	#VALUE!	Coffice Building construction for Thermax Ltd at Chinchwad											Format Rev. No.: R0 Doc. No.: SP/HIRA/F003-R0 Dt. 08.05.2024 HIRA No : 05 Rev. 02				
	& Location:		r Thermax Ltd at Chinchwad						GENERAL NOTES:								
	of Work sessment Team:	Concreting work							GENERAL NOTES: 1-All necessary permits to be obtained before work commences.								
Leader:	Name	Signature	Assessment Date:						2-All persons must be Safety Inducted.	nences.							
Leader:	Name	Signature	Last review date: Next review date:						3-Mandatory PPEs are Safety helmet, Safety shoes/Gum	Root Sof	atu alace	or Poflactivo	vest Coveral	& Handgloves			
2			Approved By						4-Probability, Severity & risk Table is attached for referen		cry glas:	ses, neriective	vest, coverail	a nanagioves.			
3			Approved by						4-Probability, sevency & risk rable is attached for referen	ice.							
4																	
		HAZARD IDENTIFIC	HAZARD IDENTIFICATION RISK EVALUATION								R	ISK CONTROL					
S.N.	Work Activity (Job steps in sequence)	Hazards	Consequence (Possible injury/III-Health/ Persons-at-Risk & Environmental)	Severity	Probability	Risk Rating (RR= S X P)	Risk Level	Legal & Other Requirement Y/N	Safety Control Measures	Severity	Probability	Risk Rating (RR= S X P)	Risk Level	Reference Documents			
1	Mobilization of Manpower	1. Lack of awareness 2. Worker under alcohol influence 3. Language Barrier 4. Unfitness	1. First ald injury, 2. Medical Treatment, 3. Serious injury.	4	3	12	Medium	Yes	I. Site safety training will be given, and gate pass will be ensured as Thermax standards.     I. HSE induction training will be given to all newcomers.     J. Gonduct Breathing analysis test on gate. (If Possible) A visually inspection on daily basis to all workmen. (Finding on workmen by his smell) S. Use language which most of workmen usually knows and understand it.     G. Take feedback from workmen about what they know.     Z. Conduct physical fitness test on workmen before his employment from authorised doctor.     J. Visually check the physical fitness dworker before start of work.     J. Susally check the physical fitness of worker before start of work.     J. Roguired PPE's will be provided to workmen.	2	2	4	Low	1. Safety induction training record - OHS/FT23 2. Tool box talk - OHS/FT25			
2	Pit Cleaning	1.Use of defective ladder 2.Slip-trip due to slippery condition.	1. First ald injury, 2. Medical Treatment	з	3	9	Medium	Yes	Medically fit workers will be involved in work activity.     Z.Competent and trained workers will be deployed.     Job specific training will be given to involved workers.     4.Continuous monitoring on work activity by supervisor.     S.Adequate ladder will be provided for scending and descending     with hand raining.     G.Ladder will be given that be support.     T.Continuous devatering will be done for dryness.     8.Mud will be removed from pit to avoid silp-trip.     J.Bequired PPE's will be provided to workmen.     (Safety	2	2	4	Low	1. Safety induction training record - OHS/FT23 2. Tool box talk - OHS/FT25			

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	& Location:	Office Building construction for	r Thermax Ltd at Chinchwad						GENERAL NOTES:					*
Scope o Bick Acc	t Work essment Team:	Concreting work	Assessment Date:						1-All necessary permits to be obtained before work com	moncoc				
Leader:	Name	Signature	Last review date:						2-All persons must be Safety Inducted.	mences.				
1			Next review date:						3-Mandatory PPEs are Safety helmet, Safety shoes/Gum	Boot,Saf	fety gla	ses,Reflective	vest, Coveral	l & Handgloves.
2			Approved By						4-Probability, Severity & risk Table is attached for refere					-
3														
4														
		HAZARD IDENTIFIC	-				RISK EVALUA	TION			RISK CONTROL			
S.N.	Work Activity (Job steps in sequence)	Hazards	Consequence (Possible injury/III-Health/ Persons-at-Risk & Environmental)	Severity	Probability	Risk Rating (RR= S X P)	Risk Level	Legal & Other Requirement Y/N	Safety Control Measures	Severity	Probability	Risk Rating (RR= S X P)	Risk Level	Reference Documen
3	PCC work	1.Wrong work practices 2.Use of defective tools 3.Handling of concrete 4.Sharp edges material handling 5.Collapse of sides	1. First aid injury, 2. Medical Treatment, 3. Serious Injury 4. Fatality	5	3	15	High	Yes	I.Trained and experience person will be deployed on work.     2.Job Specific training will be given to workers.     Job Specific training will be given to workers.     S.Jok Berkinstraining shall be given to workers.     S.Jos A Hilds Arianing shall be given to workers.     G.Transit miker containing concrete will be inspected by     authorised person.     Y.Concrete vehicle will be kept away from pit at least 1 to 1.5     mtr.     S.Fageman will be deployed to guide TM driver.     S.Sage excavation will be done.     I.O.Safety net will be barricaded to restrict unauthorized     I.Work area will be barricaded to restrict unauthorized	4	3	12	Medium	1. Safety induction training record - OHS/FT23 2. Tool box talk - OHS/FT25
4	Scaffolding erection and Dismantling work	1.Wrong work practices 2.Use of defective scaffolding material 3.Slip trip due to uneven surface. 4.Inadequate illumination at work location.	1. First aid injury, 2. Propert Damage 3. Medical Treatment, 4. Serious Injury 5. Fatality	5	3	15	High	Yes	Personal LineBuildamy in workers will be involved in work activity. 2. Trained and experience person will be deployed on work. 3. Competent and trained workers will be deployed. 4 Job specific training will be given to involved workers. 5. All tools and equipment inspected before starting of work. 6 Access area will decide and marked. 7. Scaffold staging will be erected on levelled and compacted surface or firm ground with base plate. 8. Full boarded/minimum 600 mm width working platform shall be provided on scaffold staging. 10. Safe access will be provided for ascending and descending on scaffold staging. 11. Adequate support will be provided to staging. 12. Defective damage scaffold staging material will be removed from site after inspection. 13. Surficient liminimation shall be provided to restrict unauthorized personal. 15. Heavy weight material will be shifted by more workers to reduce the permissible bad carving capacity of workers. 16.Shoulder pad will be provided to workers during handling of scaffold material. 17. Full body harmess shall be used while work on height.	4	3	12	Medium	1. Safety induction training record - OH;/FT23 2. Tool box talk - OH:/FT25 3. Height work permit
5	Reinforcement Work (Steel bar handling, Cutting and bending by machine, placement of steel)	1.1.Wrong work practices 2.Sharp edges 3.Pinch point between steel 4.Use of defective electrical tools 5.Electric shock 6.Unsafe storage	1. First aid injury, 2. Medical Treatment, 3. Serious injury 4. Fatalliy	5	3	15	High	Yes	1.Medically fit workers will be involved in work activity. 2. Trained and experience person will be deployed on work. 3. Competent and trained workers will be deployed. 4. Job specific training will be given to involved workers. 5. All tools and quipment inspected before starting of work. 6. Access area will decide and marked. 7. Manual material handling training shall be given to all involved workers for safe material handling. 8. Cut resistance/flu Coated hand gloves shall be provided to workers during material handling. 9. Compacted, plan Robitscher Charles and Bostruction free surface will be used for material handling. 10.Electrical tools and machineries shall be inspected before use and inspection tag shall be provided. 11.Calibration certificate of all electrical tools and equipment's shall be provided. 13.Body earthing will be provided to equipment's inmetallic body of equipment's. 14.Double insulted electrical cable will be used. 15.Jostratia devict a cost will be used. 15.Lostratia devicta cable will be used. 15.Lostratia be fixed one charles and used. 15.Lostratia be fixed one relectrical connections. 17.Joint free electrical connection will be used. 18.All cable will be fixed on orelead.	4	3	12	Medium	1. Safety induction training record - OH5/FT23 2. Tool box talk - OH5/FT25 3. Height work permit

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	& Location:	Office Building construction for	r Thermax Ltd at Chinchwad														
	of Work	Concreting work							GENERAL NOTES:								
	sessment Team:		Assessment Date:						1-All necessary permits to be obtained before work com	nences.							
Leader:	Name	Signature	Last review date:						2-All persons must be Safety Inducted.								
1			Next review date:						3-Mandatory PPEs are Safety helmet, Safety shoes/Gum	Boot, Saf	ety glas	ses,Reflective	vest, Coveral	I & Handgloves.			
2			Approved By						4-Probability, Severity & risk Table is attached for referen	ce							
3																	
4																	
		HAZARD IDENTIFIC	ATION				RISK EVALUAT	TION			R	ISK CONTROL					
		1	Consequence		>	1					~	1					
S.N.	Work Activity (Job steps in sequence)	Hazards	(Possible injury/III-Health/ Persons-at-Risk & Environmental)	Severity	Probability	Risk Rating (RR= S X P)	Risk Level	Legal & Other Requirement Y/N	Safety Control Measures	Severity	Probabilit	Risk Rating (RR= S X P)	Risk Level	Reference Docume			
6	Straightening of bended reinforcement bars by manually	1 Slip-trip during handling of bar by manually. 2.Back force of bars during straightening. 3.Sharp edges. 4.Pinch points.	1.Physical injury. 2.Muscular injury. 3.Facture injury. 4.Cut injury.	5	3	15	High	Yes	LJob specific training will be given to involved workers. 2.Trained and experience work force will be involved in work activity. 3.TBT conducted to workes before start the work 4.Plain and dry surface will be used for straightening work activity. 5.Obstruction free access will be used, 6.Sufficient man power will be involved in work activity to avoid back force. 7.Sharp edge will be corered. 8.Cut resistance hand gloves will be provided to all workers. 9.Housekeeping will be maintained at work area. 10.All tools inspected before starting of work. 11.Bequired PPE's will be provided to workers	3	3	9	Medium	1. Safety induction training record - OHS/FT23 2. Tool box talk - OHS/FT25			
7	Steel bar bending by manually.	1. Use of defective hand tools. 2. Sharp edge. 3. Slippage of under tension.	1.Physical injury 2.Cut injury 3.Muscular injury	5	3	15	High	Yes	Lob specific training will be given to involved workers. 2.Trained and experience work force will be involved in work activity. 3.Alt hand tools (dye) will be inspected before start the work. 4.Sharp edge will be covered 5.Cut resistance hand gloves will be provided to all workers	3	3	9	Medium	1. Safety induction training record - OHS/FT23 2. Tool box talk - OHS/FT25			
8	Making of shuttering	1. Use of defective tools 2. Lack of knowledge. 3. Use of defective electric equipment's. 4. Electric Isokok 5. Language barrier 6. Lack of awareness 7. Nails jumping due to bounce back of hammer.	1. First aid injury, 2. Medical Treatment, 3. Serious Injury	5	З	15	High	Yes	L Trained and experience person will be deployed on work. 2 Job Specific training will be given to workers. 3 All tools and equipment inspected before starting of work. 4 Access area will decide and marked. 6 Work area will be barricaded to restrict unauthorized personal. 7 Electrically operated tools inspected by authorised/certified electrician. 8 Self-guarded piv cutter machine will be used for making of shuttering. 9 Electrical connection will be gone through 30 mA ELCS/ACCS/ACE0. 10 Body earthing will be provided to electrical to operated equipment's if metallic body of equipment's. 11 Double insulted electrical connections. 14 Joint free electrical connection will be used. 13 Job Synthia electrical connection will be used. 13 Lobudy ensulted electrical connections. 14 Joint free electrical connection will be used. 13 SAI cabe will be traded of or electrical 10 Rody earthing will be provided to electrical to electrical. 13 SAI cabe will be toxed of or electrical 13 Cabe electrical connection will be used. 13 Row of will be toxed on overhead. 13 Row of the continuously supervised. 13 Row of will be toxed to work-new. (Safety gogles, Inand glows, safety shoes, safety toxet.	4	3	12	Medium	<ol> <li>Safety induction training record - 045/FT23</li> <li>Tool box talk - 045/FT25</li> <li>Height work permit</li> </ol>			

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rocess	& Location:	Office Building construction for	or Thermax Ltd at Chinchwad											
cope c	f Work	Concreting work							GENERAL NOTES:					
isk As	essment Team:		Assessment Date:						1-All necessary permits to be obtained before work comn	nences.				
ader:	Name	Signature	Last review date:						2-All persons must be Safety Inducted.					
1			Next review date:						3-Mandatory PPEs are Safety helmet, Safety shoes/Gum E	Root Safe	etv ølase	ses Reflective	vest Coverall	& Handgloves
2			Approved By						4-Probability, Severity & risk Table is attached for referen		, 8			
3			Approved by						4-Probability, Severity & risk Table is attached for referen	ce				
4									-					
4		HAZARD IDENTIFIC	CATION				RISK EVALUA	TION			R	ISK CONTROL		
S.N.	Work Activity (Job steps in sequence)	Hazards	Consequence (Possible injury/III-Health/ Persons-at-Risk & Environmental)	Severity	Probability	Risk Rating (RR= S X P)	Risk Level	Legal & Other Requirement Y/N	Safety Control Measures	Severity	Probability	Risk Rating (RR= S X P)	Risk Level	Reference Documen
9	Shuttering & De- shuttering	1. Wrong work practices 2.Use of defective tools 3.Use of defective electric equipment's 4.Electric Shock 5.Language barrier 6.Work at height 7.Lack of awareness 8.Lack of knowledge	1. First aid injury, 2. Propery damage 3. Medical Treatment, 4. Serious injury 5. Fatality	5	3	15	High	Yes	1. Trained and experience person will be deployed on work. 2. Job Specific training will be given to workers. 3. All tools and equipment inspected before starting of work. 4. Access area will decide and marked. 5. Ladder will be used for ascending and descending in pits. 6. JSA & HIRA training shall be given to workers. 7. Work area will be barricaded to restrict unauthorized personal. 8. Heavy weight material will be shifted by more workers to 8. Heavy weight material will be shifted by more workers. 3. Buddy system will be used of a shifting long length phy boards. 10. Electrically operated tools inspected by authorised/certified electrical. 11. Calibration certificate shall be provided for required electrical connection will be gone through 30 mA ELCB/RCCB/RCB0. 31. Body entiting will be provided to electrically operated equipment's if metallic body of equipment's. 14. Double insulated electrical cabe will be used. 15. Jobust with Mark Socket will be used. 15. Alsonable to will will be dire of releting connections.	4	3	12	Medium	1. Safety induction training record - OHS/FT23 2. Tool box talk- OHS/FT25 3. Height work permit

#VALUE!			IAZ/	ARD ID	ENTIFICATIO	N & RISK ASSESSMI	ENT (HIRA)	_		lo : 05	o.: R0 IRA/F003-R0 D	t. 08.05.2024	#VALUE!
Process & Location:		n for Thermax Ltd at Chinchwad											
cope of Work	Concreting work							GENERAL NOTES:					
isk Assessment Team:		Assessment Date:						1-All necessary permits to be obtained before work com	mences.				
eader: Name	Signature	Last review date:						2-All persons must be Safety Inducted.					
1		Next review date:						3-Mandatory PPEs are Safety helmet, Safety shoes/Gum		ety glas	ses,Reflective	vest, Coveral	ll & Handgloves.
2		Approved By						4-Probability, Severity & risk Table is attached for refere	nce				
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	HAZARD IDENTIF	ICATION				RISK EVALUA	TION			R	ISK CONTROL		
Work Activi S.N. (Job steps i sequence)	Hazards	Consequence (Possible injury/III-Health/ Persons-at-Risk & Environmental)	Severity	Probability	Risk Rating (RR= S X P)	Risk Level	Legal & Other Requirement Y/N	Safety Control Measures	Severity	Probability	Risk Rating (RR= S X P)	Risk Level	Reference Docume
pipe installation, Pump operation RMC vehicle		1. First aid injury, 2. Propery damage 3. Medical Treatment, 4. Serious Injury 5. Fatality	5	3	15	High	Yes	<ol> <li>Trained and experience person will be deployed on work.</li> <li>Competent and trained workers will be deployed.</li> <li>Competent and trained workers will be deployed.</li> <li>Job specific training will be given to involved workers.</li> <li>S All tools and equipment inspected before starting of work.</li> <li>All tools and equipment inspected before starting of work.</li> <li>All not specific training will be given to all involved workers.</li> <li>Material (Sharps edges of material) shall be given to all involved workers.</li> <li>Material (Sharps edges of material) shall be inspected by supervisor / storekeeper before loading &amp; unloading &amp; shifting.</li> <li>Cut resistant / PU coated hand gloves shall be provided to workers during material handling.</li> <li>Luddy system will be used for material handling.</li> <li>Laccess and work area shall be free from any obstructions &amp; slippers surface.</li> <li>Achine poshall be provided for height work to annchrage of Fibe hook.</li> <li>Double lanyard Full body harness shall be provided with shock absorber, fail arrest system.</li> </ol>	4	3	12	Medium	1. Safety induction training record - OH5/FT23 2. Tool box Talk - OH5/FT25 3. Form No. 13
								<ol> <li>Screening of workers shall be done along with height phobia test.</li> <li>Gheight work training shall be conducted to involved workers &amp; teams.</li> <li>Height work permit shall be issued before starting the work.</li> <li>Below works area shall be barricaded.</li> <li>MS pipeline shall be properly locked or tied with permanent / stable support.</li> <li>Obefettve &amp; damaged hand tools &amp; power tools shall be removed or replaced.</li> <li>Concrete pump shall be inspected by competent person prior to work start.</li> <li>Cornor ten pump shall be inspected by competent person and other who lashall be valid of concrete pump.</li> <li>All moving / rotating parts shall be guarded.</li> <li>Fag man shall be deloyed with whistle, light baton, and green &amp; rei dag for direction of driver and other who present on location.</li> <li>Defensive driving training shall be conducted for drivers based on the findings.</li> <li>Tit shall be conducted before starting the work on daily basis by supervisor.</li> <li>Reasces shall be clear from obstruction and slippery surface.</li> </ol>					

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Process & Scope of	& Location: Work	Office Building construction fo Concreting work	or Thermax Ltd at Chinchwad						GENERAL NOTES:					
Risk Asse	ssment Team:		Assessment Date:						1-All necessary permits to be obtained before work com	nmences.				
Leader:	Name	Signature	Last review date:						2-All persons must be Safety Inducted.					
1			Next review date:						3-Mandatory PPEs are Safety helmet, Safety shoes/Gum	n Boot,Safe	ety glas	ses,Reflective	vest, Coveral	& Handgloves.
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3														
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		HAZARD IDENTIFIC	CATION RISK EVALUATION								R	ISK CONTROL		
S.N.	Work Activity (Job steps in sequence)	Hazards	Consequence (Possible injury/III-Health/ Persons-at-Risk & Environmental)	Severity	Probability	Risk Rating (RR= S X P)	Risk Level	Legal & Other Requirement Y/N	Safety Control Measures	Severity	Probability	Risk Rating (RR= S X P)	Risk Level	Reference Document
									31.Calibration certificate shall be provided for required detertical tools and equipment's. 32.Electrical connection will be gone through 30 mA ELCB/RCCB/RCB0. 33.Body earthing will be provided to electrically operated equipment's if metallic body of equipment's. 34.Double insulated electrical cable will be used. 35.Industrial switch and socket will be used. 36.LS sqmm wire will be used for electrical connections. 37.Joint free electrical connection will be used. 38.All cable will be fixed on overhead. 39.Work will be continuously supervised. 40.Bequired PPE's will be provided to workmen.					

Scope o		Office Building construction for Concreting work Signature		IAZ/	ARD ID	ENTIFICA <sup>®</sup>	TION & RISK ASSESSME			Doc. No HIRA No Rev. 02	io : 05 2	RA/F003-R0 Dt		#VALUE!
2 3 4		HAZARD IDENTIFIC	Approved By				RISK EVALUAT		4-Probability, Severity & risk Table is attached for referen	rence RISK CONTROL				
S.N.	Work Activity (Job steps in sequence)	HAZARD IDENTIFICA	Consequence (Possible injury/III-Health/ Persons-at-Risk & Environmental)	Severity	Probability	Risk Rating (RR= S X P)	Risk Level	Legal & Other Requirement Y/N	Safety Control Measures	Severity	Probability	Risk Rating (RR= S X P)	Risk Level	Reference Documents
11	Backfilling of murum & Compaction	1.Improper access 1.Jack of awareness 3.Vehicle may hit to workers. 4.Language barrier 5.Lack of Knowledge	1. First aid injury, 2. Propery damage 3. Medical Treatment, 4. Serious Injury 5. Fatality	5	2	10	Medium	Yes	1. Clearance win be taken from Concern automy about underground services before starting of work. 2. Ensure only trained operator should be allowed to operate JCB/Ecxavator 3. Operator should have valid driving license. 4. Signal man should be available with JCB/Ecxavator to guide operator 5. Area will be barricaded & will be provided proper signage. 6. Ecxavator will be kept away from 1 to 1.5m from pit. 7. Wheel stopers will be provided when vehicle parked. 8. Proper inspection of JCB/Ecxavator before start of work will be done.	4	2	8	Medium	1. Tool box talk - OHS/FT25 2. Excavation & backfilling Permit
12	Housekeeping	1. Dust Generation 2. Sharp edges	1. Medical treatment 2. III health	2	5	10	Medium	No	1. Water sprinkling on ground before start of brooming.     2. Sharp edge will be found and covered it in proper manner.     3. Continuous monitoring by supervisor.     4. Appropriate PPE's will be provided to workers.	2	5	10	Medium	1. Tool box talk - OHS/FT25
13	In case of emergency	1. Confusion 2. Panic situation	1. Fall of person/material	2	5	10	Medium	No	I. Emergency pathway will be free from obstruction.     Emergency response plan shall be communicated to all workers.     Annbulance will be available at site til completion of work.     Emergency number will be displayed at various location at site.	2	5	10	Medium	1. Tool box talk - OHS/FT25
											1			