

Bond Demolition Limited	Name of Person undertaking assessment	Mr Alex Murphy
	Position	Contracts Manager
	Date of assessment	05 – 07 - 2021

Number of people carrying out activity	5 – 10 over life cycle of project	Under 18?	No
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Activity covered by this assessment:	THE DEMOLIITON OF 2NO. SCHOOL BUILDINGS	Site Address:
Description of the activity covered by this assessment: The demolition of 2No. buildings within the confines of Ystalyfera School, the buildings are known as, Music/Drama and Canteen		<u>Ysgol Gyfun Ystalyfera, Glanyrafon Rd, Ystalyfera, Swansea SA9 2JJ</u>

SEVERITY	RISK ASSESSMENT MATRIX								
6 MULTI-FATAL	6	12	18	24	30	36		VERY HIGH RISK	VERY HIGH RISK Intolerable – Do not start work
5 FATALITY	5	10	15	20	25	30			
4 MAJOR	4	8	12	16	20	24		HIGH RISK	HIGH RISK Work can only commence with extensive reassessment of the risk levels and direct supervision
3 NOTIFIABLE	3	6	9	12	15	18			
2 MINOR	2	4	6	8	10	12		MEDIUM RISK	MEDIUM RISK Tolerable – Reduce where practicable
1 NEGLIGIBLE	1	2	3	4	5	6		LOW RISK	
1 VERY RARE						6 ALMOST CERTAIN			LOW RISK Safe Condition
2 REMOTE					5 FREQUENT				
3 OCCASIONAL			4 REGULAR						

No.	Hazard Identified:	Consequence	Initial risks			Existing Controls	Present Risk Factor			Additional Controls Required	Residual Risk Factor		
			S	L	R/F		S	L	R/F		S	L	R/F
1	Asbestos	Health hazards associated with asbestos, i.e. asbestosis, lung cancer, mesothelioma and other cancers.	5	6	30	- Material analysed to confirm content. - Licensed contractor to carry out works on identified material - Operatives trained to appropriate UKATA approved standard. - Appropriate method statement written including control measures to be used. - PPE/RPE worn and inspected before use - Segregation of works by enclosure/respiratory zone - Whole/intact removal of material - Air monitoring carried out where necessary to measure effectiveness of controls in fibres/mm of air. - Decontamination of operatives/equipment	5	3	15	- Refresher training for all operatives. - PPE/RPE maintained and tested annually. - Audits to be carried out to measure performance of operatives. - Appropriate notification to HSE put in place before works are carried out. - All site-based operatives to be trained in asbestos awareness. - Operatives review and sign method statements before works begin.	5	2	10
2	Disturbance of Asbestos during soft strip/demolition	Health hazards associated with asbestos, i.e. asbestosis, lung cancer, mesothelioma and other cancers.	5	3	15	- Pre – demolition survey carried out prior to demolition works commencing. - Survey analysed by contracts manager/site supervisor and asbestos identified on site marked up. - Asbestos removed under separate method statements and under segregated areas. - Clearance certificates issued before asbestos enclosure is removed and demolition works can continue.	5	2	10	- Operatives on site trained in asbestos awareness and toolbox talks carried out on locations of asbestos. - Fully licenced asbestos operatives on site to remove asbestos materials discovered during soft strip. - Further survey of areas unidentified on pre-demolition survey	5	1	5

3	Demolition of structures by mechanical methods	- Uncontrolled collapse - Death - Collision between items of plant - Noise and dust emissions - Environmental contamination - Fire/explosion due to contact with live services	6	5	30	- Operatives trained and experienced in method of demolition qualified to CPCS standard - Demolition to proceed from the top down reducing the weight from the highest level first working towards ground level. - Minimise the need for persons to be within the works area – demolition exclusion zone controlled by banksman. - Demolition methods selected to minimise noise as far as reasonably practical – the use of concrete slab pulveriser in favour of hydraulic breaker. - Confirmation required of isolation of services before works commence. - Identification of all services within a service identification form completed by the supervisor and a GS6 permit issued by the contract's manager. - All live services must be prominently marked using goal posts and/or road pins and relayed during a toolbox talk attended by all. - All plant to be in good working order – quick hitch used to minimise hydraulic oil discharge when changing attachments - Water spray directed at work area to reduce dust emissions at source.	6	2	12	- Use of specialist hydraulic attachments to remove elements suitable to the function of the attachment i.e. – steel shears for steel, concrete pulveriser for concrete etc. - Daily inspection of equipment followed by recorded weekly inspection. - Excavator greased regularly including attachments to maintain in good working order. - Demolition exclusion zone established in line with BS6187 - Where necessary banksmen and machine operative in radio contact with pre-agreed call signs to alert of hazards/stop works if needed. - Follow tried and tested top down demolition method working section for section through the building. - Structural engineer survey of complex structures to identify load paths and best demolition method. - Clear working area of materials frequently to maintain safe working zone.	6	2	12
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3	Use of and working around 360/180° excavators	- Collision with other plant - Overloading - Overturning - Mechanical or hydraulic failure - Contact with overhead/underground services - Creation of crush zones - Changing of attachments - Slips/trips/falls - Contact with pedestrians	5	4	20	- Plant to work inside exclusion zone with banksmen posted in key locations - Check certification of operator before allowing works to commence - Do not exceed the safe working load of the excavator by lifting objects of excessive size and weight - Locate excavator on firm level ground if this is not possible use track mats/hardcore to form level platform – this may need to be designed in line with BS6187. - Maintain excavator in good working order ensuring that faults are reported, and excavator is quarantined if in poor condition. - All services isolated and confirmation given, mark up live services and cover in a toolbox talk. - Do not jump from excavator, you must use the handrails and track steps provided. - Check that there is a minimum of 600mm of clearance between the excavator and objects. - Operatives must lower the boom, switch off the excavator and remove the keys before leaving un-attended. - Identify all overhead electrical cables visually and via service drawings and issue a GS6 permit for the works, all overhead service cables must be prominently marked using goal posts and highlighted to all during toolbox talks/briefings. - Throughout the works the site will be operating the thumbs up protocol. Operatives are to get the attention of the plant operative before	5	3	15	- Use of hydraulic quick hitch maintained in good working order, ensure that locking pins are fully engaged, and buzzer stops sounding. - CAT scan ground or penetration apparatus used to discover buried services. - Set aside an area for the maintenance of the excavator and attachment, attachments and diesel to be stored in secured area. - Ensure that all ROPS and FOPS systems are in place including cab guards and intact glazing. - Check all mirrors, CCTV etc are fitted and in good working order before commencing work - Ensure that the operator and surrounding operatives are fully aware of the nature of the work and are signed on to RAMS - Before starting on site excavator operatives must be instructed that MOBILE PHONES ARE BANNED WHILST USING EXCAVATOR - No person to ride on excavator or within buckets - Hearing protection must be worn when noise levels are above 85dB (A) - Any person working within a plant zone must remain in clear sight of the plant operator at all times and must not enter the slew zone / danger zone of the equipment.	5	2	10
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						approaching the item of plant. Before operatives approach the excavator, the operator must then place the boom down, engage the dead man lever and give the thumbs up to the operative before they proceed.							
4	COVID – 19	- Infection resulting in acute respiratory infection and the onset of Pneumonia causing long – term incapacity or death - The spreading of the disease to vulnerable persons causing death	5	6	30	- Follow the governments guidelines on social distancing when traveling to and undertaking works. All operatives to be 2metres or more away from one another at all times - Close working should be eliminated however, if this is not possible operatives must wear face fitted FFP3 filter masks. - Follow site policies and guidance on social distancing, staggering of breaks/use of facilities - Ensure that surfaces are regularly cleaned, and hand sanitiser is used regularly. - Pre-start toolbox talk undertaken along with method statement briefing on social distancing rules and cleaning regimes.	5	4	20	- Open door policy in place for operatives to report symptoms, any operative displaying symptoms or in the same household and someone displaying symptoms must self-isolate and not come to work - PPE/RPE replaced frequently with all single use equipment replaced after each use. - PC to appoint non-working supervisors to act as marshals for works to ensure that social distancing measures are being adhered to - Where the sharing of tools/equipment cannot be avoided a cleaning, regime needs to be implemented as agreed with Scotts - Where possible the sharing plant will be minimised however if this is not possible - cleaning down of cab in between use etc.	5	2	10

5	Live services	- Severe injury - Death - Fire/Explosion	6	4	24	- All services must be isolated with confirmation certificates issued and retained on site - Live services must be prominently marked and protected using goal post markers, specified matting - Exclusion zone around live services - Banksmen posted to prevent contact between excavator and live service - If unknown service is discovered, it must be treated as live until proven otherwise - Permit to dig in place issued by Principal Contractor prior to excavation works commencing	6	3	18	- Permit to dig before breaking ground - GS6 permit for overhead cables completed by contracts manager - Completion of a service identification form and permit to dig before breaking ground. - Prior to completing the permit to dig the works area must be CAT scanned to identify services which may not be included in the statutory services drawing. - All live services must be prominently marked using goal posts and/or road pins and highlighted to all operatives on site.	6	2	12
6	Hot works	- Fire/explosion - Creation of noxious fumes - Injury to persons caused by contact with hot object.	4	4	16	- A pre-start inspection of the workplace will be carried out, taking into account: - location of work - fire safety and prevention procedures including fire extinguishers - material to be worked - available ventilation - other works in progress in and around the work area - access and egress - All equipment will be thoroughly checked before each use.	4	3	12	- permit-to-work system will be used. - All hot work will cease one hour before end of shift and 30 minutes & 60-minute fire checks carried out. - Appropriate PPE must be used including – hood, goggles, burning gauntlets, fire retardant overalls - All works must be undertaken in line with the guidance in the company site fire plan. - all combustible materials must be removed from the works area to reduce the risk of uncontrolled ignition of materials.	4	3	12

7	Working at height/use of podiums	- Falls from height causing severe injury such as fractures, major bruising and internal injuries. - Falls of materials onto persons below - Striking overhead services	5	3	15	- Site podiums and scaffolding towers on firm level ground before use. - Thorough weekly inspection of equipment carried out and recorded – quarantine if issued found and report to hire company - Permit to work at height issued by site supervisor - Scaff Tag system in place - Awareness of surrounding Ladders are banned from site unless as part of an access system	5	2	10	- Consult manufacturer's instructions when erecting access equipment. - Men and materials MUST NOT be left on a mobile access tower when it is being moved. - Operatives trained in working at height - Operatives erecting mobile towers will be trained to PASMA. - To supervise WAH activities and if necessary - facilitate first aid rescue a ground based operative/supervisor will be in and around the working area. Should first aid rescue not be possible this operative will alert the Scott first aider and the emergency services.	5	1	5
8	Slips, trips and falls	Tripping over items causing fractures, severe bruising, internal injuries.	4	5	20	- Keep walkways clear of loose materials at all times. - Walkways and work areas must be adequately lit to identify hazards. - Return tools and equipment to store when not in use.	4	3	12	- Toolbox talk carried out on housekeeping - Assign a person per day to tidy store and maintain walkways throughout site - Regular site audits to ensure that standards are being maintained.	4	1	4
9	Work in dusty environments	- Inhalation of contaminants - Asphyxia - Skin irritation - Particles entering eyes	4	3	12	- Minimise creation of dust by dampening down demolition area. - Goggles must be worn when working in dusty environments. - Operative's issued with FFP3 filtered face masks and face fitted - Check COSHH assessments for known dusts on site	4	2	8	- No eating/drinking in dusty environments - Wash thoroughly after exposure to dusts. - No smoking within dusty environments. - Refer to company safety manual/demolition method statements for more information	4	1	4

10	Noise	- Hearing loss - Tinnitus	3	4	12	- Hearing protection zone established if work exceeds 85dB (A) - It is anticipated that the 85dB (A) will be exceeded during the use of the hydraulic hammer	3	3	9	Select correct hearing protection in line with method statement – select from either ear plugs or earmuffs	3	2	6
11	Vibration	- Hand arm vibration - Vibration white finger - Loss of sensation in hands/feet	3	4	12	- Where possible mechanical means will be selected for vibrating operations. - Where this is not possible the work piece selected must be modern and fitted with anti-vibration handles where possible - Record hand arm vibration in sheet provided and reduce time spent using vibrating tools to minimum time allowed.	3	3	9	- Maintain exclusion zone around hydraulic hammer to reduce exposure to floor vibration - All use of vibrating tools must be recorded – see manufactures sheet for hand arm vibration levels, trigger times must be sourced from hire company check sheet on site. - Do not grip the tool too tightly - will increase vibration received. - keep equipment in good condition, i.e. worn or damaged chisel on breaker will create more vibration.	3	2	6
12	Use of hand tools (non-powered)	- Injuries to eyes caused by flying particles - Injury to hands, feet, body from contact with a tool - Sprains, strains from incorrect tool use - Injury caused by tripping over tools (poor housekeeping)	4	4	16	- Ensure that hand tools are not used for anything other than their intended purpose, e.g. do not use a screwdriver as a chisel. - Eye protection MUST be used whenever work is carried out using cold chisels or any other tools where there is a risk of flying particles. - Open-bladed knives, screwdrivers and other sharp tools must not be carried in pockets or in any manner which could cause injury to the user or others. - Tools must not be left lying about but returned to storage after use.	4	3	12	- Operatives must carry out visual checks of hand tools before their first use each day. Damaged or dangerous tools must not be used. - Common faults which must be checked for include: - loose and damaged hammer heads - damaged screwdriver blades - Incorrect mounting of sharp blades - Bent/fractured crow bars	4	2	8

13	Use of waste skips	- Manual handling injuries caused by lifting waste into skips - Dust from items being thrown into skips. - Traffic accidents caused by incorrect siting of skips as well as delivery/collection	5	3	15	- Skips where possible should be sited on firm, level ground - Two man lift when loading heavy items into skip. - Arrange for collection of skip when it is becoming full - Banksman appointed when skip is being collected/delivered	3	3	9	- When siting skips on the road/pavement warning lights must be used. - When tipping waste lorry driver must wear appropriate PPE/RPE	3	2	6
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14	Use of Abrasive wheels	• Injury to eyes from flying particles causing blindness. • Body contact with abrasive wheels – multiple injuries. • Bursting wheels – multiple injuries. • Fire – caused by sparks • Fumes – inhalation causing nausea/fainting. • Hearing damage • Hand/Arm Vibration • Inhalation of dust/fumes	4	4	16	• The material being cut must be adequately secured to prevent displacement • No person may mount an abrasive wheel onto a spindle unless properly trained and certificated • All guards must be in place, the guard should cover the whole wheel or disc except for that part necessarily exposed to do the work. • Portable equipment must only be used when standing on a firm, level base. • Do not use wheels or discs which are chipped or damaged. • The correct washer, bolt and spanner must be used for releasing an abrasive wheel which is to be changed. If any of these are not available, the machine must not be used. • All work equipment must be inspected weekly and thoroughly examined at least every 12 months. Written records should be maintained. • Eye protection must be worn • Hearing protection must be worn • Maintain two points of contact on the workpiece at all times, you must not use any form or abrasive wheel with one hand.	4	3	12	• Select the correct wheel for the job. • Do not refuel petrol machines at the workplace – take the machine to a remote, safe fuelling point located at the site compound where the fuel is in a locked storage container and fire extinguishers will be on hand. • Always clean out inside the guard before fitting a new wheel. • Check that the wheel moves freely before starting. • Ensure sparks do not ignite any combustible material or flammable substance in the work area. (see section on Hot Works) • Loose clothing and ties must not be worn by operators. • When working with the saw within the building fire extinguishers must be at hand in case of emergencies. (See section on hot works) • The abrasive wheel must be “locked” prior to undoing the retaining bolt.	4	2	8
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15	Fire risks in the workplace	- Hot work, cutting/burning. - Combustible materials catching fire. - Serious injury caused by burns/smoke inhalation	5	4	20	- When planning work, make provision for fire detection, supply & maintenance of firefighting equipment, control of hot work, emergency procedures, control of smoking and prevention of the build-up of flammable waste. - Quantities of highly flammable liquids and LPG within or near work areas must be restricted. Suitable storage facilities must be provided. - Security measures must be taken to restrict access to workplaces by unauthorised persons, especially out of hours.	5	2	10	- Adequate means of escape and access for emergency vehicles must be maintained at all times. - Permit-to-work system for hot work issued, fire extinguishers will be cited around works. - Smoking restrictions to be enforced. No smoking areas to be clearly signed.	4	2	8
16	Uncontrolled structural collapse	- Severe injury - Crush injuries - Death	6	4	24	- Assessment of load paths prior to structural elements being removed. - Demolition must proceed from the top down reducing the structure to its smallest element ensuring that no section removed is excessive in size or weight.	6	2	12	Correct demolition methods selected including the use of appropriate tools for the task	6	1	6
17	Handling of waste	- Materials becoming loose from trailer/skip - Contamination of waste stockpile - Crush injuries from falling objects	4	4	16	- Load materials according to type, do not transport loads where materials are protruding over the side of the skip or above the skip line - Segregate waste materials to prevent cross contamination - reduce material stockpiles where possible, do not stock materials close to the boundary of the site.	4	3	12	- Materials must be handled with the correct attachment i.e. selector grab - Materials loaded inside exclusion zone, no persons to be around the loading area	4	2	8

18	Vehicle/plant Malfunction and re-fill	- Leading to fire/explosion - Fuel leak - Hydraulic oil leak - Contamination of surrounding environment	5	4	20	- Maintenance of plant and equipment according to manufacturer intervals by competent person - LOLER inspection undertaken annually by competent person - Multi-point pre-start check by operative and vehicle operator with checklist completed to ensure that leaks/damage are reported in a timely manner and levels of coolant/hydraulic fluid/engine oil are maintained. - Quarantine of vehicle should any damage/leaks be noted, and plant and transport manager informed.	5	3	15	- Operative trained and competent in the use of the vehicle in accordance with CPCS or other appropriate training by registered training provider - Identification of all overhead/buried services with service identification form/GS6 permit in place - Spill kit by any re-fill station capable of containing the worst-case leak of diesel/hydraulic oil - Refill station established for machine re-fill with no naked flames in proximity	5	2	10
19	Delivery of mobile plant and equipment	- Collision with other vehicles/persons causing crush injuries - Item of plant becoming unstable when offloading/being loaded causing overturning	5	5	25	- Drivers to receive an induction informing them of delivery routes and overhead cables - Item of plant offloaded in site boundary where possible or in a banksmen-controlled area when not - No persons to be in proximity of the delivery vehicle when loading/unloading taking place - Ensure that trailer is on a firm/level surface when loading/unloading to avoid becoming unstable	5	3	15	Plant only to be operated, loaded. Offloaded by experienced and qualified persons to minimise the risk of plant slipping when being loaded/offloaded	5	2	10

Persons at risk	Y/N	Details
Operatives within demolition site	Y	When undertaking demolition works
Operatives outside demolition area	Y	Persons down wind of demolition activity
Visitors to site	Y	Trespassers gaining entry into demolition zone, unescorted client personnel
Members of the public	Y/N	All works contained within site boundary although possible contact with skip delivery vehicle.

Declaration signatures – I have received a method statement briefing and understood this risk assessment and agree to follow it and the works method statement

issued

Name	Date	Signature
Assessor -		
Supervisor -		