

Job Safety & Environment Analysis (JSEA)

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Revision No.	0
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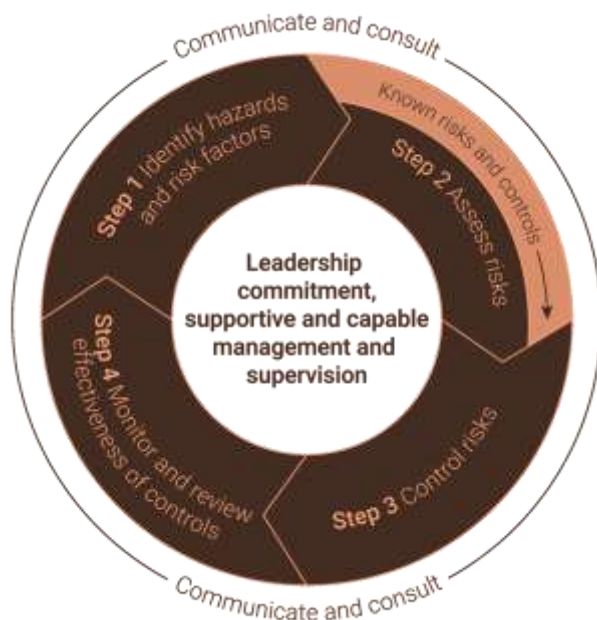
Project Title:	Install Location:	Installation Type:
Job Code:	Component Code: 70208	Model: MAC Mobile Anchor Cube
Branch:	Department:	Product Serial #:
Job Start (Date):	Work Order Number:	Seg No:
Approved By & Title: Radek Kaleta – Technical Officer (BTS)	Signature:	Date: 22/07/2024
JSEA Participants		Read or instructed in the contents of this JSEA
Print:		Sign:
Print:		Sign:
Print:		Sign:
Print:		Sign:
Print:		Sign:

List other reference documentation (Set-up, User and Service manuals etc.): _____

Personal Protective Equipment (PPE) and Plant, Tools & Equipment

													
☐ Safety Boots	☐ Safety Glasses	☐ Safety Vest	☐ Hand Protection	☐ Hard Hat	☐ Face Shield	☐ Welding Mask	☐ Hearing Protection	☐ Dust Mask	☐ Harness	☐ Spotter/s Required	☐ Lock Out	☐ Out of Service Tag	☐ Personal Danger Tag
													
☐ Hot Works Permit	☐ Crane / Lift	☐ Dogman Required	☐ Fork Lift	☐ No Trips / Slips	☐ Unprotected Pits / Edges	☐ Ladder/ Safety Step	☐ Work Platform	☐ Barricade Work Area	☐ Portable RCD	☐ Tools Calibrated / Tested	☐ No Sharp / Bio-Haz Materials	☐ Lighting Adequate	☐ Weather Adequate

Risk Management Process



Instructions:

Step 1: Define the tasks / activities involved and list the identified hazards involved in each task.

Step 2: Assess the risks associated with each hazard using the risk matrix. Consequence x Likelihood.

Step 3: Determine control measures to reduce the risk to as Low As Reasonably Practicable (ALARP) using the Control Hierarchy (most effective to least effective). List persons responsible for the control measures and re-assess the risks following control measures.

Step 4: Review control measures to ensure risk remains acceptable. Review if people, equipment, materials or the work processes change.

Assess Risks and Controlling

The likelihood of an incident occurring because of the hazard is first assessed.

Likelihood Ratings

A	Almost Certain	The event is expected to occur in most circumstances
B	Likely	The event will probably occur in most circumstances
C	Possible	The event may occur at some time
D	Unlikely	The event could occur at some time
E	Rare	The event may only occur in exceptional circumstances

The consequences (if an incident did occur) is then determined. To determine the possible consequences, a judgement on the severity of the potential outcome is made.

Consequence Ratings

1	Insignificant	Nil injuries
2	Minor	First aid treatment, on-site release immediately contained
3	Moderate	Medical treatment, on-site release contained with outside assistance
4	Major	Extensive injuries, loss of capability, off-site release with no detrimental affects
5	Catastrophic	Death, release off-site with detrimental effect

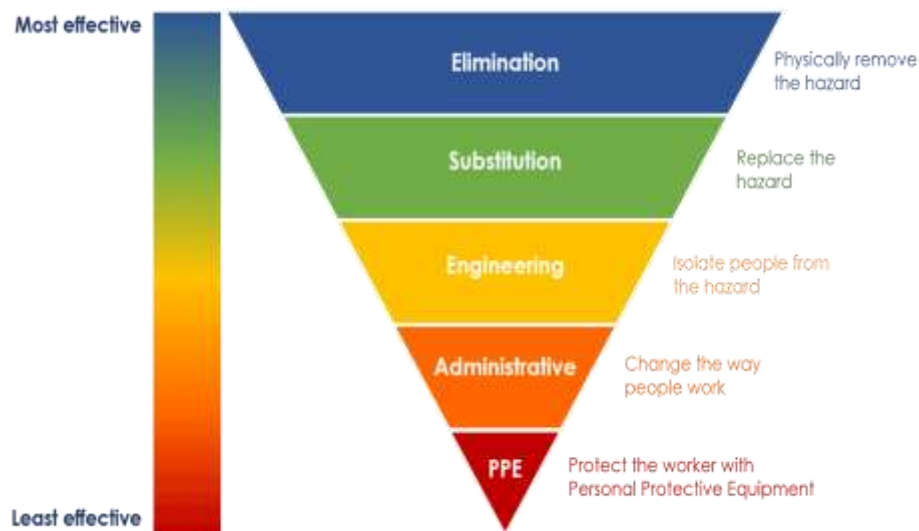
The likelihood and consequences estimates are then combined to obtain a total risk score (before controls) by using the following risk priority table.

L=Likelihood

C=Consequences

Risk Assessment Matrix			Consequences				
			Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
Likelihood	A	Almost Certain	H (11)	H (16)	E (20)	E (23)	E (25)
	B	Likely	M (7)	H (12)	H (17)	E (21)	E (24)
	C	Possible	L (4)	M (8)	H (13)	E (18)	E (22)
	D	Unlikely	L (2)	L (5)	M (9)	H (14)	E (19)
	E	Rare	L (1)	L (3)	M (6)	H (10)	H (15)

Control measures are then decided and implemented using the following hierarchy of controls.



Deciding on Control Measures

When deciding on control measures to be introduced consider:

- the adequacy of the control measures.
- that the measures do not create any new or additional hazards; and
- the need to introduce more than one control measure to adequately control the risk.
- The need to introduce the most effective control measure reasonably practicable using the Hierarchy of Controls.

After deciding on the control measures the likelihood and consequences are assessed again to obtain a risk score (after controls). The following legend is used to determine the response.

Legend

Score	Action
E 18 – 25	Extreme Risk. Activity Cannot Commence. Requires immediate attention.
H 10 – 17	High Risk. Activity Cannot Commence. Review and implement strict control measures.
M 6 – 9	Moderate Risk. Activity Can Commence. Follow instructions and procedures
L 1 - 5	Low Risk. Activity Can Commence. Review if processes change.

MONITORING AND EVALUATION	The responsible person (Page 1 of SWP/SWMS) is to ensure that works are monitored for compliance with this SWP/SWMS. Monitoring will primarily be performed by direct supervision and task observation. The SWP/SWMS is to be amended by the responsible person to address any deficiencies identified during the task observations. In the event of any amendments to the SWP/SWMS all applicable workers will be consulted with and re-trained in the SWP/SWMS.
CONSULTATION AND COMMUNICATION	Workers will be consulted with in the following forms: • Daily Pre-start Risk Assessments • Toolbox talks • Meetings and other communications.
COMPETENCY AND TRAINING	Working @ heights training (if required) Site Specific Induction (if required) OEM Verification of Competencies on equipment Equipment user & set-up manuals
MAINTENANCE AND EQUIPMENT CHECKS	Tools and equipment – visual inspection prior to use. Ongoing service and maintenance in accordance with manufacturer's instructions and recommendations. Working @ heights equipment – current test and tag at 3 monthly intervals.

GENERAL SITE ACTIVITIES (SAFE WORK PROCEDURES)											
TASK / ACTIVITY		HAZARD/S	RISK (BEFORE CONTROLS)			CONTROL MEASURES	RISK (AFTER CONTROLS)			RESPONSIBLE PERSON	
			L	C	R		L	C	R		
1.	Assess site / work areas	Unidentified hazards	C	4	E 18	- Conduct walk through assessment of site and complete Pre-Start Risk Assessment [PSRA] - Ensure ALL WORKERS are consulted during the PSRA process - Do not start work where uncontrolled hazards/risks are identified. - Suitable controls to be implemented including modifying SWMS if required - Advise team leader of uncontrolled hazards before commencing work.	E	3	M 6	Contractor All workers	
2.	Access Site	Untidy / cluttered access	C	4	E 18	- Identify safest route on site - If safe route cannot be identified Stop Work. - Contact team leader for access to be made safe.	E	3	M 6	Contractor All Workers	
		Unstable ground conditions	C	4	E 18	Contact team leader before commencing work.	E	3	M 6	Contractor All workers	
3.	Assess site labour	Non-compliant workers	D	4	H 14	ALL WORKERS to: - Hold working @ heights qualifications (where required) - Have completed site induction [where required] - Be inducted and sign onto this SWMS / SWP - Have completed relevant equipment use training required for completion of task	E	3	M 6	Contractor All workers	
		Inexperienced workers	D	4	H 14	- Ensure adequate supervision at all times [visual or verbal contact] - Suitable PPE to be provided - Ensure evidence of training or instruction relating to the following: ➤ Use of tools & equipment ➤ Manual and materials handling ➤ Safe work practices [including hazard identification and risk assessment] ➤ Hazard/incident reporting	E	3	M 6	Contractor All workers	
		Remote workers	D	4	H 14	When working in remote location where there is limited, or no other persons in the vicinity: - Set up contact schedule with Tesla team leader i.e., prior to leaving for site and after completing job and leaving site. - If no contact is made in the agreed time the team leader will organise	E	3	M 6	Contractor All workers	

						- a site visit. - Use your mobile phone to dial in the event of an emergency. - Use back to base lone worker monitored systems				
4.	Assess tools and equipment	Faulty tools / equipment	C	3	H 13	- All tools and equipment to be inspected for damage prior to use - Maintenance records to be kept where required	E	3	M 6	Contractor All workers
		Inexperienced Operator	C	4	E 18	All equipment to be used by competent operators in accordance with manufacturer's instructions.	E	3	M 6	Contractor All workers
5.	Unloading of system & handling of materials	Over exertion	D	4	H 14	- Mechanical Lifting aids to be used wherever possible. - Where lifting is required the following to be utilised: ➤ Minimise the weight of loads where possible so as excessive loads are not carried. ➤ Use of good lifting techniques as follows: ○ A firm grip on the load ○ Load close to the body ○ Smooth lift avoiding twisting or jerking ○ Weights that feel excessive or above workers capacity not to be lifted	E	2	L 3	Contractor All workers
6.	Working outdoors	Slippery surfaces / Lost control of materials due to inclement conditions	C	4	E 18	- Monitor weather conditions [BOM etc.] - Cease work if weather conditions become unsuitable and contact Team leader [re-commence work only when hazards controlled]	E	2	L 3	Contractor All workers
		UV Exposure	C	3	H 13	- SPF 50+ sunscreen to be applied before and regularly during work. - Wear UV resistant clothing, broad brimmed hat, and tinted safety glasses.	E	2	L 3	Contractor All workers
		Dehydration / Heat Exhaustion	C	3	H 13	- Maintain regular intake of water. - Utilise shade, task rotation and rest breaks as possible.	E	2	L 3	Contractor All workers
7.	Lighting	Inadequate light for task	C	3	H 13	- Lighting to be suitable for the tasks performed (160 lux). - Lighting to be provided or work to cease where natural lighting becomes inadequate.	E	2	L 3	Contractor All workers
8.	Work near other trades	Falling objects	C	4	E 18	- Consult with other trades on site and co-ordinate work areas. - Where required isolate work areas using spotter or barriers. - Do not work immediately above other trades. (maintain exclusion zones) - Display 'Work Above' signage in prominent position (front of site)	E	3	M 6	Contractor All workers
9.	Emergency Preparedness	Inadequate Response	C	3	H 13	- A first aid kit meeting statute requirements is to be readily accessible to always work areas. - Contractor to ensure adequately competent first aid personnel available.	E	2	L 3	Contractor All workers

						- All workers to be familiar with and adhere to site / customer emergency procedures and emergency procedure of site - In the event of an emergency, team leader to be notified immediately. 1 person to calm injured worker and maintain continuous verbal communication. - Emergency services contacted immediately – Dial emergency services phone number for the local region and follow emergency services instructions.				
15.	Leave Site	Remaining waste materials	C	3	H 13	- All waste and excess materials collected and placed in waste receptacles or (removed from site if required) - Areas left in a clean and tidy state.	E	3	M 6	Contractor All workers
		Unsecured site	C	4	E 18	Lock and secure site if required.	E	2	L 3	Contractor All workers
		Non-conformance with procedures	C	3	H 13	Sign out / exit procedures of principal contractor followed.	E	2	L 3	Contractor All workers

SET-UP OF BTS EQUIPMENT ON MEGAPACK (SWMS)

TASK / ACTIVITY		HAZARD/S	RISK (BEFORE CONTROLS)			CONTROL MEASURES	RISK (AFTER CONTROLS)			RESPONSIBLE PERSON
			L	C	R		L	C	R	
16.	General requirements	Falls, Lacerations, Manual Handling, Falling Object	C	4	E 18	- All BTS working @ heights equipment to be inspected before use. - MAC System (70208) - Ensure mast and anchor brackets are in good condition. If defective do not use and tag out of service. - Detachable pins – Ensure all fittings are free from any damage. If defective do not use until repaired/ replaced. - Personal harness and SRL's/ HRA's – Ensure the harness and Fall arrest system's lines are free from frays, tears, excessive stretching, cracks in hardware and any other damage. If defective, do not use until repaired/replaced. Wire rope has not cut strands, bird-caging. Fall arrest hook is in good functioning order. All items are "in-service" date.	E	3	M 6	Contractor All workers
17.	Assembly of MAC (Base, Mast and limited Fall Arrest System)	Manual Handling Hand Injury including Pinch Point , Slips/Trips & Fall	C	4	E 18	- Use appropriate equipment when lifting heavy objects try to maintain an inclined back and bent knees to a semi squat. - Use site forklift to lift and position load. - Wear appropriate hand protection. - Maintain good housekeeping and Barricade work area if needed.	D	3	M 9	Contractor All workers
18.	Product Familiarization	Untrained staff	C	4	E 18	Users must be familiar with equipment before use	D	3	M 9	Contractor All workers
19.	Moving of the system	Untrained staff Manual Handling Hand Injury including Pinch Point Slips/Trips & Fall	C	2	M 8	- Users must be familiar with equipment before use - Use appropriate equipment when moving heavy objects. - Use site forklift or pallet jack to reposition MAC system. - Wear appropriate hand protection. - Wear appropriate Foot protection. (Safety boot)	E	2	L 3	Contractor All workers
20.	System Positioning	Untrained staff Manual Handling Falls Unsafe location, product slip	C	4	E 18	- Users to be familiar with equipment set-up - Ensure product is handled with appropriate moving equipment - Ensure System is placed on level, firm ground - Ensure system is positioned accordingly to the fall restraint or rescue recovery product selected	E	3	M 6	Contractor All workers

Additional Hazards / Amended Procedure (to be completed where Pre-Site Risk Assessment determines necessary) Use Risk Management Processes on Pages 2 and 3 of this SWP / SWMS to complete.

TASK / ACTIVITY	HAZARD/S	RISK (BEFORE CONTROLS)			CONTROL MEASURES	RISK (AFTER CONTROLS)			RESPONSIBLE PERSON
		L	C	R		L	C	R	

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