

# **Risk Assessment & Method Statement** **for the safe** **Demolition of Existing Structures.** **Samas Roneo Mill,** **Glossop Road,** **SK13 6EJ** **TCDL - 402**



Originating Organisation:	Total Controlled Demolition	Rev:	01	
Status & Purpose:	Demolition of structure	Date:	08/03/2018	Signature
Lead Author	Lee Brash	Position:	Senior Contracts Manager	
Technical review	Steven Maude	Position:	HSEQ Manager	
<i>I am satisfied, to the best of my knowledge, that the proposals in the above method statement are adequate.</i>				
Authorised for issue by:		Position:	Site Manager	

If comments require a change to the method statement it will be issued back to Total Controlled demolition for revision. Once the comments have been addressed the above procedure will be repeated, attaching the previous approval sheet for reference during approval, until the document is approved.

Once approved the method statement will be reviewed for suitability every 3 months, as a minimum, or where circumstances alter the risks or methodology. The review will be recorded on the hardcopy on the table on page 2 of this document. Where the methodology or control measures are deemed inappropriate or unsuitable the method statement will be revised and re-issued following the above procedure.

[illegible]



## Contents

1	INTRODUCTION & SCOPE.....	4
2	PROJECT MANAGEMENT.....	4
3	EMERGENCY PROCEDURES.....	5
4	TASKS COVERED WITHIN THIS METHOD STATEMENT .....	6
5	PERSONAL PROTECTIVE EQUIPMENT.....	7
6	DESIGNATED EQUIPMENT .....	8
7	COSHH.....	8
8	METHODOLOGY .....	8
9	PRE-START .....	8
10	AREA ESTABLISHMENT .....	9
11	ENABLING WORKS.....	9
12	EXCLUSION ZONE .....	9
13	METHODOLOGY .....	11
14	DEMOLITION RISK ASSESSMENT .....	19

<b>S</b>	<b>AFETY</b>
<b>A</b>	<b>LWAYS</b>
<b>F</b>	<b>OR</b>
<b>E</b>	<b>VERYONE</b>



## 1 Introduction & Scope

This method statement has been written to allow the safe demolition of structures. Activities will include, but not limited to-

- Site establishment.
- Safe demolition of structure
- Asbestos removal
- Grubbing up of hardstanding's
- Onsite processing and segregation of materials
- Crushing operations

## 2 Project Management

### Project Contacts

NAME	POSITION	OFFICE	MOBILE
Paul Mitchell	Contracts Manager	Visiting	07748 637837
Lee brash	Senior Contracts Manager	Visiting	07748 637830
John Bentley	Operations Director	Visiting	07834 171162
Steven Maude	HSEQ Manager	Visiting	07748 637834
William Quinn	Demolition Consultant	Visiting	07767 455555
Philip Smith	Commercial Director	Office	07855 531688
Michael Quinn	Business Development	Office	07506 370518
	Site supervisor	Site	
FIRST AIDERS		CONTACT	
		Mobile	

S	AFETY
A	LWAYS
F	OR
E	VERYONE

### 3 Emergency procedures

In the event of an Emergency:

- STOP - Call for help and move away from the work area to a safe point if possible to do so.
- Raise the alarm with air horn and contact your Supervisor, they will advise if further action is required.
- Site Supervisor will establish contact with the emergency services, the supervisor will explain the nature of the emergency, location and services required.
- Only recover injured party from area if safe to do so.

When asked to give details provide:

- ✓ Name
- ✓ Location and position of incident - **Glossop road, SK13 6EJ**
- ✓ Nature of emergency
- ✓ Emergency services required
- ✓ Site security will direct the emergency services to the provided location
- ✓ How to access the incident area
- ✓ Any other relevant information
- ✓ Contact information

#### Follow instructions

- Obey instructions of Emergency Services
- If instructed to evacuate area do not stop to collect personal belongings
- Report to Assembly point as depicted on the area fire/emergency plan
- A role call will be conducted by your Supervisor
- Do not re-enter the emergency area until told it is safe to do so

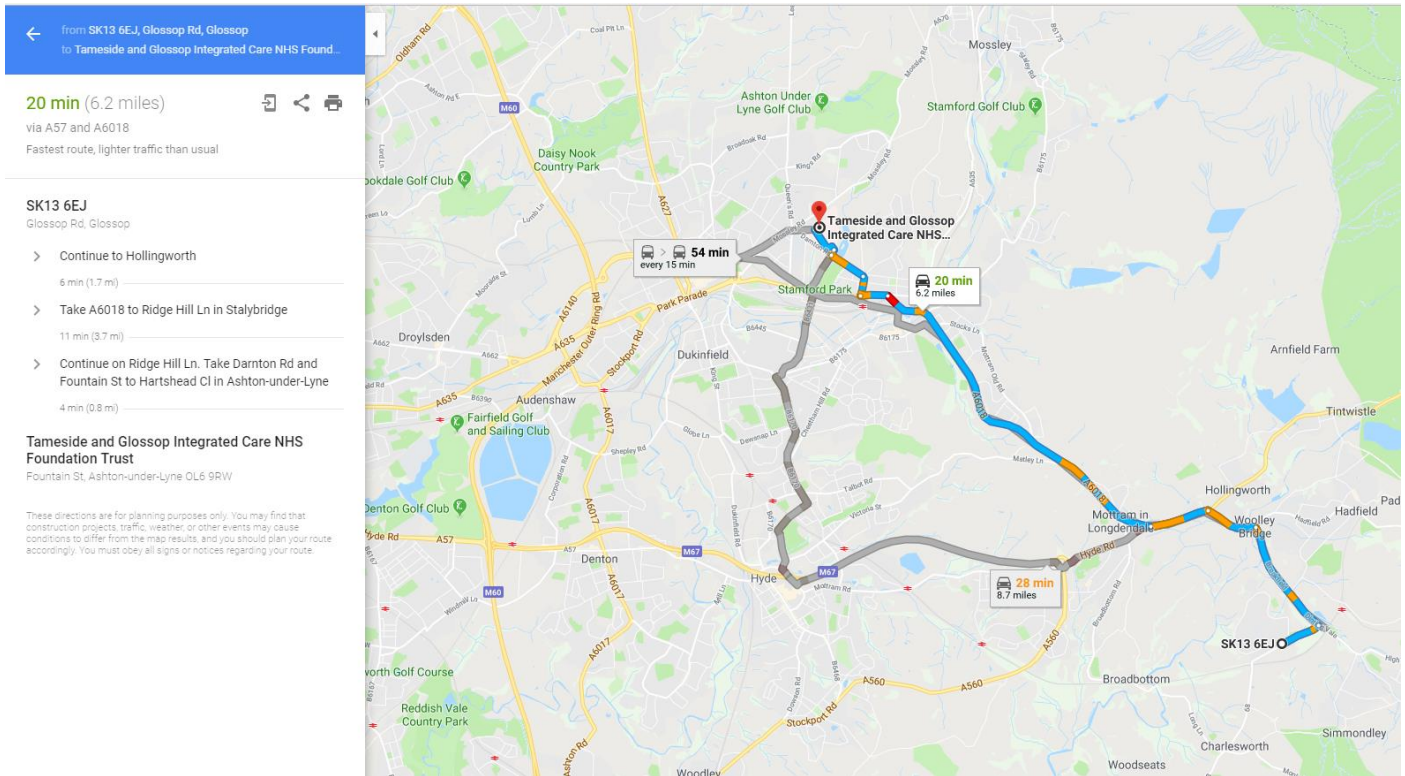
#### Emergency Evacuation - Fire

- Make yourself aware of the Assembly Point as depicted on the area fire/emergency plan
- Raise the alarm; if you feel confident, try to extinguish the fire without putting yourself at risk.
- If not, exit the work area and immediately proceed to the site security lodge.
- Only return to your work place upon the all clear signal.
- Access to Assembly points must remain clear at all times.

## KNOW YOUR FIRE EXTINGUISHERS LABEL COLOUR CODES

WATER	DRY POWDER	CO <sup>2</sup> CARBON DIOXIDE	AFFF FOAM	VAPOURISING LIQUIDS BCF/HALON
<div>✓ SAFE FOR USE ON WOOD, PAPER, TEXTILES ETC.</div> <div>DO NOT USE ON LIVE ELECTRICAL EQUIPMENT</div> <div>DO NOT USE ON FLAMMABLE LIQUID FIRES</div> <div>DO NOT USE ON FLAMMABLE METAL FIRES</div>	<div>✓ SAFE FOR USE ON WOOD, PAPER, TEXTILES ETC.</div> <div>✓ SAFE FOR USE ON FLAMMABLE LIQUID FIRES</div> <div>✓ SAFE FOR USE ON FLAMMABLE LIQUID FIRES</div> <div>✓ SAFE FOR USE ON ELECTRICAL FIRES</div>	<div>✓ SAFE FOR USE ON FLAMMABLE LIQUID FIRES</div> <div>✓ SAFE FOR USE ON ELECTRICAL FIRES</div> <div>DO NOT USE ON WOOD, PAPER, TEXTILES ETC.</div> <div>DO NOT HOLD HORN WHEN OPERATING</div>	<div>✓ SAFE FOR USE ON WOOD, PAPER, TEXTILES ETC.</div> <div>✓ SAFE FOR USE ON FLAMMABLE LIQUID FIRES</div> <div>DO NOT USE ON LIVE ELECTRICAL EQUIPMENT</div> <div>DO NOT USE ON FLAMMABLE METAL FIRES</div>	<div>✓ SAFE FOR USE ON WOOD, PAPER, TEXTILES ETC.</div> <div>✓ SAFE FOR USE ON FLAMMABLE LIQUID FIRES</div> <div>✓ SAFE FOR USE ON GASEOUS FIRES</div> <div>✓ SAFE FOR USE ON ELECTRICAL FIRES</div>

## Hospital route



## 4 Tasks covered within this method statement

This method statement details the procedures, sequence, risk assessment and method of work to be used in order to carry out the safe the demolition of the existing structure as per client's request.

No work is to be carried out outside the scope of this Method Statement. In the event that unforeseen circumstances are encountered, work will be stopped, a revised method will be adopted and a re-briefing will take place prior to carrying out any further works.

All associated asbestos removal works have been previously completed during the internal soft strip phase.

No work is to be carried out until all necessary isolations have been completed as required and detailed within the specific client hand over documentation.

## 5 Personal Protective Equipment

### General activities-

- Hard Hat
- Safety Boots
- Hi-Vis waist coat or jacket
- Suitable Gloves
- Light Eye protection

### Specialist activities- if required

- Safety harness (working at heights only)
- Orinasal Half Mask - P3 Filter (dusty conditions)
- Type 5-6 disposable coveralls.
- Goggles (high impact works)
- Hi-visibility waterproofs (where conditions require)

Hazard	Equipment	Standard(s)	Tasks
<b>Respiratory Injuries</b>			
Low dust levels Lead based paints. Heavy metal residues Bird droppings	Half face negative pressure respirator	EN140 filter P3 EN141 EN143  ABEK 1P3	General work in dusty conditions Removal of Bird Droppings Hot cutting of steelwork and general work in dusty conditions and Lead based materials
<b>Hand Injuries</b>			
Chemical hazards	Gloves	PREN374	Handling pipe work and plant items.
Thermal hazards	Gloves	PREN407 and 388	Hot cutting.
Mechanical hazards	Gloves	PREN388	All work.
<b>Hearing Damage</b>			
High noise levels	Ear Plugs	EN352-1	Hot cutting, Hydraulic Breaking
<b>Foot Injuries</b>			
Impact / Penetration	Safety Boots	BS EN345	All work.
<b>Eye Injuries</b>			
Low impact energy	Safety glasses	PP EN166F	All work.
Medium impact energy and airborne dust	Goggles	PP EN166B	Use of powered Cutting tools and Work near to mobile plant.
High intensity light	Visor/goggles	BS 2092 2C Shade3	Hot cutting.
<b>Body Injuries</b>			
Abrasions and Dirt	Overalls	N/A	All work.
Injuries from mobile plant and vehicles	High visibility Clothing	EN471	All work.
<b>Head Injuries</b>			
Impact Protection	Safety helmet	EN397	All work.
<b>Falling</b>			
Bodily Injuries	Safety harnesses Lanyard Inertia reels	EN355 EN360	Any work risk of falling.

<b>S</b>	<u>AFETY</u>
<b>A</b>	<u>LWAYS</u>
<b>F</b>	<u>OR</u>
<b>E</b>	<u>VERYONE</u>

## **6 Designated equipment**

- Various hand tools
- Skip wagon with an assortment of skips
- Firefighting equipment - extinguishers, fire blankets
- Variety of demolition adapted excavators and attachments
- Mobile crusher

## **7 COSHH**

A full detailed COSHH assessment package will be given with all COSHH data sheets, substances that will be present on site.

- Silica dust
- Diesel
- Petrol
- Engine lubricant
- Rat urine

## **8 Methodology**

All work shall be carried out in accordance with the Health and Safety at Work Act 1974 and the Project Health & Safety Plan. All demolition will be undertaken in accordance with BS6187:2011

The works will be monitored through regular inspections ensuring it is being conducted safely and in accordance with the method statement.

The various inspections are detailed below:

- ✓ Supervisors Daily Activity Briefings
- ✓ Supervisors Weekly Routine Inspection
- ✓ HSE Advisors Routine Inspection
- ✓ Operations Director/Manager Quarterly Inspection

## **9 Pre-start**

- Operatives will have the TCDL site specific induction.
- All operatives involved with the works shall attend the method statement briefing.
- The site manager/operatives shall read this document.
- All operatives must show that they understand the method statement fully and sign the acknowledgement sheet before leaving the briefing.
- Local muster points, fire alarm and emergency call points shall be identified, and operatives made aware upon commencement of works on site.
- If required a work permit will be obtained for the tasks to be undertaken.
- All site personnel will undergo a daily team talk given by the site manager who will inform all personnel of the tasks to be carried out and the risks involved.
- All persons involved in the daily team talk will be asked as to whether they have understood what has been said and they will also be asked to sign an acceptance form.

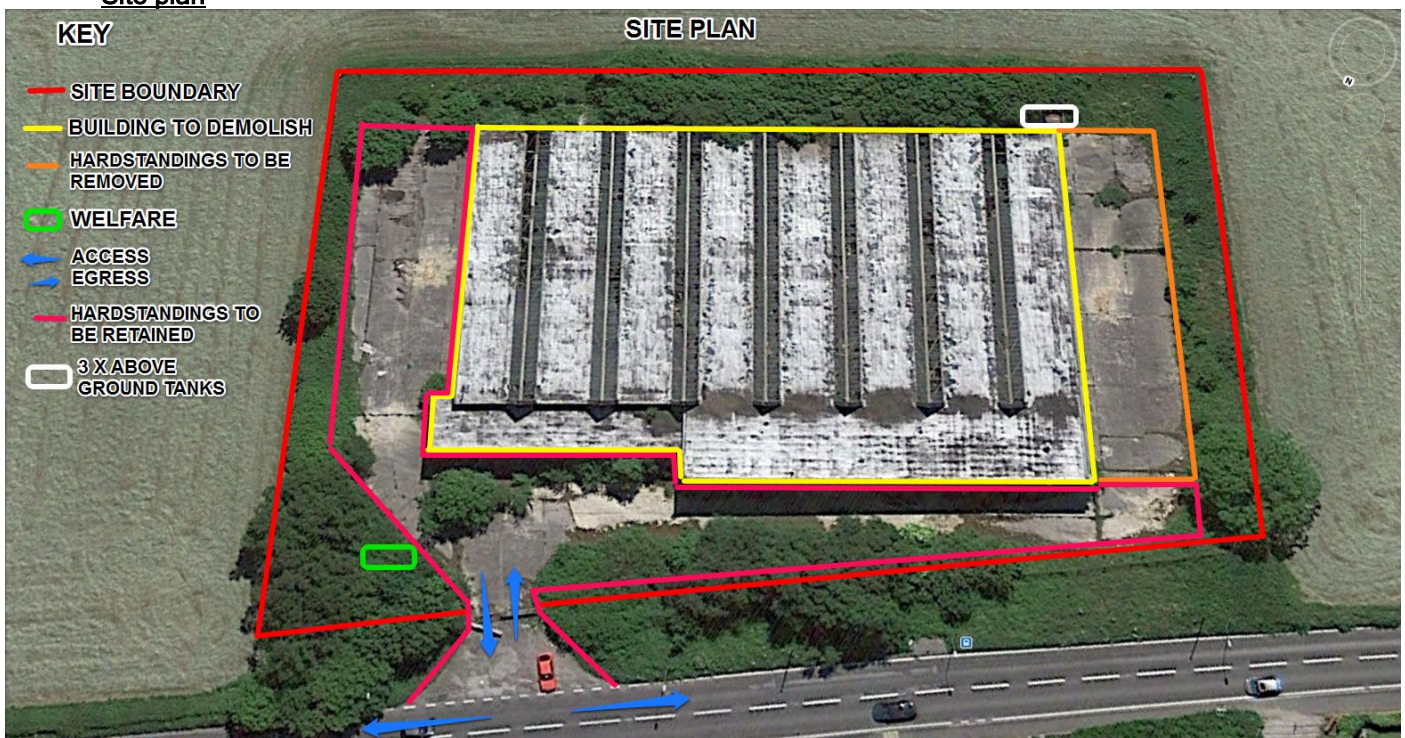
**All Daily Task Briefing's will be completed by Site Manager with input from the work party.**

S	AFETY
A	LWAYS
F	OR
E	VERYONE

## 10 Area Establishment

- The specific work areas will be segregated and banksman to police the area.
- Work areas will be clearly sign posted with demolition warning signage.
- Site notice board to be positioned by the site entrance detailing the following information.
  - Site contacts
  - Evacuation procedure
  - Emergency air horns
  - First aid kit
  - Site plan
- Banksman to control these areas always during operations.

### Site plan



## 11 Enabling works

- Implementation of site establishment and fence lines will be previously completed but maintained throughout.
- Traffic route communicated to all operatives.
- Plant deliveries will be via existing roadways.

## 12 Exclusion Zone

- Specific exclusion zone for the area will be implemented using heras fencing.
- Demolition signage to be positioned in various locations.
- All non-essential access into the area during mechanical demolition operations is to be restricted.

### Delivery of materials



- All large vehicles delivering equipment shall use the designated routes.
- All transport vehicles are to be directed to the designated area of works.
- All minibuses/vans are identified with the TCDL logo.
- All transport vehicle drivers are to be notified of site rules before entering the site.
- All transport vehicles are to have a banks-man present when unloading is taking place.
- All site personnel will undergo a team talk given by the site supervisor who will inform all personnel of the tasks to be carried out and the risks involved.
- Confirmation shall be sought from all persons involved in the team talk that the method and controls are fully understood. They will also be required to sign the method statement sign on sheet.
- All materials are to be placed in the designated areas in a neat and orderly manner, with a banks-man present at all times when unloading.

### **Heras Fencing erection**

- The site boundary is clearly indicated on the site plan.
- In areas TCDL may be required to erect hears fencing to segregate works onsite.
- The use of a flatbed vehicle to be utilised to transport large quantities of fencing to specified locations within the site boundary.
- Heras fencing can only be erected once it has been unloaded from the transport vehicle.
- Operatives shall then work in teams of two to erect all fencing around site
- Operatives will first place the lightweight feet at 3m distances.
- Operatives will now begin to erect the heras panels.
- Working together, operatives will lift the heras panel in the horizontal plane from the stack.
- The panel will now be turned into the vertical and placed into the pre-placed feet.
- Operatives will now remove the next panel from the stack and place it into the next feet as above.
- This panel will now be clipped to the previously erected panel and clip will be tightened with an adjustable spanner.
- If operatives need to walk with the panel, they will do so in the vertical. With both operatives facing the direction they are walking
- After every tenth panel operatives will form a triangle on the inside of the fence line, using 2 more panels, to aid in the stability of the heras fence line.
- Triangles will also be formed each side of any entrances for extra stability to the fence line.
- The above method will be continuous until all of the heras fencing is in place.
- Good House-Keeping is to be maintained at all times.
- All works shall be assessed upon completion by the site manager to state its competence.

### 13 Methodology

- TCDL plant and equipment to be delivered to site.
- Operatives will access the building and clear and loose debris materials from within.
- These materials will be placed in a pile within the building and removed during the main demolition of the structure.
- Demolition will commence from the north east elevation as shown in the drawing below.



- The excavator will commence removing the shutter doors and front elevation.



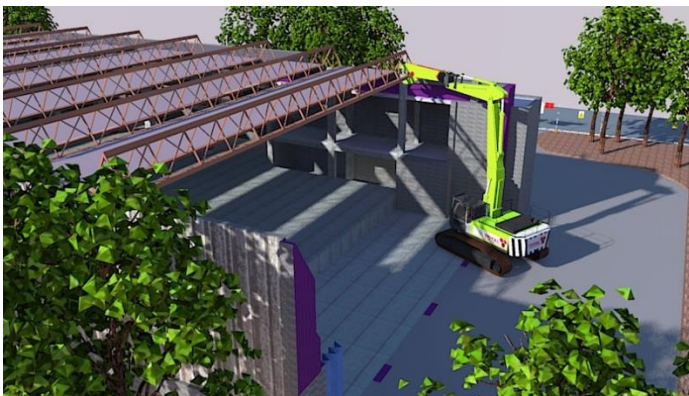
- The materials removed will be placed to one side in a stockpile ready for further processing.
- Once the gable has been safely removed, the roof demolition to commence.
- The excavator will grab and remove the tin sheeting to the first bay of the structure.
- Once the sheets have been removed this will expose the structure roof steel and allow the excavator to shear cut them from the building.
- The materials will be progressively cleared in line with the demolition.

S	AFETY
A	LWAYS
F	OR
E	VERYONE

- The excavator will now shear cut the top box section of the main roof trusses.

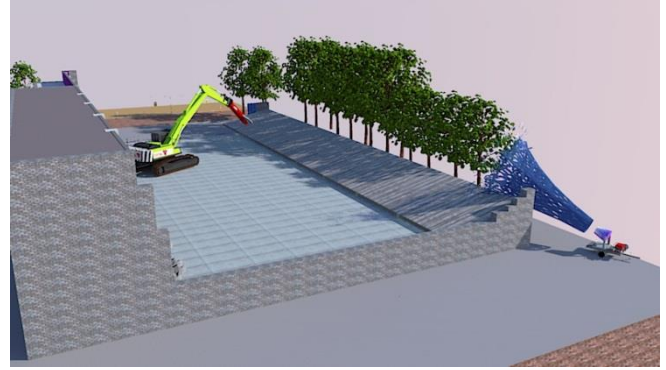
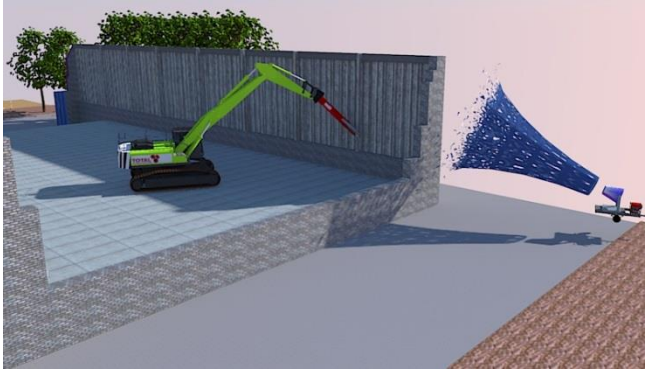


- Once the top box section of the roof truss has been shear cut the excavator will reposition to the opposite end of the truss.
- The excavator will now shear cut completely through the roof truss which will allow the truss to sag to ground level under its own weight.

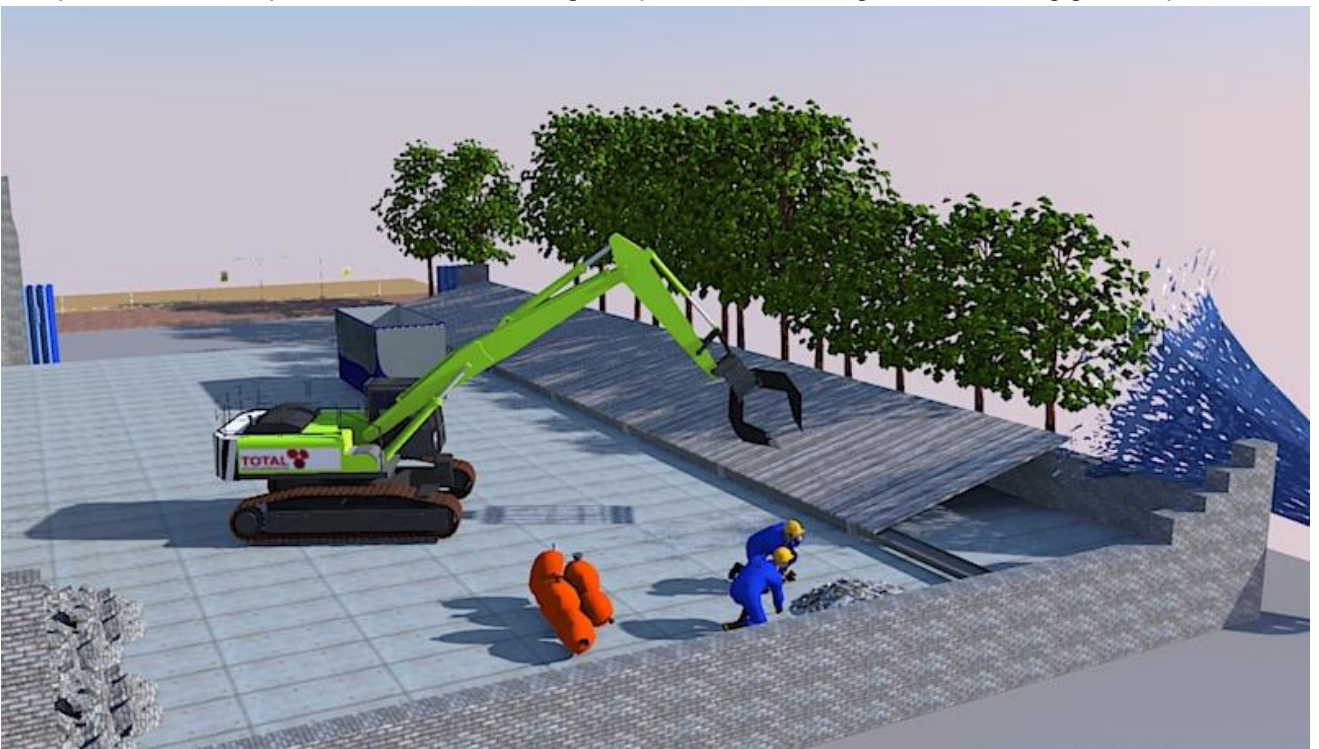


- Once safely on the ground the excavator will reposition back to the opposite end and shear cut and remove the truss section.
- Resulting steel and materials will be segregated into the correct piles ready for removing from site.
- Excavator will continue to use the same method as above to remove the entire roof from the structure.
- All materials created will be segregated, processed and loaded into the correct wagons for removal from site.
- Once the roof has been safely removed, the excavator will demolish the north west gable of the building down to ground level.
- Resulting brick materials to be gathered and place to one site ready for crushing at a later stage.
- At this point the safe demolition of the south gable wall will commence.
- The south gable wall is constructed of steel frame with asbestos over clad.
- Operatives will set up dust suppression unit to capture any dust particles during the demolition.
- Once equipment has been setup the demolition will commence.
- The excavator will start from the south west of the gable working towards the south east of the gable.
- The excavator will shear cut the back web of the stanchion flush to the base wall.

S	AFETY
A	LWAYS
F	OR
E	VERYONE



- The excavator will continue to travel east, and shear cut the back webs of each stanchion in sequence.
- This will allow the entire gable to be safely folded into the footprint of the building ready for stripping the asbestos cladding.
- Operatives to hand pick the asbestos cladding and place in double bags and seal using gaffer tape.



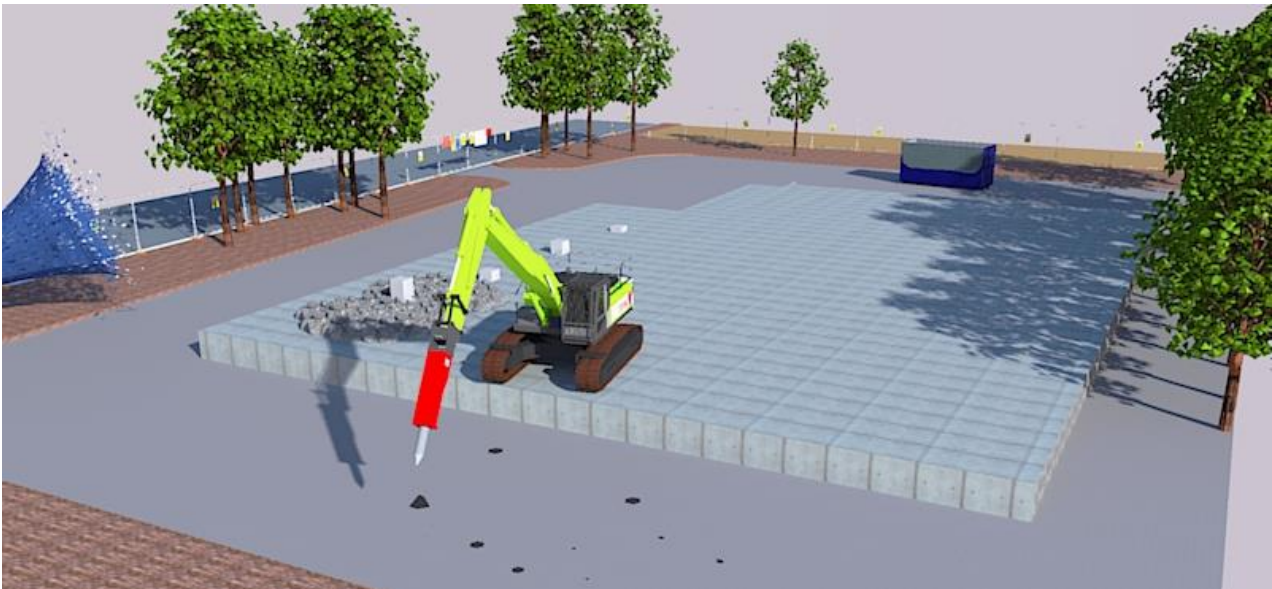
- These bags will be clearly labelled with asbestos signs and placed in the designated lockable skip.
- The excavator will use a grab to carefully grab large amounts of asbestos cladding and place within the pre-lined asbestos skip which has been lined using 1000, gauge polythene.
- Once the skip has been filled/finished with the operatives will fold the sections of polythene over the top of the skip and tape shut with gaffer tape.
- This will seal the asbestos during transport to the registered landfill disposal site.
- Once the asbestos cladding has been safely cleared and removed from site the demolition and processing of materials will continue.
- The north elevation will be demolished from top down using a selector grab attachment.
- The first part of the demolition will be the removal of the flat roof section.
- The excavator will grab and remove this in small manageable section and place to the side ready for processing.
- Once the roof has been safely removed, the walls will be reduced from top down working in even layers.
- This will ensure the structure to remain in safe condition throughout will ensure an uncontrolled collapse doesn't accrue.

<b>S</b>	<b>AFETY</b>
<b>A</b>	<b>LWAYS</b>
<b>F</b>	<b>OR</b>
<b>E</b>	<b>VERYONE</b>

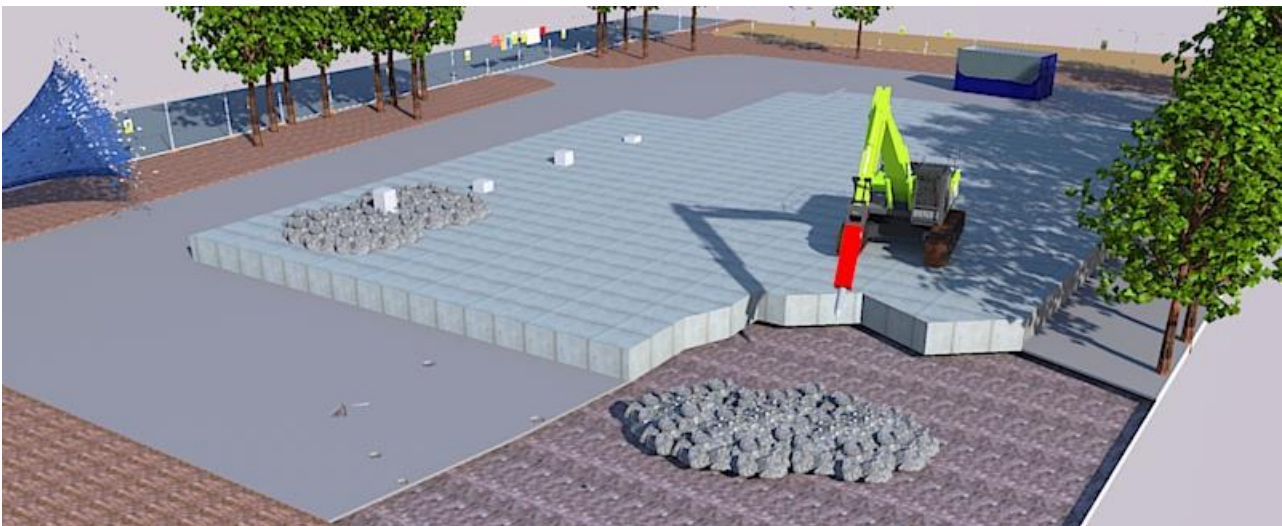
- Materials will be segregated throughout the demolition and removed from the slab area.
- The breaking and removal of the slabs and foundations will commence as follows.

#### **Removal of slabs and foundations.**

- Client ensure all relevant drawings of the services within the area and all isolation certifications are present onsite.
- Once all services have been identified/highlighted a permit to dig will be issued with the operatives briefed on any services if any within the work area.
- No machine digging will be carried out within 1 metre of an underground service.
- A banksman will be present with the machine during the breaking out of concrete.
- This is to assist in the safe operation of the plant and maintaining an exclusion zone,
- Banksman to be in continuous communication with the machine driver.
- The banksman to stand clear of the swing radius of the machine always.
- These concrete slabs are estimated at approx. 150-200mm thick.
- breaker attachment to break concrete slabs into small manageable sections.



- Once excavator has broken a large area of the floor slab, excavator to equip with bucket attachment.
- Excavator with a bucket attachment to grub up materials down to 1m below ground level and stockpile in the designated area.



<b>S</b>	<b>AFETY</b>
<b>A</b>	<b>LWAYS</b>
<b>F</b>	<b>OR</b>
<b>E</b>	<b>VERYONE</b>



- All materials to be crushed onsite for reuse, the crushing operation will be covered/carried out on separate set of Risk assessment and method statement.
- A noise assessment will be carried out and ear protection will be worn if the noise level is between 80-85 Decibels (lower and higher exposure action values).
- If the noise level is above 85 Decibels, an ear protection zone will be identified around the machine. This zone will be highlighted/demarcated with the help of ear protection must be worn signs. Anyone entering this zone will have to wear ear/eye protection.
- If necessary, a water pressure bowser will be used for dust suppression to deal with any dust produced by the concrete breaking operation.

**Once all demolitions and ground works has been completed the crushing operations to commence. These will be covered under a plan of works below specifically for crushing operations.**

### Crushing procedures:

Crushing of concrete, bricks and other assorted uncontaminated aggregates using a mobile hydraulic crusher.

### Risk/COSHH Assessments

This safe system of work should be read in conjunction with the Manufacturer's Instructions and all the project risk assessments and work instructions as some of the risks may overlap.

In addition to the above the following must be included within the risk assessments and COSHH assessments and should be complied with if relevant:

Applicable	Risk/Hazard	Applicable	Risk/Hazard
✓	Plant & Machinery	✓	Fire & Explosion
✓	Work at Height	✓	Hazardous Substances
✓	Petrol Driven Plant	✓	Manual Handling
✓	Demolition Work	✓	Noise and Vibration
✓	Waste Handling	✓	Dust
COSHH	Silica Dust	COSHH	Diesel
COSHH		COSHH	

#### Equipment

Mobile Crusher  
Excavator 360  
Barriers and warning signage

#### Personal Protective Equipment

Hi visibility Vest and trouser or overalls  
Issued Work wear & Hard hat  
Safety Footwear  
Dust Masks (P3)  
Gloves  
Ear defenders  
First Aid Equipment



## Co-Operation and Co-ordination

Work site to be arranged to ensure no non Total Controlled demolition personnel can enter the vicinity of the crushing area during this operation. A method of communication between the excavator operator and the crusher operator will be established and agreed, this will usually involve radios and hand signals.

### Pre-work Checks

1. Put on Personal Protective Equipment (PPE).
2. Book on to site with the Site Manager
3. Ensure you are able to comply with the method statement, Risk & COSHH Assessment and any local instructions, including permits to work, given by the Site Manager.
4. Familiarise yourself with the local fire and emergency arrangements.
5. Ensure your activities will not endanger other operatives.
6. Identify location of work to be carried out.
7. Check that materials to be crushed are free from contamination.
8. Check that operating area is located on level stable ground that can support the weight of the equipment. Consult geotechnical surveys if in doubt.
9. Carry out pre-use checks of both the crusher and the excavator.

### Crusher Operation

Works will commence loading the Crusher using the 360 Excavator. Concrete will be loaded into the hopper which is hydraulically fed into the crusher. The crushed material falls onto the conveyor where any reinforcing is removed by a hydraulic magnet fitted above the conveyor and discharged to the ground. All clean crushed concrete is taken away on the conveyor and also discharged to the ground. Any metal will be placed in a tidy stockpile ready for loading into scrap bins.

The Crusher is fitted with a Dust Suppression System, whereby water is used on the discharge conveyor to minimise the dust. This will be used whenever possible.

An Excavator will clear the crushed material from underneath the conveyor and stockpile in the designated stockpiling area. When stockpiling the crushed material, care will be taken to ensure that there is not a risk of “landslide”, the stockpile will be regularly assessed taking into account its height and length, thus ensuring its stability.

On completion of the works a clean and tidy site will be left.

### Daily Checks

- Carry out pre use checks as detailed in manufacturer’s instructions.
- Check conveyor daily for splits. If splits found report to supervisor and arrange for repairs to be carried out when necessary.

### Basic Start-up Procedure

1. Ensure crusher is sited on firm level ground and sufficient room for conveyors/stockpiles.
2. Check all rollers to ensure they are free from reinforcing or crushed material.
3. Before starting engine ensure master key is on. (This master key prevents inadvertent start-up of the machinery by a third party as the crusher operator retains key when making adjustments/clearing blockages.)
4. Control levers are in neutral position.
5. Turn ignition key to start.
6. Start engine on idle for 5 minutes.
7. Engage clutch on idle.
8. Push lever/engage switch to maximum revs ready for crushing process to start.

<b>S</b>	<b>AFETY</b>
<b>A</b>	<b>LWAYS</b>
<b>F</b>	<b>OR</b>
<b>E</b>	<b>VERYONE</b>



9. Advise excavator driver to load hopper.

#### **Basic Shutdown Procedure**

1. Ensure hopper is empty.
2. Advise excavator to stop loading.
3. Disengage clutch.
4. Engage revs to idle for 5 minutes.
5. Clear working platform of any debris.
6. Turn engine off, remove key and turn off master key and remove.

#### **Operation of Plant**

**ACCESS IS NOT PERMITTED OVER JAWS OR LOADED HOPPER WHILST THE MACHINE IS RUNNING.**

1. Crusher to be operated from a safe distance using remote controls. Crusher Operator and Excavator Driver feeding the Crusher to act as a team and communicate at all times with hand signals and/or radios.
2. Communication between Crusher Operator and Excavator Driver to ensure no backups occur and conveyors are not overloaded.
3. Wear appropriate PPE.
4. No loose clothing or jewellery to be worn.
5. Access to crusher via ladder, ensure ladder and platforms are free from debris, grease and oil.
6. Handle fuel with care as highly flammable.
7. Do not refuel the machine whilst smoking or when near open flame or sparks.
8. Always stop the machine before refuelling.
9. If adjustments need to be made the Crusher must be switched off and keys removed. Keys to remain with the Crusher Operator and Excavator Driver advised. Excavator must be isolated and keys removed. Excavator Driver to ensure no one goes near the crusher whilst the adjustment made and until the Crusher Operator gives the sign to start up.

#### **Procedure for Clearing of Minor Blockage**

1. Switch the Crusher off and remove keys. **Operator to retain keys.** Close the control panel door on the engine and ensure it is locked. Turn off the battery isolator and lock out the switch using a padlock, person accessing moving parts to retain all keys.
2. Advise Excavator Operator loading the Crusher to switch off machine and remove the keys.
3. Excavator Operator to keep area safe whilst Crusher is unblocked.
4. Crusher Operator give sign to start up when ready.

#### **Unblocking Procedure for Un-crushable objects and Major blockages**

1. Press Emergency Stop Button.
2. Disengage clutch.
3. Turn off engine.
4. Remove keys from ignition. **Crusher operator to retain keys on his person.** Close the control panel door on the engine and ensure it is locked. Turn off the battery isolator and lock out the switch using a padlock, person accessing moving parts to retain all keys.
5. Advise 360 Machine Operator who is loading the Crusher to turn his Machine off and remove his keys. The 360 Machine Operator now to act as Banksman and to advise site personnel of situation.
6. The object that has fallen in the Crusher can be removed by either of two methods:
  - (i) The uncrushable object if not too heavy can be removed by hand.

<b>S</b>	<u>AFETY</u>
<b>A</b>	<u>LWAYS</u>
<b>F</b>	<u>OR</u>
<b>E</b>	<u>VERYONE</u>

- (ii) If uncrushable object too heavy it can be removed by a set of safety chains or grab which will involve using the 360 Machine and the Crusher Operator will become the Banksman.
7. When this operation is completed, and the object has been removed the object should be placed in a skip so it does not re-enter the Crusher at a later date.
  8. When Crusher Operator is satisfied he will proceed to start the Crusher.
  9. Re-engage Stop Button.
  10. Put keys back in ignition.
  11. Start Crusher on low idle revs.
  12. Advise 360 Machine Operator that he is ready to start work.
  13. Engage clutch.
  14. Start conveyor belt.
  15. Rev Crusher to working speed.
  16. Commence Crushing process.

### **Important**

- a. Do wear PPE at all times.
  - b. Do listen to any briefings given.
  - c. Do ensure that you are competent to undertake the work.
  - d. If you suspect the presence of contamination stop work and seek further advice from your Supervisor.
  - e. Do not attempt this work unless you are competent to do so.
  - f. Do not leave site of work unattended.
  - g. Do not leave any spoil, debris, materials or equipment at worksite.
- Do keep the Site Manager advised of the progress of work particularly if all planned work cannot be achieved.

#### 14 Demolition Risk Assessment

SPECIFIC RISK ASSESSMENT								
Task No	Task	Effects of Hazard	Rating	Likelihood of Occurrence	Rating	Initial Risk	Control Measures	Residual Risk
1.	General site activity.	Slips, trips and falls	Med (2)	Movement of operative across site.	Med (2)	Med (4)	<ul style="list-style-type: none"> <li>• Good housekeeping to be practiced at all times.</li> <li>• Walkways to be kept clear at all times.</li> <li>• Constant monitoring and regular supervision to be in place and used to spot potential incidents and hazards on an ongoing basis.</li> <li>• Pedestrians to use footpaths and pedestrian access routes where possible.</li> <li>• Be aware of varying levels of floors i.e. changing levels.</li> <li>• Always use correct access points.</li> <li>• Ensure lighting levels are adequate</li> <li>• When accessing vehicles or plant maintain 3 points of contact at all times.</li> <li>• Ensure lighting levels are adequate.</li> </ul>	Low (2)
2.	Vehicle/plant Movements.	Struck by moving plant/vehicles	High (3)	Plant movements moving across site.	Med (2)	High (6)	<ul style="list-style-type: none"> <li>• All vehicle/plant movements to be controlled by banksman.</li> <li>• Always be aware of moving plant and vehicles and know their route.</li> <li>• Access into work areas only via banksman approval.</li> <li>• Banksman to be in communication with plant operator via 2 way radio.</li> <li>• Exclusion zones always to be maintained – never enter these zones</li> </ul>	Med (2)

<b>S</b>	<u>AFETY</u>
<b>A</b>	<u>LWAYS</u>
<b>F</b>	<u>OR</u>
<b>E</b>	<u>VERYONE</u>

							unless authorised and plant isolated and made safe.	
<b>3.</b>	Vehicle/plant Movements.	Vehicle overturning	High (3)	Plant movements moving across site.	Med (2)	High (6)	<ul style="list-style-type: none"> <li>All fragile surface structures are to be identified, marked and cordoned off.</li> <li>Visual inspection of manhole covers to be carried out by site manager and when required cover by steel plating.</li> <li>Don't travel with forks or arm/attachment up in air or overloaded.</li> </ul>	Med (2)
<b>4.</b>	Public Interface	Falling materials & Debris, obstruction of public use	Med (2)	Operatives, other contractors and general public	Med (2)	Med (4)	<ul style="list-style-type: none"> <li>Work when it is reasonably practicable work must be planned with the client's representatives.</li> <li>Complex or hazardous work whenever practicable must be undertaken during weekend or other closedown periods.</li> <li>At induction provide awareness of traffic management plan.</li> <li>Site safety briefings and toolbox talks must include staff interface issues.</li> <li>Compliance to local procedures regarding the parking of delivery vehicles in and around the site.</li> <li>Local speed restrictions must be complied with.</li> <li>A traffic co-ordinator should be appointed for off-site and on-site vehicle/plant movement where necessary</li> <li>Signs and notices should be in place setting out standards and controls.</li> </ul>	Low (2)

							<ul style="list-style-type: none"> <li>Ensure ad-hoc and planned inspections take place to monitor SSW and working practises.</li> </ul>	
5.	Demolition works	Falling materials & debris	Med (2)	Operatives	Med (2)	Med (4)	<ul style="list-style-type: none"> <li>Heras fencing to be erected around of the demolition area.</li> <li>Daily check of fence to be carried out prior to works commencing each day.</li> <li>Ensure no loose items of materials are left unsupported at the end of each shift.</li> <li>No work to be carried out in high winds.</li> <li>Plant operator to ensure a sufficient standoff from the height of the building is achieved.</li> <li>Exclusion zone to be in place.</li> </ul>	Low (2)
6.	Removal of Asbestos cement sheets.	Release of asbestos fibres.	Med (2)	Small teams of operatives involved in asbestos stripping operations.	Med (4)	Med (4)	<ul style="list-style-type: none"> <li>Internal exclusion zone to be established.</li> <li>Exclusion zone to be implemented, with warning signs posted.</li> <li>Dust suppression in place at the ready prior to works commencing.</li> <li>Background and personal monitoring to be utilised during ACM removals.</li> <li>Hepa filters to be placed in drains within the demolition work area.</li> <li>Atomized water to be utilised during operation.</li> <li>Machine operatives to make sure not to track over the Asbestos sheeting when dropped on the floor in order to avoid breakage of these sheets.</li> </ul>	Low (2)

							<ul style="list-style-type: none"> <li>The AC sheeting zone should be classed as a respirator zone.</li> <li>All the operatives involved in the task must wear a P3 disposable face mask to EN405 with the asbestos removal area.</li> <li>All operatives involved in tasks to have UKATA Category B asbestos removal/awareness training.</li> <li>Report any unidentified ACMs to Site Supervisor immediately.</li> <li>Background monitoring will be put in place to monitor the fibre release rate of the demolition activity.</li> <li>Disposable overalls and suits will be worn; these will be to EN471 standards.</li> </ul>	
7.	Manual handling.	Muscular and skeletal injury to back, arm and body.	Med (2)	Operatives handling debris and small items of equipment.	Med (2)	Med (4)	<ul style="list-style-type: none"> <li>Always employ mechanical lifting equipment where possible, if not possible seek assistance or work in teams as required.</li> <li>Always use the correct lifting technique as trained.</li> <li>If manual handling is unavoidable ensure an assessment is undertaken as per training.</li> <li>Do not lift beyond your capabilities.</li> </ul>	Low (2)
8.	Use of hand tools	Personal Injuries, flying debris. RSI, Pinch points Dislodged materials causing possible crush	Med (2)	Small teams of operatives involved in housekeeping and material movements	Med (2)	Med (4)	<ul style="list-style-type: none"> <li>Use only suitable tools for the task</li> <li>Use tools as manufacturer's instructions</li> <li>Check tools for damage before use.</li> <li>Keep fingers clear of pinch points.</li> </ul>	Low (2)

9.	Hazardous Substances.	Incident/Injury to personnel caused by coming into contact with various substances on site.	High (3)	Small teams of operatives involved in operation.	Med (2)	High (6)	<ul style="list-style-type: none"> <li>Total controlled demolition to clearly define and instruct operatives in the control methods and advise on any additional PPE.</li> <li>Follow instruction as per COSHH Assessment.</li> <li>Be aware of residual contamination and avoid at all times</li> <li>Emergency procedures in place.</li> </ul>	Low (2)
10.	Crusher Operation and Maintenance	Operative contact with moving parts causing injury or death.	High (3)	Machine operators	High (3)	High (9)	<ul style="list-style-type: none"> <li>Experienced demolition operatives who have been read instruction manual and this SSOW.</li> <li>Adherence to SSOW.</li> <li>Use of isolation procedure with operator holding ignition key during access to areas with moving parts.</li> <li>Second operative present to prevent access to area by other during maintenance/clearing blockages etc.</li> <li>Crusher maintained in line with manufacturer's guidance.</li> <li>Pre-use checks to ensure all guards are in place. Machine operated from a position of safety.</li> </ul>	Med (2)
11.	Buried services	Operatives & other contractors onsite	Med (3)	Small team of operatives directly involved with the works	Med (2)	Med (6)	<ul style="list-style-type: none"> <li>Permit to dig to be issued prior to commencing.</li> <li>Conditions of the permit to be followed and influenced throughout.</li> <li>Dig locations to be CAT scanned prior to striking ground.</li> </ul>	Low (2)

							<ul style="list-style-type: none"> <li>No mechanical digging within 1m of live underground services.</li> <li>Service drawings to be provided and present onsite for reference during the works.</li> <li>Highlighted underground services to be identified and marked up onsite.</li> </ul>	
12.	Environmental	Contamination of land, air or water	Med (2)	Operatives handling contaminated equipment.	Med (2)	Med (4)	<ul style="list-style-type: none"> <li>Contain and clean up any spillages that may occur immediately.</li> <li>Ensure spill kits are readily available.</li> </ul>	Low (2)
13.	Hot Works	Cutting metal with the aid of Oxy / Propane as part of the Demolition	High (3)	Small teams of operatives involved in operation.	Med (2)	High (6)	<ul style="list-style-type: none"> <li>The hands, arms and legs are to be covered at all times whilst cutting.</li> <li>All cutting bottles are to be stored in the appropriate cage when not in use and kept away from any heat source.</li> <li>Daily hot works permit to be provided by Morgan advanced.</li> <li>Follow the guidance as set by the hot works permit</li> <li>No naked flames in vicinity of fuels/greases.</li> <li>All operatives to wear the correct task specific PPE: - flame retardant overalls, full face visor, gauntlets, half face masks to be worn with filter model number 299-2 ABEK1-Hg-P3 R to EN14387</li> <li>Flash back arrestors must be fitted to all oxygen and fuel gas regulators.</li> <li>Extinguishers to be made available within the work area</li> <li>Fire watcher in attendance at all times.</li> </ul>	Med (2)

							<ul style="list-style-type: none"> <li>• A minimum of 1-hour fire watching must be observed at the cease of any hot works.</li> <li>• Ensure Oxy Propane cylinders are separated 3m apart and secured.</li> <li>• Combustible material to be removed from the area prior to hot works</li> </ul>	
14.	Health	Dust          Noise          Lead poisoning	Med (2)		Med (2)	Med (4)	<ul style="list-style-type: none"> <li>• Dust suppression in place and switched on at the ready prior to works commencing.</li> <li>• Crusher hopper to be loaded in a controlled manner to minimise dust generated.</li> <li>• Operatives to wear LEP.</li> <li>• Workers involved in the task to wear task specific P3 Face masks.</li> <li>• Plant operators to ensure windows and doors are closed during operations.</li> <li>• Noise assessments to be undertaken and recorded.</li> <li>• Hearing protection must be worn on activities above 85dBA</li> <li>• Hearing zones to be demarcated and warning signs posted.</li> <li>• Lead level medicals to be carried out for individuals involved in the task during and after the works.</li> <li>• Operatives to ensure using correct face filter during hot cutting operations.</li> <li>• Good personnel hygiene to be adopted before eating or drinking.</li> </ul>	Low (2)

15.	Refuelling and plant maintenance	environment  falling from height  pinch points	Med (2)	Fire and explosions, dermatitis, contamination of the ground or watercourses. Splashes of fuel to the eyes	Med (2)	Med (3)	<ul style="list-style-type: none"> <li>• Funnel and air pumps should be used when handling oils or fuels.</li> <li>• Plant nappies or drip trays to be used to prevent fuels from contaminating the ground and watercourses.</li> <li>• Spill kits to be present during refuelling.</li> <li>• Refuelling within 10m of drains and water ways is strictly forbidden.</li> <li>• Ensure to be wearing the correct ppe.</li> <li>• Correct disposal of nappies or used absorbent granules.</li> <li>• Operatives to use designated walkways and steps.</li> <li>• Machine steps and walkways to be kept clean.</li> <li>• Care to be taken when opening and closing doors and cowlings.</li> </ul>	Low (2)
-----	----------------------------------	------------------------------------------------------------	---------	------------------------------------------------------------------------------------------------------------	---------	---------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------

**Residual Risk Rating = Likelihood of Occurrence x Severity of Hazard**  
**High = 9, 6                      Medium = 4, 3                      Low = 2, 1**

**Likelihood of Occurrence**

**Low (1)** May occur in time. However, hazard exists infrequently, or hazardous event occurs very infrequently. Low expectation of occurrence.  
**Medium (2)** Likely to occur in time. Hazard exists intermittently, or hazardous event occurs occasionally. It may be useful to define by exclusion, {i.e. clearly not 'High' or 'Low' may be the most practical approach}.  
**High (3)** Likely to occur imminently or in the very short term. Hazard exists permanently, or hazardous event occurs frequently, or much evidence of previous harm.

**Severity of Hazard**

**Low (1)** Hazard resulting in minor injury requiring first aid treatment only. Minor consequential loss potential to both individual and organisation.  
**Medium (2)** Hazard capable of resulting in personal injury/illness requiring brief absence from work. Medical attention required. But ... Again, defining by exclusion, i.e. it simply isn't obviously 'High' or 'Low'.  
**High (3)** Hazard capable of resulting in death, severe injury or illness. Major consequential loss potential to the individual and organisation.

**GENERAL**

**HAZARDS ARE NUMEROUS AND CAN BE EVERYWHERE THE KEY IS TO REMEMBER YOUR TRAINING. TAKE NOTE DURING SITE INDUCTIONS BE EVER VIGILANT AND WATCHFUL, DON'T TAKE CHANCES, IF YOU ARE NOT SURE ASK. REPORT ALL NEAR MISSES. NEXT TIME IT COULD BE AN ACCIDENT.**

