SSW.RA – Demolition of a Brick-Built Structure

Client	Litchfield Investment Holdings Ltd	Project No.	680
Site Address	FORMER HALL AND RESIDENCE, 1331 MATLOCK ROAD, AMBERGATE, BELPER, DE56 2EL		
Prepared By	R.Bourne	Date	09/08/2024
Approved By	M.Cross	Date	09/08/2024
Revision	1		

1. Task to be undertaken using this SSW (Safe System of Work)

Demolition of a fire damaged brick-built structure

***This SSW is to be used in connection with the associated risk assessment.*

2. Personnel required for the works

- TRD Site Manager / Supervisor
- Demolition Rig Operator
- Demolition operative / banksman

3. Training requirements

- CCDO
- Site induction

4. Additional documentation requirements including permits and registers

- Permit to Demolish
- Asbestos R&D Survey
- Service Isolation / Disconnection Certificates

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5. Equipment required for the task

- Specialist Demolition Rig c/w grab and bucket attachments and pole
- Dust suppression
- Waste containers

6. PPE requirements

- Hard hat
- Hi-vis clothing (vest as minimum)
- S3 safety boots
- Eye protection
- Hearing protection (on assessment)

7. Additional Information

- Sensitive demolition operations down to first floor.
- Banksman with two-way radio to be positioned to further control access/egress requirements.
- Ensure all segregation fencing is installed and inspected.
- Ensure full inspection of the structure is carried out by excavator operator and Demolition Site Manager to ensure the structure is fully understood;



8. Methodology		
	During all reduction operations, the machine operator, together with his supervisor, shall continuously assess the integrity of all adjacent areas. Where any ambiguity exists as to the continued integrity of any adjacent section the works are to be suspended and an action plan formulated to deal with any potential problem. Where necessary, specialist advice is to be obtained. During all structural reduction operations, the operator of the demolition rig will leave sufficient bracing to maintain stability allowing him to carefully reduce the building elements in a piecemeal manner. A banksman will be positioned within a safe zone at sensitive elevations during these works to advise on any deviation in the vertical / perpendicular condition of the structure. Throughout the duration of the works, all operatives shall be aware of and shall carry out any instructions regarding the safety and integrity of the surrounding environment. Works considered to have a significant impact on the environment shall not be implemented until such time as suitable and sufficient control measures have been put into place to reduce such impacts.	!
8.1	The Demolition rig fitted with its 360^0 pole/grab attachment will expose the element of the building by removing bricks at the corner of the gable and side wall at high level.	
8.2	The upper section of the building will then be pushed in to the footprint of the building	
8.3	Once removed upper floor brickwork to be demolished and cleared from the mid-floor area to prevent overload any of the structure and once complete the operator will repeat side wall removal to the next bay The Demolition rig will relocate as work dictates ensuring that any voids/basements are broken out and backfilled/compacted to ensure safe movement.	
8.4	The Demolition rig will progress through the structures in a piecemeal manner using the above methodology a single structural bay at a time with floors exposed and extracted as work dictates. At all times arisings will be brought into the footprint of the structure.	
8.5	Dust created from the works shall be controlled by directing a water mist onto the working area.	
8.6	Demolition operatives shall be used to bank deliveries / collections in and out of site and if required, to operate the dust suppression	
8.7	Any basements discovered will be popped through and then filled with hardcore.	

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Acknowledgement of Operatives

I, the undersigned, acknowledge that I have read and been briefed upon this safe system of work and the relevant risk assessment and that I understand what I am being asked to do.

Name	Date	Signed

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Amendment to the Safe System of Work	
Amended by	
Signed	
Date	

Amendment

Acknowledgement of Operatives for Amendment		
I, the undersigned, acknowledge that I have read and been briefed upon this amendment to the safe system of work and the relevant risk assessment and that I understand what I am being asked to do.		
Name	**Date**	**Signed**

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Risk Assessment Calculation Guide

Likelihood Rating (L)						
	5	5	10	15	20	25
	4	4	8	12	16	20
	3	3	6	9	12	15
	2	2	4	6	8	10
	1	1	2	3	4	5
		1	2	3	4	5
		Hazard Potential (HP)				

DEFINITIONS:
A hazard is something with the potential to cause harm to someone or something. This could include damage or adverse health effects. **Each Hazard will be given a number to define its Hazard Potential (HP).**
Risk is the likelihood that a person may be harmed or suffers adverse health effects if exposed to a hazard. This also includes something being damaged from exposure to a hazard. **Each Risk will be given a number to define its Likelihood Rating (L).**
When the **HP** is multiplied by the **L** this gives you a **Risk Rating Score (R)**

Likelihood Rating (L)			Hazard Potential (HP)
5	1/10	**Probable**	5 – **Catastrophic** - Serious Injury, Multiple Persons Injured, Permanent Incapacity, Fatality
4	1/100	**Likely**	4 – **Major** - Multiple Injuries, Long-term Incapacity, Disability, Absent from Work 7+ Days
3	1/1000	**Possible**	3 – **Moderate** – Sprain, Strain, Ill Health, Absent from Work for 3+ days but less than 7 Days
2	1/10,000	**Unlikely**	2 – **Minor** – Cuts, Bruises, Illness (fainting) requiring First Aid – No Absence from Work
1	1/1,000,000	**Extremely Unlikely**	1 – **Insignificant** – Minor Injury not Requiring First Aid Treatment.

Risk Rating (R)			
1 – 4	Low Risk		Acceptable, continue to monitor and implement current control measures – continue to review!
6 - 12	Medium Risk		Continue but look to introduce additional control measures to further reduce the risk as far as is reasonably practicable.
15.- 25	High Risk		**DO NOT Start the works!** Introduce additional controls to reduce the risk from the hazard to a medium risk or, preferably, a low risk.

Risk Assessment – Demolition of a Brick-Built Structure

Key: L = Likelihood HP = Hazard Potential R = Risk Rating
5 = High 1 = Low (Based on a 5x5 Matrix) – The higher the number the greater the severity

Ref	Activity Being Undertaken	Hazard	Who May be Harmed	Risk Rating			Control Measure	New Risk Rating (Residual)		
				L	HP	R		L	HP	R
1	Removal of structural elements	Falling materials	Employees & third parties	3	5	15	• Cabs to demolition rigs to be fitted with FOPS. • Exclusion zones to be erected around machines. • Demolition rig operators to be trained and authorised	1	5	5
2		Uncontrolled collapse of structure	Employees & Third Parties inc. Public	3	5	15	• Demolition rig operatives to be trained and authorised. • A detailed specific method statement / Safe system of work to be formed for the works. • Structure to be made an exclusion zone to all persons on commencement of remote demolition. • Exclusion zone to be formed around the demolition rig.	1	5	5
3		Dust, Noise & Vibration	Employees & Third Parties	4	4	16	• Dust suppression to be used to control dust migration. • Working hour restrictions in place for sensitive receptors. • Plant and Equipment to be lowest noise and vibratory emitting as possible. • Plant and Equipment to be well maintained. • Plant and Equipment to be fit for use and correct for the task in hand. • Plant and Equipment to be isolated when not in use.	1	4	4

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Ref	Activity Being Undertaken	Hazard	Who May be Harmed	Risk Rating			Control Measure	New Risk Rating (Residual)		
				L	HP	R		L	HP	R
4	Removal of structural elements continued….	Weather Conditions	Plant operator, Employees	3	5	15	• Windscreen wipers to be fitted to plant where applicable. • Pedestrian access routes to be defined by use of pedestrian barriers. • Hi-vis clothing to be worn at all times on site. • Dust suppression equipment to be thoughtfully positioned in high wind conditions. • Salt / grit to be used on frozen ground, spread before ground freezes where possible.	1	5	5
5	Segregation / Removal of Waste	Dust & Noise	Employees & Third Parties	3	3	9	• Dust suppression to be used to control dust migration. • Working hour restrictions in place. • Plant and Equipment to be lowest noise emitting as possible. • Plant and Equipment to be well maintained. • Plant and Equipment to be fit for use and correct for the task in hand. • Plant and Equipment to be isolated when not in use.	1	3	3
6	Use of Water	Flooding	Employees, Third Parties, Environmental Harm	3	4	12	• Drainage systems to be covered with a geo textile material to prevent demolition debris from entering the water course. • Supply to be turned off when not in use. • Leaks to hoses to be repaired or the hose to be replaced. • Wet floors to have warning signs placed on them informing persons of a potential slip hazard. • Salt/grit to be spread if freezing is a possibility.	1	4	4