

		HEALTH AND SAFETY RISK ASSESSMENT						
Title:	Manchester Ice Rink - 180356			Date:	01/09/2023		Location:	Cathedral Gardens Manchester
Risk Assessment No:	Manchester Ice 001		Associated SSOW No:	N/A		Version No:	1	
Reason for Assessment:			New Task	☒	*Details of accident being reviewed:			
			Significant Change	☐				
			Periodic Review	☐				
			Central Directive	☐				
			Review Following Accident*	☐				
Task Description: Describe the task ; provide a “story” that outlines the workplace, equipment and processes that are to be conducted.			Construction of temporary structures including 3 x 5m x 5m, 20m x 45m, 7.5m x 35m, 5m x 35m & ice path on scaffold, paving and grass with good ground conditions and available space to work. Task to be carried out during day-light hours and in appropriate weather conditions.					
			<ol style="list-style-type: none"> Set out site: Site layout to be identified and segregated from the ongoing activities using Heras Fencing. Access always controlled through the site office or construction manager to ensure security and safety of non-construction related workforce. Those with interest in the activity such as hauliers to be made aware of site restrictions beyond the normal activities through induction on arrival. Signage in place to denote the construction area with PPE guidance clearly visible. Designated smoking area in place and clearly identified. Toilets will be available within the task area and be provided by Managed Ice Team. Unloading of Trucks: All trucks will be unloaded in designated area and to be barrier off from other personnel. Structure Layout: Site will be clear of obstruction and the ring beam will be located using string and tape measures. The ring beam will be secured to a scaffold grid and ballast, no stakes are allowed due to unknown services below ground. Floor to be laid as manufacturer's instructions. Structure assembled on the ground using manufacturers techniques and positioned in place. Structure Lifting Operations: Lift and secure first frame as indicated by Supervisor. Tent lifting by hand or by push poles. Temporary bracing may be necessary to hold first frame, the Supervisor will make the call on day of erect. Lift and secure second frame to the first frame using purlins and purlin forks. Complete wiring and remove temporary bracing when instructed by the Supervisor, repeat all frames till task is complete. Where working at height a 'Nano' Scissor Lift or Scaffold Tower shall be used and only by authorised, trained and competent personnel. 					

5. Scaffold: To be provided by Acorn, all structures will be built atop a linked scaffold grid and secured with fixing materials, straps, and ballast. Acorn to provide their Risk Assessment
6. Roof Assembly:
Work at height platforms operated by competent users will be used for access to the roof truss. The sheets will be fed into the Kader track with ropes attached. The ropes will be pulled on by hand. Where possible this will be completed using Mechanical equipment and the area kept clear of personnel during the task. Activities will be monitored and overseen by the Construction Manager. Should sheets become snagged these will be dealt with on a case-by-case basis utilising the ladder for access and hand tools to free the snag as required. Construction Manager will assess these at the time. Wind condition and weather forecast will be monitored throughout this stage. Work stop decision will be made by Construction Manager.
7. Sealing in of Structures:
All Structures to be sealed in to update latest drawings, see Supervisor for latest drawings. Forklifts to be used to bring panels, u bars, doors, etc.
Fit all components to manufacture guidance.
8. Sub-Contractors:
All Sub-Contractors to produce Risk Assessments and Method Statements and to meet with Construction Manager before commencing work for a briefing and planned approach considering all other works happening concurrently.
9. Ice Rink:
The boarder panels for the structure should be laid out and the positioning of the gates determined. Starting in one corner the boarder is stood up and bolted together. All posts and ground rails are screwed down. The ice rink liner is laid out and trimmed to fit around any obstacles. The pipe mat is laid on top of the liner starting at the end furthest from the header. The pipe mat is joined together and clipped up. The header pipe is laid out at the end of the rink and connected to the pipe mat. The rink liner is lifted up and fixed around the header. The boarder panels at the header end of the rink are then put into place and bolted up to complete the boarder. Care should be taken to ensure the liner is correctly fitted around the header pipes and is high enough to retain the water when it is added. The chiller company can now connect to the header pipe.

Once everything is connected glycol is pumped slowly around the system and the system is checked for leaks. Once it is certain there are no leaks the first few centimetres of water can be pumped into the rink and the freezing process can begin. As each layer freezes then more water can be added to 'layer' up the ice to the required depth.
10. Glycol
When charging or purging the system the person in overall charge of the task must ensure that all connections between the system and the rink are watertight. A separate and individual inspection of the entire line must be undertaken prior to the charge/purge being instigated. If the plant operation is not visible from the ice rink then it will be necessary to ensure that someone keeps a regular check on the buffer tank to ensure that there is no overflow or accidental discharge of the glycol. In the event of a discharge the spill must be contained as a priority and then reported to the construction manager and the project manager. Glycol is a food safe product and therefore all spill materials can be disposed of through normal waste management.

What might be the types of hazard? Every Hazard identified **MUST** be addressed in the assessment

Other applicable Risk Assessments <i>Refer to the Site Master RAMS and reference any related assessments or relevant manufacturers documentation in this box:</i>		Control of Noise/Vibration Alu Halls Standalones Delivery, Load, Unload Forklift Truck Operation Loading Bay Wind Management Manual Handling Safety in High Winds Working at Height Ice Rink			
A. Slips, Trips & Falls ☒ B. Working at Height ☒ C. Manual Handling (specific MH RA required) ☒ D. Hit by moving vehicle ☒ E. Trapped by object ☐ F. Collision with object ☒ G. Struck by moving object ☒		H. Struck by falling object ☒ I. Contact with machinery / entanglement ☐ J. Sharp objects ☐ K. Violence ☐ L. Noise (specific Noise RA required) ☒ M. Extreme temperatures (Hot and Cold) ☐ N. Smoke or Dust ☒		O. Hazardous Substances (specific COSHH RA required) ☐ P. Vibration ☐ Q. Fire & Explosion specific RA required) ☐ R. Electricity ☐ S. Suffocation ☐ T. Animal attack ☐ U. Other ☐	
If “Other” please describe		Shared Site Environmental			
List any Existing Common Controls that are relevant to this task/activity NOTE: Every control <i>MUST</i> be referenced in the assessment					
1		2			
3		4			
5		6			
7		8			
9		10			
11		12			
13		14			
Please add additional rows above if needed					
Who might be harmed?					
☒ Employees ☒ Contractors ☒ Agency Workers ☐ Customers		☒ Visitors ☐ Public ☐ Vulnerable People ☐ Other		Comments if Other, Multiple Groups or Vulnerable People	

Hazards	How may they be harmed?	Existing Controls	Risk Rating (Likelihood x Severity)			Additional Controls Required	Residual Risk			Action By Whom?	Action By When?	Action Status
			L	S	R		L	S	R			
Shared Site (Only with our subcontractors)	Contact with work activities of which they may not be fully aware of hazards present	<ul style="list-style-type: none"> All site access controlled through Construction Manager Clear signage detailing restricted access Daily consultation between construction manager and teams onsite 	1	4	4	<ul style="list-style-type: none"> Daily consultation between construction manager and other contractor supervisor 	1	3	3	Construction manager	Daily	ongoing
Work at Height	Workforce exposed to falling objects and operator's potential to fall from height.	<ul style="list-style-type: none"> Work at Height always avoided where possible Exclusion zones of 5m around the base of MEWPS All work at height to be carried out from a mobile platform Daily briefs on hazards from construction manager 	2	2	4	<ul style="list-style-type: none"> Tools fitted with lanyards where possible. 	2	1	2	Construction manager	As part of equipment replacement	ongoing
Moving Equipment	Workforce exposed to contact with moving equipment	<ul style="list-style-type: none"> Work area segregated to prevent unauthorised access Ped barriers used to define work area Equipment operators trained to NPORS standard Visual and audible warnings in place for moving equipment 	2	2	4	<ul style="list-style-type: none"> Equipment well maintained through hire company and daily checks on safety devices completed. Awareness of daily hazards raised at daily briefs 	1	3	3	All workforce	Daily	ongoing
Mechanical tools	Workforce exposed to noise / dust and vibration	<ul style="list-style-type: none"> Goggles worn Short duration uses of tools rotate task staff where suitable. 	2	3	6	<ul style="list-style-type: none"> Gloves to maintain heat in hands User competent in tools Breaks as required 	1	4	4	All workforce	daily	ongoing
In loading	Workforce and others exposed to moving equipment and machinery.	<ul style="list-style-type: none"> Designated unloading area Restricted access to work area / site access managed through construction manager Controls as per moving equipment 	2	2	4	Controls as per moving equipment	1	3	3	All workforce	Daily	ongoing
High winds	Workforce injury/death from falling objects and tent collapse	<ul style="list-style-type: none"> All ballast to be correctly install All ballast done to drawing 	2	2	4	If high winds are predicted there should be an evacuation plan in place.	1	3	3	Construction manager/ client	Daily	ongoing
Refuelling of Forklift	Environmental impact	<ul style="list-style-type: none"> Designated fuelling area Drip trays and spill kits at point of use 	2	3	6	<ul style="list-style-type: none"> Fire extinguisher in place Restriction of smoking activities No fuelling during hot works 	1	4	4	All workforce	Daily	ongoing
	Fire and explosion											
Potential Glycol spill from the IBC's and leakage from rink.	Ground Contamination	<ul style="list-style-type: none"> All pipe work and fittings to be pressure tested, inspected and signed off. No fluids are to be stored within 10m of inland water ways. 	2	2	4	All operatives to have awareness training in dealing with spills.	1	2	2	Ice Team and Client	Daily	Active

(Glycol data sheets to be sent separately)		<ul style="list-style-type: none"> Refuelling and movement of fluids between containers is only to be undertaken by competent experienced personnel or under the supervision of the same. Spill kits to be supplied. 				<p>All systems and pipework are to be visually inspected on a daily basis.</p> <p>Client Inspections to be recorded for records.</p> <p>In the event of a leak the leak must contained as quickly as possible, and a spill kit to be used to minimise the exposed area.</p>						
Waste	JW3 Grounds and surrounding area. Ground Contamination.	<ul style="list-style-type: none"> All waste is to be collected and safely secured as it is created. All construction waste to be disposed of by Arena, using Hippo Bags provided. Waste removal contractors must be licensed waste carriers. 	2	2	4	All waste must be subjected to segregation either on site or by the licensed waste carrier upon removal.	1	2	2	All personnel	Daily	Active
Noise Pollution		<ul style="list-style-type: none"> Noise levels are to be kept to a minimum as far as is reasonably practicable. Plant is only to be operated by qualified, competent and trained individuals. All equipment, plant and vehicles must be in a good state of repair and serviced regularly. 	3	2	6	<p>Engine and motors are to be switched off when not in use and not left to idle.</p> <p>Generator has been removed and running off client power to reduce noise pollution</p>	3	1	3	All personnel	Daily	Active

Colleague Consultation <i>The following colleagues were consulted to facilitate a team approach to this risk assessment (E.G. First Line Manager, Safety Rep, Colleagues who do the job)</i>	Names		Job Title/Position	
	Nicole Keighrey		Project Manager	
	James Harrington		Construction Manager	

Risk Assessment Approval							
Risk Assessor	Nicole Keighrey	Job Title	Project Manager	Signature		Date	01/09/2023
Construction Manager	James Harrington	Job Title	Site Manager	Signature		Date	

Revision History								
Risk Assessor		Signature	Job Title	Date	Line Manager	Signature	Job Title	Date
1 st								
2 nd								
3 rd								
4 th								
5 th								

RISK MATRIX

			Probability [Likelihood]				
5	Major	Severity [Consequence]	5	10	15	20	25
4	High		4	8	12	16	20
3	Medium		3	6	9	12	15
2	Low		2	4	6	8	10
1	Minor		1	2	3	4	5
			1 Improbable	2 Low	3 Medium	4 High	5 Almost Certain