

PBS Project Risk Register

PBS Project Risk Register (PBR)



PBS Project Risk Register				Word Colour Legend			Acronym	Responsible Positions	Hierarchy of Control			Control Selections		
				Permits	SS		Sub-Contractor Supervisor	6. Elimination	2	%Controls ≥ Engineering	92%			
				Refer to another activity in the PRR	SM		Site Manager	5. Substitution	7	%Controls < Engineering	8%			
				Input required by the site team	FM		Foreman	4. Isolation	67					
				Reference to PBS document	CA		Contracts Administrator	3. Engineering	130	6Check formulas in L2-L7 if you add rows to ensure range is correct				
				NSW requirement only	EHSQ		EHSQ Co-Ordinator / Manager	2. Administration	18					
					PE/SE		Project Engineer / Site Engineer	1. PPE	1					
													Delete Legislation / Codes not applicable to your jurisdiction	
Activity Description	High Risk Construction Work	GMR Reference	Hazard / Impact (Worst Consequence)	Likelihood	Consequence (Worst Consequence)	Risk Rating	Mandatory Control Measures	Site Specific Control Measures	Hierarchy of Control (Highest Level Control)	Responsible	Status	Legal and other requirements		
Air - Conditioning	Risk of Person Falling more than 2m	4.1.1; 4.12; 4.1.3; 4.1.6	Fall of Person	C Possible	3 Medium	9	Platform ladders or EWP's are to be used in the first instance. Work trestles a minimum width of 450mm can be used. Step Ladders may only be used for minor works which take less than 15 minutes to complete and 3 points of contact must be maintained. Delivery drivers or workers are NOT to access the back of trucks unless: *There is a handrail system incorporated onto the back of the vehicle or; *A portable handrail system is provided by the project and. *The use of a portable loading bay platform would be the ideal control measure. When one or more of these controls are implemented, workers may use the access ladder and maintain 3 points of contact when ascending or descending. Ladders to be stepped back from any edges of a building/structures at least 2m or 1:1 ratio if a full perimeter screenscaffold has been installed.	Ticketed Personnel required for operation of EWP. Harness to be worn and connected prior to bucket being raised. Harness to be inspected daily before use and maintained as per manufacturer specifications. Mobile scaffold to be used. Any mobile scaffold over 4m needs to be erected by a ticketed scaffolder.	3. Engineering	SS / SM	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		
Air - Conditioning		4.5.1; 4.5.2; 4.5.4	Fire/Explosion	D Unlikely	3 Medium	6	Hot Works Permit to be in place. Area to be clear of combustible materials. Correct PPE to be worn. Flash back arrestors connected to all oxy sets.	225mm Grinder Permit to be in place	3. Engineering	SS / SM / FM	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, Welding processes COP		
Air - Conditioning	Is carried out in an area at a workplace in which there is any movement of powered mobile plant	4.3.2; 4.3.5;	Hit by Moving Plant	C Possible	4 Large	12	No one is to approach plant unless confirmation has been received by the operator that it is ok to approach. All plant to have flashing beacons operating. Mobile phones not to be used when operating plant and equipment. Operator to be appropriately Trained / Ticketed.	Exclusion zone to be in place to prevent unauthorised entry to work area. Access ways to be redirected to ensure no personnel inside operating areas. Outriggers of crane to be protected by jersey kurbs or similar to prevent contact from other plant/vehicles. Use Tag Lines when appropriate to control light weight &/or large panel lifts in windy conditions. Dogman and Operator to sign into Crane Management Sub Plan. Spotter/Dogman to have positive communication with operator (via hand signals, whistle or UHF radio) at all times. Seat belts to be worn at all times where fitted. Refer to mobile crane operations activity in this PRR	4. Isolation	SS / SM / FM	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		
Air - Conditioning		4.7.1;	Cuts and Lacerations	C Possible	2 Small	6	All guards to be fitted to power tools. Wear gloves when working with sharp steel edges. Eye Protection to be worn when cutting metalwork.	225mm grinder permit to be issued when applicable	3. Engineering	SS / SM / FM	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		
Air - Conditioning		4.3.6	Plant Failure	D Unlikely	3 Medium	6	All duct lifters and portable type hoists must have a breaking system so that in the event of a holding wire failure the load cannot fall. In addition, outriggers where fitted must be used. SWL must be clearly marked & only proprietary attachments are used and only in accordance with manufacturers instructions.		3. Engineering	SS / SM	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		
Air - Conditioning		4.2.1; 4.2.2; 4.2.3; 4.2.4; 4.2.5; 4.2.6	Hit by Falling Objects	D Unlikely	4 Large	8	Authorised person only to be in direct workzone.	Tools to be on lanyards when working above 2m fall risk. Physical barriers to be in place as an exclusion zone and must take into consideration the arc, fall and bounce of materials and tools. Area to be banded off with signage to prevent unauthorised access.	4. Isolation	SS / SM / FM	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		
All Trades		4.4.2	Electric Shock	B Likely	3 Medium	12	Electrical equipment to be tested and tagged by competent person minimum 3 monthly. RCD's to be tested by a qualified person monthly and trip times to be recorded and given to PBS. Lead stands or insulated hooks must be used to elevate leads above head height.		3. Engineering	SS/SM	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 risks in the workplace		
All Trades			Manual Handling Injury	C Possible	3 Medium	9	Ensure load is close to the chest and bend the knees to pick up the load. Lift with legs keeping back straight. Bend the knees to lower the load then release the load to final position without over extending the back. Contractor to ensure all workers are inducted into the trade specific safe working procedures for manual handling. (eg subcontractor WHS Plan, Training Register.)	Use Mechanical Aids. Team Lifts to occur.	3. Engineering	SS/SM	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, Hazardous manual tasks COP.		
Asbestos Removal	Carried out in an area that may have a contaminated atmosphere	4.10.1; 4.10.3; 4.10.4;	Exposure to Hazardous Dust	A Almost Certain	3 Medium	15	Asbestos Register for relevant building to be requested from Client. Asbestos Removal Control Plan to be in place. Workers and Subcontractor must hold the correct class of licence for the type of asbestos identified to be removed (i.e. over 10m2). Health Monitoring to be done for all workers involved in the task prior to works commencing. Physical barriers to be set up around asbestos removal area with signage. Correct PPE to be worn. HR SWMS to outline methodology for controlling all asbestos dust and loose particles Hold Point - Clearance Certificate to be received prior to any other works occurring.	Notify Regulator in writing at least 5 days before commencing activity if over the 10m2 or friable. Air Monitoring to be in place.	6. Elimination	SS / SM / FM / SE / CA	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, How to safely remove asbestos COP		
Asbestos Removal	Carried out in an area that may have a contaminated atmosphere	4.10.1; 4.10.3; 4.10.4;	PPE, Tools and Waste Contamination	B Likely	3 Medium	12	Waste to be sealed in a container and labelled in accordance with the Globally Harmonised System of Classification and labelling to indicate it contains asbestos. Waste must be brought to an Licensed waste disposal facility which accepts asbestos waste. PBS to be given evidence of correct disposal at facility (i.e Tipping Dockets)	PPE and Tools must be sealed in containers / double bagged or appropriately decontaminated within the asbestos removal area.	4. Isolation	SS / SM / FM	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, Labelling of workplace hazardous chemicals COP, How to safely remove asbestos COP		

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		Word Colour Legend		Acronym	Responsible Positions		Hierarchy of Control		Control Selections			
		Permits	Refer to another activity in the PRR	SS	Sub-Contractor Supervisor	6. Elimination	2	%Controls > Engineering	92%			
Workplace Location:		1 Ulonga Ave, Greenwich		FM	Foreman	5. Substitution	7	%Controls < Engineering	8%			
Issue Number:		Rev 4		CA	Contracts Administrator	4. Isolation	67	iCheck formulas in L2-L7 if you add rows to ensure range is correct				
Issue Date:		22/12/2020		EHSQ	EHSQ Co-Ordinator / Manager	3. Engineering	130					
				PE/SE	Project Engineer / Site Engineer	2. Administration	18					
						1. PPE	1					
Activity Description	High Risk Construction Work	GMR Reference	Hazard / Impact (Worst Scenarios)	Likelihood	Consequence	Risk Rating	Mandatory Control Measures	Site Specific Control Measures	Hierarchy of Control (Highest Level Control)	Responsible	Status	Legal and other requirements
Asbestos Removal	Risk of Person Falling more than 2m	4.1.1; 4.12; 4.1.3; 4.1.6	Fall of Person	A Almost Certain	3 Medium	15	Platform ladders to be used or mobile scaffold(s).		3. Engineering	SS / SM	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
Asbestos Removal	Carried out in an area that may have a contaminated atmosphere	4.10.1; 4.10.3; 4.10.4;	Unexpected Find	D Unlikely	3 Medium	6	PBS Unexpected Finds protocol to be followed. Contractor to include unexpected finds protocol in their HR SWMS.	Asbestos Register to be updated to include unexpected finding.	2. Administration	SS / SM / FM	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
Concrete Coring	Risk of Person Falling more than 2m	4.1.1; 4.12; 4.1.3; 4.1.6	Fall of Person	B Likely	4 Large	16	Platform ladders or EWPs are to be used in the first instance. Work trestles a minimum width of 450mm can be used. Step Ladders may only be used for minor works which take less than 15 minutes to complete and 3 points of contact must be maintained. Ladders to be stepped back from any edges of a building/balconies at least 3m or 1:1 ratio if a full perimeter screen/scaffold has been installed.	Catch deck to be installed underneath area being cored.	3. Engineering	SS / SM / FM	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
Concrete Coring		4.2.1; 4.2.2; 4.2.3; 4.2.4; 4.2.5; 4.2.6	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.		4. Isolation	SS / SM	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
Concrete Coring	Carried out in an area that may have a contaminated atmosphere	4.13.2	Dust Inhalation	A Almost Certain	2 Small	10	Internal Risk: P1/P2/P3 dust mask to be worn. External Risk: Constant Hosing down with water to be undertaken.	Power tools to have vacuum /water attachments	3. Engineering	SS / SM	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 Coring	Is carried out on or near energised electrical installations or services	4.4.1; 4.4.8	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 under slab services.		3. Engineering	SS / SM / FM / SE / CA	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 Placement		4.10.2; 4.13.1; 4.13.3	Environmental Contamination from Spill of Hazardous Chemicals/Substances	C Possible	2 Small	6	Designated washout / recycling areas for concrete and concrete equipment with regular monitoring.		4. Isolation	SS / SM / FM	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 Placement		4.9.1; 4.9.2; 4.9.3	Failure of Structure	C Possible	5 Very Large	15	Structural Engineer Certification to be received prior to pour for formwork deck. Hold Point - PBS pre-pour checklist to be conducted prior to pour of deck commences. Level underneath formwork deck being poured to be closed off and only restricted access allowed (i.e Formwork spotter)	Securing requirements, load points, 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. All safety pins to be installed in pipe couplings. Clearing of concrete line to be done by either blowing back into hopper and using a concrete tray, blowing into a secure and engineered device made for this purpose or into a waste bin lined with plastic which has an engineered lid. HOLD POINT: No concrete blow out on a formwork deck to occur unless in an area marked and propped for point loading by the formworker engineer.	4. Isolation	SS / SM / FM / SE / CA	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
Concrete Placement		4.10.2	Exposure to Hazardous Material	C Possible	2 Small	6	Correct PPE to be worn. SDS to be communicated to all workers involved in the task via TBT, training register or SWMS. Hazardous Materials to be stored in designated storage area immediately after use.	Hazardous Materials and Dangerous Goods sub plan to be in place. Dust mask to be worn when cutting/grinding/drilling into concrete. Vacuum attachment and /or water to be used to mitigate dust where possible.	4. Isolation	SS / SM	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 Placement		4.1.1; 4.12; 4.1.3; 4.1.6	Fall of Person	B Likely	4 Large	16	Fall Protection must be in place and all reo bars are capped prior to commencing.	Suitable work platforms must be in place for pouring at height.	3. Engineering	SS / SM	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
Concrete Placement		4.12	Fatigue	C Possible	2 Small	6	Rotate work crews. Monitor number of workers and hours worked. Contractors to provide ways home for workers that may be too fatigued to drive home. Site to have designated rest areas. Min 10hr break between shifts.		3. Engineering	SS / SM	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

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				Permits	SS	Sub-Contractor Supervisor		6. Elimination	2	%Controls > Engineering	92%		
				Refer to another activity in the PRR	SM	Site Manager		5. Substitution	7	%Controls < Engineering	8%		
				Input required by the site team	FM	Foreman		4. Isolation	67				
				Reference to PBS document	CA	Contracts Administrator		3. Engineering	130				
				NSW requirement only	EHSQ	EHSQ Co-Ordinator / Manager		2. Administration	18				
					PE/SE	Project Engineer / Site Engineer		1. PPE	1				
Workplace Location:	1 Ulonga Ave, Greenwich												
Issue Number:	Rev 4												
Issue Date:	22/12/2020												
Activity Description	High Risk Construction Work	GMR Reference	Hazard / Impact (Worst Scenario)	Likelihood	Consequence	Risk Rating	Mandatory Control Measures	Site Specific Control Measures	Hierarchy of Control (Highest Level Control)	Responsible	Status	Legal and other requirements	
Concrete Placement		4.2.1; 4.2.2; 4.2.3; 4.2.4; 4.2.5; 4.2.6	Hit by Falling Objects	B Likely	3 Medium	12	A system must be in place to alert workers of changed boom position. Concreters not to collect any loads by crane. Dogman to land loads to helicopters etc. Authorised person only to be in direct workzone.		3. Engineering	SS / SM	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 work environment and facilities COP	
Concrete Placement		4.12.1; 4.12.2	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. Concrete Placing Boom not to work outside the manufacturer's recommendations regards extreme weather (wind speed) if lightning is present in the near sky or immediate sky above then concrete booms must be lowered and persons to remain under cover in lunch sheds until the weather passes.	Inspection to be conducted prior to gates of site open by PBS Site Manager/ EHS Committee to assess all access routes. Any unsuitable work areas are to be barricaded off with physical barrier until deemed safe to enter.	4. Isolation	SS / SM / HSR	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 work environment and facilities COP	
Concrete Placement		4.12.1; 4.12.2	Working in High Temperatures - Heat Stress/Heat Exhaustion	C Possible	2 Small	6	Sufficient quantities of cool drinking water is readily available close to work areas. Regularly rotate workers who perform more strenuous activities with less demanding tasks. Take regular work breaks in cooler areas such as air conditioned sheds.	Shade Covers to be installed. Workers to wear broad brimmed hats and sunglasses for UV protection.	3. Engineering	SS / SM / HSR	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 work environment and facilities COP	
Concrete Placement	Carried out in an area that may have a contaminated atmosphere	4.13.2	Dust Inhalation	C Possible	2 Small	6	Internal Risk - P1/P2/P3 dust mask to be worn. External Risk - Constant Hosing down with water to be undertaken.	Power tools to have vacuum attachments	3. Engineering	SS / SM	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 hazardous chemicals in the workplace COP	
Concrete Pump	Is carried out in an area at a workplace in which there is any movement of powered mobile plant	4.3.6; 4.8.2	Plant Over-Turning	C Possible	4 Large	12	Set up in an area that is approved by PBS Site Manager. Plant is not to set up or traverse within the zone of influence of a service trench excavation or on a service trench. Outriggers must be set up on stable ground. Licenced operators to operate booms/satellite pumps only.	Penetration covers to be physically secured with signage and be of sufficient strength to support likely plant or equipment in the area. If stable penetration, load & point limits to be displayed. Compaction test is required prior to set up of outriggers on disturbed soil. Outriggers of crane to be protected by jersey kerbs or similar to prevent contact from other plant/vehicles.	3. Engineering	SS / SM	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	
Concrete Pump	Is carried out on or near energised electrical installations or services	4.4.1; 4.4.7	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 = 8m.	Tiger Tails to be installed by relevant authority as a visual reminder. Install high/visibility indicators. Competent Spotter to have positive communication with plant (LHF 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. Line pump with static line to be utilised instead of boom pump.	5. Substitution	SS / SM	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, Demolition Work COP, Managing the risks of plant in the workplace COP, Managing electrical risks in the workplace COP	
Concrete Pump		4.3.6	Plant Failure	C Possible	4 Large	12	Ensure safety pins are installed to line connectors. Monthly pipe thickness tests to be conducted and checked to ensure minimum density allowance is not exceeded. Servicing and maintenance to be done as per manufacturer's specifications		3. Engineering	SS / SM	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	
Concrete Pump	Is carried out in an area at a workplace in which there is any movement of powered mobile plant	4.3.2; 4.3.5;	Hit by Moving Plant	B Likely	4 Large	16	Linesman to have positive communication with pump operator when positioning the line. Pump operator to have full sight of where concrete boom is being positioned.	Line Pump stands to be used on deck and for static lines on the ground.	3. Engineering	SS / SM	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,	
Concrete Pump		4.10.2	Environmental Contamination from Spill of Hazardous Chemicals/Substances	C Possible	2 Small	6	Designated washout / recycling areas for concrete and concrete equipment with regular monitoring. Waste water must be controlled from flowing across walkways, work areas and outside site boundaries.		4. Isolation	SS / SM	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 Pump		4.12.1; 4.12.2	Working in Cold, Inclement or Windy Weather	C Possible	1 Very Small	3	Heated amenities to be provided. Suitable Access / Egress to be provided to work areas. Concrete Placing Boom not to work outside the manufacturer's recommendations regards extreme weather (wind speed) if lightning is present in the near sky or immediate sky above then concrete booms must be lowered and persons to remain under cover in lunch sheds until the weather passes.	Inspection to be conducted prior to gates of site open by PBS Site Manager/ EHS Committee to assess all access routes. Any unsuitable work areas are to be barricaded off with physical barrier until deemed safe to enter.	4. Isolation	SS / SM / HSR	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 work environment and facilities COP	
Concrete Pump		4.12.1; 4.12.2	Working in High Temperatures - Heat Stress/Heat Exhaustion	C Possible	1 Very Small	3	Sufficient quantities of cool drinking water is readily available close to work areas. Regularly rotate workers who perform more strenuous activities with less demanding tasks. Take regular work breaks in cooler areas such as air conditioned sheds.	Shade Covers to be installed. Workers to wear broad brimmed hats and sunglasses for UV protection.	3. Engineering	SS / SM / HSR	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 work environment and facilities COP	

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				Refer to another activity in the PRR	SM		Site Manager	5. Substitution	7	%Controls < Engineering	8%			
				Input required by the site team	FM		Foreman	4. Isolation	67					
				Reference to PBS document	CA		Contracts Administrator	3. Engineering	130					
Workplace Location:	1 Ulonga Ave, Greenwich			NSW requirement only	EHSQ		EHSQ Co-Ordinator / Manager	2. Administration	18			%Check formulas in L2-L7 if you add rows to ensure range is correct		
Issue Number:	Rev 4				PE/SE		Project Engineer / Site Engineer	1. PPE	1			Delete Legislation / Codes not applicable to your jurisdiction		
Issue Date:	22/12/2020													
Activity Description	High Risk Construction Work	GMR Reference	Hazard / Impact (Worst Consequence)	Likelihood	Consequence	Risk Rating	Mandatory Control Measures	Site Specific Control Measures	Hierarchy of Control (Highest Level Control)	Responsible	Status	Legal and other requirements		
Conditions of Consent			EHS issues identified in DA not being addressed	B Likely	3 Medium	12	Project Manager to ensure all DA conditions are managed.		2. Administration	PM / SM	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 Space	Risk of Person Falling more than 2m	4.1.1; 4.12; 4.1.3; 4.1.6	Fall of Person	B Likely	4 Large	16	Suitable access must be provided into confined space which does not expose the personnel to a risk of fall.	3 points of contact to be maintained when using ladder. Physical barrier to be installed 2m back from the edge of excavation. Shoring box to be used to provide access and control the risk of fall with handrails and midrails.	3. Engineering	SS / SM	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		
Confined Space	Is carried out in or near a confined space	4.19.1; 4.19.2	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	SS / SM / FM	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		
Covid - 19		4.11.4	Spread of Infection - Workers	D Unlikely	4 Large	8	All sites to provide hand sanitizer and ensure soap dispensers are maintained in adequate quantities. Shaking of hands should not occur. Posters to be added around sites to demonstrate proper hand washing techniques and 'stop the spread' messages. All workers are required to wash their hands often, use hand sanitizer as needed, cover their mouth when coughing or sneezing but not using their hands to do so, avoid contact with others and seek medical assistance if feeling unwell. Workers to maintain social distancing requirements. Temperature screening to be conducted prior to entry. Any person registering at 37.5 degrees celsius is to be excluded from the site.		4. Isolation	SS / SM	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, Government Guidelines		
Covid - 19		4.11.4	Spread of Infection - Cleaning	D Unlikely	4 Large	8	Removal of germs such as the virus that causes COVID-19 requires thorough cleaning followed by disinfection. Site Offices and Amenities are to be cleaned thoroughly daily by professional cleaners.		4. Isolation	SS / SM	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, Government Guidelines		
Crane - lifted work boxes		4.2.1; 4.2.2; 4.2.3; 4.2.4; 4.2.5; 4.2.6	Hit by Falling Objects	A Almost Certain	4 Large	20	All work boxes must be design registered with Relevant Authority. Workbox must be securely attached to crane hook. Directions to crane operator should only be provided from work box by licensed dogger / rigger. Authorised person only to be in direct workzone.	1st Aid crane box should be clearly identified with First Aid signage displayed & only used to retrieve injured persons. 1st Aid crane box may have outward opening doors but these doors must be self-closing with automatic latches.	3. Engineering	SS / SM	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		
Crane - lifted work boxes	Risk of Person Falling more than 2m	4.1.1; 4.12; 4.1.3; 4.1.6	Fall of Person	B Likely	4 Large	16	Full body fall - arrest harnesses to be worn at all times (except when using 1st aid crane box) & be attached to work box anchor points or to crane main sling (ring above heads of workers. Emergency retrieval arrangements to be in place before lift commences.	1st Aid crane box may have outward opening doors but these doors must be self-closing with automatic latches.	3. Engineering	SS / SM	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		
Crane - lifted work boxes		4.3.6	Plant Failure	C Possible	4 Large	12	All work boxes must be design registered with Relevant Authority. Workbox must be securely attached to crane hook. Emergency retrieval arrangements to be in place before lift commences		3. Engineering	SS / SM	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		
Demolition	Involves, or is likely to involve, the disturbance of asbestos	4.13.2	Dust Inhalation	C Possible	3 Medium	9	Correct PPE such as dust masks to be worn by workers during the removal process. All potential ACM and Hazardous Material to be removed and clearance certificate received from licensed assessor prior to demolition.	Asbestos Register to be requested off of the client. Competent person to inspect residential premises prior to demolition. Licensed person to conduct destructive testing and provide results prior to demolition.	3. Engineering	SS / SM	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		
Demolition	Risk of Person Falling more than 2m	4.1.1; 4.12; 4.1.3; 4.1.6	Fall of Person	C Possible	4 Large	12	Site specific controls to be implemented in HR SWMS.	Catch scaffold to be erected. Minimum height of 900mm of fall protection from outer wall to remain for workers on suspended slab. Platform ladder / scaffold or EWP to be used.	3. Engineering	SS / SM	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		
Demolition	Demolition of an element of a structure that is load-bearing or otherwise related to the physical integrity of the structure	4.9	Uncontrolled Collapse of Structure	C Possible	3 Medium	9	Demolition Plan to be developed outlining sequence of demolition. Where applicable, any structural engineers sign-offs needs to be obtained. Physical Barriers to be in place as an exclusion zone to prevent unauthorised access. "Demolition in progress" signage to be installed. Only licensed contractors to perform works.	If structure is over 6m in height then the contractor is to notify Regulator in writing at least 5 days before commencing works.	4. Isolation	SS / SM	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, Demolition COP		

PBS Project Risk Register

PBS Project Risk Register (PBR)



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				Permits SS	Sub-Contractor Supervisor	6. Elimination	2	%Controls > Engineering 92%				
				Refer to another activity in the PRR SM	Site Manager	5. Substitution	7	%Controls < Engineering 8%				
				Input required by the site team FM	Foreman	4. Isolation	67					
				Reference to PBS document CA	Contracts Administrator	3. Engineering	130	Check formulas in L2-L7 if you add rows to ensure range is correct				
				NSW requirement only EHSQ	EHSQ Co-Ordinator / Manager	2. Administration	18					
					PE/SE	Project Engineer / Site Engineer	1. PPE	1	Delete Legislation / Codes not applicable to your jurisdiction			
Workplace Location:	1 Ulonga Ave, Greenwich			Likelihood	Consequence	Risk Rating	Mandatory Control Measures	Site Specific Control Measures	Hierarchy of Control (Highest Level Control)	Responsible	Status	Legal and other requirements
Issue Number:	Rev 4			Activity Description	High Risk Construction Work	GMR Reference	Hazard / Impact (Worst Case)					
Issue Date:	22/12/2020											
Demolition		4.2.1; 4.2.2; 4.2.3; 4.2.4; 4.2.5; 4.2.6	Hit by Falling Objects	C Possible	3 Medium	9	Demolition Plan to be developed. Physical Barriers to be in place as an exclusion zone to prevent unauthorised access and must take the arc, bounce and deflection of materials into consideration. "Demolition in progress" signage to be installed. Authorised person only to be in direct workzone. All 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. The SWL of lifting equipment is not to be exceeded. Weight of load to be lifted to be predetermined by a qualified person and marked on load. Selection of sling & slinging techniques for load is predetermined by a competent person. Lifting points are to be predetermined by a competent person and marked on the load. Load is lifted within the view of the operator at all times. Standard lifting procedures must be documented within HR SWMS. Authorised person only to be in direct workzone.	Tools to be on laydowns when working above 2m fall risk. B Class Hoarding installation for public protection. Scaffolds to be installed by a licensed scaffolder.	4. Isolation	SS / SM	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, Demolition Work COP.
Demolition	Is carried out on or near pressurised gas distribution mains or piping; is carried out on or near chemical, fuel or refrigerant lines; is carried out on or near energised electrical installations or services	4.4.1; 4.4.8	Contact with Live Existing Services	A Almost Certain	4 Large	20	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 be visually marked.	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.	6. Elimination	SS / SM	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, Demolition Work COP
Demolition	Is carried out on or near energised electrical installations or services	4.4.1; 4.4.7	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 = 8m.	Tiger Tails to be installed by relevant authority as a visual reminder. Install height/location indicators. 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. Additional/Interim controls until Tiger Tails are installed include: PBS team discussion with contractors on complacency. Non-conductive height awareness bunting to be installed. Colour of bunting to be changed periodically to increase awareness and visibility. Second line (Optus) sits below power line and non-conductive height safety bunting below Optus line. "Overhead Lines" warning signs with height above marked. Safe operating distance for spotters in accordance with approved Traffic Control Plan.	4. Isolation	SS / SM	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, Demolition Work COP, Managing the risks of plant in the workplace COP, Managing electrical risks in the workplace COP
Demolition		4.13.1; 4.13.3	Environmental Contamination from Spill of Hazardous Chemicals/Substances	C Possible	2 Small	6	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 SDSs for chemicals/substances that they are using on this project.		2. Administration	SS / SM	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
Demolition		4.13.2	Dust Inhalation	C Possible	3 Medium	9	Internal Risk - P1/P2/P3 dust mask to be worn. External Risk - Constant Hosing down with water to be undertaken.		3. Engineering	SS / SM	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
Demolition		4.7.1;	Cuts and Lacerations	C Possible	1 Very Small	3	All guards to be fitted to power tools. Gloves to be worn at all times when handling materials.	228mm grinder permit to be issued when applicable	3. Engineering	SS / SM / FM	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
Demolition			Works affect neighbouring structures	C Possible	2 Small	6	Dispersion survey to be undertaken by consultant. Prior to works starting	Vibration Monitoring to be in place. Letter box drop to occur in neighbouring properties that might be affected by works. Shoring that has been designed by an engineer to be in place for neighbouring retaining walls and properties prior to demolition of existing boundary walls.	3. Engineering	SS / SM	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
Demolition			Noise	D Unlikely	3 Medium	6	Hearing Protection to be worn.	Mufflers to be used on plant. Vibration monitoring required	4. Isolation	SS / SM	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
Demolition	Is carried out in an area at a workplace in which there is any movement of powered mobile plant	4.3.2; 4.3.5;	Hit by Moving Plant	B Likely	4 Large	16	When using an excavator: Spotter to have positive communication with operator (via hand signals or UHF radio) at all times. No one is allowed in the swing zone of the piece of plant. No one is to approach plant unless the bucket/arm has been lowered and confirmation has been received by the operator that it is ok to approach. All plant to have flashing beacons operating. Mobile phones not to be used when operating plant and equipment. Fully automatic quick hitch required for excavators, where this cannot be accomplished and a semi automatic or other quick hitch is proposed, a written exemption is required from EHS Manager.	Exclusion zone to be in place to prevent unauthorised entry to work area.	3. Engineering	SS / SM	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
Design Analysis Review			Incorrect or incomplete design analysis and hazard identification	C Possible	4 Large	12	Review all consultant Design Safety Reports using PBS Design Safety Report Review Document. Analyses to be conducted in accordance with EHS Plan and Quality Sub Plan.		3. Engineering	SS / PM	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, Safe Design of Structures COP, PBS Safety Guide
Electrical	Risk of Person Falling more than 2m	4.1.1; 4.12; 4.1.3; 4.1.6	Fall of Person	C Possible	4 Large	12	Platform ladders or EWPs are to be used in the first instance. Work trestles a minimum width of 450mm can be used. Step Ladders may only be used for minor works which take less than 15 minutes to complete and 3 points of contact must be maintained. Delivery drivers or workers are NOT to access the back of trucks unless: "A portable handrail system is provided by the project and, "The use of a portable loading bay platform would be the ideal control measure. When one or more of these controls are implemented, workers may use the access ladder and maintain 3 points of contact when ascending or descending. Ladders to be stepped back from any edges of a building/balconies at least 3m or 1:1 ratio if a full perimeter screenscaffold has been installed.	Competent person to only use EWP below 11m. Ticked Personnel required for operation of EWP over 11m. Harness to be worn and connected to boom EWP type prior to bucket being raised. Harness to be inspected daily before use and maintained as per manufacturer specifications. Mobile scaffold to be used. Any mobile scaffold over 4m needs to be erected by a ticketed scaffolder.	3. Engineering	SS / SM	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

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Refer to another activity in the PRR				SM	Site Manager			5. Substitution	7	%Controls < Engineering	8%		
Input required by the site team				FM	Foreman			4. Isolation	67				
Reference to PBS document				CA	Contracts Administrator			3. Engineering	130	Check formulas in L2-L7 if you add rows to ensure range is correct			
NSW requirement only				EHSQ	EHSQ Co-Ordinator / Manager			2. Administration	18				
Issue Date:				PE/SE	Project Engineer / Site Engineer			1. PPE	1			Delete Legislation / Codes not applicable to your jurisdiction	
22/12/2020													
Activity Description	High Risk Construction Work	GMR Reference	Hazard / Impact (Worst Consequence)	Likelihood	Consequence	Risk Rating	Mandatory Control Measures	Site Specific Control Measures	Hierarchy of Control (Highest Level Control)	Responsible	Status	Legal and other requirements	
Electrical	Is carried out on or near energised electrical installations or services	4.4.1; 4.4.2;4.4.3;4.4.4	Electrocution	A Almost Certain	4 Large	20	Install RCD protected temporary boards at each level in nominated location being hard wired with 4mm cable (no spades / 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. Temporary 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 licensed electrician at all times. All electrical work (other than inspection and testing of portable equipment) must be carried out by a licensed 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	SS / SM / FM	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 risks in the workplace COP		
Electrical		4.2.1; 4.2.2; 4.2.3; 4.2.4;4.2.5;4.2.6	Hit by Falling Objects	B Likely	3 Medium	12	Authorised person only to be in direct workzone. Authorised person only to be in direct workzone.	Physical barriers to be in place as an exclusion zone and must take into consideration the arc, fall and bounce of materials and tools. Area to be banded off with signage to prevent unauthorised access.	4. Isolation	SS / SM	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	
Electrical	Is carried out in an area at a workplace in which there is any movement of powered mobile plant	4.3.2; 4.3.5;	Hit by Moving Plant	C Possible	4 Large	12	No one is to approach plant unless confirmation has been received by the operator that it is ok to approach. All plant to have flashing beacons operating. Mobile phones not to be used when operating plant and equipment. Operator to be appropriately trained / Tickled.	Exclusion zone to be in place to prevent unauthorised entry to work area. Access ways to be redirected to ensure no personnel inside operating areas. Outriggers of crane to be protected by grey kurtis or similar to prevent contact from other plant/vehicles. Use Tag Lines when appropriate to control light weight &/or large panel lifts in windy conditions. Dogman and Operator to sign into Crane Management Sub Plan. Spotter/Dogman to have positive communication with operator (via hand signals, whistle or UHF radio) at all times. Seat belts to be worn at all times where fitted. Refer to mobile crane operations activity and excavation activity in this PRR.	4. Isolation	SS / SM	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	
Electrical		4.7.1;	Cuts and Lacerations	C Possible	2 Small	6	All guards to be fitted to power tools. All PPE requirements shall be assessed in the contractors HR SWMS	225mm grinder permit to be issued when applicable	3. Engineering	SS / SM / FM	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	
Electrical		4.5.1; 4.5.2;4.5.4	Fire/Explosion	B Likely	3 Medium	12	Hot Works Permit to be in place Or Isolation / Energisation Permit to be in place. Area to be clear of combustible materials. Correct PPE to be worn.	225mm Grinder Permit to be in place	2 Administration	SS / SM / FM	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, Welding processes COP	
Electrical		4.10.2	Exposure to Hazardous Material	C Possible	2 Small	6	Correct PPE to be worn. SDS to be communicated to all workers involved in the task via TBT, training register or SWMS. Hazardous Materials to be stored in designated storage area immediately after use.	Hazardous Materials and Dangerous Goods sub plan to be in place.	4. Isolation	SS / SM	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	
Worker Welfare		3.1.2; 3.2	Mental health and hygiene risks	D Unlikely	2 Small	4	Toilets which have hot and cold water, lunch room including minimum boiling water, cold water and microwave and fridge, Change room. All facilities cleaned on a regular basis. No materials or tools to be stored in these facilities. Water Bubbler to be located minimum every second level on site.	Two closet pans and trough for male toilet at a minimum. One closet pan for female at a minimum. Both toilets to include shower facilities and lockable door so as to double up as a change room.	3. Engineering	PM / SM	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 work environment and facilities COP. First aid in the workplace COP	
Emergency Planning		4.5.10; 3.2.6	Emergency Risk Assessment	A Almost Certain	5 Very Large	25+	Fire extinguisher to be located at every exit point and/or every 500 square metres. Nurse Call point to be located every 500 square metres. Spill Kits to be located at all designated refuelling areas and hazardous chemicals / dangerous goods storage areas. Contractors are to provide their own spill kit relevant for their own, refuelling or other, activities.	PBS will have a multipurpose 20 litre spill kit available as a back up. 1 fire extinguisher (to suit class a,b,c & electrical fire) on each storey adjacent to each exit or temporary stairway at all times. After building reaches 12m effective height, required fire hydrants & fire hose reels must be operational every storey (except the 2 uppermost floors). Emergency Evacuation Map to be installed on every level / at each exit point. Defibrillator is available in the retirement resort next to the project site. Two standard module kits required (one large, one runner). Stretcher required for site. Minimum 2 first aiders required for site with provide first aid training. Scaffold Stretcher stair required for emergency egress.	3. Engineering	SS / SM	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 work environment and facilities COP. First aid in the workplace COP	
Environmental Assessment		4.13.1;4.13.3	Excessive exposure to surrounding noise, dust, vibration, radiation	C Possible	2 Small	6		Vibration and Dust monitoring processes are deemed required for this project. Monitoring processes are to be conducted by suitably competent consultants (eg occupational hygienist) in accordance with contractual requirements.	3. Engineering	SS / SM	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 work environment and facilities COP	
Environmental Assessment		4.13.1;4.13.3	Environmental Contamination from Spill of Hazardous Chemicals/Substance / Water	B Likely	4 Large	16	Install approved controls prior to commencing excavation works. Contractors to ensure all erosion & sediment controls are fully re-instated before leaving site. Monitor external site boundaries and environmental controls using "EHS Site Assessment Checklist".	Silt fence with coir logs in front of back boundary and additional silt fence and coir logs 3m in front. Vehicle Shakedown device to be in place for exiting trucks. All inlets to be protected with suitable fabric and sediment trap installed.	3. Engineering	SS / SM	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	
Excavation			Noise	D Unlikely	3 Medium	6	Hearing Protection to be worn.	Muffers to be used on plant. vibration monitoring required	4. Isolation	SS / SM	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	

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Reference to PBS document	CA	Contracts Administrator		3. Engineering	130							
NSW requirement only	EHSQ	EHSQ Co-Ordinator / Manager		2. Administration	18							
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Activity Description	High Risk Construction Work	GMR Reference	Hazard / Impact (Worst Possible)	Likelihood	Consequence	Risk Rating	Mandatory Control Measures	Site Specific Control Measures	Hierarchy of Control (Highest Level Control)	Responsible	Status	Legal and other requirements
Excavation		4.5.3; 4.5.5	Fire/Explosion when refuelling plant and equipment	C Possible	3 Medium	9	Hazardous Materials to be stored in designated storage area immediately after use. Fire Fighting equipment to have tag in date of 6 months and be readily accessible to the refuelling area. Refuelling area to be clear of any combustible material.	Designated refuelling area to be identified with signage on site. Hazardous Chemicals and Dangerous Goods Management Sub Plan to be in place. Maintenance / refuelling to be performed in set up controlled bunded area.	4. Isolation	SS / SM	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
Excavation		4.13.1; 4.13.3	Environmental Contamination from Spill of Hazardous Chemicals/Substances	C Possible	2 Small	6	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	SS / SM	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
Excavation		4.12.1; 4.12.2	Working in High Temperatures - Heat Stress/Heat Exhaustion	C Possible	2 Small	6	Sufficient quantities of cool drinking water is readily available close to work areas. Regularly rotate workers who perform more strenuous activities with less demanding tasks. Take regular work breaks in cooler areas such as air conditioned sheds.	Workers to wear broad brimmed hats and sunglasses for UV protection.	3. Engineering	SS / SM / HSR	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 work environment and facilities COP
Excavation		4.12.1; 4.12.2	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. If lightning is present in the near sky or immediate sky above then concrete booms must be lowered and persons to remain under cover in lunch sheds until the weather passes.	Inspection to be conducted prior to gates of site open by PBS Site Manager/ EHS Committee to assess all access routes. Any unsuitable work areas are to be barricaded off with physical barrier until deemed safe to enter.	3. Engineering	SS / SM / HSR	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 work environment and facilities COP
Excavation			Works affect neighbouring structures	C Possible	3 Medium	9	Dilatation survey to be undertaken by consultant. Prior to works starting	Vibration Monitoring to be in place. Letter box drop to occur in neighbouring properties that might be affected by works. Operate hammer in short bursts only.	3. Engineering	SS / SM	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
Excavation			Unexpected Find	C Possible	2 Small	6	PBS Unexpected Finds protocol to be followed.		2. Administration	SS / SM	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
Excavation		4.13.4	Damage to protected flora or fauna	C Possible	2 Small	6	Tree Protection zones using robust barricading to be in place with signage.	Timber batten protection to be placed directly onto the tree trunks in High Pedestrian traffic areas (i.e. public locations in the street near PBS hoardings)	4. Isolation	SS / SM	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
Fencing	Is carried out on or near pressurised gas distribution mains or piping; Is carried out on or near energised electrical installations or services	4.4.1; 4.4.8	Contact with In-Ground Services	B Likely	4 Large	16	Excavation Permit required when penetrating the ground 200mm or more. DBYO to be reviewed. Known services are to be identified and Summary Of Services Location Plan (SOS LP) to be updated on weekly basis including services that are being installed progressively by service trades. Digging by mechanical means is not to be carried out within 1m of a known live service unless EHSQ Manager has been consulted.	As built to be received from the client to confirm existing services. Service Locator to be engaged to conduct survey of site and provide to PBS. Pot Holing via sucker truck/hand digging every 5m to determine direction of service. Energise/Isolate Permits may also be required.	3. Engineering	SS / SM / FM	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, Excavation COP, Managing electrical risks in the workplace
Fencing		4.2.1; 4.2.2; 4.2.3; 4.2.4; 4.2.5; 4.2.6	Hit by Falling Objects	C Possible	3 Medium	9	No unsecured components to be left outside PBS fence line.	Semi - Permanent Fencing to be installed. Temporary Fencing to be erected in accordance with AS4687 requirements. Handover to be received from contractor that installs fence to confirm installation to Australian standards and manufacturer requirements. For any section of perimeter fencing taken over from client by pbs, a temporary perimeter fence handover certificate must be completed and provided to pbs. If temporary perimeter fencing being used on site - it must be installed to D - Grade wind loading if closer than 4m to a public footpath or roadway. Additional bracing required to be installed	3. Engineering	SS / SM	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
Fencing		4.7.1;	Hitting Objects with part of body	C Possible	3 Medium	9	No unsecured components to be left outside PBS fence line. No fence component to protrude onto public accessways in a manner that obstructs or is hazardous to general public. Bracing to have counterweights above base post or have impalement cap installed.		3. Engineering	SS / SM	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

PBS Project Risk Register (PBR)



PBS Project Risk Register				Word Colour Legend			Acronym	Responsible Positions	Hierarchy of Control			Control Selections		
				Permits	SS	Sub-Contractor Supervisor	6. Elimination	2	%Controls ≥ Engineering	92%				
				Refer to another activity in the PRR	SM	Site Manager	5. Substitution	7	%Controls < Engineering	8%				
				Input required by the site team	FM	Foreman	4. Isolation	67						
Workplace Location:	1 Ulonga Ave, Greenwich			Reference to PBS document	CA	Contracts Administrator	3. Engineering	130	6Check formulas in L2-L7 if you add rows to ensure range is correct					
Issue Number:	Rev 4			NSW requirement only	EHSQ	EHSQ Co-Ordinator / Manager	2. Administration	18						
Issue Date:	22/12/2020				PE/SE	Project Engineer / Site Engineer	1. PPE	1						
Activity Description	High Risk Construction Work	GMR Reference	Hazard / Impact (Worst Possible)	Likelihood	Consequence	Risk Rating	Mandatory Control Measures	Site Specific Control Measures	Hierarchy of Control (Highest Level Control)	Responsible	Status	Legal and other requirements		
Fencing			Manual Handling Injury				2 person job when rearranging / reinstating fence panels (eg lifting panels out of bases). Mechanical aids to be used when lifting multiple panels at one time.		3. Engineering	SS / SM	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		
Fencing		4.5.1; 4.5.2; 4.5.4	Fire/Explosion	D Unlikely	2 Small	4	Hot Works Permit to be in place. Area to be clear of combustible materials. Correct PPE to be worn.	225mm Grinder Permit to be in place	3. Engineering	SS / SM / FM	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, Welding processes COP		
Fire Services	Risk of Person Falling more than 2m	4.1.1; 4.12; 4.1.3; 4.1.6	Fall of Person	D Unlikely	4 Large	8	Platform ladders or EWPs are to be used in the first instance. Work treats a minimum width of 450mm can be used. Step Ladders may only be used for minor works which take less than 15 minutes to complete and 3 points of contact must be maintained. Delivery drivers or workers are NOT to access the back of trucks unless: *There is a handrail system incorporated onto the back of the vehicle or, *A portable handrail system is provided by the project and, *The use of a portable loading bay platform would be the ideal control measure. When one or more of these controls are implemented, workers may use the access ladder and maintain 3 points of contact when ascending or descending. Ladders to be stepped back from any edges of a building/balconies at least 3m or 1:1 ratio if a full perimeter screen/scaffold has been installed.	Ticketed Personnel required for operation of EWP. Harness to be worn and connected prior to bucket being raised. Harness to be inspected daily before use and maintained as per manufacturer specifications. Mobile scaffold to be used. Any mobile scaffold over 4m needs to be erected by a ticketed scaffolder.	3. Engineering	SS / SM	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		
Fire Services		4.5.1; 4.5.2; 4.5.4	Fire/Explosion	B Likely	3 Medium	12	Hot Works Permit to be in place. Area to be clear of combustible materials. Correct PPE to be worn. Flash back arrestors to be on all oxy acetylene sets. Isolation/Energisation Permit to be issued.	225mm Grinder Permit to be in place	3. Engineering	SS / SM / FM	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, Welding processes COP		
Fire Services	Is carried out in an area at a workplace in which there is any movement of powered mobile plant	4.3.2; 4.3.5;	Hit by Moving Plant	D Unlikely	3 Medium	6	No one is to approach plant unless confirmation has been received by the operator that it is ok to approach. All plant to have flashing beacons operating. Mobile phones not to be used when operating plant and equipment. Operator to be appropriately Trained / Ticketed.	Exclusion zone to be in place to prevent unauthorised entry to work area. Access ways to be redirected to ensure no personnel inside operating areas. Outriggers of crane to be protected by jersey kurbs or similar to prevent contact from other plant/vehicles. Use Tag Lines when appropriate to control height &/or large panel lifts in windy conditions. Dogman and Operator to sign into Crane Management Sub Plan. Spotter/Dogman to have positive communication with operator (via hand signals, whistle or UHF radio) at all times. Seat belts to be worn at all times where fitted. Refer to mobile crane operations activity in this PRR.	4. Isolation	SS / SM	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		
Fire Services		4.7.1;	Cuts and Lacerations	D Unlikely	1 Very Small	2	All guards to be fitted to power tools. Wear gloves when working with sharp steel edges. Eye Protection to be worn when using explosive power tool. No high velocity/direct action Explosive Power Tool to be used on site unless approved by PBS Site Manager and the controls required are communicated to workers via a toolbox. Explosive Powered Tool charges must be stored in a locked metal box marked "explosives". Used charges must be disposed of immediately after use.	225mm grinder permit to be issued when applicable	5. Substitution	SS / SM / FM	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		
Fire Services		4.10.2	Exposure to Hazardous Material	D Unlikely	2 Small	4	Correct PPE to be worn. SDS to be communicated to all workers involved in the task via TBT, training register or SWMS. Hazardous Materials to be stored in designated storage area immediately after use.	Hazardous Materials and Dangerous Goods sub plan to be in place.	4. Isolation	SS / SM	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		
Fire Services			Noise	C Possible	2 Small	6	Hearing Protection to be worn.	Signage to be in place when using Explosive Power Tools.	2. Administration	SS / SM	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 noise and preventing hearing loss at the work COP		
Floor Sealing &/or Floor and Wall Tiling	Is carried out in an area which may have a contaminated or flammable atmosphere	4.10.2	Exposure to Hazardous Material	B Likely	3 Medium	12	Isolate and ventilate the area as applicable by SDS. Obtain and adhere to risk based assessment of SDS requirements for all products brought to site.		3. Engineering	SS / SM	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		
Floor Sealing &/or Floor and Wall Tiling		4.13.1; 4.13.3	Environmental Contamination from Spill of Hazardous Chemicals/Substances	E Rare	3 Medium	3	Use designated washout facilities.		3. Engineering	SS / SM	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		
Floor Sealing &/or Floor and Wall Tiling		4.10.2	Exposure to Hazardous Dust	E Rare	4 Large	4	Ensure adequate ventilation to work areas. Workers to wear suitable PPE including dust mask and eye protection.		3. Engineering	SS / SM	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		
Floor Sealing &/or Floor and Wall Tiling	Risk of Person Falling more than 2m	4.1.1; 4.12; 4.1.3; 4.1.6	Fall of Person	D Unlikely	4 Large	8	Use scaffold / EWP or platform ladders. Do not work on ladders next to open windows, balustrades or other unprotected fall areas.		3. Engineering	SS / SM	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

PBS Project Risk Register (PBR)



				Word Colour Legend		Acronym	Responsible Positions	Hierarchy of Control		Control Selections		
				Permits	SS	Sub-Contractor Supervisor	6. Elimination	2	%Controls > Engineering	92%		
Workplace Location:				Refer to another activity in the PRR	SM	Site Manager	5. Substitution	7	%Controls < Engineering	8%		
				Input required by the site team	FM	Foreman	4. Isolation	67				
Issue Number:				Reference to PBS document	CA	Contracts Administrator	3. Engineering	130	Check formulas in L2-L7 if you add rows to ensure range is correct			
				NSW requirement only	EHSQ	EHSQ Co-Ordinator / Manager	2. Administration	18				
Issue Date:					PE/SE	Project Engineer / Site Engineer	1. PPE	1	Delete Legislation / Codes not applicable to your jurisdiction			
Activity Description	High Risk Construction Work	GMR Reference	Hazard / Impact (Worst Consequence)	Likelihood	Consequence	Risk Rating	Mandatory Control Measures	Site Specific Control Measures	Hierarchy of Control (Highest Level Control)	Responsible	Status	Legal and other requirements
Formwork	Risk of Person Falling more than 2m	4.1.1; 4.12; 4.1.3; 4.1.6	Fall of Person	A Almost Certain	4 Large	20	Cast/Embed 20 X 20 Galvanised Safety mesh into all service penetrations. Fixed cover to be on all penetrations over 125mm diameter. All penetration covers to be identified similar to "Danger Penetration Below". If sizeable penetrations are located in areas where plant &/or equipment is likely to be used (eg scissor lift, pallet trolley, forklift), secured covers to be of sufficient strength with load & point load limits displayed. Platform ladders or work platforms of 450mm minimum width to be used. Physical barriers and signage must be in place to prevent unauthorised personnel from entering restricted area when working on leading edges (i.e formworkers only).	No one is to stand on truck tray unless it has hand rails in place. Minimum of 1.8m lazy jolts to surround formworkers working on leading edges at all times. Dince/AFS to have extra 1m in length ordered and to be erected and braced prior to suspended deck so it can act as a hand rail. Two access ways to be clearly defined under deck and free of all obstructions i.e. no hazards at all times. Crash deck to be installed under all leading edges.	3. Engineering	SS / SM	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
Formwork		4.2.1; 4.2.2; 4.2.3; 4.2.4; 4.2.5; 4.2.6	Hit by Falling Objects	A Almost Certain	3 Medium	15	Exclusion zone to be erected, which still maintains an access point underneath the deck, when working on leading edges or a risk of materials/tools falling over 2 metres exists. This exclusion zone must take into consideration the arc, fall and bounce of materials & tools. Stripping areas must have barriers and signage in place to prevent unauthorised access. Authorised person only to be in direct workzone.	Structural engineer to provide documented authorisation for all formwork shutter lifting lugs.	4. Isolation	SS / SM	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
Formwork		4.9.1; 4.9.2; 4.9.3	Failure of Structure	B Likely	5 Very Large	20	Structural engineer to provide documented authorisation prior to concrete pour & stripping. Engineer to include in drawing or provide written instruction where all load points are on deck. Where material is designed to an international or another standard, engineer must certify that it conforms to relevant Australian standard. Evidence verifying formwork sheets conform to Australian Standards must be kept on site. Provide Formwork Documentation in accordance with Section 2.4 of AS3610.1:2010. Hold Point - PBS pre-pour checklist to be completed prior to pouring any decks.	Formwork framing to be protected against impact from moving plant & equipment.	3. Engineering	SS / SM / FM / SE / CA	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
Formwork		4.7.1;	Cuts and Lacerations	B Likely	3 Medium	12	All guards to be fitted to power tools. Wear gloves when working with sharp steel edges.	Frames and timbers are not to obstruct access ways, temporary power boards or emergency exits. 225mm grinder permit to be issued when applicable	3. Engineering	SS / SM / FM	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
Formwork	Is carried out in an area at a workplace in which there is any movement of powered mobile plant	4.3.2; 4.3.5;	Hit by Moving Plant	D Unlikely	3 Medium	6	No one is to approach plant unless confirmation has been received by the operator that it is ok to approach. All plant to have flashing beacons operating. Mobile phones not to be used when operating plant and equipment. Operator to be appropriately Trained / Ticketed.	Exclusion zone to be in place to prevent unauthorised entry to work area. Access ways to be redirected to ensure no personnel inside crane operating areas. Outriggers of crane to be protected by jersey curbs or similar to prevent contact from other plant/vehicles. Use Tag Lines when appropriate to control light weight &/or large panel lifts in windy conditions. Dogman and Operator to sign into Crane Management Sub Plan. Spotter/Dogman to have positive communication with operator (via hand signals, whistle or UHF radio) at all times. Refer to mobile crane operations activity in the PRR.	4. Isolation	SS / SM	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
Hot Works (Including Grinding & Welding)		4.5.1; 4.5.2; 4.5.4	Fire/Explosion	C Possible	3 Medium	9	Isolate / Exclusion zone where required and display signs. Hot Works Permit to be issued and Service Isolation Permit where required. Install flash back arrestors to all oxy sets and ensure suitable fire extinguishers are nearby. Flash protection screens to be used where required to protect other workers and public. Identify and isolate existing services. Ensure work areas are clear of debris. Ensure ventilation is adequate.	Arrange to have fire alarm systems disconnected in area of works.	4. Isolation	SS / SM	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, Managing the risk of fall COP, PBS Safety Guide
Kitchen Benchtops	Is carried out in an area which may have a contaminated or flammable atmosphere	4.10.2	Exposure to Hazardous Dust	C Possible	3 Medium	9	Workers required to cut (includes grind, drill or polish) manufactured stone containing crystalline silica with a power tool must wear respiratory protective equipment and at least one of the following controls must be in place - a water delivery system that supplies a continuous flow of water over the area being cut to suppress the generation of dust; - a prescribed extraction system that is attached to the tool used for the cutting to capture the dust produced by the cutting; - a local exhaust ventilation system that captures the dust produced by the cutting and transports the dust to a safe emission point or to a filter or scrubber. Only workers directly involved in the activity to be in the area when cutting being undertaken.	Cutting area separation screens to be installed. Workers required to use respiratory protective equipment (RPE) must have a correctly fitted and tested face mask using either a quantitative or qualitative test. All light-fitting respirators must have fit testing completed. There will be no cutting of kitchen benchtops on site and must be brought back to the factory if amendments are required.	4. Isolation	SS / SM	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
Landscaping	Is carried out on or near pressurised gas distribution mains or piping; Is carried out on or near energised electrical installations or services	4.4.1; 4.4.8	Contact with In-Ground Services	B Likely	4 Large	16	Excavation Permit required when penetrating the ground 200mm or more. DEVD to be reviewed. Known services are to be identified and Summary Of Services Location Plan (SOS LP) to be updated on weekly basis including services that are being installed progressively by service trades. Digging by mechanical means is not to be carried out within 1m of a known live service unless EHSQ Manager has been consulted.	As built to be received from the client to confirm existing services. Service Locator to be engaged to conduct survey of site and provide to PBS. Pot Hoing via sucker truck/hand digging every 5m to determine direction of service. Energise/Isolate Permit may also be required.	3. Engineering	SS / SM / FM	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, Excavation COP, Managing electrical risks in the workplace
Landscaping	Is carried out in an area at a workplace in which there is any movement of powered mobile plant	4.3.2; 4.3.5;	Hit by Moving Plant	C Possible	4 Large	12	Spotter to have positive communication with operator (via hand signals or UHF radio) at all times. No one is allowed in the swing zone of the piece of plant. No one is to approach plant unless the bucket/arm is lowered and confirmation has been received by the operator that it is ok to approach. All plant to have flashing beacons operating. Mobile phones not to be used when operating plant and equipment.	Exclusion zone to be in place to prevent unauthorised entry to work area. Emergency stop button to be applied to the machine.	4. Isolation	SS / SM	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
Landscaping	Is carried out in an area at a workplace in which there is any movement of powered mobile plant	4.3.6; 4.8.4	Plant Over-Turning	D Unlikely	4 Large	8	ROPS/FOPS to be installed on all plant involved in the work activity. Physical Barrier to be installed along top of excavation / trench to prevent plant / vehicles entering the zone of influence. The SWL of plant and its attachments is not to be exceeded. Seat Belts to be worn where fitted.	Penetration covers to be physically secured with signage and be of sufficient strength to support likely plant or equipment in the area. If sizeable penetration, load & point limits to be displayed.	4. Isolation	SS / SM	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
Landscaping		4.5.5	Fire/Explosion when refuelling plant and equipment	C Possible	4 Large	12	Hazardous Materials to be stored in designated storage area immediately after use. Fire Fighting equipment to have tag in date of 6 months and be readily accessible to the refuelling area. Refuelling area to be clear of any combustible material.	Designated refuelling area to be identified with signage on site. Hazardous Chemicals and Dangerous Goods Management Sub Plan to be in place.	4. Isolation	SS / SM	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
Landscaping		4.13.1; 4.13.3	Environmental Contamination from Spill of Hazardous Chemicals/Substances	D Unlikely	3 Medium	6	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.		2 Administration	SS / SM	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
Landscaping	Is carried out in an area at a workplace in which there is any movement of powered mobile plant	4.2.1; 4.2.2; 4.2.3; 4.2.4; 4.2.5; 4.2.6	Hit by Falling Objects	D Unlikely	4 Large	8	All 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. The SWL of lifting equipment is not to be exceeded. Where a dogman is not available - Weight of load to be fitted to be predetermined by a competent person and marked on load. Selection of slings & slinging techniques for load is predetermined by a competent person. Liftino points are to be predetermined by a competent person		3. Engineering	SS / SM	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

PBS Project Risk Register (PBR)



Workplace Location: 1 Ulonga Ave, Greenwich				Word Colour Legend			Acronym	Responsible Positions	Hierarchy of Control	Control Selections		
Issue Number: Rev 4				Permits	SS		Sub-Contractor Supervisor	6. Elimination	2	%Controls > Engineering	92%	%Controls < Engineering 8% %Check formulas in L2-L7 if you add rows to ensure range is correct Delete Legislation / Codes not applicable to your jurisdiction
Issue Date: 22/12/2020				Refer to another activity in the PRR	SM		Site Manager	5. Substitution	7			
				Input required by the site team	FM		Foreman	4. Isolation	67			
				Reference to PBS document	CA		Contracts Administrator	3. Engineering	130			
				NSW requirement only	EHSQ		EHSQ Co-Ordinator / Manager	2. Administration	18			
					PE/SE		Project Engineer / Site Engineer	1. PPE	1			
Activity Description	High Risk Construction Work	GMR Reference	Hazard / Impact (Worst Scenarios)	Likelihood	Consequence	Risk Rating	Mandatory Control Measures	Site Specific Control Measures	Hierarchy of Control (Highest Level Control)	Responsible	Status	Legal and other requirements
Landscaping		4.12.1; 4.12.2	Working in High Temperatures - Heat Stress/Heat Exhaustion	E Rare	2 Small	2	Sufficient quantities of cool drinking water is readily available close to work areas. Regularly rotate workers who perform more strenuous activities with less demanding tasks. Take regular work breaks in cooler areas such as air conditioned sheds.	Shade Covers to be installed. Workers to wear broad brimmed hats and sunglasses for UV protection.	3. Engineering	SS / SM / HSR	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 work environment and facilities COP
Landscaping		4.12.1; 4.12.2	Working in Cold, Inclement or Windy Weather	E Rare	2 Small	2	Heated amenities to be provided. Suitable Access / Egress to be provided to work areas. If lightning is present in the near sky or immediate sky above then concrete booms must be lowered and persons to remain under cover in lunch sheds until the weather passes.	Inspection to be conducted prior to gates of site open by PBS Site Manager/ EHS Committee to assess all access routes. Any unsuitable work areas are to be barricaded off with physical barrier until deemed safe to enter.	3. Engineering	SS / SM / HSR	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 work environment and facilities COP
Lift Installation	Risk of Person Falling more than 2m	4.1.1; 4.12; 4.1.3; 4.1.6; 4.1.4;	Fall of Person	A Almost Certain	4 Large	20	Physically fix 50 X 25mm mesh or ply to each lift shaft opening after pouring & prior to lift install commencing. Replace mesh / ply lift door opening protection with dead lock keyed lift cage physically fixed across opening before lift install commencing. Ensure temporary handrail is installed at every level with only working level removed for access but replaced before moving working temp platform. Ensure hand rails ballustrades are installed & secured on top of car before works commence.	Delivery drivers or workers are NOT to access the back of trucks unless: *There is a handrail system incorporated onto the back of the vehicle or, *A portable handrail system is provided by the project and, *The use of a portable loading bay platform would be the ideal control measure. When one or more of these controls are implemented, workers may use the access ladder and maintain 3 points of contact when ascending or descending.	4. Isolation	SS / SM	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
Lift Installation	Is carried out in an area at a workplace in which there is any movement of powered mobile plant	4.3.2; 4.3.5;	Hit by Moving Plant	C Possible	4 Large	12	No one is to approach plant unless confirmation has been received by the operator that it is ok to approach. All plant to have flashing beacons operating. Mobile phones not to be used when operating plant and equipment. Ensure working temp platform / lift cage is electrically isolated and the lift has been tagged out accordingly. Operator to be appropriately Trained / Tickled. Isolation/Emergency Permit to be issued.	Exclusion zone to be in place to prevent unauthorised entry to work area. Access ways to be redirected to ensure no personnel inside operating areas. Outriggers of crane to be protected by jerry kubes or similar to prevent contact from other plant/vehicles. Use Tag Lines when appropriate to control light weight &/or large panel lifts in windy conditions. Dogman and Operator to sign into Crane Management Sub Plan. Spotter/Dogman to have positive communication with operator (via hand signals, whistle or UHF radio) at all times. Seat belts to be worn at all times where fitted. Refer to mobile crane operations activity in this PRR.	4. Isolation	SS / SM / FM	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
Lift Installation		4.5.1; 4.5.2; 4.5.4	Fire/Explosion	C Possible	4 Large	12	Hot Works Permit to be in place. Area to be clear of combustible materials. Correct PPE to be worn. Flash back arrestors to all oxy sets.	225mm Grinder Permit to be in place	3. Engineering	SS / SM / FM	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, Waiting processes COP
Lift Installation		4.7.1;	Cuts and Lacerations	D Unlikely	2 Small	4	All guards to be fitted to power tools. All PPE requirements shall be assessed in the contractors HR SWMS	225mm grinder permit to be issued when applicable	3. Engineering	SS / SM / FM	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
Local Council Requirements							PBS will either communicate directly (through Letter drops, Public Notice Boards or Consultation sessions) with these entities, or through the client established communication protocols for feedback when assessing HRAC to be implemented when reducing any potential risk(s) posed.	DA Hours - Monday to Friday 0700 to 1730; Saturday 0700 to 1600. No works allowed on Sunday or public holidays. Truck shaker ramp must be provided at construction exit point. Sediment tracked onto the public roadway by vehicles leaving the subject site to be swept up immediately. Adequate tree protection measures in place as per arborist report stage 1/01	3. Engineering	SS / SM	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
Local Traffic Condition							PBS will either communicate directly (through Letter drops, Public Notice Boards or Consultation sessions) with these entities, or through the client established communication protocols for feedback when assessing HRAC to be implemented when reducing any potential risk(s) posed.	Work Zone obtained by council.	3. Engineering	SS / SM	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
Masonry	Risk of Person Falling more than 2m	4.1.1; 4.12; 4.1.3; 4.1.6	Fall of Person	A Almost Certain	4 Large	20	Delivery drivers or workers are NOT to access the back of trucks unless: *There is a handrail system incorporated onto the back of the vehicle or, *A portable handrail system is provided by the project and, *The use of a portable loading bay platform would be the ideal control measure. When one or more of these controls are implemented, workers may use the access ladder and maintain 3 points of contact when ascending or descending.	Scaffold to be used with hand rails and mid rails or mesh panels. Ticketed Personnel required for operation of EWP. Harness to be worn and connected prior to bucket being raised. Harness to be inspected daily before use and maintained as per manufacturer specifications.	3. Engineering	SS / SM	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
Masonry		4.2.1; 4.2.2; 4.2.3; 4.2.4; 4.2.5; 4.2.6	Hit by Falling Objects	B Likely	4 Large	16	Physical barriers to be in place as an exclusion zone to prevent access adjacent to or behind the unsecured wall and must take into consideration the arc, fall and bounce of materials and tools.	Tools to be on lanyards when working above 2m fall risk.	4. Isolation	SS / SM	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
Masonry		4.7.1;	Cuts and Lacerations	C Possible	2 Small	6	All guards to be fitted to power tools. Brick saw to be locked on solid bench.	225mm grinder permit to be issued when applicable	3. Engineering	SS / SM / FM	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
Masonry		4.9.1; 4.9.2; 4.9.3	Failure of Structure	B Likely	4 Large	16	Temporary bracing of all 'green walls' above 1.5m to be installed prior to any additional courses being laid. Contractor supervisor to ensure scaffold decks not overloaded with max loading signage visible. Masonry walls must be designed by a qualified and registered engineer. Masonry walls must not be erected in adverse weather conditions.		3. Engineering	SS / SM / FM / SE / CA	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
Masonry			Noise	C Possible	2 Small	6	Hearing Protection to be worn. Brick Saw to be set up in an isolated cutting area with signage	Brick saw to be encapsulated by materials on 3 sides which reduce the level of noise emitted.	4. Isolation	SS / SM	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 noise and preventing hearing loss at the work COP
Masonry		4.13.1; 4.13.3	Environmental Contamination from Spill of Hazardous Chemicals/Substances	D Unlikely	2 Small	4	Designated washout / recycling areas for concrete and concrete equipment with regular monitoring. Waste water must be controlled from flowing across walkways, work areas and outside site boundaries.		4. Isolation	SS / SM	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

PBS Project Risk Register

PBS Project Risk Register (PBR)



PBS Project Risk Register				Word Colour Legend			Acronym	Responsible Positions	Hierarchy of Control	Control Selections		
				Permits	SS		Sub-Contractor Supervisor	6. Elimination	2	%Controls > Engineering	92%	
				Refer to another activity in the PRR	SM		Site Manager	5. Substitution	7	%Controls < Engineering	8%	
				Input required by the site team	FM		Foreman	4. Isolation	67			
Workplace Location:	1 Ulonga Ave, Greenwich			Reference to PBS document	CA		Contracts Administrator	3. Engineering	130	*Check formulas in L2-L7 if you add rows to ensure range is correct		
Issue Number:	Rev 4			NSW requirement only	EHSQ		EHSQ Co-Ordinator / Manager	2. Administration	18			
Issue Date:	22/12/2020				PE/SE		Project Engineer / Site Engineer	1. PPE	1			Delete Legislation / Codes not applicable to your jurisdiction
Activity Description	High Risk Construction Work	GMR Reference	Hazard / Impact (Worst Circumstances)	Likelihood	Consequence	Risk Rating	Mandatory Control Measures	Site Specific Control Measures	Hierarchy of Control (Highest Level Control)	Responsible	Status	Legal and other requirements
Masonry	Carried out in an area that may have a contaminated atmosphere	4.10.2	Exposure to Hazardous Dust	C Possible	2 Small	6	Correct PPE to be worn when mixing cement including P1/P2/P3 dust mask. Brick Saw to be set up in an isolated cutting area with signage.	Brick saw to have water attachment and dust mask to be worn when operating.	4. Isolation	SS / SM	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
Masonry	Is carried out in an area at a workplace in which there is any movement of powered mobile plant	4.3.2; 4.3.5;	Hit by Moving Plant	A Almost Certain	4 Large	20	No one is to approach plant unless confirmation has been received by the operator that it is ok to approach. All plant to have flashing beacons operating. Mobile phones not to be used when operating plant and equipment. Operator to be appropriately Trained / Ticketed.	Exclusion zone to be in place to prevent unauthorised entry to work area. Access ways to be redirected to ensure no personnel inside operating areas. Outriggers of crane to be protected by jersey kurbs or similar to prevent contact from other plant/vehicles. Use Tag Lines when appropriate to control light weight &/or large panel lifts in windy conditions. Dogman and Operator to sign into Crane Management Sub Plan. Spotter/Dogman to have positive communication with operator (via hand signals, whistle or UHF radio) at all times. Seat belts to be worn at all times where fitted. Refer to mobile crane operations activity in this PBR	4. Isolation	SS / SM	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
Mobile Crane Operations (Includes Vehicle Mounted Crane/Telehandler/Franna/Crawler)	Is carried out in an area at a workplace in which there is any movement of powered mobile plant	4.3.2; 4.3.5;	Hit by Moving Plant	A Almost Certain	4 Large	20	Spotter/Dogman to have positive communication with operator (via hand signals, whistle or UHF radio) at all times. No one is to approach plant unless confirmation has been received by the operator that it is ok to approach. All plant to have flashing beacons operating. Mobile phones not to be used when operating plant and equipment. Dogman and Operator to sign into Crane Management Sub Plan. Use Tag Lines when appropriate to control light weight &/or large panel lifts in windy conditions. Operator to be appropriately Trained / Ticketed.	Exclusion zone to be in place to prevent unauthorised entry to work area. Access ways to be redirected to ensure no personnel inside crane operating areas. Outriggers of crane to be protected by jersey kurbs or similar to prevent contact from other plant/vehicles.	4. Isolation	SS / SM	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
Mobile Crane Operations (Includes Vehicle Mounted Crane/Telehandler/Franna/Crawler)		4.2.1; 4.2.2; 4.2.3; 4.2.4; 4.2.5; 4.2.6	Hit by Falling Objects	B Likely	4 Large	16	Dogman and Operator to sign into Crane Management Sub Plan. All 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. Authorised person only to be in direct workzone.	Tag Lines to be used when appropriate to control light weight &/or large panel lifts in windy conditions	3. Engineering	SS / SM	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
Mobile Crane Operations (Includes Vehicle Mounted Crane/Telehandler/Franna/Crawler)	Is carried out in an area at a workplace in which there is any movement of powered mobile plant	4.3.6	Plant Over-Turning	B Likely	4 Large	16	Dogman and Operator to sign into Crane Management Sub Plan. Seat belts to be worn at all times where fitted. The SWL of the plant and its attachments is not to be exceeded. Set up in an area that is approved by PBS Site Manager. Lift study to be completed for any loads 20 Tonne or when exceeding to use crane over 95% capacity. Plant is not to set up or traverse within the zone of influence of a service trench or on a service trench. Outriggers must be set up on stable ground.	Penetration covers to be physically secured with signage and be of sufficient strength to support likely plant or equipment in the area. If sizable penetration, load & point limits to be displayed. Crane to work lower than 95% capacity. Compensation tests is required prior to set up of outriggers on disturbed soil. Routes for pick and carry operations to be assessed and designated by the PBS Site Manager. Working or travelling on sloping or uneven ground should be avoided where possible. If working on sloping is unavoidable the crane should be used within the manufacturer's specified capacity for operation on the relevant degree of slope.	3. Engineering	SS / SM	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
Mobile Crane Operations (Includes Vehicle Mounted Crane/Telehandler/Franna/Crawler)	Is carried out on or near energised electrical installations or services	4.4.1; 4.4.7	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 radio) 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.	3. Engineering	SS / SM	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
Mobile Crane Operations (Includes Vehicle Mounted Crane/Telehandler/Franna/Crawler)		4.3.6	Plant Failure	C Possible	4 Large	12	All 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 be serviced and maintained as per manufacturers specifications.	Work box available for rescue	3. Engineering	SS / SM	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
Neighbouring Businesses				C Possible	3 Medium	9	PBS will either communicate directly (through Letter drops, Public Notice Boards or Consultation sessions) with these entities, or through the client established communication protocols for feedback when assessing HIRAC to be implemented when reducing any potential risk(s) posed.	Letter Box Drops to occur 7 days prior to any works that will affect neighbouring businesses. Linda Sokolich is the community liaison officer to be communicated with prior to any works occurring.	3. Engineering	SS / SM	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
Neighbouring Residents				C Possible	3 Medium	9	PBS will either communicate directly (through Letter drops, Public Notice Boards or Consultation sessions) with these entities, or through the client established communication protocols for feedback when assessing HIRAC to be implemented when reducing any potential risk(s) posed.	Letter Box Drops to occur 7 days prior to any works that will affect neighbouring businesses. Linda Sokolich is the community liaison officer to be communicated with prior to any works occurring.	3. Engineering	SS / SM	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
Painting		4.10.2	Exposure to Hazardous Dust	B Likely	2 Small	8	Ensure adequate ventilation to work areas. Workers to wear suitable PPE including dust mask and eye protection. Ensure exclusion zones are in place and maintained to protect other workers when spraying.		3. Engineering	SS / SM	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
Painting	Risk of Person Falling more than 2m	4.1.1; 4.12; 4.1.3; 4.1.6	Fall of Person	C Possible	4 Large	12	Use scaffold / EWP or platform ladders. Do not work on ladders next to open windows, balustrades or other unprotected fall areas.		3. Engineering	SS / SM	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
Painting		4.13.1; 4.13.3	Environmental Contamination from Spill of Hazardous Chemicals/Substances	C Possible	3 Medium	9	Store paint and turps / thinners in banded areas and in accordance with legislative requirements. Use designated washout facilities.		3. Engineering	SS / SM	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
Painting		4.10.2	Exposure to Hazardous Material	E Rare	3 Medium	3	Obtain and adhere to risk based assessment of SDS requirements for all products brought to site. Prior to stripping any existing paint, check and confirm that it is not lead based paint.		3. Engineering	SS / SM	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
Partitions, Walls & Ceilings	Risk of Person Falling more than 2m	4.1.1; 4.12; 4.1.3; 4.1.6	Fall of Person	C Possible	4 Large	12	Use scaffold / EWP / platform ladders / 450mm wide trestles. All trestles / work platforms to be minimum 450 wide with handrails and access when above 1 metre high or at a lesser height where a risk assessment deems required. 3 step ladders are not to be used to gain height.	Step ladders are not allowed. All penetrations to have fixed cover.	3. Engineering	SS / SM	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

PBS Project Risk Register (PBS)



Word Colour Legend				Acronym	Responsible Positions		Hierarchy of Control		Control Selections			
				Permits SS	Sub-Contractor Supervisor		6. Elimination	2	%Controls > Engineering	92%		
				Refer to another activity in the PRR SM	Site Manager		5. Substitution	7	%Controls < Engineering	8%		
				Input required by the site team FM	Foreman		4. Isolation	67	Check formulas in L2-L7 if you add rows to ensure range is correct			
				Reference to PBS document CA	Contracts Administrator		3. Engineering	130				
				NSW requirement only EHSQ	EHSQ Co-Ordinator / Manager		2. Administration	18				
					Project Engineer / Site Engineer		1. PPE	1				
Activity Description	High Risk Construction Work	GMR Reference	Hazard / Impact (Worst Consequence)	Likelihood	Consequence	Risk Rating	Mandatory Control Measures	Site Specific Control Measures	Hierarchy of Control (Highest Level Control)	Responsible	Status	Legal and other requirements
Partitions, Walls & Ceilings		4.7.1;	Cuts and Lacerations	C Possible	2 Small	6	All guards to be fitted to power tools. Eye Protection to be worn when using explosive power tool. No High velocity/direct action Explosive Power Tool to be used on site unless approved by PBS Site Manager and the controls required are communicated to workers via a toolbox. Explosive Powered Tool charges must be stored in a locked metal box marked "explosives". Used charges must be disposed of immediately after use.	225mm grinder permit to be issued when applicable	3. Engineering	SS / SM	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
Partitions, Walls & Ceilings			Noise	C Possible	2 Small	6	Hearing Protection to be worn.		1. PPE	SS / SM	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
Partitions, Walls & Ceilings		4.10.2	Exposure to Hazardous Dust	D Unlikely	2 Small	4	Install dust control for MDF and other hazardous products being cut onsite.	MDF cutting room to be installed and full compliance with NOHC standards is required.	3. Engineering	SS / SM	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
Piling	Risk of Person Falling more than 2m	4.1.1; 4.12; 4.1.3; 4.1.6	Fall of Person	D Unlikely	4 Large	8	Exclusion zone to be in place using physical barriers around each pier. Piers must be covered and highlighted (Eg Pickets and mesh around hole) if work is not being conducted and no one is directly monitoring. This also includes piling mesh over hole and installed ply as a penetration cover.	All piles over 450 diameter needs specific controls for the risk of fall identified in HR SWMS and reviewed by EHSQ Manager.	3. Engineering	SS / SM	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
Piling	Involves, or is likely to involve, the disturbance of asbestos	4.10.2	Exposure to Hazardous Dust	C Possible	3 Medium	9	Test Holes of soil conditions to be completed by consultant and results provided to PBS.	Contaminated areas to be buried 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	SS / SM	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
Piling	Is carried out in an area at a workplace in which there is any movement of powered mobile plant	4.3.2; 4.3.5;	Hit by Moving Plant	C Possible	4 Large	12	Spotter to have positive communication with operator (via hand signals or UHF radio) at all times. No one is allowed in the swing zone of the piece of plant. No one is to approach plant unless confirmation has been received by the operator that it is ok to approach. All plant to have flashing beacons operating. Mobile phones not to be used when operating plant and equipment. All immediate workers must be outside the swing zone and behind a physical barrier protecting the hole.	Exclusion zone to be in place to prevent unauthorised entry to work area.	4. Isolation	SS / SM	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
Piling	Is carried out in an area at a workplace in which there is any movement of powered mobile plant	4.3.6; 4.8.4	Plant Over-Turning	B Likely	4 Large	16	ROPS/FOPS to be installed on all plant involved in the work activity. Physical Barrier to be installed along top of excavation / trench to prevent plant / vehicles entering the zone of influence. The SWL of plant and its attachments is not to be exceeded. Seat Belts to be worn where fitted.	Penetration covers to be physically secured with signage and be of sufficient strength to support likely plant or equipment in the area. If suitable penetration, load & point limits to be displayed. Screw Piles to be identified with spray paint and spotter to have positive communication with plant operator at all times to ensure plant does not come into contact with previously installed screw piles. Exclusion zone to be in place so that other trades are not working with plant in this area.	3. Engineering	SS / SM	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
Piling		4.3.6	Plant Failure	B Likely	3 Medium	12	All 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.		3. Engineering	SS / SM	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
Piling	Is carried out on or near pressurised gas distribution mains or piping; Is carried out on or near energised electrical installations or services	4.4.1;4.4.7	Contact with In-Ground Services	B Likely	4 Large	16	Excavation Permit required when penetrating the ground 200mm or more. OBYD to be reviewed. Known services are to be identified and Summary Of Services Location Plan (SOSLP) to be updated on weekly basis including services that are being installed progressively by service trades. Digging by mechanical means is not to be carried out within 1m of a known live service unless EHSQ Manager has been consulted.	As built to be received from the client to confirm existing services. Service Locator to be engaged to conduct survey of site and provide to PBS. Pot Holing via sucker truck/hand digging every 5m to determine direction of service. Energise/Isolate Permit may also be required.	3. Engineering	SS / SM / FM	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, Excavation COP, Managing electrical risks in the workplace
Piling			Noise	D Unlikely	3 Medium	6	Hearing Protection to be worn.	Mufflers to be used on plant. vibration monitoring required	4. Isolation	SS / SM	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
Piling	Is carried out in an area at a workplace in which there is any movement of powered mobile plant	4.2.1; 4.2.2; 4.2.3; 4.2.4;4.2.5;4.2.6	Hit by Falling Objects	D Unlikely	3 Medium	6	Any spoil must be stored at least 1m back from edge and on down slope side. All 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. The SWL of lifting equipment is not to be exceeded. Where a dogman will be used - Weight of load to be lifted to be predetermined by a competent person and marked on load. Selection of sling & slinging techniques for load is predetermined by a competent person. Lifting points are to be predetermined by a competent person and marked on the load. Standard lifting procedures must be documented within HR SWMS. Authorised person only to be in direct workzone.	Exclusion zone to be in place to prevent unauthorised entry to work area.	3. Engineering	SS / SM	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	Risk of Person Falling more than 2m	4.1.1; 4.12; 4.1.3; 4.1.6	Fall of Person	C Possible	4 Large	12	Platform ladders or EWPs are to be used in the first instance. Work trestles a minimum width of 450mm can be used. Step Ladders may only be used for minor works which take less than 15 minutes to complete and 3 points of contact must be maintained. Delivery drivers or workers are NOT to access the back of trucks unless: *There is a handrail system incorporated onto the back of the vehicle or, *A portable handrail system is provided by the project and *The use of a portable leading bay platform would be the ideal control measure. When one or more of these controls are implemented, workers may use the access ladder and maintain 3 points of contact when ascending or descending. Ladders to be stepped back from any edges of a building/balconies at least 3m or 1:1 ratio if a full perimeter screenscaffold has been installed.	Ticketed Personnel required for operation of EWP. Harness to be worn and connected prior to bucket being raised. Harness to be inspected daily before use and maintained as per manufacturer specifications. Mobile scaffold to be used. Any mobile scaffold over 4m needs to be erected by a ticketed scaffolder.	3. Engineering	SS / SM	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		4.5.1; 4.5.2;4.5.4	Fire/Explosion	C Possible	3 Medium	9	Hot Works Permit to be in place. Area to be clear of combustible materials. Correct PPE to be worn. Flash back arrestors to all oxy sets.	FlashWelding Screens to be installed to protect the public and other workers.	3. Engineering	SS / SM / FM	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, Welding processes COP

PBS Project Risk Register

PBS Project Risk Register (PBS)



PBS Project Risk Register				Word Colour Legend			Acronym	Responsible Positions	Hierarchy of Control			Control Selections	
				Permits	SS		Sub-Contractor Supervisor	6. Elimination	2	%Controls > Engineering	92%		
				Refer to another activity in the PRR	SM		Site Manager	5. Substitution	7	%Controls < Engineering	8%		
				Input required by the site team	FM		Foreman	4. Isolation	67				
				Reference to PBS document	CA		Contracts Administrator	3. Engineering	130	iCheck formulas in L2-L7 if you add rows to ensure range is correct			
				NSW requirement only	EHSQ		EHSQ Co-Ordinator / Manager	2. Administration	18				
					PE/SE		Project Engineer / Site Engineer	1. PPE	1			Delete Legislation / Codes not applicable to your jurisdiction	
Workplace Location:	1 Ulonga Ave, Greenwich			Issue Number:	Rev 4			Issue Date:	22/12/2020				
Activity Description	High Risk Construction Work	GMR Reference	Hazard / Impact (Worst Circumstances)	Likelihood	Consequence	Risk Rating	Mandatory Control Measures	Site Specific Control Measures	Hierarchy of Control (Highest Level Control)	Responsible	Status	Legal and other requirements	
Plumbing		4.7.1;	Cuts and Lacerations	C Possible	2 Small	6	All guards to be fitted to power tools. All PPE requirements shall be assessed in the contractors HR SWMS	225mm grinder permit to be issued when applicable	3. Engineering	SS / SM / FM	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	
Plumbing	Is carried out in an area at a workplace in which there is any movement of powered mobile plant	4.3.2; 4.3.5;	Hit by Moving Plant	B Likely	4 Large	16	No one is to approach plant unless confirmation has been received by the operator that it is ok to approach. All plant to have flashing beacons operating. Mobile phones not to be used when operating plant and equipment. Operator to be appropriately Trained / Ticketed.	Exclusion zone to be in place to prevent unauthorised entry to work area. Access ways to be redirected to ensure no personnel inside operating areas. Outriggers of crane to be protected by jersey kurtis or similar to prevent contact from other plant/vehicles. Use Tag Lines when appropriate to control light weight &/or large panel lifts in windy conditions. Dogman and Operator to sign into Crane Management Sub Plan. Spotter/Dogman to have positive communication with operator (via hand signals, whistle or UHF radio) at all times. Seat belts to be worn at all times where fitted. Refer to mobile crane operations activity and excavation activity in the PRR.	4. Isolation	SS / SM	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	
Plumbing		4.2.1; 4.2.2; 4.2.3; 4.2.4; 4.2.5; 4.2.6	Hit by Falling Objects	C Possible	2 Small	6	Authorised person only to be in direct workzone.	Tools to be on lanyards when working above 2m fall risk. Physical barriers to be in place as an exclusion zone and must take into consideration the arc, fall and bounce of materials and tools. Area to be bunted off with signage to prevent unauthorised access.	4. Isolation	SS / SM	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		4.13.1; 4.13.3	Environmental Contamination from Spill of Hazardous Chemicals/Substances	E Rare	2 Small	2	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	SS / SM	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	
Plumbing		4.10.2	Exposure to Hazardous Material	D Unlikely	2 Small	4	Correct PPE to be worn. SDS to be communicated to all workers involved in the task via TBT, training register or SWMS. Hazardous Materials to be stored in designated storage area immediately after use.	Hazardous Materials and Dangerous Goods sub plan to be in place.	4. Isolation	SS / SM	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	
Render	Risk of Person Falling more than 2m	4.1.1; 4.12; 4.1.3; 4.1.6	Fall of Person	C Possible	4 Large	12	Use scaffold / EWP or platform ladders.		3. Engineering	SS / SM	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	
Render		4.10.2	Exposure to Hazardous Dust	D Unlikely	2 Small	4	Ensure Workers wear suitable PPE including dust mask and eye protection or full face shield when mixing.		3. Engineering	SS / SM	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	
Render		4.13.1; 4.13.3	Environmental Contamination from Spill of Hazardous Chemicals/Substances	E Rare	3 Medium	3	Designated washout areas/facilities to be used and collect / recycle waste water. Waste water to be controlled from flowing across walkways and work areas.		3. Engineering	SS / SM	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	
Scaffold	Risk of Person Falling more than 2m	4.1.1; 4.12; 4.1.3; 4.1.6	Fall of Person	A Almost Certain	4 Large	20	Non - compliant areas of scaffold are to be isolated with signage (i.e Danger - incomplete scaffold). Sequential erection / dismantle method to ensure fall prevention for scaffolders at all times. Scaffolded working platforms to be min 450mm wide with access & handrails above 1.5m fall. No trades to modify any scaffold components / arrangements nor overload platforms.	Delivery drivers or workers are NOT to access the back of trucks unless; "There is a handrail system incorporated onto the back of the vehicle or, "A portable handrail system is provided by the project and, "The use of a portable loading bay platform would be the ideal control measure. When one or more of these controls are implemented, workers may use the access ladder and maintain 3 points of contact when ascending or descending.	3. Engineering	SS / SM	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	
Scaffold		4.2.1; 4.2.2; 4.2.3; 4.2.4; 4.2.5; 4.2.6	Hit by Falling Objects	A Almost Certain	4 Large	20	Exclusion zone using physical barrier to be in place for erection / dismantle / altering of scaffold activities. All platforms shall be closely decked such that a gap between individual decking components in a bay is not greater than 10mm - this applies to platforms greater than 2m above ground. Authorised person only to be in direct workzone.	Working platforms are to be fully enclosed to prevent objects / materials falling through. The resultant gap between the finished face of the building and the platform edge or adjacent horizontal member of the scaffold does not exceed 100mm. All designated access points off the scaffold to the slab must be covered with ply.	3. Engineering	SS / SM	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	
Scaffold		4.9.1; 4.9.2; 4.9.3	Failure of Structure	A Almost Certain	5 Very Large	21+	Ensure that persons are nominated to co-ordinate number of scaffold working decks (i.e close off access to current non working decks) & material loading on each deck at any one time. Scaffold to be erected in accordance with manufacturer's instructions &/or in accordance with approved scaffold plan. Handover certificate to be provided and scaffold tags to be updated at each access point / change of duty loading every 30 days. No trades to modify any scaffold components / arrangements nor overload platforms. Allowable loading limits to be signed or marked on scaffold decks. Provide protection to scaffold components adjacent to areas where mobile plant is operating.	Use designated loading platforms with loading limit signage displayed.	3. Engineering	SS / SM	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	

PBS Project Risk Register

PBS Project Risk Register (PBR)



Word Colour Legend				Acronym	Responsible Positions		Hierarchy of Control		Control Selections			
				Permits Refer to another activity in the PRR	SS	Sub-Contractor Supervisor	6. Elimination	2	%Controls > Engineering	92%		
				Input required by the site team	SM	Site Manager	5. Substitution	7	%Controls < Engineering	8%		
				Reference to PBS document	FM	Foreman	4. Isolation	67	Check formulas in L2-L7 if you add rows to ensure range is correct			
				NSW requirement only	CA	Contracts Administrator	3. Engineering	130				
					EHSQ	EHSQ Co-Ordinator / Manager	2. Administration	18				
					PE/SE	Project Engineer / Site Engineer	1. PPE	1				
									Delete Legislation / Codes not applicable to your jurisdiction			
Activity Description	High Risk Construction Work	GMR Reference	Hazard / Impact (Worst Consequence)	Likelihood	Consequence	Risk Rating	Mandatory Control Measures	Site Specific Control Measures	Hierarchy of Control (Highest Level Control)	Responsible	Status	Legal and other requirements
Scaffold	Is carried out on or near energised electrical installations or services	4.4.1;4.4.7	Contact with Overhead Power Lines	B Likely	5 Very Large	20	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 scaffold and power lines. Install signage as visual reminder. Isolate overhead powerlines prior to erection/dismantle of scaffold	3. Engineering	SS / SM	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
Scaffold	Is carried out in an area at a workplace in which there is any movement of powered mobile plant	4.3.2; 4.3.5;	Hit by Moving Plant	C Possible	4 Large	12	No one is to approach plant unless confirmation has been received by the operator that it is ok to approach. All plant to have flashing beacons operating. Mobile phones not to be used when operating plant and equipment. Operator to be appropriately Trained / Ticketed.	Exclusion zone to be in place to prevent unauthorised entry to work area. Access ways to be redirected to ensure no personnel inside crane operating areas. Outriggers of crane to be protected by jersey kurtis or similar to prevent contact from other plant/vehicles. Use Tag Lines when appropriate to control light weight & for large panel lifts in windy conditions. Dogman and Operator to sign into Crane Management Sub Plan. Spotter/Dogman to have positive communication with operator (via hand signals, whistle or UHF radio) at all times. Seat belts to be worn if available. Refer to mobile crane operations activity in this PRR.	4. Isolation	SS / SM	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
Scaffold		4.12.1; 4.12.2	Working in High Temperatures - Heat Stress/Heat Exhaustion	D Unlikely	2 Small	4	Sufficient quantities of cool drinking water is readily available close to work areas. Regularly rotate workers who perform more strenuous activities with less demanding tasks. Take regular work breaks in cooler areas such as air conditioned sheds.	Shade Covers to be installed. Workers to wear broad brimmed hats and sunglasses for UV protection.	3. Engineering	SS / SM / HSR	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 work environment and facilities COP
Scaffold		4.12.1; 4.12.2	Working in Cold, Inclement or Windy Weather	D Unlikely	2 Small	4	Heated amenities to be provided. Suitable Access / Egress to be provided to work areas. Following adverse weather conditions a full inspection to be conducted by a competent person of the scaffold.	Inspection to be conducted prior to gates of site open by PBS Site Manager/ EHS Committee to assess all access routes. Any unsuitable work areas are to be barricaded off with physical barrier until deemed safe to enter.	4. Isolation	SS / SM / HSR	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 work environment and facilities COP
Shotcrete	Risk of Person Falling more than 2m	4.1.1; 4.12; 4.1.3; 4.1.6	Fall of Person	C Possible	4 Large	12	Edge protection as per manufacturers specifications to be installed along top of capping beam.	Mobile scaffold to be used. Any mobile scaffold over 4m needs to be erected by a ticketed scaffolder. HR Licence required for operation of EWP over 1m. Harness to be worn and connected prior to buckets being raised. Harness to be inspected daily before use and maintained as per manufacturer specifications.	3. Engineering	SS / SM	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
Shotcrete		4.8.1; 4.8.2	Failure of Structure	C Possible	3 Medium	9	Confirm engineering report (geo-tech) for max depth of unsupported excavation		2. Administration	SS / SM / FM / SE / CA	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, Excavation COP
Shotcrete		4.2.1; 4.2.2; 4.2.3; 4.2.4; 4.2.5; 4.2.6	Hit by Falling Objects	C Possible	2 Small	6	Authorised person only to be in direct workzone.	Exclusion zone using physical barriers to be in place.	4. Isolation	SS / SM	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
Shotcrete		4.10.2	Exposure to Hazardous Material	A Almost Certain	3 Medium	15	Gloves to be worn at all times. P1/P2/P3 dust masks to be worn. SDS to be communicated to all workers involved in the task via TBT, training register or SWMS.		2. Administration	SS / SM	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
Shotcrete			Noise	B Likely	3 Medium	12	Hearing Protection to be worn.	Muffs to be used on plant.	3. Engineering	SS / SM	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 noise and preventing hearing loss at the work COP
Site Establishment		4.13.1; 4.13.3; 4.13.4	Environmental Impact	B Likely	3 Medium	12	All Trees / vegetation areas of no disruption are to be fenced off with suitably signage as "no go" areas. Trucks & Plant to clean up roads if mud / debris carried onto roads when leaving site. Ensure spill kit available.		3. Engineering	SS / SM	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
Steel Fixing	Risk of Person Falling more than 2m	4.1.1; 4.12; 4.1.3; 4.1.6	Fall of Person	B Likely	4 Large	16	Cast/Embed 4mm mesh into larger penetrations. Fixed cover to be on all penetrations over 125mm diameter. All penetration covers to be identified similar to "Danger Penetration Below" if sizeable penetrations are located in areas where plant &/or equipment is likely to be used (eg access lift, pallet trolley, forklift), secured covers to be of sufficient strength with load limits displayed. Platform ladder to be used when constructing lift shafts. Scaffold or the like, platforms with edge protection to be used when constructing lift shafts or vertical walls.	No one is to stand on truck tray unless it has hand rails in place. Platform Ladder or work trestles of 450mm width to be used. Mobile scaffold to be used. Any mobile scaffold over 4m needs to be erected by a ticketed scaffolder.	3. Engineering	SS / SM	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
Steel Fixing	Is carried out in an area at a workplace in which there is any movement of powered mobile plant	4.3.2; 4.3.5;	Hit by Moving Plant	C Possible	3 Medium	9	No one is to approach plant unless confirmation has been received by the operator that it is ok to approach. All plant to have flashing beacons operating. Mobile phones not to be used when operating plant and equipment. Operator to be appropriately Trained / Ticketed.	Exclusion zone to be in place to prevent unauthorised entry to work area. Access ways to be redirected to ensure no personnel inside crane operating areas. Outriggers of crane to be protected by jersey kurtis or similar to prevent contact from other plant/vehicles. Use Tag Lines when appropriate to control light weight & for large panel lifts in windy conditions. Dogman and Operator to sign into Crane Management Sub Plan. Spotter/Dogman to have positive communication with operator (via hand signals, whistle or UHF radio) at all times. Seat belts to be worn if available. Refer to mobile crane operations activity in this PRR.	4. Isolation	SS / SM	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
Steel Fixing		4.5.1; 4.5.2; 4.5.4	Fire/Explosion	C Possible	3 Medium	9	Hot Works Permit to be in place. Area to be clear of combustible materials. Correct PPE to be worn.	Flashwelding Screens to be installed to protect the public and other workers.	3. Engineering	SS / SM / FM	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, Welding processes COP

PBS Project Risk Register

PBS Project Risk Register (PBR)



Word Colour Legend				Acronym	Responsible Positions		Hierarchy of Control			Control Selections		
Permits	SS	Sub-Contractor Supervisor		6. Elimination	2	%Controls > Engineering	92%					
Refer to another activity in the PRR	SM	Site Manager		5. Substitution	7	%Controls < Engineering	8%					
Input required by the site team	FM	Foreman		4. Isolation	67							
Reference to PBS document	CA	Contracts Administrator		3. Engineering	130							
NSW requirement only	EHSQ	EHSQ Co-Ordinator / Manager		2. Administration	18							
	PE/SE	Project Engineer / Site Engineer		1. PPE	1							
											Delete Legislation / Codes not applicable to your jurisdiction	
Activity Description	High Risk Construction Work	GMR Reference	Hazard / Impact (Worst Consequence)	Likelihood	Consequence	Risk Rating	Mandatory Control Measures	Site Specific Control Measures	Hierarchy of Control (Highest Level Control)	Responsible	Status	Legal and other requirements
Steel Fixing		4.7.1;	Cuts and Lacerations	B Likely	3 Medium	12	All guards to be fitted to power tools. Install bar caps on all exposed steel bars. Wear gloves when working with sharp steel edges.	225mm grinder permit to be issued when applicable	3. Engineering	SS / SM / FM	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
Structural Steel	Risk of Person Falling more than 2m	4.1.1; 4.12; 4.1.3; 4.1.6	Fall of Person	B Likely	4 Large	16	EWP or Scaffold to be used for access for install of structural steel. Platform ladders may also be used on even surfaces. Delivery drivers or workers are NOT to access the back of trucks unless: <ul style="list-style-type: none"> *There is a handrail system incorporated onto the back of the vehicle or, *A portable handrail system is provided by the project and, *The use of a portable loading bay platform would be the ideal control measure. When one or more of these controls are implemented, workers may use the access ladder and maintain 3 points of contact when ascending or descending.	Mobile scaffold to be used. Any mobile scaffold over 4m needs to be erected by a ticketed scaffolder. Ticketed Personnel required for operation of EWP. Harness to be worn and connected prior to bucket being raised. Harness to be inspected daily before use and maintained as per manufacturer specifications.	3. Engineering	SS / SM	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
Structural Steel		4.5.1; 4.5.2;4.5.4	Fire/Explosion	A Almost Certain	3 Medium	15	Hot Works Permit to be in place. Area to be clear of combustible materials. Correct PPE to be worn. Flash back arrestors to all oxysets.	Flash/welding Screens to be installed to protect the public and other workers. 225mm Grinder Permit to be in place	3. Engineering	SS / SM / FM	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, Working on excavated COP
Structural Steel		4.2.1; 4.2.2; 4.2.3; 4.2.4;4.2.5;4.2.6	Hit by Falling Objects	C Possible	3 Medium	9	Authorised person only to be in direct workzone.	Tools to be on lanyards when working above 2m fall risk. Physical barriers to be in place as an exclusion zone and must take into consideration the arc, fall and bounce of materials and tools.	4. Isolation	SS / SM	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
Structural Steel	Is carried out in an area at a workplace in which there is any movement of powered mobile plant	4.3.2; 4.3.5;	Hit by Moving Plant	C Possible	4 Large	12	No one is to approach plant unless confirmation has been received by the operator that it is ok to approach. All plant to have flashing beacons operating. Mobile phones not to be used when operating plant and equipment. Operator to be appropriately Trained / Ticketed.	Exclusion zone to be in place to prevent unauthorised entry to work area. Access ways to be redirected to ensure no personnel inside crane operating areas. Outriggers of crane to be protected by jersey kurtis or similar to prevent contact from other plant/vehicles. Use Tag Lines when appropriate to control light weight &/or large panel lifts in windy conditions. Dogman and Operator to sign into Crane Management Sub Plan. Spotter/Dogman to have positive communication with operator (via hand signals, whistle or UHF radio) at all times. Refer to mobile crane operations activity in the PRR.	4. Isolation	SS / SM	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
Structural Steel		4.7.1;	Cuts and Lacerations	D Unlikely	2 Small	4	All guards to be fitted to power tools. All PPE requirements shall be assessed in the contractors HR SWMS	225mm grinder permit to be issued when applicable	3. Engineering	SS / SM / FM	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
Tiling		4.7.1;	Cuts and Lacerations	D Unlikely	2 Small	4	All guards to be fitted to power tools. Eye Protection to be worn when using grinder.		3. Engineering	SS / SM / FM	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
Tiling		4.13.2	Dust Inhalation	D Unlikely	2 Small	4	Dust Mask to be worn when cutting tiles.	Designated cutting area to be in place. All tools to have vacuum attachment.	3. Engineering	SS / SM / FM	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
Tower Crane			Plant Failure	B Likely	4 Large	16	All 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.		4. Isolation	SS / SM	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 hazardous chemicals in the workplace COP
Tower Crane			Fire/Explosion when refuelling plant and equipment	C Possible	4 Large	12	Craneable diesel storage tank with self-contained bunding. Documented process to refuel tower crane. Fire Extinguisher in date of 6 month tagging requirements to be readily accessible.	Hazardous Chemicals and Dangerous Goods Management Sub Plan to be in place.	4. Isolation	SS / SM	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 hazardous chemicals in the workplace COP
Tower Crane			Environmental Contamination from Spill of Hazardous Chemicals/Substances	C Possible	3 Medium	9	Diesel delivery truck to have suitable spill kit & documented spill control procedure with trained operator.	Hazardous Chemicals and Dangerous Goods Management Sub Plan to be in place.	2 Administration	SS / SM	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 hazardous chemicals in the workplace COP
Tower Crane		4.2.1; 4.2.2; 4.2.3; 4.2.4;4.2.5;4.2.6	Hit by Falling Objects	C Possible	4 Large	12	Dogman and Operator to sign into Crane Management Sub Plan. All 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. No free fall option is allowable, if the crane has this option, it must be physically locked out. Authorised person only to be in direct workzone.	Tag Lines to be used when appropriate to control light weight &/or large panel lifts in windy conditions. Immediate tagger licence required when dual lift occurring. Lanyards are to be used on all loads during crane erection/dismantle process. No multi-sliding (Christmas Tree Lifts) of materials for a single crane lift. Minimum 4 lifting points required for material & waste bins and limit load lifting to 1 bin per slung load. Suitably rated hoarding or catch deck to be installed over common areas and access ways.	4. Isolation	SS / SM	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
Tower Crane	Is carried out on or near energised electrical installations or services	4.4.1;4.4.7	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. 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. Operator to have working in/around electrical services training. 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. Non-conductive height awareness bunting to be installed. Colour of bunting to be changed monthly to increase awareness and visibility. Second line (Optus) sits below power line and non-conductive height safety bunting below Optus line. *Overhead Lines* warning signs. Safe operating distances for spotters in accordance with approved Traffic Control and Crane Sub Plan.	3. Engineering	SS / SM	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

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				NSW requirement only	EHSQ	EHSQ Co-Ordinator / Manager	2. Administration	18				
Issue Date:	22/12/2020				PE/SE	Project Engineer / Site Engineer	1. PPE	1				
Activity Description	High Risk Construction Work	GMR Reference	Hazard / Impact (Worst Consequence)	Likelihood	Consequence	Risk Rating	Mandatory Control Measures	Site Specific Control Measures	Hierarchy of Control (Highest Level Control)	Responsible	Status	Legal and other requirements
Waste Management		4.13.1;4.13.3; 4.13.4	Environmental Impact	B Likely	3 Medium	12		<ul style="list-style-type: none"> -The establishment of designed waste handling areas;-Based on the identification of key waste types, identify skip requirements for on-site separation, collection, off-site recycling and disposal.-The correct storage and handling of waste materials including liquids.-Appropriate disposal and verification of all waste leaving site, and-Waste reduction, storage, separation (for reuse and recycling) and disposal requirements may be included in either relevant specifications, contractual agreements, supply agreements or quality assurance documents.-Undertake in-situ sampling and testing of proposed spoil to determine waste classification where appropriate-Include information in the Site Induction about waste Minimisation and management and the conservation of resources including paper, electricity and water-Establish suitably located and designed stockpile, waste and material storage and handling areas -Identify wet trade washout requirements and have subcontractors establish appropriately designed and located eco-wash facilities. -No dumping of concrete on site with the exception of concrete hopper and line blowout at the end of the pour-Concrete Place Subcontractor will be responsible to clean up and negotiate with PBS any removal from site any excess concrete.-All site drainage i.e. Stormwater inlets are to be protected from potential spills-Identify major suppliers and material requirements and identify opportunities to minimise packaging-Encourage the identification and procurement of recycled materials and recycled content products (i.e. timber, concrete, road base, asphalt etc.)-Maximise the reuse and recycling of demolition materials.-Co-ordinate the sharing and reuse of raw materials, excess products, and building materials including plywood, hoarding, fencing, concrete and formwork where possible.-Dispose of waste using licensed contractors to appropriately licensed or approved facilities 	3. Engineering	SS / SM	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
Waterproofing	Is carried out in an area which may have a contaminated or flammable atmosphere	4.10.2	Exposure to Hazardous Material	C Possible	3 Medium	9	Obtain and adhere to risk based assessment of SDS requirements for all products brought to site. Isolate and ventilate the area as applicable in the sds.		3. Engineering	SS / SM	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
Waterproofing	Risk of Person Falling more than 2m	4.1.1; 4.12; 4.1.3; 4.1.6;	Fall of Person	C Possible	4 Large	12	Use scaffold / EWP or platform ladders.		3. Engineering	SS / SM	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
Windows	Risk of Person Falling more than 2m	4.1.1; 4.12; 4.1.3; 4.1.6;	Fall of Person	B Likely	4 Large	16	<p>Scaffold or EWP to be used. Platform ladders may be used on ground floor. Delivery drivers or workers are NOT to access the back of trucks unless:</p> <ul style="list-style-type: none"> *There is a handrail system incorporated onto the back of the vehicle or, *A portable handrail system is provided by the project and, *The use of a portable loading bay platform would be the ideal control measure. <p>When one or more of these controls are implemented, workers may use the access ladder and maintain 3 points of contact when ascending or descending. Ladders to be stepped back from any edges of a building/balconies at least 3m or 1:1 ratio if a full perimeter screen/scaffold has been installed.</p>	Ticketed Personnel required for operation of EWP. Harness to be worn and connected prior to bucket being raised. Harness to be inspected daily before use and maintained as per manufacturer specifications. Mobile scaffold to be used. Any mobile scaffold over 4m needs to be erected by a ticketed scaffolder. Loads to arrive pre-slung to eliminate the need for workers to stand on the truck tray. Internal edge protection needed when installing windows from inside the building on any level above ground.	3. Engineering	SS / SM	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
Windows		4.2.1; 4.2.2; 4.2.3; 4.2.4;4.2.5;4.2.6	Hit by Falling Objects	B Likely	3 Medium	12	Approved, regularly inspected lifting frames to be used. Check suction and battery strength prior to lifting if applicable. Engineered lifting frames to be inspected annually by boiler maker or other competent person to ensure suitability for purpose and be recorded on plant and equipment register. Authorised person only to be in direct workzone.	Tools to be on lanyards when working above 2m fall risk. Physical barriers to be in place as an exclusion zone and must take into consideration the arc, fall and bounce of materials and tools. Area to be bunted off with signage to prevent unauthorised access.	4. Isolation	SS / SM	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
Windows	Is carried out in an area at a workplace in which there is any movement of powered mobile plant	4.3.2; 4.3.5;	Hit by Moving Plant	C Possible	3 Medium	9	No one is to approach plant unless confirmation has been received by the operator that it is ok to approach. All plant to have flashing beacons operating. Mobile phones not to be used when operating plant and equipment. Operator to be appropriately Trained / Ticketed.	Exclusion zone to be in place to prevent unauthorised entry to work area. Access ways to be restricted to ensure no personnel inside operating areas. Outriggers of crane to be protected by jerry kubes or similar to prevent contact from other plant/vehicles. Use Tag Lines when appropriate to control light weight &/or large panel lifts in windy conditions. Dogman and Operator to sign into Crane Management Sub Plan. Spotter/Dogman to have positive communication with operator (via hand signals, whistle or UHF radio) at all times. Seat belts to be worn at all times where fitted. Refer to mobile crane operations activity in this PRR.	4. Isolation	SS / SM	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
Windows		4.7.1;	Cuts and Lacerations	B Likely	2 Small	6	All guards to be fitted to power tools. All PPE requirements shall be assessed in the contractors HR SWMS	226mm grinder permit to be issued when applicable	3. Engineering	SS / SM	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