

### **Hardscape: Paths & Patios**

Risk Assessment

	GROUP DETAILS
IN AN EMERGE	NCY CALL:
Leader:	Primary Contact:
Participants:	

ACTIVI	TY DETAILS		
Purpose of Activity:		Date:	

**Benefit of Activity:** Adds durable finishes that increase property value. | Directs surface water with proper falls to limit pooling. | Expands usable outdoor space for work and recreation. | Provides stable, even access that improves inclusivity. | Reduces erosion and mud tracking in high-traffic zones.

HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Abrasive wheels / cut-off saw operation	Laceration, amputation, eye injury	Achieves crisp lines and accurate cuts for tidy joints and aesthetics that meet design intent.	Use trained operators only; inspect guards, flanges and discs before use and match RPM/type to material. Fit water suppression or LEV for dust, and secure work to avoid binding. Start in a stable stance, two-hand grip, cut off the body line, and stop work if vibration or wobble occurs. (ALL)		Before Measure: High After Measure: Low
Acid cleaners and sealers	injury, fire	Enables striking finishes and long-term protection of stone and paving without harming workers or surroundings.	Only trained operatives to use acids/solvent sealers; work outdoors or with strong ventilation. Wear chemical-resistant gloves, goggles and long sleeves. Store away from heat and incompatible materials; neutralise residues and rinse thoroughly after application. (ALL)	Operatives	Before Measure: High After Measure: Low



HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Competence, supervision and briefings	Error, poor practice, injury	Ensures teams can deliver high-quality, safe installations on time with fewer reworks or incidents.	Verify operative training for tools, plant and materials. Hold daily toolbox talks on sequencing, hazards and controls. Maintain supervision ratios, spot-check work quality, and stop unsafe acts immediately. Keep clear induction and briefing records for accountability. (ALL)	Operatives	Before Measure: High After Measure: Low
Delivery and site traffic interface	Collision, crushing	Ensures steady material flow to the workface, reducing downtime and re-handling.	Plan delivery slots and segregated routes; use a banksman for reversing and keep pedestrians behind barriers. Offload on level ground, restrain pallets until in position, and use mechanical aids. Enforce hi-vis and communication by hand signals or radios where visibility is limited. (ALL)	Operatives, public	Before Measure: High After Measure: Low
Electrical tools and temporary power	Electric shock, burns	Delivers efficient, accurate tool use for clean results without halting work for power incidents.	Use 110 V tools or battery equipment with in-line RCD protection. Keep connectors off the ground and away from slurry; inspect leads daily. Route cables overhead or through protectors, and isolate and lock off before blade changes or servicing. Only competent persons may repair. (ALL)	Operatives	Before Measure: High After Measure: Low
Environmental runoff and washout	Water pollution, slip hazard	Protects gardens and waterways, avoiding costly clean-ups while allowing wet processes to continue.	Contain wet saw slurry and concrete washout in lined tubs; never discharge to drains or watercourses. Use silt socks around gullies, keep spill kits on hand, and brief crews on disposal points. Store sand/cement under cover and re-grade to shed clean water away from stockpiles.  (ALL)	Operatives, public	Before Measure:  Med  After Measure:  Low



HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Excavation collapse (shallow)	Foot entrapment, sprains, crushing	Provides a safe, stable formation so sub-base and laying courses achieve specified support and longevity.	Batter back edges on weak ground; set spoil and pallets at least 1 m from edges. Use trench boards on soft subgrade; mark edges with hi-vis pins and lights. Keep foot traffic out, bridge crossings where needed, and backfill/compact promptly in layers to restore stability. (ALL)	Operatives	Before Measure: High After Measure: Low
Fuel handling and refuelling	Fire, explosion, burns	Keeps essential mobile plant running on site, sustaining momentum and productivity.	Refuel petrol saws and plant in a ventilated area with engines cool; use spouts and trays to prevent spills. Keep fuel in approved containers away from ignition, and store separately from oxidisers. Carry extinguishers, clear bystanders, and wipe residues before restarting equipment. (ALL)	Operatives	Before Measure: High After Measure: Low
Hand-arm vibration	Havs, numbness, circulation issues	1.	Select low-vibration tools, keep blades sharp, and limit trigger time with rotation and breaks. Use anti-vibration gloves for comfort, maintain warm/dry hands, and monitor exposure against EAV/ELV with a simple points system. Remove high-vibration tools from service until repaired. (ALL)	Operatives	Before Measure:  Med  After Measure:  Low
Lone working and welfare	Delayed medical aid, stress	Allows small crews to deliver work flexibly on dispersed or domestic plots while still maintaining safety.	Assess lone work necessity; maintain phone/radio contact and establish check-in times. Provide mobile welfare access, water and lighting. Restrict hazardous tasks to supervised periods, and ensure workers know emergency rendezvous and local hospital directions. (ALL)	Operatives	Before Measure:  Med  After Measure:  Low



HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Low light and night working	Trips, plant collision, reduced visibility	Extends workable hours in short-day seasons so critical path activities stay on schedule.	Install task and area lighting to achieve even illumination without glare; light exits and edges, and mark routes with reflective markers. Check that signage and PPE are visible, test generator/backup supplies, and shorten work cycles to reduce fatigue when operating after dusk. (ALL)		Before Measure:  Med  After Measure:  Low
Manual handling of flags and kerbs	Back strain, hernia, musculoskeletal injury	Enables precise placement of heavy units for a premium finish without project-slowing injuries.	Plan drop points to minimise carrying; use slab tongs, vacuum lifters or kerb lifters. Team-lift heavy units, keep loads close, avoid twisting, and use ramps over steps. Rotate tasks, warm up, and clear routes before lifts to prevent awkward postures and slips. (ALL)	Operatives	Before Measure: High After Measure: Low
Mechanical excavation and augers	Entrapment, crush injury, service strike	Speeds formation, edging and post holes, keeping the programme on time with consistent hole dimensions.	Select the right tool and depth stops; brief the operator and appoint a banksman. Exclusion zone 2 m around the bit; never hand-steady posts. Use anti-kickback devices, isolate and lock off to clear fouls. Scan for services and hand-dig starter holes in congested ground. (ALL)	Operatives	Before Measure: High After Measure: Low
Noise exposure	Hearing damage, communication failure	operations like cutting and compaction without	Plan noisy tasks for short windows, use quieter blades and maintained plant, and position barriers/screens. Rotate staff, keep distance, and enforce hearing protection where assessments show risk. Brief teams so communication methods account for high background noise. (ALL)	Operatives	Before Measure:  Med  After Measure:  Low



HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Plate compactor operation	Foot crush, vibration injury	Achieves specified compaction for drainage and load-bearing performance, extending pavement life.	Check guards and anti-vibration mounts; inspect the route for voids, services covers and edges. Keep feet clear, use steel-toecap boots, and avoid reversing toward people or edges. Limit exposure time, avoid compacting on unstable ground, and stop if abnormal vibration/noise occurs. (ALL)	Operatives	Before Measure: High After Measure: Low
Public access and site security	Trespass, injury to public	Maintains public safety and goodwill so works proceed smoothly in residential or public spaces.	Define the boundary with fencing and lockable gates; cover gaps and remove climbable stacked materials. Use clear signage, maintain a banksman at open fronts, and secure tools/fuel after hours. Create safe pedestrian diversions and inspect barriers daily for damage or movement. (ALL)	Public	Before Measure:  High  After Measure:  Low
Resin-bound surfacing chemicals	Skin irritation, respiratory harm, fire	Provides modern, attractive, low- maintenance surfaces with excellent permeability and design flexibility.	Review SDS and ventilate mixing areas; avoid skin contact by using nitrile gloves and sleeves. Mix with mechanical ventilation outdoors or near extraction, and prevent ignition sources. Provide appropriate RPE if sensitiser content warrants it, and keep spill kits for resin drips. (ALL)	Operatives	Before Measure: High After Measure: Low
Silica and stone dust exposure	Respiratory disease, eye irritation	Allows on-site shaping of materials to design tolerances while protecting long-term worker health.	Use water-suppressed cutting or on-tool extraction with M/H-class vacuum; check airflow. Position operators upwind, screen the area, and prohibit dry cutting. Provide RPE with assigned protection factor when controls are insufficient, and damp-wipe rather than dry sweep to clean down. (ALL)	Operatives	Before Measure: High After Measure: Low



HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Slips, trips and uneven ground	Slips, trips, falls	Maintains safe, efficient access so teams, clients and deliveries move smoothly through the site.	Keep walkways graded and free of offcuts, hoses and tools; route cables overhead or protect with ramps. Maintain housekeeping, grit icy surfaces, and manage slurry and wet saw runoff. Mark level changes and open edges with cones/rails and provide adequate temporary lighting. (ALL)	Operatives, public	Before Measure: High After Measure: Low
Stacked materials and pallet stability	Crush injury, falling objects	Enables efficient, close-to- workface storage that cuts handling time and keeps crews productive.	Stack slabs and pallets on level, compacted ground; keep within rated heights and secure with straps. Open one face at a time, never climb stacks, and use forklifts or grabs not kicks to free units. Exclude people from fall zones and dismantle unstable stacks immediately. (ALL)	Operatives	Before Measure: High After Measure: Low
Underground services	Electric shock, service strike, flooding	Enables accurate set-out and installation near existing infrastructure without service disruption, delivering a neat, on-level finish.	Review utility plans and scan with CAT/Genny; mark service corridors. Handdig trial holes to prove depth/route. Keep excavators/augers above verified levels; use insulated tools near cables. Stop on warning tape or anomalies; re-survey with supervisor before resuming. (ALL)	Operatives, public	Before Measure: High After Measure: Low
Weather and thermal stress	Heat illness, cold stress, slips	Keeps productivity viable across seasons while protecting quality and worker wellbeing.	Check forecasts and set go/no-go criteria for wind, heat, heavy rain or frost. Provide shade, hydration and warm layers; adjust mix designs and curing plans to conditions. Control ice and mud, secure materials against gusts, and pause cutting/plant use during lightning or high winds. (ALL)	Operatives	Before Measure: High After Measure: Low



HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Wet cement and mortar contact	Dermatitis, chemical burns	Delivers durable bedding and joints that underpin long-lasting surfaces and fewer callbacks.	Wear long-cuff waterproof gloves, sleeves and trousers; avoid kneeling in wet mortar by using kneeling pads. Wash immediately after contact and change soaked PPE. Use chromate-reduced cement within shelf-life, barrier creams as a backup, and provide clean water and eyewash nearby. (ALL)	Operatives	Before Measure: High After Measure: Low
Unpredicted risks	Illness, injury, death		Continuous risk monitoring conducted by all staff. Any unforeseen hazards must be reported promptly to supervisors or management, with immediate corrective action taken as necessary. (ALL)	All	N/A

Extra notes & activity evaluati		) I ES		
Completed by	Reviewed/Approved by	Risk Assessment Date	Review Required Date	