

# PBS Project Risk Register



							Acronym	Responsible Positions	Hierarchy of Control		Control Selections			
							SS	Sub-Contractor Supervisor	6. Elimination	0	%Controls ≥ Engineering	84%		
							SM	Site Manager	5. Substitution	1	%Controls < Engineering	16%		
							FM	Foreman	4. Isolation	29				
							CA	Contracts Administrator	3. Engineering	76	Check formulas in L2-L7 if you add rows to ensure range is correct			
							EHSQ	EHSQ Co-Ordinator	2. Administration	20				
							PE/SE	Project Engineer / Site Engineer	1.PPE	3				
<b>Workplace Location:</b>		Livepool Blue CHP Anderson Avenue												
<b>Issue Number:</b>		2												
<b>Issue Date:</b>		25/11/2021												
Activity Number	Activity Description	High Risk Construction Work	Responsible Contractor	Hazard / Impact (Worst Credible Consequence)	Likelihood	Consequence	Risk Rating	Critical Control Measures	Hierarchy of Control Highest Level Control?	Monitoring Frequency?	Action by whom (Title)	Status	Legal and other requirements	
	All Trades / Common Activity	Is carried out in an area at a workplace in which there is any movement of powered mobile plant		hit by mobile plant (Concrete truck/Pump & Crane)	C Possible	4 Large	12	Lineman to have positive communication with pump operator when positioning the line for the filling of AFS Walls. Pump operator to have direct line of site where concrete boom is to be positioned. Doggman to control the load using a tag line. Clear and precise commands (ie two way radios, hand signals or whistle blasts) to be used when communicating with the operator.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide , .	
	All Trades / Common Activity			Manual Handling	C Possible	3 Medium	9	Identified control measures must follow the Hierarchy of Control commencing with elimination of the manual handling task where reasonably practicable; followed by the use of mechanical aids to reduce risks related to manual tasks. Ensure you keep the load close to the chest and bend your knees to pick up the load and lift with your legs with your back straight. bend the knees to lower the load then release the load to final position without over extending the back.	3. Engineering	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2011, Hazardous manual tasks CoP, Construction work CoP, How to manage work health and safety risks CoP, Work health and safety consultation, coordination and cooperation CoP.	
	All Trades / Common Activity	Risk of Person Falling more than 2m		Falls of persons from Height More than 2m	C Possible	5 Very Large	15	HRSWMS in place for any High Risk Construction works. Keep work areas clean and clear of any excess materials. The Catch or Capture philosophy must be employed as the primary control to prevent the fall or reduce the distance of the fall. Scaffold and /or edge protection to be completed and signed off as ready for use. All loading areas on scaffold to have midrail and top rail installed after load is on scaffold. Mesh infills to be utilised as another option. Handrails Mid Rails and Toe boards to be installed on inside and outside of Scaffolding.	3. Engineering	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Hazardous manual tasks CoP, Construction work CoP, How to manage work health and safety risks CoP, Work health and safety consultation, coordination and cooperation CoP.	
	All Trades / Common Activity			Falls of persons from Height Less than 2m	C Possible	3 Medium	9	Identified control measures must follow the Hierarchy of Control commencing with elimination of the task where reasonably practicable. Use of platform ladder or Mobile scaffold as a first action. Use of step ladder for less than 15 min duration or in cases where platform ladder is not viable Handrail installed at opening to prevent person from falling. Scaffold to be completed and signed off as ready for use. All loading areas on scaffold to have midrail and top rail installed after load is on scaffold. Mesh infills to be utilised as another option. Persons are to remain inside the EWP and not stand on the mid rail to over stretch to complete a task.	3. Engineering	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Hazardous manual tasks CoP, Construction work CoP, How to manage work health and safety risks CoP, Work health and safety consultation, coordination and cooperation CoP.	
	All Trades / Common Activity			Cuts and Lacerations	D Unlikely	3 Medium	6	All guards to be fitted to power tools, Leads and tools to be test & tagged by a competent person 3 monthly and any RCD to be test & tagged monthly. Wear the correct PPE for use of power tool and hand tools.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Hazardous manual tasks CoP, Construction work CoP, How to manage work health and safety risks CoP, Work health and safety consultation, coordination and cooperation CoP.	
	All Trades / Common Activity			Falls of materials	D Unlikely	4 Large	8	HRSWMS in place for any High Risk Construction works. Correct PPE to be worn when handling materials.VOC for Plant use. Keep EWP clean and clear of any excess materials. The Catch or Capture philosophy must be employed as the primary control to prevent the fall or reduce the distance of the fall. Robust exclusion zones must be on place as a secondary control measure below areas where a risk of fall of materials/tools exists; these exclusion zones must account for potential arc of fall, deflection and bounce. Boom EWPs need to have mesh flooring so the ground is visible below operators feet.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide , .	
	All Trades / Common Activity			Dust inhalation	C Possible	3 Medium	9	Correct PPE to be worn, including the use of P2 or higher control masks when working with hazardous materials. Works to be completed in a ventilated area and consider the use of fans if needed. SDS to be communicated to All workers involved in the task via TBT or SWMS.	2. Administration	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Excavation Work CoP, How to manage work health and safety risks CoP, Construction work CoP, First aid in the workplace CoP, How to manage work health and safety risks CoP, Labelling of workplace hazardous chemicals CoP, Managing risks of hazardous chemicals in the workplace CoP, Managing the risks of plant in the workplace CoP, Preparation of safety data sheets for hazardous chemicals CoP, Welding processes CoP, Work health and safety consultation, coordination and cooperation CoP, PBS Safety Guide .	

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Activity Number	Activity Description	High Risk Construction Work	Responsible Contractor	Hazard / Impact (Worst Credible Consequence)	Likelihood	Consequence	Risk Rating	Critical Control Measures	Hierarchy of Control Highest Level Control?	Monitoring Frequency?	Action by whom (Title)	Status	Legal and other requirements	
	All Trades / Common Activity			Fatigue	D Unlikely	2 Small	4	Rotate work crews for demanding and heavily physical tasks. Monitor number of workers and hours worked. Contractors to manage own workers in accordance with their own fatigue management process. Min 12hr break between shifts.	4. Isolation	Permits, Pre-starts, TBT's, Plans/Drawings, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Hazardous manual tasks CoP, Construction work CoP, How to manage work health and safety risks CoP, Work health and safety consultation, coordination and cooperation CoP. Managing the risks of plant in the workplace CoP, Hazardous manual tasks CoP.	
	All Trades / Common Activity	Is carried out on or near energised electrical installations or services		Electric shock from power tools, leads and equipment	C Possible	4 Large	12	All guards to be fitted to power tools, Leads/tools to be test & tagged 3 monthly by a competent person and any RCD to be test & tagged monthly. Register of tagging to be provided to PBS upon completion of tagging. Wear the correct PPE for task or activity undertaken. Leads to be elevated and run through correct cable openings in temp board. No Piggybacking of leads. RCD box to be used to join extension leads if required.	3. Engineering	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction work CoP, How to manage work health and safety risks CoP, Managing electrical risks in the workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation CoP. PBS Safety Guide .	
	All Trades / Common Activity	Is carried out on or near energised electrical installations or services		Electric shock from power tools, leads and equipment - Temp Boards	C Possible	4 Large	12	Temporary boards must be physically secured to prevent overturn of board and front covers must be lockable. Temporary boards must have locked covers over circuit - breakers and RCDs associated with outgoing circuits apart from the main switch/isolating switch which must be readily accessible in the event of an emergency. Permanent House Distribution Boards displayed power supplier / Authority compliance labels which allow power connection area a higher control level confirming 'test and tag' requirements. Permanent House Distribution Boards must be fitted with mechanical protection to prevent leads being damaged before use by contractors. RCD Trip times to be recorded monthly	3. Engineering	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction work CoP, How to manage work health and safety risks CoP, Managing electrical risks in the workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation CoP. PBS Safety Guide .	
	All Trades / Common Activity	Is carried out on or near energised electrical installations or services Is carried out on or near pressurised gas distribution mains or piping; is carried out on or near chemical, fuel or refrigerant lines;		Contact with Live Existing Services	A Almost Certain	4 Large	20	As built to be received from the client to confirm existing services. Evidence and As Built drawings from client to identify any live and disconnected services within the project boundaries. Service Locator to be engaged to conduct survey of site and provide to PBS. PBS Isolation/Energisation Permit to be used. An Excavation Permit may also be needed. Any live services that remain inside PBS fence line above grade are to be identified using robust barricading and signage. DBYD to be reviewed by PBS and provided to Demolition Contractor. In ground services are to visually marked.	2. Administration	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction work CoP, How to manage work health and safety risks CoP, Managing electrical risks in the workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation CoP. PBS Safety Guide .	
	All Trades / Common Activity	Is carried out on or near energised electrical installations or services		Contact with Overhead Power Lines	B Likely	4 Large	16	No unloading / loading of trucks to happen in the vicinity of these powerlines. All plant to remain at a minimum approach distances to powerlines. Up to 132,000 volts = 3m. 132,000 - 330,000 volts = 6m. Above 330,000 = Tiger Tails to be installed by relevant authority as a visual reminder. Install height/location indicators. Non conductive barrier to be installed between building/plant and power lines. Competent Spotter to have positive communication with plant (UHF radios) and observe plant movements when design envelope has the potential to reach closer than 3 metres to power lines. Install signage as visual reminder. Tiger Tails to be fixed to Hillier St and El Amien Power Lines. Height Access restrictions to be notified to contractors for deliveries.	4. Isolation	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction work CoP, How to manage work health and safety risks CoP, Managing electrical risks in the workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation CoP. PBS Safety Guide .	
	All Trades / Common Activity	Risk of Person Falling more than 2m		Materials / person falling from a ladder	C Possible	2 Small	6	Platform ladders to be used in the first instance and step ladders can only be used for 15min durations for short spans of works. 3 points of contact at all times. Ladder to be stepped back from any edges of a building at least 3m. Robust exclusion zones must be on place as a secondary control measure below areas where a risk of fall of materials/tools exists; these exclusion zones must account for potential arc of fall, deflection and bounce.	3. Engineering	Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide .	
	All Trades / Common Activity			Temperature extremes	C Possible	1 Very Small	3	Sunscreen to be worn. Broad brims on hard hats encouraged. Consider rest breaks & job rotation. Undertake work at cooler times of the day. Provide adequate clothing that protects from the elements.	1. PPE	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Hazardous manual tasks CoP, Construction work CoP, How to manage work health and safety risks CoP, Work health and safety consultation, coordination and cooperation CoP.	
	All Trades / Common Activity			Working in Cold, Inclement or Windy Weather	C Possible	2 Small	6	Heated amenities to be provided. Suitable Access / Egress to be provided to work areas. Inspection to be conducted prior to gates of site open by PBS Site Manager to assess all access routes. Work areas to be monitored by contractor management and work to cease if conditions are deemed unsuitable.	1. PPE	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SS / SM / HSR	Open	WHS Act 2011, WHS Regulations 2011 Construction Work COP, How to manage work health and safety risks COP, Work health and safety consultation, coordination and cooperation COP, PBS Safety Guide, Managing the work environment and facilities COP	

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Workplace Location:		Livepool Blue CHP Anderson Avenue												
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	All Trades / Common Activity			fall of Materials & Hand Tools From EWP	C Possible	3 Medium	9	HRSWMS in place for any High Risk Construction works. Correct PPE to be worn when handling materials.VOC for Plant use. Keep EWP clean and clear of any excess materials. The Catch or Capture philosophy must be employed as the primary control to prevent the fall or reduce the distance of the fall. Robust exclusion zones must be on place as a secondary control measure below areas where a risk of fall of materials/tools exists; these exclusion zones must account for potential arc of fall, deflection and bounce. Boom EWPs need to have mesh flooring so the ground is visible below operators feet.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide ,	
	All Trades / Common Activity	Is carried out in an area at a workplace in which there is any movement of powered mobile plant		People and Plant Separation - Excavators	C Possible	4 Large	12	Spotter to have positive communication with excavator operator during the task. Workers to stay outside the swing zone of the excavator. Exclusion zone around the excavation/ excavator to stop any unauthorised entry by other workers on the site. Hand signals or UHF radios to be used as positive communications. Workers to remain out of blind spots of any plant that may be delivering materials to site and spotter to guide any plant to final delivery position. Dogman to remain visible when guiding the delivery or installation of loads and to use positive comms.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide , .	
	All Trades / Common Activity			Environmental damage from spills and cleaning tools	C Possible	1 Very Small	3	All trowels, tools and equipment to be washed out in a protected and designated wash out area. Concrete pump to blow out in plastic lined bin.Hand tools to be washed out in designated wash out area. All off cuts and construction rubbish to be put into the correct PBS bins only. Ensure that all activities where land is cleared, excavated or disturbed have sediment and erosion control devices implemented and maintained. Provide on-site treatment of any stormwater runoff where required. Determine preventative controls as well as physical controls such as covering of stockpiles or water spraying to eliminate or minimise dust being introduced into the atmosphere. Assess and implement mitigation measures for all noise and vibration related impacts on occupants , visitors, surrounding activities and owners where required to ensure operations do not adversely impact them. Plan and conduct all excavation, movement, treatment, processing or remediation of contaminated soils or groundwater in accordance with the requirements of high risk activities.	3. Engineering	Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Excavation Work CoP, How to manage work health and safety risks CoP, Construction work CoP, How to manage work health and safety risks CoP, Labelling of workplace hazardous chemicals CoP, Managing risks of hazardous chemicals in the workplace CoP, Managing the risks of plant in the workplace CoP, Preparation of safety data sheets for hazardous chemicals CoP, Work health and safety consultation, coordination and cooperation CoP. PBS Safety Guide .	
	All Trades / Common Activity	Is carried out in an area at a workplace in which there is any movement of powered mobile plant		People and Plant Separation - Mobile plant	C Possible	4 Large	12	Wear seat belt if provided. Driver/operator to be able to see travel path and stop if people walk in direct area. Flashing light to be in prominent position so people will be able to see it and reverse beepers to be in working order. Rear vision mirror to be in working condition	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide , .	
	All Trades / Common Activity			Sunburn	C Possible	2 Small	6	Short sleeve shirts can be worn onsite. PBS to provide sunscreen stations attached to the nurse calls located onsite. Sunscreen to be worn. Broad brims on hard hats encouraged. Consider rest breaks & job rotation. Undertake work at cooler times of the day. Provide adequate clothing that protects from the elements.	1. PPE	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Hazardous manual tasks CoP, Construction work CoP, How to manage work health and safety risks CoP, Work health and safety consultation, coordination and cooperation CoP.	
	All Trades / Common Activity	Is carried out in an area at a workplace in which there is any movement of powered mobile plant		Plant roll over	D Unlikely	4 Large	8	EWP to be operated on stable ground conditions. Competent VOC'd workers to operate EWP under 11m & Only workers with a High Risk Licence to operate EWPs over 11m. VOC required for mobile plant used on site. Before accessing work areas on the site, operators are to establish a route for safe access and set-up. Considerations of service trenches and penetrations should be taken into account.	2. Administration	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide , .	
	All Trades / Common Activity	Is carried out on or near energised electrical installations or services Is carried out on or near pressurised gas distribution mains or piping; is carried out on or near chemical, fuel or refrigrant lines;		Contact with in-ground services	D Unlikely	4 Large	8	Sucker truck to be used to pot hole every 5m a known services, this will identify the service and the direction that it is going. PBS Excavation permit to be in place before any in-ground works begin. No use of an excavator within 1m of a service unless dispensation has been given by the PBS Regional EHS Manager. HRSWMS to be in place for the task. All inground services are to be located using DBYD, Energise or isolate permit may be necessary depending on the task, HRSWMS needed , identify the risks , hold points, testing procedures and identify Plant needed for reducing the risks etc.	4. Isolation	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction work CoP, How to manage work health and safety risks CoP, Excavation work CoP, Managing electrical risks in the workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation CoP. PBS Safety Guide .	



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	All Trades / Common Activity	Is carried out in an area at a workplace in which there is any movement of powered mobile plant		Failure of plant	C Possible	5 Very Large	15	Mobile plant, Excavators and the like, must be correctly maintained and be in good condition for use onsite. All repairs must be attended to before the plant can be used onsite. All lifting gear - Chains and slings must be approved by a competent person. Synthetic slings need to be checked 3 monthly and chains are to be tested yearly, both having a visual inspection before each use. All lifting equipment must be in good condition and regularly serviced as per manufacturers specs (i.e. Spreader bars, chains, synthetic slings, clutches).	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide . .	
	All Trades / Common Activity			Failure of lifting gear	C Possible	5 Very Large	15	All lifting equipment must be in good condition and regularly serviced as per manufacturers specs (i.e. Spreader bars, chains, synthetic slings, clutches), contractors must not allow any unauthorised entry into exclusion zones.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide . .	
	All Trades / Common Activity			Fire and Explosion when refuelling plant & equipment	C Possible	3 Medium	9	Hot works permit valid for activity if necessary. Area to be clear of any combustible material. Fire fighting equipment to be in date and in the vicinity of the refuelling activity. Haz goods to be stored correctly onsite and in ventilated areas. All personnel using chemicals to be inducted into the SWMS which are to include any controls as per the SDS for the specific product. All Jerry cans used must be returned to the Haz storage and secured, they are not to be left out onsite. Refuelling to be undertaken in identified locations away from other ignition sources. Spill kit relevant to spill risk to be available.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Excavation Work CoP, How to manage work health and safety risks CoP, Construction work CoP, First aid in the workplace CoP, How to manage work health and safety risks CoP, Labelling of workplace hazardous chemicals CoP, Managing risks of hazardous chemicals in the workplace CoP, Managing the risks of plant in the workplace CoP, Preparation of safety data sheets for hazardous chemicals CoP, Welding processes CoP, Work health and safety consultation, coordination and cooperation CoP, PBS Safety Guide .	
	All Trades / Common Activity			Noise and vibration	C Possible	2 Small	6	When using grinders / tools for an extended period of time, then anti vibration gloves should be worn. Hearing protection should also be worn on top of the site specific PPE requirements. Rotation of workers to be considered for lengthy periods of repetitive grinding tasks.	3. Engineering	Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction work CoP, Hazardous manual tasks CoP, How to manage work health and safety risks CoP, Managing noise and preventing hearing loss at work CoP, Managing the risks of plant in the workplace CoP, Managing the work environment and facilities CoP, Work health and safety consultation, coordination and cooperation CoP, PBS Safety Guide .	
	All Trades / Common Activity	Is carried out in an area at a workplace in which there is any movement of powered mobile plant		roll over of excavator	D Unlikely	4 Large	8	Excavator is not to be set up inside the "Zone of Influence". ROPS / FOPS to be installed on All plant including but not limited to Grader, Roller, Skid Steer. Do not exceed the SWL of machine. Ensure lifting gear is test and tagged as ready for use by a competent person.	3. Engineering	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide . .	
	All Trades / Common Activity			Contact with Hazardous Chemicals or Dangerous Goods	B Likely	2 Small	8	SDS Controls need to be communicated to All workers that are to use and Haz product. The correct PPE is to be worn while completing the task. Chemicals to be correctly labelled and kept in secure storage location on-site.	2. Administration	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Excavation Work CoP, How to manage work health and safety risks CoP, Construction work CoP, First aid in the workplace CoP, How to manage work health and safety risks CoP, Labelling of workplace hazardous chemicals CoP, Managing risks of hazardous chemicals in the workplace CoP, Managing the risks of plant in the workplace CoP, Preparation of safety data sheets for hazardous chemicals CoP, Welding processes CoP, Work health and safety consultation, coordination and cooperation CoP, PBS Safety Guide .	

# PBS Project Risk Register



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							CA	Contracts Administrator	3. Engineering	76	Check formulas in L2-L7 if you add rows to ensure range is correct			
							EHSQ	EHSQ Co-Ordinator	2. Administration	20				
							PE/SE	Project Engineer / Site Engineer	1.PPE	3			Delete Legislation / Codes not applicable to your jurisdiction	
Workplace Location:		Livepool Blue CHP Anderson Avenue												
Issue Number:		2												
Issue Date:		25/11/2021												
Activity Number	Activity Description	High Risk Construction Work	Responsible Contractor	Hazard / Impact (Worst Credible Consequence)	Likelihood	Consequence	Risk Rating	Critical Control Measures	Hierarchy of Control Highest Level Control?	Monitoring Frequency?	Action by whom (Title)	Status	Legal and other requirements	
	All Trades / Common Activity	Risk of Person Falling more than 2m		fall of persons in to excavations	D Unlikely	2 Small	4	Flagging installed with signage 2m back from trenching. For Pit excavations over 1.5 - robust fencing to be installed and signage stating "Deep Excavation" and "Authorised persons only". Excavations over 1.5 to be benched, batter or shored. Safe means of access to be provided. Physical barrier installed to prevent access to excavation.	3. Engineering	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Hazardous manual tasks CoP, Construction work CoP, How to manage work health and safety risks CoP, Work health and safety consultation, coordination and cooperation CoP.	
	All Trades / Common Activity	Is carried out in an area at a workplace in which there is any movement of powered mobile plant		Loss of load by lifting activities	D Unlikely	5 Very Large	10	All lifting equipment must be in good condition and regularly serviced as per manufacturers specs (i.e. Spreader bars, chains, slynthetic slings, clutches.) Contractors to not allow any unauthorised entry into exclusion zones. Crane to work lower than 95% capacity. Set up in areas that are approved by the PBS Site Manager. Pre-start to be conducted on Crane before use. Crane to be less than 20yrs old and a 10yr structural inspection completed. When expecting to use crane over 95% capacity a Lift study is to be completed. Do not operate crane in adverse weather conditions which may effect the load or crane. Crane maintenance to be up to date and any repairs to be done prior to lifting. When using excavator as a crane, SWL not be exceeded and All lifting gear to be inspected and approved for use. All loads to be secured when moving around the site via telehandler.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide . . PBSSlinging and Lifting Guidelines	
	All Trades / Common Activity	Is carried out on or near energised electrical installations or services Is carried out on or near pressurised gas distribution mains or piping; is carried out on or near chemical, fuel or refrigrant lines;		contact with live services in walls / ceilings / Basements	C Possible	4 Large	12	HRSWMS to be in place for the task. Energise or isolate permit may be necessary depending on the task, Aluminium ladders to be used, correct PPE. HOLD POINT - Contractor needs approval to energise, by the PBS Supervisor. Live temporary electrical cabling must be identified with yellow tag tape every 3m..All temporary electricity provided to socket (general purpose ) outlets must be protected by a Residual Current Device. Isolate live cables where possible, Any works requiring drilling or cutting into areas , materials or structures that MAY contain live electrical shall be thoroughly investigated prior to works. An electrician is required to sign off prior to drilling /cutting within 2m of any alignment of GPO or electrical fitting, light switch. Every cable end (i.e. awaiting termination) must be folded over itself and taped to prevent eye damage and electric shock(in the event of inadverent energisation).	4. Isolation	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction work CoP, How to manage work health and safety risks CoP, Managing electrical risks in the workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation CoP. PBS Safety Guide .	
	All Trades / Common Activity	Involves, or is likely to involve, the disturbance of asbestos Carried out in an area that may have a contaminated atmosphere		Unexpected finds	D Unlikely	4 Large	8	PBS site specific Unexpected finds protocol to be followed	4. Isolation	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction work CoP, Excavation work CoP, Hazardous manual tasks CoP, How to manage work health and safety risks CoP, Labelling of workplace hazardous chemicals CoP, Managing electrical risks in the workplace CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation CoP.	
	All Trades / Common Activity			Collapse of excavation/trenching	C Possible	4 Large	12	Bench batter or shoring to be installed for any excavations over 1.5m. All machinery not to be located in the 'Zone of Influence' . Any wall that cannot be bench battered or shored is to have a geo-tech certification inspection done before any worker can enter the excavation or trench. Shoring boxes to provide adequate access in/out of the excavation. Adjacent structures, roads and sidewalks must be supported or protected where necessary to prevent collapse. Materials and equipment must be placed at safe distances from the edge of excavations.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide . .	
	All Trades / Common Activity	Is carried out in an area at a workplace in which there is any movement of powered mobile plant		Failiure of concrete pump	D Unlikely	4 Large	8	Operators are to hold relevant HRWL (PB). Before accessing work areas on the site, operators are to establish a route for safe access and set-up. Considerations of service trenches and penetrations should be taken into account. Xrays are to be conducted on a monthly basis and records given to PBS to ensure that pipe thickness does not deteriorate below the minimum density of 2mm of wall thickness in the concrete piping.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide . .	
	All Trades / Common Activity			entanglement from the cement mixer	C Possible	3 Medium	9	All guards to be fitted to Mixer engine, Leads to be hung in a position so as not be able to entangle in the movement of the mixer. Mixer to be set up on stable ground. Wear the correct PPE for use of the mixer and don't have any loose clothing on. RCD Protection from power outlet to be installed and tagged monthly.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Hazardous manual tasks CoP, Construction work CoP,Managing electrical risks in the workplace CoP, How to manage work health and safety risks CoP, Work health and safety consultation, coordination and cooperation CoP.	

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							CA	Contracts Administrator	3. Engineering	76	Check formulas in L2-L7 if you add rows to ensure range is correct			
							EHSQ	EHSQ Co-Ordinator	2. Administration	20				
							PE/SE	Project Engineer / Site Engineer	1.PPE	3				
<b>Workplace Location:</b>		Livepool Blue CHP Anderson Avenue												
<b>Issue Number:</b>		2												
<b>Issue Date:</b>		25/11/2021											Delete Legislation / Codes not applicable to your jurisdiction	
Activity Number	Activity Description	High Risk Construction Work	Responsible Contractor	Hazard / Impact (Worst Credible Consequence)	Likelihood	Consequence	Risk Rating	Critical Control Measures	Hierarchy of Control Highest Level Control?	Monitoring Frequency?	Action by whom (Title)	Status	Legal and other requirements	
	All Trades / Common Activity	Risk of Person Falling more than 2m		Failure of scaffold	C Possible	3 Medium	9	Only competent persons holding the appropriate High Risk Licence suitable to the type of work undertaken must construct, modify or dismantle any scaffold or scaffold element. Weekly sign off of access stairing and scaffold decks installed is to be done by the scaffold contractor only. Scaffold system elements must not be constructed of mixed system components unless specifically approved by the manufacturer or a competent person. Scaffolds used for block laying must be fitted with brick guards to protect edges, In Addition, a robust exclusion zone that takes account for potential arc of fall, deflection and bounce distances and has warning signs displayed must be implemented to prevent access by other workers adjacent to, or behind the block laying activity and the uncured wall.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide , .	
	All Trades / Common Activity			burns/ flash burn from welding	C Possible	3 Medium	9	Hot works permit valid for activity. Area to be clear of any combustible material. Test n tag of welder. Competent person to use welder. Fire fighting equipment to be in date and in the vicinity of the hot works. Welding Screens required if in trafficable areas. Correct PPE to be worn during the activity.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Excavation Work CoP, How to manage work health and safety risks CoP, Construction work CoP, First aid in the workplace CoP, How to manage work health and safety risks CoP, Labelling of workplace hazardous chemicals CoP, Managing risks of hazardous chemicals in the workplace CoP, Managing the risks of plant in the workplace CoP, Preparation of safety data sheets for hazardous chemicals CoP, Welding processes CoP, Work health and safety consultation, coordination and cooperation CoP, PBS Safety Guide .	
	All Trades / Common Activity			Inhalation of gasses and fumes from welding	C Possible	3 Medium	9	Correct PPE to be worn. Works to be completed in a ventilated area and consider the use of fans if needed. SDS to be communicated to All workers involved in the task via TBT or SWMS.	2. Administration	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Excavation Work CoP, How to manage work health and safety risks CoP, Construction work CoP, First aid in the workplace CoP, How to manage work health and safety risks CoP, Labelling of workplace hazardous chemicals CoP, Managing risks of hazardous chemicals in the workplace CoP, Managing the risks of plant in the workplace CoP, Preparation of safety data sheets for hazardous chemicals CoP, Welding processes CoP, Work health and safety consultation, coordination and cooperation CoP, PBS Safety Guide .	
	All Trades / Common Activity			Drowning - working near water holes	E Rare	4 Large	4	All water services are to be isolated when excavating. Isolation permit to be completed along with excavation permit. Bungs may need to be placed upstream of workers positions. Life bouys to be placed in the vicinity of nearby ponds. Sed or purpose built dirrectional fencing may need to be installed to direct the flow of potential water accessing the excavation - this may relate to weather events or if draining a line that is upstream of the excavation works. Pumps may need to be installed to remove water Correct PPE needs to be worn I.e. Gum boots in muddy trenches/ excavations.	4. Isolation	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction work CoP, How to manage work health and safety risks CoP, Excavation work CoP, Managing electrical risks in the workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation CoP. PBS Safety Guide .	
	All Trades / Common Activity			Falls of Persons from Truck	C Possible	3 Medium	9	Mobile handrail system to be in place if person needs to access the trailer. Reo should come pre-slung in secured bundles.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide , .	

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							PE/SE	Project Engineer / Site Engineer	1.PPE	3			Delete Legislation / Codes not applicable to your jurisdiction	
Workplace Location:		Livepool Blue CHP Anderson Avenue												
Issue Number:		2												
Issue Date:		25/11/2021												
Activity Number	Activity Description	High Risk Construction Work	Responsible Contractor	Hazard / Impact (Worst Credible Consequence)	Likelihood	Consequence	Risk Rating	Critical Control Measures	Hierarchy of Control Highest Level Control?	Monitoring Frequency?	Action by whom (Title)	Status	Legal and other requirements	
	All Trades / Common Activity			Fire and explosion, Burns - using a grinder to Steel	C Possible	3 Medium	9	Hot works permit valid for activity . Area to be clear of any combustable material. Fire fighting equipment to be in date and in the vicinity of the refuelling activity. Haz goods to be stored correctly onsite and in ventilated areas. Correct PPE must be worn including a face shield and correct gloves. No cotton clothing to be worn during cutting activities as they are highly flammable.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Excavation Work CoP, How to manage work health and safety risks CoP, Construction work CoP, First aid in the workplace CoP, How to manage work health and safety risks CoP, Labelling of workplace hazardous chemicals CoP, Managing risks of hazardous chemicals in the workplace CoP, Managing the risks of plant in the workplace CoP, Preparation of safety data sheets for hazardous chemicals CoP, Welding processes CoP, Work health and safety consultation, coordination and cooperation CoP, PBS Safety Guide .	
	All Trades / Common Activity	Risk of Person Falling more than 2m		failure of scaffold structure	D Unlikely	4 Large	8	Licenced competent scaffolders to only erect scaffolds and temp stair acceses. .HRSWMS in place for any High Risk Construction works. Correct PPE to be worn when handling materials. The Catch or Capture philosophy must be employed as the primary control to prevent the fall or reduce the distance of the fall. Lanyards/tethers must be used on all tools or equipment. Robust exclusion zones must be on place as a secondary control measure below areas where a risk of fall of materials/tools exists; these exclusion zones must be in place when erecting or dismantling scaffold and must account for potential arc of fall, deflection and bounce. contractors to not allow any unauthorised entry into exclusion zones.	4. Isolation	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide .	
	All Trades / Common Activity	Risk of Person Falling more than 2m		Tampering of scaffold structure	E Rare	4 Large	4	Exclusion zone while erecting and dismantling scaffold will be installed. If anyone is caught tampering with scaffold components, then they will be removed from site immediately.	3. Engineering	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide .	
	All Trades / Common Activity			Ingress of water to excavation	E Rare	4 Large	4	All water services are to be isolated when excavating. Isolation permit to be completed along with excavation permit. Bunges may need to be placed upstream of workers positions. Life bouys to be placed in the vicinity of nearby ponds. Sed or purpose built directional fencing may need to be installed to direct the flow of potential water accessing the excavation - this may relate to weather events or if draining a line that is upstream of the excavation works. Pumps may need to be installed to remove water Correct PPE needs to be worn I.e. Gum boots in muddy trenches/ excavations.	4. Isolation	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction work CoP, How to manage work health and safety risks CoP, Excavation work CoP, Managing electrical risks in the workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation CoP. PBS Safety Guide .	
	All Trades / Common Activity	Is carried out in an area at a workplace in which there is any movement of powered mobile plant		Plant collision from other plant or person	D Unlikely	4 Large	8	Dogman/spotter to control the load using a tag line. Clear and precise commands (ie two way radios,hand signals or whistle blasts) to be used when communicating with the operator.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide .	
	All Trades / Common Activity			Failure of temp props	D Unlikely	3 Medium	6	Inspection on props/timber used Install props as per manufacturers requirements. Correct bolts to be used to secure props. all temporary works must be designed by a qualified, competent and registered engineer In Addition, a robust exclusion zone that takes account for potential arc of fall, deflection and bounce distances and has warning signs displayed must be implemented to prevent access by other workers adjacent to, or behind the fence installation activity. Fence panels must not be erected in adverse weather conditions.	3. Engineering	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Excavation Work CoP, How to manage and control asbestos in the workplace CoP, How to manage work health and safety risks CoP, How to safely remove asbestos CoP.	
	All Trades / Common Activity			Affects of working in Inclement weather - Cranes & EWP & Concrete Boom	C Possible	2 Small	6	All plant, especially lifting plant are not to work outside the manufacturers recommendations regards extreme weather I.e. wind speed. If lightning is present in the near sky or immediate sky above then all crane(s), EWP's and concrete booms must be lowered and persons to remain under cover in lunch sheds until the weather passes. In the event that the weather is extreme heat, then workers should consider rotating shifts or start work earlier or out of peak heat periods of the day. Drink plenty of water and take regular rest breaks in shaded or provided lunch sheds that have air-conditioning. In all types of weather you should always wear the appropriate PPE and extras I.e Sunscreen, Rain coat.....	4. Isolation	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS Act 2011, WHS Reg's 2017, Construction work CoP, Hazardous manual tasks CoP, How to manage work health and safety risks CoP,Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation CoP.	



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	All Trades / Common Activity			Environmental Contamination from Spill of Hazardous Chemicals/Substances	E Rare	3 Medium	3	Contractor to provide, and have readily available access to, a spill kit which is appropriately sized for the risk of spill when refuelling or if damage was to occur to a piece of plant and equipment. Workers must be trained in the use of spill kits and the SDS's for chemicals/substances that they are using on this project.	3. Engineering	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS Act 2011, WHS Regulations 2017, Construction Work CoP, How to manage work health and safety risks CoP, Work health and safety consultation, coordination and cooperation CoP, PBS Safety Guide, Managing risks of hazardous chemicals in the workplace COP	
	Concrete			Failure of temporary structure	D Unlikely	5 Very Large	10	Structural engineers certification of the temp deck to be completed and all load point to be in design, this is to be communicated to All workers involved with the deck and all trades supervisors.. Securing requirements, bracing and fixing details must be verified to be in accordance with an approved design and include suitable structural fixings that account for wind load considerations based on locality.HOLD POINT - PBS pre pour inspection check list to be completed before a pour of any decks are to commence.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide ,	
	Concrete Coring			Contact with Live Existing Services	B Likely	4 Large	16	Concrete Coring Work Permit to be issued. If services located in direct coring zone then additional Energisation/Isolation Permit to be issued and completed. Visual inspection to be conducted for underslab services. Locator services may be required.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS Act 2011, WHS Regulations 2017, Construction Work CoP, How to manage work health and safety risks CoP, Work health and safety consultation, coordination and cooperation CoP, PBS Safety Guide, Managing electrical risk in the workplace COP	
	Concrete Coring			Hit by Falling Objects	A Almost Certain	3 Medium	15	Concrete Coring Work Permit to be issued.Physical barriers to be in place as an exclusion zone and must take into consideration the arc, fall and bounce of materials and tools underneath the area being cored. Area to be bunted off with signage to prevent unauthorised access. Authorised person only to be in direct workzone. Specific consideration should be made where services or switchrooms are underneath coring location. Coring slurry should be contained for ease of clean up.	4. Isolation	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS Act 2011, WHS Regulations 2017, Construction Work CoP, How to manage work health and safety risks CoP, Work health and safety consultation, coordination and cooperation CoP, PBS Safety Guide, Managing electrical risk in the workplace COP	
	Confined Space	Is carried out in or near a confined space		Engulfment / Asphyxiation	B Likely	4 Large	16	Confined Space Entry Permit to be issued. Personnel entering confined space & observer both to hold evidence of confined space training. Positive communication to be maintained at all times (i.e UHF radios). Bump test to be conducted on detector to confirm calibration and working order. The confined space then needs to be tested prior to any persons entering the space. Gas Detection to be conducted whilst worker inside confined space. Emergency Procedure to be documented in HR SWMS for the retrieval of injured person. Breathing apparatus (P3) to be worn. No hot works to be conducted within the space.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS Act 2011, WHS Regulations 2017, Construction Work CoP, How to manage work health and safety risks CoP, Work health and safety consultation, coordination and cooperation CoP, PBS Safety Guide, Confined spaces CoP, Managing the risk of falls at the workplace COP	
	Crane - Tower			Crane & equipment failure	C Possible	5 Very Large	15	Ensure PBS Crane management sub plan has been completed in consultation with site management & EHS managerAll lifting gear is to be maintained as per manufacturer specifications and inspected daily by a competent person - Synthetic slings are to be checked 3 monthly and documented on a register. Chains are to be tested yearly and documented on a register. Daily inspection to be completed by operator prior to operation. Plant to serviced and maintained as per manufacturers specifications. No 'free fall' option is allowable; if the crane has this option, it must be physically locked out.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections, Crane management sub plan	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide , .	
	Crane - Tower	Is carried out on or near energised electrical installations or services		Contact with Overhead Power Lines	C Possible	5 Very Large	15	Dogman and Operator to sign into Crane Management Sub Plan. No unloading / loading of trucks to happen in the vicinity of these powerlines. All plant to remain at a minimum approach distances to powerlines. Up to 132,000 volts = 3m. 132,000 - 330,000 volts = 6m. Above 330,000 = 8m. Tiger Tails to be installed by relevant authority as a visual reminder. Install height/location indicators. Non conductive barrier to be installed between plant and power lines. Competent Spotter to have positive communication with plant (UHF radios) and observe plant movements when design envelope has the potential to reach closer than 3 metres to power lines. Install signage as visual reminder. Non conductive tag lines to be used to control load. Alarm device to be installed on tower crane to indicate location of load. Identify Power Line exclusion zone for Crane Slew/Trolley.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections, Crane management sub plan	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide , .	
	Crane - Tower			Multiple Crane &/or Satellite Boom/Concrete Pump Collision	C Possible	4 Large	15	Dogman and Operators to sign into Crane Management Sub Plan. Communication meeting to be held with other operators (i.e concrete boom) and crane crews daily before work begins on the site for the shift. An automated anti-collision or zoning system must be installed on the tower cranes and gantry cranes when multiple cranes are planned to be in use and their planned lifting radius will interface with or overlap with other cranes. Crane crews are to be specifically trained in the operating features of the crane including the use and maintenance of the anti - collision or zoning system fitted to the crane. Separate vertical and horizontal communication channels shall be provided and an established procedure in place and utilised prior to slewing into another crane's radius. Dedicated fail safe backup landline intercom system installed between 2 crane operators.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections, Crane management sub plan	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide , .	



# PBS Project Risk Register



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							SM	Site Manager	5. Substitution	1	%Controls < Engineering	16%		
							FM	Foreman	4. Isolation	29				
							CA	Contracts Administrator	3. Engineering	76	Check formulas in L2-L7 if you add rows to ensure range is correct			
							EHSQ	EHSQ Co-Ordinator	2. Administration	20				
							PE/SE	Project Engineer / Site Engineer	1.PPE	3			Delete Legislation / Codes not applicable to your jurisdiction	
Workplace Location:		Livepool Blue CHP Anderson Avenue												
Issue Number:		2												
Issue Date:		25/11/2021												
Activity Number	Activity Description	High Risk Construction Work	Responsible Contractor	Hazard / Impact (Worst Credible Consequence)	Likelihood	Consequence	Risk Rating	Critical Control Measures	Hierarchy of Control Highest Level Control?	Monitoring Frequency?	Action by whom (Title)	Status	Legal and other requirements	
	Crane - Tower Post installation			Crane & equipment failure	C Possible	5 Very Large	15	<p>Ensure a commissioning report available that confirms / signed that a component person has tested, inspected and ensured the crane is in full working order prior to it being put in to active service</p> <p>Ensure Evidence of crane handover procedures and documentation completed and provided to PBS</p> <p>Are control measures in place to minimise the risk of workers or other people being hit by falling objects during the erecting, climbing and dismantling of the crane?</p> <p>These control measures include:</p> <ul style="list-style-type: none"> <li>•exclusion zones</li> <li>•tool lanyards</li> <li>•mesh screens</li> <li>•scheduling of work</li> <li>•restraining systems for crane components.</li> </ul> <p>Has a reliable method of communication between the crane operator and other relevant workers (e.g. doggers, riggers, crane coordinator) been implemented to prevent dropped loads and collision with other plant and structures?</p> <p>Communication can include the use of:</p> <ul style="list-style-type: none"> <li>•radio communication, including dedicated radio frequency, equipment checks, clear and constant-talk communication and procedures for loss of signal</li> <li>•hand signalling</li> <li>•other methods such as bells, buzzers and whistles.</li> </ul> <p>Ensure Crane crew plant induction has been completed?</p> <p>All lifting gear registered and register provided?</p> <p>Crane crew (operator and dogmen) have provided correct licences (dual license preferred)</p> <p>Clear access to secure/lockable crane base</p> <p>Logbook and all required documentation provided for site use?</p>	3. Engineering	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide , .	
	Crane - Tower Pre Installation			Crane & equipment failure	C Possible	5 Very Large	15	<p>Ensure Crane management sub plan is completed and Crane pre install checklist is referred to. Items to check: Have insurances, SWMS, Risk assessments, Rescue procedures been provided?</p> <p>Has plant certification been provided and current?</p> <p>Has crane base been signed off by engineer?</p> <p>Has lift study been conducted in consultation with PBS and provided by subcontractor?</p> <p>Has a Geotech &amp; DBYD reports been completed and provided?</p> <p>Is TCP approved and implemented?</p> <p>Have correct permits been issued eg harness, standing plant, working at heights etc</p> <p>Have all crane crew personnel involved been inducted/trained into SWMS, understand &amp; signed off?</p> <p>Has correct lifting gear register been provided?</p> <p>Have all Traffic controllers involved been inducted/trained into SWMS, understand and signed off?</p> <p>Have all personnel involved in crane install operation taken part in tool box talk detailing install methodology and roles &amp; responsibilities</p>	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections, Crane management Sub Plan	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide , .	
	Crane (Franna/Mobile/Crawler/Telehandler)			Inground services during crane transit onsite	C Possible	5 Very Large	15	TTMP to be established for crane route onsite so it misses any in-ground services trenching.	2. Administration	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction work CoP, How to manage work health and safety risks CoP, Managing electrical risks in the workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation CoP. PBS Safety Guide .	
	Crane (Franna/Mobile/Crawler/Telehandler)	is carried out in an area at a workplace in which there is any movement of powered mobile plant C10		Plant and People separation	C Possible	4 Large	12	Contractors to not allow any unauthorised entry into exclusion zones. Crane out riggers to be protected with concrete jersy curbs or similar to prevent contact with trucks and other vehicles. Pedesrian walkways onsite not to be inside or directed to crane work zone(s). Signage in place to communicate that only authorised workers to be in crane work zone.	4. Isolation	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide , .	
	Crane (Franna/Mobile/Crawler/Telehandler)			Crane & equipment failure	C Possible	5 Very Large	15	All lifting equipment must be in good condition and regularley serviced as per manufacturers specs(i.e. Spreader bars, chains, slynthetic slings, clutches). Crane to work lower than 95% capacity. Set up in areas that are approved by the PBS Site Manager. Pre-start to be conducted on Crane before use. Crane to be less than 20yrs old and a 10yr structural inspection completed. Lift study for any loads over 20tonne or when expecting to use crane over 95% capacity. Do not operate crane in adverse weather conditions which may effect the load or crane. Crane maintenance to be up to date and any repairs to be done prior to lifting.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide , .	

# PBS Project Risk Register



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							FM	Foreman	4. Isolation	29				
							CA	Contracts Administrator	3. Engineering	76	Check formulas in L2-L7 if you add rows to ensure range is correct			
							EHSQ	EHSQ Co-Ordinator	2. Administration	20				
							PE/SE	Project Engineer / Site Engineer	1.PPE	3				
<b>Workplace Location:</b>		Livepool Blue CHP Anderson Avenue												
<b>Issue Number:</b>		2												
<b>Issue Date:</b>		25/11/2021											Delete Legislation / Codes not applicable to your jurisdiction	
Activity Number	Activity Description	High Risk Construction Work	Responsible Contractor	Hazard / Impact (Worst Credible Consequence)	Likelihood	Consequence	Risk Rating	Critical Control Measures	Hierarchy of Control Highest Level Control?	Monitoring Frequency?	Action by whom (Title)	Status	Legal and other requirements	
	<b>Crane (Franna/Mobile/Crawler/Telehandler)</b>	<i>Is carried out in an area at a workplace in which there is any movement of powered mobile plant</i>		Crushing a person or property while performing pick and carry tasks with Franna/Telehandler	D Unlikely	4 Large	8	Dogman/spotter to control the load using a tag line. Clear and precise commands (ie two way radios,hand signals or whistle blasts) to be used when communicating with the operator. Stop the Franna/Telehandler movements and use clear communication when dealing with pedestrians and other plant. Operator to obey any and all directions issued by the dogman/spotter.	3. Engineering	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide , .	
	<b>Crane (Franna/Mobile/Crawler/Telehandler)</b>	<i>Is carried out on or near energised electrical installations or services</i>		Contact with Overhead Power Lines	C Possible	4 Large	12	Dogman and Operator to sign into Crane Management Sub Plan. No unloading / loading of trucks to happen in the vicinity of these powerlines. All plant to remain at a minimum approach distances to powerlines. Up to 132,000 volts = 3m. 132,000 - 330,000 volts = 6m. Above 330,000 = 8m.Tiger Tails to be installed by relevant authority as a visual reminder. Install height/location indicators. Non conductive barrier to be installed between plant and power lines. Competent Spotter to have positive communication with plant (UHF radios) and observe plant movements when design envelope has the potential to reach closer than 3 metres to power lines. Install signage as visual reminder. Non conductive tag lines to be used to control load. Crane Lift Plan in place for Tower Crane Assembly.	3. Engineering	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS Act 2011, WHS Regulations 2017, Construction Work COP, How to manage work health and safety risks COP, Work health and safety consultation, coordination and cooperation COP, PBS Safety Guide,Managing the risks of plant in the workplace COP, Managing electrical risks in the workplace COP	
	<b>Electrical</b>	<i>Is carried out on or near energised electrical installations or services</i>		electrocution from commissioning works	C Possible	4 Large	12	HRSWMS to be in place for the task. All inground services are to be located using DBYD, All inground services that are within 1m of the direct work area are to be isolated(as per excavation permit), excavation permit / Energise or isolate permit may be necessary depending on the task, Aluminium ladders to be used, correct PPE. HOLD POINT - Contractor needs approval to energise, by the PBS Site Manager. Live temporary electrical cabling must be identified with yellow tag tape every 3m, where cabling is accessible.Competent Persons must carry out electrical inspection, testing and tagging of RCD's Monthly and leads 3 monthly. All temporary electricity provided to socket (general purpose ) outlets must be protected by a Residual Current Device. Isolate live cables where possible, All contractors shall produce HRSWMS , identify the risks , hold points, testing procedures and identify Plant needed for reducing the risks etc. Drilling & cutting. Any works requiring drilling or cutting into areas , materials or structures that MAY contain live electrical shall be thoroughly investigated prior to works. An electrician is required to sign off prior to drilling /cutting within 2m of any alignment of GPO or electrical fitting, light switch. Electrical apprentices and trades assistants must work under the supervision of a licenced electrician at all times.All electrical work (other than inspection and testing of portable equipment) must be carried out by a licenced electrician & each electrician must verify their licence before they commence electrical works. Calibration of all testing equipment must be carried out at a minimum yearly. Cordless tools are encouraged to be used before power tools. Every cable end (I.e. awaiting termination) must be folded over itself and taped to prevent eye damage and electric shock(in the event of inadvertent energisation).	4. Isolation	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction work CoP, How to manage work health and safety risks CoP, Managing electrical risks in the workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation CoP. PBS Safety Guide .	
	<b>Electrical</b>	<i>Is carried out on or near energised electrical installations or services</i>		electrocution from commissioning works - Temp Boards	B Likely	5 Very Large	20	Install RCD protected temporary boards at each level in nominated location being hard wired with 4mm cable (I.e no spider / wander boards allowed). Temporary boards must be physically secured to prevent overturn of board and front covers must be lockable. Temporary boards must have locked covers over circuit - breakers and RCDs associated with outgoing circuits apart from the main switch/isolating switch which must be readily accessible in the event of an emergency. Temp Boards must have signage installed on the front cover.Lock out/Tag out system to be used when isolation of electrical feed required. Isolation / Energisation Permit to be issued. Live temporary electrical cabling must be identified with yellow tag tape every 3m, where cabling is accessible. Competent Persons must carry out electrical inspection, testing and tagging of leads 3 monthly and a Qualified person must test RCD's monthly. All temporary electricity provided to socket (general purpose ) outlets must be protected by a Residual Current Device. Each Temporary Board & all construction wiring installations must have a completed copy of ACT CES/ NSW CCEW / QLD CTC provided to PBS following each energisation. Electrical apprentices and trade assistants must work under the supervision of a licenced electrician at all times. All electrical work (other than inspection and testing of portable equipment) must be carried out by a licenced electrician & each electrician must verify their licence before they commence electrical works. Calibration of all testing equipment must be carried out as per manufacturers instructions. Cordless tools are encouraged to be used before power tools. Every cable end (I.e. awaiting termination) must be folded over itself and taped to prevent eye damage and electric shock (in the event of inadvertent energisation). RCD Trip Times to be recorded monthly on a register. HR SWMS to include emergency procedure.	4. Isolation	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction work CoP, How to manage work health and safety risks CoP, Managing electrical risks in the workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation CoP. PBS Safety Guide .	

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							FM	Foreman	4. Isolation	29				
							CA	Contracts Administrator	3. Engineering	76	Check formulas in L2-L7 if you add rows to ensure range is correct			
							EHSQ	EHSQ Co-Ordinator	2. Administration	20				
							PE/SE	Project Engineer / Site Engineer	1.PPE	3				
<b>Workplace Location:</b>		Livepool Blue CHP Anderson Avenue												
<b>Issue Number:</b>		2												
<b>Issue Date:</b>		25/11/2021											Delete Legislation / Codes not applicable to your jurisdiction	
Activity Number	Activity Description	High Risk Construction Work	Responsible Contractor	Hazard / Impact (Worst Credible Consequence)	Likelihood	Consequence	Risk Rating	Critical Control Measures	Hierarchy of Control Highest Level Control?	Monitoring Frequency?	Action by whom (Title)	Status	Legal and other requirements	
	<b>Fencing</b>	<i>Risk of Person Falling more than 2m</i>		Falls from height into pier holes	C Possible	4 Large	12	A certified mesh cover is to also be pinned down over the pier hole inside the fencing. Pier hole methodology to be approved by PBS.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Excavation Work CoP, How to manage work health and safety risks CoP, Construction work CoP, First aid in the workplace CoP, How to manage work health and safety risks CoP, Labelling of workplace hazardous chemicals CoP, Managing risks of hazardous chemicals in the workplace CoP, Managing the risks of plant in the workplace CoP, Preparation of safety data sheets for hazardous chemicals CoP, Welding processes CoP, Work health and safety consultation, coordination and cooperation CoP, PBS Safety Guide .	
	<b>Formwork</b>	<i>Risk of Person Falling more than 2m</i>		fall of a person from height/ top deck / Penetrations.	E Rare	4 Large	4	HRSWMS in place for any High Risk Construction works. Correct PPE to be worn when handling materials.VOC for Plant use. Keep EWP clean and clear of any excess materials. The Catch or Capture philosophy must be employed as the primary control to prevent the fall or reduce the distance of the fall. Lanyards/tethers must be used on all tools or equipment. Robust exclusion zones must be on place as a secondary control measure below areas where a risk of fall of materials/tools exists; these exclusion zones must account for potential arc of fall, deflection and bounce. Boom EWPs need to have mesh flooring so the ground is visible below operators feet. Robust fencing shall be installed from a height of 2m-4m (pedestrian fencing type).	3. Engineering	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Hazardous manual tasks CoP, Construction work CoP, How to manage work health and safety risks CoP, Work health and safety consultation, coordination and cooperation CoP.	
	<b>Formwork</b>			Property damage loading material onto structure	C Possible	2 Small	6	Doggman/spotter to control the load using a tag line. Clear and precise commands (ie two way radios,hand signals or whistle blasts) to be used when communicating with the operator. Stop the Franna/Telehandler movements and use clear communication when dealing with pedestrians and other plant. Operator to obey any and all directions issued by the doggman/spotter.	3. Engineering	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide , .	
	<b>Formwork</b>			Failure of temp structure (I.e Point loads on deck, concrete, scaffold access stairs)	D Unlikely	5 Very Large	10	Structural engineers certification of the temp deck to be completed and all load point to be in design, this is to be communicated to All workers involved with the deck and all trades supervisors.. Securing requirements, bracing and fixing details must be verified to be in accordance with an approved design and include suitable structural fixings that account for wind load considerations based on locality.HOLD POINT - PBS pre pour inspection check list to be completed before a pour of any decks are to commence.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide , .	
	<b>Formwork</b>			fall of materials / Joists and bearers.	C Possible	2 Small	6	All materials are to be loaded from the bottom. If material is too heavy then team lifting should be done so as to stop any inadvertant drops of timber onto oneself. Only formworkers should be in the direct work area and signage and tape to be erected to communicate to other trades not to enter the work zone. No Drop stripping allowed.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide , .	
	<b>Formwork</b>			Impalement from starter bars	E Rare	4 Large	4	All starter bars are to have plastic caps on them at all times.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide , .	
	<b>Formwork</b>			Cuts & skin puntures from nails	B Likely	2 Small	8	When stripping timbers workers must ensure that all timbers are de-nailed, not just knock the nail over but DE-NAIL. All used nails to be placed in PBS bin	3. Engineering	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Hazardous manual tasks CoP, Construction work CoP, How to manage work health and safety risks CoP, Work health and safety consultation, coordination and cooperation CoP.	



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Activity Number	Activity Description	High Risk Construction Work	Responsible Contractor	Hazard / Impact (Worst Credible Consequence)	Likelihood	Consequence	Risk Rating	Critical Control Measures	Hierarchy of Control Highest Level Control?	Monitoring Frequency?	Action by whom (Title)	Status	Legal and other requirements	
	Mechanical (Air-con)			Failure of duct hoist	D Unlikely	3 Medium	6	All duct lifters and portable type hoists must have a failsafe system so that in the event of a hoisting wire failure the load cannot fall. In addition, outriggers where fitted must be used, SWL must be clearly marked & only propriety attachments are used and only in accordance with manufacturers instructions.	3. Engineering	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide , .	
	Perimeter Screens			Hit by Falling Objects	A Almost Certain	4 Large	20	Lifting control by competent person. Lifting screens handover certificate to be provided prior to works being allowed to commence on decks. Authorised person only to be in direct workzone.	2. Administration	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS Act 2011, WHS Regulations 2017, Construction Work COP, How to manage work health and safety risks COP, Work health and safety consultation, coordination and cooperation COP, PBS Safety Guide, Safe Design of Structures COP	
	Perimeter Screens			Failure of Structure	B Likely	5 Very Large	20	Structural engineer to approve design and erection to be done by competent personnel. Lifting control by qualified person.	2. Administration	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS Act 2011, WHS Regulations 2017, Construction Work COP, How to manage work health and safety risks COP, Work health and safety consultation, coordination and cooperation COP, PBS Safety Guide, Safe Design of Structures COP	
	Piling	Risk of Person Falling more than 2m		fall of person into pier holes	D Unlikely	2 Small	4	A certified mesh cover is to also be pinned down over the pier hole inside the fencing. Pier hole methodology to be approved by PBS.	3. Engineering	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Hazardous manual tasks CoP, Construction work CoP, How to manage work health and safety risks CoP, Work health and safety consultation, coordination and cooperation CoP.	
	Piling	Involves, or is likely to involve, the disturbance of asbestos		Exposure to Hazardous dust	C Possible	4 Large	12	Test Holes of soil conditions to be completed by consultant and results provided to PBS. Contaminated areas to be bunted off using physical barriers and signage installed. Plastic to be installed over contaminated areas to prevent risk of dust arising until removal process is initiated. Plan created to highlight affected asbestos KNOWN areas, with likely areas also highlighted. This plan is then to be communicated to contractors and used in their internal communications with the workers.	4. Isolation	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS Act 2011, WHS Regulations 2017, Construction Work COP, How to manage work health and safety risks COP, Work health and safety consultation, coordination and cooperation COP, PBS Safety Guide	
	Plumbing			Ingress of water to excavation	D Unlikely	4 Large	8	All water services are to be isolated when excavating. Isolation permit to be completed along with excavation permit. Bungs may need to be placed upstream of workers positions. Life bouys to be placed in the vicinity of nearby ponds. Sed or purpose built dirrectional fencing may need to be installed to direct the flow of potential water accessing the excavation - this may relate to weather events or if draining a line that is upstream of the excavation works. Pumps may need to be installed to remove water Correct PPE needs to be worn I.e. Gum boots in muddy trenches/ excavations.	4. Isolation	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction work CoP, How to manage work health and safety risks CoP, Excavation work CoP, Managing electrical risks in the workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation CoP. PBS Safety Guide .	
	Post Tension Stressing			Equipment Failure	D Unlikely	4 Large	8	Hydraulic Stressing Jack and matching guage calibration certificates to be provided by contractor prior to commencement of any stressing operations. Calibration certificate to be with 12 months and not expired.	2. Administration	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS Act 2011, WHS Regulations 2017, Construction Work COP, How to manage work health and safety risks COP, Work health and safety consultation, coordination and cooperation COP, PBS Safety Guide, Managing the risks of plant in the workplace COP	
	Post Tension Stressing			Failure of components or materials	C Possible	5 Very Large	15	Prepour ITP to be completed along with engineers pre pour inspection an provided prior to concrete pour Place solid backing board in position behind stressing conduct prior to installing stressing cables. Ensure barrier installed behind stressing equipment during initial and final stress. ,Signage to be installed whilst stressing.Solid backing board to be installed behind live end when final stressing double live end tendonds Authorised person only to be in direct workzone.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS Act 2011, WHS Regulations 2017, Construction Work COP, How to manage work health and safety risks COP, Work health and safety consultation, coordination and cooperation COP, PBS Safety Guide	

# PBS Project Risk Register



							Acronym	Responsible Positions	Hierarchy of Control		Control Selections			
							SS	Sub-Contractor Supervisor	6. Elimination	0	%Controls ≥ Engineering	84%		
							SM	Site Manager	5. Substitution	1	%Controls < Engineering	16%		
							FM	Foreman	4. Isolation	29				
							CA	Contracts Administrator	3. Engineering	76	Check formulas in L2-L7 if you add rows to ensure range is correct			
							EHSQ	EHSQ Co-Ordinator	2. Administration	20				
							PE/SE	Project Engineer / Site Engineer	1.PPE	3				
<b>Workplace Location:</b>		Livepool Blue CHP Anderson Avenue												
<b>Issue Number:</b>		2												
<b>Issue Date:</b>		25/11/2021												
Activity Number	Activity Description	High Risk Construction Work	Responsible Contractor	Hazard / Impact (Worst Credible Consequence)	Likelihood	Consequence	Risk Rating	Critical Control Measures	Hierarchy of Control Highest Level Control?	Monitoring Frequency?	Action by whom (Title)	Status	Legal and other requirements	
	Post Tension Stressing			Failure of structure or concrete elements.	C Possible	5 Very Large	15	Concrete crush test to be completed and records are within required concrete MPa requirements Place solid back board in position behind stressing conduct prior to installing stressing cables. Ensure barrier installed behind stressing equipment during final stressing procedure. Signage to be installed whilst stressing. Authorised person only to be in direct workzone.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS Act 2011, WHS Regulations 2017, Construction Work COP, How to manage work health and safety risks COP, Work health and safety consultation, coordination and cooperation COP, PBS Safety Guide	
	Post Tension Stressing			Failure of temp structure (I.e Point loads on deck.)	D Unlikely	5 Very Large	10	Engineer to include in drawing or provide written instruction where load points are on deck for bondek or similar, formwork supervisor to provide location sufficient to hold required weight on conventional formwork deck. Flaggng or parrawebbing to be installed underneath working deck to prevent workers accessing area under coil of strand.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS Act 2011, WHS Regulations 2017, Construction Work COP, How to manage work health and safety risks COP, Work health and safety consultation, coordination and cooperation COP, PBS Safety Guide	
	Reo & Steelfixing			Inground services during crane transit onsite	D Unlikely	3 Medium	6	TTMP to be established for crane route onsite so it misses any in-ground services trenching.	2. Administration	Permits, Pre-starts, TBT's, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction work CoP, How to manage work health and safety risks CoP, Managing electrical risks in the workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation CoP. PBS Safety Guide .	
	Reo & Steelfixing			Failure of temp structure (I.e Point loads on deck.)	D Unlikely	5 Very Large	10	Structural engineers certification of the temp deck to be completed and all load point to be in design, this is to be communicated to All workers involved with the deck and all trades supervisors. Securing requirements, bracing and fixing details must be verified to be in accordance with an approved design and include suitable structural fixings that account for wind load considerations based on locality.HOLD POINT - PBS pre pour inspection check list to be completed before a pour of any decks are to commence.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide ,	
	Shoring Systems	<i>Risk of Person Falling more than 2m</i>		Fall of Person	B Likely	4 Large	16	Visual barrier to be installed minimum of 2m back from edge of excavation or Physical barrier installed if closer than 2m to edge. Suitable access to be provided to excavation that does not expose workers to risk of fall. "Deep Excavation" signage to be installed around edge of excavation where deeper than 1.5m. Only authorised persons to be in area of shoring or deep excavations.	2. Administration	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS Act 2011, WHS Regulations 2017, Construction Work COP, How to manage work health and safety risks COP, Work health and safety consultation, coordination and cooperation COP, PBS Safety Guide	
	Shoring Systems	<i>Is carried out in or near a shaft or trench with an excavated depth greater than 1.5 metres</i>		Collapse of Excavation / Trenching	A Almost Certain	4 Large	20	Excavation Permit required when penetrating the ground 200mm or more. Excavation / Trench must be either benched; battered; shored or a combination of all if deeper than 1.5m; otherwise proceed as per Geotech report requirements. Any amendments outside geotech report must be signed off by relevant qualified engineer prior to works occurring. Physical Barrier to be installed along top of excavation / trench to prevent plant / vehicles entering the zone of influence. Any spoil must not be stored within zone of influence and must be stored on down slope side. A competent person, for example an engineer should design support systems or be involved in selecting other ground collapse control measures, for example trench shields.	2. Administration	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS Act 2011, WHS Regulations 2017, Construction Work COP, How to manage work health and safety risks COP, Work health and safety consultation, coordination and cooperation COP, PBS Safety Guide	
	Traffic Control	<i>Is carried out on, in or adjacent to a road that is in use by traffic other than pedestrians; Is carried out in an area at a workplace which there is any movement of powered mobile plant.</i>		Use of plant and equipment on public roads	C Possible	4 Large	12	Spotter to have positive communication with excavator operator during the task. Workers to stay outside the swing zone of the excavator. Exclusion zone around the excavation/ excavator to stop any unauthorised entry by other workers on the site. Hand signals or UHF radios to be used as positive communications. Workers to remain out of blind spots of any plant that may be delivering materials to site and spotter to guide any plant to final delivery position. Dogman to remain visible when guiding the delivery or installation of loads and to use positive comms.	3. Engineering	SWMS Review, Permits, Pre-starts, TBT's, Plans/Drawings, Plant inspections, Onsite inspections,	SM, Foreman, PBSCW, CA, EHS&Q Manager, Contractors Supervisor, HSR, CW's	Open	WHS ACT 2011, WHS Reg's 2017, Construction Work CoP, How to manage work health and safety risks CoP, Managing the risk of falls at workplace CoP, Managing the risks of plant in the workplace CoP, Work health and safety consultation, coordination and cooperation, PBS Safety Guide , .	