

Piling and associated drilling - JSA - A

en-SG · Basic task controls · v1.0 · 2026-10-14 · Sources: article section 9

Site: | Item ID: | Work area:

1. Job details and team signatures

Date / time	Location / area			Assessor		Supervisor	
Team signatures							

2. Conditions and hold points

Stage	Time	Location / area	Environment / readings	Item / condition	Controls	Plant / tools	Approval / signature
HP-0 Start							
HP-1 Plan and locate							
HP-2 Release platform							
HP-3 Assemble and test							
HP-4 Park and hand over							

Complete after actual checks. Recheck after changes, defects or shift handover.

3. JSA risk assessment

Job stage	Hazards and effects	Failure factors	Technical and procedural controls	Site verification	P	S	R	A
1. Plan and locate	1. Utility strike 2. Overhead contact 3. Public intrusion	1. Unproved service route 2. Wrong rig configuration 3. Shared access uncontrolled	1. Verify services before penetration 2. Select the actual piling method 3. Separate plant and pedestrian routes	1. Owner responses 2. Method and rig limits 3. Exclusion layout				
2. Release platform	1. Rig overturn 2. Track punch-through 3. Edge collapse	1. Design omits operating loads 2. Soft patch beneath mats 3. Drainage or edge altered	1. Use site-specific platform design 2. Inspect travel and setup areas 3. Reassess after ground changes	1. Rig load cases 2. Platform condition 3. Drainage and boundaries				
3. Assemble and test	1. Falling mast 2. Hammer descent 3. Stored-energy release	1. Temporary pins missing 2. Hoist or brake defect 3. Unsupported raised parts	1. Follow erection sequence 2. Test guards and safety functions 3. Block and isolate for access	1. Pins and retainers 2. Brake and limit checks 3. Energy isolation				
4. Drill and clear spoil	1. Auger entanglement 2. Flying spoil 3. Fall into bore	1. Reach into rotating flights 2. Unsafe spin-off method 3. Open bore left unguarded	1. Prevent access to rotation 2. Use specified spoil removal 3. Guard unattended bores	1. Guard function 2. Spoil discharge zone 3. Bore protection				
5. Pitch and drive piles	1. Dropped pile 2. Crushing at leader 3. Flying fragments and noise	1. Wrong lifting attachment 2. Pile unstable before release 3. Damaged cap or cushion	1. Use planned pile lifting points 2. Secure pile before unhooking 3. Monitor driving and isolate zone	1. Rigging and pile support 2. Hammer blocks and stops 3. Alignment and vibration				
6. Park and hand over	1. Unsecured bore 2. Unexpected movement 3. Unsafe next setup	1. Hammer left unsupported 2. Platform damage unreported 3. Stored tools can roll	1. Secure hammer and attachments 2. Protect bores and travel route 3. Record defects before handover	1. Parking configuration 2. Openings and stored tools 3. Next-shift restrictions				

P/S/R/A: Complete only after actual site assessment using the site risk method.

4. Pre-work checklist

☐ Owner responses	☐ Rig load cases	☐ Pins and retainers
☐ Guard function	☐ Rigging and pile support	☐ Parking configuration
☐ Exclusion layout	☐ Bore protection	☐ Next-shift restrictions