



WET & DROP

*Demolition manual for wet & drop of roof sheeting at
Tollcross, Edinburgh on behalf of Forth Demolition Ltd.*

PERSES



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WET & DROP

CONTENTS

Document history.....	3
Document history and issue control chart	3
Information	4
Scope of Works Check List.....	5
Task Manual Hold Points	5
Segregation Prior to Works.....	5
Services.....	5
Site Welfare.....	5
Site security	6
Soft Strip	6
Known Asbestos	6
Demolition.....	6
Finishes and Additional Notes.....	6
Client specific procedure	6
Introduction	7
Project Description.....	7
Methodology selection.....	7
Historic information	7
Worksafe Statement	7
Scope of Works	7
Overview Photographs	8
Plant and equipment	10
Methodology: General.....	11
Site establishment.....	11
Site boundary	11
Banksmen/sentries.....	12
Delivery of plant and equipment	12
Unidentified Hazardous Material	12
Atmospheric sampling and personal monitoring.....	13

Ground vibration	13
Staff identification	13
General Compliance for Non-Notifiable asbestos Removals	13
Methodology: Machine demolition works	14
Methodology: Wet and drop	15
Safe removal of slabs and foundations.....	16
Methodology: Crushing.....	17
Site Crushing General	17
Crushing Operations	17
Stockpiling Materials.....	19
Site finishes	20
General.....	20
Task method – Loading of waste and scrap materials.....	20
Task method - loading vehicles.....	21
Libraries	22
Risk assessment Library	22
C.o.S.H.H assessment Library.....	22
Personal Protective Equipment.....	23
Legislation and standards.....	24
Legislation	24
Regulations.....	24
British Standards	24
National Federation of Demolition Contractors Guidance.....	24
Institution of Civil Engineers Guidance	25
Asbestos:.....	25
Declaration.....	26
Contractor Completion Sign off Sheet.....	27
Appendix-A	28
Appendix-B	30
Appendix-C	32
Appendix-D.....	33
Appendix-E	34
Appendix-F.....	35

WET & DROP

Document history

Document history and issue control chart

ISSUE, STATUS AND DATE	COMMENT:	PRODUCED BY:	SENT TO:	DATE:
DRAFT -1 24.08.2018	Initial draft This document provides an initial draft method statement for the demolition works at Tollcross, Edinburgh. This is for Forth Demolition Ltd only, for consultation purposes.	Mr Stephen McCann Mr Mateusz Szablan	Mr Sean McCann Mr Stephen G.D. McCann	24.08.2018
DRAFT -2 25.08.2018	Second draft This document provides a second draft method statement which includes the changes requested by Mr Sean McCann. This is for Forth Demolition Ltd only, for consultation purposes.	Mr Stephen McCann Mr Mateusz Szablan	Mr Sean McCann Mr Stephen G.D. McCann	25.08.2018
ISSUE-1 27.0.2018	Issued method statement This document provides a complete and issued method statement for the demolition works at Tollcross, Edinburgh. This is for general issue and adoption on site.	Mr Stephen McCann Mr Mateusz Szablan	Mr Sean McCann Mr Stephen G.D. McCann	27.08.2018

Information

PROJECT INFORMATION			
PROJECT:	West Tollcross - Modern Flat in Central Edinburgh, EH3 9QN		
CLIENT:	Teague Construction	CONTACT:	
CONTRACT MANGER:	Sean McCann	PHONE:	
SITE SUPERVISOR:	Charles Thomline	PHONE:	
QUANTITY SURVEYOR:	Phil Lowe	PHONE:	
HSQE MANAGER:		PHONE:	
FIRST AID:	Dale Suttie, Tomasz Łuba		
DRAWING REFERENCE:			
REPORT REFERENCE:			

DOCUMENT INFORMATION			
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SIGNATURE:		DATE:	
SAFETY COMPLIANCE:	Sean McCann	POSITION:	Contracts Manager
SIGNATURE:		DATE:	
DISCLAIMER:	<p>This risk assessed method statement has been produced by PERSES Limited as part of Forth Demolition Ltd. safe systems of work and is prepared in accordance with the requirements of section 5.2.3 of British Standard 6187 Code of practice for full and partial demolition, and Control Asbestos Regulations 2012 and is intended to be used as a guide for the safe execution of these works.</p> <p>Please be advised that as a competent and professional company PERSES Ltd hold documental license under the Management Regulations 1999 on the supply of site specific, hazard elimination risk assessments and method statements et cetera.</p>		

Scope of Works Check List

Task Manual Hold Points

Forth Demolition site supervisor/manager will ensure that all hold points are signed off prior to the works progressing beyond the pre-set point.

Forth Demolition Site Manager's Signature..... Date

Segregation Prior to Works

Forth Demolition Ltd is responsible for ensuring the work area is suitably segregated. Heras type fencing will be used to create a secure working area where no suitable fencing exists. The fencing shall be braced or supported where necessary against unauthorised access and the effects of adverse weather conditions. Warning signs will be displayed in pertinent positions leading up to the site and around the boundary of the site.

Forth Demolition Site Manager's Signature..... Date

Services

The Client is responsible for the disconnection, termination, diversion and protection of services on site and will arrange and request service disconnection and diversions through the statutory service providers.

- ✓ Mains/site surface water drains running under the building.
- ✓ The drains at site boundary will be protected and plugged for later re-use.
- ✓ Identify locations of all known services underground and protect throughout the works.

Prior to works commencing the Client must issue the Demolition Site Supervisor a service disconnection certificate stating the disconnection/cut off points of each service that fed the site and/or tag any live services pertinent to our work's, so they are clearly identifiable as live. All information received will be passed to site operatives during site inductions and safety briefings.

The client is also responsible for the provision of a 3" stand pipe type water point or other suitable supply for the connection of dust suppression equipment to be used during the demolition works.

Client's Site Manager's Signature Date

Site Welfare

Client: The Client is responsible for the provision of suitable welfare facilities for the duration of the works in line CDM-2015 schedule 2. This responsibility has been adopted by the Principal Contractor.

Forth Demolition Ltd: Will organise ensure the welfare facilities are on site and will play an active role in maintaining the cleanliness of the site welfare.

Reference to be made to site plan.

Forth Demolition Site Manager's Signature Date

Site security

The Client is responsible for the overall security of site during out of work hours.

Forth Demolition Ltd will ensure the demolition site boundary is secured at all times and that all plant is isolated and locked off during out of work hours.

All non CCDO trained staff are to be escorted at all times within the demolition exclusion zone.

Soft Strip

Forth Demolition Ltd will use hand tools to remove all fixtures and fittings from within the structure, all wastes will be removed for recycling or off-site disposal.

Forth Demolition Site Manager's Signature..... Date

Known Asbestos

- ✓ Licensed: No licensed asbestos products present as per R&D Survey.
- ✓ Non-Licensed: Covered within this plan of works

Forth Demolition Site Manager's Signature..... Date

Demolition

- ✓ Demolition: Removal of steel shed down to the floor slab.
- ✓ Asbestos: Removal of asbestos sheets.
- ✓ Arising's: Remove the arising off site for recycling.
- ✓ Floor slabs: Remove to a maximum of 150mm.
- ✓ Foundations: Remove up to 2m below ground level.

Forth Demolition Site Manager's Signature..... Date

Finishes and Additional Notes

- ✓ Floor slab Cleaned and left in place.
- ✓ Fencing: Removal of Heras fencing.
- ✓ Ground: Grade to adjacent ground levels and leave free of large boulders and debris.

Forth Demolition Site Manager's Signature..... Date

Client specific procedure

- ✓ All Hard Hats require chin straps.
- ✓ Bungee's to be attached to all excavator keys.
- ✓ Machines not to be left running without operator in cab.

Introduction

Project Description

This project involves the safe removal of all internal fixtures and fittings, the removal of Asbestos Containing Materials and the safe demolition of the structure via wet and drop technique using engineered preparation to control the designed drop of the canopy being wire rope pulled by a demolition rig from a safe working distance. The structure is 25-metres long and 10-metres wide and approx. 2-storeys high at the tallest point. The building is constructed of brick dado walls with steel frame, metal trusses, roof clad with asbestos cement corrugated sheets.

Methodology selection

The method of work has been selected in compliance with Regulation-7 of the Control of Asbestos Regulations 2012 and clause 17.8 of BS 6187.

“Regulation-7(3) In cases of final demolition or major refurbishment of premises, the plan of work must, so far as is reasonably practicable, specify that asbestos must be removed before any other major works begin, unless removal would cause a greater risk to employees than if the asbestos had been left in place.”

This is in line with Clause-14.1 of BS6187:2011 Whenever practically possible, a remote mechanical process should be used to minimise the risk to workforce. Further, this method when executed as per the document complies with Regulation-11 Prevention or Reduction of Exposure to Asbestos NFDC Guidance DRG 103 Guidance for work with non-licensed asbestos containing materials and HSG-189-2 working with Asbestos Cement, which has been withdrawn but is still used as reference. A further assessment regarding CAR-12 Regulation-11 ‘Prevention or reduction of exposure to asbestos’ has been carried out for all employees on Site, and any persons who may be affected by the works. This plan of works has been devised based on the findings.

Historic information

The expected asbestos fibre concentration established from similar or identical works previously carried out by this company is:

- 0.002f/ml – recorded at West Bowling Green Street, Edinburgh on 09/06/2013, by Mr Charlie Thomlin
- 0.001f/ml – recorded at Fox Street, Edinburgh on 20/10/2013, by Mr Gary Walton

Worksafe Statement



No employee or anyone working on behalf of Forth Demolition Ltd is expected to carry out any task where the risk to themselves or any other person is considered to be unacceptable.

Under our Work safe, or Refusal to Work Policy, each member of staff has the absolute right to refuse to carry out work if they feel it is not safe to do so.

Refusal to work on the grounds of Health and Safety is free from any disciplinary action and will not affect in any way, your future prospects within the company. All refusals to work will be responded to positively & promptly and the employee raising the Worksafe procedure will be informed of decisions throughout the process. All managers and staff are also encouraged to report any unsafe acts or conditions, which they have witnessed.

Scope of Works

Location:	West Tollcross, Edinburgh, EH3 9QN.
No. of operatives involved:	8
Start Date:	18 th of May, 2014
Duration:	8 Weeks.
Projected man hours:	2560, 320 Person days, 40 Working days.
CDM Notifiable?	Yes – F10 Put in place.
Site working hours will be, unless otherwise stated:	Monday to Friday - 08 ⁰⁰ h-17 ⁰⁰ Saturday – 08 ⁰⁰ h-12 ⁰⁰ h No Sunday work will be permitted.

Overview Photographs



Overview photograph



Overview photograph








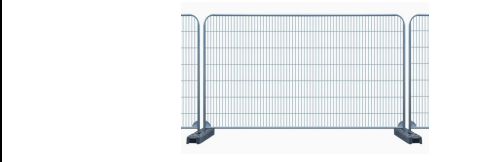


Overview photograph



Overview photograph

Plant and equipment

Plant and Equipment to be used	Pictorial representation
<p>Hitachi ZX140W-6 (Or equivalent) 70dB (A) weighted output inside the cab 100dB (A) weighted output outside the cab</p> <p>See Spec Sheet in Appendix-A</p>	
<p>Genie GS 2646 (Or equivalent) 70dB (A) weighted output inside the cab 100dB (A) weighted output outside the cab</p> <p>See Spec Sheet in Appendix-B</p>	
<p>Powerscreen XR400</p> <p>See Spec Sheet in Appendix-C</p>	
<p>Wire Rope/Chain (Suitable for the height of the structure as per the safe working space design in appendix D)</p>	
<p>Burning Gear: Oxygen: Single compressed gas bottle Propane: 50kg LPG bottle As per the MSDS 95dB (A) weighted output (dependent on pressures and settings)</p>	
<p>Temporary access equipment: Aluminium scaffold (PASMA) tower:</p>	
<p>Hand tools: Sledge Hammer, Roughneck wrecking bar</p>	
<p>Heras style panel fencing:</p>	

Methodology: General

Site establishment

- All site operatives will hold the relevant and valid CCDO/CPCS card and attend a site-specific induction before commencing works.
- Part of this induction process will be to ensure that the operatives are aware of the risks associated with their tasks, works on or near adjacent structures, location of basements, safe working specs and exclusion zones.
- Operatives to be briefed on operations to be undertaken, ensuring relevant paperwork is signed off prior to commencement, this includes marking out the cut diagram.
- All operatives to be trained on relevant tasks and to be aware of the potential hazards and site conditions in connection with the operations they are carrying out.
- Welfare facilities will be established in mobile self-contained units and will be serviced by temporary water and electrical supply.
- The site office and welfare facilities will be located in close proximity to the site entrance, where practicable, so that site traffic and personnel can be controlled more efficiently.
- The access route from the site entrance will be clearly defined with signs and arrows.
- Segregated pedestrian routes from the welfare area to work areas will be clearly defined with pedestrian barrier.
- All demolition operators to attend a daily co-ordination meeting to confirm the planned activities and any special circumstances that the demolition team need to be aware of.

HOLD POINT		
Confirmation that all items of welfare are in place and the site is fully secure using the site demarcation.		
SITE SUPERVISOR/MANAGER	SIGNATURE	DATE

SAFETY HOLD POINT		
Confirmation that all services are disconnected as far as possible and written certification is received.		
SITE SUPERVISOR/MANAGER	SIGNATURE	DATE

Site boundary

- Forth Demolition Ltd will erect Heras fencing where necessary to demarcate the demolition exclusion zones around the site.
- Forth Demolition Ltd will have a shipment of Heras style fencing system delivered to site on a flatbed lorry.
- The vehicle will be escorted in to the site under the control of the sentry/banksman to the designated off load point.
- The straps will be removed from the load and the sides of the load bed retracted.
- Operatives will then in pairs lift and remove the panels individually and stack them neatly in a pile directly parallel to the vehicle until complete.
- Operatives will now lift and remove the 15kg feet individually from the load bed and once again stack them in a neat pile parallel to the vehicle until complete.
- The sacks containing the fencing clips will also be removed at this point and the vehicle secured and escorted back out of site.
- Operatives will now lay the feet approximately 2.5m apart on the designated fencing line.
- A secondary pair of operatives will then lift panels individually and place them into the respective slots within the feet ensuring both legs are secured prior to placing the next panel.
- This process will be repeated until all panels are placed accordingly.
- Fence triangles will be secured at every fifth panel for extra rigidity where required.

- The operatives will now use an adjustable wrench to place and secure all the clips ensuring each leg/section break is double clipped top and bottom.
- Site safety warning signs will then be attached the fencing at prominent positions stating demolition works in progress, drop zone, PPE requirements etc.
- Access to and from the site will be from Lochrin Place as per the site plan.
- Entry gates to site will be kept closed and locked whenever possible to prevent unauthorised access entry during the working day. The site supervisor will attach contact details to the site gate for entry purposes, and signs will be erected along the fence line warning of the nature of the works to be undertaken.
- The site will be left secure at the end of each working day and no structure will be left in an unsafe condition.
- The site boundary may require extending during the rope pulling procedure to create a controlled safe working zone during the procedure as per clause 17.3.2 of BS 6187.

SAFETY HOLD POINT		
Confirmation that all segregation works are completed.		
SITE SUPERVISOR/MANAGER	SIGNATURE	DATE

Banksmen/sentries

- A Banksman wearing green high visibility clothing will be posted at the site entrance to protect pedestrians or warn approaching traffic whilst marshalling wagons or delivery vehicles on and off site.
- Site and road conditions will be continually monitored by the site supervisor and any roadways will be regularly swept during the course of the working day to maintain cleanliness and to minimise any mess left by vehicles leaving site.
- All deliveries to and from site, in particular H.G.V's, will be carefully controlled to minimise disruption to the local environment.

SAFETY HOLD POINT		
Confirmation that a sentry/banksman will be available for vehicles accessing and egressing the site.		
All vehicles will be required to turn their headlights on while on site to engage the reflective nature of the high visibility vests.		
SITE SUPERVISOR/MANAGER	SIGNATURE	DATE

Delivery of plant and equipment

- Delivery of plant, equipment and waste containers to site.
- All plant and equipment to be delivered to site will be notified in advance and must take note of any delivery restrictions.
- All drivers will contact the site supervisor using a hands-free phone prior to arriving on site to allow a banksman to be made available for his arrival.
- The banksman will direct the driver to the relevant unloading point on site.
- The vehicle will be under the control of the banksman at all times whilst on site.
- All plant will remain secured on the vehicle until it arrives at its designated unloading point.
- Once the vehicle has arrived at the unloading point the equipment will be unchained and the item of plant/equipment unloaded by a certified, trained and competent operator.

Unidentified Hazardous Material

- Confirmation that asbestos materials have been marked up fully using the traffic light system and all persons working on site are fully aware of the locations of the ACMs and are correctly inducted.

- During the demolition of buildings, extra vigilance will be maintained to identify if any further hazardous materials are present.
- Any chemical storage containers or gas cylinders discovered will be investigated for hazardous content and disposed of accordingly (how and by whom will be depend on the content).
- Any fluorescent tubes found cannot be disposed of with normal waste. These will be collected and inserted into suitable containers for disposal. Fridges, televisions etc. will disposed of in-line with current WEEE regulations.

Atmospheric sampling and personal monitoring

- A UKAS accredited chemist will conduct periodic personal monitoring and background sampling.
- On completion of the works a monitoring result certificate will be issued to the client.
- The analyst will be contracted by the client unless otherwise stated.

Ground vibration

- Due to the distance from the neighbouring structures and the weight of the Plan Area no vibration monitoring no control measures will be required.

Staff identification

- Staff roles will be identified on site as per the Build UK Standard (found in appendix-E) with Banksman/Sentries wearing white hats and Green high-vis vests

General Compliance for Non-Notifiable asbestos Removals

- Prior to wet and drop the structure will have engineered preparation carried out as per the sequence detailed in the attached cut sequence design.
- No deviation will be permitted without prior approval by the site supervisor/manager.
- Under the Control of Asbestos Regulations 2012 some of the non-licensed asbestos removal works involved are notifiable to HSE and shall be done so by the demolition contractor using the HSE form ASBNNLW1.
- The Refurbishment and Demolition Asbestos survey shall be used to locate each of the items identified on Site.
- PP3 Half masks to be used by operatives who have had appropriate face fit test as well as disposable coverall suits with elasticised cuffs and ankles. (White type 5 category 3)
- All operatives to have training in asbestos removal Notifiable Non-Licensed Removal to a UKATA/NDTG standard.
- Accessing the decontamination area; Operatives will enter the respirator zone and fit mask and carry out face check.
- Operatives will then access the secondary decontamination section wearing wellington boots and apply white asbestos overalls, either from previous shift or by new set.
- Operatives can then enter the working area.
- Upon leaving the work area; all operatives shall go to the designated decontamination area, wash their Wellington boots using bucket of water and damp cloth or sponge provided, remove and hang-up their overalls in the decontamination area [or dispose of same in red asbestos waste bags if at the end of the working shift, a separate area is required for the cleaning and storage of half masks prior to leaving the decontamination area. A packet of wet wipes or similar type shall be used to clean the mask whilst still fitted on their face and only then shall the mask be removed, cleaned thoroughly and stored in the decontamination area. The storage of the mask is down to the discretion of the operative. i.e. within container or bag.
- Upon removal of asbestos containing materials, waste will be packed in UN approved packaging with a CDG hazard sign and asbestos code information visible. Materials to be double wrapped and labelled asbestos waste. Standard practice is to use a red inner bag with asbestos warnings, and a clear outer bag with the CDG sign.
- Due to this possibility Forth Demolition operatives and management have all attended Asbestos Training courses and are extremely vigilant in their approach to these situations. If during soft strip or demolition further asbestos containing materials are found the site supervisor will be notified at once and the area will be sealed off and all works in the immediate area will cease pending confirmation of the presence of ACMs.

ENVIRONMENTAL HOLD POINT		
Confirmation that suitable and sufficient dust suppression is in place and the drains are blocked off.		
SITE SUPERVISOR/MANAGER	SIGNATURE	DATE

- Clearly cordon off the work, erect warning signs and prevent un-authorised access to the demarcated work area and form an RPE/PPE exclusion zone to the works and post Asbestos Removal warning signs.
- Working Exclusion Zones for non-notifiable asbestos removal separated from other site operations by pedestrian type barriers and warning notices.

SAFETY HOLD POINT		
Confirmation that an adequate exclusion zone is in place with signage identifying asbestos works.		
SITE SUPERVISOR/MANAGER	SIGNATURE	DATE

SAFETY HOLD POINT		
Confirmation that the operatives involved in the task have read, understood and signed the Method Statement and Risk Assessment prior to work commencing.		
SITE SUPERVISOR/MANAGER	SIGNATURE	DATE

SAFETY HOLD POINT		
Confirmation that the adequate exclusion zone has been set up as specified in clause 13 of BS 6187: 2011 Code of practice for full and partial demolition works and DRG 110 - NFDC guidance note for exclusion zone with perimeter monitoring installed. (Design in Appendix-D)		
SITE SUPERVISOR/MANAGER	SIGNATURE	DATE

- Bring to site & position an open top skip & line with 1000G polythene sheeting. Prepare hand-held mist sprayer & polythene roll for lining skip box.
- Mist spraying with water and surfactant will be carried out during removal keeping sheets damp to keep the fibre release to as close to the control limit of 0.1f/cm3 as possible.
- Operatives will remove street clothing, put on disposable coveralls, Sundstrom SR100 half face mask with FFP3 filter fully face fitted while undertaking the physical works.

Methodology: Machine demolition works

- All the operatives involved with any working with plant tasks will read and sign a job specific risk assessment for this task prior to the work commencing. The risk assessment will be filled out on site by the supervisor immediately prior to the task.
- All operatives at a safe distance working as sentries, fully trained and certified, will be positioned around the excavator's working zone to stop any accidental intrusion into the working zone. B will use hand held radios to keep in contact with excavator operator during demolition sequence.
- No additional permits, closures or safety measures are required when carrying out works as the structures are at a safe distance.
- The demolition rig using a selector grab attachment will push the walls of the structure.
- Operatives operating the scissor lift will be fully IPAF qualified to the correct standard.
- The operatives, working from a scissor lift will first attach the chains/ropes to the identified connection point prior the legs being prepered.

Asbestos Cement Sheeting weight approximately: 75kg/m²; 30kg/m² for double skinned.
 Approximate area of the sheets: 25m x 10m = 250m²
 x2 = 500m²

x30 = 15,000kg

Steel weight approximately: 7.930kg/m²

Approximately shed weight: 60,000 kg

Total pulling weight: 75,000 kg

SAFETY HOLD POINT		
Confirmation that a briefing on the cut sequence cuts marked by burners and supervisor (as per the design in Appendix-F) has been carried out as well confirmation that chains for pulling plus spare will be installed and checked by Burners/Supervisor before any cuts are made.		
SITE SUPERVISOR/MANAGER	SIGNATURE	DATE

Methodology: Wet and drop

SAFETY HOLD POINT		
Confirmation that P.P.E and R.P.E is in place.		
Confirmation that the operative undertaking asbestos works are clean shaven.		
SITE SUPERVISOR/MANAGER	SIGNATURE	DATE

- Operatives removing the asbestos product that are not in a secure machine mounted cabin must wear the appropriate supplied PPE at all times. This includes but is not limited to approved breathing apparatus (EN 149:2001 P3v disposable or 3M 6000 series half mask respirator with 6000 series filter) and disposable suits (category 3 type 5 and 6). Operatives will change the disposable overalls and mask as required. Break/ lunch and end of shift. All disposable equipment will be placed inside approved asbestos marked bags.
- Operatives involved in asbestos removal works shall be competent in the field, having both category B – non-licensed asbestos removal training and experience.
- As per CAR 2012, where required personal air test monitoring will be carried out to assess the personal risk to the operatives and to confirm the exposure levels are within the safe working limit. Previous monitoring history will suffice where appropriate. Operatives involved in the asbestos removal works will have access to hot running water at all times.
- Any operatives involved with any asbestos related works will read and sign the task specific hazards elimination risk assessments prior to any work starting.
- Operatives will sweep the floor area of the structure clean ahead of the asbestos removals.
- The operatives will soak the floor area with fine mist spray to suppress any dust and fibre release and seal the working area preventing any access then begin soaking the roofing sheets.
- The supervisor and rig operator will check the structure to ensure it is clean and ready to fell.
- Sentries will be stationed around the buffer zone to ensure the exclusion zone remains secure.
- Burners will complete any final disconnections/cutting if required to ready the structure for felling.
- The demolition rig will pull the structure over landing it into the designed drop zone.
- The rig will break the roofing sheets into the footprint of the structure continuing until the roof has been cleared of asbestos sheets. The broken sheets will be cleared into the asbestos containers for off-site disposal.

- Supervisor will carry out visual inspection of the area on completion to ensure all materials are removed and the area is clean.
- All asbestos cement material and used disposable PPE will be deposited inside an appropriate lockable asbestos container for site disposal. All duty of care, SEPA paperwork and tip notification adhered. These skips will be changed as required.
- As the roof section is brought to ground level, the asbestos cement sheets will break onto the slab which will be continually dampened by a fire mist water spray. On completion, operatives will wash down equipment used, with any materials found, to be placed into skips. Demolition rig will break out the sheeting, exposing the steel frame.
- Operatives are not permitted into the roofing frame as the condition of the steel frame is unknown and there is an increased risk of the steel springing in an unpredictable way.
- Demolition rig will cut the steel frame, placing the sections to the side, operatives will ensure all arms are removed from the frame. The demolition rig will then place sections into a roll on/roll off (RORO) box for off-site recycling.
- Once the sheeting is freed from the frame and the frame is cleared, the operatives will bag the broken sections of sheet and ensure the floor slab is clear prior to works advancing.

SAFETY HOLD POINT		
Confirmation that the asbestos has been removed and is signed off as completed and the area ready for reoccupation prior to works advancing.		
SITE SUPERVISOR/MANAGER	SIGNATURE	DATE

Safe 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 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.
- 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 recorded within the site files.
- 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.
- crushing procedures will be carried out upon completion of the demolition works.

Methodology: Crushing

Site Crushing General

- All materials set aside for crushing must comply with the aggregate WRAP protocol.
- Materials must be inspected pre- and post-process twice daily and documented on the relevant WRAP check sheet.

ENVIRONMENTAL HOLD POINT		
Confirmation that suitable and sufficient dust suppression is in place. This will typically be in the form of water spray from a 1" or 3" hose / Dust Boss		
SITE SUPERVISOR/MANAGER	SIGNATURE	DATE

- 360° demolition rig with bucket attachment will start from one end of the building stockpile working backwards. Sorting through the stockpile, oversized / munching arising's will be stockpiled for further processing. Small loose arising's will be stockpiled in front of stockpile. The stockpile is to be worked back in layers / bays at a time with the excavator working in front of tracks and not over the side. Small loose arising must be suitable size to go through the crusher.
- To minimise the dust during this phase of the works, water suppression will be used to control the dust. This will be typically done setting a 3" hose up in front of the working face and dampening down. Where practically possible, a small hose with fine mist is to be left to dampen the stockpile down over night.
- Oversized materials will be further processed during the munching phase. Materials are pulverised by jaws fitted to the 360° demolition rig. This phase of the works is to break the concrete down to manageable sizes whilst removing the reinforced steel / rebar. The working area is to be kept damp with the use of fine mist from a water hose.

Crushing Operations

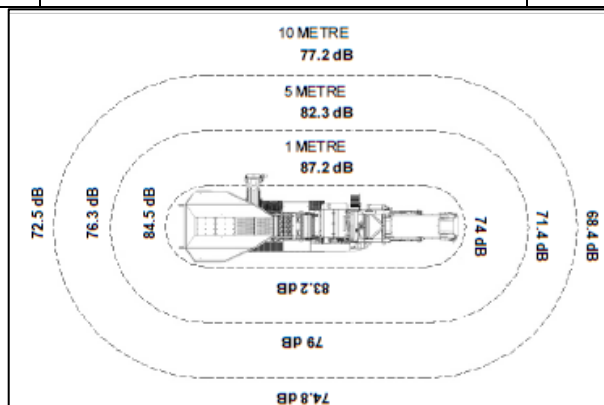
HOLD POINT		
Confirmation by the site supervisor/manager that the crushing plant is located in a suitable location to allow for vehicle movement.		
SITE SUPERVISOR/MANAGER	SIGNATURE	DATE

ENVIRONMENTAL HOLD POINT		
Samples will be taken of the crush off the belt every 7 days. The samples will be tested to ensure they comply with the relevant quality protocols.		
SITE SUPERVISOR/MANAGER	SIGNATURE	DATE

- Operatives will stand at a safe distance from the crushing operations.
- Operatives will only access the machine on the maintenance platform when the machine has been isolated and check for blockages.
- All operations will cease when checking is in process.
- Radio communication, visual communication, or air horns will be used to advise the machine operator to stop operations.
- Emissions and dust will be monitored a minimum of three times daily and recorded in the site diary.
- Samples will be taken of the crush off the belt every seven-days. The samples will be tested to ensure they comply with the relevant quality protocols.
- If the crusher has a blockage of any description, the machine will be isolated and a permit to work issued.

HOLD POINT		
Confirmation that the client or others within close proximity have been made aware of the working start times and proposed duration, so where required the nearby live areas can be notified so that proactive measures and a sympathetic programme can be implemented.		
SITE SUPERVISOR/MANAGER	SIGNATURE	DATE

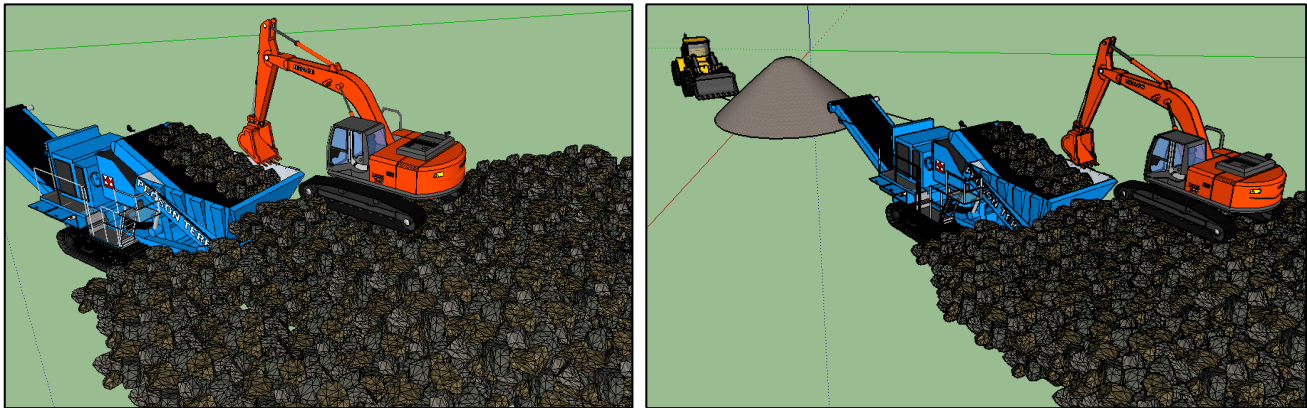
SAFETY HOLD POINT		
Hearing protection will be required whilst working in close proximity to the crusher.		
Please refer to drawing below for typical decibel levels.		
SITE SUPERVISOR/MANAGER	SIGNATURE	DATE



SAFETY HOLD POINT		
Operatives will stand at a safe distance from the crushing operations. Operatives will only access the machine on the maintenance platform when the machine has been isolated and check for blockages. All operations will cease when checking is in process. Safe access must be maintained to the crusher and excavator for the operators at all times.		
SITE MANAGER	SIGNATURE	DATE
CRUSHER OPERATOR	SIGNATURE	DATE

- A level platform will be made at ground level in front of the stockpile. A bucket width trench will be dug in the middle of the pad (approx. 750mm depth); this will be to catch the fines off the belt. Once the crusher unit has been assembled, it will be tracked onto the platform with tracks straddling the trench. A drop zone will be set up to the side of the stockpile for oversize materials / metal that cannot be processed through the crusher and will need further processing by suitable other 360° demolition rig.
- On delivery of the mobile crushing plant it will be set-up ready for work according to manufacturer guidance.
 - ◆ Full discharge conveyor will be hydraulically lowered to correct working angle.
 - ◆ Magnetic belt inspected to ensure no damage during transit.
 - ◆ All machine guards fitted and secured.
 - ◆ All access ladders secured and fitted.
 - ◆ The machine will then be tracked onto the constructed pad. Machine will be checked for even levels by use of

- spirit level to ensure minimum vibration and stability.
- ◆ Crusher engine will be started.
- ◆ Clutch will be engaged to enable the drive belts and jaws to function.
- ◆ Stop / Start switches will be checked to ensure correct operation.
- ◆ 1" water hose to be connected to incoming joint. Ensure that all nozzles / jets are clear of debris to ensure effective dust suppression during the crusher
- After completion of step-up, work will commence as follows.
- The 360° demolition rig with bucket will place itself behind the loading hopper of the crusher at a level that ensures the driver/operator has full uninterrupted view of the crushing plant.



- He will then excavate into the stockpiles, filling the excavator bucket with demolition arising's and deposit as required (slowly) into the feed hopper ensuring even distribution on the feeder tray while at the same time checking for oversized pieces.
- All crushed arising's are then moved from the discharge conveyor; this will usually be carried out by a pneumatic tyre loading shovel. The crushed arising's are then transported to the agreed stockpile location. The material will then either be loaded out into waiting lorries for removal off site or will be used as part of the Berm Works on site.
- Scrap metal from the magnet belt will be cleared on a regular basis and loading into a suitable recycling skip.
- The crusher unit will be moved around site as the works progress depending on the location of the stockpiles to be processed.
- On completion of the works the mobile crushing plant will be dismantled and removed from site.

Stockpiling Materials

- The supervisor will ensure that an exclusion zone is established as per BS: 6187 and National Federation of Demolition Contractors (NFDC) guidance note DRG 110: 2014 to maintain safe working zone around the 360° demolition rig during all works. A trained banksman may be utilised to maintain the said exclusion zone.
- The 360° demolition rig using the riddle bucket will lift the material from the existing stockpile agitating the material through the grill dropping the soils into a new processed pile.
- The 360° demolition rig will create a pile for the reclaimed scrap ahead of removal off site to a registered metal recycler.
- The 360° demolition rig will continue with this method until the existing pile is fully processed and all materials are satisfactorily separated.
- Any other wastes taken off site will be subject to Duty of Care i.e. Waste Transfer Note, detailing description, producer and carrier of waste, will be kept on site and available for inspection.
- Following the completion of the segregation the 360° demolition rig will stockpiling the remaining material leaving the site level ensuring all voids are backfilled.
- Soil stockpiles heights will not exceed 3m in height and will be formed in a uniform shape with a flat top surface. Side slopes will not exceed the angle of repose (as per the guidance in table-1 and figure-1 below) which will have been compacted down by tracking by the 360° demolition rig.



(Figure 1)

Material	Angle of repose
Very wet clay	15°
Wet clay	18°
Wet sand	25°
Sandy gravel	26° – 27°
Dry earth/dry clay	30°
Damp sand	33° – 34°
Dry sand	35° – 36°
Shingle	40°
Well drained clay/moist earth	45°
Clean gravel in natural deposit	50°

(Table 1)



Site finishes

General

- The clearing of the site for demobilisation of demolition plant and machinery to leave a safe working area to commence asbestos removals.
- The site supervisor will inspect the site for cleanliness and ensure no leading edge or trip hazards have been made by the demolition process.
- All waste/debris and plant will be removed from site and the site will be left in a clean and tidy state for redevelopment by the client.

Task method – Loading of waste and scrap materials

- During the demolition of the structure, all waste materials will be segregated into the correct locations.
- All materials will be loading into skips and sent directly to a registered waste recycle facility.
- On arrival of transport vehicles, the site manager will brief the driver on the various activities which are currently ongoing onsite.
- The vehicle will be directed into position by the banksman using hand signals.
- Once in position, the driver will ensure the vehicle safely secured and vehicles braking system has been locked.
- The driver will place the roll on/off skip in the specified location ready for loading.
- The excavator equip with selector grab attachment will track into position under the direction of the banksman.
- Once into position, the excavator will grab a large quantity of the waste materials, lift from the pile and gently shake the materials.
- This will ensure any loose materials will drop free before loading of the skip commences.
- Once all loose materials have fallen free, the excavator will lift the boom, grab above the height of the skip.
- Once above the excavator will slew above the skip and commence the loading.

- Once the excavator has slewed into the correct position the grab will be carefully lowered into the skip.
- The excavator will then release the grab allowing the materials to position on the base of the skip.
- The excavator will then lift the boom, grab to above the height of the skip and slew clear ready for the next grab of materials.
- This procedure will be carried out throughout the loading of the entire skip or skips.
- No materials to be left protruding above the height of the skip upon completion of loading.
- Before the vehicle leaves site, the driver will ensure the load has been checked before removing the skip from site.
- Skips will only be checked by accessing the skip via the permanently fixed ladder on the skip, at no point will the driver climb onto the skip.
- If any materials require adjustment, this will be done using the excavator and at no point shall operatives climb or access the skips.
- Prior to leaving site a collection note will be issued from the driver, and the site manager
- will sign to say the skip has been collected from site.
- A record of this collection note will be retained and kept within the site file for record purposes.
- The banksman will direct the vehicle from the site and safely onsite the main highway.

Task method - loading vehicles

- Sentries will be in attendance during vehicle manoeuvres for access/egress.
- The demolition rig will load the arising waste into awaiting vehicles using the bucket.
- Vehicles will leave site and continue down 1-way road as per the traffic management plan to their destination.
- Any wastes taken off site will be subject to Duty of Care i.e. Waste Transfer Note, detailing description, producer and carrier of waste, will be kept on site and available for inspection.
- Following the completion of the segregation the 360° demolition rig will ensure all voids are backfilled leaving the site level.
- Soil stockpiles heights will not exceed 3m in height and will be formed in a uniform shape with a flat top surface. Side slopes will not exceed the angle of repose (as per the guidance in table-1 and figure-1 below) which will have been compacted down by tracking by the 360° demolition rig.

Libraries

Risk assessment Library

- In accordance with the Management of Health and Safety at Work Regulations 1999, made under the Health and Safety at Work Act 1974 all work practices to be encountered during the contract will be assessed and a Risk Assessments based on the findings produced for activities not eliminated by the method of works chosen as defined in the Method Statement.
- A library of Risk Assessments relative to the contract will be attached in conjunction with the specific sections of the Method Statement.
- The Risk Assessments will be updated throughout the contract should conditions change and/or new methods preferred.
- Additional risks may arise during the demolition works which will be assessed and included on the risk assessment.
- **A risk assessment is only as good as those putting the controls into place.**
- **If in doubt stop work immediately and report any issues to the supervisor/manager.**











Name		Name		Name		Name	
Working at Height	✓	Manual Handling		Work Near Plant	✓	Use of Scaffold Towers	
Working Near Water		Crushing and Screening		Hot Works	✓	Interface with the Public	
Hand Demolition	✓	Fire	✓	First Aid	✓	Emergency Procedures	✓

C.o.S.H.H assessment Library

- In accordance with the CoSHH Regulations 2002, made under the Health and Safety at Work Act 1974, the health of persons exposed to substances hazardous to health in the workplace will be protected.
- A library of CoSHH assessments will be attached in conjunction with this method statement as indicated in the list below. The substances are those expected to be encountered during the course of the works but the list is not exhaustive.

Name		Name		Name		Name	
Ultra-Low Diesel	✓	Engine Oil	✓	Rockwool		Multi spray Adhesive	
Unleaded Petrol		Use of Cement		Universal Anti-Freeze	✓	Concrete Dust	
White Spirit		Detergent		Mastic Sealer		Line Marking Spray	
Bleach		Pine Disinfectant		Butane		Propane	✓
Plasterboard		Compressed Oxygen	✓	Hydraulic Oil	✓	Lubricating Oil	✓
Expanding foam		Grease Lubricant		Lithium Grease	✓	Adblue	
Hot Cut Coated Steel	✓	Smoke Fluid		Astrip Concentrate		Florescent Tubes	✓
PVA Sealant		X-Tex Remover		PX-Ornikill		Two-Stroke Oil	

Personal Protective Equipment

SYMBOL	TYPE	STANDARD	WHEN IT SHOULD BE WORN
	Hard hat	BS EN 397 BS EN 812	397: At all times while on site 812: Bump caps for vehicles drivers and fitters
	Safety footwear	BS EN 20345	At all times while on site
	Hi Vis clothing	BS EN 20471	Class-2 required at all times while on site. Class-3 will be required for working near or on a dual-carriageway with a speed of 50MPH or above, motorways, airports, and railways.
	Safety glasses	BS EN166 A BS EN166 B BS EN166 4	At all times while on site. Impact goggle to a category A standard will be required when using an abrasive wheel cutting saw. 166 4: For general protection from dust.
	Gloves	BS EN 420 BS EN 388 BS EN 407 BS EN 511	388: 2.1.2.1 For light duties handling materials 388: 3.3.3.3 For hand demolition works 388: 4.5.4.4 For puncture and cut protection 407 For thermal hazards such as hot works. 511 For cold weather conditions
	Ear defenders	EN 352	When working adjacent to abrasive wheels or breakers, or sources of significant noise output based on the task specific risk assessment
	Harness	BS EN 363	Fall arrest lanyard at all times when working at height Fall restraint during the hand works from the cherry picker.
	Overalls	EN 340 EN 381 EN ISO 11612	340: For general working 381: When working with chainsaws 11612: When carrying out hot works
	Half mask	EN 140 EN 143	FPP3 Filter when working with Cat-B asbestos
	Disposable mask	EN 149	FPP3 filter disposable mask for light duties.

Legislation and standards

All works will be carried out in full compliance, where reasonably practicable with the following articles:

Legislation

- ✓ The Health and Safety at Work Act 1974,
- ✓ The Road Traffic Acts, 1972 and 1974,
- ✓ The Control of Pollution Act, 1974,
- ✓ Environmental Protection Act 1990 (amended Scotland 2001).

Regulations

- ✓ The Health & Safety (First Aid) Regulations 1981,
- ✓ The Road Vehicles (Construction and Use) Regulations 1986,
- ✓ The Electricity at Work Regulations 1989,
- ✓ The Personal Protective Equipment Regulations 1992,
- ✓ Workplace Health & Safety Welfare Regulations 1992,
- ✓ The Manual Handling Operations Regulations 1992 (MHR) (As amended 2002),
- ✓ The Health & Safety (Consultation with Employees) Regulations 1996,
- ✓ The Safety Signs and Safety Signals Regulations 1996,
- ✓ Confined Space Regulations 1997,
- ✓ The Waste Management (Licensing) Regulations 1998,
- ✓ The Provision and Use of Work Equipment Regulations (PUWER) 1998,
- ✓ The Lifting Operations and Lifting Equipment Regulations (LOLER) 1998,
- ✓ The Management of Health and Safety at Work Regulations (MHSWR) 1999,
- ✓ The Control of Lead at Work Regulations 2002,
- ✓ The Special Waste Amendment (Scotland) Regulations 2004 (& Special Waste Regulations 1996),
- ✓ The Regulatory Reform (Fire Safety) Order 2005,
- ✓ The Control of Vibration at Work Regulations 2005,
- ✓ The Control of Noise at Work Regulation 2005,
- ✓ Working at Height Regulations 2005 (As amended 2007),
- ✓ Control of Substances Hazardous to Health (CoSHH) 2002 (As amended 2013),
- ✓ The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 1995 (As amended 2013),
- ✓ The Construction (Design and Management) Regulations (CDM) 2015.

British Standards

- ✓ BS 5228-1:2009+A1:2014 Code of practice for noise control on construction and open sites,
- ✓ BS 5228-2:2009+A1:2014 Code of practice for vibration control on construction and open sites,
- ✓ BS 5607:2017 Code of practice for safe use of explosives in the construction industry,
- ✓ BS 5975:2008+A1:2011 Code of practice for temporary works,
- ✓ BS 6187:2011 Code of practice for full and partial demolition.

National Federation of Demolition Contractors Guidance

- ✓ DRG 012 - NFDC guidance note for Construction (Design and Management) Regulations (CDM) 2015,
- ✓ DRG 100 - NFDC guidance note for safe use of mobile crushers in demolition,
- ✓ DRG 101 - NFDC guidance note for high reach demolition rig guidance notes,
- ✓ DRG 102 - NFDC guidance note for guidance for deconstruction of tower blocks,
- ✓ DRG 103 - NFDC guidance note for work with non-licensed asbestos containing materials,
- ✓ DRG 104 - NFDC guidance note for demolition attachments,
- ✓ DRG 105 - NFDC guidance note for temporary works overview,
- ✓ DRG 106 - NFDC guidance note for scaffolding for demolition and structural refurbishment,
- ✓ DRG 107 - NFDC guidance note for termination of services,
- ✓ DRG 108 - NFDC guidance note for waste and permitting,
- ✓ DRG 109 - NFDC guidance note for DRIDS,
- ✓ DRG 110 - NFDC guidance note for exclusion zones.

Institution of Civil Engineers Guidance

- ✓ The Institute of Civil Engineers Manual of Health and Safety in Construction 2010,
- ✓ The Institute of Civil Engineers Manual of Health and Safety in Construction 2015 (second edition),
- ✓ The Institute of Civil Engineers Temporary Works: Principles of Design and Construction.

Asbestos:

- ✓ The Control of Asbestos Regulations 2012,
- ✓ HSG 210 - Asbestos Essentials,
- ✓ HSG 247 - Asbestos the Licensed Contractors' Guide,
- ✓ HSG 227 - Managing Asbestos in Premises,
- ✓ HSG 53 - Respiratory Protective Equipment at Work,
- ✓ HSG 248 - Asbestos: The Analysts' Guide for Sampling,
- ✓ HSG 189/1 - Controlling Asbestos Stripping Works (Withdrawn but may be used as a reference),
- ✓ HSG 189/2 - Working with Asbestos Cement (Withdrawn but may be used as a reference.)

Declaration

[illegible]

Contractor Completion Sign off Sheet

Completion date:	
Client:	
Project:	

Please mark one of the following:

I AM HAPPY WITH THE COMPLETION OF THIS PROJECT.

or

I HAVE REVIEWED THE PROJECT AND WOULD TO MAKE THE FOLLOWING CHANGES.
--

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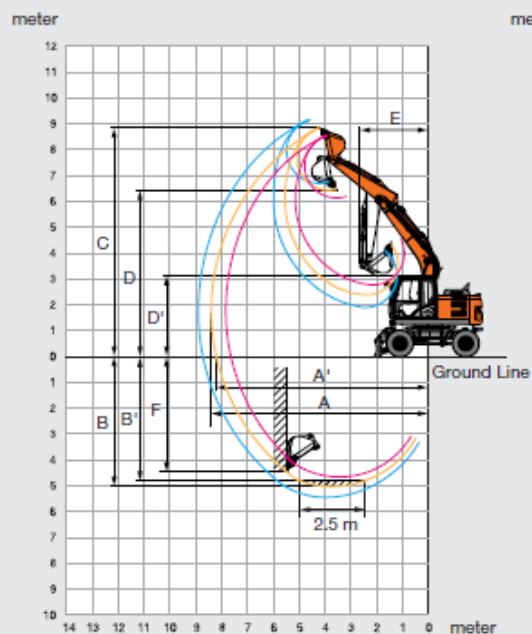
FOR AND ON BEHALF OF CLIENT:	
SIGNATURE	
DATE	
AGENT'S NAME	
FOR AND ON BEHALF OF FORTH DEMOLITION LTD:	
SIGNATURE	
DATE	

Appendix-A

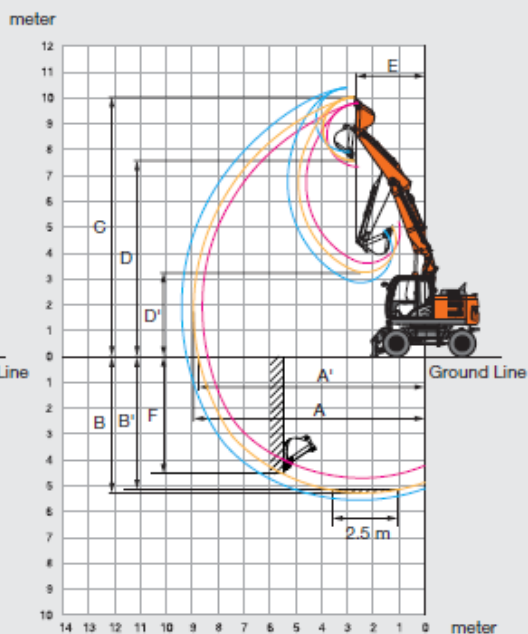
SPECIFICATIONS

WORKING RANGES

MONOBLOCK BOOM



2-PIECE BOOM



Unit: mm

Arm length	ZAXIS 140W					
	Monoblock boom			2-Piece boom		
	2.10 m	2.52 m	3.01 m	2.10 m	2.52 m	3.01 m
A Max. digging reach	8 040	8 410	8 870	8 580	8 960	9 430
A' Max. digging reach (on ground)	7 840	8 210	8 690	8 390	8 780	9 260
B Max. digging depth	4 610	5 030	5 520	4 870	5 290	5 770
B' Max. digging depth (2.5 m level)	4 380	4 830	5 340	4 760	5 180	5 670
C Max. cutting height	8 680	8 850	9 160	9 750	10 040	10 450
D Max. dumping height	6 240	6 440	6 760	7 290	7 570	7 990
D' Min. dumping height	2 790	2 370	1 920	3 640	3 250	2 890
E Min. swing radius	2 610	2 650	2 910	2 520	2 670	3 040
F Max. vertical wall digging depth	4 110	4 520	4 990	3 970	4 330	4 790

SPECIFICATIONS

ENGINE

Model	Isuzu AM-4JJ1X
Type	4-cycle water-cooled, common rail direct injection
Aspiration	Variable geometry turbocharged, intercooled, cooled EGR
Aftreatment	Muffler filter
No. of cylinders	4
Rated power	
ISO 9249, net	90.2 kW (121 HP) at 2 200 min ⁻¹ (rpm)
EEC 80/1269, net	90.2 kW (121 HP) at 2 200 min ⁻¹ (rpm)
SAE J1349, net	90.2 kW (121 HP) at 2 200 min ⁻¹ (rpm)
Maximum torque	406 Nm (41.4 kgf·m) at 1 800 min ⁻¹ (rpm)
Piston displacement	2.999 L
Bore and stroke	95.4 mm x 104.9 mm
Batteries	2 x 12 V / 93 Ah

HYDRAULIC SYSTEM

Hydraulic Pumps

Main pumps	2 variable displacement axial piston pumps
Maximum oil flow	1 x 135 L/min 1 x 180 L/min
Pilot pump	1 gear pump
Maximum oil flow	30.1 L/min
Steering pump	1 gear pump
Maximum oil flow	30.2 L / min

Hydraulic Motors

Travel	1 variable displacement axial piston motors
Swing	1 axial piston motor

Relief Valve Settings

Implement circuit	34.3 MPa (350 kgf/cm ²)
Swing circuit	32.4 MPa (330 kgf/cm ²)
Travel circuit	34.3 MPa (350 kgf/cm ²)
Pilot circuit	3.9 MPa (40 kgf/cm ²)
Power boost	35.3 MPa (370 kgf/cm ²)

Hydraulic Cylinders

	Quantity	Bore	Rod diameter
Boom (Monoblock boom)	2	105 mm	70 mm
Boom ^{*)} (2-piece boom)	2	105 mm	75 mm
Arm	1	115 mm	80 mm
Bucket	1	100 mm	70 mm
Positioning ^{*)}	1	145 mm	90 mm

^{*)} : For 2-piece boom

UPPERSTRUCTURE

Revolving Frame

D-section frame for resistance to deformation.

Swing Device

Axial piston motor with planetary reduction gear is bathed in oil. Swing circle is single-row. Swing parking brake is spring-set/hydraulic-released disc type.

Swing speed	11.9 min ⁻¹ (rpm)
Swing torque	34 kNm (3 470 kgf·m)

Operator's Cab

Independent spacious cab, 1 005 mm wide by 1 675 mm high, conforming to ISO* Standards.

* International Organization for Standardization

UNDERCARRIAGE

Wheeled type undercarriage. The frame is of welded, stress-relieved structure.

Drive system: 2 speed power shift transmission and variable displacement axial piston type travel motor.

Travel speed (forward and reverse)

Creep speed range	0 to 2.2 km / h
Low speed range	0 to 8.6 km / h
High speed range	0 to 35 km / h

Maximum traction force

Gradeability

Min. turning radius

Axle:

All-wheel drive.

The front axle can be locked hydraulically in any position.

Oscillating front axle..... ± 7°

Brakes system:

Maintenance free wet-disc brakes on axle are standard.

Fully hydraulic service brake system

SOUND LEVEL

Sound level in cab according to ISO 6396 LpA 70 dB(A)

External sound level according to ISO 6395 and

EU Directive 2000/14/EC LWA 100 dB(A)

SERVICE REFILL CAPACITIES

Fuel tank	250.0 L
Engine coolant	20.0 L
Engine oil	16.0 L
Swing device	6.2 L
Transmission	2.5 L
Front differential gear	9.1 L
Rear differential gear	11.8 L
Hub reduction gear	
Front axle	2 x 2.5 L
Rear axle	2 x 2.5 L
Hydraulic system	180.0 L
Hydraulic tank	100.0 L

Appendix-B



Self-Propelled Scissor Lifts

GS™-2046, GS-2646 & GS-3246

Specifications

Models	GS-2046		GS-2646		GS-3246	
Measurements	Metric	US	Metric	US	Metric	US
Working height maximum*	8.10 m	26 ft	9.80 m	32 ft 1 in	11.75 m	38 ft
▲ Platform height maximum w/load sense	6.10 m	20 ft	7.80 m	25 ft 6 in	9.75 m	32 ft
▲ Platform height stowed	1.04 m	3 ft 5 in	1.16 m	3 ft 10 in	1.29 m	4 ft 3 in
▲ Platform length - outside	2.26 m	7 ft 5 in	2.26 m	7 ft 5 in	2.26 m	7 ft 5 in
extended	3.18 m	10 ft 5 in	3.18 m	10 ft 5 in	3.18 m	10 ft 5 in
Slide-out platform extension deck	0.91 m	3 ft	0.91 m	3 ft	0.91 m	3 ft
▲ Platform width - outside	1.15 m	3 ft 10 in	1.15 m	3 ft 10 in	1.15 m	3 ft 10 in
Guardrail height	1.10 m	3 ft 7 in	1.10 m	3 ft 7 in	1.10 m	3 ft 7 in
Toeboard height	0.15 m	6 in	0.15 m	6 in	0.15 m	6 in
▲ Height - stowed: folding guardrails	2.13 m	7 ft	2.26 m	7 ft 5 in	2.39 m	7 ft 10 in
rails folded	1.55 m	5 ft 1 in	1.68 m	5 ft 6 in	1.80 m	5 ft 11 in
▲ Length - stowed	2.41 m	7 ft 11 in	2.41 m	7 ft 11 in	2.41 m	7 ft 11 in
extended	3.33 m	10 ft 11 in	3.33 m	10 ft 11 in	3.33 m	10 ft 11 in
▲ Width	1.17 m	3 ft 10 in	1.17 m	3 ft 10 in	1.17 m	3 ft 10 in
▲ Wheelbase	1.85 m	6 ft 1 in	1.85 m	6 ft 1 in	1.85 m	6 ft 1 in
▲ Ground clearance - center	9.5 cm	3.75 in	9.5 cm	3.75 in	9.5 cm	3.75 in
▲ - with pothole guards deployed	1.9 cm	0.75 in	1.9 cm	0.75 in	1.9 cm	0.75 in

Productivity

Maximum platform occupancy (indoor/outdoor)	2/2	2/2	2/2	2/2	2/1	2/1
Lift capacity	544 kg	1,200 lbs	454 kg	1,000 lbs	318 kg	700 lbs
Lift capacity - extension deck	113 kg	250 lb	113 kg	250 lb	113 kg	250 lb
Drive speed - stowed	3.2 km/h	2 mph	3.2 km/h	2 mph	3.2 km/h	2 mph
Drive speed - raised	0.8 km/h	0.5 mph	0.8 km/h	0.5 mph	0.8 km/h	0.5 mph
Gradeability - stowed **	30%	30%	30%	30%	25%	25%
Turning radius - inside	zero	zero	zero	zero	zero	zero
Turning radius - outside	2.29 m	7 ft 6 in	2.29 m	7 ft 6 in	2.29 m	7 ft 6 in
Raise / lower speed	30 / 30 sec	30 / 30 sec	30 / 30 sec	30 / 30 sec	57 / 30 sec	57 / 30 sec
Controls	proportional		proportional		proportional	
Drive	dual front wheel		dual front wheel		dual front wheel	
Multiple disc brakes	dual rear wheel		dual rear wheel		dual rear wheel	
Tyres - solid non-marking	38 x 13 x 28 cm	15 x 5 x 11 in	38 x 13 x 28 cm	15 x 5 x 11 in	38 x 13 x 28 cm	15 x 5 x 11 in

Power

Power source	24 V DC (four 6 V 225 Ah batteries)		24 V DC (four 6 V 225 Ah batteries)		24 V DC (four 6 V 225 Ah batteries)	
Hydraulic system capacity	17 L	4.5 gal	17 L	4.5 gal	17 L	4.5 gal

Sound & Vibration Levels

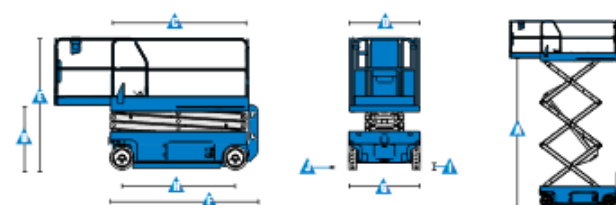
Sound pressure level (ground workstation)	<70 dBA	<70 dBA	<70 dBA	<70 dBA	<70 dBA	<70 dBA
Sound pressure level (platform workstation)	<70 dBA	<70 dBA	<70 dBA	<70 dBA	<70 dBA	<70 dBA
Vibration	<2.5 m/s ²	<8 ft 2 in/s ²	<2.5 m/s ²	<8 ft 2 in/s ²	<2.5 m/s ²	<8 ft 2 in/s ²

Weight***

	1,974 kg	4,351 lbs	2,447 kg	5,395 lbs	2,812 kg	6,200 lbs
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Standards Compliance

EU Directives: 2006/42/EC - Machinery (harmonized standard EN280); 2004/108/EC (EMC); 2006/95/EC (LVD)



* The metric equivalent of working height adds 2 m to platform height.
 ** Gradeability applies to driving on slopes. See operator's manual for details regarding slope ratings.
 *** Weight will vary depending on options and/or country standards.

www.genielift.co.uk www.genielift.me

01/10 Part No. 0100275UK



Self-Propelled Scissor Lifts

GS™-2046, GS-2646 & GS-3246

Features

Standard Features	Easily Configured To Meet Your Needs	Options & Accessories
Measurements GS-2046 <ul style="list-style-type: none"> 8.10 m (26 ft) working height Up to 545 kg (1,200 lbs) lift capacity GS-2646 <ul style="list-style-type: none"> 9.80 m (32 ft 1 in) working height Up to 454 kg (1,000 lbs) lift capacity GS-3246 <ul style="list-style-type: none"> 11.75 m (38 ft) working height Up to 318 kg (700 lbs) lift capacity Productivity <ul style="list-style-type: none"> Folding rails with full height swing gate Smart Link™ control system (joystick, 2 lift speeds & 2 selectable proportional drive speeds, user-friendly diagnostics) Rear recessed charger receptacle Platform control with battery charge indicator On-board diagnostic system AC power to platform Lanyard attachment points Manual platform lowering valve Emergency stop at both platform and ground controls Rear wheel multiple disc brakes Front wheel hydraulic dynamic braking Manual hydraulic brake release Swing-out component trays Pothole guards Tilt level sensor with audible alarm Descent alarm Flashing LED beacons Electronic horn Hour meter Telematics-Ready Connector Power <ul style="list-style-type: none"> 24 V DC battery pack Universal 20 amp smart charger 	Platform <ul style="list-style-type: none"> 2.26 x 1.15 m (7 ft 5 in x 3 ft 9.3 in) steel platform 0.91 m (3 ft) extension deck Power <ul style="list-style-type: none"> 24 V DC (four 6 V 225 Ah batteries) Drive <ul style="list-style-type: none"> Dual front wheel drive Tyres <ul style="list-style-type: none"> Solid non-marking 	Productivity Options <ul style="list-style-type: none"> Air line to platform Power to platform: plug, socket, with optional Residual-current Circuit Breaker with Overcurrent protection Biodegradable hydraulic oil Track & Trace® (GPS unit providing machine location & operating information) Motion alarm Automotive horn Power Options <ul style="list-style-type: none"> Maintenance-free batteries Low-temperature cut-out module



01/18 Part No. 010857/UK

United Kingdom

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Product specifications and prices are subject to change without notice or obligation. The photographs and/or drawings in this document are for illustrative purposes only. Refer to the appropriate Operator's Manual for instructions on the proper use of this equipment. Failure to follow the appropriate Operator's Manual when using our equipment or to otherwise act irresponsibly may result in serious injury or death. The only warranty applicable to our equipment is the standard written warranty applicable to the particular product and sale and we make no other warranty, express or implied. Products and services listed may be trademarks, service marks or trade names of Terex Corporation and/or their subsidiaries in the USA and many other countries. Genie is a registered trademark of Terex South Dakota, Inc. ©2018 Terex Corporation.



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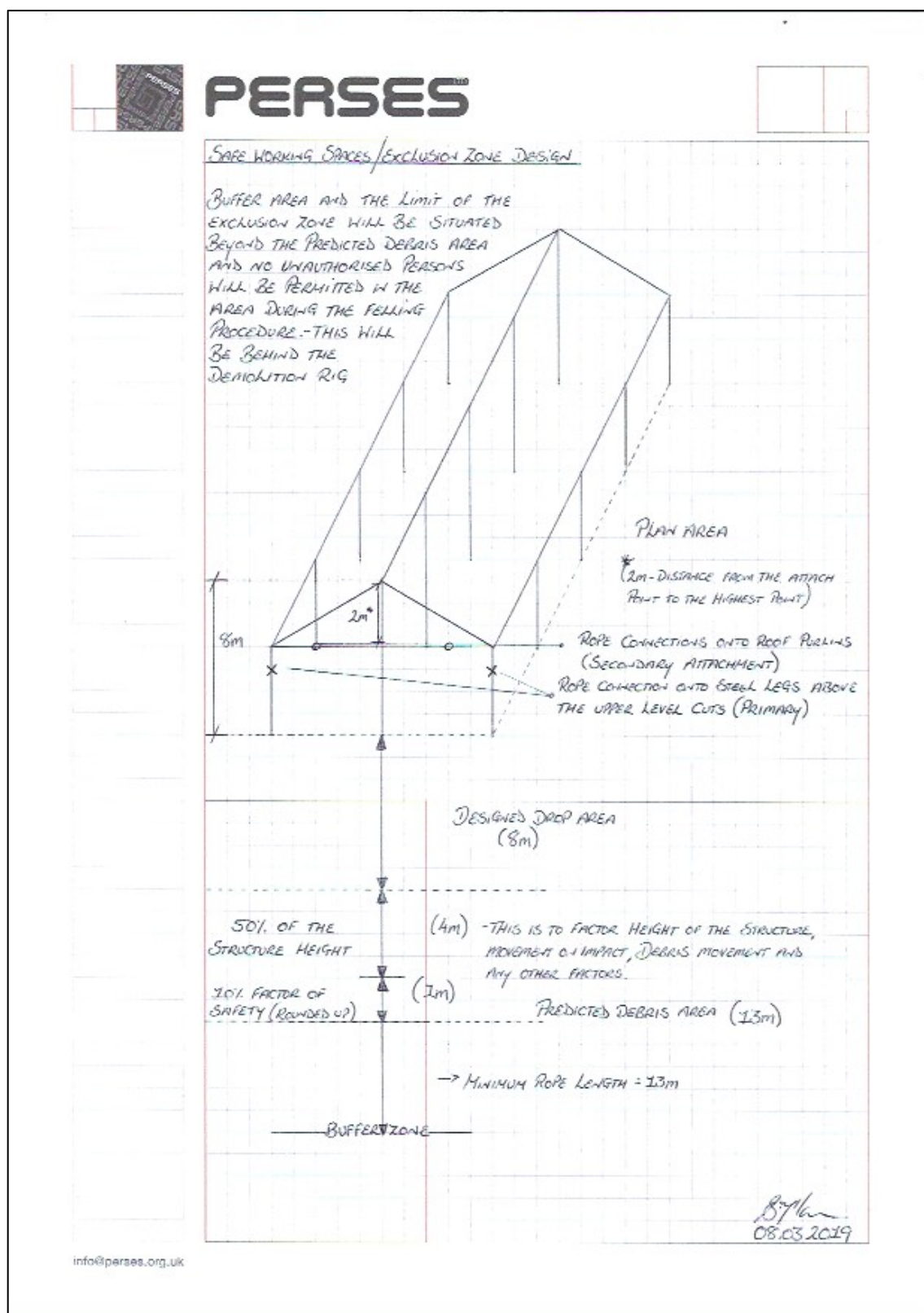
INTRODUCING THE

XR400



SPECIFICATION XR400/206

Appendix-D



Appendix-E

STANDARD



Safety Helmet Colours

To be implemented on all new construction sites, and existing construction sites where practicable.



Black: Supervisor



Orange: Slinger/Signaller



White:
Site Manager
Competent Operative
Vehicle Marshall (distinguished by the wearing of a different coloured high visibility vest)



Blue:
All those coming to site who do not fall into any of the above categories



Helmet Stickers

Role

Green first aider sticker First Aider



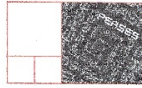
Red fire marshal sticker Fire Marshal

- + Network Rail's PPE standard only permits white and blue helmets on its infrastructure.
- + All helmets must meet British Standard BS EN 397.

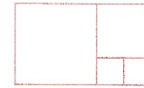
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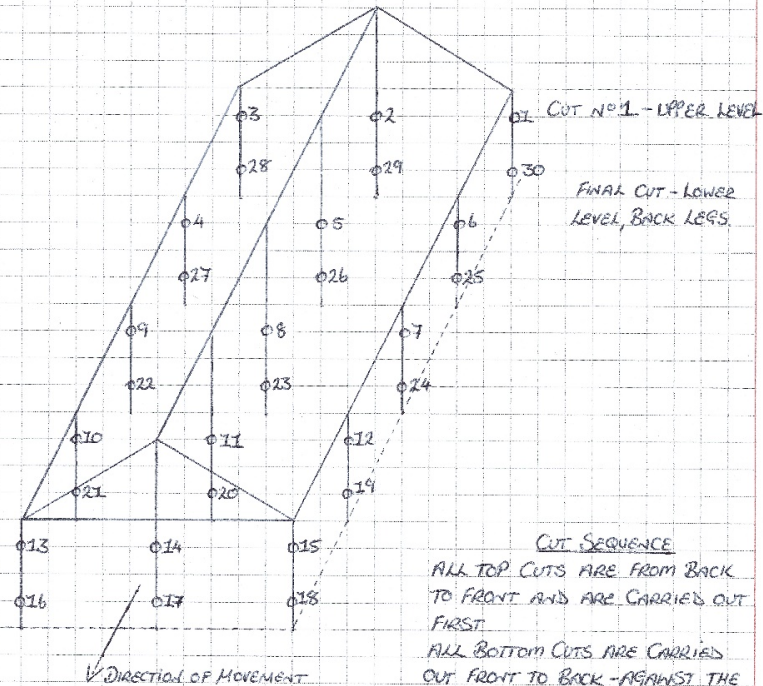
Appendix-F



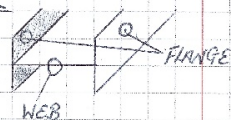
PERSES



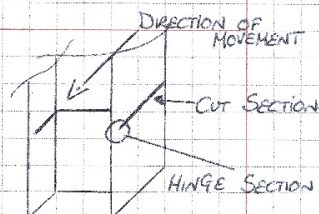
Cut Sequence Design



DETAIL



DIRECTIONAL HINGE DETAIL

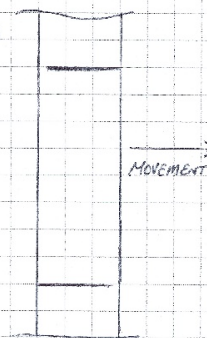


ALL CUTS WILL BE AS ABOVE
NO CUTS ARE REQUIRED TO BE COMPLETELY THROUGH THE STEEL

SIDE VIEW DETAIL

TOP CUT: OPENS TO PLACE ROOF SECTION FLAT

BOTTOM CUT: STEEL CANNOT OPEN IN THE OPPOSITE DIRECTION DUE TO THE HINGE



Bjllm
08.03.2019

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