

**Curb And Gutter Machine**

Business Name:		ABN:	
Business Address:			
Contact Person:	Phone:	Email:	

**THIS RISK ASSESSMENT IS APPROVED BY THE PCBU ON THIS PROJECT**

Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a RISK ASSESSMENT is prepared before the proposed work starts.

Full Name:		
Signature:	Title:	Date:

**CLIENT OR PRINCIPAL CONTRACTOR DETAILS**

Client:	SCOPE OF WORKS
Project Name:	
Project Address:	
Project Manager:	
Contact Phone:	
Date Risk Assessment supplied to Project Manager:	



RISK MATRIX									
LIKELIHOOD	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC	SCORE	ACTION	HIERARCHY OF CONTROLS	
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE			<b>Elimination</b> Remove the hazard.	
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED	<b>Substitution</b> Replace the hazard.	
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Review before work starts.	Isolation Isolate People from the hazard	
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	2M MODERATE	Ensure control measures in place.	<b>Engineering</b> Isolate the hazard	
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH	1L LOW	Monitor and keep records.	<b>Administrative</b> Change	
								<b>PPE</b>	

  

Risk Rating & Required Action:	
<b>4A</b>	Stop work. The risk is intolerable. Eliminate the hazard or redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or higher-level authorisation is required.
<b>3H</b>	Review and approve additional controls before task starts. Senior supervisor sign-off needed.
<b>2M</b>	Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.
<b>1L</b>	Proceed, following standard operating procedures. Monitor and keep records.

  

Consequence Scale:			
Consequence	People (injury/illness)	Project / Assets	Compliance / Reputation
<b>Catastrophic</b>	Fatality or permanent total disability	project shutdown	Significant regulator intervention; criminal prosecution
<b>Major</b>	Serious injury/illness (hospital > 5 days)	critical delay	Improvement notice; major media coverage
<b>Moderate</b>	Medical-treatment injury; lost-time > 1 day	moderate delay	Minor breach; adverse client comment
<b>Minor</b>	First-aid only, no lost time	negligible delay	Isolated non-conformance
<b>Insignificant</b>	No injury	no schedule impact	Deviation caught and corrected on site

  

**Notes on Hierarchy of Controls:**  
Remember to apply controls in the preferred order shown by the coloured pyramid:

1. **Eliminate**
2. **Substitute**
3. **Isolate**
4. **Engineering**
5. **Administrative**
6. **PPE**

Always document **why** a lower-order control is accepted if elimination or substitution is not reasonably practicable.

*aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.*

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
1. Procurement, Design and Suitability of Curb and Gutter Machine	<ul style="list-style-type: none"> <li>• Selection of curb and gutter machine that is not fit for purpose or incompatible with site conditions, local terrain, or project specifications</li> <li>• Lack of documented verification that the machine complies with Australian Standards, WHS Act 2011 and WHS Regulation requirements for plant</li> <li>• Inadequate supplier documentation (e.g. missing operator manual, maintenance schedule, compliance plate, noise and vibration data)</li> <li>• Failure to consider guarding, emergency stop systems, and safe access/egress at the time of purchase or hire</li> <li>• Procurement based solely on cost, without structured WHS risk criteria or lifecycle safety considerations</li> <li>• Imported equipment not assessed against Australian electrical and plant safety requirements</li> <li>• No formal pre-hire or pre-purchase risk assessment for new or different models of curb machines</li> </ul>	High	<ul style="list-style-type: none"> <li>• Implement a formal plant procurement procedure that requires WHS risk assessment and sign-off before purchasing or hiring any curb and gutter machine, in line with WHS Act 2011 duties for PCBUs</li> <li>• Specify minimum safety requirements in procurement documentation (e.g. compliance with relevant Australian Standards, machine guarding, emergency stops, lockable isolation points, noise and vibration performance, visibility aids)</li> <li>• Require supplier to provide full technical documentation including operator and service manuals, manufacturer safety instructions, noise and vibration data, stability information, and evidence of conformity to Australian Standards</li> <li>• Include WHS and engineering representatives in evaluation of new plant to verify suitability for specific tasks, typical job sites, and environmental conditions</li> <li>• Establish a pre-hire acceptance checklist for curb and gutter machines that covers safety features, guarding, controls layout, safety decals, and documentation completeness before the machine is released to site</li> <li>• Ensure procurement contracts and hire agreements incorporate obligations for the provision of maintenance history, inspection records, and safety upgrades</li> <li>• Maintain a central register of approved curb and gutter machine types/models, with documented risk assessments and any specific operating limitations for each model</li> </ul>	Medium
2. Governance, WHS Duties and Plant Management System	<ul style="list-style-type: none"> <li>• Unclear allocation of WHS responsibilities for the management of the curb and gutter machine across directors, managers, supervisors and operators</li> <li>• Lack of a documented plant safety management system aligned with WHS Act 2011 and WHS Regulation (e.g. no procedures for risk management, consultation, or incident reporting)</li> <li>• Inadequate oversight of compliance with plant safety requirements, inspections, and maintenance schedules</li> <li>• Poor integration of curb machine risks into the organisation's overall WHS management system and risk register</li> </ul>	High	<ul style="list-style-type: none"> <li>• Define and document WHS roles, responsibilities and accountabilities for plant management (including curb and gutter machines) within the WHS management system, consistent with WHS Act 2011 duties of PCBUs, officers and workers</li> <li>• Develop and implement a plant safety management procedure covering risk assessment, selection, commissioning, operation, inspection, maintenance, decommissioning and disposal of the curb machine</li> <li>• Maintain a plant register listing all curb and gutter machines with unique identifiers, location, registration status, inspection dates, and responsible persons</li> <li>• Integrate curb machine risks into the corporate WHS risk register, including controls, review dates and responsible officers</li> <li>• Establish governance processes (e.g. quarterly WHS plant review meetings) to monitor compliance, review incidents and near misses involving curb machines, and track completion of corrective actions</li> <li>• Implement an internal audit and inspection program focusing on plant safety, including periodic verification that curb machine procedures are being applied in the field</li> </ul>	Medium

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	<ul style="list-style-type: none"> <li>Failure to review and update plant risk assessments after changes in work methods, equipment, or incidents</li> <li>Insufficient PCBU due diligence in monitoring safe use of the machine by contractors and labour hire workers</li> </ul>		<ul style="list-style-type: none"> <li>Ensure officers exercise due diligence by regularly reviewing plant safety performance reports, maintenance compliance, and training outcomes for curb machine operations</li> </ul>	
3. Competency, Licensing and Training Systems	<ul style="list-style-type: none"> <li>Operators and spotters using the curb and gutter machine without formal competency assessment or verification of experience</li> <li>Inadequate induction and training on site-specific hazards (traffic interfaces, underground services, public interaction) associated with curb machine work</li> <li>Training limited to informal 'buddy' systems with no structured learning outcomes or records</li> <li>Supervisors unaware of the limits of machine capability and operator competence, leading to inappropriate task allocation</li> <li>No refresher training or re-assessment after incidents, near misses or significant machine modifications</li> <li>Failure to verify licences or tickets required for associated works plans (e.g. loaders, trucks feeding the machine)</li> </ul>	High	<ul style="list-style-type: none"> <li>Develop a competency framework and training matrix for all roles involved with the curb and gutter machine (operators, leading hands, spotters, supervisors)</li> <li>Establish a formal training program that includes manufacturer-specific instruction, hazard awareness (pinch points, entanglement, stability, noise, vibration), traffic interface risks, and emergency procedures</li> <li>Require verification of competency (VOC) for operators prior to unsupervised use, using documented assessment tools aligned with plant risk assessments and safe operating procedures</li> <li>Maintain secure training records, VOC results, and licence details in a central system and link access to curb machine to current competency status</li> <li>Implement periodic refresher training and competency re-assessment based on risk (e.g. every 2-3 years or earlier following incidents, equipment changes or new operating environments)</li> <li>Provide supervisor training on curb machine capabilities, limitations, and the organisation's plant safety requirements so that they can competently allocate tasks and monitor performance</li> <li>Ensure pre-employment and contractor onboarding processes include verification of high-risk work licences, driver licences and relevant plant tickets that interface with the curb machine</li> </ul>	Medium
4. Planning, Job Design and Interface with Traffic and Public	<ul style="list-style-type: none"> <li>Inadequate planning of curb and gutter works in live traffic environments leading to collision risks with vehicles, cyclists or pedestrians</li> <li>Failure to integrate curb machine operations into traffic management plans and local council or road authority requirements</li> <li>Poor consideration of time of day, weather, lighting and line-of-sight in job planning, increasing the risk of struck-by incidents</li> </ul>	High	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	Medium

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	<ul style="list-style-type: none"> <li>• Insufficient consultation with workers about practical site constraints and sequence of works</li> <li>• Lack of planning for interaction with other mobile plant and trucks supplying concrete or materials to the curb machine</li> <li>• Inadequate consideration of access for emergency services and evacuation routes during curb machine operations</li> </ul>		[REDACTED]	
5. Safe Operating Procedures and Work Instructions	<ul style="list-style-type: none"> <li>• Absence of a documented safe operating procedure (SOP) for curb and gutter machine use, leading to inconsistent practices between crews and shifts</li> <li>• SOPs that are generic or copied from other plant and do not reflect the specific model, controls and hazards of the machine in use</li> <li>• Procedures not readily accessible to workers in the field or not actively referenced by supervisors</li> <li>• Failure to incorporate control measures from risk assessments and manufacturer instructions into practical work instructions</li> <li>• Lack of defined rules for exclusion zones, spotter requirements, communication methods and limits of operation (slopes, ground conditions, proximity to edges)</li> <li>• No formal process to review and update SOPs after incidents, changes in equipment, or feedback from workers</li> </ul>	High	[REDACTED]	Medium
6. Inspection, Pre-Start and Condition Monitoring Systems	<ul style="list-style-type: none"> <li>• No systematic process for daily pre-start inspection of the curb and gutter machine prior to use</li> <li>• Pre-start checks completed superficially due to poor forms, time pressure or lack of management emphasis</li> <li>• Failure to identify or act upon emerging defects (e.g. hydraulic leaks, worn</li> </ul>	High	[REDACTED]	Medium

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	<ul style="list-style-type: none"> <li>guards, malfunctioning emergency stops, damaged controls)</li> <li>• Inadequate reporting pathways for defects and unsafe conditions identified by operators</li> <li>• Machines operated while non-conformances are outstanding due to production pressures and poor enforcement</li> <li>• Lack of trend analysis of defects and failures, resulting in repeated issues and unaddressed systemic causes</li> </ul>		[REDACTED]	
7. Maintenance, Repair and Modification Management	<ul style="list-style-type: none"> <li>• Unplanned or reactive maintenance only, leading to operation of the curb machine in degraded or unsafe condition</li> <li>• Maintenance schedules that do not follow manufacturer recommendations or do not consider harsh site conditions</li> <li>• Repairs and modifications performed by unqualified personnel without engineering review or consultation</li> <li>• Removal or bypassing of safety devices (e.g. interlocks, guards, emergency stops) during maintenance without proper restoration and verification</li> <li>• Poor management of spare parts quality, resulting in use of incompatible or substandard components</li> <li>• Lack of isolation and lockout/tagout systems for maintenance activities increasing risk to maintenance personnel and others</li> </ul>	High	[REDACTED]	Medium
8. Site Layout, Ground Conditions and Stability Management	<ul style="list-style-type: none"> <li>• Inadequate assessment of ground conditions, compaction, underground voids or services before positioning and operating the curb machine</li> <li>• Operation on excessive gradients, near open excavations, pits or unstable</li> </ul>	High	[REDACTED]	Medium

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	<ul style="list-style-type: none"> <li>edges leading to machine instability or overturning</li> <li>Poorly designed site layout that forces the machine to operate with limited clearance to obstacles, traffic or structures</li> <li>Lack of formal criteria for acceptable ground support and slope limits for the machine</li> <li>Insufficient communication between site engineers, supervisors and operators regarding changes to site conditions (e.g. rain-softened ground, backfill status)</li> <li>No documented controls for working near services, leading to potential contact with gas, electricity, water or telecommunications infrastructure</li> </ul>		[REDACTED]	
9. Traffic Management, Exclusion Zones and Interaction with Other Plant	<ul style="list-style-type: none"> <li>Uncontrolled interaction between the curb and gutter machine, trucks delivering concrete, and other mobile plant working in close proximity</li> <li>Workers on foot entering pinch points or operating zones around the machine due to inadequate exclusion management</li> <li>Insufficient separation from public traffic, cyclists and pedestrians, particularly on live roadways, shared paths</li> <li>Reliance on ad-hoc communication between operators without defined signals or radio protocols</li> <li>Lack of nominated spotters in high-risk situations such as reversing, tight access areas or work adjacent to live lanes</li> <li>Traffic management plans not implemented or monitored effectively in the field</li> </ul>	High	[REDACTED]	Medium

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10. Noise, Vibration and Hazardous Substances Management	<ul style="list-style-type: none"> <li>Chronic exposure of operators and nearby workers to high noise levels from the curb and gutter machine and associated plant</li> <li>Extended exposure to whole-body and hand-arm vibration transmitted through the machine's controls and operator station</li> <li>Uncontrolled exposure to diesel exhaust and other fumes in confined or poorly ventilated work areas</li> <li>Inadequate management of fuels, oils, hydraulic fluids and concrete admixtures leading to skin contact or environmental contamination</li> <li>Failure to consider noise and vibration data in planning work duration, rotation and rest breaks</li> <li>Insufficient provision and enforcement of appropriate personal protective equipment where higher-order controls cannot fully mitigate exposure</li> </ul>	High	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	Medium
11. Emergency Preparedness, Incident Response and First Aid	<ul style="list-style-type: none"> <li>Lack of clear emergency procedures for incidents involving the curb and gutter machine such as entanglement, crush injury, fire, hydraulic failure or uncontrolled movement</li> <li>Workers unaware of how to safely stop or isolate the machine in an emergency</li> <li>Insufficient first aid resources or trained first aiders on or near sites where the machine operates</li> <li>Delayed emergency services response due to poor site access or inadequate location information</li> <li>Failure to investigate incidents and near misses involving the curb machine, allowing systemic issues to persist</li> <li>No structured process for post-incident support, including debriefing and psychological support for workers involved in serious events</li> </ul>	High	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	Low

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			[REDACTED]	
12. Contractor, Labour Hire and Supplier Management	<ul style="list-style-type: none"> <li>• Contractor and labour hire workers operating or working around the curb and gutter machine without alignment to the principal PCBU's WHS systems</li> <li>• Assumption that suppliers and hire companies have fully addressed all plant safety obligations, leading to gaps in local controls</li> <li>• Inconsistent training, competency verification and supervision standards between different subcontractors on the same site</li> <li>• Poor communication of site-specific risks, procedures and traffic management controls to visiting drivers, delivery personnel and technicians</li> <li>• Lack of clarity regarding who is responsible for inspection, maintenance and defect rectification when the plant is hired</li> <li>• Inadequate consultation and coordination of activities between multiple PCBUs sharing the work site, contrary to WHS 2011 requirements</li> </ul>	High	[REDACTED]	Medium

SAMPLE

**EMERGENCY RESPONSE – CALL 000 FOR EMERGENCIES**

Ensure to have an Emergency Management Plan in place as well as adequate numbers of trained first aid staff with easy access to fully stocked first aid kits, rescue equipment, material safety data sheets, adequate access to emergency communication equipment and fire-fighting equipment suitable for all classes of fire and ignition sources.

**LEGISLATIVE REFERENCES**

RELEVANT LEGISLATION AND CODES OF PRACTICE. DELETE THE LEGISLATIVE REFERENCES FOR ANY STATE THAT ARE NOT APPLICABLE

**Queensland & Australian Capital Territory**

Work Health and Safety Act 2011  
 Work Health and Safety Regulations 2011  
 Legislation QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/work-health-and-safety-laws>  
 Codes of Practice QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/codes-of-practice>  
 Legislation ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/acts-and-regulations>  
 Codes of Practice ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practice>

**Victoria**

Occupational Health and Safety Act 2004  
 Occupational Health and Safety Regulations 2017  
 Legislation VIC: <https://www.worksafe.vic.gov.au/occupational-health-and-safety-act-and-regulations>  
 Codes of Practice VIC: <https://www.worksafe.vic.gov.au/compliance-codes-and-codes-practice>

**New South Wales**

Work Health and Safety Act 2011  
 Work Health and Safety Regulations 2025  
 Legislation NSW: <https://www.safework.nsw.gov.au/legal-obligations/legislation>  
 Codes of Practice NSW: <https://www.safework.nsw.gov.au/resource-library/list-codes-of-practice>

**Western Australia**

Work Health and Safety Act 2020  
 Work Health and Safety Regulations 2022  
 Legislation Western Australia: <https://www.commerce.wa.gov.au/worksafe/legislation>  
 Codes of Practice WA: <https://www.commerce.wa.gov.au/worksafe/codes-practice>

**Northern Territory**

Work Health and Safety (National Uniform Legislation) Act 2011  
 Work Health and Safety (National Uniform Legislation) Regulation 2011  
 Legislation NT: <https://worksafe.nt.gov.au/laws-and-compliance/workplace-safety-laws>  
 Codes of Practice NT: <https://worksafe.nt.gov.au/laws-and-compliance/codes-of-practice>

**Safe Work Australia Links**

Law and Regulation (All States): <https://www.safeworkaustralia.gov.au/law-and-regulation>  
 Model Codes of Practice: <https://www.safeworkaustralia.gov.au/resources-publications/model-codes-of-practice>

**South Australia**

Work Health and Safety Act 2012 (SA)  
 Work Health and Safety Regulations 2012 (SA)  
 Legislation for SA: <https://www.safework.sa.gov.au/resources/legislation>  
 Codes of Practice for SA: <https://www.safework.sa.gov.au/workplaces/codes-of-practice#COPs>

**Model Codes of Practice**

- Managing noise and preventing hearing loss at work
- Confined spaces
- Labelling of workplace hazardous chemicals
- Managing risks of hazardous chemicals in the workplace
- Welding processes
- First aid in the workplace
- Managing the risk of falls at workplaces
- Hazardous manual tasks
- Managing the risk of falls in housing construction
- Managing electrical risks in the workplace
- Demolition work
- Excavation work
- Work health and safety consultation, cooperation and coordination
- Managing the work environment and facilities
- How to manage work health and safety risks
- Managing risks of plant in the workplace
- Construction work

**Tasmania**

Work Health and Safety Act 2012  
 Work Health and Safety (Transitional and Consequential Provisions) Act 2012  
 Work Health and Safety Regulations 2012  
 Work Health and Safety (Transitional) Regulations 2012  
 Legislation for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/acts-and-regulations>  
 Codes of Practice for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/codes-of-practice>

Details of permits, licenses or access required by regulatory bodies (add or delete as required):

- Permits from local council
- Authorisation to commence work
- Any required documents.