

Subject Area	Hazard and Effect	To Whom	Existing control measures	Severity rating * Likelihood = residual risk			Further actions to reduce risk	Responsible Person(s)
Preparatory / site arrival.	Lack of co-ordination of working programme. Inability to complete work safely due to excess staff or eqpt in an area.	S & C.	Work schedule agreed in advance by production manager / artist and site manager. Good liason with contractors prior to arrival onsite. Good manners onsite.	1	2	2		Artist / production manager. Site manager / groundsperson. Contractors.
Preparatory / site arrival	Accident due to supplier of goods or services neglect. Fatality or major injuries	P, S	All suppliers should be required to provide safety statements and method statements before the event. Suppliers must confirm that all staff employed are properly trained for the task.	5	1	5	All suppliers must be monitored to ensure adherence to proper safety practices If in doubt specialist advice should be sought	Artist / production manager. Aswarm staff / volunteers. Site manager / groundsperson. Contractors.
Preparatory / site arrival.	Faulty equipment and untrained operatives.	P,S & C	Ensure all plant and equipment is hired from reputable and competent suppliers with a proven track record. Ensure all operatives have been trained and hold appropriate certification / licence	4	1	4		Artist / production manager. Aswarm staff / volunteers. Contractors.
Preparatory / site arrival.	Driving on site / vehicle	P,S & C	Access and egress arrangements agreed	5	1	5	Security/steward to act as banksman.	Artist / production manager.

	<p>movements.</p> <p>Workers or public hit by vehicle.</p>		<p>beforehand.</p> <p>Driver to check in with producer/artist before accessing install site</p> <p>Maintain a sensible speed and manner of driving.</p> <p>Drivers will ensure that they are fit to drive: they are not too tired; have not taken alcohol; etc.</p> <p>Drivers will report any accident or incident involving the vehicle. Banksman req'd when reversing.</p>					<p>Driver of vehicle.</p> <p>Aswarm staff / volunteers</p> <p>Contractors. Stewards /</p> <p>Security (banksman).</p>
Accidents / incidents.	Injuries / near misses	P, S & C	<p>All accidents or incidents must be reported.</p> <p>As many details as possible should be given to allow for proper investigation.</p> <p>All accidents or near misses must be reported to the event safety officer / production manager.</p>	4	2	8	<p>Ensure that all staff are working sensible hours and that they are aware of changes to the working environment during the build or de-rig.</p>	<p>Artist / production manager.</p> <p>Aswarm staff / volunteers.</p> <p>Event safety officer.</p> <p>Site manager / groundsperson.</p> <p>Contractors.</p> <p>Stewards /security.</p>
Emergency incident	Fatalities or major injuries	P, S & C	<p>Staff fully briefed on emergency responses.</p> <p>All response measures coordinated with statutory agencies and emergency</p>	5	1	5	<p>Staff should be constantly aware of their roles in the event of an emergency</p>	<p>Artist / production manager.</p> <p>Aswarm staff / volunteers.</p> <p>Stewards / security.</p>

			<p>services.</p> <p>Constant vigilance to reduce the likelihood of an emergency incident.</p>					
Site work	Rig / De-rig	P	<p>No rig /de-rigging should occur while members of the public are present within the cordoned safety area.</p> <p>Rigging / de-rigging should not commence until approved by the artist / production manager.</p>	2	2	4		<p>Artist / production manager.</p> <p>Site manager / groundsperson.</p> <p>Aswarm staff / volunteers.</p>
Site work / Public safety	Major and Minor Injuries – physical contact with install equipment resulting in harm (general).	P,S & C	<p>Areas to be sectioned off from public access during installation of eqpt to ensure safe working areas</p> <p>Pre event inspections and check carried out.</p> <p>Installations to be checked and monitored by competent personnel during the rig and de-rig periods.</p>	4	1	4	All staff and contractors and volunteers to be vigilant for any potential hazards and to identify and remove immediately where possible .	<p>Artist / production manager.</p> <p>Contractors.</p> <p>Stewards/ security.</p>
* Site work / Public safety.	Slip, Trips and Falls	P,S & C	<p>Passageways to be kept clear of obstructions.</p> <p>ASWARM will ensure that excess materials are not stored on the premises, storage areas are defined.</p>	3	1	3	<p>Astroturf fitted to the pavement area as part of the installation will be well fitted and will offer no trailing edges that would be likely to cause a fall.</p> <p>All installation furniture will be</p>	<p>Artist / production manager.</p> <p>Aswarm staff / volunteers</p>

			<p>Waste to be removed daily and stored away from access/exit routes.</p> <p>Adequate lighting to be provided and maintained in all areas - particularly at all entry and exit points as well as along any corridors and passageways if relevant.</p> <p>Spillages to be cleaned up immediately. Staff to be trained to place wet floor signs to warn people of the hazard.</p> <p>Electrical cables from equipment in working areas should not be allowed to trail on floors and will be routed through trunking in or flown at height where possible.</p> <p>Cables through areas of public access will be run through visible cable ramps or will be or flown at height .</p> <p>All staff should walk, not run.</p>				<p>securely mounted and suitable pedestrian passing distances will be adhered to in order to allow free passage for users of wheelchairs, buggies etc.</p> <p>All staff and contractors and volunteers to be vigilant for any potential hazards and to identify and remove immediately where possible .</p>	<p>Contractors.</p> <p>Stewards / security.</p>
Lone Working	Falls, general accidents.	S & C	<p>Worker to make supervisor aware that he/she will be working alone and what work exactly you will be doing.</p> <p>The supervisor should be informed when starting and finishing.</p> <p>Crew will not be allowed to lone work if the production manager considers them to be excessively tired.</p> <p>Crew will not be allowed to lone work where the task requires more than one person.</p>	4	2	8	<p>Ensure a system is in place to check in regularly with those working alone to ensure that they are safe.</p>	<p>Artist / production manager.</p> <p>Aswarm staff / volunteers.</p> <p>Site manager / groundsperson.</p> <p>Contractors.</p>

			<p>Ensure that there is safe access and egress in case of an emergency.</p> <p>Ensure that someone can be alerted if they need assistance.</p> <p>Those with any special medical conditions will not be asked to work alone.</p> <p>Crew to check out with the site manager / production manager when their job is complete</p>					
Site work	<p>Lifting whilst rigging.</p> <p>Staff could suffer back or upper limb injuries if lifting / carrying heavy objects.</p>	S & C	<p>Sufficient crewing for distribution of work.</p> <p>Manual handling assessment – all crew to have been instructed, trained and overseen.</p> <p>Continuous monitoring.</p>	5	1	5		<p>Artist / production manager.</p> <p>Aswarm staff / volunteers</p> <p>Contractors.</p>
<p>Site work - working at a height.</p> <p>* Installation and exhibition of works at height.</p>	<p>Falls of persons from working places, access areas or plant</p> <p>Falls of materials or articles.</p> <p>Fatalities, major / minor injuries.</p>	P, S & C	<p>Work should be planned to ensure that safe access and work areas are provided for operatives to work at heights before work commences on site.</p> <p>The hierarchy of risk control will be used in selecting the appropriate method of working at height (i.e. fixed safe working platforms versus active systems involving harnesses).</p> <p>Suitable and sufficient material and equipment will be provided to site for work to be carried out safely in accordance with the relevant standard.</p>	5	2	10	<p>Public will be kept out of the cordoned working area and all work will stop if unauthorized persons enter the safety zone.</p> <p>The speakers to be mounted inside the busstop will be fixed in accordance with agreement with JC Decaux engineers; will be resistant if force is applied and will not at any time compromise public safety.</p> <p>The speakers will be mounted above head height to prevent</p>	<p>Artist / production manager.\</p> <p>Aswarm staff / volunteers.</p> <p>Contractors.</p>

			<p>All personnel on sites where work at height is being carried out must wear safety helmets</p> <p>Work will be carried out as planned and in accordance with the standards and method statements.</p> <p>All operatives will receive instructions in safe working procedures and the use of any safety equipment provided</p> <p>All safety equipment, safety belts, harnesses, anchorages, etc. will be inspected at least weekly and any defects noted.</p> <p>All necessary precautions are to be taken to ensure that persons do not walk or work beneath operatives carrying out work at high level.</p> <p>All rigging to be checked daily to ensure that all flown elements are securely rigged using rated cable and fixings appropriate to the maximum expected loads. No Volunteers to be permitted to work at a height</p>				<p>accidental contact by members of the public.</p> <p>All suspended objects will be checked by the artist and/or production manager prior to opening to the public, and will be checked daily thereafter.</p> <p>The site will be stewarded by at least one person at all times.</p> <p>If there are any concerns the installation will be stopped, security informed and the area cordoned off.</p>	
Site work - ladders	<p>People falling from ladders</p> <p>Materials falling from ladders</p> <p>Failure of Ladders</p>	S & C	<p>Ladders will not be used to provide access or a working position if the type of work cannot be carried out safely from a ladder (e.g. carrying large items, work requiring both hands etc.). Alternative, safer options such as the use of MEWPs will be considered.</p>	5	1	5		<p>Artist / production manager.</p> <p>Aswurm staff / volunteers.</p> <p>Contractors.</p>

			<p>Training to be provided to site operatives on the hazards associated with the use of ladders and safety precautions that should be applied.</p> <p>All ladders to be erected at a suitable angle and secured prior to use.</p> <p>All ladders to be checked prior to use to ensure that there are no obvious defects.</p> <p>Where a defect is noted, it will be taken out of use immediately.</p> <p>All ladders to be properly stored to prevent damage.</p> <p>No volunteers to be permitted to work at a height.</p>					
Site work - stepladders and trestles	<p>People falling from stepladders</p> <p>Materials falling from stepladders</p> <p>Collapse of stepladders during use</p>	S & C	<p>Step ladders will not be used to provide access or a working position if the type of work cannot be carried out safely from a ladder (e.g. carrying large items, work requiring both hands etc.). Alternative, safer options such as the use of MEWPs will be considered.</p> <p>Training to be provided to the operative on the safe use of stepladders.</p> <p>Stepladders not to be painted.</p> <p>Stepladders to be checked prior to use for any defects.</p> <p>Where a defect is noted, it will be taken out of use immediately.</p>	3	1	3		<p>Artist / production manager.</p> <p>Aswarm staff / volunteers.</p> <p>Contractors.</p>

			<p>All stepladders to be properly stored to prevent damage.</p> <p>Ladder to be fully extended before use.</p> <p>A minimum of one person to foot/ hold the ladder where in use.</p>					
* Electrical safety - cable runs	Can cause trips, falls, and damage to structures / equipment.	P,S & C	<p>Cables should be buried or flown at all times.</p> <p>Visible cable ramps should be used if other options are not possible.</p> <p>Cable ties to be used to secure them.</p> <p>Cables within reach of the public that cross vertical or horizontal equipment surfaces, but are not subject to foot/vehicular traffic, should be routed through suitable conduit and securely fastened.</p>	2	1	2	<p>All flown cables will be securely suspended out of reach at 3m.</p> <p>Cables will be kept in orderly coils on ground and suspended overhead with cable tie fixings.</p> <p>Any cable runs on the ground (i.e. back to control) will be secured under cable ramps & matting.</p>	<p>Artist / production manager.</p> <p>Aswarm staff / volunteers.</p> <p>Contractors.</p>
Electrical safety -overhead power cables	Electroshock, burns & fires	P,S& C	<p>No work to be taken place in close proximity to cables</p> <p>Safety Zone to be installed adjacent to overhead wires</p> <p>Crew & contractors to be aware of</p>	5	1	5		<p>Artist / production manager.</p> <p>Aswarm staff / volunteers.</p> <p>Contractors.</p>

			overhead cables					
* Electricity	Electrocution causing death.	P,S &C	<p>Electrical equipment to be installed and designed to a high standard, meeting relevant codes of practice.</p> <p>Where possible we will be using low amperage 12v power supplies to minimise the risk of shock from high electrical voltage.</p> <p>All electrical equipment and circuits to be properly marked to indicate function, particularly at distribution boards.</p> <p>Electrical equipment, plugs, leads, etc. to be examined regularly to ensure that there is no likelihood of a loose connection causing a fire or electric shock.</p> <p>Any/ All electrical faults to be reported.</p> <p>All electrical installations to be certified by a qualified electrician in advance of the event (PAT tested).</p>	5	2	5	<p>Mains supply voltage to the bus stop amplifier (100w approx) and control eqpt will be via a feed from the bus stop advertising panel. This work will be carried out or overseen by engineers from JC Decaux.</p> <p>The electric supply run from the amplifier to the speakers and from the selector switch to the control eqpt is speaker signal cable. Voltages in this instance will be in the region of 1.5v so will not represent a significant threat to public safety.</p> <p>All connections will be secure and not exposed.</p> <p>All cabling will be run under ramping/matting where it crosses the public pathway. Where cabling crosses other surfaces it will be routed through suitable conduit and securely fastened.</p> <p>The Mains power supply will be supplied and installed by a qualified electrician</p>	<p>Artist / production manager.</p> <p>Aswarm staff / volunteers.</p> <p>Site manager / groundsperson.</p> <p>Event / site electrician.</p> <p>Contractors.</p>
* Fire (woodburning stove and hot water)	Injury due to smoke inhalation / serious burns due to the use	P,S & C		4	2	8	<p>The fire will be contained within a enclosed steel wood burner, designed and built for the purpose, with a flat hot plate incorporated into the design.</p>	<p>Artist / production manager.</p> <p>Aswarm staff / volunteers.</p>

	of fire during the event.		<p>Very unlikely due to the scale of the site and nature of the show.</p> <p>All potentially flammable materials will carry the necessary fire certification code or will be flamebarred.</p> <p>Staff to be briefed on what to do in the event of an emergency.</p> <p>Where needed, appropriate firefighting equipment, fire extinguishers, fire blankets to be provided and maintained.</p> <p>Fire Point signs to be used to show the location of firefighting equipment.</p> <p>Fire points to be checked & monitored throughout the event.</p>				<p>The wood burner will be sited in specifically selected location, in a clearing between overhead canopy on a secure paving slab.</p> <p>The fire will be located sufficiently far from trees or combustible material not to run undue risk of fire spreading.</p> <p>Hot water will be contained in a Kettle and placed on a flat secure surface (the top of the stove) or table.</p> <p>Water fire extinguishers and buckets of water will be located close by.</p> <p>The exhibit is designed for ambient calm observation, there are no performers or sudden moments which may provoke sudden movement or surges in audience.</p> <p>Suitable leather gloves will be at hand.</p>	<p>Site manager / groundsperson.</p> <p>Fire / event safety officer.</p> <p>Contractors.</p>
* Site noise / Sound System	<p>Noise Induced Hearing Loss Noise</p> <p>Induced anxiety and stress</p> <p>Tinnitus.</p>	P, S & C	<p>Static plant installed on site will be planned to be in a position, which minimizes exposure of workers to noise.</p> <p>The hierarchy of control will be used in order to reduce the noise generated from plant (i.e. reduce at source, engineer out, insulate, PPE etc.)</p>	3	1	3	<p>No significant preparatory work will need to be carried out that will cause concern in relation to site noise.</p> <p>ASWARM / production manager to monitor sound levels to ensure that they are suitable for the environment of the installation and for public comfort.</p>	<p>Artist / production manager.</p> <p>Aswarm staff / volunteers.</p> <p>Site manager / groundsperson.</p> <p>Contractors.</p>

			<p>Where personnel will be required to work in situations where levels of noise are likely to be encountered a noise assessment should be carried out to determine the levels and frequencies of noise.</p> <p>Noise monitoring to take place throughout the event.</p> <p>Suitable ear defenders will be provided and MUST be worn in Ear Protection Zones, demarcated by signs displayed.</p> <p>Due to the nature of the event excessive noise levels from sound systems are avoided</p>				<p>Employees are advised of the risks from exposure to noise</p>	<p>Sound engineer.</p>
* Props	<p>Using or coming in contact with damaged or unsuitable props may cause cuts, burns or otherserious injuries to you, your employees and/or visitors</p>	P, S &C	<p>Props that could come in contact with employees or others are secured where possible.</p> <p>Materials used for props are suitable</p> <p>Specialised props are used and maintained in accordance with the manufacturer's instructions</p> <p>Props are suitable for their intended use and for the user</p> <p>Props are kept in clean condition and particular care is taken with props used for eating and/or drinking</p> <p>Users of props are given adequate information and instruction, and training where necessary</p>	2	1	2	<p>The sofa seating bench will be made out of 18mm marine plywood, with a padding of CE registered fire retardant foam and Flamebarred material covering.</p> <p>The entire structure will also be Flamebarred in order to eliminate the risk of fire.</p> <p>The replica phone box is made from timber and perspex and has adjustable feet at the base to ensure that it stands level.</p> <p>All edges are finished and painted.</p> <p>All props have been created by professional propmakers in collaboration with ASWARM.</p>	<p>Artist / production manager.</p> <p>Aswarm staff / volunteers.</p> <p>Contractors.</p>

			<p>Users are asked to report any problems, adverse reactions or irritation due to props</p> <p>Reported defects/issues are dealt with promptly</p>					
Generator	Fire	P,S & C	<p>No petrol generators to be used.</p> <p>1 x fire point to be placed at the generator.</p> <p>Generator to be installed and designed to a high standard, meeting relevant codes.</p> <p>Generator to be examined regularly to ensure that there is no likelihood of a loose connection causing fire/ electric shock</p> <p>Any/ All generators to be installed and certified by a qualified electrician in advance of the event</p> <p>Fire points to be checked throughout the event</p> <p>To be reported to Production Manager</p>	4	1	4		<p>Artist / production manager.</p> <p>Aswarm staff / volunteers.</p> <p>Site manager / groundsperson.</p> <p>Contractors.</p> <p>Fire / safety officer</p>
High winds / extreme weather conditions.	<p>Damage to structures and flown elements - causing them to fall or collapse.</p> <p>Bodily injury from falling or</p>	P,C & S	<p>Monitoring weather changes regularly, (using an anemometer where relevant).</p> <p>Make sure all staff are aware of any cancellations or procedures in the event of bad weather.</p> <p>Make sure that all structures are suitably weighted or secured to the ground using ground anchors or spikes, to prevent</p>	5	2	10	<p>Evaluate any / all structures and flown elements if necessary.</p> <p>In the event of extreme weather action a suitable evacuation plan for public and staff.</p>	<p>Artist / production manager.</p> <p>Structural engineer / rigger.</p> <p>Aswarm staff / volunteers.</p>

	collapsing objects.		toppling. Ensure that all flown elements are securely rigged using rated cable and fixings appropriate to the maximum expected loads.					Site manager / groundsperson. Contractors. Stewards / security.
Delayed start in the event of a timed / ticketed show.	Injury, crushing may occur in queues	P,C & S	Very unlikely due to the scale of the site and nature of the show. Production manger to liase with volunteers / stewards / security.	2	2	4	This installation is does not run on a ticketed basis. There will be no prior publicity.	Artist / production manager. Aswarm staff / volunteers. Site manager / groundsperson. Contractors. Stewards / security.
General Attendance	Conflict due to nature of show / alcohol / malice etc.	P,S & C	Good liason with community groups / locals prior to the event. Stewards / security personnel to act swiftly at the first signs of aggression. Management of attendees by adequate numbers of stewards / security personnel.	2	1	2	Police to be contacted immediately if a serious situation arises. To date we have had no issues with public interaction with ASWARM installations or shows	Artist / production manager. Stewards/ Security
Viewing Areas	Overcrowding	P,S & C	Very unlikely due to the scale of the site and viewing areas. The viewing areas far exceed the area required for the audience expected.	2	1	4	Show stop can be called if required	Artist / production manager. Aswarm staff / volunteers.

Viewing Areas	Overcrowding	P,S & C	<p>Very unlikely due to the scale of the site and viewing areas.</p> <p>The viewing areas far exceed the area required for the audience expected.</p> <p>All entry and exit points will be kept clear and will be signed appropriately.</p>	2	1	4	Show stop can be called if required	<p>Artist / production manager.</p> <p>Aswarm staff / volunteers.</p> <p>Site manager / groundsperson.</p> <p>Stewards / security.</p>
* Safeguarding	<p>Collecting recorded material from members of the public.</p> <p>Concerns over future use of recorded material.</p>	P	<p>Ensure that all members of the public to be recorded are aware of the project and to what end the recordings will be used.</p> <p>Prior to recording ask all members of the public to sign the LOGG / Hull2017 disclaimer form.</p> <p>All ASWARM staff responsible for collecting recordings will be DBS checked</p>	5	1	5		<p>Artist / production manager.</p> <p>Aswarm staff / volunteers.</p>