JHA#:	Reviewed By:
	·

Job Hazard Analysis		Date:
Contract: SCRM 8356921		Phase: Horizontal slab on deck formwork
Contractor: Formwork	Location: La Jolla, CA	Completed By:
Activity Operation	Unsafe Condition, Action, or Other Hazard	Preventative or Corrective Action That Will be Taken (Applicable Site - Specific MSDS should be listed.)
Installing Shoring Tower	Struck By Material Hoisting	All Equipment flown into work area should have appropriate number of tag lines. Tower Crane shall signal when load is arriving overhead. Ensure you are clear of loading zones when equipment is being flown onto deck/slab. All rigging should have appropriate tags identifying lifting capacities. Rigging shall be inspect for damage prior to picking any loads.
	Struck By Material Storage	All equipment should be stacked and organized with routes of travel left clear & open. Stacked material should be secure from falling or tipping hazards. When landing material ensure your body is not in between load and solid structure.
	Struck By Forklift	Ensure forklift back up alarm is working. Make eye contact with lift operator when working in proximity. Area where forklift is working should be cautioned off to ensure only deck crew is working in area. All personnel in area are required to have safety vests. Ensure forks are down when moving forklift and parking brake is on if operator leaves the lift. Lift operator must wear seat belt during lift operation.
	Falling Scissor Lift	Ensure you are following manufacturer guidelines when using scissor lift for shoring tower erection. All scissor lift operators must have received proper aerial lift training. Ensure extending portion of lift is locked into place and access chain is in place prior to beginning work. Area of deck/slab should be surveyed for any openings prior to work. All openings must be clearly marked prior to working on scissor lift to ensure lift

JHA#:	Reviewed By:

		does not tilt/fall over.
	Falling Shoring Tower	When working above 6' for shoring tower installation setup working platform three scaffold planks wide with no gaps. Use only OSHA grade scaffold planks. Climb scaffold tower as a ladder using three points of contact at all times. Once safely on the scaffold use lanyard to tie off to shoring tower. Ensure all frames have been securely attached and fully braced. Utilize cleats on the bottom of all scaffold planking to ensure the planking stays in the desired location. Remain aware of all special planking conditions which may cause cantilever unsupported planked sections. Only members of the deck crew are allowed to access shoring towers. Ensure all other personnel stay out of decking zones. Utilize caution tape as necessary to secure all work zones.
	Struck by Shoring Towers	Ensure all towers and posts are installed 100% prior to leaving area. Install all required tower bracing as shown on formwork drawings. If any towers seem unstable contact Forman prior to leaving area. Ensure all pins are locked in place and all safety devices have been correctly installed.
	Strains	Work as a team to spread decking towers. Use proper lifting techniques.
Setting Stringers and Beams	Falling	100% fall protection required when working above 6'. Ensure fall protection system has appropriate 5000# anchorage point. Ensure all SRL's which are being utilized for decking operation have pull cords to allow access to device from safe working area.
	Struck by deck material	Ensure area below installation has been cautioned off. Ensure all hand tools are securely located in tool bags. If unaware workers come into decking area notify them that they are in a controlled zone and that they must leave area until decking operation is complete. Carefully land all material loads to ensure they will not fall over. Keep in mind wind gusts when landing materials and ensure materials are placed in a manner that they cannot be blown off building.
	Strains	Work as a team to spread large deck beams. Use proper lifting techniques.

HA#:	Reviewed By:
·	

Installing Deck Material	Falling	Ensure leading edge area is established. Employees on leading edge must be tied off to leading edge horizontal lifeline or SRL. SRL on all leading edge must be shock pack model if SRL cable is subjected to greater than 90 degree bend. If SRL is installed onto deck it must be held upright using armadillo holder to keep it in place. All SRL's must be attached to appropriate 5000# anchorage point. Area of work should be 100% passive fall protection prior to allowing personnel to access deck. Access zone shall to leading edge shall remain clearly marked with barricade and or caution tape placed greater than 6' back from edge. Only decking crew will be allowed passed leading edge zone delineation. Decking crew working out passed the zone and with in 6' of a fall hazard must have appropriate fall protection system in place prior to coming within 6' proximity of leading edge.
	Cutting Injuries	All deck material should be cut utilizing cutting tables allowing for correct use of Skil saw. Gloves shall be worn when using cutting devices. All power tools should be inspected prior to use to ensure all guards are working properly.
	Electrocution	All power tools should have all appropriate grounds attached or be double insulated. Inline GFCI shall be used when using generator as power source. If you are using a spider box check box to ensure it has had its monthly inspection. If Spider box has not had a inspection within prior month report immediately to Forman or Superintendent.
	Struck By Hand Tools	Utilize gloves to protect hands when using hammers and all similar hand tools. Inspect personal hand tools on a daily basis to ensure tools are in good working condition.
	Falling - Deck Openings	All deck openings should be protected with secured covers capable of supporting working load or guard rail capable of supporting 200 lb. lateral load. Guard rail material shall be select lumber free of knots and splits #2 or better. Openings are never to be left unattended. Carpenters installing or removing opening protection shall have area marked off with danger tape and must be 100% tied off.
	Falling - Ladders	All access ladders shall extend 36" above deck to which they are accessing and secured top and bottom. Guardrail shall be

JHA#:		Reviewed By:
		in place providing safe passage to deck work area. Ladders shall be climbed using three points of contact and signage indicating this shall be in place at top and bottom of ladder. All ladders shall have visible signage indication load limits.
	Tripping & Slipping	Ladders with bent or damaged rungs and without proper load markings shall not be used. Deck area shall be kept tidy and organized. Construction trash should be picked up and dumped on a daily basis or as needed. Materials shall remained neatly stacked and paths of
	Falling - Access	travel shall remain free from obstructions. Provide all craft safe access to working deck. Review access areas to working deck with Superintendent and Forman prior to putting up. Ensure access has been appropriately tagged with date (green tag for approved access red tag for closed access point).
Placing Deck	Collapsing deck material	Follow decking drawings to ensure all supports are installed as necessary. Review deck with Atlas and HP Superintendent prior to placement. Review cantilever sections which require specific loading requirements. Review necessary deck placement pattern with placement crew prior to pour. Monitor decking and placement crew to ensure deck is loaded evenly during concrete placement and formwork maintains its intended shape. Utilize pre-established grade check points to see how deck is reacting under load. Ensure adequate lighting is available to utilize tools and equipment necessary for operations. Have additional shoring available as necessary for added support prior to pour. Forman documentation of deck review process is mandatory.
General	Falling	Inspect fall protection on a daily basis and or before use. Ensure all nylon webbing is free from frays and all connectors require two actions to open. Ensure all metal rings are free from visible signs of cracking and visible deformation. Check all SRL's to ensure they are retracting and locking prior to hooking up. Report any deficiencies with harness or other fall protection components to Forman or Superintendent

protection violations. The first fall protection violation will result

Jna#:	<u></u>	Reviewed By:
		in being sent home for the day. The second fall protection violation will result in termination.
	Falling Scissor Lift	Ensure you are following manufacturer guidelines when using scissor lift for shoring tower erection. Inspect scissor lift daily to ensure all components are function properly. All scissor lift operators must have received proper aerial lift training. Ensure extending portion of lift is locked into place and access chain is in place prior to beginning work. Ensure you understand the lift's capacity in its various configurations and that the machine is not being over loaded. Ensure alarm is working when lowering lift. Be cognizant of your position and the positions of your coworkers, double check your surroundings before moving the lift. Area of deck/slab should be surveyed for any openings prior to work. All openings must be clearly marked prior to working on scissor lift to ensure lift does not tilt/fall over.
	Horizontal Life Line	Check horizontal life line for abrasion prior to installation. Insure unprotected parts of the line are not allowed to come in contact with reinforcing causing damage to life line. Ensure that all SRL's are attached to the rings supplied in the HLL kit. Ensure the SRL you are attached to is near your work area and you are not exposing your self to a swing fall hazard. As you are shifting your work area you must be shifting your SRL attachment point.
	Air Tools Safety	Ensure all air tools are inspected prior to use. Ensure all retaining pins are in place and whip checks are installed on all air hose connection points.
	Power Tools	All power tools shall be checked prior to use. Ensure all guards are fully functional and that all cords have proper grounds. All power cords must be checked for nicks/cuts/exposed wiring prior to use.

JHA#:		Reviewed By:	
Equipment To Be Used	Inspection Requirements	Training Requirements	
Equipment To Be Used Tower Crane	Inspection Requirements Prior to each shift; annual; quadrennial	Training Requirements NCCCO	
Tower Crane	Prior to each shift; annual; quadrennial	NCCCO	
Tower Crane Scissor Lift	Prior to each shift; annual; quadrennial Prior to each shift	NCCCO Operator Card	
Tower Crane Scissor Lift	Prior to each shift; annual; quadrennial Prior to each shift	NCCCO Operator Card	
Tower Crane Scissor Lift	Prior to each shift; annual; quadrennial Prior to each shift	NCCCO Operator Card	
Tower Crane Scissor Lift	Prior to each shift; annual; quadrennial Prior to each shift	NCCCO Operator Card	

JHA#:	Reviewed By:
	·

Designated Competent Person	Activity
Peter Shruggs	Fall Protection

JHA#:	Reviewed By:		
Date of Review:	Printed Name:	Signature:	
Date of Review:	Printed Name:	Signature:	
Date of Review:	Printed Name:	Signature:	
Date of Review:	Printed Name:	Signature:	
Date of Review:	Printed Name:	Signature:	
Date of Review:	Printed Name:	Signature:	
Date of Review:	Printed Name:	Signature:	
Date of Review:	Printed Name:	Signature:	
Date of Review:	Printed Name:	Signature:	
Date of Review:	Printed Name:	Signature:	
Date of Review:	Printed Name:	Signature:	
Date of Review:	Printed Name:	Signature:	
Date of Review:	Printed Name:	Signature:	
Date of Review:	Printed Name:	Signature:	
Date of Review:	Printed Name:	Signature:	
Date of Review:	Printed Name:	Signature:	
Date of Review:	Printed Name:	Signature:	
Date of Review:	Printed Name:	Signature:	
Date of Review:	Printed Name:	Signature:	