

WORK WITHIN ROOT PROTECTION AREAS

ACTIVITY RAMS — ADAPT TO SITE BEFORE USE

Tree protection barriers · ground protection · hand and air-spade digging near roots

KD-RA-EX-001 Rev A0

Statutory basis: BS 5837:2012 for root protection areas, protective barriers and ground protection; HSE HSG47 (3rd edition, 2014) for digging near buried services; Wildlife and Countryside Act 1981 s.1 for nesting birds and Conservation of Habitats and Species Regulations 2017 reg 43 for bats in retained trees; PUWER 1998 for the air spade and compressor; COSHH 2002 for dust raised by air-spade work; Manual Handling Operations Regulations 1992; CDM 2015 regs 13 and 15. This document is the recorded safe system of work required by HSWA 1974 s.2(2)(a) and MHSWR 1999 regs 3 and 5.

1 DOCUMENT AND PROJECT IDENTIFICATION

RAMS REFERENCE	PROJECT / SITE REF	SITE NAME AND ADDRESS	DATE PREPARED	NEXT REVIEW DATE
CLIENT / PRINCIPAL CONTRACTOR	PLANNED START	DURATION	OPERATIVES	SUPERVISING THE WORK

2 SCOPE OF WORKS

Installing, maintaining and removing tree protection barriers and ground protection around retained trees, and carrying out permitted work inside a root protection area — hand or air-spade excavation, service runs and surfacing — to the arboricultural method statement and under the project arboriculturist's supervision.

This document does not cover: tree felling, pruning and climbing (KD-RAMS-AB series), the arborist interface and drop zones (KD-RAMS-EW-003), and decisions on cutting roots — the arboriculturist's, not the site's.

SITE-SPECIFIC SCOPE, LOCATIONS AND LIMITATIONS

3 RISK ASSESSMENT — SCORE EACH RISK FOR THIS SITE, THEN ADD WHAT IS MISSING

The hazards and controls below are the starting point for this activity, written by a working main contractor. They are not complete for your site until a competent person has scored each risk, added the site-specific hazards, and struck out anything that does not apply. Rate risks High / Medium / Low before and after controls.

1. Unauthorised work to protected trees

At risk: Retained trees, the business

Controls: Before any root work, the site confirms whether the trees are covered by a tree preservation order, lie in a conservation area or are protected by a planning condition, and that any consent or approval of the work needs is in place; no consent, no root work.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

2. Striking buried services while digging in the root zone

At risk: Operatives

Controls: Services located from drawings and with CAT and genny before ground is broken; machines kept out of the root protection area unless the method statement allows them; hand tools and air spade used to expose services, following HSE HSG47 (3rd edition, 2014) safe digging practice under the permit to dig.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

3. Air spade — high-velocity air, flying soil and stones, dust

At risk: Operatives, others nearby

Controls: Air spade used only by trained operatives at the pressure the manufacturer states; eye protection under a full face shield, hearing protection, gloves and the RPE the COSHH assessment specifies for the dust raised; exclusion kept round the nozzle, which is never pointed at anyone; compressor, hoses and couplings checked before use with whip checks fitted.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

4. Plant, materials and spillages entering the root protection area

At risk: Retained trees, the programme

Controls: Barriers erected before any site activity at the positions in the tree protection plan and never moved without the arboriculturist's agreement; no storage, parking, mixing, washing out or fires inside the fenced area; signs fixed to the barrier.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

5. Cutting or tearing roots while digging

At risk: Retained trees

Controls: Roots exposed with hand tools or air spade and not cut, torn or left to dry out; the arboriculturist decides what may be cut and how; spoil placed outside the root protection area on boards; exposed roots covered as the arboriculturist directs.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

6. Barrier panels and posts — handling, wind and posts into roots

At risk: Operatives, public

Controls: Panels handled by two people; stays or bracing fitted as each run is erected; inside a root protection area, barriers stand on braced or stabilised bases rather than driven posts where the tree protection plan says so; posts driven only where services have been checked; panel handling stops when wind makes panels hard to control.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

7. Nesting birds and bats in retained trees

At risk: Wildlife, the business

Controls: Trees near the work checked for active nests by a competent person before work starts (Wildlife and Countryside Act 1981 s.1); suspected bat roosts in cavities, splits or loose bark reported to the ecologist and work near them stopped (Conservation of Habitats and Species Regulations 2017).

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

8. Damaged or unstable trees above the work

At risk: Operatives

Controls: Trees with visible damage, dead limbs or disturbed root plates reported to the arboriculturist before anyone works beneath them; work under trees stops in high wind.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

9. Ground protection boards and mats — trips and plant sliding

At risk: Operatives, plant operators

Controls: Ground protection laid to the method statement specification with joints secured and edges ramped; checked after heavy use and after rain.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

Site-specific hazards not listed above — every site has at least one:

HAZARD	WHO IS AT RISK	CONTROLS	INITIAL H/...	RESIDUAL...	ACTION OWNER	BY WHEN

4 METHOD — SEQUENCE OF WORK

- Obtain the tree protection plan and arboricultural method statement; confirm any tree preservation order, conservation area or planning condition and the consent in place; brief the root protection area boundaries on a drawing.
- Check trees for nesting birds and bats before starting; stop and refer if any are found.
- Locate services along the barrier line and at any dig inside the root protection area; issue the permit to dig.
- Erect barriers and signs before plant arrives, on braced or stabilised bases inside the root protection area where the plan requires; brace each run as it is erected.
- Lay ground protection where the method statement allows access inside the root protection area.
- Check barriers and ground protection at the start of each working day; repair damage and report any breach to the arboriculturist.
- For work inside the root protection area, have the arboriculturist present or as the method statement requires; hand tools or air spade only.
- For air-spade work, set the exclusion, put on eye, face, hearing and respiratory protection, check the compressor and hoses, and expose roots and services without cutting roots.
- Protect exposed roots as directed; backfill with the specified material without compacting over roots unless the method statement allows.
- Stop on finding roots larger than the method statement permits cutting, a service not on the drawings, or wildlife.
- Remove barriers only when the arboriculturist releases them at the end of the construction phase.

SITE-SPECIFIC AMENDMENTS TO THE SEQUENCE

5 PLANT, EQUIPMENT AND MATERIALS

- | | |
|---|---|
| Tree protection barriers, stays, stabilised bases and signs | Hand tools, and air spade with compressor and whip checks |
| Ground protection boards or mats | Root protection materials as specified |
| CAT and genny | |

INSPECTION / THOROUGH EXAMINATION REFS

COSHH ASSESSMENT REFS

6 PPE — THE LAST LINE OF CONTROL, NOT THE FIRST

- | | | |
|-----------------|---------------------|---|
| Head protection | Gloves — task-rated | Eye protection, full face shield, hearing protection and RPE to the COSHH assessment for air-spade work |
| Safety footwear | Eye protection | |
| High visibility | Hearing protection | |

RPE TYPE, FACE-FIT STATUS, AND ANY OTHER PPE REQUIRED

WORK WITHIN ROOT PROTECTION AREAS

continued

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7 PERMITS REQUIRED BEFORE THIS WORK STARTS

A permit authorises this work in that place, on that day. It extends the safe system of work in this document — it does not replace it (HSE HSG250). The site issues the permit; record its number before work starts.

KD-PTW-EX-005 — Excavation & Permit to Dig

For any excavation inside or at the edge of a root protection area, and for barrier posts.

PERMIT NUMBER

8 EMERGENCY ARRANGEMENTS — COMPLETE FOR THIS SITE

FIRST AIDER AND LOCATION

NEAREST A&E

ASSEMBLY POINT

HOW THE ALARM IS RAISED

EMERGENCY ACCESS FOR THIS WORK AREA

SPILL / ENVIRONMENTAL RESPONSE

9 BRIEFING RECORD — EVERYONE WORKING UNDER THIS RAMS SIGNS BEFORE STARTING

By signing you confirm the contents of this RAMS have been explained to you, you understand the hazards and controls, and you will work to the sequence stated. Tell the supervisor if the work or the site does not match this document — work stops until it does.

NAME	COMPANY	SIGNATURE	DATE

10 PREPARED AND ACCEPTED

Prepared / adapted for this site by — I confirm I have adapted this document to the site, scored the risks, and that it describes how the work will actually be done.

PRINTED NAME	ROLE / COMPETENCE	COMPANY	SIGNATURE	DATE	TIME

Accepted for the site by — principal contractor or site manager review.

PRINTED NAME	ROLE	COMPANY	SIGNATURE	DATE	TIME

Review this RAMS if the work, the site or the law changes, and at least before each new phase of the works. Flatten the completed PDF before filing so the record cannot be silently edited.

R REVISION HISTORY

Every revision of this document, and every review that found nothing to change. The revision on the front of this sheet is the one you are holding — check kubitdocs.com for the current one before use.

Rev	Date	Class	What changed	Authorised by
D0	2026-09-11	first-issue	First issue.	— not yet approved —
A0	2026-09-11	review	Approved for issue by the author. Content unchanged from the reviewed draft; the draft status strip is removed. No independent third-party review has been carried out.	Author — director, UK principal contractor, SMSTS. Not an independent review.

Class: first-issue · material (the law, a control, a field or the scope changed — past buyers are notified) · editorial (wording or layout only) · review (checked, nothing changed) · withdrawal. Revision prefix D = draft, not approved and not for sale; A = approved for issue by the person named, on the date shown.