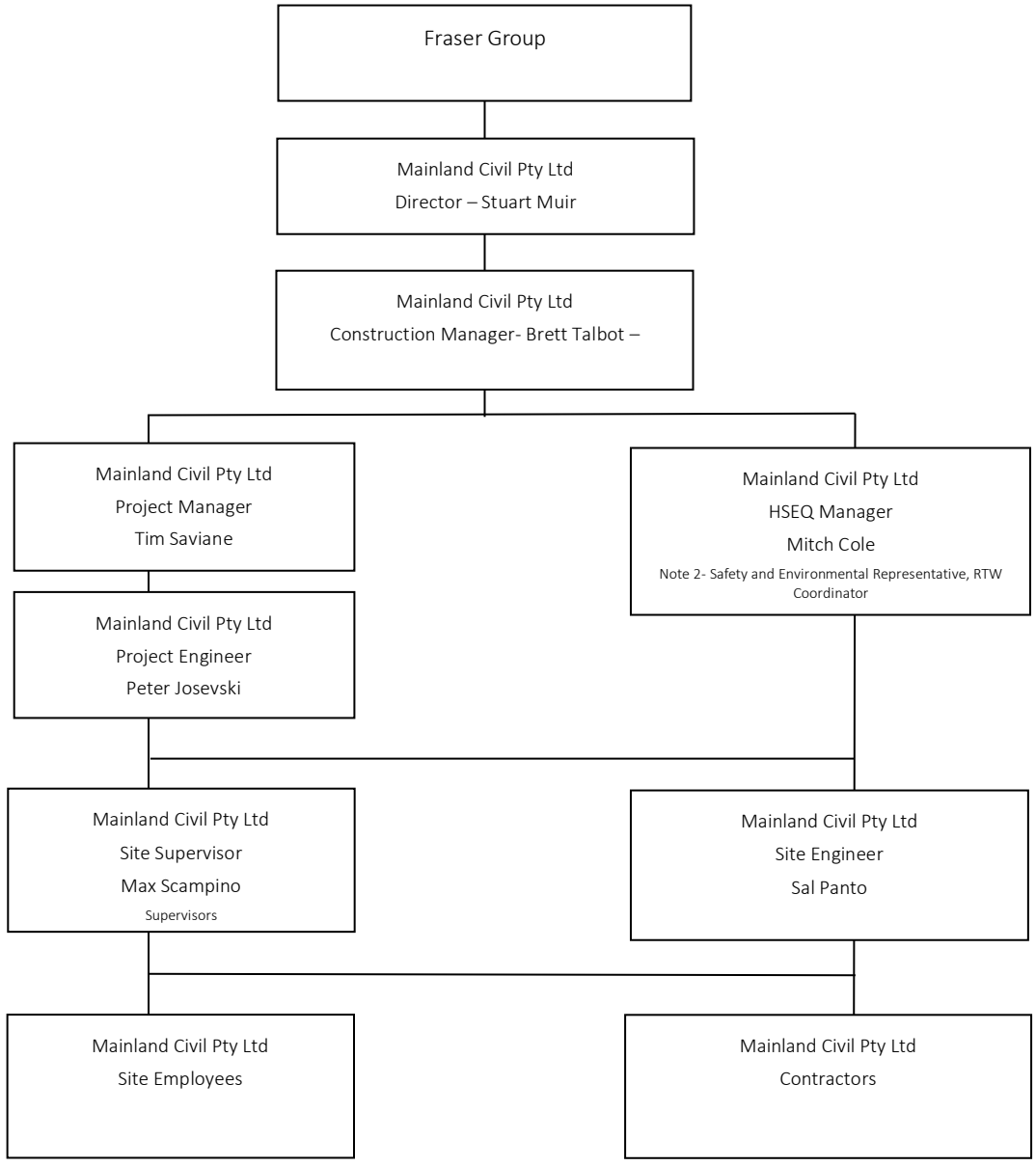
- Engage staff and contractors to ensure they are aware of the required environmental compliance obligations to be suitably selected to perform the task either permanent or full time;
- Stimulate a high level of environmental awareness at all times and lead by example on these matters; and
- Ensuring that HSEQ practices and procedures are implemented and adhered to
- Attend Contract or weekly Frasers Property meetings (if required) to address HSEQ matters when required.

Signed: 

1.13.1 PROJECT ORGANISATIONAL CHART

The Mainland Civil Organisation Chart has been prepared for Ivanhoe Estate. Refer to **Figure 1.12.1** –Mainland Civil Organisational Chart, which shows the direct relationship of each role on the project, including the positions responsible for environment and safety aspects for the project, and their respective reporting relationships.

Figure 1.12.1 –Mainland Civil Organisational Chart



Note 1 – Certificate IV – Environmental Management; Certificate IV – Work, Health & Safety;

Note 2 – Certificate IV – Environmental Management & Sustainability; Certificate IV – Work, Health & Safety;

Note 3 – Risk Management for Supervisors;

1.13.2 SITE SECURITY

The Site Manager/Supervisor is responsible for ensuring site security is integrated with the existing services on site and back to base security requirements. This includes ensuring that the perimeter fencing, doors and gates are secured and if required security patrols organised as required to prevent unauthorised access to the construction site.

All keys issued and returned will be recorded in a key register.

Padlocks will be issued by Mainland Civil.

1.14 INSURANCE

WORKERS COMPENSATION INSURANCE

Name of Insurer	Icare Policy No: 13580301 – NSW- Expiry Date: 27/07/2021 WorkCover QLD Policy No: WNA 070881856 – QLD Expiry Date: 30/09/2021

PUBLIC LIABILITY INSURANCE

Name of Insurer	Lloys of London PH (03) 9536 7333 Policy No: 145671W19 Expiry Date: 30 June 2021

Workers Compensation and Public Liability Insurance
The Site Engineer will check the validity of certificates of currency for subcontractors, plant and machinery on hire. Certificates of currency must be received by Mainland Civil prior to the subcontractor establishing on site or prior to the equipment arriving on site.

As a minimum, all subcontractors, plant and machinery on hire must have Workers Compensation and Public Liability Insurance. For Workers Compensation Insurance, the category or the tariff rate number must be applicable to the operations of the subcontractor or the operations of the plant and machinery.

The Project Manager will ensure that these certificates are kept on file and kept current by the insured for the duration of the subcontractor's time on site.

Professional Indemnity Insurance
Where components of the works involves design and construct, the Site Engineer will request and ensure that Mainland Civil has current insurance certificates of currency from the consultants engaged by Mainland Civil.

The Site Engineer will ensure that these certificates are kept on file and kept current for the duration of the consultants' time on site.

2 COMMUNICATION AND CONSULTATION

2.1 TOOL BOX MEETINGS

During the course of the works, the Site Supervisor or any other member of the Site Management Team will conduct pre-start Tool Box talks and Daily Prestart Meetings as part of keeping up the safety and environmental awareness of workers.

Specific safety and environmental issues can be addressed, accidents/near misses can be reviewed, SWEMS Statements can be presented, safety alerts discussed or any other health, safety or environmental related issues tabled. It is an open forum for discussion and will be recorded on the "Tool Box Meeting" form, which will be signed off by all those present. These documents can be made available to Frasers Property upon request.

As a minimum requirement, every Monday morning (or on the first working day of the week), the Site Supervisor shall conduct a Tool Box Meeting Form and a copy of this shall be given to the site HSEQ Manager. A daily Prestart Meeting and sign-in should be done at the commencement of each working day and the record should be kept onsite for the duration of the Project.

2.2 WHSE COMMITTEES AND OTHER AGREED ARRANGEMENTS

2.2.1 MAINLAND CIVIL HSR COMMITTEE

Mainland Civil have developed a HSR consultation committee to enable all employees to contribute to the making of decisions affecting their health, safety and welfare, any information that the employer and/or employee has from experience, knowledge, publications or from any other source, should be shared. This is to ensure every member will be contributing to the enhancement of their work environment not only for themselves but also for the other employees. Items of discussion will include changes to safe operation procedures and SWMS, injury and illness control measures and protection of the environment.

The HSR representatives are elected by Mainland Employees during the annual labourers meeting. The representatives must complete the HSR course to ensure they have a sound knowledge of their responsibilities and identify the hazards and risks in the workplace. On a quarterly basis, or a duration deemed necessary depending on the type of work being carried out, the HSR representatives will meet and discuss site safety issues and any other relevant matters. Minutes will be taken of all the issues and resolutions and a copy will be retained in Mainland's head office.

HS&E Representatives have been established to promote health and safety in the workplace and to help resolve health, safety and welfare issues. Mainland Civil have elected the following employees as the HS&E Representatives:

- Roger Boscherio — Site employees
- Sam McCosh — Site employees
- Darren McCance — Site employees
- Pearce Toner — Site employees
- Drew Wilson — Site employees
- Mitch Cole — Office staff and all other employees.

2.2.2 HSR COMMITTEE

The Mainland HSR committee representative/s for Ivanhoe Estate will be confirmed prior to commencement of works when the site team is established. Mainland Civil will request each sub-contractor nominate at least one HSR member to attend the site safety and environmental inspection walks (held every Wednesday morning) and site HSR committee meetings. The site HSR representatives will be informed to site employees during the site induction and contact details posted throughout the site.

The functions of the WHS&E Representatives are:

- To consult with employees on WHS and welfare issues;
- Communicate to the employees and HSEQ Manager on issues relating to WHS and welfare;
- Promoting among the employees the reporting of hazards;
- Make recommendations on their training needs as a HSEQ Manager;
- Make recommendations on the HSEQ training of employees;
- Assist with Site Safety walks, when required.
- Be an observer during any formal in-house investigation of an accident or other occurrence at the relevant workplace that is required to be notified to Safe work (there can only be one observer);
- Accompany an employee, at the request of the employee, during an interview by the employer on any WHS&E issue;
- Be an observer when an external inspector provides any formal report to the employer in connection with WHS matters relating to the WHS&E Representative's workgroup.

For the WHS&E Representatives to be effective and successful they must:

- Have completed the Health and Safety representative training course
- Have commitment and support from the employer
- Have all employees be pro-active and inform them on WHS and environmental issues
- Be able to deal with the employer representative who has authority to make decisions
- Consult with the employees they represent
- Focus on ways of improving the systems for managing safety and the environment
- Have clearly defined roles

The Project Manager will ensure that the Site Supervisor provides a Mainland Civil site employee to sit on the WHS Site Safety Committee. All safety issues correctly relating to Mainland Civil or subcontractors of Mainland Civil will be rectified in accordance with the WHS Site Safety Committee findings.

2.2.3 PROCEDURE FOR RESOLUTION OF WHS&E ISSUES

- The employee is to report the problem to their supervisor who will then remedy the problem or discuss it with his manager.
- If the problem is resolved then the supervisor or manager documents and retains a record of the resolution. A toolbox talk shall then be provided to relay the resolution to all employees on that particular site. The supervisor or his manager shall then give a copy of the toolbox minutes to the WHS&E Representatives.
- If the problem is not resolved, then the employee is to report the issue to their respective WHS&E Representative.
- The WHS Representative refers the problem to the WHSE Manager to consider and respond.
- When a WHS&E issue is resolved by the Systems Manager, then a formal instruction will be given to all managers and supervisors who will then conduct a toolbox talk to relay the resolution to all employees.
- If the problem is still unresolved, then the Systems Manager will consult with the Construction Manager to determine what further action will be taken.
- If agreed to by the Construction Manager, the Systems Manager may request the assistance of an external inspector. When such a request is made, the inspector will need to know if the matter had

been considered by the employer and the Systems Manager and what action has been taken as a result of the consultation.

- External Inspector attends the workplace and resolves the problem.
- Where the employer wishes to raise HS&E matters, then the employer will either call a general meeting with employees to discuss the issues or issue a formal memorandum to all employees. In addition to this, during the annual meeting held with all labourers, leading hands, operators and sub-foremen, HS&E issues are tabled and discussed in an open forum for all to contribute.

2.2.4 ONSITE COMMUNICATION AND WHSE CONSULATION METHODS

Mainland Civil provides avenues for consultation and communication between all levels in the organisation. Workplace consultation will be provided through:

- Daily toolboxes, safety & environmental discussions
- Facilitating elections of Workplace Health, Safety and Environment (WHSE) representatives
- Establishing a Workplace Health, Safety and Environment Committee
- Establishing systems for consultation at its projects with subcontractors and their workers

A Site Noticeboard will be established at each site in the amenities or site office. The Site Noticeboards will be maintained by the Site Supervisor. Information to be posted on boards includes:

- Emergency contacts
- Emergency evacuation plan
- WHS Representatives for the project (this will be updated as contractors change)
- WHS&E issue, complaints and dispute resolution procedure flowchart
- Environment and Safety alerts issued by HSEQ Manager
- WHS&E Committee Minutes and meeting times.

2.3 COMPLAINTS

Performance objectives

Table 2.3 - Complaints Objectives and Targets

	Objectives	Target
Complaints	To efficiently manage complaints from the community or the safety and environmental regulator (including on behalf of a local resident)	Nil complaints attributed to Mainland Cavil's operations

2.3.1 RESPONSIBILITY

Mainland Cavil's HSEQ Manager are to ensure the requirements of the safety and environmental complaints handling procedures are implemented.

Mainland Cavil's onsite personnel are to report all complaints to their supervisor immediately and implement corrective and/or preventive actions as instructed.

The onsite HSEQ Manager will oversee any complaints, the implementation of controls and ensuring the effective and appropriate corrective and preventive actions are taken to prevent the recurrence of the source of any complaint.

2.3.2 COMPLAINTS HANDLING PROCEDURE

Complaints can be received from the public or their representative, via the following means:

- In person at our head office at 192-194 Railway Parade Kogarah;
- By phone enquires 24/7 telephone number 0401 160 994 (signage on the front site entrance)
- By email via to Mitch Cole (Mainland Civil HSEQ Manager) mitch_cole@mainlandcivil.com.au under the 'Contact Us' page

Workers will report any complaints received to the site Supervisor, and will be recorded by and tracked in the log sheet maintained by the onsite HSEQ Manager. All site complaints will be recorded using Mainland Civil's "Complaints Form" and will be filed by the HSEQ Manager into the Incident Register which will be available to Frasers Property upon request.

The responsible personnel shall consult with the HSEQ Manager to determine the appropriate corrective and preventive actions and to ensure the actions are implemented effectively to rectify the problem.

All environment complaints received from the public and/or regulatory agency are investigated by the site HSEQ Manager. Any changes required to the HSEQ documentation are to be communicated to all relevant staff in a site tool-box discussion. The effectiveness of corrective and preventive actions taken will be reviewed by the onsite HSEQ Manager and Construction Manager.

2.3.3 REPORTING

Records of the complaint and any action taken will be forwarded to Frasers Property for comment and recorded in Mainland Civils incident reporting system.

2.3.4 COMPLAINTS REGISTER

All complaints received will be recorded by the site HSEQ Manager in the Complaints Register, which will be made available to Frasers Property on a monthly basis

3 QUALITY MANAGEMENT

3.1 MANAGEMENT SYSTEM DOCUMENTATION

3.1.1 QUALITY MANAGEMENT SYSTEM

This plan defines the quality management principles, processes, procedures, systems, tools, and templates implemented for use throughout the duration of the project. This plan is subordinate to the Integrated Management Plan (IMP) which has been developed to:

- satisfy the requirements of the contract; and
- Support the Project Team in completing the requirements of the project.

3.2 PROJECT QUALITY OBJECTIVES AND TARGETS

Mainland Civil's project level quality objectives and targets have been listed below.

Quality Aspects	Objectives	Target
Non-conformances	Reduction in site non-conformances	No reported site non-conformances
Customer complaints	Reduction in Frasers Property and neighbouring complaints. 50% annual reduction in Frasers Property and customer complaints	50% annual reduction in Frasers Property and customer complaints
Customer reviews	Aim to receive 75% of all customer reviews	Review all completed forms at project management meetings
Internal and external audit	To complete regular internal and external audits to monitor and maintain compliance. Regular site audits every 8 weeks and external audits bi-annually with less than 3 non-conformances per site	Less than 3 reported non-conformances per site audit

3.3 DOCUMENT AND DATA CONTROL

3.3.1 SITE DIARY

The Site Supervisor is responsible for recording events and activities on site, on a daily basis using the Site Diary. The diary is intended to be a record of all activities, events and occurrences on-site including; plant on hire, trades, incidents and staff. Each week the Site Diary will be reviewed by Project Manager.

3.3.2 DRAWING REGISTER

A drawing register will be maintained throughout the duration of the project to ensure latest drawings are followed by Mainland and subcontractors. Mainland will upload all drawings to Aconex with Frasers Property as the Administrator for approval and to amend drawing revision numbers and dates.

3.3.3 REQUESTS FOR INFORMATION (RFI'S)

- RFI's
  - Shall be raised whenever a response is required from a consultant, Frasers Property or Frasers Property representative that requires tracking or in cases where if an answer is not received it will affect the contract in terms of time or money.
  - Can be raised by the project manager, site manager, site supervisor or contracts administrator based on Subcontractor or MLC issues. Electronic subject to project size and set up
- The time allowed for the reply should be realistic.
- Issued shall be added and tracked on an RFI Register, closed and open
- Shall be distributed to the relevant parties and a copy filed
- Shall note if safety in design issues are identified and the consultant has conducted the safety risk design assessment
- Weekly print out a report of unanswered RFIs for follow up outstanding
- Distribute the reply to the relevant parties.
- File the reply in the Contract file.

3.4 INSPECTION METHODOLOGY

3.4.1 INSPECTION AND TEST PLANS (ITPS)

Inspection and test plans (ITPs) are prepared using the Inspection and Test Plan template to clearly identify the scope of inspection and testing required for the work activity. ITPs are prepared for each area or discipline as appropriate. Mainland ITPs are formulated by the Project Engineer and reviewed and approved by the Project Manager. Where a change is required to an ITP, a new version is prepared, approved, and distributed.

Inspections are conducted throughout the duration of the project as per the ITPs and the project's quality control inspection register. The Project Manager maintains regular contact throughout the duration of the project with the relevant subcontractors.

Subcontractors on site prepare specific ITPs covering all construction activities, which include the following, as a minimum:

- Project title
- Subcontract details
- Process activity
- Acceptance criteria, e.g. standards, procedures, and/ or specifications
- Verification record, e.g. certification/ reports resulting from the process; and
- Intervention/ inspection points, including company and third party points.

The Project Quality Manager (or delegate) maintains a master copy of each ITP in the project's Document Management System in the Mainland intranet. The ITP register is maintained for all ITPs.

3.5 NON-CONFORMANCE AND CORRECTIE ACTION PREVENTION

A Non Conformance Report will be raised for:

- Specification deviation or work that fails to meet quality standards
- Non-compliance with the site rules
- Non-compliance with Health, Safety and Environmental Legislation requirements
- Repeated safety or housekeeping issues identified during inspections.

The Non-Conformance shall be completed and issued to the offending party. Non Conformances shall be registered in the office non-conformance register

The Project Manager / Site Supervisor will decide on the appropriate disposition and corrective actions. Non-conformances raised as a result of a Safety or Environmental issue to be reviewed by the HSEQ Manager to confirm if systems need to be updated and if any company wide alerts, correspondence are required.

3.6 PRODUCT & SERVICES

3.6.1 PURCHASING

Mainland Civil Management will ensure all equipment, goods or substances purchased or hired will be assessed against HSEQ Standards. All purchased materials and components are identified with unique numbers, codes or names. The identification is the same as used in drawings, specifications, bills of materials, part lists, purchase orders etc.

Materials and compenents are identified by marking, labelling or tagging the packaging of containers.

3.6.2 PROCUREMENT PROCESS

The following key measures will be considered in the procurement process for all supplies, subcontractors and direct purchase of materials:

- The hierarchy of waste avoidance, reduction, reuse, and recycling will be incorporated into all aspects of the project (waste management measures are detailed further within the Construction Waste Management Plan - Section 5.7)
- Suppliers and subcontractors will be made aware of Mainland Civil's safety and environmental requirements and their obligations as an environmental supplier. Project specific information relating to the environmental requirements will be included in procurement and subcontract documentation through the contract and scope of works and the performance of suppliers and subcontractors measured and reported;
- Suppliers of chemicals and hazardous substances will be required to submit Safety Data Sheets (SDS) with delivery or prior to chemicals arriving at site. This may include plant and machinery hazardous chemicals such as ; diesel, oil or petrol;
- Ensure that purchase orders and agreements include HSEQ requirements as necessary

3.6.3 RECEIPT OF GOODS ON SITE

The Site Supervisor will be responsible for accepting deliveries to site.

Goods will be compared against the supplier's delivery/courier docket and Mainland Civil's Purchase Order's where possible.

If goods meet requirements, the delivery/courier docket or copy of purchase order will be signed by the Site Supervisor or other MLC personnel.

If goods do not meet requirements, the receiver will record the discrepancies/issues (e.g. incorrect goods, incorrect quantity, damaged or faulty goods, etc.) on the delivery/courier docket. Any issues should be followed up with the supplier and/or Project Manager/Contract Administrator and resolved/appropriate action taken.

The Site Engineer will reconcile the purchase order, Delivery/Courier Docket and invoice and pass to accounts department.

3.6.4 FRASERS PROPERTY SUPPLIED PRODUCT & SERVICES

Product supplied by Frasers Property will be identified as such.

The Site Manager/Supervisor will check items on delivery to site including but not limited to:

- It is the correct type, model or part number.
- The correct quantity of items was delivered.
- No obvious damage or deterioration.
- The product or equipment is safe to use and meets work health & safety specifications and requirements.

The Site Supervisor will obtain and check the delivery docket for product received and will forward it to the Site Engineer.

3.6.5 SUPPLY AGREEMENTS

Project Managers will review credit applications for all contractors prior to supply agreements. A final review will be completed by the Managing Director for approval

3.6.6 STORAGE OF MATERIALS AND EQUIPMENT

At all times due diligence and care will be necessary to ensure any products or property supplied by Frasers Property is suitably protected and fit for service. If circumstances arise where this is not the case, Frasers Property is to be notified promptly of any deficiencies, discrepancies or damage.

- Handling: Mainland Civil has put in place safe handling methods to ensure that all products delivered to the site are done so safely to protect the quality of the product and prevent any damage occurring to the product.
- Storage: Mainland Civil will use designated areas to store all delivered product to ensure their safety and to prevent any damage to the quality of the product.
- Packaging: It is the requirement of all suppliers or subcontractors that the packaging of all products being delivered to the site is to be of a quality manner and will be inspected on delivery to site for any damage or defects. If any are found the product will be rejected and returned to the supplier or subcontractor for replacement
- Preservation; The Site Supervisor will provide appropriate methods for preservation and segregation of the products being used on the site while the products are under Mainland Civil's control.
- Delivery: Mainland Civil will arrange for the handover of the product after the final inspection and test.

- Servicing: Any servicing requirements for any product provided will be undertaken prior to handover, to ensure the product conforms to the manufacturer's requirements. All warranties and maintenance periods will be transferred to Frasers Property upon handover.

3.7 MANAGING SUB CONTRACTORS AND SUPPLIERS

All suppliers and installers of temporary works will be subject to Mainland Civil procedures as set out in tender documents, contracts and IMP. Project and/or Site Managers are responsible for ensuring that the review of design of temporary works is conducted prior to contract acceptance.

All subcontractors must submit ITPs along with checklists to Mainland Civil prior to commencement on site, or work to ITP's developed by Mainland Civil. Any subcontractor supplied quality documentation will be submitted to the Project Manager for approval prior to commencement on site.

All subcontractors will be evaluated on a regular basis for their performance and the requirements to meet the quality standards of Mainland Civil and the ISO 14001 Environmental Management Standard during the weekly site safety and Environmental walk and monthly Safe Work Environmental Method Statement (SWEMS) observation. Subcontractors will be assessed on their safety and environmental performance and contractual agreements at completion of the project by the Project Manager Form MC-S-07 Assessment of Subcontractors and suppliers and discussed at the weekly coordination meetings between Mainland Civil and Frasers Property.

Prior to commencement of any subcontracted works, the HSEQ Manager will conduct a review of the Site Management Plans of the subcontractor engaged to perform such works. The review will be carried out using the.

The Subcontractor's site environmental management plan will have ongoing monitoring of their system. A copy of the monitoring review showing any shortfalls in the plan will be issued to the subcontractor for rectification. Mainland Civil's IMP will be informed to sub-contractors during site-induction and controls identified in the site Safe work method statements, which will be provided as requested.

The subcontractors SWEMS that are requested prior to works for all high-risk activity are reviewed and evaluated by the site engineer prior to commencement of works.

3.8 PLANT AND EQUIPMENT REGISTER

A Plant and Equipment register will be maintained for all MLC equipment held on site. New equipment will be added to the Register by the Site Engineer.

Each month the Site Engineer will print off the latest Plant and Equipment Register and forward it to the Site Supervisor for checking.

3.9 CALIBRATION

Mainland Civil maintains a log or register of all inspection, measuring and testing equipment and provides independent certification of calibrations. The calibrations are carried out as per the manufacturer's written recommendations and records of such work will be maintained on site. This includes; water testing kits, noise meters, air monitors and laser meters. If requested by Frasers Property, the certifications and results of any testing or calibrations will be provided.

3.10 PROJECT AUDITS

3.10.1 INTERNAL AUDITS

During the course of the works on this project, the HSEQ Manager will conduct regular internal reviews on the IMP to ensure that it is being implemented and conforms to Mainland Civil's certified Environmental Management System. The IMP will be reviewed every 3 months or unless changes are made prior by HSEQ Manager.

The objective of an Internal Review is to:

- Monitor the management system to seek further improvement and review generated documents, processes and procedures and for any legislative changes.
- Identify any action, process or procedure that may lead to or has caused a non-conformance or does not comply with current road laws and regulations.
- Record all findings in an Internal Review Report to declare the review has been conducted.
- Report any action, process or procedure that has or may cause a non-conformance to the Compliance Manager.
- Investigate why a non-conformance happened / what was the root cause.

On completion, the onsite HSEQ Manager will prepare and submit a report to the onsite Project Manager and Site Supervisor, detailing the findings (including any non-conformances) and list any actions to be taken. On completion of the actions to address Non-Conformances, the document is to be submitted back to the Systems Coordinator/Manager to be closed out, IMP updated and reissued and relevant changes made to policies.

3.10.2 EXTERNAL AUDITS

An independent environmental audit for Mainland Civil's HSEQ Certification will be completed for Ivanhoe Estate by a suitably qualified person/team approved by the site HSEQ Manager as a requirement for Mainland's certification.

Auditors will meet the qualification criteria in AS/NZS ISO 19011:2014 Guidelines for quality and/or environmental management systems auditing.

3.10.3 HEAVY VEHICLE AUDITS

HSEQ National Manager will conduct regular internal reviews on the contractors to verify operation of system processes and act appropriately by taking corrective actions to minimize the likelihood of a non-conformance reoccurring incompliance with current road transport legislation. To achieve this, all documents records, processes and procedures are subject to regular reviews to verify that all results and activities conform to our policies, procedures and comply with current Acts and Regulations.

Procedure

Six Month Review: Records and documents reviewed during the Six-Month Review include:

- Compliance Statements are up to date
- Driver's medical due dates
- Scheduled maintenance records
- Mass verifications have taken place
- Training records
- Fatigue management: Drivers not taking required rest breaks
- Any Corrective Action Request form not yet closed out

This review should identify but not limited to:

- Driver documentation is being correctly completed
- Journeys have been compliant with mass management
- Vehicles have had all scheduled services carried out
- Training for all staff has been completed and records documented
- Driver medical certificates are up to date

- Whether the management system remains compliant with all current legislation

2. Review Assessment

Findings after any review are to be monitored to gauge whether processes or procedures should be amended or introduced into the management system to better ensure compliance with road transport laws.

After the completion of any review, a Corrective Action Request is to be completed immediately:

- Upon the detection of any non-conformance against this management system.
- Upon a breach of any road law.
- For any infringement or warning issued by a regulatory authority.
- Where drivers have not correctly completed Work Diary pages, Journey Declarations or any other associated journey document.
- For any other action, process or procedure where it has not conformed to this management system.

4 SAFETY MANAGEMENT

4.1 GENERAL

Section 4 of the Integrated Management Plan represents the project specific Safety Management. Mainland Civil are the principal contractor on this project .Our IMP and this section reflects our WHS duties, and demonstrates our 'due diligence' that is as far as reasonably practicable under the applicable WHS and associated legislation.

Subcontractors will also be required to conform to this Management Plan which will be discussed during the site induction.

4.2 PROJECT SAFETY OBJECTIVES AND TARGETS

WORK HEALTH AND SAFETY		
Safety Aspects	**Objectives**	**Target**
Accidents/ Injuries	Incident free across all sites for the duration of works To strive for no accidents in the Mainland worksites Increase safety awareness to all staff by on-site training	No workers compensation claims
safety awareness	Mainland personnel and sub-contractors have appropriate knowledge and skills to contribute to the continuous improvement of site safety and health Train all Mainland Civil workers in accordance with high-risk work activity through weekly-tool box and training workshops and monitor through an annual training calendar	Achieve 100% training in safety requirements -pre-starts/tool-box talks/VOC's Health and safety bi-annual report
Incident reporting	100% of all safety and health incidents reported are investigated by the Site Supervisor and reported to Project Management and Safety team immediately and corrective actions recorded and implemented within 48 hrs.	Health and safety bi-annual report WHSE Incident report

4.3 HAZARD IDENTIFICATION & RISK ASSESSMENT

Mainland Civil will not commence any works at the work place unless:

- Mainland Civil have undertaken an assessment of the risks associated with the work activities and has provided a written SWEMS for each activity;
- Mainland Civil has developed a safety and environmental induction training for all employees and subcontractors;
- Mainland Civil has identified the potential hazards of the proposed work activities, assess the risks involved and develops control measures to eliminate, or minimise the risks. The risk management process is to be carried out in consultation with employees through site inductions and tool box meetings; and
- Mainland Civil has reviewed any design issues that may cause potential environmental hazards or risks on site.

4.4 PROJECT WHS RISK ASSESSMENT / RISK REPORT

The Project Manager will initiate the development of the Project Risk Register (APPENDIX B) in consultation with the HSEQ Manager. The most recent revision of IMP highlighting the applicable risks associated with the

subcontractor's works will be forwarded to subcontractors so they can prepare their respective SWMS accordingly, and communicated to their workforce.

Personnel working on the site will be consulted and their feedback included on the risks via tool box meetings, site induction or by training in revised SWMS, especially following a near miss, incident or accident.

4.5 TRAINING

The Project Manager will ensure that the appropriate training is provided to personnel working on site. This includes as standard:

- Construction Induction Card;
- Project induction;
- Standard Operating Procedures;
- Emergency procedures;
- Health and Safety Representative Competency Training
- Plant verification of competency;
- First Aid certificates;
- Supervisor training.

The HSEQ Manager will coordinate the training and records keeping, maintained and monitored at head office.

4.6 COMMENCEMENT ON SITE

4.6.1 PROJECT INDUCTIONS

Following completion of the Industry Induction Training for Construction Work at an accredited Work Safe training organisation, all site personnel must undertake the following inductions before commencing any work;

- Mainland Civil's Site Induction
- Mainland Civil's Safe Work and Environmental Method Statement (SWEMS) Induction

Every person must be fully aware of what procedures must be followed, site safety and environmental rules and what services are available should they require them prior to signing the documentation. All staff personnel inducted will be included to the site induction register and an induction sticker will be provided to each person to be placed on their hard hat to identify that they have complete the site induction.

On first arrival to site, all personnel will be required to provide personal details as part of the site specific induction. The Mainland Civil Site Safety and Environmental Rules will also be detailed as part of the induction. The Site Supervisor shall check to ensure that each person has completed an "Industry Induction Training for Construction Work" course and has documentation (Induction card) as evidence of this. Prior to working on site, the worker will be provided with the appropriate personal protective equipment (PPE).

Visitors attending the site are to be accompanied by an inducted person at all times. They will not be required to undertake a full induction, however the key points of the site induction must be communicated to them as per the list provided on the Site Specific Visitor Induction Form HSE-123 Site Specific Visitor Induction. The number of site inductions (including visitors) will be reported to the Frasers Property as requested.

4.6.2 SITE RULES

The Construction Manager and HSEQ Manager will prepare site rules for the conduct of all personnel in and around the site. The Supervisor will ensure that a copy of the Site rules is displayed in a prominent location and the rules communicated at the site induction. (Appendix E)

4.6.3 SITE ATTENDANCE REGISTER

The Site Supervisor will ensure that all site personnel and visitors on site record their attendance and departure in the site pre-start sign in sheet. Records of all Site attendance will be stored on site saved in Mainland's intranet.

4.7 SAFE WORK AND ENVIRONMENTAL METHOD STATEMENTS (SWEMS)

4.7.1 GENERAL

The Safe Work and Environmental Method Statements (SWEMS) document the tasks to be carried out as individual steps and the environmental risks associated with each step and the controls necessary to be followed by the workers conducting the task. Any further scope added to Mainland Civil's contract as a variation, which requires new or amended SWEMS will be inserted within this IMP and added to the Site SWEMS register.

SWEMS for both Mainland and Subcontractor activities are to be monitored as a part of the audit process to ensure their effectiveness and any breaches of safety and environmental concern. This is conducted by the Site Engineer on a weekly basis.The Project Management Team and Safety Management Team are to conduct a review of the SWEMS if it is found the control measures are inadequate, unsafe or environmentally unsuitable. All personnel involved in the works are to be inducted into the revised SWEMS and sign. At minimum the SWEMS will be reviewed bi-annually. High risk construction work activities will be carried out throughout the duration of the works. The NSW Government Code of Practice Construction Work (2019) lists the following as high risk construction;

- Work involving a risk of a person falling more than 2 meters
- Work carried out in or near a shaft or trench with an excavated depth greater than 1.5 meters
- Work carried out in or near a tunnel
- Work carried out on or near pressurized gas distribution mains or pipping
- Work carried out on or near energised electrical installations or services
- Work involving or is likely to involved the disturbance of asbestos

High Risk Construction Work SWMS will be implemented, if and when any of these tasks are undertaken.

4.7.2 SAFE WORK PROCEDURES

A Safe Work Procedure (SWPs) is a document that communicates the preferred way to safely perform work tasks and ensuring workers are adequately trained. Mainland Civil have developed statistics for high risk activities such as:

1. Excavation
2. Plant and equipment operation
3. Unexpected finds protocol
4. Trailer Decontamination Unit
5. Demolition
6. Heat Stress
7. Needles and Syringes Procedure
8. Spill
9. Emergency evacuation

The SWP's are written by a member of staff who has a sound knowledge of the task and has performed the particular task. Consultation with others including Safety Management, Project Management, site representatives and Health and Safety representatives are encouraged to be involved in the process. In some circumstances additional expertise may be required and this should be sought where applicable. This SWP's are

subject to reviewed every twelve months and or each time further for variation of works or incident review which requires SWP's to be amended. Staff will be informed of any variations via a site tool box meeting and/or new re-induction to the amended SWP's. All site personnel trained in the safe work procedure are done so by a competent trainer and assessor.

4.7.3 HAZARD NOTIFICATION

Hazards reported by site personnel should be reported to a Mainland Civil representative promptly, who will take action to review the reported hazard and close-out the hazard as soon as possible, and eliminate the hazard where practicable to prevent incident. Record the hazard WHSE Incident report and raise it at site Inductions to ensure workers are familiar on the procedure for reporting hazards. Hazards that need to be reviewed in consultation with other stakeholders shall be raised at either the Safety Committee Meetings, and/ or via Consultation at project level at Toolbox Talks.

4.7.4 SITE INSPECTIONS

On a weekly basis the Site Engineers along with the assistance of the HSEQ Manager and/or Site Supervisors will complete a Weekly Site Safety and Environmental Walk (Appendix C) to inspect and identify where controls are adequate, inadequate or not relevant. If any inadequate, unsafe or environmentally unsuitable situations are identified which may be deemed serious or life threatening, or significant or threatening to the environment, then a 'Non-conformance Report' will be instigated detailing the corrective and/or preventive action required.

In consultation with the site HSEQ Manager, the Project Manager will decide on whether it is warranted (based on the severity of the safety and environmental issue) to stop work where a non-conformance applies until the matter is rectified.

4.7.5 PLANT AND EQUIPMENT PRE-START CHECK

On a daily basis, all operators of earthmoving plant and other plant on site will complete a pre-start checks, or plant pre-start checklist as provide by the subcontractor. In doing the pre-start inspection, the operator will confirm that the checks were carried out and any repairs deemed urgent by the operator, will be serviced immediately. Mainland Civil will stop the plant from operating until repairs are completed.

Random checks of plant and equipment pre-start inspections will be carried out by the site HSEQ Manager to ensure compliance with this requirement.

4.7.6 MONITORING AND INSPECTIONS

On a daily basis the Site Supervisor will record the daily site activities to assist Site Management with costing and planning of future works with Information including; labour, plant and equipment hire, haulage, material and works for the day.

Mainland Civil maintains a log or register of all inspection, measuring and testing equipment and provides independent certification of calibrations. The calibrations are carried out as per the manufacturer's written recommendations and records of such work will be maintained on site. If requested by client, the certifications and results of any testing or calibrations will be provided.

For all plant and machinery (e.g. excavators, dozers, rollers) a plant risk assessment and Plant pre-mobilisation checklist must be developed prior to them arriving on site. This risk assessments and plant checks considers the potential hazards, risks, harm and injury associated with the use of that plant and machinery.

4.7.6.1 PLANT AND EQUIPMENT PRE-START CHECK; MAINTENANCE AND REFUELING ACTIVITIES

4.7.6.1.1 Maintenance of plant and equipment

Plant and equipment used during construction activities will be maintained in a safe and serviceable manner in accordance with the following:

- Plant will be driven and operated only in approved areas only;
- Plant and equipment will be regularly maintained to prevent/fix oil leaks;
- Plant will be serviced and washed-down only in approved areas where hydrocarbons will be captured and collected. The collected water will be properly disposed of at Mainland Plant facility – 149 Five Islands Rd, Cringila, and NSW 2502.
- The location of the vehicle wash down bay is shown in figure 5.7.2.d of this report.
- A certified trackable waste transport will then collect any hazardous waste from the plant facility as required; and
- Major servicing is will be carried out off site.

4.7.6.1.2 Plant and equipment refuelling activities

Plant and equipment will be refuelled by a mobile tanker at a nominated re-fuelling position where hydrocarbons can be captured and collected.

Containers of spare fuel will be contained in a purpose built cage which will contain any leaked or spilt fuel, refer to **Figure 4.7.6.1.2**

Figure 4.7.6.1.2– Spare Fuel Contained in Bunded Flammable Cages

4.7.6.1.3 Plant and equipment register

Prior to any plant or equipment coming onto the construction site a Plant pre-mobilisation checklist will need to be carried out on the wet hired plant or equipment and submitted to the Mainland Civil site Supervisor. All plant and equipment brought onto the construction site will be included in the site plant and equipment register.

Spill Response Bins are located at the gear store and spare fuel storage area, refer to **Figure 4.7.6.1.4**

Figure 4.7.6.1.4 – Spill Response Bins

4.7.7 ELECTRICAL EQUIPMENT/WORK

The Site Supervisor will ensure that all electrical equipment (flexible extension cords, portable tools, junction boxes, earth leakage devices and site accommodation appliances and equipment etc.) will be inspected and tested

by a suitably qualified person and labeled with a tag of the colour specified in the Electrical Practices for Construction Work Code of Practice appropriate to the month of testing. This inspection, testing and tagging procedure will be undertaken every month throughout the duration of the project.

The inspection, testing and tagging of equipment will be recorded on the Electrical Tagging Log .This log will be maintained throughout the project duration or the duration the equipment is on site. Hired in equipment will be inspected, tested, tagged and logged at the supplier's premises prior to issue. Should an item be delivered to site, which does not have a current tag, then it will be removed from site.

4.7.8 LIFITNG EQUIPMENT

The Site Management Team will ensure that all lifting gear (chains, slings, shackles, hooks etc.) brought on site have a current certificate of test and recorded in the Lifting Equipment Register. Any lifting used by Mainland Civil are tested and tagged annually and visually inspected bi-annually. The register will be maintained during the course of the contract. All lifting slings and accessories will be marked with the manufacturer's identification, Safe Work Load (SWL) and the grade of the steel or alloy or will come with a certificate. Prior to use, all lifting gear will be inspected by the Site Supervisor or by a competent person to check for visual defects. Lifting gear that does not have a current test certificate will be removed from site.

4.7.9 HOT WORKS

When hot work activities are carried out on site, a Hot Works Permit must be filled out in conjunction with the Site supervisor and the workers involved in the hot works activity. A hot works permit is valid for 7 days unless advised otherwise by the Principal contractor

Hot works is defined as any task or work that may produce heat, sparks or having a naked flame. This would include activities such as:

- Oxy and acetylene
- Welding
- Angle grinding

4.7.10 FIRE PROTECTION EQUIPMENT

The Site Management Team will ensure that an adequate number and type of fire extinguishers are available at the workplace and additional extinguishers are located in the immediate vicinity of any work that may create a fire risk. This requirement will apply without exception to any hot works activity and plant operation. All fire extinguishers must be tested and tagged every six months.

Site Personnel and the Site Supervisor will check that extinguishers have not been tampered with prior to having them at the work areas. Combustible materials will not be allowed to accumulate in work areas so as to prevent the creation of a fire risk. A log of all extinguishers will be kept and maintained on site on the *"Fire Protection Register"* which are tested and tagged bi-annually.

4.8 HAZARDOUS SUBSTANCES

The Site Management Team will carry out a Hazardous Substance Risk Assessment on all hazardous substances to be used on site. These assessments will be attached to the Safety Data Sheet (SDS) and kept on site in a register. SDS's obtained must have been produced and/or reviewed by the manufacturer within the five years prior to commencement of site works

The assessment will identify the

- Health hazards;
- Method of use of the substance;
- Controls of the risks;
- PPE requirements;

- The "do's and don'ts" of spills and disposal;
- Storage requirements.

Where practicable, the material with the lowest possible hazard that still meets the technical requirements for the job will be used.

Prior to using any hazardous substance, all workers involved in its use will be provided with adequate information and training to allow safe completion of the required task. This will be covered in the Site Induction and/or in a Tool Box Meeting/Pre start meeting.

Large quantities of concentrated mineral acids, e.g. sulphuric, nitric and hydrochloric acids, must be kept in designated cabinets for corrosive substances. Organic solvents and other flammable substances (petrol, diesel) will be stored in designated flammable storage cabinets. Incompatible chemicals must not be stored together (see relevant Hazard Data Sheet).Hazardous chemicals should never be stored on the floor or on high shelves. Containers should be kept on low shelves or in cabinets. Shelving units should be securely fastened to the wall or floors. Shelves should not be overloaded.

Containers should be inspected regularly for any sign of chemical leakage. Containers of all types should be free of rust and deformation. Caps and covers for containers shall be securely in place whenever the container is not in immediate use. All storage cabinets and rooms must be labelled with the appropriate hazard symbol. Out-of-date and unwanted chemicals will be disposed of regularly.

4.9 HEALTH SURVEILLANCE

4.9.1 DRUGS & ALCOHOL IN THE WORKPLACE

Mainland Civil take a serious view in regard to the consumption of alcohol and drugs in the workplace and our goal is to have drug and alcohol free building and construction sites. This applies to all building and construction sites and to all employees (including subcontractors, consultants and anyone engaged by Mainland Civil) working at those sites. Mainland Civil and its employees have an obligation not to place at risk the health of people in the workplace.

The consumption of alcohol or illegal drugs on company premises or work sites is prohibited, unless specifically approved by the Managing Director. Any Mainland Civil employee (including subcontractors, consultants and anyone engaged by Mainland Civil) found to be consuming or bringing onto the work site any alcohol or illegal drugs is in breach of the Mainland Civil Drugs and Alcohol Policy and may be subject to disciplinary action, which could lead to dismissal.

Any employee attending work under the effects or influence of alcohol or illicit drugs will not be permitted to commence or continue work. This includes the consumption of alcohol or illicit drugs prior to working hours, which would have the effect that, if tested, the individual would return a positive result.

To ensure the health, safety and welfare of workers, random and casual testing for alcohol and other drugs will be undertaken to assist in determining fitness for duty.

<u>Disciplinary action associated with drugs and alcohol use at the workplace</u>
Any employees found to be under the influence of drugs or alcohol during working hours shall be managed in the following manner:

1. The worker will cease working immediately and will be instructed to sit in the site office;
2. The Project Manager and HSEQ Manager will be informed of the situation immediately;
3. The worker will be asked for the reasons for his actions by the Site Supervisor;
4. The worker will have explained to him the safety risk that he is placing on themselves and other workmates, by the HSEQ Manager;
5. The employee will be tested for drugs or alcohol by the HSEQ Manager as per the procedure;
6. If the result is positive, arrangements will be made for the employee to get home safely;

First positive result in a 12 month period	The worker will be offered transport home by the Company. The worker is to utilise their own leave. The first positive will be considered the worker's first warning. Once a worker has tested positive there will be compulsory testing for that worker in the next round of random tests, until they test negative or reach three (3) consecutive positive results.
Second positive result in a 12 month period	The worker will be offered transport home by the Company. The worker is to utilise their own leave. The worker is required to seek counselling from the EAP provider. The second positive result will be considered the workers final warning.
Third positive result in a 12 month period	A review of their employment status will occur, which may lead to termination.

4.9.2 HEARING LOSS EXPOSURE IN THE WORKPLACE

Prior to the commencement of employment all Mainland employees will undergo an Industrial hearing assessment as part of their pre-placement health assessment. Mainland Civil provides hearing protection to all workers who carry out any work activities at their work sites. Mainland Civil also carry out training with all workers on the possible exposure to loud noise on the site and what controls need to be in place to prevent the possibility of hearing loss of the worker and the public.

On a monthly basis the Site Engineer will complete an on- site noise test to assess the expose on site.

4.9.3 FIRST AID

The Mainland Civil will not rely on the First-aid services provided by Frasers Property.
Where Mainland Civil is to provide First-Aid services under the WH&S Act, the following minimum requirements will be provided:

- a First Aid attendant will be on site during site working hours;
- a First Aid shed/room, with First Aid bed and facilities;
- first-aid equipment is located in the designated First-Aid shed/room
- First aid kits will be easily accessible and left unlocked at all times.
- First aid kits shall be kept clean and checked and restocked as necessary, or on a three monthly basis.
- First aid kit locations and trained First Aiders and contact numbers will be displayed on site notice boards.

A copy of Mainland Emergency evacuation procedure can be found in Appendix D.

4.9.4 ACCIDENT & INCIDENT INVESTIGATION AND REPORTING

The two main steps when an employee or subcontractor sustains an injury is to;

- Notify the Site Supervisor as soon as possible;
- Receive appropriate first aid or medical treatment as soon as possible.

The responsibilities in regard to the immediate injury notification and attendance are;

Employee or Subcontractor

- With the escort of a first aid officer, seek immediate treatment for an injury sustained at work or allow assistance from the return-to-work Co-ordinator to provide such treatment including transportation to a doctor/hospital;
- When being treated by the doctor, the doctor is to be informed that the injury was sustained at work or while travelling to/from/between workplaces;
- The employee must obtain from the doctor a Safe Work Medical Certificate of capacity with the "Initial" box ticked.

First Aid Attendant

- Provide first aid treatment to all injured employees;
- If the first aider is an employee of Mainland Civil, then the first aider must enter the injury details onto the Injury Register
- The site team will nominate a first aider for the site who will assess the first aid requirements and needs for the project.
- Escort the injured worker to the nearest doctor/hospital for further medical treatment

Site Supervisor

- For workplace injuries, ensure the injured employee receives immediate treatment for injuries from the first aid attendant on site and then from a doctor/hospital (if necessary);
- Complete relevant sections on the "Injury Report" form WHSE Injury Report
- If the first aider is a Mainland employee, then the Site Supervisor is to enter the injury details onto the *Injury Register*
- Give a copy of the *Injury Report* to the Project Manager
- Give all the medical receipts (medicines, bandages etc.) and any other document relating to the injury to the HSEQ Manager
- In consultation with all site employees (by means of a Tool Box Meeting), put into action preventive measures to minimise or eliminate the potential of recurrence of such an injury
- Ensure all injured workers are escorted by a first aid officer when seeking further medical treatment

Project Manager, Project Engineer or Site Engineer

- Review the *Injury Report* and sign off on it;
- Give a copy of the *Injury Report* to the HSEQ Manager;
- Conduct a detailed investigation and complete a "*Non-conformance Report*";
- Give a copy of the *Non-conformance Report* to the HSEQ Manager;

Emergency Communication

- In the event of an emergency, communications shall be via the use of UHF radio and mobile phones.
- A list of emergency contact numbers is provided in table 4.9.5 of this document and will be posted on site notice boards.
- The appropriate emergency service shall be notified immediately in the event of an emergency.

The emergency numbers are listed in section 1 of this document and shall be posted on notice boards

4.9.5 EMERGENCY/STAKEHOLDER CONTACT DETAILS

Table 4.9.5 – Emergency Contacts

Contact Name / Service	Name	Ph. Number
POLICE/ AMBULANCE/ FIRE BRIGADE	---	000
STATE EMERGENCY SERVICE (flood and storm)	---	13 25 00
POISONS INFORMATION CENTRE	---	13 11 26
MAINLAND CIVIL SITE SUPERVISOR	Max Scampino	0414 808 098
MAINLAND CIVIL PROJECT MANAGER	Tim Saviane	0422 418 072
ELECTRICITY	Energy Australia	13 13 88
	Integral Energy	13 10 03
	Country Energy	13 20 80
GAS	AGL Company	13 19 09
WATER	Sydney Water	13 20 90
SAFE WORK	---	13 10 50
DIAL BEFORE YOU DIG	---	11 00
Nearest Medical Centre – Macquarie Park Medical Centre	Shop 456 "the Loft", Macquarie Shopping Centre, Ryde New South Wales 2113	02 9878 6666

4.9.6 INCIDENT / NEAR MISS REGISTER

All Incidents or near misses shall be recorded in the site incident register by the HSEQ Manager or Site Supervisor

4.10 RETURN TO WORK AND INJURY MANAGEMENT PROGRAMME

Injury management is about ensuring the prompt, safe and durable return-to-work of an injured worker. It includes

- Treatment of the injury;
- Rehabilitation back to work;
- Retraining into a new skill or new job;
- Management of the workers compensation claim;
- The employment practices of the worker.

Everyone involved is required to cooperate and participate in injury management (including the injured worker, the insurer, the employer and the treating doctor). The earlier an injury is treated and managed, the sooner the employee will return to work and recover from the injury.

There are two types of plans intended to help the injured employee recover and return to work as soon as possible.

Injury Management Plan:
This is a plan drawn up by the insurance company, after consultation with the injured worker, the employer and the treating doctor. The IMP outlines all the services required for the injured employee to return to work.

Recover at Work Plan
This is a plan written by the Return-To-Work Coordinator or the accredited Rehabilitation Provider with regard to the treating doctor's assessment of injuries. The plan is the written formal offer of suitable duties by the employer to the injured employee.

Suitable Duties

The Return to Work Coordinator will consult with the injured employee's treating doctor to formulate suitable duties, this applies to all injured workers as a part of the Injury Management Plan and Return to Work Plan.

Comprehensive details of the injury management procedures of employees, including rehabilitation and return to work can be provided by the HSEQ Manager.

5 ENVIRONMENTAL MANAGEMENT

Mainland Civil operates under an ISO 14001 accredited Environmental Management System (EMS), Mainland Civil's Environmental Management provides the framework for the onsite construction managers to implement specified corporate standards and practices in a consistent manner. It defines the application of work practices, processes, and systems for engineering / design, acquisition of materials, equipment and services, construction, and other services related to tendering and project execution.

5.1 ENVIRONMENTAL OBJECTIVES AND TARGETS

Table 5.1 Environmental objectives and targets

Environmental Aspect	Objectives	Target
Soil and water control	No sediment and/or contaminated water to enter waterways by implementing environmental controls such as; water monitoring	Nil reportable incidents
Dust	No sustained visual dust observed beyond the boundaries of the construction site (external road ways) as per the CEMP's Dust Management Plan	Nil reportable incidents
Noise and vibration	No complaints from the community regarding noise and vibration during the construction activities as pre the CEMP's Noise (and Vibration) Management Plan	Nil reportable incidents
Hazardous materials	No uncontrolled release of any hazardous chemicals or pollutant from the construction site	Nil reportable incidents
Contaminated materials	To ensure any contaminated material is removed from site and disposed of correctly by an approved licenced and qualified person	Nil reportable incidents
Construction Waste Management	Recycle demolition and construction waste to a licenced waste contractor as per the CEMP's Construction Waste Management Plan	95% of all any demolition and construction waste to be recycled
Complaints	No complaints received from the community, Frasers Property or the environmental regulator (including on behalf of a local resident)	Nil complaints attributed to Mainland Civil's operations

5.2 HERITAGE

Frasers Property have advised Mainland Civil there are no heritage listed zones throughout the Ivanhoe Estate.

5.3 UNEXPECTED FINDS PROTOCOL

Purpose:

The purpose of this procedure is to ensure that the necessary steps are taken to minimise any potential risk caused due to an unexpected find. The below unexpected finds procedure has been put together using a combination of legislation, guidelines and codes of practise, all of which are listed in section 1.8 of this report.

Procedure:

In the case of an unexpected find on a Mainland Civil work site, the work in that area is to be stopped immediately and the area is to be barricaded off. Inform the site supervisor of the find.

The Site Supervisor is to contact the Project Manager and, inform them of the unexpected find.

The Project Manager will then inform the Frasers Property and arrange a meeting with all stakeholders involved with the site.

The Site Environmental Consultant is to be contacted to carry out an inspection to identify the find and decide on the course of action to be taken.

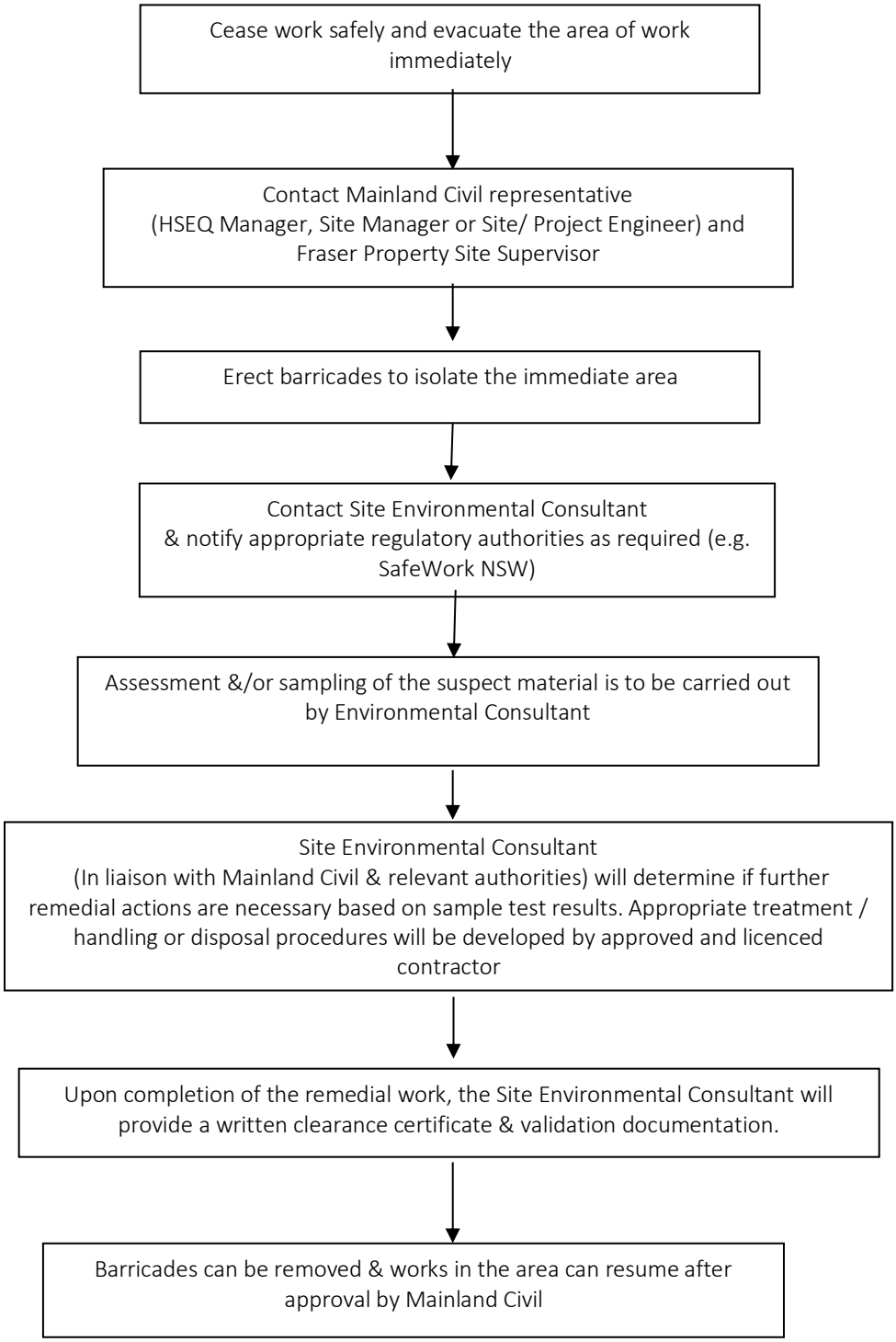
If the contamination source is verified as asbestos, Safe Work NSW will be notified and approval obtained prior to handling and removal of contaminated material from site.

The Site Environmental Consultant is then to determine if any remedial action is required, appropriate treatment/ handling or disposal procedures will be developed by approved and licenced contractor as required.

Remediation is to be undertaken as per the Site Environmental Consultants' instruction, Asbestos Management Plan, Asbestos Removal SWMS in accordance with Protection of the Environment Operations (Waste) Regulation 2014.

Once this has occurred the Site Environmental Consultant is to issue a clearance certificate and validation document for Mainland Civil approval so that work can continue on site.

If suspected hazardous/heritage materials are discovered or exposed during construction excavation activities on site believed to be free of hazardous materials, the following protocol must be followed



5.4 DUST MANAGEMENT

This Dust Management Plan (DMP) includes, but not be limited to strategies in which the construction shall:

- Minimise or prevent the emission of dust from the site;
- Ensure that all trafficable areas and vehicle manoeuvring areas in or on the premises shall be maintained, at times, in a condition that will minimise the generation, or emission from the premises, or windblown or traffic generated dust;
- Ensure that all vehicles entering and leaving the site and carrying a load that may generate dust are covered or enclosed in a manner that will prevent emissions of dust from the vehicle at all times; and
- Ensure that all dust source surfaces are sealed.

The DMP outlines measures to minimise the generation, or emissions from the construction area, or windblown or traffic generated dust, or spoils or debris from the construction activities.

5.4.1 SIGNIFICANT POTENTIAL DUST GENERATING ACTIVITIES

The most significant potential dust generating activities from Ivanhoe Estate have been identified as:

- Site preparation activities, including
  - Earthmoving activities associated with the excavation and handling of soil (contaminated and/or non-contaminated).
  - Tree removal
- Construction activities;
- Material unloading/loading trucks;
- Stock piles of soil/debris;
- Uncovered stockpiles; and/or
- Vehicle movement, uncovered trucks, soil on wheels etc.

5.4.2 DUST AND DEBRIS MITIGATION AND CONTROL METHODS

Mainland Civil will take all necessary steps to limit the creation of any dust and debris nuisance, which might arise during the preparation of the site and during construction. The mitigation methods identified below are consequent to the mitigation options noted in the 'Air Quality Assessment', dated October 2018 written by WSP.

Site Traffic Control

Vehicle movement on site can generate substantial amounts of airborne dust. Site traffic control measures that may be used to manage dust produced by the movement of construction traffic include:

- The designation of specific routes for haulage and access
- Set and enforce a maximum speed limit within the site of 10km/hr
- Vehicles carrying loads which have the potential to produce dust may have their load covered at all times accept for loading or unloading.
- Wetting down exposed soil haul routes

Earth Moving Management –

Earthworks and earthmoving activities comprise a substantial portion of this project. Measures that may be undertaken to minimise dust generation during earthworks activities include:

- The use of mist water from gurneys for general site dust suppression and to target dust generating activities
- All site personnel working within the earth moving areas will be required to wear a P2 Mask
- Signage and exclusion zones to indicate silica excavation works area
- Application of mist water from gurneys/hoses to any stockpiled materials
- Observing weather conditions and ceasing earthmoving operations if conditions are unsuitable e.g. extreme wind. Application of mist and dust suppression to construction site during wind conditions.
- Use of a street sweeper to clean pavements and road
- Reduction in drop heights when unloading material
- Loading truck and dogs in a controlled manner and covering loads when entering and exiting site.
- Regular cleaning of hardstands with brooms and shovels
- Plant/equipment fitted service and maintained in accordance with manufacturers specifications and recommendations.

Soil Surface Compaction
Compaction of loose material ensures that soil particles are packed tightly, minimising the likelihood of excessive dust emissions. Compaction of soil will also occur naturally under the loads placed on it by trucks and earthmoving machinery.

Installation of Site Fencing, Hoarding and/or barriers
Maintain existing hoardings/fences and shade cloth in an effort to contain dust and minimise wind across the site. Providing barriers to discourage unwanted vehicle access causing disturbance.

Sediment traps:
Sediment traps are used on site as strategic locations as part of the site drainage system. These structures are in place to capture sediment prior to drainage water entering the primary settling ponds and eventual use in the dust suppression system. As a result, sediment captured in the sediment traps and allowed to dry out, is a potential dust source.

During extreme winds dusty activities may be postponed until more suitable weather is prevalent.

5.4.3 MANAGING EXPOSURE TO SILICA IN THE WORKPLACE

At the workplace, silicon dioxide may occur both in it crystalline form or combined with other minerals or materials. Silica remains an important task factor for respiratory disease. All products intended for workplace use which contain crystalline silica are to be classified as hazardous and include a Safety data sheet available on site.

The safe work Australia code of practice 2012 managing the risk of hazardous chemicals in the workplace details the hierarchy of controls. Those of most importance to workplaces with potential RCS exposure are in order:

Elimination

Often totally impractical when having to work natural products such as sand, concrete, clays, or processes such as tunnelling. Of some importance only if a process can be eliminated completely

Substitution

Extremely advantageous when silica content of the materials being used can be reduced markedly. Examples include substituting ilmenite, garnet or staurolite for sand in abrasive blasting; using aluminium polishing powders instead of silica powders; replacing silica parting powders in foundry casting with non-silica ones. Processes can be substituted (e.g. using prilled solids rather than powders; changing from dry to wet processes; vacuuming rather than sweeping).

Engineering

Containment: Most effective when the process obliges continued use of silica containing material. Has the particular advantage of preventing hazardous silica dusts from entering the workplace atmosphere so that other controls may not be required. May contribute to economic product recovery

Ventilation: Highly effective when silica containing dust clouds cannot be completely contained at source because of the need for worker to work with the materials (e.g. mining, pouring, grinding, polishing, moulding, casting, blasting, fettling, mixing, bagging, crushing, drilling, chasing). Dusts are extracted close to the source. Has the advantage of preventing dusts whose generation cannot be avoided from spreading and contaminating other parts of the workplace. Is very cost effective in long term, particularly for fixed continuous processes where point source extraction can be organised, and in most cases, permits workers to operate freely with adequate levels of protection in the workplace unencumbered by use of respiratory protection.

Ventilation is available in three basic variants:

- Natural ventilation
- Forced dilution ventilation
- Local exhaust ventilation (LEV).

Suppression: Water or fine mist suppression is also employed to control dust clouds which are not always amenable to use of fixed point ventilation. Some foundries utilise such systems. Water suppression is also used effectively in construction for brick, tile, stone and concrete cutting.

Administration

Typically includes housekeeping, warning signage, but may include restricting the time of exposure, rotation of staff away from dusty areas.

Personnel protective equipment

Applicable and useful for short term applications when very expensive ventilation solutions are not warranted. Also very applicable where the source of dusts cannot be fully contained such as tunnelling, outdoors work, abrasive blasting or where particles are imparted with a velocity beyond the capture capability of ventilation systems. Should remain the means of last resort for permanent control of RCS. Applicable in all emergency applications.

All Site personnel exposed to silica will be required to undergo mandatory respiratory FIT test to assess the effectiveness of the respiratory protective equipment (face or dust mask)

5.5 NOISE (AND VIBRATION) MANAGEMENT PLAN

5.5.1 COMPLIANCE REQUIREMENTS

This Noise Management includes noise mitigation for diesel powered machinery, provision of training to ensure that construction workers are aware of the noise created during construction and are appropriately trained to minimise noise where possible. In addition, the construction Noise Management Plan will:

- Identify general activities that will be carried out and associated noise sources;
- Assess construction noise impacts at the relevant receivers;
- Provide details of methods and procedures that will be implemented to control noise during the construction stage;
- Identification of all feasible and reasonable measures to minimise noise and vibration, including but not limited to:
    - Using least noisy construction methods, vehicles, plant and equipment
    - Positioning and orientating noisy plant and equipment so as to minimise noise impacts on noise sensitive receivers;
    - Positioning items of noisy plant and equipment as far apart as it is practicable from each other;

  - Minimising noisy activities by adopting alternative construction measures;
  - Carrying out above ground loading and unloading activities as far away as practicable from noise sensitive receivers'
  - Designing each work site to minimise the need for truck reversing movements;
  - Ensuring all vehicles and self-propelled plant and equipment enter and leave the premises in a forward direction unless unforeseen accidents or other unforeseen circumstances arise that may require reversing movements, in which case minimising any such reversing movements;
  - Taking all practicable steps to avoid reversing movements on the surface within the premises, and where it is impracticable to avoid reversing movements, taking all necessary steps to minimise reversing movements; and
  - Preventing vehicle, plant and equipment queuing and idling outside the hours of construction prescribed by this consent.
- Include a pro-active and reactive strategy for dealing with complaints including achieving the construction noise goals, particularly with regard to verbal and written response;
- Detail noise monitoring, reporting and response procedures consistent with consent requirements;
- Provide for internal audits of compliance of all plant and equipment;
- Indicate site establishment timetabling to minimise noise impacts;
- Include procedures for noifying residents of construction activities likely to affect their noise amenity;

The goal for noise from construction activities are the $L_{A10\ (15\ mintues)}$ should not exceed the Rating Background Level (RBL) plus 10dB(A) at the sensitive receivers.

Objective

The main objectives of the plan is to identify and implement controls and procedures for the effective management of construction plant and equipment, and operations to provide clear and specific guidelines for site personnel as to their responsibilities and obligations to minimise noise.

5.5.2 SIGNIFICANT POTENTIAL NOISE GENERATING ACTIVITIES AND PROTECTION OF NOISE

The significant potential noise generating activities from construction activities, including:

- Earthmoving activities associated with the soil cutting, drilling, excavation and cartage

5.5.3 NOISE SOURCES AND MITIGATION METHODS TO PROTECT CONTRUCTION WORKERS

Mainland Civil will take all necessary steps to limit noise emissions, which might arise during the preparation of the site and during construction.

5.5.4 VIBRATION

Vibration sources and mitigation methods

It will be necessary to use appropriate methods and equipment to keep ground vibrations at adjacent buildings and structures within acceptable limit. When planning for construction work that may include potential vibrations, all practical efforts to protect adjacent buildings and in ground extensometers.

The construction site is surround by numerous existing multistorey residential and commercial buildings. A full time vibration monitor will be installed at the same location as the noise monitor shown within section 7 of report "*Construction Noise and Vibration Management Plan*" dated 18/11/20/

Table 5.6.3 – Vibration Sources and Mitigation Methods

Activity	Environmental Impact pre-control measures	Control Measures
Excavation	Shoring collapse	- Choosing alternative, lower impact equipment or methods where possible. For example, using less
Site preparation		

Construction	Structural damage to existing site and neighbouring buildings and/or structures	disruptive attachments such as rippers instead of hydraulic breakers, if ground conditions allow - Scheduling the use of vibration causing equipment at the least sensitive time of the day, providing respite periods - Routing, operating or locating high vibration sources as far away from sensitive areas as possible - Sequencing operations so that vibration causing activities do not occur simultaneously - Isolating the equipment causing the vibration - Keeping equipment well maintained - Where practical, position plant 5m away from adjacent property boundaries

5.6 CONSTRUCTION WASTE MANAGEMENT PLAN (CWMP)

5.6.1 GENERAL

This Construction Waste Management Plan provides details of the waste management measure to minimise production and impact of wastes generated at the site including but not limited to:

- Identification of the type and where possible the quantities of waste that would be generated, a description of how the waste would be handed, stored, re-used, recycled, and if necessary, appropriately treated;
- Identification of a designated area for the storage and collection of waste and recyclable materials to be provided on the site'
- Description of how the effectiveness of these measures would be monitored and, if non-compliance detected, actions to be required; and
- Measures to involve and encourage employees and contractors to minimise domestic waste production on site and to reuse/recycle where possible.

5.6.2 REQUIREMENTS FOR MANAGING CONSTRUCTION WASTE TYPES / STEAMS

- All wastes and materials generated on the site during construction (and dual operation) shall be classified in accordance with the EPA's Waste Classification Guidelines prior to being transporting the waste off site and be disposed of to a facility that may lawfully accept the waste.
- Only the hazardous and/or industrial and/or Group A waste listed below may be generated and/or stored at the site:
  - Waste soil/water, hydrocarbons/water mixtures or emulsions; and
  - Grease trap waste

Mainland Civil is committed to minimising waste by avoiding unnecessary resource consumption and implementing resource recovery procedures. The details provided in this plan are intended for the management of waste relating to this project.

All excavations required for the Works, include: cuttings, foundation treatments, shallow embankments, and cut to fill transitions and trenches (such as that for drainage pipes or utility conduits).

The types and quantities of each type of material to be excavated from each location are monitored on a daily record of loads chart and recorded in a cartage summary document.

Table 5.6.2 Construction Works Waste Types/Streams and Estimated Quantities

Waste Type	Estimated Volume (m^3)	Destination		
		Reuse and Recycling		Disposal
		On Site (m^3)	Off Site (m^3)	Off Site Landfill Site
Excavation material (e.g. sand, rock)	20,000 (ENM)	0	20,000	
Excavation Material (e.g. sand, rock)	60,000 (VENM)	600	59,400	
Concrete	300	0	300	0
Asphalt	400	0	400	0
Green Waste	210	150	60	
Construction Waste	30	0	0	30

5.6.3 WASTE MANAGEMENT PRINCIPLES APPLIED TO CONSTRUCTION WORKS

- Avoid the use of excess materials and production of waste
- Reduce the amount of waste generated
- Reuse materials on site where possible
- Recycle waste
- Dispose of non-reusable waste at an approved / licenced disposal facility

5.6.4 RECYCLING WASTE

Table 5.7.4 - Recyclable Waste

Waste Type	Description of Waste	Recycling Details
Sand and rock (excavation)	- As part of the works 8000 m^3 of sand will be stockpiled on site and used as piling platform pads for mobile plant - Following this use will be exported to an approved local licensed recycling facility - All EPA documents related to exporting material from site will be available to Frasers Property	Refer to Table 5.7.6
Concrete	- All concrete from the existing footing and ground floor slabs will be exported to an approved local licensed recycling facilities - All EPA documents related to exporting material from site will be available to Frasers Property - The recycling potential of waste concrete is 100%. - To minimise concrete waste quantities will be accurately measured prior to ordering	Refer to Table 5.7.6

Asphalt	- The 2000 m^3 of asphalt will be stockpiled on site and reused as piling platform pads for mobile plant - Following use the asphalt will be exported to an approved local licensed recycling facility - All EPA documents related to exporting material from site will be available to FRASERS PROPERTY	Refer to Table 5.7.6

5.6.5 NON REUSABLE WASTE

Table 5.7.5 – Non Reusable Waste

Waste Type	Waste Description
Commercial e.g. food scraps, wrappers, cleaning waste, paper bags etc.	- Domestic waste will comprise of food waste, packaging and other general household waste. - Waste bins will be provided around the site amenities that will be periodically emptied into a large covered waste bin which will be emptied as needed and taken to land fill. - All site personnel will be regularly instructed to keep their work area clean and inspected daily. It is anticipated that waste bins will be provided by Suez.

5.6.6 RECYCLING AND DISPOSAL FACITILITES

Waste will be classified in accordance with the Waste Classification Guidelines (DECCW 2009) as well as NSW EPA (2014) – *Waste Classification Guidelines – Part 1*: Classifying Waste document. Once classified, waste can then be disposed of at an Environmental Protection Authority (EPA) licensed facility. All waste to be monitored through Mainland Civil Cartage summary.

Table 5.6.6a – Recycling and Disposal Facilities

Waste Type	Sort, stockpile, Recycle, or Dispose	Company Name and Contact Details
Sand and rocks (excavation)	Sort, stockpile and export to waste facility	M. Collins & Sons Springfarm Quarry, NSW 2570 Ph: (02) 9774 1544
Concrete	Sort, stockpile and export to recycling facility	Concrete Recyclers 14 Thackeray St, Camellia NSW 2142 Ph: (02) 8832 7400
Asphalt	Sort, stockpile and export to recycling facility	Boral Recycling 39a Eidemere Rd, Wetherill Park, NSW 2164 Ph: (02) 9604 9101
Commercial	Disposal	Dial a Dump Industries, Honey Comb Drive, Eastern Creek, NSW 2766 Ph. (02) 9832 3333

Should there be any unexpected finds discovered, the unexpected finds protocol, described in section 5.3 of this report will be followed. Should the unexpected finds be classified as asbestos, this will disposed at licensed facility who can legally accept asbestos.

The site manager, through consultation with the site management team, and other stakeholders, will be responsible for the transferral of waste and recycling bins within the property to the collection point. The site manager will communicate with site personnel such as plant operators and other supervisors to ensure that each type of waste material is transferred and stockpiled into the correct collection or storage points.

Table 5.6.6b – Personnel Responsible for waste transfer

Waste Type	Personnel Responsible for determining stockpile/collection point	Personnel Responsible for movement of waste to collection points
Sand and rocks	Site Manager/Project Team	Plant operators/Labour
Concrete	Site Manager/Project Team	Plant operators
Asphalt	Site Manager/Project Team	Plant operators
Commercial	Site Manager/Project Team	Site Personnel

5.6.7 HAZARDOUS WASTE

Any hazardous waste that is identified or generated on the site will be handled in accordance with Mainland Civil's HSEQ standards. To ensure that all necessary steps are taken, Mainland's unexpected finds protocol, shown in section 5.3 above will be implemented in the event of potential asbestos or hazardous waste material within the site. This will minimise any potential risk caused due to the unexpected find. The collection and transport of any hazardous waste will be carried out in accordance with the statutory requirements, and collection and transport by a licenced operator, and disposal at appropriately licensed disposal facilities.

5.6.7.1 CONTAMINATED SOIL SOURCE, LOCATION, QUANTITY AND CHARACTERISTICS

Prior to excavation works, a preliminary investigation or testing (environmental site assessments/soil sampling) will identify any contaminated materials (whether man-made or naturally occurring) in accordance with the industrial waste resource guidelines- soil sampling.

The source, location, quantity, characteristics and other relevant attributes of any contaminated soil will be recorded in the site cartage summary.

5.6.7.2 TRAINING REQUIREMENTS

All workers will undertake formal contamination awareness training prior to beginning works on site. The training should include

- Definition of what the contamination is, the types of contamination and risks involved;
- Health effects of the contaminated material
- Location of the contaminated material on site and the safety and environmental control measures in place
- PPE and RPE requirements across the site and dry decontamination procedure (if applicable)

5.6.7.3 ON SITE MANAGEMENT

- Engagement of hygienist to undertake fibre air monitoring for the duration of the contaminated works (if required)

- Dust suppression and wetting down of unknown finds/asbestos fibres.

- Site Supervisor to toolbox talk with contractors the risks associated with removal, controls to be put in place during the removal works outline the minimum required PPE requirements

- Set up of works area around the identified impacted area (exclusions zone) with barrier tape and signage. The temporary fencing surrounding the contaminate removal area is to be covered internally with geo-fabric or plastic sheeting to help contain dust

- Black plastic polythene sheeting (200um thickness) on ground surface as access point as drop sheet

- Establish a decontamination area adjacent to the entrance of works

- Removal of contaminated material – Excavator

- Where possible, avoid relocating the contaminated soil/material onsite and load directly from the source into the truck. This will minimise the likelihood of cross contamination of clean soils.

5.6.7.4 MANAGEMENT PRACTICES

During soil disturbance works within the exclusion zone, a water spray pump or water hose shall be available to suppress the dust at the commencement of the activity and at regular intervals during the day, i.e. every 30 minutes, when surface water evaporates or when the generation of dust becomes noticeable. The use of water spray must be monitored carefully to ensure run off does not occur or controls must be implemented to capture any runoff. If run off does occur, the possible spread of contaminated soil may require investigation.

Should suspected contaminated mater be identified outside of the currently identified ACM area, the unidentified finds protocol will apply.

5.6.7.5 WASTE TRACKING

A suitably qualified consultant with appropriate experience should be present on site during soil loading and removal works, to record waste tracking information (i.e. registration plates, time leaving site, and approximate volume being disposed).

Delivery dockets from the receiving landfill should also be collected, to reconcile with the information recorded on site, to ensure that all material is disposed of appropriately to a licenced waste facility.

5.6.7.6 MONITORING

An Independent Environmental consultant will be engaged to undertake representative air monitoring for the disturbance and movement of contaminated-impacted soil within the exclusion zone/s, as outlined above. Air monitor filters shall be replaced at the end of each work day where potential contaminated-impacted soil was disturbed.

All airborne fibre monitoring will be conducted in accordance with the Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Dust [NOHSCH:3003(2005)] and analysed at a NATA-accredited laboratory

5.6.7.7 CLEARANCE INSPECTION

The standards for clearance inspections will be determined by visual inspection of the work areas, ensuring that the work has been completed satisfactorily and that there is no visual evidence of contaminated material.

5.7 SOIL AND WATER MANAGEMENT PLAN

Compliance requirements

The Soil and Water Management Plan will detail erosion and sediment controls, and:

- Identify the management responses to activities that could cause soil erosion or result in the discharge of sediments and/or other pollutants from the site:
- Specify standards/performance criteria for erosion, sediment, and pollution control including any water sediment basin locations and discharge points, for example parameters, frequency, duration, location and method; and
- Describe what actions and measures will be implemented, the effectiveness these actions and measures and how they will be monitored during the works, clearly indicating who will conduct the

monitoring, how the results of the monitoring would be recorded; and if any non-compliance is detected.

5.7.1 POTENTIAL FOR ACID SULPHATES SOILS (PASS)

The potential for acid sulphate in Frasers Property works is unlikely due to the reported findings from previous soil testing of the specific area carried out.

The objective of this plan is to ensure that solid materials are classified and controls put in place to ensure sediment does not enter stormwater drains.

5.7.2 SOIL AND WATER SOURCES AND MITIGATION METHODS

Mainland Civil will take all necessary steps to limit the creation of any dust and debris nuisance, which might arise during the preparation of the site and during construction. To ensure this occurs, the following steps will be instigated refer to Table 5.7.2.

<table>
<tr><th>Activity</th><th>Environmental Impact pre-control measures</th><th>Control Measures</th></tr>
<tr><td colspan="3">Soil (Sand) Management</td></tr>
<tr><td>All work including, excavation</td><td>Prevent sand and rock sediments entering stormwater drains</td><td>- Stockpile materials on sealed surfaces (existing roadways) away from stormwater drains (inlets)
- Install silt fencing and silt socks where applicable (see below)</td></tr>
<tr><td rowspan="2">Sediment fines</td><td>Transported off site via rain water, wind, attaching to vehicles and tracked off site, inadequate dewatering procedures</td><td>- Refer to the Dust Management Plan
- Install silt fencing as per Figure 5.7.2c
- Install silt fencing to the low side of all exposed earth excavations as well as temporary stockpiles, e.g. the stockpile location shown on Figure 5.7.2c
- Install metal rumble grid at site exit as per Figure 5.7.2c to facilitate removal of dirt and debris from wheels of exiting vehicles once internal sealed roads have been excavated.
- Gravel will be installed beneath the shaker ramp to allow it to act as a wash-down bay where necessary. Water blasters will be used to clean tyres of exiting vehicles as required.

Figure 5.7.2a – Silt fencing
 
Figure 5.7.2b – Rumble Grid
  </td></tr>
<tr><td>Stormwater and/or infiltrated groundwater (considered unlikely due depth of excavation) contaminated with sediment</td><td>Install gravel / and filled geotextile socks or coil matts around stormwater drains to prevent sediment runoff

Figure.5.7.2c - Silt socks</td></tr>
</table>

		
Import of bulk supplies of material	Prevent sediments entering stormwater drains	- Stockpile materials on sealed surfaces (existing roadways) away from stormwater drains (inlets) - Install silt fencing and silt socks where applicable (see above)
Water Management		
All work including, excavation and service trenching	Sediment laden water that accumulates within the site and enters the stormwater untreated	- Sediment laden water that accumulates within the site is not to be discharged into any water body or stormwater system without first being treated and tested for pH and turbidity as per Mainland Civil's pH and Turbidity Treatment Procedures - Sediment controls (see above) - Dewatering of ponded stormwater or infiltrated groundwater - Subsequent collection to the site water cart for reuse for dust suppression

Table 5.7.2– Soil and Water Sources and Mitigation Methods

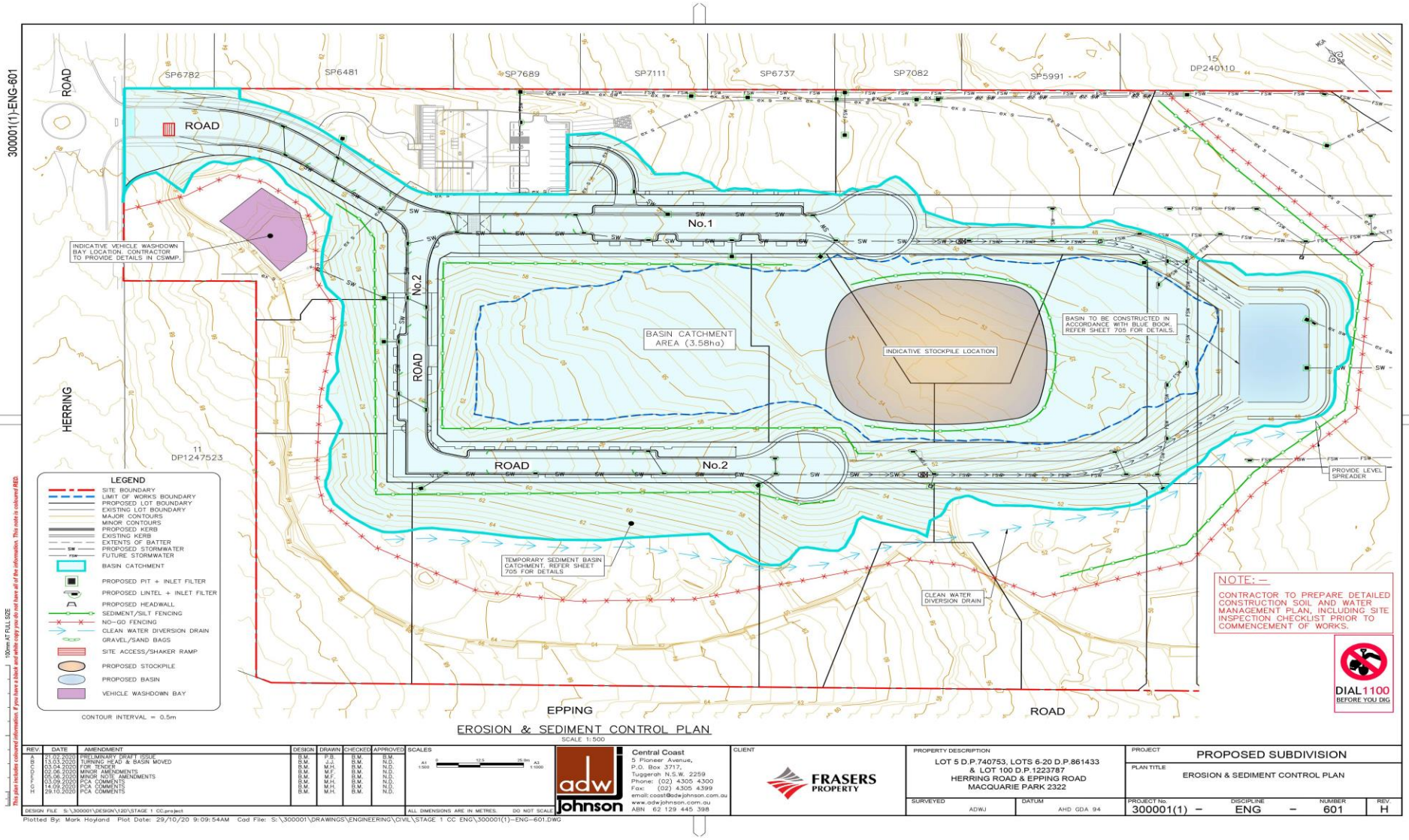


Figure 5.7.2d – Erosion and Sediment Control Plan

5.7.3 TEMPORARY SEDIMENT BASIN

A temporary sediment basin has been designed to intercept sediment-laden site runoff and retain sediment and other materials in order to protect the creek (and other waterways) downstream from pollution. It will be constructed in accordance with Geotechnical Report reference 86043.03 dated 8th September 2020 and the ADW Basin Detail Plan below – **Figure 5.7.3a**. Temporary sediment basin key details are as follows:

- Total Minimum Volume: 1065m3
- Max Ponding Level: 0.54m from base level
- Dimensions: 20m x 35m
- 2x swale inlets with boulders at the basin interface
- 2x 450mm outlet pipes with a sieve-style filtration system that further promotes the capture of pollutants. Water is drained from the basin once the ponding level is greater than than that of the outlet pipe, i.e. pumps are not required.
- A weir and rock protected spillway to the South of the basin
- Relevant calculations of temporary sediment basin shown on **Figure 5.7.3a**

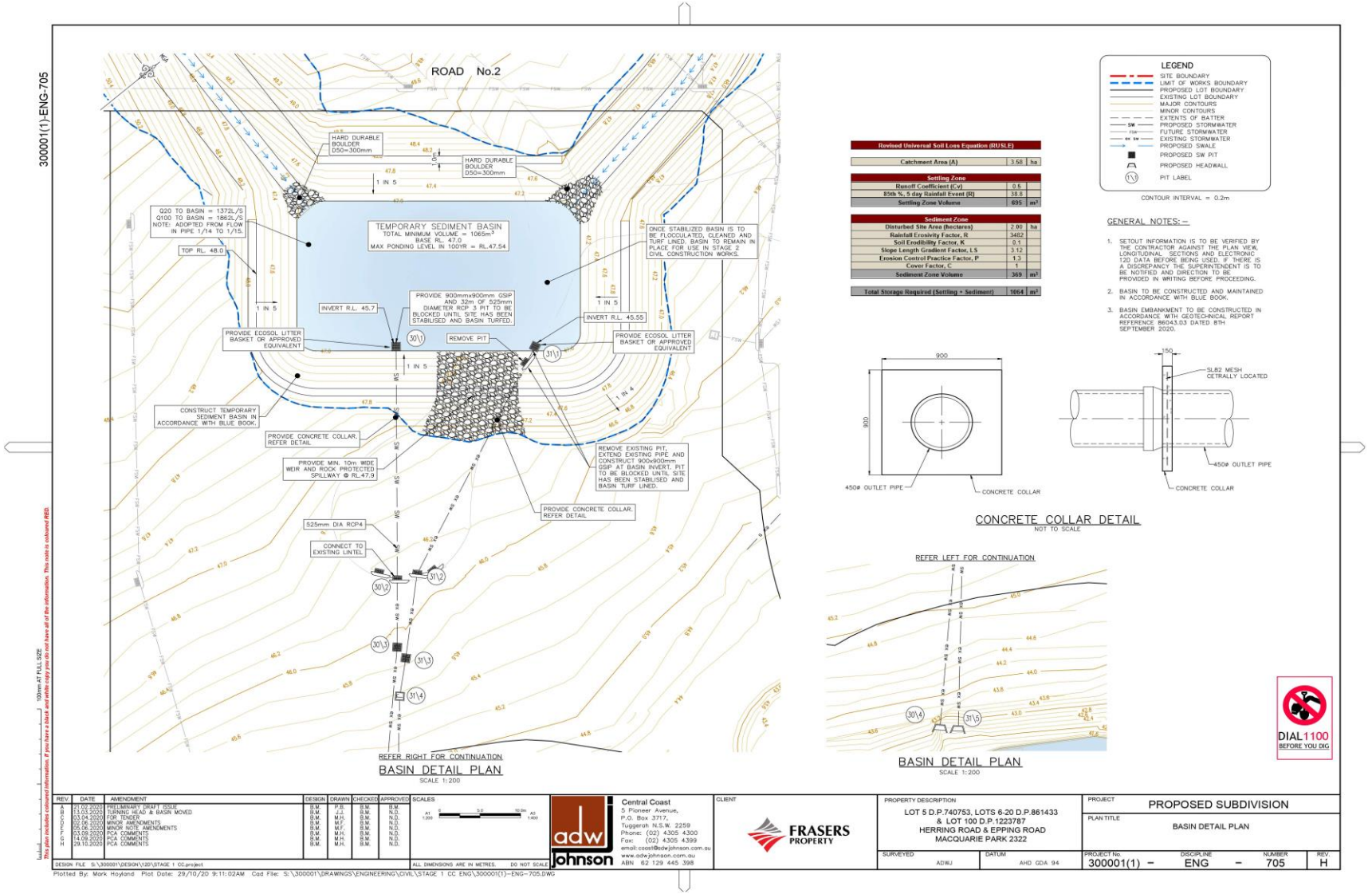

300001(1)-ENG-705
ROAD No.2
TEMPORARY SEDIMENT BASIN
TOTAL MINIMUM VOLUME = 1065m³
MAX PONDING LEVEL IN 100YR = RL.47.54
HARD DURABLE BOULDER D50=300mm
Q20 TO BASIN = 1372L/S
Q100 TO BASIN = 1862L/S
NOTE: ADOPTED FROM FLOW IN PIPE 1/14 TO 1/15.
TOP RL. 48.0
1 IN 5
INVERT R.L. 45.7
INVERT R.L. 45.55
PROVIDE 900mmx900mm GSIP AND 32m OF 525mm DIAMETER RCP 3 PIT TO BE BLOCKED UNTIL SITE HAS BEEN STABILISED AND BASIN TURFED.
ONCE STABILIZED BASIN IS TO BE FLOCCULATED, CLEANED AND TURF LINED. BASIN TO REMAIN IN PLACE FOR USE IN STAGE 2 CIVIL CONSTRUCTION WORKS.
PROVIDE ECOSOL LITTER BASKET OR APPROVED EQUIVALENT
REMOVE PIT
1 IN 4
CONSTRUCT TEMPORARY SEDIMENT BASIN IN ACCORDANCE WITH BLUE BOOK.
PROVIDE CONCRETE COLLAR. REFER DETAIL
PROVIDE MIN. 10m WIDE WEIR AND ROCK PROTECTED SPILLWAY @ RL.47.0
REMOVE EXISTING PIT, EXTEND EXISTING PIPE AND CONSTRUCT 900x900mm GSIP AT BASIN INVERT. PIT TO BE BLOCKED UNTIL SITE HAS BEEN STABILISED AND BASIN TURF LINED.
525mm DIA RCP4
CONNECT TO EXISTING LINTEL
REFER RIGHT FOR CONTINUATION
BASIN DETAIL PLAN
SCALE 1:200
Revised Universal Soil Loss Equation (RUSLE)
Catchment Area (A) 3.58 ha
Settling Zone
Runoff Coefficient (C.v) 0.5
85th %, 5 day Rainfall Event (R) 38.8
Settling Zone Volume 695 m³
Sediment Zone
Disturbed Site Area (hectares) 2.00 ha
Rainfall Erosivity Factor, R 3482
Soil Erodibility Factor, K 0.5
Slope Length Gradient Factor, LS 3.12
Erosion Control Practice Factor, P 1.3
Cover Factor, C 1
Sediment Zone Volume 369 m³
Total Storage Required (Settling + Sediment) 1054 m³
LEGEND
SITE BOUNDARY
LIMIT OF WORKS BOUNDARY
PROPOSED LOT BOUNDARY
EXISTING LOT BOUNDARY
MAJOR CONTOURS
MINOR CONTOURS
EXTENTS OF BATTER
PROPOSED STORMWATER
FUTURE STORMWATER
EXISTING STORMWATER
PROPOSED SWALE
PROPOSED SW PIT
PROPOSED HEADWALL
PIT LABEL
CONTOUR INTERVAL = 0.2m
GENERAL NOTES:-
1. SETOUT INFORMATION IS TO BE VERIFIED BY THE CONTRACTOR AGAINST THE PLAN VIEW, LONGITUDINAL SECTIONS AND ELECTRONIC 12D DATA BEFORE BEING USED. IF THERE IS A DISCREPANCY THE SUPERINTENDENT IS TO BE NOTIFIED AND DIRECTION TO BE PROVIDED IN WRITING BEFORE PROCEEDING.
2. BASIN TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH BLUE BOOK.
3. BASIN EMBANKMENT TO BE CONSTRUCTED IN ACCORDANCE WITH GEOTECHNICAL REPORT REFERENCE: 86043.03 DATED 8TH SEPTEMBER 2020.
900
900
450ø OUTLET PIPE
CONCRETE COLLAR
150
SL82 MESH CETRALLY LOCATED
450ø OUTLET PIPE
CONCRETE COLLAR
CONCRETE COLLAR DETAIL
NOT TO SCALE
REFER LEFT FOR CONTINUATION
BASIN DETAIL PLAN
SCALE 1:200
DIAL1100 BEFORE YOU DIG
REV. DATE AMENDMENT DESIGN DRAWN CHECKED APPROVED
A 21.02.2020 PRELIMINARY DRAFT ISSUE B.M. P.B. B.M. N.D.
B 13.03.2020 TURNING HEAD & BASIN MOVED B.M. J.C. B.M. N.D.
C 03.04.2020 FOR TENDER B.M. M.H. B.M. N.D.
D 02.06.2020 MINOR AMENDMENTS B.M. M.F. B.M. N.D.
E 05.06.2020 MINOR NOTE AMENDMENTS B.M. M.F. B.M. N.D.
F 03.09.2020 PCA COMMENTS B.M. M.H. B.M. N.D.
G 14.09.2020 PCA COMMENTS B.M. M.H. B.M. N.D.
H 29.10.2020 PCA COMMENTS B.M. M.H. B.M. N.D.
SCALES
adw johnson
Central Coast
5 Pioneer Avenue,
P.O. Box 3717,
Tuggerah N.S.W. 2259
Phone: (02) 4305 4300
Fax: (02) 4305 4399
email: coast@adwjohnson.com.au
www.adwjohnson.com.au
ABN 62 129 445 398
CLIENT
FRASERS PROPERTY
PROPERTY DESCRIPTION
LOT 5 D.P.740753, LOTS 6-20 D.P.861433
& LOT 100 D.P.1223787
HERRING ROAD & EPPING ROAD
MACQUARIE PARK 2322
PROJECT
PROPOSED SUBDIVISION
PLAN TITLE
BASIN DETAIL PLAN
SURVEYED ADWJ
DATUM AHD GDA 94
PROJECT No. 300001(1) – DISCIPLINE ENG – NUMBER 705 REV. H
DESIGN FILE S:\300001\DESIGN\12D\STAGE 1 CC.project
ALL DIMENSIONS ARE IN METRES. DO NOT SCALE
Plotted By: Mark Hoyland Plot Date: 29/10/20 9:11:02AM Cad File: S:\300001\DRAWINGS\ENGINEERING\CIVIL\STAGE 1 CC ENG\300001(1)-ENG-705.DWG
100mm AT FULL SIZE
This plan includes coloured information, if you have a black and white copy you do not have all of the information. This note is coloured RED.

Figure 5.7.3a

5.7.4 CONSTRUCTION SITE RAINWATER TESTING, TREATMENT AND DISCHARGE

Sediment laden water that accumulates within the site is not to be discharged into any water body or stormwater system without first being tested for pH and turbidity, and treated prior to any discharge. Temporary sump pits will be excavated during the basement bulk excavation, with all water collected to be pumped to the temporary sediment basin. Treatment will occur within the basin prior to discharge. In the event that stormwater run-on from adjacent neighbours enters the site, an investigation will take place. This will involve determining the source of the run-on and creating a plan to effectively manage it.

Groundwater entitlement is not expected to flow into the excavation zones. According to Douglas Partners Groundwater Monitoring report dated 30 July 2018, project 86043.01 Revision 5.005.Rev0, the ground water levels are typically below the bulk excavation levels of the works and therefore groundwater entitlement into the construction excavations is not expected and highly unlikely.

In addition to testing the pH and turbidity of the water a visual inspection (appearance) and smell test for any unusual odour e.g. petrochemical odours.

To ensure this occurs, the following steps will be adhered to by Mainland Civil:

- All dewatering must cease immediately where ANY water quality result falls outside the ANZECC water quality reference values;
- The non-conformance is to be documented and reported to the Site Supervisor;
- Trouble shooting should be undertaken to ascertain the reason for the failure and a second test should be undertaken to confirm or refute the non-conforming result;
- Trouble shooting would need to cover a review of the testing equipment, sampling techniques and the extent of flocculation of the water body;
- No dewatering shall recommence until the water quality results meet the ANZECC water quality criteria.

If the pH of sediment pond water is outside the range of 6.5-8.5, it will need to be treated to bring it

- Within the acceptable range. If the water pH is above 8.5, hydrochloric acid is used to lower the pH. Ensure correct PPE worn – Nitrile gloves, respirator mask, apron and safety goggles and follow relevant SDS and SWMS
- A 500mL dose of acid to 7000L of water will lower the pH by approximately 1.5.
- If the water pH is below 6.5, a base such as agricultural lime, with a pH of about 8.2, will be used to raise the pH.

If the turbidity of water is greater than 50 NTU, a flocculent should be used as follows:

- Treating water with flocculent (e.g. gypsum, liquid alum or flocculent blocks) will make the sediments drop to the bottom.
- Dosing rates of 30kg per 100m3 will be used and application methods will be applied as per methods recommended in the Landcom publication *Managing Urban Stormwater, Soils & Construction* (4th edition).
- Note that an even application over the captured water is essential for effective flocculation. Apply evenly in water and wait for the sediment to settle out.
- Only environmentally safe flocculants are to be used based on the HSE Manager's review of SDS information.

5.7.5 MINIMISING SPOIL REMOVAL AND INCREASE REUSE

Throughout the construction activities Mainland Civil will actively seek opportunities to:

- Minimise spoil removal and associated impacts on stakeholders, community and the environment;
- Maximise the beneficial reuse of spoil material from the Project;
- Address the Project wide objective to provide certainty of delivery by managing spoil in a manner that avoids impacts on construction activities and timing.

Where feasible and reasonable, spoil would be managed according to the following hierarchy:

- Minimisation of spoil generation through design and management
- Reuse of spoil within the construction area
- Beneficial reuse of spoil outside the project for environmental and community works
- Beneficial reuse of spoil outside of the construction area for site levelling, development or rehabilitation
- Disposal of spoil outside the construction area for non-beneficial uses (landfilling)

The soil type including soil physical and chemical characteristic across the site are carefully assessed and recorded to provide information on the type of valuable resource that are available. The majority of spoil that would be generated from the construction activities is expected to meet the classifications of Virgin excavated natural Material (VENM).

5.7.5.1 Spoil temporary stockpile location

Any spoil that is to be reused on site will be stockpiled in the temporary stockpile**.** Material stockpiled will be wetted down to minimise dust. The location of the temporary stockpile position can be seen in Figure 5.7.2d of this report.

Excess spoil would be disposed of at a location that has appropriate approval or licences to accept the material. Solid waste and more highly contaminated materials will not be reused or imported to onsite. Imported materials include; stabilised sand.

5.7.6 EROSION AND SEDIMENT CONTROL INSPECTION CHECKLIST

As part of Mainland's weekly site walk, the site sediment controls are inspected to ensure they are compliant with their design intent. In the event of non-conformance, they will be immediately rectificited and re-inspected by the site supervisor and site engineer. These controls are also visually monitored daily by the site supervisor to ensure they comply. **Figure 5.7.6a** below is an extract of the erosion and sediment control checklist from the weekly site safety walk.

ENVIRONMENTAL Work Health and Safety Regulation 2017 s.57	Y	N	N/A
Risk assessment / hazard register for any new chemicals on site (request HSE Coordinator to assist)			
PH and turbidity readings recorded as required (form 121) prior to discharge			
Silt socks and geofab covering covering storm water drains in good condition			
Site water runoff diverted away from unstable slopes			
Sediment fence does not cause flow/diversion bypass			
Proper arrangements in place for collecting/disposing waste			
Cattle grid has been installed and maintained correctly			
Mud is not being discharged onto roads			
Dust controls in place such as watering of paths and during excavation			

Figure 5.7.6a – Weekly environmental site inspection checklist

In conjunction with the above figure 5.7.6a, extract from the weekly HSE walk, Mainland will implement the Weekly site inspection checklist prepared by the International erosion Control Association (IECA). A copy of this form is located in Appendix C of this Report.

5.8 AIR QUAILITY AND ODOUR MANAGEMENT PLAN

Air quality and odour management plan (AQOMP) is developed to minimise and manage air quality and any potential odours that may arise during excavation works. The following measures will be implemented to mitigate potential odorous materials released and minimise impact on air quality.

5.8.1 Sequence of Works and Staging

Sequencing and staging of works will be geared to minimise the area of excavated surfaces open concurrently for extended periods of time and therefore minimise the impact of potential odours. The construction of internal roads will commence from the south eastern side of the site and progressively move towards Herring road. The existing roads will be maintained for truck access, remaining sealed up until the point of excavation. Any potential odours/contamination sources will be minimised as they will be contained to small work faces as the excavation progresses.

5.8.2 Material Classification and Odour Suppressants

In the event odours are detected, the environmental consultant will be notified and area isolated until the source of contamination/odour is determined (refer to 5.3 unexpected finds protocol). The environmental consultant will provide advice regarding suitable odour suppressing products and their effective application in consideration to all public receivers. Mainland Civil will establish odour suppressant control measures as per environmental consultant's advice whilst the material is tested and waste classification is provided. Once waste classification for the odorous material is obtained, the material will be removed and transported to a facility licenced to accept the waste. The two typical methods that could be used to suppress and control odours would be either natural odour neutralisation via surface treatment, by the integration of enzymes, or chemical neutralisation, where molecules permanently eliminate the odorous air. A misting system can be introduced which uses essential oils and organic plant compounds to neutralise odours.

5.8.3 Stockpile Management and Cartage Control

Effective handling of excavated material and stockpiles onsite are integral to minimising potential odours and dust impacts on air quality. Minimising the transfer of excavated material within the site and loading from the source of the excavation is ideal however when this is not possible and stockpiles are generated they will be limited to 2m in height. If there is a requirement to go higher due to space/loading requirements, material stockpiles will need to wetted during the day and covered overnight Dust control and suppression to be implemented in the form of wetting work areas and stockpiles. All trucks carting material off site will cover their loads prior to leaving the site.

5.8.4 Onsite Monitoring and Recording

Onsite dust monitors will be installed near construction work faces and monitored monthly. As the work faces progress, the monitors will also need to be reinstalled at the relevant locations. Results will be recorded on the dust monitoring register and available at the site office for review.

5.8.5 Proactive/Reactive Management Strategies & Response Mechanisms

Air Quality Indicator	Proactive	Reactive
Dust	Dust suppression techniques, wetting down of stockpiles and any loose excavation material, covering stockpiles	Seize works if excessive dust noticeable. Conduct investigation into source of dust if there is a complaint received. Regular site management meetings to review environmental controls.
Odour	-	Follow unexpected finds process immediately. If odour generating material is known, either remove or treat with odour suppressants. If unknown, investigate where odour is coming from. Conduct investigation into source of odour if there is a complaint received. Regular site management meetings to review environmental controls.
Asbestos (Unknown Finds)	All monitoring results for the project below a fibre count determined by hygienist	Cease works and follow unexpected finds process. Follow asbestos management plan and control measures.
Plant	Use of well-maintained and service plant. Plant operators to conduct daily plant pre start checklists to ensure plant are in well working order with no excessive smoke.	Cease using the plant and consult plant mechanic, Remove or replace machine.

Table 5.8.5: Management Strategies and Response Mechanisms

Air Quality Indicator	KPI	Recording/Monitoring
Dust	No dust to be visible leaving the site boundaries	Weekly Site environmental inspection
	No complaints received over the duration of the project	Complaints Register
	Dust deposition levels below 4g/m2/month per NSW guidelines (Test method as per AS3580.10.1	Monthly Report
Odour	Non detectable odour at boundary	Weekly Site environmental inspection
	No complaints received over the duration of the project	Complaints Register
Asbestos (Unknown Finds)	All monitoring results for the project below a fibre count determined by hygienist	Asbestos Air Monitoring Register
Plant	No excessive smoke	Daily Plant Pre Start Inspections & weekly inspections
	All Plaint Maintained as per manufacturers specification	Plant maintenance records and service history

Table 5.8.6: Key Performance Indicators

5.8.7 Compliance Protocol

Compliance of Air Quality will be measured against the set KPIs that have been outlined in the above Table 5.8.6 Key Performance Indicators. If any of the reactive control measures fail and a noncompliance occurs, the reactive measures will be implemented. All compliances will be reflected in the monthly dust monitoring reports and weekly site environmental inspections.

5.8.8 Contingency Management Strategies

In the event that there is an exceedance of dust depositions obtained within the dust monitoring testing and/or all other air quality and odour influences, the below contingency management strategies will be implemented as part of the AQOMP.

Air Quality Indicator	KPI	Management Strategy
Dust	No dust to be visible leaving the site boundaries	Introduce further dust suppression techniques, wetting down of stockpiles and any loose excavation material, covering stockpiles
	No complaints received over the duration of the project	Conduct investigation into source of dust if there is a complaint received. Site management meeting to review environmental controls.
	Dust deposition levels below 4g/2m2/month per NSW guidelines	Implement further dust suppression techniques and cover stockpiles
Odour	Non detectable odour at boundary	Follow unexpected finds process immediately. If odour generating material is known, either remove of treat with odour suppressants. If unknown, investigate where odour is coming from.
	No complaints received over the duration of the project	Conduct investigation into source of odour if there is a complaint received. Regular site management meetings to review environmental controls.
Asbestos (Unknown Finds)	All monitoring results for the project below a fibre count determined by hygienist	Cease works and review asbestos management plan and control measures.
Plant	No excessive smoke	Cease using the plant and consult plant mechanic, Remove or replace machine.
	All Plant Maintained as per manufacturers specification	Remove the piece of plant from operation until mechanic services/performs maintenances as per manufacturer's guidelines.

Table 5.8.8: Contingency Management Strategies

6 TRAFFIC MANAGEMENT PLAN (TMP)

Through a consultative approach between Mainland Civil and The Traffic Planner Pty Ltd, (Traffic Consultant) this plan details what is considered the best way to manage traffic issues associated with the construction activities. This plan should be read in conjunction with the Traffic Planners CTMP dated 27 November 2020.

Compliance requirements

The purpose of the Traffic Management Plan is to ensure that the construction works adhere to and comply with the General Conditions of the Contract and for control of the movement of construction vehicles, including plant and equipment, around the construction site and adjacent transport corridors. Specifically, this plan will recognise, be consistent with and comply with the traffic configuration of the local road network as it exists at varying stages, during the project. The construction activities for Frasers Property include earthworks, road works and the like.

This Traffic Management Plan includes, but not be limited to mitigation measures identified in the EIS (Environmental Impact Statement) such as:

- Identification of preferred haulage routes;
- Access routes and, signage and access arrangements on site;
- Measures to limit the impact on Foreshore Road and Botany Road;
- Need for restrictions on delivery hours and/or routes;
- Ensure all vehicles entering and leaving the site and carrying a load that may generate dust are covered at all times, except during loading and unloaded. Any such vehicles shall be covered or enclosed in a manner that will prevent emissions of dust from the vehicle at all times; and
- Ensure that all dust source surfaces are sealed.

In addition to the above, this TMP must also comply with:

- The requirements of Frasers Property and relevant authorities, including RMS, Police and State Emergency Services;
- Road Act 1993 (NSW) and all other legislative requirements;
- Certificates, licences, consents, permits and approvals, including in respect of working hours.

Objective

The objective of the plan is to ensure that the traffic movements of both plant and equipment, and vehicles are managed with minimal minimise the impact on residents and/or commercial enterprises on traffic routes.

Scope

The main element of the work with respect to the traffic management is:

- Traffic Management while construction vehicles are entering and exiting the work zone.
- Control of movement of vehicles carrying construction plant/equipment, parking and adjacent traffic corridors.
- The plan must recognise, be consistent with and comply with the traffic configuration of the local road network as it exists at varying stages, during the project.

Staging plans and proposed traffic control sequence of the construction activities

The Work Area listed below, itemises the on-site construction activity and its relationship to traffic management.

Table 6.0 – Traffic Sources and Mitigation Methods

Activity	Environmental Impact pre-control measures	Control Measures
Access to and egress from the construction site	Disruption to public traffic flow	- All site access and egress will require traffic control in accordance with the Roads and Traffic Authority Guideline Traffic Control at Work Sites, and Australian Standards 1742.3 Manual of Uniform Traffic Control Devices, Part 3: Traffic Control Devices for works on Roads - Assessment by Commercial Traffic Control Pty Ltd, (Traffic Consultant) reported the movement of trucks to and from the construction site is expected to have no negative impact to the public - Site induction includes the restricted hours (refer to section 2.2), and provide strict instruction to all vehicle drivers - Pre-shift toolbox talks – the Site Manager will routinely review the strict TMP instructions - Modification to existing traffic patterns providing safe access for all vehicles (refer to figure 1.10) - Traffic controllers to monitor and report precinct traffic tailback and any general congestion or disruption to the public. - Designated muster point for trucks prior to coming to site - Weekly meetings will be held by Mainland Civil's site management to resolve and mitigate any identified issues - Construction vehicles will enter/exit the construction site solely via the construction gate known as the Mainland Civil site gate - There will be no need for traffic diversions - No heavy vehicle will be permitted to queue on public roads - Routinely monitor traffic conditions (Site Manager) - If needed, Mainland Civil will liaise with Frasers Property resolve any traffic issues - Mainland Civil's HSEQ package to be issued to each contractor
Emergency services access to the construction site	Delayed response due to unfamiliar site entry	- Ensure appropriate notification to local emergency services - In the event of an emergency refer to Appendix D – Emergency Management
Volume of trucks entering / leaving the construction site	Traffic disruptions	- Estimated volume of construction vehicles is expected to vary with the work sequence activities. At peak, it is estimated there will be approximately 75 to 100 movements per day - Trucks are not to lay over in or around any surrounding roadways - Designated muster point for trucks prior to coming to site
Trucks carting material from site	Dust emissions and debris falling from vehicles	- Haulage contractors to be provided with Mainland HSE documentation including traffic control plan and haulage muster points prior to entering site includes follow designated routes and deliveries made within the restricted hours - inducted to the construction site - All trucks entering and leaving the site and carrying a load will be covered all times, except during loading and unloaded

		- Routinely inspect external roadways for dust / debris and if required arrange a road sweeper - Ensure all dust source surfaces are sealed and/or the generation of dust minimised (refer to section 5.5, Dust Management Plan)
Delivery of materials / equipment to the construction site	Accessing the construction site incorrectly as unfamiliar with the location	- Haulage contractors to be provided with Mainland HSE documentation including traffic control plan and haulage muster points prior to entering site includes follow designated routes and deliveries made within the restricted hours - Mainland Civil's HSEQ package to be issued to each supplier / delivery subcontractor - There will not be a dedicated works zone with all deliveries being loaded and unloaded entirely from within the work site - All construction works and deliveries will be taken from within the construction site boundaries
Construction vehicle breakdown along one-way access roadway to the construction site (considered unlikely)	Block construction vehicles from accessing / egressing the construction site	- The stalled vehicle will be towed from the construction site by an emergency response/recovery vehicle

7 HEAVY VEHICLE MANAGEMENT (SUB –PLAN)

Introduction:

Mainland Civil is committed to addressing the obligations aligned in the Chain of Responsibility in the day to day operations of the business. The heavy vehicle Management Plan, defines Mainlands intended processes, communicates the content and business structure and is in parallel with the standards of ISO 9001 (Quality) AS/NZS ISO 45001 (Safety) and ISO 14001 (Environmental).

The concept of chain of responsibility is to hold all parties with any control or influence over the transport task responsible for their actions or inactions where they have control or influence over the transport task

Key definitions:

Chain of Responsibility: A policy concept used in Australian transport legislation to place legal obligations on all parties in the transport supply chain.

Consignee- the receiver of goods

Consignor: the sender of goods

Heavy vehicles: Any vehicle over 4.5 tonnes gross vehicle mass (GVM) required to operate on public roads

Loader: A Worker who loads or unloads a road transport vehicle

Loading Manager: A Worker who supervises loading/unloading, or manages the premises where this occurs

7.1 LEGAL AND OTHER REQUIREMENTS

Mainland Civil have appointed a HSEQ National Manager to ensure inclusion of legislative reference in Heavy Vehicle Management System, Safe Work and Environmental Methods Statements (SWEMS) and Standard Operation Procedures (SOP's). Changes to legislation are incorporated in HSEQ documentation in consultation with Site Supervisors, Senior Management, Resource Manager and Subcontractors. These changes are communicated to employees and subcontractors through; revised Safe Work and Environmental Method Statements (SWEMS), tool-box discussions and staff training on Heavy Vehicle compliance and subcontractor audits.

This management system sets out processes and procedures to allow the user to comply with the following Acts, Regulations and nationally accredited schemes:

(a) Heavy Vehicle National Law 2013
(b) Road Transport (General) Regulation 2013
(c) Heavy Vehicle (Fatigue Management) National Regulation (NSW)
(d) National Heavy Vehicle Accreditation Scheme modules
- Mass Management
- Maintenance Management
- Basic Fatigue Management

The heavy vehicles law includes:
- Mass, dimensions and load restraint
- Speed and fatigue
- Heavy vehicle standards
- Dangerous goods

7.2 ROLES AND RESPONSIBILITIES

For effective implementation of the HVMS, experienced members of the Mainland team will be assigned roles for the management of safety, environmental and quality. All Managers and Site Supervisors will be responsible and accountable for the effective implementation of the WHSEQ aspects and as such the defined responsibilities are:

General Manager: Stuart Muir

- Ensure the business operations are conducted as per the statutory obligations of the applicable laws and legislative requirements of the position
- The business activities are conducted with knowledge of all known risks and other risks that may be controlled through a formal reporting process.

Construction Manager: Brett Talbot

- Engage staff and contractors to ensure they are aware of the required compliance obligations to be suitably selected to perform the task either permanent or full time
- The implementation of all administration processes and approved staffing levels reflective of the needs
- Identification of system verification requirements and allocation of human, technical and financial resources adequate to meet those needs
- Ensuring that safe working and fatigue practices and procedures are implemented and adhered to as per the policy and HVNL

National HSEQ Manager: Ron McGeoch

- Review the management practices to measure the required outcomes as determined and required for the business to maintain financial stability and fulfil all obligations.
- Ensure risk management principles are applied to all areas of works within the business
- Approve all internal and system documented changes and assign responsibilities to deliver
- Ensure the business operations are conducted with the requirements under Chain of
- Responsibility and all staff and workers have the opportunity to undergo training and increase their skills
- Acquiring and disseminating WHS&R and fatigue information to advise staff and workers

Project Manager: Tim Saviane

- All records (such as cartage and tip dockets) are kept and secured with all records of business related activity.
- Delays that are encountered during a trip process, loading and unloading is assessed and alternate arrangements are made and communicated as required.
- Vehicles and equipment are not overloaded through process, workers are appropriately managed and safety is a key focus In every task and system process
- Conducts meetings with Project Site Team and Systems Manager/Coordinator and all other site personnel at separate but

HSEQ Manager: Mitch Cole

- Records are kept and secured and all records of business related activity, purchasing, maintenance repairs, work related or driving (including rest times) are recorded and reviewed.
- Vehicles and equipment are not overloaded through process, workers are appropriately managed and safety is a key focus In every task and system process
- Periodic reviews and audits of the business activities are conducted and any reoccurrence of incidents are known and controls applied.
- Encouraging reporting of all incidents, accidents and personal injuries, ensure the appropriate forms are completed and the investigation is concluded when requires

- Ensuring that the Driver Fatigue Management Plan is fully implemented and reviewed on an ongoing basis
- Investigating incidents and accidents and initiating corrective (preventative) actions

Resource Manager: Bill Ambesi

- Holding regular meetings with the contractors to discuss transport compliance
- Ensuring and overseeing all sections of the HVNL are complied with
- Delays that are encountered during a trip process, loading and unloading is assessed and alternate arrangements are made and communicated as required.
- Ensuring that the Driver Fatigue Management Plan is fully implemented and reviewed on an ongoing basis
- Investigating incidents and accidents and initiating corrective (preventative) actions

Site Supervisor/ Receiver:

- Vehicles send equipment do not exceed mass or dimension limits when scheduling loads or travelling on vehicle specific routes.
- Vehicles and equipment are not overloaded through process, workers are appropriately managed and safety is a key focus In every task and system process
- Investigating incidents and accidents and initiating corrective (preventative) actions
- Assist the Project management team in the develop of a risk assessment and SWEMS on each high risk activity within Mainland Civil's scope of works, in relation to their safety hazards and environmental impact
- Engage suitable suppliers engaged to perform any service are suitable, competent and legally able to perform the task as required, with consideration to Fatigue and other influences
- Do not exceed vehicle dimension limits and goods provided are prepared with consideration of the loading and movement
- Do not exceed vehicle mass limits, when in control of the loading process
- Goods and material are appropriately secured to the vehicle when in control
- A suitable safe area is provided to allow any worker, persons of other to conduct the work safely and with consideration of the environment
- Information about the Goods or materials is provided as required to ensure conformance

Worker (heavy Vehicle Person) or driver

Must ensure that all reasonable steps have been taken or applied to:

• Your Fit for Duty, competent, have been provided training, information and resources that is required to perform the task safely

• Your vehicle or equipment does not exceed mass limits and verification must be conducted prior to accessing any public roadway or operated

• Your vehicle, equipment and loads do not exceed dimension limits and the control of loading is your responsibility and instruction as provided

• Your load is appropriately restrained, equipment and other resources are suitable and fit for use

• Conduct a Pre-trip inspection of the vehicle and record this process, more than once per shift and report any required repairs or faults required through the process

• Operate the vehicle and trailing unit/s as per manufactures instruction and knowledge of safe operation

• Part take in training and provide feedback of any workplace issue that may have impact negatively on the business and/or individuals.

Loaders (Operators)

Ensure that a vehicle's load, part there of or placement of any items:

• Do not exceed vehicle dimension limits and goods provided are prepared with consideration of the loading and movement

* Being familiar with axle combination and gross weight of vehicles always whilst operating within our supply chain.

• Does not exceed vehicle mass limits when placing goods or materials

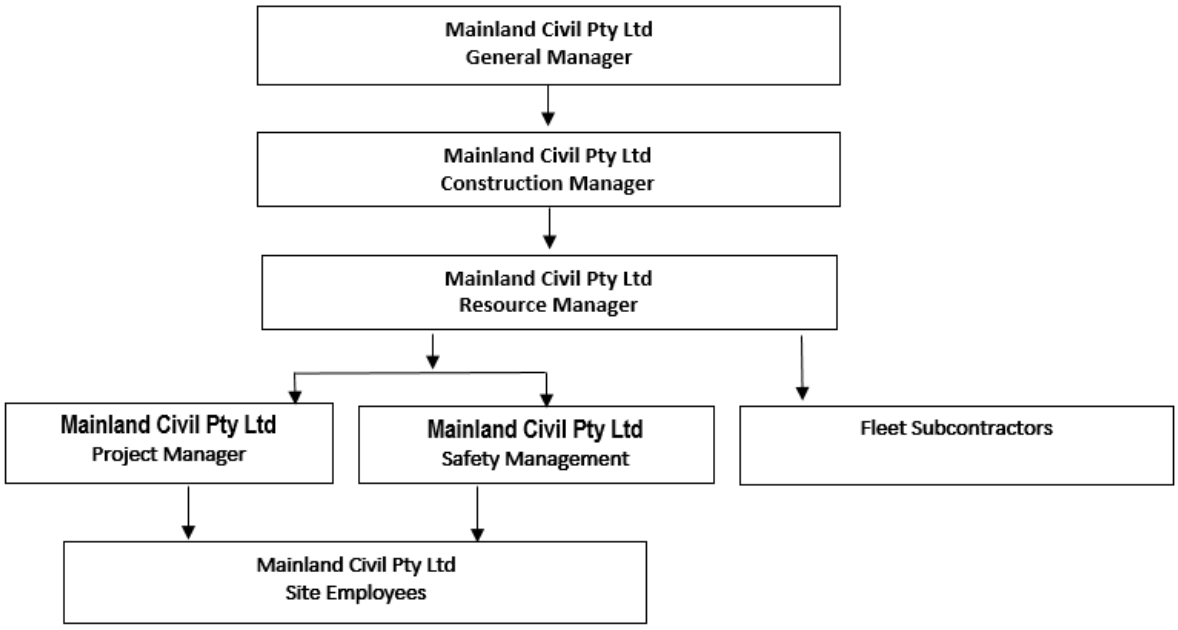
• Is placed in a way that it does not become unstable, move or fall off the vehicle

• Documents about the vehicle's load is not false or misleading and are provided as evidence

• Any loaded materials do not cause the gross weight or safety approval rating to be exceeded

• Loading is conducted with safety considered as a priority

RESPONSIBILITIES AND REPORTING ORGANISATION CHART



7.3 TRAINING AND COMPETENCIES

All people are to be made aware of this management system's objective and undertake specific training in the duties that they are to be responsible. Directors will ensure only appropriate people undertake duties of responsibility and only after competence in those duties has been fully demonstrated.

Consultants

Our company will seek and obtain advice on road transport compliance only from consultants who have suitable and appropriate experience.

Staff

All Mainland staff involved in heavy vehicle activity will undergo an induction program prior to the commencement of an assigned duty. The induction will include training in:

- The contents, objective, and general intent of this management system
- Their specific responsible duties

Refresher Training and driver assessment

It is expected that drivers are to undergo regular ongoing training with their company. This includes refresher training which will include training in specific duties and general system training. Upon training is successfully completed, Training Records are to be made available for Systems Audits from Mainland Civil.

7.4 MANAGING SUBCONTRACTORS (HEAVY VEHICLES)

Prior to Mainland Civil contracting a transport company (in accordance with Mainland Civil's Heavy Vehicle Service Agreement) they will need to become prequalified to show that they comply with the HVNL and have the capability of servicing Mainland Civil Pty Ltd construction sites. This will be.

The prequalification will include but not limited to submitting documented evidence such as:

- A safety management system

- A fatigue management policy

- Maintenance records for any trucks supplied to Mainland Civil

- Insurances for the trucks supplied to Mainland Civil Pty Ltd

- Copies of drivers licences.

The subcontractors Cartage SWMS's are requested prior to works for all high-risk activity and are reviewed and evaluated by the site engineer prior to commencement of works .The site engineer will use the HSE *Form HSE-131 Subcontractor SWMS Review Checklist* to carry out this review and evaluation for their effectiveness and that they comply with Mainland Civil's (HIRAC) processes.

Drivers are required to read and sign the Heavy Vehicle HSE Induction (provided in the Heavy Vehicle Service agreement) which outlines drives site responsibilities and compliance with Mainland Site rules. This will be inspected as part of Mainlands bi-annual contractor audit.

7.5 PENALTIES FOR BREACHES OF HEAVY VEHICLE LAW?

If you are in breach if the HVMS a number of actions or penalties may be taken against you, depending on the severity of your breach. You may, for example be subject to:

- Warnings/education
- Improvement notices
- Infringement/expiation notices
- Court imposed fines
- Supervisory invention orders
- Road compensation orders
- Commercial benefits orders
- Prohibition orders
- Licencing and registration sanctions

7.6 FATIGUE MANAGEMENT:

Mainland Civil are committed to providing a safe place of work for all staff and workers, subcontractors and visitors under our control. Mainland will ensure that it abides by the regulations and obligations related to proper performance, as per the statutory requirements of the relative laws.

AIMS AND OBJECTIVES

• The elimination of risks and unsafe work practices caused by impaired or fatigued workers

• Compliance with the Workplace Health and Safety Act 2011, Heavy Vehicle National Law and including Fatigue Laws and regulations

• Ensure all shifts and rosters and working hours are consistently reviewed with knowledge and awareness of risks associated with fatigue in the work place

Mainland Civil recognises that the overall responsibility to provide a safe workplace, rests with management who will be accountable for the implementation of this Fatigue policy and business processes. These responsibilities include –

• Ensuring fatigue related information is communicated and implemented

• Establishing measurable objectives and targets to ensure continued improvement aimed at the elimination of work-related fatigue risks

• Providing adequate resources to meet these WHS commitments.

Workers also have responsibilities, which will include –

• Ensuring their actions do not affect the safety of all other workers or persons.

• Their fitness for duty is maintained at all times and fatigue is to be considered as a priority.

• Comply with all safe work instructions, provided either verbally or formally.

• Participate in the controls applied to risks in the workplace to reduce the risk of fatigue related incidents.

• Participate in training and communicate regularly if any fatigue related issues could affect your work.

7.7 SPEEDING MANAGEMENT:

Mainland Civil is committed to ensuring that vehicles and or assets purchased or contracted are to be controlled with the latest on-board technologies when applied to assist in speed management. Therefore, part of the Mainland Civil Pty Ltd obligation is the commitment to the provision of a safe workplace for its drivers, staff and importantly the public. Management has a duty that extends to protecting all stakeholders from unnecessary risks, that can have controls applied and therefore decreased the risks.

AIMS AND OBJECTIVES

Mainland Civil Pty Ltd endeavours to achieve the following-

- Purchase vehicles and assets that are fitted with new technology aligned with Speed Limiting devices

Driving schedules are prepared with regard to the following:

- Ensuring that speed compliance is included always and as part of any contractual requirement.
- Legislative requirements for maximum work hours is considered for required routes to be used.
- Consultation with drivers to confirm they are able to safely complete the work allocated without speeding.
- Planning for unexpected delays to complete journeys without speeding and consideration of delays.
- Sufficient rest breaks, including personal activities such as hygiene, eating meals and travelling to or from the depot or site.

The company will investigate instances of worker's detected speeding through electronic or reported process. Workers are educated about not speeding and reporting speed related issues such as faults with equipment, Infringements or Non-Conformance. Workers are provided with regular reminders about the importance of working together to ensure compliance with these new laws, including toolbox sessions and internal staff training.

HEAVY VEHICLE RISK REGISTER

Description of hazard	Consequence	Likelihood	control measures	Residual likelihood	Responsible person
individual/ vehicle struck by truck	death, disability, hospitalisation of worker	Possible	- Truck ingress and egress according to traffic management plan - Any reversing vehicles must have spotter, trucks to follow one-way direction with turn circle - The loading platform must be clear of personnel before the truck enters the site. - The loading platform is a no-go area for personnel during load out. - The traffic controllers shall set up temporary barriers on either side of the driveway to stop pedestrians on footpath whilst the truck enters site as per traffic control plan and traffic control instructions -At all times during truck ingress, traffic controllers shall maintain a watchful eye for vehicles, plant, workers or pedestrians that may move into the path of the truck. - Use jersey kerbs to control flow of pedestrians and direct them to cross in safe designated area. - Use 2 way radio to ensure adequate communication for controlling trucks and pedestrians in shared areas. - Ensure truck ingress complies with approved traffic control plan - Site vehicles not to exceed 5km/hr on site	unlikely	professional driver, spotter, site supervisor
Speed	Traffic accident or speed breach	Possible	. Drive to the road conditions and always obey advisory signs. - Speed signs are to be adhered too. Drivers to wear seatbelt fitted - Consistently visually inspect instruments and operate vehicle as per manufactures manual	Unlikely	professional driver
Fatigue	Driver fatigue-accident	Possible	- Director or scheduler has knowledge and understanding of fatigue laws, which allow distribution of workload across other workers. - Share early starts across workers, to allow longer periods of rest. - Minimise shift changing to allow continuous patterns of shift work. - Regular contact with workers, assess signs of fatigue in each worker individually. - The scheduler controls professional drivers operating under standard and bfm hours. - Training provided and list of various fatigue symptoms known to workers.	Unlikely	professional driver director or scheduler

Manually loading/unloading material from vehicles	injury to back or other muscle damage	Possible	-Practice safe lifting measures and techniques at all times. - All drivers to undergo manual handling training.	Unlikely	plant operator, site supervisor and all site personnel
Working at heights (unloading of materials)	severe injury or fatality	Possible	• always maintain 3 points of contact, all times during the process • check the ground conditions prior to entering or exiting the vehicle or equipment • take extra care in wet conditions as the steps, foot landing areas may be slippery • wear appropriate footwear and ensure this is fitted correctly • do not twist to look around whilst entering or exiting from the vehicle • only use approved hand and foot holds/steps and never jump from any point during the process	Unlikely	professional driver
site traffic management	death or disability of worker	Possible	• all drivers to follow designated tcp and designated haul route on site • Barriers and signage is to be erected onsite prior to the commencement of works, this is to designate pathways and access ways.	Unlikely	site supervisor all site personnel
unauthorised vehicles entering site	death or disability of worker being struck be vehicles	Possible	• signage to be displayed at site entrance 'do not enter-authorised personnel only' • truck vehicles registrations are to be issued from mainland resource manager to site supervisor daily • All vehicles are to park in designed muster point prior to entrance to site. a mainland site rep is sent to the muster point to control the traffic flow of trucks into site and confirm registrations • all drivers are to maintain communication with traffic control and site supervisor- radio channel 24 • Traffic control to monitor all vehicles entering site by registration. • Any unauthorised vehicles that enter the site are to immediately remove the vehicles off site with the assistance of traffic controllers. Vehicles is to continue along the one-way road system and turning circle and avoid reversing if possible. • site vehicles not to exceed 5km/hr on site	Unlikely	site supervisor/ traffic controller

vehicle tipping from uneven load overloading	death or disability of worker damage to vehicles	POSSIBLE	• truck weight to monitored through excavator weight scales • site supervisor to arrange truck and dogs to commute to designated weigh bridges to confirm mass of load and required number of buckets to fill truck and dog on a daily basis • vehicle to be positioned on level surface when loading • loading of the truck and dog from front-to –back must meet allowable gross weight limitations of vehicle • if the truck is overloaded, the supervisor is to be informed and the truck will be permitted to unload at a designated unloading zone • unloading zone to be supervised during task with exclusion zone installed with barricades	rare	site supervisor all site personnel
site emergency evacuation	possible	Death or disability of worker	In the event of a site evacuation all site personnel (including heavy vehicle drivers) will be required to exit their vehicles and switch of any plant or vehicles. they are then to follow the instruction of the nominated chief fire warden to the nearest site emergency meeting point	rare	site supervisor all site personnel
Dust from vehicles moving around site.	possible	Air born dust polluting the air. damage to lungs, eye irritation, eye damage	• suppress dust plumes using a water cart or gernie • • • • •Task specific ppe such as dust masks to be worn when required. • Regular noise monitoring to be carried out. • appropriate eye protection, face shield or goggles as required • works only to be carried out during designated work hours	unlikely	site supervisor all site personnel
chemical spills	possible	oil running into drains and waterways	• spill kits to be maintained and readily available on-site at all times • Fuel cage must have a base tray with a capacity greater than the volume being stored (120% of max capacity). • fuel is to be kept in sealed containers and clearly labelled and placed on an even surface • Fuel cages are to be accessed by authorized personnel and adequately secured. • appropriate warning signs to be displayed on fuel cages at all times • All grated drains are covered and protected to prevent entry of fuel spills. • fire extinguish funnels to be used when refuelling and be securely placed in the plant/equipment prior to refuelling • funnels and spill kits are to be maintained and readily available at all times • all trucks fuel trucks exiting site are to exit through designated wash bay zone with water	rare	site supervisor all site personnel

			gerni, cleaning any debris from wheels • sds and risk assessment for all hazardous chemicals to be stored • certified first aid office available on site at all times • Plant and float are to be maintained as per manufacturer's specifications. • commencing		
mudding of public carriageway	possible	soiling of public road / footpath runoff of water from work zone unfit for discharge into public stormwater system	• trucks to enter/exit site over asphalt road to minimise dust • truck wheels to be hosed down prior to existing site if required • do not cart out if prevailing weather conditions may saturate material to the itp of leaking from trucks and dribbling onto the public carriageway. • while there are gaps in between the loading of trucks and at the end of the loading operation, the loading area and street (if required) is to be cleaned up by means of shovels and brooms/ water gernie or street sweeper. • trucks to cover loads before moving off. sediment sock to line edges of each stormwater drain around work site as per control plan	unlikely	site supervisor all site personnel
noise from vehicles & plant moving around site	possible	hearing loss, noise disturbance	• noise levels to be regularly monitored and personnel are to wear class iv or better ear plugs if levels exceed 85dba • regular noise monitoring to be carried out. • works only to be carried out during designated work hours noise from plant to kept within 85db when being operated near residential buildings or sensitive receivers	unlikely	site supervisor all site personnel

8 APPENDICES

8.1 APPENDIX A – MAINLAND POLICIES

WHSE CONSULTATION POLICY

Mainland Civil has the overall objective of providing a safe and risk free work environment for our employees, clients, subcontractors, the public and other stakeholders affected by our operations.

Mainland Civil will consult our employees in implementing safety practices and systems. Employee involvement at all levels is critical for ensure a safe workplace.

A WHSE consultative has been established with WHSE representatives from all Mainland Civil work groups.

WHSE REPRESENTATIVES

The employees WHSE representatives are elected at an annual meeting each year to represent all other Mainland Civil workers. The WHSE representatives have been elected in accordance with the procedures agreed between Mainland Civil and their employees.

WHSE COMMITTEE

The WHSE committee shall consist of two employee members and two employer representatives. All consultative meetings shall be chaired by Mitchell Cole and Trevor Turnbull.

The WHSE committee shall consult with all employees who work for Mainland Civil.

The WHSE committee will meet quarterly during the year and will assist with the development and monitoring of safe work practices and systems, and discuss issues that affect the health, safety and welfare of all Mainland Civil employees.

Robert Dahan
Managing Director
July, 2020

DRUGS & ALCOHOL POLICY

At Mainland our goal is to have a drug and alcohol free workplace on all construction sites.

All employees and subcontractors are to conduct themselves in a way that does not cause risk to the health and safety of their fellow colleagues, suppliers, consultants and any visitors.

All site personnel are not to consume or be under the influence of drugs or alcohol on any work site. Drugs and alcohol are prohibited from all construction sites inclusive of meal breaks.

Mainland holds the right to carry out drug and alcohol testing of employees and subcontractors during work hours.

It is the responsibility of workers to:

- Comply with these guidelines; and
- Inform the company and request assistance if they have an ongoing Drug or Alcohol problem or addiction that is likely to adversely affect their work performance.

Workers must observe statutory limits for drug and blood alcohol content while operating:

- Any company vehicle, or
- Any vehicle operated on employer business to work, from work, during work or to and from any work-related function.
- Operating Plant and Equipment on Mainland Sites.
- Whist engaged in construction activity on site.

Process of testing is set out in the company Drug and Alcohol Policy Procedure.

Robert Dahan

Managing Director

July, 2020

ENVIRONMENTAL & SUSTAINABILITY POLICY

At Mainland Civil our objective is to embrace practices and principles that are designed to reduce adverse environmental impact. The Company's goal is to provide complete environmental protection. To attain this goal, our aims are to:

- Comply with all relevant government legislation, policies and planning instruments, ISO14001:2015 and by meeting obligations required for Australian Government environmental and sustainability reporting

- Set environmental and sustainability objectives and targets to ensure continuous improvement.

- Identify and manage risks for work activities to minimise impacts on the environment.

- Seek to minimise construction related aspects and impacts including noise, vibration, groundwater, air quality, land contamination, amenity and heritage.

- Prevent unnecessary resource consumption by mainlining systems and processes which facilitate the more efficient use of energy and material resources and improved waste management, waste avoidance, re-use and recycling.

- Providing training and support for staff to adopt environmental and sustainability principles and practices to achieve sustainable behaviour change in the workplace.

- Communicate and make this policy available to staff and interested parties and encourage stakeholder engagement.

As Managing Director of Mainland Civil, I am committed to a policy of environmental improvement and accordingly direct all staff, subcontractors and suppliers associated with company activities to recognise, contribute and abide by this commitment.

Robert Dahan
Managing Director
July, 2020

INJURY MANAGEMENT POLICY

At Mainland Civil, our goal is to provide the highest possible standards of safety, health, welfare and injury management in all company related activities.

Mainland Civil is committed to ensuring that all employees who sustain an occupational injury are provided with medical diagnosis and treatment.

Where an employee suffers an injury and is advised by the treating doctor that they cannot return to pre-injury duties, then Mainland Civil will commence the injury management process. Mainland Civil in conjunction with the consulting doctor, insurer, employee and the injury management provider will produce a return-to-work plan for the employee.

Mainland Civil expects all employees to co-ordinate with our rehabilitation efforts to ensure the success of the rehabilitation process. It is acknowledged that by creating a workplace climate that supports workplace based injury management will in turn assist the injured employees returning to work as soon as possible.

Robert Dahan
Managing Director
July, 2020

QUALITY POLICY

At Mainland Civil our objective is to embrace quality practices and procedures to satisfy the needs and expectations of our clients. Our approach to quality recognizes the need for continual improvement in our performance, to enhance the Company's reputation to clients and within the industry. To attain this objective, our aims are to:

- Apply standard procedures that ensure compliance with our client's requirements;
- Provide each Mainland Civil employee with appropriate training to enable competent performance of their duties;
- Comply with all laws, regulations, ISO 9001:2015 Standard and other applicable requirements;
- Establish, maintain and review our quality objectives and techniques to ensure continual improvement in our procedures and methodologies.
- Mainland Civil will ensure that this policy will be made available to relevant interested parties.
- Mainland Civil is committed to satisfy applicable requirements.

As Managing Director of Mainland Civil, I am committed to a policy of quality management and accordingly direct all staff, subcontractors and suppliers associated with company activities to recognise, contribute and abide by this commitment.

Robert Dahan

Managing Director

July, 2020

WORKPLACE HEALTH & SAFETY POLICY

At Mainland Civil our goal is to provide the highest possible standards of health, safety and welfare in all Company related activities.

Our approach to workplace health and safety is one which recognises the need for continuous improvement in performance through training, knowledge and commitment of our workforce. To attain this goal, our aims include:

- Providing each Mainland Civil employee with appropriate training and equipment to enable performance of duties in a safe manner.
- Applying documented procedures that reduce the risks and hazards resulting from any operation.
- Complying with all WHS laws, WHS Regulations, ISO 45001:2018 Standard and all other applicable requirements.
- Consulting with workers on concerns, aspirations and values for health and safety issues related to company developments and operations.
- Establishing measurable objectives and targets to ensure the continual improvement and reduction in work related injuries and incidents.
- Ensure that systems are in place to effectively manage safety, including the development and implementation of safe work practices, safe plant and equipment.
- If safety is compromised, relevant work is to be suspended until a safe work environment is restored.

As Managing Director of Mainland Civil, I am personally committed to the improvement of safety practices within the industry. I direct all staff, subcontractors and suppliers associated with all company activities to recognise, contribute and abide with company commitment for the prevention of all accidents in the workplace.

Robert Dahan
Managing Director

July, 2020

WORKPLACE HARASSMENT

At Mainland Civil our goal is to provide the highest possible standards of safety, health and welfare in all Company related activities.

Our approach to Workplace Harassment is one that recognises the need to discourage any form of workplace bullying, harassment or discrimination. All employees are responsible for actively intervening to prevent and stop any bullying behaviour that is occurring in their workplaces, whether or not a complaint is received.

Mainland Civil will not tolerate any form of Workplace Harassment that may include but not limited to the following:

- Behaviour aimed to demean, humiliate or intimidate employees either as individuals as a group.
- The less favourable treatment of a person by another in the workplace, beyond that which may be considered reasonable and appropriate workplace practice.
- Unwelcome and unreasonable behaviour that creates a hostile, uncomfortable, atmosphere leading to stress.
- Continual unjustified and unnecessary comments about an employee or colleague, their work, capacity for work, gender or personnel matters.

As Managing Director of Mainland Civil, I am committed to ensure that no Workplace Harassment occurs at our places of work to either our employees or subcontractors under our control.

Robert Dahan
Managing Director

July, 2020

INDUSTRIAL RELATIONS MANAGEMENT POLICY

Mainland Civil Group's objective is to comply with all applicable Industrial Relations Laws, codes, awards and regulations within each state Mainland operates. Our approach to Industrial Relations is to always comply with the Industrial Relations Instruments, including the Workplace Relations Act 1996 and extends to:

- Work collaboratively with all project stakeholders and Industry parties.
- Provide each Mainland Civil employee with appropriate training in any Industrial matters that may arise on the sites and within the company
- A commitment to the principals of the individual industrial government guidelines.
- Maintain and review this Industrial Relations Policy on a regular basis.
- Mainland Civil will ensure that this policy will be made available to relevant interested parties.
- Maintaining a harmonious relationship with all industry stakeholders.
- Uphold the principal of Freedom of Association.

As Managing Director of Mainland Civil, I am committed to this Industrial Relations Policy and will direct all staff, subcontractors and suppliers associated with company activities to recognise, contribute and abide by this commitment.

Robert Dahan
Managing Director
July, 2020

8.2 APPENDIX B - PROJECT SAFETY AND ENVIRONMENTAL RISK REGISTER AND CONTROL MEASURES

Consequence	Description	Likelihood	Description
Extraordinary	Catastrophic impact on project. Major incident involving fatalities or permanent disability; toxic release of chemicals, long-term environmental impact; loss of property; very high financial loss	Almost Certain	The event/impact is common and expected to occur in most circumstances *(will occur regularly / 10 times for year)*
Major	Major negative impact on project; Serious injury or disease to workers or the general public; medium-term environmental effects; major property damage; loss of production; high financial loss	Likely	The event/impact has happened before and will probably occur again *(will occur often / 5-10 times per year)*
Moderate	Significant negative impact on project; Medical treatment requiring several days off work; spillage contained with outside assistance; significant property damage; medium- financial loss	Possible	This event/impact could occur at some time *(is likely to occur few 2-3 times per year)*
Minor	Minor negative impact on project; minor injury requiring First aid treatment; spillage contained on site; moderate property damage; low-medium financial loss	Unlikely	This event/impact is not likely to occur *(is unlikely to occur more than once per year)*
Insignificant	Insignificant negative impact on project; No injuries; Minor property or environmental damage; very low financial loss	Rare	This event/impact may occur in exceptional circumstances only *(is unlikely to occur during a year)*

Hazards Against each step	Raw Risk			Control Measures For each of the identified list the control measures required to eliminate or reduce the risk so far as reasonably practicable	Residual Risk			Role Responsible
	Consequence	Likelihood	Risk		Consequence	Likelihood	Risk	
Individuals struck by plant /delivery trucks moving around site	Extraordinary	Likely	death or disability of worker	• hold regular toolbox talks to inform site personnel of new works/access and plant operations • operators to have relevant plant licence and voc • cartage contractor to be consulted in determining the optimal means of site entry/exit and the loading area arrangement suitable for truck and dog. • use traffic control/spotter to co-ordinate movement of trucks into work area, when other machines or individuals are present. • pre start checks on the machine prior to work beginning on stable, level ground. • plant and vehicles to be fitted with yellow flashing light, reverse signal or beeper and horn in good working order • plant /trucks not to exceed 10km/hr on site and follow traffic management plan route • minimise work on foot, remove unnecessary personnel from work area • do not walk in front of or behind the plant while it is in operation. • do not approach moving plant; wait until the plant has ceased operation and signals for you to approach before approaching. • plant operators are to be aware of current entry and exit points for the work area. • machinery and trucks must operate at a safe and manageable velocity (<10km/h). • all machines and trucks are to operate with flashing lights that must be in use at all times whilst on site.	Extraordinary	Rare	death or disability of worker	plant operator, site supervisor and all site personnel

Hazards Against each step	RAW RISK			control measures for each of the identified list the control measures required to eliminate or reduce the risk so far as reasonably practicable	Residual Risk			Role Responsible
	Consequence	Likelihood	risk		Consequence	Likelihood	risk	
truck striking an individual (delivery to site)	Major	Likely	death or disability of worker broken bones, serious injury minor injury	• cartage contractor to be consulted in determining the optimal means of site entry/exit and the loading area arrangement suitable for truck and dog. all trucks must adhere to routes identified in traffic management plan and tc instructions • spotter with spotter vest) and operator must remain in constant contact via radio or eye contact with all plant and delivery trucks • all trucks to be fitted with audible reversing beacons. • all personnel are to keep a vigilant watchful eye for each other and spot for co-workers on site. • truck drivers shall adhere to the minimum ppe requirements if they exit vehicle-high vis apparel, hard hat and steel capped boots. • any reversing vehicles must have spotter • ensure that there is unrestricted vision between yourself and machine whilst working in the same area. • use of trained person as spotter. • prior to plant working on project site, all plant must have a plant daily pre-start checklist (hse-120), plant maintenance record (hse-145) and plant hazard & risk assessment (hse-132) completed and approved. • excavators are only to travel in the direction that the cabin is facing. • a dedicated spotter must ensure that all personnel are clear from the area of travel and that the excavator is safe to move. • spotter (with spotter vest) and operator must remain in constant contact via radio or eye contact with all plant and delivery trucks • delivery driver to remain in vehicle at all times unless instructed by otherwise by site supervisor. if exiting the vehicle, driver must wear correct ppe as per site requirements • when working near the exclusion zone ensure the operator has visually seen you and is aware of the activity taking place	Major	rare	death or disability of worker broken bones, serious injury minor injury	site supervisor all site personnel

Hazards AGAINST EACH STEP	RAW RISK			control measures for each of the identified list the control measures required to eliminate or reduce the risk so far as reasonably practicable	Residual Risk			Role Responsible
	Consequence	Likelihood	risk		Consequence	Likelihood	RISK	
plant colliding with other plant	Major	Likely	death or disability of worker broken bones, serious injury minor injury	• all drivers to follow designated tcp and designated haul route on site • barriers and signage is to be erected onsite prior to the commencement of works, this is to designate pathways and access ways. • delivery trucks to be access site via designated access ways and may be directed by site personnel as required. • competent spotter to be used to co-ordinate movements in and out of shared areas where collisions with other plant may be possible. • plant operators are to be aware of current entry and exit points for the work area. • machinery and trucks must operate at a safe and manageable velocity (<10km/h). • minimise unnecessary traffic through work areas •	MAJOR	unlikely	death or disability of worker broken bones, serious injury minor injury	site supervisor all site personnel
collapse of excavation	Major	Likely	death or disability of worker broken bones, serious injury minor injury	• avoid having persons working around areas where there could be a potential of collapse. • do not park plant and machinery near to excavation walls. • use spotter (identified with spotter vest) to help guide trucks into and out of site. • spotters and plant operators are to have a clear field of vision and maintain eye contact. • barriers & signage may be required to be erected to create exclusion zones as required. • batters are to be made safe prior to entering excavation, and excavators are to maintain a distance of 2m from the edge of a batter while moving. • do not park plant/machinery close to the edge of excavations. • remove loose material from the top of batters or excavation faces.	MAJOR	RARE	death or disability of worker broken bones, serious injury minor injury	site supervisor all site personnel

Hazards Against each step	RAW RISK			control measures for each of the identified list the control measures required to eliminate or reduce the risk so far as reasonably practicable	Residual Risk			Role Responsible
	Consequence	Likelihood	risk		CONSEQUENCE	Likelihood	RISK	
hit by falling objects	Major	Likely	death or disability of worker broken bones, serious injury minor injury	• all trucks to be fitted with audible reversing beacons • all personnel are to keep a vigilant watchful eye for each other and spot for co-workers on site • truck drivers shall adhere to the minimum ppe requirements that apply to all other site personnel if they exit their vehicle. this includes high visibility apparel, hard hat and steel capped safety boots • the loading area is a no-go zone for all non-involved personnel during load out • slewing of the excavator shall be at a speed such that material will not project from the bucket • do not move between the truck and the excavator while loading is in progress. • at no time shall personnel move between the truck and the dog.	MAJOR	unlikely	death or disability of worker broken bones, serious injury minor injury	site supervisor all site personnel
electrocution	Major	Likely	death or disability of worker broken bones, serious injury minor injury	• ensure all electrical equipment used in this activity has been tested and tagged by a competent person • there is to be no piggy backing of leads for any electrical equipment used within the confined space. • all connections are to be secured and taped with electrical tape for added assurance that there will be no moisture in the connection. • all leads that are used to supply live electricity to the work zone are to be plugged into a power board fitted with a rcd, the power board is then able to be plugged into the 240 volt electrical outlet. • manage the location of the leads so as they are not getting interfered with during the normal operation of the work site, keep all leads away from any moving parts or equipment to ensure they stay free from damage and in good working order	Major	RARE	death or disability of worker broken bones, serious injury minor injury	site supervisor all site personnel

Hazards Against each step	RAW RISK			control measures For each of the identified list the control measures required to eliminate or reduce the risk so far as reasonably practicable	Residual Risk			Role Responsible
	Consequence	Likelihood	risk		Consequence	Likelihood	RISK	
contact with underground services	Major	Very likely	death or disability of worker closure of Ports terminal	• tool box to be completed with all site personnel prior to any works near live services • excavation permit to be completed highlighting live services • safety barriers/fencing has been erected to protect staff and the public in areas that are at risk • spill kit and fire extinguisher to be available near works. operating plant to be fitted with fire-extinguisher • obtain service information: dial before you dig (www.1100.com.au) plans should remain on site and accessible (issued within last 30 days). • service locator to examine service plans and perform detailed scan of site- additional to plans • assets to be clearly labelled with marking paint and/or timber stakes • notification to the access authority- service supplier or its agent that you intend to commence excavation and associated works adjacent to underground assets inside no go zone • once services have been identified, potholing is to be performed with a combination of vacuum excavation and hand excavation to safely expose services. pot-holing must be used to locate existing underground assets to ensure adequate clearances are maintained between assets and to locate other asset crossings. pot-holing at each asset crossing and at regular spacing along assets is recommended	rare	unlikely	death or disability of worker closure of Ports terminal	site supervisor all site personnel

Hazards Against each step	RAW RISK			Control measures For each of the identified list the control measures required to eliminate or reduce the risk so far as reasonably practicable	Residual Risk			Role Responsible
	Consequence	Likelihood	risk		CONSEQUENCE	Likelihood	RISK	
contact with underground services (continued)	Major	Very likely	death or disability of worker closure of Ports terminal	full time supervision of spotter who has the full understanding of known services in the vicinity of the work area, with use of 2-way radio should any unidentified objects. marking tape, polymeric plastic slab, trace wire or other labelling be encountered during excavation work, the work must stop until site supervisor is notified.	MAJOR	unlikely	death or disability of worker closure of Ports terminal	site supervisor all site personnel
fire / explosion	Major	Unlikely	death or disability of worker broken bones, serious injury minor injury	• hot works permit obtained and adhered to where required. • appropriate warning signs to be displayed on fuel cages at all times • ensure the equipment being refuelled is switched off before refuelling. • no smoking in the vicinity of fuel containers • no hot works near fuel containers • fire extinguisher to be maintained (6 month inspections) and mounted to the fuel cage • fuel is to be kept in sealed containers and clearly labelled • store fuel containers in well ventilated fuel cages away from direct sunlight • fuel cages are to be accessed by authorized personnel and adequately secured. • no electrical devices and/or mobile phones used near fuel containers • ensure that incompatible chemicals are not stored close to each other	MAJOR	Unlikely	death or disability of worker closure of Ports terminal s	site supervisor all site personnel

Hazards Against each step	RAW RISK			control measures For each of the identified list the control measures required to eliminate or reduce the risk so far as reasonably practicable	Residual Risk			Role RESPONSIBLE
	Consequence	Likelihood	risk		CONSEQUENCE	LIKELIHOOD	risk	
fire / explosion (continued)	Major	Unlikely	death or disability of worker broken bones, serious injury minor injury	• maintain a fire equipment register. • fuel truck operator to ensure that the fuel nozzle is firmly placed within the fuel tank before the fuel pump is activated • oxy-acetylene bottles should be stored separately and upright. • do not place tanks near any fire or explosive material, or hot surfaces	MAJOR	RARE	death or disability of worker broken bones, serious injury minor injury	site supervisor all site personnel
inhalation of fumes	Moderate	Unlikely	irritation of lungs dizziness	• fuel is to be kept in sealed containers and clearly labelled • store fuel containers in well ventilated fuel cages away from direct sunlight • fuel cages are to be accessed by authorized personnel and adequately secured. • appropriate warning signs to be displayed on fuel cages at all times • no storage of fuel within 50m of a waterway • fuel cages are to be accessed by authorized personnel and adequately secured. • appropriate warning signs to be displayed on fuel cages at all times • wear task specific ppe as required • follow information/direction on the msds. copies of msds will be kept in mainland civil site office • mobile fuel companies are to provide their own swms which their operators are to be inducted into	MODERATE	rare	irritation of lungs dizziness	site supervisor all site personnel

Hazards AGAINST EACH STEP	RAW RISK			control measures For each of the identified list the control measures required to eliminate or reduce the risk so far as reasonably practicable	Residual Risk			Role RESPONSIBLE
	Consequence	Likelihood	risk		CONSEQUENCE	LIKELIHOOD	risk	
use of damaged equipment	Moderate	Unlikely	death or disability of worker	• daily pre start inspections of all equipment must be carried out prior to use • training provided specific to the type of plant/equipment used including use of angle grinder/oxy-acetylene, demo saw and other power tools) • ensure the angle grinder is fitted with a dead man switch	MODERATE	RARE	death or disability of worker	site supervisor all site personnel
working in hot environment	Moderate	Unlikely	Unlikely	hard hat brims are provided to site and should be worn at all times, especially between 10am-3pm when the sun is at its most intense. wear sunscreen and safety sunglasses. provide shade for rest periods. • where possible, rotate duties to minimize the duration of exposure. • where workers are required to wear ppe that could cause overheating, schedule such work for the cooler times of the day. • a cool fresh water supply is to be provided • plant pre-start daily checks shall be carried out for all mobile plant. • plant operators shall monitor engine temperature gauges, ensure that plant is well-maintained, ensure air conditioner (where fitted) is in good working order and ensure engine has sufficient coolant to carry out works without overheating	Moderate	rare	heat stress heat stroke heat exhaustion plant overheating	site supervisor all site personnel
Dust from vehicles & plant moving around site.	Moderate	Unlikely	Lung infection	• dust control must be in-place such as wetting areas down with water blaster. • dust masks (minimum p2 grade) to be worn for any workers entering excavation works zone • appropriate eye protection, face shield or goggles as required. • all site personnel with risk to exposure to silica are to complete a site fit testing for	moderate	rare	Lung infection SILICOSIS	site supervisor & operators.

(silica exposure)			Silicosis	respiratory masks • dust monitoring to be completed on site to monitor site (hygienist) to monitor site and individual exposure levels • all stockpiles are to be wetted down with use of water gurney prior to load out • water gurney to light spray tracking path of plant to minimise dust. • all mobile plant completing excavation works such as hammering, loading out are to be monitored for dust control at all times with a water gurney • all trucks are to have covered tarps when transporting excavated material				

8.3 APPENDIX C WEEKLY SITE ENVIRONMENTAL AND SAFETY WALK (INSPECTION)

Mainland Civil

HSE Form 139

WEEKLY SITE SAFETY AND ENVIRONMENTAL WALK

PROJECT **JOB NUMBER:** **DATE:**

SITE ENGINEER _____ **HEALTH AND SAFETY REP:** _____

SITE OFFICE	Work Health and Safety Regulation 2017	Y	N/A
All Personnel signed in , pre-start information completed, SWMS signed off			
First aid equipment stocked and accessible (deep excavation areas)			
Tool box meetings completed for the week			
Copy of all contractors insurance and SWEMS (signed)			

HOUSE KEEPING	Work Health and Safety Regulation 2017	Y	N/A
Site office, change-room and amenities kept clean and tidy			
Correct signage displayed on site: PPE, excavation, emergency evacuation point , first aid, no entry, confined space			
Chemicals/fuel kept in sealed containers and stored in cage, at least 6 meters away from gas bottles			
Spill kit on site and accessible			
Amenities kept clean and tidy, hand towel and toilet paper replenished			
Potential impalement hazards from protruding rebar, form stakes, pipe stubs, and nails removed, capped or covered			
Cords/ leads/hoses off walking/working surfaces- lead stands where applicable			
Electrical chords tested/tagged (site office electricals -3 months, on site monthly)			

CONFINED SPACE AND TRENCHES	Work Health and Safety Regulation 2017 s.306	Y	N/A
Protected by barriers/ barricades/ marked covers			
For trenches 1.5m deep, sides of the trench have been adequately supported by: shoring, benching, battering or written advised from a geotechnical engineers that all sides of the trench are safe from collapse			
Has competent person assessed the confined space to determine if permit-required			
Have entrant, attendant, and supervisor been identified and received proper training			
Prominently display signs near the confined space entries, banning entry to anyone not listed on the entry permit			
At least 2 entry and exit points			
Equipment is a safe distance from edge of trench/excavation			
Has gas monitoring been completed for the required confined spaces			

PLANT AND TOOLS	Work Health and Safety Regulation 2017 s.81	Y	N	N/A
Daily pre-starts completed and left in plant.				
Workers wearing correct PPE				
Only trained persons operating plant –including Oxygen , current VOC				
Seatbelts being worn and cabin windows/doors closed while operating Plant				
Spotter is supervising works				
Site containers kept clean and tidy with tools properly stored				
Jersey barriers are visually inspected for any defects-e.g. structural cracks, damaged lifting point. Defects are notified to supervisor				
Works permit completed for the zone and signed by Operators/supervisor				
Weekly Hot works permit completed *(if required)*				
Lifting chains tested and tagged				
Fire equipment tested and tagged				

LADDERS/ STAIRS /FENCING	Formwork Codes of Practice	Y	N	
Ladders are of proper type and size for the task (load rating of 120kg)				
Access stairs installed when required				
Ensure there is not unprotected gap more than 470mm between toe board and upper guard rail				
Fences made of mesh, timber, plywood, or metal sheeting with caps on each picket				
Guardrails at the perimeter of the building or deck openings must be at least 900 mm in height above the final working surface and have a top rail, mid rail and a toeboard (Engineers written verification)				

ENVIRONMENTAL	Work Health and Safety Regulation 2017 s.57	Y	N	N/A
Risk assessment / hazard register for any new chemicals on site (request HSE Coordinator to assist)				
PH and turbidity readings recorded as required (form 121) prior to discharge				
Silt socks and geofab covering storm water drains in good condition				
Site water runoff diverted away from unstable slopes				
Sediment fence does not cause flow/diversion bypass				
Proper arrangements in place for collecting/disposing waste				
Cattle grid has been installed and maintained correctly				
Mud is not being discharged onto roads				
Dust controls in place such as watering of paths and during excavation				

SWMS OBSERVATION	Y	N	N/A
SUBCONTRACTOR:			
WORK ACTIVITY:			
All subcontractors have read and signed the SWMS			
SPOTTER PRESENT MONITORING WORKS			
BEHAVIOUR OBSERVATION:			
SAFETY CONCERNS AND CORRECTIVE ACTION:			

LTI
MLC hours for previous week:
Subcontractor hours/ month:
Days loss as a result of injury:

Comments:

_____

_____

Have the previous week items been rectified? : Y / N signature _____

Weekly Site Environmental Checklist (IECA)

LOCATION .....

INSPECTION OFFICER ..... **DATE** .....

SIGNATURE .....

Legend: 4 OK 7 Not OK N/A Not applicable

Item	Consideration	Assessment
1	Public roadways clear of sediment.	.....
2	Entry/exit pads clear of excessive sediment deposition.	.....
3	Entry/exit pads have adequate void spacing to trap sediment.	.....
4	The construction site is clear of litter and unconfined rubbish.	.....
5	Adequate stockpiles of emergency ESC materials exist on site.	.....
6	Site dust is being adequately controlled.	.....
7	Appropriate drainage and sediment controls have been installed prior to new areas being cleared or disturbed.	.....
8	Up-slope “clean” water is being appropriately diverted around/through the site.	.....
9	Drainage lines are free of soil scour and sediment deposition.	.....
10	No areas of exposed soil are in need of erosion control.	.....
11	Earth batters are free of “rill” erosion.	.....
12	Erosion control mulch is not being displaced by wind or water.	.....
13	Long-term soil stockpiles are protected from wind, rain and stormwater flow with appropriate drainage and erosion controls.	.....
14	Sediment fences are free from damage.	.....
15	Sediment-laden stormwater is not simply flowing “around” the sediment fences or other sediment traps.	.....
16	Sediment controls placed up-slope/around stormwater inlets are appropriate for the type of inlet structure.	.....
17	All sediment traps are free of excessive sediment deposition.	.....
18	The settled sediment layer within a sediment basin is clearly visible through the supernatant prior to discharge such water.	.....
19	All reasonable and practicable measures are being taken to control sediment runoff from the site.	.....
20	All soil surfaces are being appropriately prepared (i.e. pH, nutrients, roughness and density) prior to revegetation.	.....
21	Stabilised surfaces have a minimum 70% soil coverage.	.....
22	The site is adequately prepared for imminent storms.	.....
23	All ESC measures are in proper working order.	.....

8.4 APPENDIX D – EMERGENCY EVACUATION PROCEDURES

The accidents or incidents may be significant enough to warrant the evacuation of work areas within sites or the entire site as a whole.

Induction

The Site Supervisor will induct all the people on site, working for or contracted by Mainland Civil, onto the Emergency Procedures established for Mainland Civil's scope of works.

Entry onto Site

Upon arrival on site, each person (whether a site employee, contractor or visitor) must sign in at the office and on leaving the site, sign out. This form will enable the Site Supervisor to account for all personnel on site in the case of an emergency or evacuation.

Fire Wardens

As part of the emergency control measures the site team must ensure that there is designated emergency personnel are trained in emergency evacuation of the site and Fire wardens are available to assist with the evacuation of the site as per the company procedures (Emergency evacuation drill).

Fire Fighting Equipment

The site team is to ensure that firefighting equipment e.g. Fire Extinguishers are tested and tagged every bi-annually and are located in accessible areas to the work area and any flammable goods. Only if it is safe to do so, and the person is trained to use fire fighting equipment, will fire fighting be carried out.

Emergency Contacts

The Emergency Contacts form will list the phone numbers for Emergency Services, key Mainland Civil personnel and utilities, and details for the nearest medical centre, hospital and doctor. This will be available in the site office.

First Aid Services

Mainland Civil will not rely on the First-aid services provided by Frasers Property .
Where Mainland Civil is to provide First-Aid services under the WH&S Act, the following minimum requirements will be provided:

- A First Aid attendant will be on site during site working hours;
- first-aid equipment is located in the designated First-Aid shed/room
- First aid kits be located every Mainland Civil work vehicle and in the site office(s).
- First aid kits will be easily accessible and left unlocked at all times.
- First aid kits shall be kept clean and checked and restocked as necessary, or on a three monthly basis.
- First aid kit locations and trained First Aiders and contact numbers will be displayed on site notice boards.

Injury Reporting and Investigation

- All injuries relating to activities on site, will be reported to the appropriate First Aider on site;
- Injuries will be recorded in the "Injury Register "by the First Aider or the site supervisor;
- The HSEQ Manager and Site Supervisor will record all injuries onto the Injury Report form;
- The HSEQ Manager will review the report to ensure that corrective measures are adopted and are in place to eliminate or control the likelihood of reoccurrence;
- The HSEQ Manager and Site Supervisor will investigate all injuries within 48 hours;
- Any notifiable injuries will be reported to Safe Work NSW and the Frasers Property Project Manager by the HSEQ Manager.

Emergency Communication

- In the event of an emergency, communications shall be via the use of UHF radio and mobile phones.

- A list of emergency contact numbers is provided in section 1 of this document and will be posted on site notice boards.
- The appropriate emergency service shall be notified immediately in the event of an emergency.
- The emergency numbers are listed in section 1 of this document and shall be posted on notice boards.

Emergency Assembly Area - TBC

EVACUATION PROCEDURES – RESPONSIBILITIES

In order for emergency procedures for evacuations to be carried out smoothly and safely, the following responsibilities have been allocated. In carrying out their responsibilities, each site person is to do so if it is safe and it does not present a risk to their health and safety.

Site Supervisor

- When informed of the event or having witnessed the event, make a judgement on the seriousness of the event itself;
- Direct the Site Engineer, Sub-Foreman or a member of the labour force to call everyone to take action in evacuating the work place;
- Direct site personnel to shut down machinery, gas supply, electrical supply etc.;
- Direct site personnel to clear evacuation routes of any obstructions;
- If the incident cannot be safely controlled by site personnel, then arrange for the appropriate emergency services;
- Direct site personnel to clear access routes in order for emergency services to gain access to the event;
- Direct someone to guide the emergency services, ambulance, doctor, etc. to the emergency area;
- Arrange for first aid or medical assistance to anyone who is injured;
- Cordon off the area, if safe to do so;
- Notify public utilities if utilities are affected by the incident;
- If EPA has licensed the activity, then EPA is to be notified of the incident immediately;
- If the works are not EPA licensed, then notify the local council environmental officer;
- Communicate with the appropriate emergency service(s) for assistance;
- Once everyone has arrived to the assembly area, do a head count and check to make sure everyone is present.

Project Engineer / Site Engineer

- Once safe to do so, investigate the event, complete a "Non-conformance Report" and submit the report to the Project Manager or Systems Manager for action.

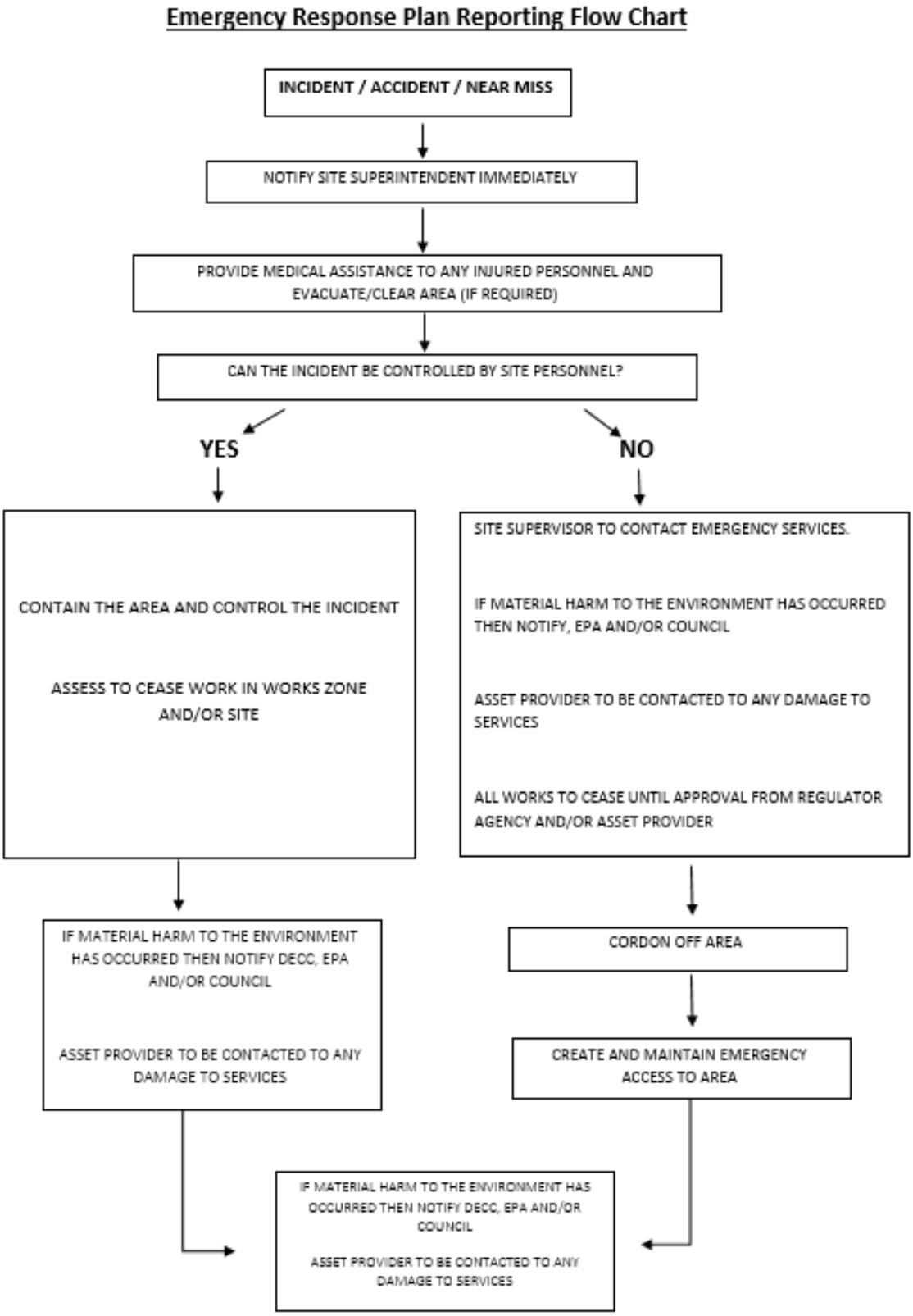
Site personnel, Contractors, Visitors

- No one is to go the site accommodation sheds to collect personal items;
- All personnel are to immediately make safe any equipment or machinery being used and go to the emergency evacuation muster point and remain until instructed by the Site Manager to do otherwise; and

Recording of Personnel

- The site sign on register shall be maintained by the Site Manager ensuring all personnel, both workers (including subcontractors) and visitors sign in an out of the site office on a daily basis.
- The Deputy shall ensure that this register is taken to the Muster point during an emergency evacuation.

Emergency Response Plan Reporting Flow Chart



Emergency Response Procedures

An emergency is an incident which is likely to have adverse effects upon people, plant or the environment. Prompt action is required to control and correct the occurrence and return operations to a safe condition. This plan has been developed for the identification of foreseeable emergencies and the specific response to each of these including:

Partial or total evacuation may be required when any of the following events occur:

Emergency Response Procedures
Medical injury including serious illnesses (heat stroke, heart attack) Initial actions upon becoming aware of a medical emergency: • Notify supervisor or 000 if emergency services are required • If safe to do so, remain at the scene until assistance arrives • Do not move the injured person unless there is a life threatening situation • Keep the injured person warm • Reassure the injured person • Give first aid to the extent of your level of knowledge and/or training DRSABCD to save a non-breathing causality
Fire In the event of a fire you must: • Call the Emergency services if instructed to do so; • Evacuate the area immediately; • Go to the nominated Evacuation area; • Report to your supervisor or fire warden; • Assist with putting out the fire if you are trained; • Do not return to work area until given permission
Gas or fuel leaks In the event of a gas or fuel leak you must: • Notify your supervisor; • Contact Asset provider • Evacuate the area; • Warn other workers of the emergency; • Warn other people in the area of the incident; • Do not return to work area until given permission to do so; • Warn general public of emergency occurring. • Ensure DYBYD is undertaken and works permits are completed
Large Chemical Spill / Leak has occurred: • Immediately notify the designated official ,HSEQ Manager and Site Supervisor. * With Frasers Property approval, HSEQ Manager to contact EPA to report incident • Contain the spill with available equipment (e.g., pads, booms, absorbent powder, etc.). • Secure the area and alert other site personnel. • Do not attempt to clean the spill unless trained to do so. • Attend to injured personnel and call the medical emergency number (if required). • Call a local spill clean-up company or the Fire & Rescue NSW (if arrangement has been made) to perform a large chemical (e.g., Mercury) spill clean-up. • Evacuate area as necessary **Chemical Spill / Leak has occurred** • Notify the Emergency Coordinator and/or supervisor (select one).

- If toxic fumes are present, secure the area (with caution tapes or cones) to prevent other personnel from entering.
- Deal with the spill in accordance with the instructions described in the SDS.
- Small spills must be handled in a safe manner, while wearing the proper PPE.
- Review the general spill clean-up procedures.

Contact with services

- Notify your supervisor immediately;
- Do not touch any part of the service at that location;
- If the person is laying on wiring get power cut off before attempting to touching the injured worker;
- Get someone to call emergency;
- Call the service provider to attend the site and cut off or repair the service
- Barricade off the area;
- Do not return to work area until instructed to do so.
- Ensure DYBYD is undertaken and excavation permits are completed

Electrocution

In the event of a electrocution you must:

- Notify your supervisor immediately;
- Do not touch any wiring at that location;
- Only qualified electrical trades are to touch electrical wiring
- If the person is laying on wiring get power cut off power at the switchboard before attempting to touching the injured worker;
- Get someone to call emergency;
- Carry out CPR on the injured person if required and if only trained;
- Barricade off the area;
- Do not return to work area until instructed to do so.

Chemical spills (onto land or waterways)

In the event of a chemical spillage you must:

- Notify your supervisor of the incident immediately;
- Set up spill kit in effected area;
- Evacuate the area until spillage is cleaned up.

Collapse of excavations

In the event of a collapse of an excavation you must:

- Check there is no injured worker in the excavation;
- If an worker is in the excavation injured then check their condition;
- Call emergency services;
- If trained, check the injured workers vital signs egg: are they in pain or bleeding - if so try to compress the cut until emergency services arrive;
- Notify your supervisor of the incident;
- Barricade off the area.

Fire or other emergency on adjoining properties or sites

Any person/s in immediate danger provided it is safe to do so:

ALARM - using air horn, raise the alarm and follow emergency procedures
CONTAIN - the fire by closing doors and windows provided it is safe to do so
EXTINGUISH - Only if you are trained and if it is safe to do so attempt to extinguish the fire.

There are 3 things that must be present for a fire to keep burning:

- Fuel (something to burn)
- Oxygen (drawn from the surrounding air)

- Heat (generated by the process of combustion)

If one or more of these components is removed the fire will go out. Therefore, the fire can be extinguished by:

- removing the fuel
- reducing the temperature
- restricting the supply of air

In the event of a fire or other emergency on an adjoining property or site you must:

- Report the emergency to your supervisor immediately;
- Evacuate the area;
- Call the emergency services if nominated to do so;
- Remove all flammable goods if safe to do so.

Figure L3 - Fire extinguisher chart

	A Wood, Paper & Plastic	B Flammable & Combustible Liquids	C Flammable Gases	E Energised Electrical Equipment	F Cooking Oils & Fats	Notes: "Limited indicates that the extinguishant is not the agent of choice for the class of fire, but that it will have limited extinguishing capability. Class D fires involving combustible metal(s) use only special purpose extinguishers - please seek expert advice. Comments: (Refer Appendix A of AS 2444)
Powder ABE	☺	☺	☺	☺	☹	Special Powders are available specifically for various types of metal fires. Seek expert advice.
Powder BE	☹	☺	☺	☺	☺	Special Powders are available specifically for various types of metal fires. Seek expert advice.
Carbon Dioxide (CO_2)	LIMITED	LIMITED	☹	☺	☹	Generally not suitable for outdoor fires. Suitable only for small fires.
Water	☺	☹	☹	☹	☹	Dangerous if used on flammable liquid, energized electrical equipment and cooking oil/fat fires.
Foam	☺	☺	☹	☹	LIMITED	Dangerous if used on energized electrical equipment.
Wet Chemical	☺	☹	☹	☹	☺	Dangerous if used on energized electrical equipment.
Fire Blanket	☹	☹	☹	☹	☺	Use blanket to wrap around a human torch. Ensure you replace the blanket with a new one after use.
Fire Hose Reel	☺	☹	☹	☹	☹	Ensure you maintain a path of egress between you and the nearest exit.

HOW TO USE A FIRE EXTINGUISHER

Extinguishers come in a number of shapes and sizes. They all operate in a similar manner. Here's an easy acronym for fire extinguisher use:

- P **PULL THE PIN** – Break seal and test extinguisher.
- A **AIM AT BASE OF FIRE** – Ensure you have a means of escape.
- S **SQUEEZE THE OPERATING HANDLE** – To operate extinguisher and discharge the agent.
- S **SWEEP FROM SIDE TO SIDE** – Completely extinguish the fire.

<u>Implied threat to site (e.g.: bomb threat)</u>

In the event of an implied threat to the site you must:

- Obtain as much information about the threat as possible;
- Evacuate the area as soon as possible;
- Inform your supervisor of the implied threat immediately;
- Call emergency services;
- Warn general public of threat to health and safety.

Roll-over of plant /plant colliding with other plant

In the event of roll-over plant and/or collapse into excavation

- Check no one is injured in the plant if so call emergency services;
- Notify your supervisor of the event occurring;
- If operator is injured do not remove operators unless safe to do so, following the instruction of emergency services
- Barricade of the area if the machine has collapsed, all site works are to cease
- Set up spill kits if required;
- If spillage is in public area report the incident to EPA.
- Report incident to Safe work NSW
- Plant to be inspected by for any leaks or faults
- Await instructions of Safe work NSW before moving plant

Collapse of structures

In the event of a collapse of structures you must:

- Check area for any injured workers;
- Notify your supervisor of the collapse;
- Barricade off the area;
- Wait for further instructions from your supervisor.

Natural disasters

In the event of a natural disaster you must:

- Secure all loose materials;
- Check with the local SES on evacuation of area;
- Notify your supervisor immediately;
- Move to a safe area.

Water ingress or egress into or out of the site

In the event of water ingress or egress you must:

- Notify your supervisor immediately;
- If safe to do so, attempt to stop any pumps discharging water;
- If safe to do so, attempt to barricade areas of ingress;
- Divert any flow of water into an area on site that cam temporarily contain the water.
- Report any water untreated water that has been discharged to site to Frasers Property and EPA

8.5 APPENDIX E - MAINLAND CIVIL SITE SAFETY RULES

Breach of any of the following rules may result in immediate removal from site.

1. Mandatory PPE whilst on site; Hard Hat, High Vis Vest and Steel Cap Work Boots, additional PPE required to task specific activity.
2. Use of mobile phones and portable music players are not permitted in work areas during work hours, including all social media.
3. Due to contractual requirements, no site personnel are permitted to post any image of our sites or related material to any social media platform.
4. Follow signs and procedures – control measures are put in place for your safety.
5. Work areas must remain in a clean and safe condition.
6. All persons requiring first aid treatment are to remain on site and contact the First-Aid Attendant for treatment.
7. All persons must report all hazards (including all equipment damage), accidents, incidents and near misses immediately to the Site Supervisor.
8. All site personnel are to maintain an exclusion zone of 3 metres from swing radius of mobile plant or vehicles unless the operator/driver has been informed and the plant or vehicle is immobile.
9. Barricading and signage must be installed around all excavations and exclusion zones.
10. All penetrations must be covered and fixed down or a guard rail installed around the hole to prevent persons falling through.
11. No tools, equipment or machinery to be operated by anyone unless that person has obtained a verification of competency for each tool/machine.
12. Hazardous chemicals and gases are to be stored in an enclosed cages on site. SDS available in site office
13. No water is to be discharged from site without being treated and tested.
14. Any comments, suggestions or complaints from the public in regard to safety and environmental issues in or around the site are to be reported to the Site Supervisor.
15. The consumption of, or being under the influence of alcohol and illegal drugs on site is prohibited
16. The following behaviour is not permitted on site: offensive language, bullying, harassment, racism, sexism, defamatory content or any serious breach of the Work Health and Safety Act,
17. In the event of an emergency all persons must move to the nearest exit muster point