Site SWMS & Risk Assessments

QR Code	APN-934668
Principal Contractor	FKG Group
Date Provided to PC	07/05/2024
Revision Due	07/05/2025
Project	Fit Temp Water and Sewer Connection
Construction Site Location / Address	20 Golflinks Drive Kirwan QLD 4817
Person Responsible for implementing SWMS onsite	Matt Vines 0402 341 911
After Hours Contact	Barry Davies 0409 753 229

1 Purpose

The purpose of this document is to clearly identify the Hazards and Risks associated in both the high-risk work activities as well as the general construction site tasks. This SWMS must be kept and be available for inspection until the high-risk construction work to which the SWMS relates is completed. If the SWMS is revised, all versions should be kept. If a notifiable incident occurs in relation to the high-risk construction work in this SWMS, the SWMS must be kept for at least 2 years from the date of the notifiable incident.

2 Evaluation

Evaluation of process effectiveness is carried out using internal audits and site safety inspections. This document in its entirety is relevant between the stated review dates, unless it has been identified that controls are potentially not effective, changes to the workplace has introduced new task(s), hazard(s)/risk(s) or in the event of a notifiable incident then SWMS will be reviewed and, if necessary, revised. Ultimately everyone is responsible for ensuring their duties are upheld with regards to safety in the workplace.

At the end of the SWMS there is a provision to add to or amend the SWMS, if these are used workers must notify Barry Davies as soon as practical to ensure the changes are implemented. Once the SWMS are amended and controls are acceptable for the specified hazards all workers must re-sign onto the SWMS to ensure they are made aware of the changes.

3 Doc Control Details

PCBU Name:	**All Plumbing NQ**	**ABN:**	**11169623125**	
PCBU Address:	**35 Fleming Street, Aitkenvale QLD, Australia**		**Contact Number:**	**0409 753 229**
Document Name	**FKG QPS Connections SWMS APN05 V1 May 24**			
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Document Owner	**All Plumbing NQ**		**Maintained By**	**Erker Safety Pty Ltd**
Consulted By	**Barry Davies & Erker Safety Pty Ltd**		**Approved By**	**Barry Davies**
Created By	**Erker Safety Pty Ltd**		**Date Created**	**07/05/2024**
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V1	KO	Document Creation	07/05/2024	07/05/2025

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4 Definitions:

High Risk Work (As defined by WH&S Qld):

Work carried out at a workplace deemed as high risk by WH&S Regulation 2011 (s291):

1. involves a risk of a person falling more than 2m; or
2. is carried out on a telecommunication tower; or
3. involves demolition of an element of a structure that is load bearing or otherwise related to the physical integrity of the structure; or
4. involves, or is likely to involve, the disturbance of asbestos; or
5. involves structural alterations or repairs that require temporary support to prevent collapse; or
6. is carried out in or near a confined space; or
7. is carried out in or nearby—
   (i) a shaft or trench with an excavated depth greater than 1.5m; or
   (ii) a tunnel; or
8. involves the use of explosives; or
9. is carried out on or near pressurised gas distribution mains or piping; or
10. is carried out on or near chemical, fuel, or refrigerant lines; or
11. is carried out on or near energised electrical installations or services; or
12. is carried out in an area that may have a contaminated or flammable atmosphere; or
13. involves tilt-up or precast concrete; or
14. is carried out on, in or adjacent to a road, railway, shipping lane or other traffic corridor that is in use by traffic other than pedestrians; or
15. is carried out in an area at a workplace in which there is any movement of powered mobile plant; or
16. is carried out in an area in which there are artificial extremes of temperature; or
17. is carried out in or near water or other liquid that involves a risk of drowning; or
18. involves diving work.

5 Legislation that relates to this Safe Work Method Statement

Legislation

- Work Health and Safety Act 2011
- Work Health and Safety Regulation 2011
- Electrical safety Act 2002
- Electrical Safety Regulation 2013

Current Codes of Practice – relevant to the task undertaken

https://www.worksafe.qld.gov.au/laws-and-compliance/codes-of-practice

- How to Manage Work Health and Safety Risks Code of Practice 2021
- Demolition Work Code of Practice 2021
- Hazardous Manual Tasks Code of Practice 2021
- Managing Risks of Plant in the Workplace Code of Practice 2021
- Managing the Risk of Falls at Workplaces Code of Practice 2021
- Work Health and Safety Consultation, Co-operation and Co-ordination Code of Practice 2021
- Working Near Overhead and Underground Electric Lines – Electrical Safety Code of Practice 2020

6 PPE Requirements

PPE Requirements will be listed at the beginning of each activity with the recommended requirements using the below Pictograms:

Safety Glasses Medium Impact (Clear indoor use and tinted outdoor use.)

Safety footwear with a steel cap toe or composite toe.

Safety Gloves suitable for the task.

Ear Protection either Plugs or Muffs suitable to the task.

Hard Hat for all work where there is work overhead.

Hi Visibility Clothing, Reflective Tape is only recommended at nighttime.

Respiratory Protection (RPE), specific to the task & as shown on fit test certificate

Protective Clothing, long sleeves and long pants

Clear High impact visor

Wide brim hat or ring worn over Hard Hats.

Height Safety PPE specific to the task

7 Qualifications, Training Requirements

QBCC Licence – Plumbing and Drainage
Track Excavator/Slew Excavator or Skid Steer – Competently Trained
Apprentice Training, if applicable
Industry White Card(s)
Supervision from Matt Vines
Spotter for mobile plant, as required. Competently trained for the type of machinery with a full understanding of the tasks being conducted.

8 Hierarchy of Control Measures

Level 1	Level 2	Level 3
• Eliminate the Hazard	• Substitute the Hazard • Isolate the Hazard • Engineer the Hazard out	• Administration Controls • PPE

9 Parties responsible for implementation of Controls

Supervisor

Worker

Operator

Engineer

Management

Spotter

10 Risk Calculator

HOW TO USE THIS RISK TABLE
Step 1: Identify potential hazards.
Step 2: Decide what a possible **Consequence** could be.
Step 3: Decide **How Likely?** it is to happen
Step 4: Line up your choices in the table to get a number
Step 5: Use the Priority table to the right.

Appendix B - Risk Calculator

RISK RATING CALCULATOR			Likelihood		
Consequence What injury/damage could it cause?	**Rare - 3** Could only happen once in 25 years	**Unlikely - 2** Could happen, once in 5 years	**Possible - 1** Could happen each year	**Likely - 0** Could Happen more than once a year	**Almost Certain - 0** Could happen anytime
Catastrophic - 0 Multiple Fatalities	3	2	1	0	0
Major - 0 Death or serious disability	3	2	1	0	0
Moderate - 1 Long term illness or serious injury	4	3	2	1	1
Minor - 2 Medical attention & several days off work	5	4	3	2	2
Insignificant - 3 First aid needed	6	5	4	3	3

Risk Rating	Prioritisation
0, 1 or 2	Action to rectify must be done immediately before work may commence
3	Consider control measure as necessary and implement further controls to reduce risk
4, 5, 6	Continue to use correct controls selected and maintain communication

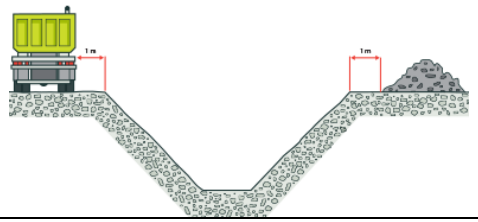
11 Workers Sign on and Consultation of SWMS

By signing the below I:

- **Acknowledge that I have had input into the development of the SWMS or have had opportunity to comment on the content**
- **Understand and agree to abide by all of the requirements stated within the SWMS**
- **Have appropriate certification, licences and/or training to competently undertake the task or, where permitted, will be directly supervised by persons with appropriate level of certification, licensing, training and competence**
- **Understand that where task changes or the controls stated are ineffective, that I will immediately notify my supervisor and cease work till the controls are modified and I re-sign an updated SWMS**

First & Last Name:	Signature:	Date:

High Risk Work Activity: 3. Demolition				
Activity	Hazards & Risks	PRE-Risk	Work Method Used	POST Risk
3A. Non-structural Demolition				
PPE Recommended			**Persons responsible for maintaining controls** 	
Plan to demo site structures	Hazard: Fall from height, falling objects, unknown services and structural stability, unexpected collapse, damage to services **Risk: Injury**	**1**	• If appointed, consult with the engineer/principal contractor/client where reasonably practicable, to obtain a written report specifying the hazards associated with the design and the structure in the planning stage of the demolition work • Specific hazards may be outlined in a demolition plan: ○ Asbestos containing materials ○ Lead in paint, old water pipes and other plumbing fittings, solders, etc	**4**
Public protection	Hazard: Falling objects, struck by plant **Risk:** **Injury**	**3**	• Wherever required, make sure the Principal Contractor has provided the following: ○ A heavy-duty scaffold that is fully sheeted with shade cloth & mesh. In accordance with Australian Standards. Only certified personnel can erect scaffolds ○ Signs installed at various locations on the barricades denoting: “Demolition in progress - Keep Out” • **Plant movement**: ○ Do not go beyond specified speed limits. ○ Make sure the flashing light/beeper is on. ○ Use a spotter wherever practical/available. ○ Ensure high visibility PPE is always worn. • Check the work area for other plant before commencing work/movement.	**5**
Strip out of fixtures & fittings and non-fixed items	Hazard: Work at height, manual handling sharp edges **Risk:** **Injury, lacerations, death**	**1**	• Use hand removal techniques for salvaging fixtures and fittings – use handheld tools and equipment. • During this initial work phase, make sure no load bearing components of the structure are demolished. • Wherever possible, provide access for workers above floor level by way of an approved internal staircase or a suitably restrained ladder. • Strictly follow all procedures for working at heights.	**4**

High Risk Work Activity: 7. Working in a Trench 1.5m+				
Activity	Hazards & Risks	PRE-Risk	Work Method Used	POST Risk
7A. Working in or Near a Trench Deeper Than 1.5m				
PPE Recommended			**Persons responsible for maintaining controls** 	
Pre-Start	Hazard: Inexperienced personnel, Plant/equipment used for tsk not suitable, contact with essential services **Risk:** **Injury, property damage, fire/explosion**	**1**	• Workers performing trenching and excavation work shall be adequately trained and competent in trenching and excavation work • Powered mobile plant operators must hold the relevant licence and verification of competency (VOC) • Plant and equipment to be used in accordance with manufacturers recommendations/specifications • Verify location of all underground services (dial before you dig and other relevant drawings). The relevant person must consider the information supplied, follow any reasonable restrictions and implement the necessary control measures. The information shall be always kept on site • All onsite workers must be advised of the location of the services, particularly the operator(s) of any plant working on the worksite • All exposed services should be marked with flags or devices that can be readily seen • Trenching and Excavation Permit to be completed • Exclusion zones to be barricaded, as required, prior to any excavation starting • Traffic control devices e.g., signage, protective barriers, traffic management plan etc. to be in place where applicable	**5**
Working in a trench deeper than 1.5 metres	Hazard: Installation of piping and foundations, uncontrolled collapse **Risk:** **Crush, death**	**1**	• To prevent collapse of the trench, the use of shoring, benching, or battering will be used and the most appropriate for the task will be selected. • **Battering:** To prevent collapse of the trench, no more than 45° (degrees) battering to all sides of the trench will be used. 	**4**

High Risk Work Activity: 7. Working in a Trench 1.5m+				
Activity	Hazards & Risks	PRE-Risk	Work Method Used	POST Risk
			• **Shoring:** Will be used against all sides of the trench that protects by shielding. The shoring system will comply with applicable standards and manufacturers requirements. The shoring will be checked daily to ensure its continued effectiveness.  • **Benching:** To prevent collapse of the trench, apply benching to all sides of the trench. When I/we bench a trench, the vertical trench side, below the benched portion, will not exceed 1.5m in height. The benching will be checked at least daily to ensure its continued effectiveness.  • A geo-technical engineer will: ○ Approve in writing that all the sides of the trench are safe from collapse ○ State in writing how long the approval lasts if there is no stated natural occurrence that could affect the stability of the trench ○ State in writing the natural occurrence that could affect the stability of the trench	

High Risk Work Activity: 7. Working in a Trench 1.5m+				
Activity	Hazards & Risks	PRE-Risk	Work Method Used	POST Risk
			• Compliance with the requirements of the geo-technical engineer will be adhered to • Safe means of access/egress provided into all excavations	
Managing fill stockpile	Hazard: Uneven surfaces unstable stockpile, uncontrolled collapse **Risk:** **Crush, death**	**1**	• Plan to stockpile materials in allotted positions • Ensure all stockpiles / spoil is kept a safe distance away from the excavation • Maintain in such a way as to prevent creation of unnecessary uneven surfaces in areas of work.	**5**
Workers inside a trench working greater than 1.5m	Hazard: Worker collapse or injury preventing normal exiting via ladder **Risk:** **Unable to obtain First Aid quickly, unable to exit excavation**	**2**	• Workers will never work alone in trenches where risk dictates the access to be hindered for one person to exit quickly • Steps will be constructed where practical in the earth • Where it is not practical constructing earth steps multiple workers will be required, with a minimum of 2 personal always in the area • Send someone immediately to telephone or radio for emergency services. Ensure that the person knows the location of, and how to use the communication equipment • Clear all unwanted workers away from the area • Appoint a worker to monitor the work area (i.e. an observer who is not involved in any rescue activities) • Do not remove the victim unless there is a danger from flooding or dangerous gases are present or there is an imminent danger of collapse • Do not remove the victim by tying a rope around him/her and pulling on the rope • Where possible (and safe), leave the victim in the trench until the ambulance or a qualified medical person arrives • If risk assessment indicates: ○ A stretcher will be made available with a 4-man lift required to remove a person from the excavation ○ Additional lifting straps may be required and attached to a lifting device rated for man use ○ There are several configurations, however, the crane is a suitable source to lift casualty as long as a dedicated spotter is always appointed in direct eye contact with casualty being lifted and direct contact with crane operator. • Once the Worker has been removed normal First Aid treatment will apply.	**4**

High Risk Work Activity: 11. Electricity				
Activity	Hazards & Risks	PRE-Risk	Work Method Used	POST Risk
11I. Electrical - Working Around Underground Services				
PPE Recommended			**Persons responsible for maintaining controls**	
Establish and complete excavation permit	Hazard: Incorrect information identified Incorrect scope of works **Risk:** **Damage of services** **Death or serious injury**	**1**	• Do not dig unless necessary • All reasonable steps will be taken to obtain current underground essential services information about any of the areas requiring excavation before directing or allowing the excavation work to commence • Contact Dial Before You Dig to request information about the infrastructure networks at the planned project site ○ Online via the Dial Before You Dig website www.1100.com.au ○ Mobile website or iPhone app ○ By phone call 1100 (toll free, during business hours) • Use water pressure excavation over machines or shovels • Never drive star pickets in without knowledge of what is below • Plans to be attached to excavation permit if required • Obtain all relevant services plans by calling Dial before you Dig (1100). Allow 2 working days for plans • Examine Plans and assess all possible impacts on the services assets • Book appointment for certified locator to meet on site • Examples of services to consider: ○ Oil, Gas, Water, Sewage, Electrical, Stormwater, Traffic Signals & Telecommunications ○ All existing services to be potholed and marked for future reference ○ Ensure all overhead services such as powerlines have been identified • Select the appropriate machinery to use around services	**4**
High voltage underground cables and sub-stations	Hazard: Contact with electrical cable **Risk:** **Electrocution** **Fire**	**1**	• Underground High Voltage Cables & Sub-Stations: ○ Most 'green field' work sites will not have underground services located on them. However, some sites which are located near electrical sub-stations or 'keys' do have areas which are covered by an exclusion zone which restrict excavation ○ On any site where a sub-station or 'kiosk' is located on the block or a neighboring block determine where the power cables from the sub-station are running. This can be achieved by contacting Dial Before You Dig ○ If excavation work is to occur within the exclusion zone, then a permit needs to be obtained from the relevant power authority. This permit to work needs to be communicated with the relevant trades and all trades need to review and abide by the permit prior to commencing works. To obtain written Safety Advice where it has been	**4**

High Risk Work Activity: 11. Electricity				
Activity	Hazards & Risks	PRE-Risk	Work Method Used	POST Risk
			identified as being required, complete and submit or return by email the applicable Safety Advice Request Form which is accessible via the electricity entity website: https://www.ergon.com.au/network/safety/business-safety/the-outdoor-workplace/working-near-powerlines • In some cases, it may be necessary to hand dig to identify the location of the cable and/or the protective covering.	
Excavations and digging near underground power	Hazard: Contact with electrical cable **Risk: Electrocution**	**1**	• Trades to inspect site plans prior to the commencement of digging • Contact dial before you dig prior to undertaking excavation works on the nature strip and common areas of the site. Dial before you dig will only be able to identify power cables of the electrical distributor asset owner and are to be considered as a guide only • Plans outlining the location of the underground power lines within residential construction site can be found in the meter box once installed • Where underground power lines within a site cannot be identified the services of a cable locator will need to be engaged • Prior to the commencement of any digging examine these plans & determine if the intended excavation will impact these underground lines • Work can occur near live power lines if the powered mobile plant is 500mm from the underground power lines. Work in closer proximity should be undertaken via hand digging around the power lines if the cabling is live • The location of underground power cables also has warning tape installed mid-way between the cable and the surface. If discovered the trade should cease all operations & contact is to be made with the site Supervisor	**4**
Installing electrical conduit	Hazard: Contact with electrical cable **Risk: Electrocution**	**1**	• Electrical companies installing electrical conduit must post a plan showing the location of underground cabling in the meter box of the site & identify distances to the underground conduit • Electrical companies are required to install warning tape at approximately mid-way between the underground conduit and ground surface • It is a requirement that the cable does not pass underneath the proposed location of the concrete slab. If site condition prevents this from occurring, contact must be made with the supervisor	**4**

High Risk Work Activity: 15. Mobile Plant				
Activity	Hazards & Risks	PRE-Risk	Work Method Used	POST Risk
15BA. Mobile Plant - Driving Work Vehicles Onsite				
PPE Recommended			**Persons responsible for maintaining controls**	
Driving work vehicles onto site	Hazard: Traffic **Risk:** **Uncontrolled contact between vehicles and people**	**1**	• Driver is responsible for conducting prestart vehicle checks • Only licensed drivers are permitted to drive vehicles • Always drive according to road and weather conditions • Driver to be aware of site instructions and any specific hazards/risks that may be relevant • Flashing lights are always used on mobile plant and vehicles • Adherence to site safety plan, exclusion zones, communication, consultation. • Follow the site safety plan relating to traffic control safety • Increase awareness of pedestrians if works are adjacent to the existing footpath • All pedestrians to be diverted around work area	**5**

Mobilising on site	Hazard:
	Obstruction
	Unauthorised access
	Risk:
	Crush death
	Inadequate PPE
	Crushing
		2	• Do not work within 3m of live traffic unless:
			  ○ A Traffic Management Plan is in place
			  ○ A Traffic Control system is in place – under the direction of ticketed traffic controllers
			  ○ There is a safety barrier in place (such as concrete new jersey curbs), water filled Triton barriers and or a shadow vehicle
			• Remove obstructions or reposition equipment
			• Ground condition and slope must be assessed prior to loading/unloading
			• Do not continue if you cannot confirm the stability of the machinery
			• Only those authorised may access site
			• Ensure work area is barricaded and signed to allow adequate exclusion zones. Depending on the height 45 degree from the top point down to the ground or 3m from edge of machine, whichever is greater
			• High visibility clothing to be always worn
			• Transport driver shall be responsible for tie down of load and removing tie downs, straps etc
			• Maintain visual contact between plant operators and other personnel at all times. Spotters to be used where required for reversing operations, tight areas etc.
			• Avoid unloading/loading plant under power lines
				4

High Risk Work Activity: 15. Mobile Plant				
Activity	Hazards & Risks	PRE-Risk	Work Method Used	POST Risk
Unloading of plant	Hazard: Plant and equipment falling off deck uneven ground **Risk:** **Damaged equipment, crush death**	**1**	• Qualified and competent operator to always unload vehicle • Align machinery with ramps prior to unloading • Using a spotter when reversing • Adjust ramps to suit wheel width • Use winch cable and remote where possible • Remove excess personnel from the work area • Always choose suitable surface to unload on level ground	**4**
Moving machinery around site	Hazard: Obstruction (Overhead, at ground level or underground), faulty equipment, plant tipping or rolling over **Risk:** **Crush death**	**1**	• Remove obstructions or reposition equipment • Do not continue if you cannot confirm the stability of the machinery • Check all electrical systems are operational • Check all warning systems and devices are operational • Only authorised personnel shall carry out maintenance checks • Only qualified person shall carry out repairs and maintenance • Check tyre tread and pressure are satisfactory (where applicable) • Provide tilt alarm system to advise operator of machine operating beyond safe working angles • Ensure the machine is an “outdoor rated” machine if operating where there is a risk of external wind • Operator is responsible to not exceed the safe working load and wind rating of the plant • Operator to be trained and competent in the safe operation of the plant	**5**
Stationary equipment	Hazard: Accidental movement of plant **Risk:** **Crush death**	**1**	• Ensure tools and equipment are stored appropriately • Ensure emergency stop switch is pushed in when equipment function completed and work to commence • Ensure shutdown procedures are followed as per the manufacture’s manual	**5**

High Risk Work Activity: 15. Mobile Plant				
Activity	Hazards & Risks	PRE-Risk	Work Method Used	POST Risk
15BB. Working Near Onsite Mobile Plant				
PPE Recommended			**Persons responsible for maintaining controls**	
Working near onsite mobile plant. (Under or beside)	Hazard: Road traffic **Risk: Contact between persons and vehicles**	**2**	• When establishing work areas consider mobile plant onsite has right of way • All personnel to have undergone site specific familiarisation • Erect any barriers & signage necessary to keep others safe and aware of the work being undertaken • Designated pedestrian routes to be established where required • Personnel not to enter the swing zone of equipment without positive communications with operator • Restrict access to work area. Ensure: ○ Exclusion zones surrounding work area using barricades and signage is in place ○ Any other workers within the exclusion zones are wearing PPE as required ○ Communicate with onsite mobile plant operators to get an understanding of their tasks and areas they need to access as well as times they operate. Work in with onsite operators and ensure tools, equipment and work doesn't unnecessarily block their work areas or travel paths • When new workers come to site ensure they understand the movements of onsite mobile plant as it may not be consistent and start up without notice • Mobile phones or personal entertainment devices (PEDS) are not to be used while working around mobile plant. If necessary to use such a device, move to a safe area. • **Never work under a load being lifted by any type of crane.**	**5**
15C. Mobile Plant - Track Excavator/Slew Excavator or Skid-Steer				
PPE Recommended			**Persons responsible for maintaining controls**	
Use of track excavator, slew excavator or	Hazard: Untrained or incompetent	**1**	• Flashing Lights are always on when machine is in use • Logbooks are in date and easily accessible • Exclusion zones established. Depending on the height 45 degree from the top point down to the ground or 3m from edge of machine, whichever is greater	4

High Risk Work Activity: 15. Mobile Plant				
Activity	Hazards & Risks	PRE-Risk	Work Method Used	POST Risk
skid-steer on site	operators used **Risk:** **Personnel struck/crushed by excavator or attachments**		• Operators to be certificate holders for that plant • Ensure correct operation of movement alarms on excavator • Where possible exclude personnel from the swing area of the machine • Arrange for a worker to act as a spotter • Spotter to maintain a safe distance from the machine, making sure the operator can see spotter • The operator is always to be aware of spotter's location and maintain a safe distance • Workers to wear PPE as outlined • Workers to be aware of plant movements • Workers to have eye contact with operator when working close by • All reasonable steps will be taken to obtain current underground essential services information about any of the areas requiring excavation before directing or allowing the excavation work to commence. • If required, contact Dial Before You Dig to request information about the infrastructure networks at the planned project site ○ Online via the Dial Before You Dig website www.1100.com.au ○ Mobile website or iPhone app ○ By phone call 1100 (toll free, during business hours)	
Use of attachments	Hazard: Attachments wear or damage	1	• Inspect attachments for wear, damage, or loose or missing parts • Ensure that attachments are securely fitted, and safety pins or clips fitted • Check arms and connections for excessive wear • Inspect hoses and connections for splits, bulges, leaks or fractures • Test all hydraulic operations before applying load • Check rams, hoses and connections for splits, leaks or fractures • Test operation by raising and lowering attachment	4
Operation of machine	Hazard: Overturning / Stability **Risk:** **Personal injury**		• Do not travel at speeds which may cause control to be lost over bumps, etc. • Avoid driving over obstacles, ditches, drains, etc which could affect control • Do not attempt to lift load in excess of working load limit of loader • Reduce speed when travelling with load on front attachment • Carry load close to ground and racked back for stability and visibility • Do not raise load until ready to deposit	

High Risk Work Activity: 15. Mobile Plant				
Activity	Hazards & Risks	PRE-Risk	Work Method Used	POST Risk
15D. Mobile Plant - Earthwork Operations				
PPE Recommended			**Persons responsible for maintaining controls**	
Preparation	Hazard: Inadequate planning **Risk: Crush injuries, plant rollover, equipment damage**	**1**	• Conduct a site recon • Identify people, equipment, PPE, potential hazards, and safety controls prior to commencement of works • Identifying potential interactions/interfaces with other work crews and communicating any issues with them • All reasonable steps will be taken to obtain current underground essential services information about any of the areas requiring excavation before directing or allowing the excavation work to commence. • If required contact Dial Before You Dig to request information about the infrastructure networks at the planned project site ○ Online via the Dial Before You Dig website www.1100.com.au ○ Mobile website or iPhone app ○ By phone call 1100 (toll free, during business hours).	**5**
Pre check machinery/site conditions	Hazard: Oil and grease spillage damages to equipment **Risk: Equipment failure**	**1**	• Conduct pre-start on all machinery at start of shift and after an event where the operator suspects the machine may have been compromised, e.g., put in water, misused by another operator • 3-point contact to enter/exit machine • Clean up spill. • Daily inspection of site prior to commencement of work	**5**
Performing excavation and trenching work	Hazard: Reducing the stability of nearby structure **Risk: Structural collapse, asphyxiation,**	**1**	• No work is to take place adjacent to a building or structure such that it may undermine or make unstable the building or structure • A geotechnical engineer is to be engaged to determine (in writing) whether the excavation would reduce the stability of any nearby structures • Controls specified by the engineer to prevent a person's exposure to collapse or partial collapse of the structure are to be implemented and maintained • Machine positioned level or where this cannot be achieved near level at an incline not exceeding the manufacturer's	**4**

High Risk Work Activity: 15. Mobile Plant				
Activity	Hazards & Risks	PRE-Risk	Work Method Used	POST Risk
	crush injuries		recommendations. • Operator to ensure seat belt worn where fitted as part of manufacturers specification • Check the strength and adequacy of the ground – consider rises and falls, existing or recently backfilled trenches • Machines to be only operated by certified persons • Do not carry others on machine and machine only driven from operators' seat • Machines operated and maintained in accordance with manufacturer's instructions • Unauthorised persons kept away from the mobile plant • Underground services to be identified prior to works commencing • Area clearly marked and barricaded where necessary to make safe from other traffic • Traffic Safety Management Plan to be adhered to • Machine not to be left unattended. Disengage controls, apply the park brake, switch off engine and remove key when not in use	
Vehicles or generators being used near a trench or excavation	Hazard: Inhalation of carbon monoxide **Risk: Asphyxiation, death**	**1**	• Where there is the risk of inhalation of carbon monoxide or other impurity of the air, due to a person being in a trench / excavation, a confined space entry permit is to be used and air monitoring performed • No person is to be in the trench when an excavator is in operation and there is the risk of inhalation of carbon monoxide • Petrol driven machinery is not to be in or near trenches	**5**
Workers inside trench working	Hazard: Worker collapse or injury preventing normal exiting via ladder **Risk: Unable to obtain first aid quickly, unable to exit excavation**	**2**	• Workers will never work alone in trenches where risk(s) dictate the access to be hindered for one person to exit quickly • Where practical steps will be constructed in the earth • Where it is not practical to construct earth steps multiple workers will be always required with a minimum of 2 personnel in the area • A stretcher will be made available with a 4-man lift required to remove a person from the excavation • Once the Worker has been removed normal First Aid Treatment will apply	**4**

High Risk Work Activity: 15. Mobile Plant				
Activity	Hazards & Risks	PRE-Risk	Work Method Used	POST Risk
15H. Working Around Cranes and Lifting Operations				
PPE Recommended			**Persons responsible for maintaining controls**	
Public protection, Staying clear of Other Workers and General awareness of activity	Hazard: Mobile Plant, Poor communication, Pedestrian traffic **Risk: Falling objects, Personal Injury to public or other workers**	**1**	• Exclusion zones surrounding work area to be established by crane operator • During the erection of any object via a crane, public/other workers will remain out of the designated lift area which is the area below or adjoining where persons could be struck by falling equipment / materials • Area is to be either barricaded or sign posted to prevent unauthorised entry • Safety helmets must be worn always when working in vicinity of loads being lifted • Workers will remain out of the lifting area and ensure no pedestrians or bystanders enter the area while the lifts are being conducted • The crane operator and rigger will always remain in control of the lift. In the event where workers may be required to assist in the placement of loads all workers involved will sign onto the Crane Operators SWMS and any additional hazards will be managed through that document. This SWMS does not cover these tasks. • Take all directions from Crane Crew	**4**

Site Risk Assessments – Listed Alphabetically by Non-High-Risk Activities				
Activity	Hazards & Risks	PRE-Risk	Work Method Used	POST Risk
Ladders – Under 2m				
PPE Recommended			**Persons responsible for maintaining controls** 	
Using Ladders	Hazard: Using Ladders **Risk: Falling**	3	• Tie offs, base support, gutter anchors, levelers to be considered • All ladders used on site will be rated 'Industrial' with 120kg (minimum) load rating • Persons using the ladder must have 3 points of contact always (i.e., 2 hands and 1 foot or 2 feet and 1 hand or be holding a stable object e.g., gutter, wall frame) • Ladders are to be maintained in a sound working condition and be appropriate for the task to be undertaken • Tools requiring two handed operations, or a high degree of leverage force should not be used while on ladders • A ladder is not a work platform.	5
Manual Handling				
PPE Recommended			**Persons responsible for maintaining controls** 	
Manual Handling	Hazard: Locations of the loads and distances to be moved **Risk: Musculoskeletal strain, Fatigue**	**3**	• Use mechanical handling equipment where possible • Correct lifting technics learnt in their construction induction will be used whenever a lift is required • **Preparation**: The first step in any lifting operation is preparation. Plan how you will carry out the lift and clear away any obstacles. By visualising the lift, you will automatically make your stomach muscles contract. These muscles brace your back and will significantly contribute to injury prevention • **Size up to load**: By moving the load sideways and forwards you will be able to ascertain whether it is within your capacity. Always imagine that the object you are about to lift is much heavier than it is • **Proper foot position**: As a general rule the front foot should be beside the object. The back foot should be slightly behind and be hip width from the front foot. This achieves a stable base and allows for even distribution of weight • **Proper hold**: Ideally with the proper hold the hands should be diagonally opposite for security and comfort. Use the full length of the fingers and where possible the palms to avoid fatigue • **Bend at the knees**: Bend your knees to get down to the load and use the legs to lift it. This way thigh and leg muscles are used, and these are the strongest part of your body (your back muscles are only for bracing) • **Straight back**: Keep your back as near to straight as possible, raise your head, keeping your chin in. This will keep your spine straight and enable you to see where you are going	**5**

Site Risk Assessments – Listed Alphabetically by Non-High-Risk Activities				
Activity	Hazards & Risks	PRE-Risk	Work Method Used	POST Risk
			• **Keep the load close to you**: During the lift, keep the arms as straight as possible, and the elbows into the side. Don't change your grip while carrying and directly face the spot on which the load will rest. Never combine lifting with the twisting of your body. If you must turn, do it by moving your feet. Twisting causes the worst type of back injuries • **When a team lift is required, good communication will be used to co-ordinate the lift**: Whenever team lifting is used, it is essential to co-ordinate and carefully plan the lift. When organising a lift, ensure: ○ An adequate number of employees are chosen to help in the lift. ○ Team members are of similar height. ○ One person is appointed "leader" of the team to perform the lift. ○ There is enough area for the team members to maneuver as a group. ○ Team members know their roles and responsibilities. ○ Training in team lifting has been provided and the lift is rehearsed.	
Plumbing				
PPE Recommended			**Persons responsible for maintaining controls**	
Fitting pipes	Hazard: Personnel being struck or cut by sharp edges **Risk:** **Loud Noises,** **Electrocution.** **Cuts/abrasions**	**2**	• Ensure pipes are not LIVE before ever cutting or connecting (Earth Pipes if required.) • If not sure earth both sides of pipe before cutting • Ensure that no people, other than those workers directly involved in the plumbing operation, are in the area • All workers to be familiar with the tools • All guards used for grinders	4
Dismantle Removal of old Pipes	Hazard: Incorrect procedure followed **Risk:** **Personal injury** **Cut/abrasions**	**2**	• Visual inspection • Plumbing should be inspected prior to dismantling • Check for unacceptable: ○ Warping ○ Cracks ○ Live Power ○ Snakes or other animals	**4**

Site Risk Assessments – Listed Alphabetically by Non-High-Risk Activities				
Activity	Hazards & Risks	PRE-Risk	Work Method Used	POST Risk
Use of Hand and Power Tools				
PPE Recommended			**Persons responsible for maintaining controls** 	
Prestart check at site	Hazard: Site hazards may impair works **Risk:** **Personal injury**	**3**	• Undertake pre-site inspection verify conditions on site will enable works to be carried out in accordance with the SWMS. • Discuss site specific works with the Site Supervisor reviewing site signage, Safety Management Plan, for site specific hazards • Ensure all employees are made aware of any site specific hazards to works and these SWMS • Construction Inducted employees are only allowed to undertake construction works • Ensure all leads tagging & testing are up to date, if applicable	**5**
Use of drills, saws, planner, sander, hand tools	Hazard: Untrained workers **Risk:** **Personal injury**	**3**	• Workers are to use the right type and right size of tool for the job • Workers to follow the correct procedure for using every tool • Worker to check the condition of tool prior to use • Always carry pointed tools by your side with the points and heavy ends down • Never carry tools in your pockets • Keep cutting tools sharp and in good condition • Cut away from yourself when using chisels and other edged tools • Handle sharp-edged and pointed tools with care • Handles must have no sharp edges or areas that dig into the fingers or palm of the hand • Do not use tools which are loose or cracked • When power tools are used follow the manufacturer's instructions for the correct PPE to be worn and the safe use instructions • Workers to be competent in the use of the PPE and risk assessments must be undertaken prior to using PPE to show that the hierarchy of control was used in determining if to use PPE • If an item of plant or equipment creates excessive noise, that is where you need to raise your voice to talk, wear appropriate hearing protection • If there is a risk of injury to the head by falling objects then wear hard hats	**5**

Site Risk Assessments – Listed Alphabetically by Non-High-Risk Activities				
Activity	Hazards & Risks	PRE-Risk	Work Method Used	POST Risk
	Hazard: Flying debris **Risk:** **Personal injury**	**3**	• Guards on tools and equipment will be maintained and working effectively before being used on site • Guarding on tools will not be removed to perform any work activity • All tools and equipment will be inspected prior to work activity for any faults or defects • If a fault or defect is found the item will be removed from services and reported to the supervisor as soon as practicable • All persons performing work where there is a risk of a foreign object striking the eye, eye protection must be worn	**5**
	Hazard: Poorly maintained electrical tools **Risk:** **Electrocution**	**3**	• All corded tools will be tested and tagged in accordance with current legislation and conducted every **three months** on construction sites • All corded tools will be connected directly to an RCD switch box which is also inspected and tagged in accordance with current legislation	**5**
Powered tools with discs: grinders	Hazard: Incorrect disc or fragmented disc resulting in flying parts striking people **Risk:** **Personal injury**	**3**	• Grinders will always be inspected before use • If a cutting or grinding disk has been left on, carefully inspect disc prior to use • If damage to disc is noted, swap out for a new one • Never change any type of disk on a grinder without unplugging or removing battery • Checking for dead is also essential to prevent accidental operation during disk change • Never over tighten disk as this may also damage them • Guards are always manditory on a grinder. If the guard is in the way, the grinder is the wrong tool for the job • Do not remove guards for any reason while grinder is in use	**4**
Working in Hot/ Humid Environments (Excess 30°or +60% Humidity)				
PPE Recommended			**Persons responsible for maintaining controls**	
Working in excessively hot environments or during a heat wave (i.e., working on open fields,	Hazard: Heat and high humidity on the body, Radiant heat, High humidity, Hot objects, or	**2**	• Extended working hours, excessive heat and more strenuous activities will be carefully monitored • Have in place emergency procedures for heat stress • Supervisors to consider: ○ Length of shifts - depends on physical and mental load of the work ○ Previous hours and days worked ○ Type of work being performed ○ Level of physical and/or mental effort required to complete tasks ○ Time of the day when the work is being performed.	**4**

Site Risk Assessments – Listed Alphabetically by Non-High-Risk Activities				
Activity	Hazards & Risks	PRE-Risk	Work Method Used	POST Risk
concrete structures, etc.	Strenuous physical activity **Risk: Heat stress, Dehydration, Headaches, Nausea**		○ Rotating workers • Supervisors to implement, as far as is reasonably practicable: ○ Increased supervision/monitoring of workers and regular communication with them ○ Work to be carried out under shade/portable shade structure ○ Increased work to rest ratio i.e., 1 hour work to 15 minutes, minimum, rest period ○ Buddy system where workers keep an eye on each other for signs of heat effects ○ Where possible schedule work for early morning, late afternoon or at night ○ Utilize 5 min hydration breaks away from sun and work ▪ Hydration Stop: Is a controlled break facilitated by the supervisor or safety rep to bring the work crew together and re-hydrate, (water, sqwincher or hydrolytes.) will be used. This is not a normal break as the sole purpose of this is to re-hydrate • Shaded or cool area(s) for rest breaks with good ventilation - use fans if needed	
Hot/ Humid environments - Emergency Response Procedures	Hazard: Unidentified heat stress or exhausted worker **Risk: Dehydration, Collapse, Permanent disability, Death**	**1**	• Workers will: ○ Look after each other and ensure that there is drinking water, co-workers are taking breaks and not showing signs of heat stress ○ Ensure they have plenty of cool water to drink - not icy water ○ Use electrolyte icy blocks if not contra indicated ○ Take regular rest breaks in shade • If a worker shows symptoms: ○ Remove the worker from the heat or work area ○ Loosen their clothing, remove PPE including shirts and masks ○ Have them rest in a cool, well-ventilated area ○ Encourage them to drink cool (not cold) fluids ○ If symptoms do not reduce quickly, seek medical help immediately • As far as is reasonably practicable, sites to have available ice towels (i.e., esky, ice, water, and towels) as part of a first aid response. Ice towels have been shown to be an effective cooling method for heat related illness • To relieve acute symptoms, such as painful muscular cramps, hydrolytes may be used in the single serve • **DRSABCD** – Implement basic first aid • **See site First Aiders** • Each day ensure workers know who the onsite first aiders are	**4**

Site Risk Assessments – Listed Alphabetically by Non-High-Risk Activities				
Activity	Hazards & Risks	PRE-Risk	Work Method Used	POST Risk
End of Shift				
PPE Recommended			**Persons responsible for maintaining controls**	
Clean up and re-packing.	Hazard: Loading vehicle **Risk: Muscular strains**	**3**	• When cleaning up and repacking good manual handling techniques will be used, e.g., such as bending the knees and not the back, team lifts where possible and avoid carrying very heavy items	**5**
Leaving Site	Hazard: Environmental **Risk: Environmental damage**	**4**	• When leaving site, make sure to take away any of the left-over materials • When cleaning ensure that all environmentally sensitive products are disposed of correctly • Any leftover hazardous substances will be taken off site and disposed at the correct facility	**5**

Site Risk Assessments – Additional Tasks or Activities to be Added				
Activity	Hazards & Risks	PRE-Risk	Work Method Used	POST Risk
Additional Tasks to Add to Job				
Task 1:	Hazard: **Risk:**	 **0-6**	What did you do to make it safe?	 **4-6**
Task 2:	Hazard: **Risk:**	 **0-6**	What did you do to make it safe?	 **4-6**
Task 3:	Hazard: **Risk:**	 **0-6**	What did you do to make it safe?	 **4-6**