

Risk & Environmental Assessment Form

Ref. No. & Description of activity	CONTRACT: RA01 16 LYNDHURST RD, M20 3JU TREE PROTECTION AND COMPOUND	Date: 04/03/2022	5. Extreme	5 (LOW)	10 (MED)	15 (MED)	20 (HIGH)	25 (HIGH)
			4. Major	4 (LOW)	8 (MED)	12 (MED)	16 (MED)	20 (HIGH)
			3. Lost Time	3 (LOW)	6 (MED)	9 (MED)	12 (MED)	15 (MED)
			2. Minor	2 (LOW)	4 (LOW)	6 (MED)	8 (MED)	10 (MED)
			1. Trivial	1 (LOW)	2 (LOW)	3 (LOW)	4 (LOW)	5 (LOW)
				1. Unlikely	2. Rarely	3. Occasional	4. Frequent	5. Inevitable
Affected Groups			RATING:		Review Period			
Employees		Contractors	HIGH RISK		Intolerable – Do not start work		Not applicable	
Visitors		Public	MED RISK		Tolerable – Reduce ALARP		Annually/significant change	
Other (specify)			LOW RISK		Tolerable – monitor to ensure remains low		Annually/significant change	

Hazard No.	Hazard	Consequence	Pre-Control Rating L x S = R			Control Measures employed	Final Risk Rating L x S = R		
1	Planning	Injury/Fatality/Collapse	3	5	15	All excavation work must be adequately planned prior to commencement to identify hazards and control risks, taking into account depth, soil strata, groundwater characteristics, location, surcharge loading, proximity of slopes or batters, duration of excavation and preferred method of installation. Sufficient equipment and materials must be made available throughout the works.	1	5	5
2	Existing Services (Underground)	Contact with Tree roots and utilities e.g. tree root damage, cable strike, potential to damage tree, loss of reputation from poorly managed activities.	5	5	25	Method statement and risk assessments to be briefed and understood by all operatives involved in the work. Documents to be regularly reviewed and re-briefed where applicable. Competent personnel – minimum CSCS & CPCs for operatives and operators and minimum medium risk Confined Space certificate to City & Guilds standard in accordance with Water UK requirements. Prior to any excavation, existing services will be located using an eCat 4 & Signal Generator, and their positions marked. Tree roots identified in the protection zone will then be located by hand excavation to 600mm. Gas and electric cables to be marked out prior to excavation and again hand dug to exposure. All services to be suitably protected and supported. No mechanical excavation to be carried out within 600mm of the tree protection zone and any existing services – hand dig only permitted. Prior to any excavation works being undertaken the tree protection zone will be demarcated all relevant services/mains will be marked out (HOLD POINT) Adequate support is required to try and ensure the stability of each service/main.	1	5	5
3	General Public Unauthorised access	Injury/fatality	5	5	10	All work areas to be securely fenced (and kept locked) and adequately signed and lit. Walkways will be provided where necessary RESTRICT DELIVERIES AT PEAK TRAFFIC TIMES WHERE POSSIBLE BANKSMAN TO BE IN ATTENDANCE FOR ALL PLANT MOVEMENT KEEP THE FENCING SECURED AT ALL TIMES TO ELIMINATE ANY UNAUTHORISED ACCESS. Regular inspection of work site. Security will be provided out of hours where appropriate. A fixed barrier (fence panel or similar) shall remain in place at the entrance to the	1	5	5

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						works to prevent unauthorised access to the works area Emergency contact details to be displayed on fencing. Access for the residents will be maintained at all times via the front and side. All deliveries of materials will be off loaded and stored within the secured working areas. Consider Legal requirements -Compliance with ACOP L113 to the Lifting Operations and Lifting Equipment Regulations Lifting operations to be planned with suitable equipment and competent personnel Lifting equipment to be inspected, maintained, examined and tested etc in accordance with legal and manufacturer's specification Co-ordinate activities with other parties/contractors to minimise the risk to others. Ensure that loads and reaches are assessed. Identify siting areas for cranes, which should be a suitable distance away from the excavation unless specifically allowed for in the design Edge protection, crash bags, clipping back to crane block where required to reduce fall from height risks. Operatives required to access the rear of HGV's will utilise a harness and inertia reel and click onto a safe anchorage point if side barriers are not available on the vehicle NOTE: Hanging chains used by suppliers must NOT be used for lifting. Prepare a lifting plan for large lifts. LIFT PLANS TO BE BRIEFED TO ALL			
4	Lifting operations	Crush/impact Injury/fatality	5	5	10		1	5	5
5	Spoil Storage Storage of other materials	Crushing/Surcharging	4	4	16	Spoil storage areas will be clearly identified on site. A minimum of 2 metres away from the tree protection zone and also the basement excavation unless specifically allowed for in the design. Excavated topsoil to be stockpiled in the compound for re-use as backfill – again away from the tree protection zone and excavation. Surplus material will be removed from site to a licenced tipping / recycling facility.	1	4	4
7	Groundwater Control	Flooding of excavation Drowning of operatives Contamination of water courses by discharging silty / high alkaline containing water Fuel spillages	2	5	10	When necessary, suitable and properly maintained pumping system/equipment will be provided. Specialist de-watering is not envisaged though this will be monitored as deemed necessary as work proceeds. A suitable location will be agreed for the discharge of pumped water and the appropriate consents obtained. Daily monitoring of pump arrangements to be completed by the site supervisor. Pumping of ground water from excavations will be returned to ground via a silt sock. If necessary, permission must be sought prior to pumping ground water to any drains. Pumps and generators to be set up on plant nappies and / or drip trays. Spill kits to be provided when refuelling pumps and generators. Provision of instructions, information, training & supervision. Not anticipated to be an issue in these works due to the shallow depth of excavation / no groundwater at this level.	1	5	5
8	Excavation Collapse Deterioration in the condition of the excavation	Crushing Injury/Fatality	3	5	15	Spoil, plant and materials should not be placed immediately adjacent the excavation edge and appropriate barriers used. It is envisaged that a batter / step excavation will be suitable due to the depth not exceeding 2m bgl. If required Support systems installed without delay, change to the method statement and supervised by trained and competent personnel. Suitable and sufficient steps shall be taken to prevent fall or dislodgement of material from within the excavation using closed sheeting or timber polling. No plant, material or vehicle shall be placed near an excavation where it could cause	1	5	5

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						a collapse. Excavations will be inspected at the start of every shift and following any event (such as inclement weather) which is likely to adversely affect stability. The sides of the shallow excavation to the basement will be battered to prevent collapse.			
9	Ground Contamination / Differing Soil profiles		3	5	15	Trained and competent excavation personnel and supervision only.	1	5	5
11	Personnel in Excavations	Contact with Bucket	3	5	15	Personnel should not work or stand directly underneath plant being placed within the excavation. High visibility clothing and safety helmets will be worn. No operatives to be in the standing in the excavation beneath plant / materials being lowered down into the excavation. Particular care must be taken by persons within the immediate vicinity of an excavator to prevent crush injuries when it slews or moves. All accessories and attachments fitted to a machine to be inspected by competent person and inspection recorded, Machine Operator to inspect and record in daily checks.	1	5	5
12	Access/Egress from excavation / trench / manholes	Slips, trips falls resulting in Injury/fatality	5	5	25	Safe access / egress to excavations will be maintained at all times by means of a secured pole ladder and stepped excavation. Ladders are fixed at 75° to the horizontal Lifting operations to be planned with suitable equipment and competent personnel Barriers, signs and warnings lights where applicable will be present to prevent unauthorised persons entering the site, particularly at night. Due to the shallow depth of excavation – a stepped excavation/batter will be installed to provide safe access from ground level to the basement excavation.	1	5	5
14	COSHH	Injury/ill health	4	4	16	All substances hazards to health to be used on site will be displayed in a control register. All documentation is available on noticeboards in welfare facilities Provision & use of PPE will be in accordance with the substance specific Risk Assessment.	1	4	4
15	Placing Concrete Products	Personal injuries due to unsafe or unauthorised operation of the mechanical plant Alkali burns from exposure to cement products Eye injuries from cement products	3	4	12	Plant to be operated only by competent, trained and certificated drivers Banksman must attend each item of mechanical plant Avoid eye and skin contact by wearing suitable eye protection, waterproof clothing, waterproof footwear and waterproof gloves. Clothing contaminated by wet cement should be removed immediately and washed before re-use. Avoid breathing dust. Masks will be provided. Plan where you will be able to put down the load. Ensure that welfare facilities are available for operators Ensure first aid and eyewash facilities are available and pH testing for water.	1	4	4
18	Falling at same level/from height	Injury/fatality	3	5	15	All excavations and other areas with the potential to result in falls will have edge protection where there is a risk of operatives falling resulting in injury Where you cannot eliminate the risk of a fall a stepped excavation and batter must be used. Properly plan and organise work and provide a safe place of work at height Consider the weather conditions Control the risk from falling objects Edge protection to be installed at the top of the proposed battered excavation..	1	5	5

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19	Contact injuries from falling objects	Injury/fatality	3	5	15	Adequate edge protection is in place, complete with toe boarding to prevent anything from falling into an excavation. Segregation of plant and personnel. High Visibility clothing will be worn at all times when working on site.	1	5	5
20	PPE	Injury/fatality	4	5	20	All personnel will be provided with adequate protective clothing and equipment to ensure they can execute their duties safely. Gloves, safety boots, light eye protection, orange high visibility jackets will be worn at all times. Further P.P.E such as dust masks, goggles, ear defenders will be issued where applicable.	1	5	5
21	Manual Handling	Injury to back, crush injury to limbs from dropped item/s, items dropped from height	3	4	12	Mechanical aids will be used for lifting heavy and awkward loads where practicable. All personnel will be instructed in correct lifting procedure and will use appropriate gloves.	1	4	4
23	Traffic management	Potential vehicle incidents major injury/fatality	5	5	25	Traffic management will be via the use of a banksman at all times when delivery vehicles are on site. Induction of personnel to site Good housekeeping i.e. appropriate storage areas to facilitate good visibility on site All vehicles to park within designated areas. All plant / vehicles to be under the guide of a nominated banksman.	1	5	5
24	Noise and Vibration	Potential for ill health or injury resulting from the effects of noise/vibration	5	4	20	Avoid activities causing noise/vibration if you can Properly plan and organise work by using appropriate work equipment. Provide appropriate PPE to reduce risk and equipment. Consider relevant action limits for daily/cumulative exposure Ensure all work equipment is maintained appropriately to minimise risk	1	5	5
25	Damage to adjacent structures		3	5	15	Before digging starts, decide if extra support for adjacent structures is needed. Monitoring during excavation.	1	5	5

ENVIRONMENTAL ASPECTS & IMPACTS ASSESSMENT

Aspect No.	Aspect	Impact	Pre-Control Rating L x S = I			Control Measures employed	Final Risk Rating L x S = I		
1.	Planning of site works	Reduced impact to environment by identifying specific issues prior to work start	3	5	15	Site surveys/visits to identify situation on the ground undertaken. Liaison with MCC, planning permission and agreement before Pre-commencement Discuss works with affected residents	1	5	5
2.	Digging/excavation activities	Damage to underground services Prosecution for Water/land contamination Legal action/costs from owner	4	5	20	CAT & Genny Scan area prior to excavation Hand excavation only within 600mm within Tree Protection Zone and any existing services	1	5	5

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		of service Unexpected items uncovered e.g. archaeology, contamination etc Damage to archaeology							
3.	Dust from plant and equipment	Disturbance of ecology/wildlife and neighbours, potential complaints/enforcing authority action	5	4	20	Planning of work e.g. times, duration etc to minimise impact Organise plant movements, deliveries, collections etc to make most effective use of vehicles and minimise impact	2	4	8
4.	Noise/vibration from plant and equipment	Disturbance of ecology/wildlife and neighbours	5	4	20	Planning of work e.g. times, duration etc to minimise impact and identify potentially sensitive areas i.e. residential Notify potentially affected parties of the activities, controls and arrangements for complaints Conduct works in accordance with BS5228 Control of Noise from Open Construction Sites Use of suitable/maintained equipment Noise monitoring will be carried out to check levels of noise produced and records kept. Works are within a fenced working area.	2	4	8
6.	Generation of waste spoil	Waste generation Visual impact	5	4	20	Duty of Care for waste e.g. appropriate handling, storage, disposal of waste. Where possible use for backfill material - Surplus to licensed waste disposal facility. Retain relevant documentation – transfer/consignment notes etc	2	4	8
7.	Waste Management	Prosecution from inappropriate management of waste	3	4	12	Surplus to licensed waste disposal facility via Skips, paperwork to be kept on file.	1	4	4
9.	Backfilling	Fill with suitable material – (recycled)	5	4	20	Minimise use of resource, Use return fill to excavations if / where possible.	2	4	8

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USE OF OIL/FUEL									
1.	Specific hazards/impacts associated with the type of oil and associated activities.	Spill – Contamination of land, discharge to surface water drain.	5	3	15	A general risk assessment for H&S risks associated with the activity has been carried out. Obtain Material Safety Data Sheet/s.	2	3	6