

JOB SAFETY ANALYSIS



Comprehensive Job Safety Analysis (JSA) document outlining hazards, risks, and control measures for over 130 construction and industrial activities to ensure safe work execution

JOB SAFETY ANALYSIS INDEX

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JSA (Job Safety Analysis) Sheet

Activity Name:- Structural Fabrication & Erection

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Lifting of materiel and moving to work location	Trap hazard	person may get injured	Safety shoes safety helmet safety goggle florecent jacket cotten hand gloves to be used. Area under working to be properly cordoned off.
		Fall hazard	Fatal accidents	Before lifting of material with lifting equipment safety supervisor inspect all tied slings are in proper way,then only material to be lifted.
				No person stand below the lifted load Precautaions to be taken to prevent load swing. Tied with guide rope
				Predefining all the work location for above work.
				While moving the material it will be kept tied at both end with guide rope.
3	Fabrication	1) electric shock 2) fire burns 3) toxic fumes 4) explodification	Personal Injury/Fatal Accident	ELCB and proper fuse in main supply board to be there. only approved scaffolds to be used for working at height ,Trained persons to be deployed at work competent supervisor to be present at all time during hot work activities.
				Use of good insulation of welding supply & erecting cable.
				Joint free cable to be used
				Inspected welding machine to be used
				Hot work permit to be taken from concern project and safety dept.
				Proper earthling to job and welding machine.
				Proper access & platform shall be provided.
				Remove all flammable & combustibile materiel from work area.
				Fire extinguisher to be kept available near by working area.
				Welding shield to be used for welding
4	Erection of Structural Steel	Manual Handling	Injury	All lifting machines tools and tackles should possess valid competent person certificate
				Work area shall be barricaded and warning signs shall be displayed.
				Guide rope to be used for erection
				Work permit shall be obtained before start of work.
		Power Tools	Injury	Erected steel members shall be properly braced and supported for stability. Inspected electrical tools shall be used.
				All distribution boards should have ELCB.
5	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Cable shall not interfere traffic and movements.
				Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Structural material loading,unloading and shifting by crane

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Loading Unloading	Fall of material from height due to failure of derrick or Chain pulley block or wire rope slings for lifting the material.	Injury to the persons working below and surrounding areas. Permanent disable or fatality due to fall of material.	Third party testing to be done for the Lifting derrick and other tools & tackles like wire rope slings, chain pulley blocks for 2 times the actual weight of the heaviest material to be lifted. Regular inspection of lifting tools & tackles before starting
3	Shifting	Entrapping of part of body below the material.	Injury to the persons	Shifting work to be carried out with authorized persons with continuous supervision. Area shall be made clear for any obstruction to the material. Guy ropes shall be tied at each end of the material being shifted.
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Structural work within cutouts

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker, lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Barricading of work area	Personal injury	Major burns	Use of proper PPEs - welding shield,safety shoes,safety helmet,safety goggle,highlighter jacket Whole area under working will be properly barricaded No any unauthorized material to be kept inside barricading area
3	Connection of welding cable to power socket earth & welding work.	Electric Shock,Fire Burns,Toxic Fumes,Explodification	Injury/Death	Use of proper PPEs as per SPCL norms use of ELCB and proper fuse in main supply board to be there. only SPCL approved scaffolds to be used for working at height,competent supervisor to be present at all time during hot work activities. For continuous protection double lanyard belt to be used. worker to tie his safety belt to lifeline or nearest scaffold. Use of good insulation of welding supply & erecting cable. Joint free cable to be used SPCL approved welding machine to be used Hot work permit to be taken from concern project and safety dept. Proper earthing to welding machine.(duble earthling required) Remove all flammable & combustible materiel from work area Fire bucket to be kept available near by working area. Check against hose pipe for gas leakage with soap water.
4	Gas cutting work	fire,burns,explosion,bac k fire	Property damage fatal injury eye injury	Ensure that hot work permit to be taken before starting work. No flammable or combustible material should not be stored in working are No any person allow to stand in front gas cylinder in front of gas cylinder Both cylinders should kept always in vertical position on trolley proper chain. Lighter to be used for lighting torch. Provision of flash back arrester. Tip cleaning for torch Check against hose pipe for gas leakage with soap water. Ensure that valve protection to fitted on cylinder.
5	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Surveying activity

Ref- _____

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.What are activities to be carried out, what are the hazards, what are the precautions that are to be taken.
2	Setup of instrument	Fall of instrument	Personnel Injury	Ensure leveling of machine on plane surface.
			Equipment damage	Ensure no loose earth platform for set up of machine
				Precaution to be taken while working on edge of the pit.
3	Holding staff at points	Slip/Trip	Personal injury	Ensure person standing on plane surface with sufficient visibility & light.
				Ensure use of PPE.Safety Shoes,helmet and reflective jacket
				Ensure FBSH while checking giving points on columns/slabs & other such height work.
				Ensure use of inspected and certified ladder.
4	Making pillar for Temporary Bench Mark	Road accident	Personal injury	Cement, bricks shall be carried from the source by using tractor trolley.
				Ensure tractor driver license, inspection tag, photo.
		Skin irritation due to cement and concrete material	Skin dermatitis	Use of Safety hand gloves, safety shoes and helmet as PPE.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:-Temporary area lighting

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker, lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Laying of cable	electrical short circuit, Fire hazard,	Personal Injury, electrical shock,	Proper permit shall be taken prior to start the work. Cable laying should be overhead. All joints should be Male female socket nature. Warning sign should placed for blank cable and poles while dark operation. Ensure lock out/insulation of energy source while connecting calbe Use proper & appropriate handgloves, & must wear ppes as per work requirement. Use danger & warning boards near panel boards. Only authorised person shall work. Use standard tools & equipment for electrical work. All electrical accessories & cables shall be of adequate capacities and weather proof. All electrical connections shall be made by qualified electrician Panel boards shall have ELCB and rubber mat.
3	Height work	Scaffolds, fall of person & material	Injury	Height work permit must be obtained. Errect proper scaffold on levelled base with top rail ,mid rail and and access lader and platform. Proper access to work place to be provided. Work area shall keep clean and tidy Use proper P P E as per work requirement. No flammable material to be near the light such as plastic cover, fuel lines.
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Temporary sheds

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Material shifting	Fall/Slip/Trip	Personal injury	Evaluating the capacity of the dumper
				Provision of banks man for guiding the process and stopper for vehicle. Ensuring the level ground for unloading dumper at dumping area.
			Personal injury	Material stacking not less than 1.5 mtrs from the edge of the pit . Ensuring safe working height for stacking of the material.(1.5 mtrs)
3	Erection of shed			
a	Excavation of pit for column footing	Fall /slip/trip	Personal injury	Ensure use of PPEs with proper tools & tackles
b	Concreting of column foundation			Ensure use of hand gloves while mixing & placing of concrete
c	Erection of columns			Ensure scaffolding structure while erecting columns & ensure proper bracing.
d	Erection of purlin			Ensure use of nut bolts properly inspected & use of gloves for fixng of the same in position
e	Cladding/roofing			Use of FBSH along with lifeline while placing of sheets on roof
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:-Tile Fixing.

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s)	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers. Required work permits should be taken before start of activity Work Shall be carried out under continuous Supervision.
2	Unloading & Stacking of Bitumen primer .	Improper unloading,Fall of person.	Personal Injury.	Ensure general work permit taken by engineer & verified by Safety dept. Ensure safe Access whle unloading & stacking of material. Unloading shall be done in presence of banks man. Ensure that the material shall not come in contact with skin. Avoid unauthorised entry. Workmen should be having nose mask, Rubber hand gloves,safety Goggel,and along with all required PPEs Unloading area should be identified provide caution sign board.
3	Colouring of wall by using Bitumen primer.	Improper Handling	Personal Injury	Workmen should be having nose mask, Rubber hand gloves,safety Goggel,and along with all required PPEs
4	Bitumen ,Unloading, Stacking & Heating.	Improper Handling, Fall of person.,Fire	Personal Injury, Burn.	Only inducted person should be deployed at work place. Workmen should be having nose mask, leather hand gloves, long sleeve, leggaurd and coton apron along with all required PPEs Ensure Banksman while unloading of material. Provide hard barrication to area While hot work . Ensure Hot work permit taken by engineer & verified by Safety dept. Avoid unauthorised entry. Supervisor should be present for guide. Ensure appropriate fire Extinguisher is available at work place.
5	Spreading of Bitumen by manually	Improper PPE's	Burn, Property damage	All hand tools should be inspected for its defect before it use. Carry out periodic inspection and perventive maintenance of all hand tools. No person should be allow to stand or work while spreading of bitumen is carried out. Only trained person shall be depolyed for the work. All the hadntools should be stored at its designed place.
6	Leveling of Bitumen by manually	Untrained person,contact with skin	Personal injury, Property damage	Eye wash and hand wash facility along with soap should be avalible near job location. Only trained person should be deployed the work. Supervisor should be present for guide. Entry should be restricatd.
7	Tile Fixing	Untrained person,Improper Handling,	Personal injury, Property damage	Only inducted person should be deployed at work place. Workmen should be having nose mask, rubber hand gloves, safety goggele, along with all required PPEs
8	Work during dark hours	Darkness, fall of person,	Personal injury, damage to property	Work Shall be carried out under contineous Supervision. Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height.No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Tower Crane Dismantling.

Ref-

Location:-

Date :

Sl. No	Activity Name	Type Of Hazard	Risk Involved	Risk Control measures
1	Mobilisation of ManPower	Unskilled Worker	Personal injury, Property damage	Only Trained Person should be Deployed for work.
				Tool box talk Shall be conducted before Start the Activity.
				Use of required PPEs such as Helmet, Jacket, Safety shoes as applicable.
				Required work permits should be taken before start of acitivity
				Work Shall be carriedout under contineuous Supervision.
2	Dismantling of Tower Mast by self dismantling method.	Unapproved access	Personal injury	The area should be cleared before starting the activity
		Uninspected FBSH	Personal injury	Preplanned the method to avoid confusion.
				Only inspected of FBSH having double lanyard,shock absorber,and chest lock should be use
				Hand tools should be inspected for any damage before they use & kept in poper toolkit.
				No work and worker should be deployed under suspended load.
				Work area should be barricaded to avoid unauthorised entry.
Faulty hand tools	Personal injury	Work shall be carried out under supervision.		
3	Electrical connection	Electrical shortcircuit,shock, fire due to short circuit or electrical fault	Electrical burn, Personal Injury, Property Damage.	Electrical layout should be available for the reference
				All electrical connections should be disconnected by qualified electrician
				Oil spillage to be controlled.
4	Removing of Counter Weights, Operator Cabin, Tower Crane Boom,Counter Jib,Cat Head,Reducer Mast,Basic Mast with Telescoping Assembly by Telescopic Crane	Instability of ground	Topple of crane.	Prior to place the crane,survey the ground condition & level / strengthen it if necessary
		Failure of lifting crane	Fall of material / property damage / personal injury.	Engage tested and certified crane.Load of Material must be checked.
		Failure of lifting gears		Use tested & certified lifting gears.Prior to use.
		Improper or too many signals confuse the	Fall of material / property damage / personal injury.	Designate experienced & trained person for slinging.
		Improper method of lifting operation		Prior to start lift, discuss & prepare a safe lifting method & implement it.Constant supervision required.
		Inadequate experienced personnel.	Personal injury.	Working area should be baricated to prevent unauthorised entry.
				Experience signal man should be operated.
Guide rope should be tied to both side of material.				
Ensure crane checklist should be done before starting the work.				
				Work shall be carried out under supervision.

P.T.O.



JSA (Job Safety Analysis) Sheet

Revision:- R-0

Activity Name:- Tower Crane Dismantling.

Ref- SPCL/APLP/Site/JSA/135

Location:-

Date :

5	Lifting of materiel and moving to storage location	Personal injury	person may get injured	provide supervision & Trained personnel deployed for job.
		Fall hazard due to Sling break, over turn of material, crane machanical failular.	cut,slip,impact,penetration or fatal accident	Only inspected vehical having valid insurance, form no.11, RTO,licence.& Ensure that head lights,reverse horn,indicators, front horn is in good condition
				Ensure sling D'shackle having valid test certificate.
				Banks man or signal man/flagman should be provided
				Ensure hydra checklist should be done before starting hydra.
				Before lifting of material with hydra safety supervisor inspect all tied slings are in proper way,then only material to be lifted
				No person stand below the lifted load Precautaions to be taken to prevent load swing.Tied with guide rope
				All operations of hydra crane to be dead slow.
				While moving the material it will be kept tied at both end with 30 mm dia nylon rope to control heavy swing of materiel
				Over size stacking not be allowed
Proper and uniform stacking to be done on leveled surface with packing/on raised platform.				
6	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.
7	In case of Emmergency	Confusion	Personal Injury	Conduiting Mock-Drill For emmergency preparednace
				Emmergency path way and Assembly Point shall be clean and clear.
				Emmergency communication and Emmergency contact nos. shall be displayed.

Name & Signature of Site Engineer / Supervisor : _____ Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____ Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Trench periphery work

Ref-

Location:-

Date

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
				Required work permits should be taken before start of activity
				Work Shall be carried out under continuous Supervision.
2	Shifting of Material	Fall of material, fall of man	Personal Injury	Ensure natural or artificial illumination
				Ensure person can carry kg weight
				Ensure path is clear from any obstruction
3	Trench work (Welding)	Fall of material, fall of man, Electric shock, sharp edge	Personal Injury	Ensure only inspected welding machine with ELCB should use for work
				Ensure only trained welder deploy for work
				Electrical connection should done by only authourised electrician
				Ensure person can carry weight
				Ensure path is clear from any obstruction
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____ Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____ Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Trimix and groove cutting operation

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker, lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Conduct Tool Box Talk to all workers before starting work
				Work shall be carried out under supervision.
2	Machine Operation	Faulty Machine	Property damage Personal injury,	Only inspected Trimix m/c should use with damage free cable & industrial pin top
				Ensure person shall stand on clean area
				All electrical cable should be joint free & if any of shrinkable type & taken from 2 mtr in height.
				Ensure all moving parts should be guarded.
				Ensure that body & blade condition is good & blade should fixed firmly.
				Only trained person shall deploy for operating of machine
3	Work during dark hours	Darkness,	fall of person,	Ensure adequate illumination during dark hours
				Electrical cable should lead min 2 m height. No exposed electrical wire. Earthing.
				Route shall be illuminated.
		Cable lying on ground	Electric shock	Entry of personnel is strictly restricted in the area movement of Machine
		Fall, slip	Personal injury	Work shall be carried out under supervision.
				Ensure that temporary joints are shrinkable
				Entry of personnel is strictly restricted in the area movement of Machine

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- UCR Masonary Works

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Masonry	Scaffolds, Fall of person & material	Injury /property damage,Cut, Slip, Impact,	Height work permit must be obtained.
				Errect proper scaffold on levelled & rigid base with side supports.
				Proper access to work place to be provided.
				Material should stack properly near the work place
				Soft barrication around scaffold structure shall be done.
				Work area shall keep clean and tidy
				Use proper P P E as per work requirement.
				Do not stock extra masonary material on working plat form.
				Use of Dust mask for handling dry cement.
				Thoroughly wash the exposed body part with fresh water and soap after the work.
				Use of proper PPEs such as safety shoes,gumboots,helmet,rubber hand glovs,dustmask,ear plug
				Proper supervision provided.
				Material staking should be 1.5mtr away from working area
				Housekeeping should be done after completion the work.
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:-Unloading of Silo using crane

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker, lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
				Proper trained/experienced labour should be used for unloading
2	Unloading silo of 6.5 mt weight with 12.00 m length & 2.6m width	Fall of material	Damage to inventory/Injury to the persons working below and surrounding areas. Permanent disable or fatality due to fall of silo.	Silo shall be unloaded by 15 Ton Farana ACE Mobile Crane & confirming third party inspection reports for the Lifting derrick and other tools & tackles like wire rope slings, chain pulley blocks for 2 times the actual weight of the silo to be lifted. Reg
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury,damage to property	Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

**Activity Name:- Weighbridge (100 ton)
erection,operation and maintenance**

Ref-

Location:-

Date :

Sr. No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Shifting of weighbridge	Improper shifting of material, Improper communication	Personal injury, Property damage	Operator having valid driving licence. Horn & Light of the crane should be in working condition. Signal man should be guide properly Work area should be clean & clear. Proper housekeeping should be maintained at wok area. Work done under continuous supervision.
3	Erection and operation of weighbridge	Faulty hand tools Swing of Crane	Personal injury, Property damage	Hand tools should be inspected for any damage before they use & kept in proper toolkit. No work and worker should be deployed near weighbridge. Work area should be barricaded to avoid unauthorised entry. Work shall be carried out under supervision.
4	Electrical Work	Electrical shortcircuit,shock, fire due to short circuit or electrical fault	Electrical burn, Personal Injury, Property Damage.	Only authorised person shall work. Use standard tools & equipment for electrical work. All electrical accessories & cables shall be of adequate capacities. All electrical connections shall be made by qualified electrician Panel boards shall have ELCB,MCB. All cable joints to be properly jointed and insulated. Ensure proper earthing should be maintained, lightning arrestor should properly be mounted on the weigh cabin. Welding on or near the weighbridge should be strictly prohibited. Remove power cords at the time of lightning.
5	Maintenance Work	Unskilled Worker Faulty hand tools	Personal injury, Property damage Personal injury	Only Trained Person should be Deployed for work. LOCK-OUT-TAG-OUT (LO-TO) before start of the maintenance. Work area should be barricaded to avoid unauthorised entry. Hand tools should be inspected for any damage before they use & kept in proper toolkit. Work shall be carried out under supervision. No work and worker should be deployed near weighbridge.
6	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____ **Name & Signature of Site In-charge :** _____

Name & Signature of Project In-charge : _____ **Name & Signature of HSE Officer :** _____

JSA (Job Safety Analysis) Sheet

Activity Name:-Welding works

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Barricading of work area	Personal injury	Major burns	Use of proper PPEs as per SPCL safety norms- shoes safety helmet safety goggle highlighter jacket Whole area under working will be properly barricaded No any unauthorized material to be kept inside barricading area
3	Connection of welding cable to power socket earth & welding work.	Electric Shock, Fire Burns, Toxic Fumes, Explodification	Injury/Death	Use of proper PPEs as per SPCL norms. Only SPCL approved scaffolds to be used for working at height, Trained persons to be deployed at work competent supervisor to be present at all time. For continuous protection double lanyard belt to be used. worker to tie his safety belt to lifeline or nearest scaffold. Use of good insulation of welding supply & erecting cable. Joint free cable to be used Approved welding machine to be used Hot work permit to be taken from concern project and safety dept. Proper earthing to welding machine. Remove all flammable & combustible materiel from work area. Fire bucket to be kept available near by working area. Welding shield to be used for welding
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg. and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire. Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Window fixing.

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
				Required work permits should be taken before start of activity
				Work Shall be carried out under continuous Supervision.
2	Fixing of Window Frame & Glass.	Fall of material, fall of man, electric shock,sharp edge	Personal Injury, cut injury, property damage	Ensure continuos supervision.
				Ensure only inspected portable equipments should use for work
				Ensure only inspected ladder/ scaffold should use for work
				Ensure safety belt(FBSH) above 2 mtr. Height
				Ensure tools and material is not kept on window frame .
				Ensure required PPE's eg. Safety shoes,reflective jacket,cotton handgloves,safety helmet, safety goggle etc.
				Ensure area below the work is barricaded with signage
				Ensure stacking of window frame should not be above 1.5 mtr height .
				Deploy trained person for work
Ensure unauthorised enrty in barricaded area				
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure person can carry weight
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____ **Name & Signature of Site In-charge :** _____

Name & Signature of Project In-charge : _____ **Name & Signature of HSE Officer :** _____

JSA (Job Safety Analysis) Sheet

Activity title:- Working at Shuttering Yard

**Ref-
Date :**

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker, lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Shutter Making	Sharp object		Use of PPE such as safety shoes, helmet PVC hand gloves, safety goggle and shoulder pad.
				Work shall be carried out by competent person under proper supervision of foremen / in charge.
		Manually handling	Personal injury	Manually transport of shuttering material with proper PPE's.
		Unauthorised entry		Working area should be barricaded to prevent unauthorised entry.
		Scattered Nails	Personal injury	Proper Housekeeping shall be maintained.
				Proper training of ply cutting machine
		Heavy shutter	Personal injury	Required PPE's like safety shoes, safety helmet and hand gloves should be used during measurement of shutter.
Safety precaution should be taken during Shutter making. Shutter must be handled carefully while shifting.				
Electrocution	Electric shock	Proper Electrical safety should be followed		
		Use of Safety Goggles, Mask during ply cutting		
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire. Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Safety net fixing at CUT OUT

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Material shifting	Fall of man	Personal injury	Material should be shifted by manually.
				Pathway should be clear and free from any material.
				Cotton handgloves shall be provide.
3	Fixing of safety net to CUT OUT	Man Fall	Personal Injury.	Ensure Height work permit & General work permit are taken and signed by concerned Engg. & Safety Officer.
		Without edge protection	Fall of person	Inspected FBSH having double lanyard, shockabsorber should be provided and FBSH lanyard should be anchored to life line. Life line, hard barication should be provided on edge.
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dent.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Safety net fixing at periphery

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Material shifting & stacking	Sharp edge	Personal injury, Property damage	Material should be shifted by manually.
				Worker should be provided leather handgloves.
				Material area should be softly barigatted.
3	Fixing of hooks to metal pipe by means of welding.	Faulty termination	Electric Shock	Welding cable properly terminated to holder & also termination of the return earthing. Holder Shall be in Good Condition. Use proper lugs & nut bolts to fix the joints. Provide proper electric connection through 30mA ELCB and industrial pin top.
		Combustable Material	fire	All Combustable near Periphery shall be removed. Fire Extinguisher shall be Placed near hot work. Area below hot work should be barricated to avoid unauthorised entry.
		Welding fumes	Eye injury, Radiation	Welding face shield, leather hand gloves should be provided during welding work.
		Laying of electric cable on ground	Fall of person	Electrical cable should be above 2.5 mt hight. Work done under continues supervision.
4	Fixing of safety net to pipe	Uninspected hand tools	Personal injury	Hand tools should be inspected before starting the work for its damage and defect.
		Uninspected FBSH	Fall of person	Inspected FBSH having double lanyard, shockabsorber should be provided.
		Without edge protection	Fall of person	Life line, hard barication should be provided on edge.
5	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Sand receiving, sampling & unloading.

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Vehicle entry at main gate	Unauthorised entry	Major injury	Checking of documents & instructing driver not to exceed speed limit of 15 km/Hr.
3	Sampling of material	Fall	Personal injury	For sampling use proper inspected tools.
				Ensure no vehicle moment while sampling.
				Can explore the possibility of use of sampling point with two poles,wire rope and FBSH while at height.
4	Loading & unloading	Fall/Slip/Trip	Personal injury	Provision of banks man for guiding the process and stopper for vehicle.
				Ensuring the level ground for unloading dumper at dumping area.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Shot Blasting Operation			JSA NO	
Location:-			Date :	
Project No.				
Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker, lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
				Required work permits should be taken before start of activity
				Work Shall be carried out under continuous Supervision.
2	Stacking of material	Fall of material	personal injury/Wastage of material.	Ensuring safe stack height (1.5 mtrs).
				Ensure area clearance.
3	Air Compressor operation	Noise & Dust, air compressor bust	Personal Injury	Equipment shall be inspected by the safety officer.
				Third party inspected and having valid form 12.
				Ensure safety valve cut off pressure and it should be working condition.
				Ensure no damage of air hose.
				Ensure no damage of nozzle or any obstruction in it.
				Working area shall be barricaded with safety sign
				Ensure entry restricted for unauthorised person.
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg. and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire. Earthing.
				Route shall be illuminated.

RBIPL Structural Engg.	RBIPL EHS Incharge	RBIPL Project Manager	Client/PMC
Mr. Majid	Mr. Inam Masuk	Mr. Vinod Narkhede	
Prepared by	Review by	Checked By	Acknowledgement

JSA (Job Safety Analysis) Sheet

Activity Name:- Shuttering in Plinth Beams

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Movement of shuttering frame near pit	Fall of the frame	Personnel Injury	a. Trained people to be used for unloading the frame. b. PPE Safety shoes,helmet, reflective jacket and gloves.
3	Entering inside the pit	Fall from ladder	Personnel Injury	Only approved ladder to be used,Person to ascend and descend facing towards ladder and firmly having the grip of the ladder.
4	Application of shuttering oil to the shuttering frame.	Contact of oil with the hand	a.Skin irritation b. splash in the eyes c. hand injury	Use of the PPE like Hand gloves and safety goggles.
5	Shifting the shuttering frame in the pit	Contact with sharp edges, protruding nails	a.Fall while movement in the pit	a. Proper housekeeping/stacking of material in an isolated area. b. Scaffolds / staging to be made as per the scheme. c. Work shall be carried out by competent person under proper supervision of foremen / incharge.
		Fall of material / Collapse of shuttering	Injury/property damage	Use of Basic PPE
				Before erection of steel frame staging is started, a through inspection should be undertaken on it.
2	Shuttering	Fall of material / Collapse of shuttering	Injury/property damage	Use of Basic PPE Before erection of steel frame staging is started, a through inspection should be undertaken on it.
		Trip / fall of personnel	Personnel injury / fatal	Proper housekeeping/stacking of material in an isolated area.
				Work shall be carried out by competent person under proper supervision of foremen / incharge.
				Sides of beams are supported with use of primary / secondary & same shall be supported with the help of vertical cup lock of 0.5 m.
		Nail Piercing	Personnel injury	Loose nail should be removed from site .
				Timber jacks, joists, stringers and ledgers should be inspected for defects such as cracks / excessive knots.
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Shuttering for beam & Slab

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Staging	Fall of person,material	Personal Injury	Area barricade to restrict entry.
				Ensure full body safety harness anchor by each workmen.
				Cuplock verticals are checked against bending & breakages
				Ledgers shall be placed at every 500mm & same shall be covered with the cups.
				Maintain good house keeping at work site.
				Conduct tool box talk before starting the work.
				Ensure recommended PPE should be worn the worker such as safety shoes, helmet, hand gloves goggles & dust mask.
				All the Primary/Secondary sections are placed in tact & tied to the supports to receive the plywood shuttering
All the staging to be checked for its stability before allowing plywood shuttering				
3	Placing of ply wood sheets	Fall of material	Personal injury	Platform for ply wood shall be confirmed for its existence & same shall be supported by either wooden timber or cuplock vertical & ledger
		Adequate thickness of ply shall be used & same shall be tested against its suitability viz for beam & slab bottom 12mm thick ply to be used.		
4	Working at height	Breaking of ply/fall of person	Personal injury	Proper stacking of ply wood,movement on slab during shuttering shall be restricted & gathering of persons shall be avoided at one point to minimize the load on the ply beneath
		Uninspected FBSH	Fall of person	Inspected FBSH having double lanyard, shock absorber should be provided.
4	Working at height	Without edge protection	Fall of person	Life line, hard barication and safety net should be provided on edge.
		Unapproved scaffold		Scaffold shall be erected on even surface by providing base plate, side support, and ledger at every at 500mm with side supports wherever height increases beyond 2 mtrs .
5	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Shuttering in Foundation

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Movement of shuttering frame near pit	Fall of the frame	Personnel Injury	a. Trained people to be used for unloading the frame. B. PPE Safety shoes,helmet, reflective jacket and gloves.
3	Entering inside the pit	Fall from ladder	Personnel Injury	Only approved ladder to be used,Person to ascend and descend facing towards ladder and firmly having the grip of the ladder.
4	Application of shuttering oil to the shuttering frame.	Contact of oil with the hand	a. Skin irritation b. splash in the eyes c. hand injury	1.Use of the PPE like Hand gloves and safety goggles.
5	Shutter bolting of shuttering frame	Fall of the frame	Personnel Injury	Carpenters instructed to carrying out shutter bolting activity with using 3 persons to hold the shutter frame in vertical position.
6	Shifting the shuttering frame in the pit	Contact with sharp edges, protruding nails	a. Fall while movement in the pit	A. Proper housekeeping/stacking of material in an isolated area. B.Scaffolds / staging to be made as per the scheme. C.Work shall be carried out by competent person under proper supervision of foremen / incharge.
		Fall of material / Collapse of shuttering	Injury/property damage	Use of Basic PPE
				Before erection of steel frame staging is started, a through inspection should be undertaken on it.
7	Fitting of the shuttering frames.	Nail Piercing	Personnel injury	Loose nail should be removed from site .
		Use of hand tools	Personnel Injury	a. Standard inspected hand tools to be used. B.Hand tool inspection and tagging for use. C.Inspecting the tool be supervisor of contract agency before use.
		Collapse of the shuttering frame	Personnel Injury	A.Verticales,ledgers should be inspected for defects such as cracks / excessive knots. B.Before the reinforcement shuttering works are started for beam, working platform/walkway are to be provided . C.Before starting the reinforcement work on the concrete
		Fall from height	Personnel Injury	a. Use of full body harness with proper hooking arrangement.
		Electric Hazard	Shock	A. Machine should be inspected before starting of work by safety dept and provide valid tag. B.Electric supply cable should be having industrial/waterproof pin top C.Connections to be taken from field distribution panels having 30mA ELCB. D.Proper houseke
		coming out of the pit	Personnel Injury	A. Only approved standard ladder to be used. B.Placing ladder on the stiff firm base surface. C.Resting ladder against the stiff surface. D. Top of the ladder to project at least 1 mtr outside the pit E.While ascending and descending on the ladder always F.Night work permit to be taken from concern enngg.and safety dept.
8	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Silo erection by crane

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker, lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
3	Excavation upto 2mtr.	Uninspected machinery	Personal injury, Property damage	Excavator having valid fitness certificate should be deployed for the work. Excavator should be inspected before use. Operator having valid driving licenses. Banks man should be provide for giving signal. Excavated material shall be kept min.1mtr.away from the Pit / Trench edge. Ensure no person working intrenchduring excavation.
		Fall, slip	Personal injury	Hard barrication 1.5mtr away from edge. Hard barrication will be provided surrounded pits Ensure no person working intrenchduring excavation. Provide caution sign board. Work shall be carried out under supervision.
4	PCC	Unapproved access	Personal injury	Proper access, railing should be provide.
		Wet cement	Skin irritation	Provide rubber hand gloves, dust mask should provide Provide Eye & hand wash facility near work area
5	Shuttring,deshuttering	Improper material handling	Personal injury, Property damage	Material handling should be done manually. Shoulder pad shall be provide for worker.
6	RCC	Sharp edge	Cut injury	Leather hand gloves shall be provide
		Wet cement	Skin irritation	Dust mask and hand ash facility should be provide. Proper house keeping should be maintain.
7	Erection silo of 6.5 mt weight with 12.00 m length & 2.6m width	Uninspected lifting media	Personal injury, Property damage	Only Third party inspected and having valid Form 12 Telescopic crane having capacity of 40 T should be use. Third party inspected and having valid form 12, D'shackle with capacity 10 t (2no.) sling with capacity 10 Operator having valid driving licenses. Banks man should be provide for giving signal.
		Swing of material	Personal injury	16mm nylon rope should be tied at both end of structure to avoid swinging of material. No work and worker should be deployed under Entry of personnel is strictly restricted in the area swing Work area should be barricaded to avoid unauthorized Work shall be carried out under supervision.
8	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Slab RCC concrete

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Work inside excavated pit and assess egress	Improper access.	Fall of person, personal injury.	Inspected ladder shall be use for access.
		Excavated material like soil, boulder laid on pit edge.	Personal injury, fall of material	Remove soil, boulder from the edge of excavated pit.
3	Vehicle movement	Uneven surface	Personal injury, Property damage	Proper route shall be identified.
		Vehicle fall down inside the pit		Vehicle should stop min 2 m from excavated pit edge. Define route for entry and exit from work place. Vehicle should be directed by trained person.
4	Hard Barricading	Fall of person	Personal injury	Provision of chute resting on ledger with proper tying arrangement. Check all excavated pit covered with hard barrication.Display signaqe board near work place.
5	Concreting - transported through mixer placed through concrete pump	Fall of pipe line	Fatal accident	If concreting is proposed by pumping then all the pipes are checked at the bends & joints against rigidity.
				Separate staging to be prepared for piping activity concrete piepes are tied at the scaffolding to avoid fall during strokes.
6	Concrete pipe cleaning activity	Fall of pipe line/ rebound of pipe due to air pressure	Personal injury	At the time of Ball Passing Activity all the labours are removed from the area & end of the pipe is provided with ball case or catcher to catch the ball.
				Concrete pipes shall not be facing against confined space to avoid rebound during ball pass (pump cleaning activity). Compressors are tested against required air pressure & during Ball Pass constant air pressure shall be maintained.
7	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Soil compaction test

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower mobilisation	Untrained worker, lack of skill awareness	Personal Injury	Only inducted worker shall be deputed at the work place Given Tool Box Talk to all workers
2	Conducting Soil Compaction Test	Slip, Trip	Personal Injury	Proper access to work place to be provided Proper barrication to be provided to the testing area while conducting test
		Sharp Edges of Chisel & Hammer	Cut Injury	Use proper Chisel for digging the soil Use cotton hand gloves, Goggles & Nose mask for digging soil
		odour	Respiratory Hazard, Skin Irritation, Eye Contact	Use proper Personal Protective Equipments as per work requirement Thoroughly wash the hand with fresh water and soap after work.
3	Handling the sand pouring Cylinder	Slip, Trip	Personal Injury	Use safe system for handling the sand pouring cylinder Use safety shoes, cotton hand gloves, safety helmets while handling
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Soil compaction with plate compactor.

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower mobilisation	Untrained worker, lack of skill awareness	Personal Injury	Only inducted worker shall be deputed at the work place
				Given Tool Box Talk to all workers
2	Soil Compaction Test with plate compactor	Slip, Trip	Personal Injury	Proper access to work place to be provided
				Proper barrication to be provided to the soil compaction area.
		Whithout guard	Personal Injury	Use inspected plate compactor.
				Ensure guard of rotating part (Belt).
				Ensure need to coordination with workers.
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Ensure no diseal leakage from plate compactor.
				Use safety shoes,safety helmet,reflective jacket,cotton hand gloves,safety goggles.
				Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:-Soling in foundations

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Loading & unloading	Fall/Slip of excavator & dumper	Fatal Accident	Break down
				Ensure daily maintance of excavator
				Evaluating the capacity of the dumper
		Provision of banks man for guiding the process and stopper for vehicle.		
Ensuring the level ground for unloading dumper at dumping area.				
Material stacking not less than 1.5 mtrs from the edge of the pit .				
		Slip of excavated material	Personal injury	Ensuring safe working height for stacking of the material.(1.5 mtrs)
3	Material transports	Road accident	Personal injury, loss of property	Identifying the route of the vehicle.
				Checking the competency of the vehicle driver
				Checking of authorization papers of driver & vehicle.
				Confirming fitness of the vehicle- viz. breaks, tale lamps, reverse horns.
4	Soling inside the pit	Fall of material	Personal Injury	Ensure inducted labour at site
				Ensure material stacked not less that 1.5 mtr from edge of the pit.
5	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Spry painting of structure members.

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
				Required work permits should be taken before start of activity
				Work Shall be carried out under continuous Supervision.
2	Spry painting of structure	Skin & eye contact,inhelation,injection,fumes,Noise & Dust,air compressor bust	Personal injury	Whole area under working to be properly barricaded & warning sign boards.
				No material to be kept inside barricading area no hot work shall be performed near painting area.Continuous supervision by competent person.
				Painters will be strictly followed safety shoes,helmet,safety goggles, Rubber gloves, nose mask while working at site.
				Storage of paint shall be specific area.
				Hazardous chemical MSDS to maintained & safe use instruction to be given.
				Equipment shall be inspected by the safety officer.
				Third party inspected and having valid form 12.
				Ensure safety valve cut off pressure and it should be working condition.
				Ensure no damage of air hose.
Ensure no damage of nozzle or any obstruction in it.				
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height.No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Sprying of Resin Solution on finished flooring surface by using Hand pump **Ref-**

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
				Required work permits should be taken before start of activity
				Work Shall be carried out under continuous Supervision.
2	Sprying of Resin Solution on finished flooring surface .	Skin & eye contact,inhelation, injection, Fire	Personal injury, Property damage	Whole area under working to be properly barricaded & warning sign boards.
				No material to be kept inside barricading area no hot work shall be performed near painting area.Continuous supervision by competent person.
				Spraying person will be strictly followed safety shoes,helmet,safety goggles, Rubber gloves, Organic nose mask while working at site.
				Storage of Resin solution shall be specific area.
				Hazardous chemical MSDS to maintained & safe use instruction to be given.
				Ensure ABC type Fire Extingusher near storage and work area
				Ensure unauthourised entry
				Equipment shall be inspected by the safety officer.
3	Work during dark hours	Darkness, fall of person,	Personal injury,	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height.No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____ Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____ Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Staging for beam bottom

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Staging	Fall of material	Personal Injury	Area barricade to restrict entry.
				Ensure full body safety harness anchor by each workmen.
				Cuplock verticales are checked against bending & breakges
				Ledgers shall be placed at every 500mm & same shall be covered with the cups.
				Maintain good house keeping at work site.
				Conduct tool box talk before starting the work.
3	Working at height	Uninspected FBSH	Fall of person	Inspected FBSH having double lanyard, shock absorber should be provided.
				Without edge protection
		Unapproved scaffold		Scaffold shall be erected on even surface by providing base plate, side support, and ledger at every at 500mm with side supports wherever height increases beyond 2 mtrs .
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Staircase and walkways railing work. Ref-

Location:- Date :

Sr. No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
				Required work permits (Hot work permit, Height work permit) should be taken before start of activity
				Work Shall be carried out under continuous Supervision.
2	Material shifting	Fall of material, fall of man,	Personal Injury, fatal accident	Ensure only inspected ladder/ scaffold should use for work
				Ensure safety belt(FBSH) above 2 mtr. Height
				Ensure tools and material should fix with rope at height (work platform)
				Ensure person should not stand below load
3	Fixing of railing pipe	Fall of material, fall of man, electric shock, fall of equipment	Personal Injury, fatal accident	Ensure only inspected ladder/ scaffold should use for work
				Ensure only inspected welding machine with ELCB should use for work
				Deploy only trained welder for welding work
				Avoid for flammable material in welding area.
				Ensure required PPE's for work eg. Safety shoes, safety helmet, safety jacket, lather handgloves, Faceshield
				Ensure person can carry weight
				Ensure safety belt(FBSH) above 2 mtr. Height
				Ensure tools and material should fix with rope at height (work platform)
				Ensure only inspected portable electrical equipments used for work.
				Ensure person should not stand below load
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg. and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire. Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____ Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____ Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Straighten the MS channels / beam by manually .

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Straighten the MS beam by using Hammer	Trap hazard	Personal injury	Ensure safe access and levelled platform. Area shall be made clear for any obstruction to the material.
		Entrapping of part of body below the material.	Injury to the persons	Shifting work to be carried out with authorized persons with continuous supervision. Skill person deployed to work. Only
		Fall hazard	Personal injury	Ensure inspected Hammers, tools shall be use.
				Safety shoes,safety helmet,safety goggle,florescent jacket,cotton hand gloves shall be used. Work permit shall be obtained before start of work. Material should be stacked properly to avoid the abstraction in access.
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

**Activity Name:- Straightning of scaffolding material by using
Hudraulic screw jack**

Ref-

Location:-

Date

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker, lack of skill awareness	Personal injury	Only inducted worker shall be deployed at the work place.
				Given Tool Box Talk to all workers.
2	Straightning Work	Fall of worker, Fall of tool	Personal injury, Property damage	Only Trained Person should be Deployed for work.
				Insure work area is free from any obstruction
		Faulty tools	Personal injury, skin erritants	Work area should be barricated to avoid unauthorised entry.
				Use all PPE's.
3	Work during dark hours	Darkness, fall of person, fall of material	Personal injury, damage to property	Hand tools should be inspected for any damage before they use & kept in proper toolkit.
				Work shall be carried out under supervision.
				Ensure no any leakage of oil
				Night work permit to be taken from concern engg. and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 mtr. height. No exposed electrical wire. Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

**Activity Name:- Structural Fabrication & Erection
By using Hydra or Farana
Location:-**

**Ref-
Date :**

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Lifting of materiel and moving to work location	Trap hazard	person may get injured	Safety shoes safety helmet safety goggle florecent jacket cotten hand gloves to be used. Area under working to be properly cordoned off. Ensure unauthorised entry, ensure safe distance between man and Hydra or Farana Ensure only inspected Hydra or Farana should use for material shifting and errection
		Fall hazard (material fall, Hydra or Farana tilt)	Personal injury, Fatal accidents	Ensure driver have valid licence Before lifting of material with lifting equipment safety supervisor inspect all tied slings are in proper way,then only material to be lifted. No person stand below the lifted load Precautaions to be taken to prevent load swing. Tied with guide rope Predefining all the work location for above work. While moving the material it will be kept tied at both end with guide rope.
3	Fabrication	1) electric shock 2) fire burns 3) toxic fumes 4) explodification	Personal Injury/Fatal Accident	Proper and uniform stacking to be done on leveled surface with packing. ELCB and proper fuse in main supply board to be there. only approved scaffolds to be used for working at height ,Trained persons to be deployed at work competent supervisor to be present at all time during hot work activities. Use of good insulation of welding supply & erecting cable. Joint free cable to be used Inspected welding machine to be used Hot work permit to be taken from concern project and safety dept. Proper earthling to job and welding machine. Proper access & platform shall be provided. Remove all flammable & combustibile materiel from work area. Fire extinguisher to be kept available near by working area.
4	Errection	Manual Handling, Fall hazard (material fall,man fall, Hydra or Farana tilt)	Personal injury, Fatal accidents	Work area shall be barricaded and warning signs shall be displayed. Ensure movement of Hydra on even surface Guide rope to be used for erection Ensure safe scaffolding with access Ensure person above 2mtr. Height with full body safety Harness ancourage Ensure person do not come below lifting material Erected steel members shall be properly braced and supported for stability. Work area shall be barricaded and warning signs shall be displayed. Work shall be done under close supervision Night work permit to be taken from concern engg.and safety dept. Inspected electrical tools shall be used. All distribution boards should have ELCB. Cable shall not interfere traffic and movements. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____ Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____ Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Phever block fixing fixing.

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
				Required work permits should be taken before start of activity
				Work Shall be carried out under continuous Supervision.
2	Shifting of Phever block	Fall of material, fall of man	Personal Injury	Ensure person can carry kg weight
				Ensure path is clear from any obstruction
3	Fixing of Phever block	Fall of material, fall of man	Personal Injury	Ensure person can carry kg weight
				Ensure path is clear from any obstruction
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____ Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____ Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity title:- Pipe cutting

Ref :

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Pipe Cutting	Sharp object	Personal injury	Use of PPE such as safety shoes, helmet PVC hand gloves, safety goggle and shoulder pad.
				Work shall be carried out by competent person under proper supervision of foremen / incharge.
				Working area should be barricaded to prevent unauthorised entry.
				Proper Housekeeping shall be maintained.
				Proper training of pipe cutting machine
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Pit Cleaning

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Pit cleaning (a.Use of ladder to enter the pit b.Collecting material and charging in the collection vessel c.Lifting and sending it to the top of pit d.Charging the material into stack e.Comming out of pit.)	a.Fall Hazard	Personnel Injury	1.Only approved standard ladder to be used. 2.Placing ladder on the stiff firm base surface. 3.Resting ladder against the stiff surface. 4.Top of the ladder to project at least 1 mtr outside the pit 5.While ascending and descending on the ladder always f
		b.Collapse of sides	Injury	Use of required PPEs such as Helmet, Jacket, Safety shoes. Excavated material shall be kept min.2mtr.away from the Pit / Trench edge. Loose material along the edge shall be removed. Vertical cutting of the pit will be done by giving slops / caving of pits. Work will be carried out under supervision.
		Back stress and Heat Stress	Health hazard	a.Instructing for drinking water at regular intervals. b.Provide the drinking water at each individual location
		Improper use of handling tools.	Injury	Use proper ppe as per work requirement. Use only inspected tools .
		Improper use of Ladder	Fall of person, Cut & Injury	Ladder to be anchored using clamp and 1m above pit. Loose material along the edge shall be removed. On the top, angle of repose shall be maintained. Supervision should be present at the time of loading & unloading.
				Night work permit to be taken from concern engg.and safety Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical Route shall be illuminated.
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Plastering to ceiling

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Plaster Work	Hazardous Material, Skin contact, Eye contact & Dust	Respirator hazard	Use of Dust mask for handling dry cement.
			Skin Irritation	Thoroughly wash the exposed body part with fresh water and soap after the work. Use of PPE such as Safety shoes, gumboot, rubber handgloves, goggle & nose mask.
		Scaffolds, Fall of person	material, Cut Slip & Impact	height work permit must be obtained.
				Erect proper scaffold on leveled rigid base.
				Proper access to work place to be provided.
				Material should stack properly near the work place
				Area should be barricaded to control the unauthorized entry.
				Work area shall keep clean and tidy
				Use of proper PPEs such as safety shoes, gumboots, helmet, rubber hand glovs, dustmask, ear plug
				Provide rope for lifting / lowering material.
Proper head room to be kept below slab, barication shall be supported at proper interval.				
Provision of covering on floors to collect the fallen mortar.				
Scaffolding should be inspected by safety person before starting the work				
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg. and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Plastering works

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Plaster Work	Hazardous Material, Skin contact, Eye contact & Dust	Respirator hazard	Use of Dust mask for handling dry cement.
			Skin Irritation	Thoroughly wash the exposed body part with fresh water and soap after the work.
		Scaffolds, Fall of person	material, Cut Slip & Impact	Use of PPE such as Safety shoes, gumboot, rubber handgloves, goggle & nose mask.
				height work permit must be obtained.
				Errect proper scaffold on levelled rigid base.
				Proper access to work place to be provided.
				Material should stack properly near the work place
				Area should be barricaded to control the unotherised entry.
Work area shall keep clean and tidy				
Use of proper PPEs such as safety shoes, gumboots, helmet, rubber hand glovs, dustmask, ear plug				
Provide rope for lifting / lowering material.				
Scaffolding should be inspected by safety person before starting the work				
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg. and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Plinth Concreting

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Vehicle movement	Uneven surface		Proper route shall be identified.
		Vehicle fall down inside the pit	Personal injury, Property damage	Vehicle should stop min 2 m from excavated pit edge.
				Define route for entry and exit from work place.
				Vehicle should be directed by trained person.
3	Hard Barricading	Fall of person	Personal injury	Provision of chute resting on ledger with proper tying arrangement.
				Check all excavated pit covered with hard barrication.Display signage board near work place.
4	Concreting pouring by transit mixer	Fall of person or vehicle into the pit,exposure of skin to cement	Personal injury,damage to property	Work should carried out under close supervision.
				Ensure that the workers maintain safe distance while pouring of concreting and is secured properly.
				Ensure use of relevant PPE's before start of the work.
				Direct concreting shall be done using a chute,in case it is not possible,concrete to poured in tray ans same shall be carried by workers.
				Area to be concreted shall be barricaded against unauthorised entry.
5	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Plinth Shuttering

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker, lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Movement of shuttering frame near pit	Fall of the frame	Personnel Injury	a. Trained people to be used for unloading the frame. b. PPE Safety shoes, helmet, reflective jacket and gloves.
3	Entering inside the pit	Fall from ladder	Personnel Injury	Only approved ladder to be used, Person to ascend and descend facing towards ladder and firmly having the grip of the ladder.
4	Application of shuttering oil to the shuttering frame.	Contact of oil with the hand	a. Skin irritation b. splash in the eyes c. hand injury	Use of the PPE like Hand gloves and safety goggles.
5	Shifting the shuttering frame in the pit	Contact with sharp edges, protruding nails	Fall while movement in the pit	a. Proper housekeeping/stacking of material in an isolated area. b. Scaffolds / staging to be made as per the scheme. c. Work shall be carried out by competent person under proper supervision of foremen / incharge. d. Ensure - General and height work pe
		Fall of material / Collapse of shuttering	Injury/property damage	Use of Basic PPE Before erection of steel frame staging is started, a through inspection should be undertaken on it.
6	Shuttering	Fall of material / Collapse of shuttering	Injury/property damage	Use of Basic PPE Before erection of steel frame staging is started, a through inspection should be undertaken on it.
		Trip / fall of personnel	Personnel injury / fatal	Proper housekeeping/stacking of material in an isolated area.
				Work shall be carried out by competent person under proper supervision of foremen / incharge.
		Nail Piercing	Personnel injury	Loose nail should be removed from site & nails which have come out of ply shall also be bent or removed.
7	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg. and safety
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Plumbing work

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Material shifting to work location Manually (App.wt 50Kg.)	Fall of material	Personal injury, Property damage	Material shifting by two person.
				Pathway should be clear and free from any material.
				Cotton handgloves shall be provide.
3	Use of Hand Tools	Uninspected handtools	Cut injury.	All hand tools should be inspected before use for its damage.
				Ensure that hand tools should be use for its define work.
		Electric hazard	Shock	Machine should be inspected before starting of work by safety dept and provide valid tag.
				Electric supply cable should be having industrial/waterproof pin top Connections to be taken from field distribution panels having 30mA ELCB. Proper housekeeping should be maintained
4	Working on hight	Unapproved access	Fall of person, fall of material	Scaffold shall be erect on the even surface by providing base plate, ledger at every 500mm and side support.
				Metal flanks shall be provide for standing people which surely tied by binding wire.
		Unathorised entry	Personal injury	F.B.S.H. should be provide in good condition with double lanyard and shock absorber. Work area shall be soft barricated to avoid unauthorised entry.
5	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury,damage to property	Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Porta cabin loading & unloading by two Hydra

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker, lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
				Ensure Work permit during loading & unloading of Porta cabin
2	Loading Unloading by Hydra/Farana	Fall of material from height due to failure of derrick or Chain pulley block or wire rope slings for lifting the material.	Injury to the persons working below and surrounding areas. Permanent disable or fatality due to fall of material, Fatal, Injury, Property damage	Third party testing to be done for the Lifting derrick and other tools & tackles like wire rope slings, chain pulley blocks for 2 times the actual weight of the heaviest material to be lifted. Regular inspection of lifting tools & tackles before starting . Ensure only inspected Hydra/Farana should use for loading and unloading of Porta cabin. Ensure Operator have valid Licence. Ensure guide rope shall use while lifting / loading/unloading of Porta cabin. work with continuous supervision. Area shall be made clear for any obstruction to the material. Porta cabin shall be tied with rope at each end. Ensure path should be clear from any obstruction
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg. and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire. Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____ Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____ Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Rebaring

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place. Give Tool Box Talk to all workers.
2	Drilling of holes on coloumn	Fall of material, Fall of person	Personal injury	Ensure safe scaffolding e.g. access, working platform with mid rail, top rail with support Ensure drilling m/c should inspected with damage free cable and industrial pin top Ensure worker working on height with Full body harness Ensure tools and other material on working platform should hind Ensure use of inspected tools & tackles
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:-Reinf cutting/bending

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Reinforcement cutting & bending	Failure of emergency switch	Personal injury	Use of basic PPEs. Train worker in bar cutting operation. Only authorised persons should carry out Cutting and bending operation. Handgloves shall be provided and its use shall be monitored. Ensure proper housekeeping is maintained around work area. Scrap shall be segregated in isolated area. Regular checks & obtaining fitness certificate of the cutting and bending machine. Ensure display equipment inspection tag on cutting and bending machine Ensure display of bar size and quantity on cutting/bending machine and strictly follow the same. Only trained operaator should appoint. Checking of Emergency switch, panel board, Starter, guard, earthing,RCCB
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of SPCL Safety Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Reinforcement for Beam & slab

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker, lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Working at height	Uninspected FBSH	Fall of person	Inspected FBSH having double lanyard, shock absorber should be provided.
		Without edge protection	Fall of person	Life line, hard barication and safety net should be provided on edge.
		Unapproved scaffold		Scaffold shall be erected on even surface by providing base plate, side support, and ledger at every at 500mm with side supports wherever
3	Reinforcement	Sharp object, Fall of person , Fall of material	fall of person, material	Confirmation shall be taken from shuttering department against stability of structure before start of reinforcement activity
			cut, slip	Use of PPE such as safety shoes, helmet PVC hand gloves, safety goggle and shoulder pad.
			Injury, impact,	Work shall be carried out by competent person under proper supervision of foremen / incharge.
			Penetration	Use of proper scaffolds for tying reinforcement at the site.
			fall of person, material	Provide proper platform on Scaffolds.
				Ensee workmen should have shoulder pad.
				Ensure access should be clear for unwanted and slippery materials.
				Ensure long steel should be shifted by sufficient no. of workmen
				Working area should be barricaded to prevent unauthorized entry.
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Reinforcement for columns

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Unloading Reinforcement near pit	a. Fall hazard b. Cut Injury due to sharp edges.	a. Personnel Injury b. Personnel Injury	a. Unloading at distance of 1 mtr from the pit. b. Designated location for the storage of the reinforcement rods. C. Use of safety shoes,gloves,helmet and reflection jacket.
3	Entering inside the pit	Fall hazard	Personnel Injury	a. Only approved standard ladder to be used. b. Placing ladder on the stiff firm base surface. c. Resting ladder against the stiff surface. d. Top of the ladder to project atleast 1 mtr outside the pit e. While ascending and descending on the ladder alwa
4	Shifting reinforcement in the pit	a. Head injury b. Fall of material c. Wire piercing in the finger	Personnel Injury	a. PPE Usage b. Trained people.
5	Erecting the reinforcement in the pit	Sharp object, Fall of person , Fall of material	a.Cut,slip b.Injury, impact c.Penetration d.Fall of person, material	A.Use of PPE such as safety shoes, helmet PVC hand gloves, safety goggle and shoulder pad. B.Work shall be carried out by competent person under proper supervision of foremen / incharge. C.Use of certified scaffolds for tying reinforcement at the site. D
6	Reinforcement	Sharp object, Fall of person , Fall of material	cut, slip	Use of PPE such as safety shoes, helmet PVC hand gloves, safety goggle and shoulder pad.
			Injury, impact,	Work shall be carried out by competent person under proper supervision of foremen / incharge.
			Penetration	Use of proper scaffolds for tying reinforcement at the site.
			fall of person, material	Provide proper platform on Scaffolds.
				Ensure workmen should have shoulder pad.
				Ensure access should be clear for unwanted and slippery materials.
				Ensure long steel should be shifted by sufficient no. of workmen
				Working area should be barricaded to prevent unauthorized entry.
				Ensure steel should be shifted through shifting platform from ground to working platform
	Ensure reinforcement should be stack 1.5 mtr away from the working area.			
	Staging to be provided for height more than 2mtrs			
	Reinforcement shall be given a support to avoid buckling of column.			
7	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Reinforcement in Plinth Beams

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker, lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Unloading Reinforcement near pit	a. Fall hazard b. Cut Injury due to sharp edges.	a. Personnel Injury b. Personnel Injury	a. Unloading at distance of 1 mtr from the pit. b. Designated location for the storage of the reinforcement rods. c. Use of safety shoes, gloves, helmet and reflection jacket.
3	Entering inside the pit	Fall hazard	Personnel Injury	a. Only approved standard ladder to be used. b. Placing ladder on the stiff firm base surface. c. Resting ladder against the stiff surface. d. Top of the ladder to project atleast 1 mtr outside the pit e. While ascending and descending on the ladder alwa
4	Shifting reinforcement in the pit	a. Head injury b. Fall of material c. Wire piercing in the finger	Personnel Injury	a. PPE Usage b. Trained people.
5	Erecting the reinforcement in the pit	Sharp object, Fall of person, Fall of material	a. Cut, slip b. Injury, impact c. Penetration d. Fall of person, material	A. Use of PPE such as safety shoes, helmet PVC hand gloves, safety goggle and shoulder pad. B. Work shall be carried out by competent person under proper supervision of foremen / incharge. C. Use of certified scaffolds for tying reinforcement at the site. D
6	Reinforcement	Sharp object, Fall of person, Fall of material	cut, slip	Use of PPE such as safety shoes, helmet PVC hand gloves, safety goggle and shoulder pad.
			Injury, impact,	Work shall be carried out by competent person under proper supervision of foremen / incharge.
			Penetration	Use of proper scaffolds for tying reinforcement at the site.
			fall of person, material	Provide proper platform on Scaffolds.
				Ensure workmen should have shoulder pad.
				Ensure access should be clear for unwanted and slippery materials.
				Ensure long steel should be shifted by sufficient no. of workmen
				Working area should be barricaded to prevent unauthorized entry.
7	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg. and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:-Reinforcement loading unloading

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker, lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Reinforcement loading unloading	Fall of material from height due to failure of derrick or Chain pulley block or wire rope slings for lifting the material.	Injury to the persons working below and surrounding areas. Permanent disable or fatality due to fall of material.	Third party testing to be done for the Lifting derrick and other tools & tackles like wire rope slings, chain pulley blocks for 2 times the actual weight of the heaviest material to be lifted. Regular inspection of lifting tools & tackles before starting t
3	Shifting of reinforcement material	Entrapping of part of body below the material.	Injury to the persons	Shifting work to be carried out with authorised persons with continuous supervision. Area shall be made clear for any obstruction to the material. Guy ropes shall be tied at each end of the material being shifted. Material to be shifted in a sequential ma
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg. and Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Reinforcement placing & binding in Foundation

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker, lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Unloading Reinforcement near pit	a. Fall hazard b. Cut Injury due to sharp edges.	a. Personnel Injury b. Personnel Injury	a. Unloading at distance of 1 mtr from the pit. b. Designated location for the storage of the reinforcement rods. c. Use of safety shoes,gloves,helmet and reflection jacket.
3	Entering inside the pit	Fall hazard	Personnel Injury	a.Only approved standard ladder to be used. b.Placing ladder on the stiff firm base surface. c.Resting ladder against the stiff surface. d.Top of the ladder to project at least 1 mtr outside the pit e.While ascending and descending on the ladder always f
4	Shifting reinforcement in the pit	a. Head injury b. Fall of material c. Wire piercing in the finger	Personnel Injury	a. PPE Usage b. Trained people.
5	Erecting the reinforcement in the pit	Sharp object, Fall of person , Fall of material	a.Cut,slip b.Injury, impact c.Penetration d.Fall of person, material	a. Use of PPE such as safety shoes, helmet PVC hand gloves, safety goggle and shoulder pad. b. Work shall be carried out by competent person under proper supervision of foremen / incharge. c. Use of certified scaffolds for tying reinforcement at the site
6	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity title:- Removal of Barbed wire & Pole

Ref :

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Removing of Barbed Wire,Pole	Cut,slip of wire/pole	Personal injury	Use of PPE such as safety shoes, helmet PVC hand gloves, safety goggle and shoulder pad.
				Work shall be carried out by competent person under proper supervision of foremen / incharge.
				Proper housekeeping of wire after its removal.
				Provision of proper access to remove the wire.
3	Work during dark hours	Darkness, fall of person, fall of pole	Personal injury	Ensure proper illumination during dark hours.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Road work/Flooring

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Tool Box Talk should conduct before starting work to all workers.
2	Material shifting	Man fall, Material fall	Personal injury,	Ensure General work permit to be taken from concern engg.and safety dept. Ensure proper PPE should use. Ensure shoulder pad is used while shifting of material. Ensure material should shift by sufficient no. of person Ensure path should be free from any obstruction
3	Vehicle movement (Vibro roller)	Fatal accident	Personal injury,	Ensure only inspected vibro roller should use Ensure only authorised driver should drive the vibro roller Ensure route should be clear from any obstruction Ensure work should be done under continious supervision. Ensure for any unauthorised entry .
		Electrical Hazard	shock	Ensure all armoured cable should lead min.6 mtr height.
5	Fixing of channel & Reinforcement work	Man fall, Material fall, Sharp edge	Personal injury,	Ensure material should fix by sufficient no. of person Ensure all handtools are inspected and damage free Ensure tun buckle should be fix with bend hook (steel rod)
6	Concreting Of Road by transit miller	Man fall, Material fall,Electrical hazard.	Personal injury,electric shock.	Ensure only inspected miller should use.
				Ensure only authorised driver should drive the transit miller
				Ensure route should be clear from any obstruction
				Vehicle should stop min 2 m from fixed channel.
				Ensure work should be done under continious supervision.
				Ensure stopper provided to both wheel of miller.
a.Only inspected vibrator to be used before starting of work. B.Electric supply cable should be having industrial/waterproof pin top C.Connections to be taken from field distribution panels having 30mA ELCB.				
7	Work during dark	Darkness, fall of person, fall of	Personal injury,	Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours.

hours

machinery

damage to property

Electrical cable should lead min 2 m height. No exposed electrical wire. Earthing.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Rolling shutter fixing.

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
				Required work permits should be taken before start of activity
				Work Shall be carried out under continuous Supervision.
2	Fixing of Frame	Fall of material, fall of man, electric shock, fall of equipment	Personal Injury	Ensure only inspected ladder/ scaffold should use for work
				Ensure only inspected portable equipments should use for work
				Ensure safety belt(FBSH) above 2 mtr. Height
				Ensure tools and material should fix with rope at height (work platform)
3	Fixing of shutter	Fall of material, fall of man, electric shock, fall of equipment	Personal Injury	Ensure person should not stand below load
				Ensure only inspected ladder/ scaffold should use for work
				Ensure person can carry weight
				Ensure safety belt(FBSH) above 2 mtr. Height
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Ensure tools and material should fix with rope at height (work platform)
				Ensure person should not stand below load
				Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____ Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____ Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:-Roofing/sheeting/cladding works

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Moving on/ to work on roof	Personal injury	Person may get injured	Use of basic PPEs.
		Fatal accidents	Person may fall from height	Height Work permit to be taken from SPCL safety officer
				On the roof all workers are advised to move on permanently fixed purlin locations that are much stronger than other locations.
				One to one communication to be maintain at all time during work.
3	Placing of sheet / fastening in position	Personal injury	Minor cuts to hand	Leather hand gloves to be provided to the labours involved in shifting of sheets.
				Proper space management throughout working area so as to get material stacked in appropriate space in adequate nos.
				Scaffolding scheme approved by SPCL safety officer to be adopted.
				Only trained persons to be deployed for this operation.
				Provision of life line for moving on the roof.
				Two persons on ground and two on roof to required for shifting of sheets.
				All stacked sheets are tied together by using ropes.
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Gunitting Operation.

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
				Required work permits should be taken before start of activity
				Work Shall be carried out under continuous Supervision.
2	Air Compressor operation	Noise & Dust, air compressor bust	Personal Injury	Equipment shall be inspected by PMV & Safety Dept.
				Third party inspected and having valid form 12.
				Ensure safety valve cut off pressure and it should be working condition.
				Ensure no damage of air hose.
				Ensure no damage of nozzle or any obstruction in it.
				Working area shall be barricaded with safety sign
				Ensure entry restricted for unauthorised person.
3	Staging & Gunitting operation	Fall of person, Fall of material	Personal Injury, Fatal accident	Employees shall wear safety PPE like safety shoes, full body apron, safety goggles, ear plug, nose mask.
				Ensure only trained person allowed for operation
				Area barricade to restrict entry.
				Ensure (FBSH)full body safety harness anchor by each workmen.
				Cuplock verticals are checked against bending & breakages
				Ledgers shall be placed at every 500mm & same shall be covered with the cups.
				Ensure scaffold is tie with window wall
				Ensure life line and air hose tie with the scaffolding.
Ensure working platform and landing platform for rest.				
4	Hopper cleaning	Caught in between,trip,Cut	Personal Injury	Maintain good house keeping at work site.
				Ensure only trained person allowed for cleaning
5	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Ensure apply LO-TO system while cleaning
				Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Hard rock Chiseling by Poclain

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Hard rock Chiseling by Poclain	Hit by poclain	Damage to inventory, personal injury	Distinguishing the stoppage area for vehicle
				Provision of banksman for guiding the excavcation activity
				Checking of compitency of the poclain operator
				Checking of authorisation papers of poclain & operator
				Confirming fitness of the Poclain.
				No worker shall be allowed in the Excavating area
				Trained Banksman/ Supervisor Shall be provided
				Tool box talk should be given tooperator & Bansman.
				Poclain shall rest on strong foundation / hard soil.
				Operator of Poclain must have Experince Certificate.
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Linear Bather erection by crane (M-1 Batching Plant)

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker, lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Erection liner bather	Uninspected lifting media	Personal injury, Property damage	Only Third party inspected and having valid Form 12, Telescopic crane having capacity of 40 T should be use. Third party inspected and having valid form 12 D'shakle with capacity 5t (4no.) sling with capacity 5T Operator having valid driving licenses. Banks man should be provide for giving signal.
		Swing of material	Personal injury	16 mm nylon rope should be tied at both end of structure to avoid swinging of material. No work and worker should be deployed under Entry of personnel is strictly restricted in the area swing Work area should be barricaded to avoid unauthorized Work shall be carried out under supervision.
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Loading stones in dumper / tractor & transportation near pit **Ref-**
Location:- **Date :**

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Loading of stones	Fall of material	Personal Injury	Ensure general work permit from engineer & verified by Safety dept. Ensure close supervision during working time Ensure excavator swing movement area free from man,machine and any obstruction Ensure banks man for guiding of excavator. Evaluating capacity of the dumper/trolley for loading. Ensure material not falling outside the dumper/trolley. Ensure area is barricade if necessary (space conjusted) Ensuring the level ground for loading dumper.
3	Transportation by Dumper	Road accident, material fall	Personal injury, Fatal accident, damage to property	Ensure driver must have valid licence Ensure only inspected vehicle (dumper) should use without any defect Ensure route should be define and clear from any obstruction Ensure driver should maintain speed limit of 15km/hr Ensure load should not exceed dumper capacity
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

Activity Name:- Loading unloading and shifting

Location:-

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved
1	Manpower Mobilization	Untrained worker	Personal injury
2	Loading of stones	Fall of material	Personal Injury
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property

Name & Signature of Site Engineer / Supervisor :_____

Name & Signature of Project In-charge :_____

Safety Analysis) Sheet

Ref-

Date :

Risk Control measures
Only inducted worker shall be deputed at the work place.
Given Tool Box Talk to all workers.
Ensure general work permit from engineer & verified by Safety dept.
Ensure close supervision during working time
Ensure excavator swing movement area free from man,machine and any obstruction
Ensure banks man for guiding of excavator.
Ensure area is barricade if necessary (space conjusted)
Night work permit to be taken from concern engg.and safety dept.
Ensure proper illumination during dark hours.
Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
Route shall be illuminated.

Name & Signature of Site In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Maintenance & greceing activity of excavator

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Maintainance activity	Slip/Trip	Personal injury/Skin irritation	Ensure engine swithced off before opening.
3	1.Cleaning a.Driver keeps bucket at ground level. B.Shuts off the engine c.Close the cabin. D.Lock the cabin e.Collects the cotton waste -- Ground level cleaning -- Height cleaning climb on the conveyor to access the height. -- Clean and grease using gre	a. Forget to shut off engine resulting into accidental start of engine. b. Fall from height due to improper method to access the height. c. Splash of grease or contact with grease	a. Major Injury b. Major Injury c. Skin disease	a. SOP to be displayed in the local language for cleaning activity on the pockland. b. SOP to be formed as part of training of pockland driver and banks man before certifying them competent to work on same. c. Only trained driver to work on the pockland w
4	2.Diesel filling activity. A.Diesel brought at the site in 200ltrs barrels in truck. B.Truck parked in designated parking area. C.Truck moves to the area where filling activity is to be carried out. D.Cleaner opens the knob of the barrel of diesel. E. Cle	a. Issue of fire in barrel during storage of barrel of diesel. b. Injury to the person while movement of the truck. c. Fall injury while climbing to access the diesel charging port d. Overflow of the diesel from the storage tank. e. Splash while removing	1.Fire hazard 2.personnel injury 3.personnel injury 4.Diesel spillage issue. 5.Eye injury due to the splashed diesel.	a. To designate the area for temporary parking of the truck containing the diesel barrel. b. To barricade the area with cautionary board of " Diesel highly flammable material stored"" No smoking and open flames allowed". c. Use of proper access method to

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Masonary/pitching Works

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Masonry (Sub Divide Activity)	Scaffolds, Fall of person & material	Injury /property damage,Cut, Slip, Impact,	Height work permit must be obtained.
				Erect proper scaffold on leveled & rigid base with side supports.
				Proper access to work place to be provided.
				Material should stack properly near the work place
				Soft barrication around scaffold structure shall be done.
				Work area shall keep clean and tidy
				Use proper P P E as per work requirement.
		Do not stock extra masonry material on working plat form.		
		Skin contact with cement material, Dust	Respirator hazard	Use of Dust mask for handling dry cement.
			Skin Irritation	Thoroughly wash the exposed body part with fresh water and soap after the work.
Fall of Stones	Personal Injury	Use of proper PPEs such as safety shoes,gumboots,helmet,rubber hand gloves,dustmask,ear plug		
		Use of safety net wherever possible to avoid fall of bricks		
		Working area should be barricaded to prevent unauthorized entry.		
		Housekeeping should be done after completion the work.		
		Material staking should be 1.5mtr away from working area		
Trolley should be use for material shifting.	Proper supervision provided.	Night work permit to be taken from concern engg.and safety dept.		
			Ensure proper illumination during dark hours.	
			Electrical cable should lead min 2 m height. No exposed electrical Route shall be illuminated.	
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Material loading unloading and shifting

Location:-

**Ref-
Date :**

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Loading Unloading material viz.stone,cement bag,bricks,scaffold material,diesel drum etc.s	Fall of material	Injury to the persons working surrounding areas. Permanent disable or fatality due to fall of material.	1.Ensure specific driver for tough rider. 2.Ensure light,tyre condition,reverse horn,breaks,gear condition,cluch condition,stering of tough rider.
3	Shifting material	Entrapping of part of body below the material.	Injury to the persons	1.Shifting work to be carried out with authorized persons with continuous supervision. 2.Area shall be made clear for any obstruction to the material.
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Material stacking (not more than 1.5 m)

Ref-

Location:-

Date:

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Material Stacking	Fall of material	Personal injury/loss of property	Ensure stacking heights not more than 1.5 mtrs.
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire. Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Mig Welding work

Ref-

Location:-

Date :

Sr. No	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
				Only trained welder should deploy for mig welding work
2	Barricading of work area	Personal injury	Major burns	Use of proper PPEs as per SPCL safety norms- shoes safety helmet safety goggle highlighter jacket
				Whole area under working will be properly barricaded
				No any unauthorized material to be kept inside barricading area
3	Connection of welding cable from power socket to welding machine and Mig unit & welding work.	Electric Shock, Fire Burns, Toxic Fumes, Explodification	Injury/Death	Use of proper PPEs as per SPCL norms use of MCB/ELCB and proper fuse in main supply board to be there. only SPCL approved scaffolds to be used for working at height, Trained persons to be deployed at work competent supervisor to be present at all time during work
				For continuous protection double lanyard belt to be used. worker to tie his safety belt to lifeline or nearest scaffold.
				Use of good insulation of welding supply & erecting cable.
				Joint free cable to be used
				SPCL approved welding machine to be used
				Hot work permit to be taken from concern project and safety dept.
				Proper earthing to welding machine.(duble earthling required)
				Remove all flammable & combustibile materiel from work area.
				Fire bucket to be kept available near by working area.
Welding shield to be used for welding				
4	Shifting of Mig unit	Fall, Electric shock	Injury/Death	Ensure supply is cut off during shifting of Mig unit
				Ensure Mig unit is fixed by rope if kept at height
5	Cleaning of welding torch by using silicon spray (Anti spatter spray)	Fire,	injury	Ensure supply is cut off during cleaning of welding torch
				Ensure cleaning of torch is away from open flame, gas cutting work, welding work
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor :

Name & Signature of Project In-charge

Name & Signature of Site In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Mixing drum erection by crane

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker, lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Erection of mixing drum of 3 mt height, 1 ton weight with 5 m length & 3 width.	Uninspected lifting media	Personal injury, Property damage	Only Third party inspected and having valid Form 12 Telescopic crane having capacity of 12 T should be use. Third party inspected and having valid form 12, D'shackle with capacity 5 ton (2no.) sling with capacity 5 ton (2no.) or web sling capacity 5 ton (2 nos.) should be Operator having valid driving licenses. Banks man should be provide for giving signal.
		Swing of material	Personal injury	16mm nylon rope should be tied at both end of mixing drum to avoid swinging of material. No work and worker should be deployed under Entry of personnel is strictly restricted in the area swing Work area should be barricaded to avoid unauthorized Work shall be carried out under supervision.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Mobile Stone Crusher relocation and maintenance
Location:-

Ref-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Maintenance Work	Unskilled Worker	Personal injury, Property damage	Only Trained Person should be Deployed for work.
				LOCK-OUT-TAG-OUT (LO-TO) before start of the maintenance.
		Faulty hand tools	Personal injury	Work area should be barricaded to avoid unauthorised entry.
				Hand tools should be inspected for any damage before they use & kept in proper toolkit.
		Work shall be carried out under supervision.		
		No work and worker should be deployed near stone crusher.		
3	Work during dark hours	Darkness, fall of person, fall of material	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Mobile Stone Crushing

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Trained workers	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Material shifting by excavator	Fall/Slip	Personal injury	Evaluating the capacity of the excavator Evacuate person from swing area soft barrication Ensure presence of banks man Ensure all the checks viz. operator photo, check list, inspection tag,
3	unloading in to the hopper	Material Fall/Slip	Personal injury	Evacuate person from swing area.
4	Inspection of hopper	Fall/Slip	personal injury	Provide staging and platform at safe distance from hopper to guide operator while dumping (It should not be in the swing area of the excavator) Use of Full Body Safety harness with shock absorber and scaffolds hooks. The platform to be provided with railing and person should hook up lanyard with the railing. Height work Permit.
		Stone jammed in hopper	Personal injury,damage to property	Carry out the jammed stone with the help of sling and dee shackle. Use PPE viz. safety shoe, reflective jacket, helmet, goggles. Ear plug, nose mask.
5	Crushed material collection and loading by JCB / Loder into dumper	Fall/Slip	Bodily injury.	a.Dumper to be operated by only certified driver. B.Dumper during reversing to be guided by the banks man. C.Only trained and certified driver should operate the JCB / Loder. D.No person to available in operational area of JCB / Loder which will be collec
6	Work during dark hours	Darkness, fall of person, fall of material	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Mobile Tower Crane Erection

Ref-

Location:-

Date :

Sr. No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker, lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Shifting of Crane	Improper shifting of material, Improper communication	Personal injury, Property damage	For proper shifting of material proper communication equipment should be provide for proper communication. Operator having valid driving licence. Horn & Light of the crane should be in working condition. Signal man should be guide properly Work area should be clean & clear. Proper housekeeping should be maintained at wok area. Work done under continuous supervision.
3	Erection of Crane	Faulty hand tools	Personal injury, Property damage	Hand tools should be inspected for any damage before they use & kept in proper toolkit. Operator having valid driving licences. Banks man should be provide for giving signal. No work and worker should be deployed under suspended load.
		Swing of Crane		Work area should be barricaded to avoid unauthorised entry. Work shall be carried out under supervision.
		Uninspected FBSH	Personal injury	Only inspected FBSH having double lanyard, shock absorber should be use.
4	Electrical Work (if the power is given from other out-source)	Electrical shortcircuit, shock, fire due to short circuit or electrical fault	Electrical burn, Personal Injury, Property Damage.	Only authorised person shall work. Use standard tools & equipment for electrical work. All electrical accessories & cables shall be of adequate capacities. All electrical connections shall be made by qualified electrician Panel boards shall have ELCB, MCB. Oil spillage to be controlled. Growth of grass shall be controlled near electrical installations. All cable joints to be properly jointed and insulated.
5	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg. and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire. Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____ Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____ Name & Signature of HSE Officer : _____

SAFETY CREW INDIA

JSA (Job Safety Analysis) Sheet

Activity Name:- Mobile Tower Crane Operation and Maintenance

Ref-

Location:-

Date :

Sr. No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Pre inspection before operation	Negligence of operator	Personal injury, Property damage	Tower crane should be Third party inspected and having valid Form no. 12.Only trained and licences holder person should be deployed the operation.
				Daily check the crane as per standard checklist before start of the activity.
3	Lifting & Shifting of material (e.g.steel,shuttering ply/plate,brick etc.)	Uninspected lifting media,inproper shifting of material, Improper communication	Personal injury, Property damage	For proper lifting & shifting of material proper communication equipment should be Provide (mobile,walky-talky) for proper communication.
				Wire rope & D-shackle should be having valid test certificate. Horn & Light of the crane should be in working condition.
4	Maintenance Work	Unskilled Worker	Personal injury, Property damage	Only Trained Person should be Deployed for work.
				LOCK-OUT-TAG-OUT (LO-TO) before start of the maintenance.
		Faulty hand tools	Personal injury	Hand tools should be inspected for any damage before they use & kept in proper toolkit.
				Work shall be carried out under supervision.
5	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____ Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____ Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Painting

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Painting Works	Scaffolds, fall of person & material	Injury, Property damage	Height work permit must be obtained.
				Hazardous Material, skin contact, Eye contact, inhalation, injection, fumes
		Proper access & to work place to be provided.		
		Material should stack properly near the work place		
		Area should barricaded to control the access		
		Work area shall keep clean and tidy		
		Confirmation of MSDS before use of material.		
		Use proper P P E as per work requirement,F.B.S.H,Safety helmet,Safety shoes.		
		Use of Dust mask for handling dry material.		
		Thoroughly wash the exposed body part with fresh water and soap after the work.		
		Use of PPE such as gunboot,helmet,rubber hand gloves,nose mask.		
		Painting box should be shifted through rope		
Ensure nearest eye wash station is in good working condition				
Ensure no hot wok should not be caried out within 11mtr.				
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Pedestal Concrete

Ref

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization		Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Work inside excavated pit and assess egress	Improper access.	Fall of person, personal injury.	Inspected ladder shall be use for access.
		Excavated material like soil, boulder laid on pit edge.	Personal injury, fall of material	Remove soil, boulder from the edge of excavated pit.
3	Vehicle movement	Uneven surface	Personal injury, Property damage	Proper route shall be identified.
		Vehicle fall down inside the pit		Vehicle should stop min 2 m from excavated pit edge.
				Define route for entry and exit from work place. Vehicle should be directed by trained person.
4	Providing Chute	Fall of person	Personal injury	Provision of chute resting on ledger with proper tying arrangement. Check all excavated pit covered with hard barrication.Display signage board near work place.
5	Working at height	Uninspected FBSH	Fall of person	Ensure height work permit to be taken from concern engg.and safety dept. Inspected FBSH having double lanyard, shock absorber should be provided.
		Unapproved scaffold	Fall of scaffold	Scaffold shall be erected on even surface by providing base plate, side support, and ledger at every at 500mm with side supports wherever height increases beyond 2 mtrs .
6	Concreting pouring by transit mixer	Fall of person	Personal injury	Work should carried out under close supervision.
				Ensuring worker for maintaining safe distance while pouring of concreting inside the pit.
				Inspection of safety PPEs before start of the works by Site Engineer and Supervisor.
				Workers inside the pit shall be trained for receiving concrete. Staging around pedestals to be done (for height more than 2mtrs) & walking platform to be placed on top. Labours shall be provided with FBSH for height more than 2 mtrs.
7	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Farthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Pedestal Reinforcement

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Unloading Reinforcement near pit	1.Fall hazard 2.Cut Injury due to sharp edges.	1.Personnel Injury 2.Personnel Injury	a. Unloading at distance of 1 mtr from the pit. B.Designated location for the storage of the reinforcement rods. C.Use of safety shoes,gloves,helmet and reflection jacket.
3	Entering inside the pit	1.Fall hazard	1.Personnel Injury	1.Only approved standard ladder to be used. 2.Placing ladder on the stiff firm base surface. 3.Resting ladder against the stiff surface. 4.Top of the ladder to project atleast 1 mtr outside the pit 5.While ascending and descending on the ladder always fa
4	Shifting reinforcement in the pit	1.Head injury 2.Fall of material c.Wire piercing in the finger	Personnel Injury	1.PPE Usage 2.Trained people.
5	Working at height	Uninspected FBSH	Fall of person	Inspected FBSH having double lanyard, shock absorber should be provided.
		Unapproved scaffold		Scaffold shall be erected on even surface by providing base plate, side support, and ledger at every at 500mm with side supports wherever height increases beyond 2 mtrs .
6	Reinforcement	Sharp object, Fall of person , Fall of material	cut, slip	Use of PPE such as safety shoes, helmet PVC hand gloves, safety goggle and shoulder pad.
			Injury, impact,	Work shall be carried out by competent person under proper supervision of foremen / incharge.
			Penetration	Use of proper scaffolds for tying reinforcement at the site.
			fall of person, material	Provide proper platform on Scaffolds.
			Fall,Trip,Slip	Ensure workmen should have shoulder pad.
				Ensure access should be clear for unwanted and slippery materials.
				Ensure long steel should be shifted by sufficient no. of workmen
				Working area should be barricaded to prevent unauthorized entry.
				Ensure steel should be shifted through shifting platform from ground to working platform.
	Ensure reinforcement should be stack 1.5 mtr away from the working area.			
7	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Shuttering in Pedestal

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Movement of shuttering frame near pit	Fall of the frame	Personnel Injury	a. Trained people to be used for unloading the frame. b. PPE Safety shoes,helmet, reflective jacket and gloves.
3	Entering inside the pit	Fall from ladder	Personnel Injury	Only approved ladder to be used,Person to ascend and descend facing towards ladder and firmly having the grip of the ladder.
4	Application of shuttering oil to the shuttering frame.	Contact of oil with the hand	a. Skin irritation b. splash in the eyes c. hand injury	Use of the PPE like Hand gloves and safety goggles.
5	Shuttering	Fall of material / Collapse of shuttering	Injury/property damage	Use of Basic PPE Before erection of steel frame staging is started, a through inspection should be undertaken on it.
		Trip / fall of personnel	Personnel injury / fatal	Proper housekeeping/stacking of material in an isolated area.
				Scaffolds staging to be made as per the scheme.
				Work shall be carried out by competent person under proper supervision of foremen / incharge.
		Nail Piercing	Personnel injury	Loose nail should be removed from site .
				Scaffolding should be inspected for defects such as cracks / excessive knots.
				Before the reinforcement shuttering works are started for beam, working platform/walkway are to be provided .
				Before starting the reinforcement work on the concrete column the existing scaffolding must be extended to more than the required height, so that it provides a means to anchor safety Staging to be done for height more than 2 mtrs, same shall be got approved by SPCL safety officer.
6	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Erection of chuqured plate

Ref-

Location:-

Date : 1

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
				Required work permits should be taken before start of activity
				Work Shall be carried out under continuous Supervision.
2	Shifting of chuqured plate by Hydra	Fall of material, fall of man, road accident, trap	Personal Injury, Fatal accident	Ensure only inspected Hydra should use for material shifting
				Ensure only inspected & damage free web-belt or slings and gunny bag for sharp edge protection should use for material shifting
				Ensure path is clear from any obstruction
				Ensure guide rope fixed at both end
3	Lifting of chuqured plate on fabricated structure by Hydra	Fall of material, fall of man, trap	Personal Injury, Fatal accident	Ensure any overhead known obstruction
				Ensure safe access eg. Inspected scaffold or Ladder
				Ensure lifeline and FBSH
				Ensure path is clear from any obstruction
				Ensure person should not stand below suspended load
				Ensure only signalman give signal for erection operation
4	Fixing of chuqured plate on fabricated structure	Fall of person, Fall of material, Electric shock, burn, fire	Personal Injury, Fatal accident, Property damage	Ensure only inspected welding machine should use for welding
				Avoid Flammable material in welding area.
				Ensure only trained and skilled person deployed for work.
				Ensure fire extinguisher provide near welding work.
				Ensure area below welding work should be barricaded.
5	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Ensure required PPE's for work eg. Safety shoes, safety helmet, safety jacket, lather handgloves, Faceshield
				Night work permit to be taken from concern enngg. and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire. Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

JSA (Job Safety Analysis) Sheet				
	Activity Name:- Erection of Fabricated bridge		Ref-	
	Location:-		Date :	
Sr. No.	Activity Name	Type of Hazard	Risk Involved	Risk Control measures
1	Mobilisation of manpower	Untrained persons, unexperienced person	Personal injury	TBT shall be conducted before starts the activity. Provide all PPE'S as i.e.Helmet,Jacket,Shoes,Goggles. All required permits should be taken before start activity Work should be done under continous supervision. Only authorised person should be deployed for the work.
2	Approch of Heavy Equipment at job location	Uneven vehical Access, uneven work area	fall of materials, Personal injury	Ensure that heavy equipment unloading access should be even surface. Access should be safe,clear, & identified.Unloading stacking work area should be soft barricaded. No any loose materials to be kept inside barricating area.
3	Turning of bridge for appropriate position by crane & Farana	Unapproved Vehical, uneven work area,	fall of materials, Tilt of crane or Farana, Personal injury	Only authorised person should be deployed for the work. Only inspected vehical having valid insurance,RTO,licence.& Ensure that head lights,reverse horn,indicators, front horn is in good condition Bank'sman should be present contionously for movement control. Ensure that hooking shall be adeqately fitted with Gunnybags & properly lock safety lutch. No any shall be allowed under suspended load,Guide rope thick shall be tied to both ends Access should be safe,clear, & identified.Unloading stacking work area should be soft barricaded. Bank'sman should be present contionously for movement control. Only inspected crane having valid insurance,RTO,licence & form no. 11
4	Tying the sling to Bridge & hook, crane, Farana	Unapproved lifting m/c, damaged safety latch or welded hook, Improper access	fall of materials	Ensure that the safety latch should be damage free.Boom rope should be in good condition. Ensure only inspected & Damage free ladder should use for access Only certified lifting tackles should be used & all lifting tackle shall be visually inspected before work. Bank'sman should be present contionously for movement control.
5	Lifting of Fabricated bridge near erection location	Damage lifting tackle, sling escape	Personal injury	Ensure that hooking shall be adeqately fitted with Gunnybags & properly lock safety latch. No any shall be allowed under suspended load. Guide rope shall be tied to both ends. Gunny bags should be used for sharpness protection. Ensure that crane boom length shall be not more than m. Bank'sman should be stand by present at
6	Errection of Fabricated bridge	Wrong rope anchor, overload on boom, colomn swing	Personal injury, fall of person, stuck to person	Guide rope should be tied during shifting of material. Ensure that person stand away ; No one put hand below load during fixing & alignment. Ensure bridge is fixed by bolt or welding before removing of wire rope or web belt Ensure that inspected hand tools i.e. spanner used for nut bolting.
7	Fixing & Alingment of Bridge	Finger caught between, faulty hand tools , loose bolting	Cut injury, personal injury, fall of bridge	Ensure that nut bolt should be properly tight. Crane boom sling not removed untill the bridge adeqately fitted in fastener with bolting.
8	Work during dark hours	Darkness, fall of person, fall of material	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Erection of Fabricated staircase Ref-

Location:-

Date :

Sr. No.	Activity Name	Type of Hazard	Risk Involved	Risk Control measures
1	Mobilisation of manpower	Untrained persons, unexperienced person	Personal injury	TBT shall be conducted before starts the activity. Provide all PPE'S as i.e.Helmet,Jacket,Shoes,Goggles. All required permits should be taken before start activity Work should be done under continuous supervision. Only authorised person should be deployed for the work.
2	Approch of Heavy Equipment at job location	Uneven vehical Access, uneven work area	fall of materials, Personal injury	Ensure that heavy equipment unloading access should be even surface. Access should be safe,clear, & identified.Unloading stacking work area should be soft barricated. No any loose materials to be kept inside barricating area.
3	Turning of staircase for appropriate position by crane & Farana	Unapproved Vehical, uneven work area,	fall of materials, Tilt of crane or Farana, Personal injury	Only authorised person should be deployed for the work. Only inspected vehical having valid insurance,RTO,licence.& Ensure that head lights,reverse horn,indicators, front horn is in good condition Bank'sman should be present contionously for movement control. Ensure that hooking shall be adeqately fitted with Gunnybags & properly lock safety lutch. No any shall be allowed under suspended load.Guide rope thick shall be tied to both ends Access should be safe,clear, & identified.Unloading stacking work area should be soft barricated. Bank'sman should be present contionously for movement control. Only inspected crane having valid insurance,RTO,licence & form no. 11
4	Tying the sling to staircase & hook, crane, Farana	Unapproved lifting m/c, damaged safety latch or welded hook, Improper access	fall of materials	Ensure that the safety latch should be damage free.Boom rope should be in good condition. Ensure only inspected & Damage free ladder should use for access Only certified lifting tackles should be used & all lifting tackle shall be visually inspected before work. Bank'sman should be present contionously for movement control.
5	Lifting of Fabricated staircase near erection location	Damage lifting tackle, sling escape	Personal injury	Ensure that hooking shall be adeqately fitted with Gunnybags & properly lock safety latch. No any shall be allowed under suspended load. Guide rope shall be tied to both ends. Gunny bags should be used for sharpness protection. Ensure that crane boom length shall be not more than m. Bank'sman should be stand by present at location
6	Errection of Fabricated staircase	Wrong rope anchor, overload on boom, colomn swing, unsafe access to man	Personal injury, fall of person, stuck to person	Ensure Lifeline / ancouring point before starting height work Ensure safe access (only inspected scaffold, metal lader, rope ladder) before work. Guide rope should be tied during shifting of material. Ensure that person stand away ; No one put hand below load during fixing & alignment. Ensure bridge is fixed by bolt or welding before removing of wire rope or web belt Ensure that inspected hand tools i.e. spanner used for nut bolting.
7	Fixing & Alingment of staircase	Finger caught between, faulty hand tools , loose bolting	Cut injury, personal injury, fall of bridge	Ensure that nut bolt should be properly tight. Crane boom sling not removed untill the bridge adeqately fitted in fastener with bolting or welding
8	Work during dark hours	Darkness, fall of person, fall of material	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Erection of LG, Truss, Beam

Ref-

Location:-

Date :

Sr.No.	Activity Name	Type of Hazard	Risk Involved	Risk Control measures
1	Mobilisation of manpower	Untrained persons, unexperienced person	Personal injury	TBT shall be conducted before starts the activity. Provide all PPE'S as i.e.Helmet,Jacket,Shoes,Goggles. All required permits should be taken before start activity Work should be done under continous supervision. Only authorised person should be deployed for the work.
2	Approch of Heavy Equipment at job location	Uneven vehical Access, uneven work area	fall of materials, Personal injury	Ensure that heavy equipment unloading access should be even surface. Access should be safe,clear, & identified.Unloading stacking work area should be soft barricated. No any loose materials to be kept inside barricating area.
3	Shifting of Column, LG, Truss by hydra.	Unapproved Vehical, uneven work area	fall of materials	Only authorised person should be deployed for the work. Only inspected vehical having valid insurance,RTO,licence.& Ensure that head lights,reverse horn,indicators, front horn is in good condition Bank'sman should be present contionously for movement control. Ensure that hooking shall be adeqately fitted with Gunnybags & properly lock safety latch. No any shall be allowed under suspended load.Guide rope thick shall be tied to both ends Access should be safe,clear, & identified.Unloading stacking work area should be soft barricated. Ensure that the column , beam,LG. are properly tited . Bank'sman should be present contionously for movement control. Access should be safe,clear, & identified.loading stacking work area should be soft barricated. Only inspected crane having valid insurance,RTO,licence & form no. 10
4	Tying the sling to materials & hook, hydra, crane	Unapproved lifting m/c, damaged safety latch or welded hook	fall of materials	Ensure that the safety latch should be damage free.Boom rope should be in good condition. Only certified lifting tackles should be used & all lifting tackle shall be visually inspected before work. Bank'sman should be present contionously for movement control.
5	Lifting of coulmn,L.G. unloading near erection location	Damage lifting tackle, sling escape	Personal injury	Ensure that hooking shall be adeqately fitted with Gunnybags & properly lock safety latch. No any shall be allowed under suspended load. Guide rope shall be tied to both ends.All structural properly stacked with wooden piece area shall be identified Ensure that the wire rope shall be anchored to column at ground level Gunny bags should be used for sharpness protection.
6	Errection of column	Wrong rope anchor, overload on boom, colomn swing	Personal injury, fall of person, stuck to person	Ensure that crane boom length shall be not more than 9 m. Bank'sman should be stand by present at location Guide rope should be tied during shifting of material. Ensure that person stand away ; No one put hand below load during fixing & alignment.
7	Fixing & Alingment of column	Finger caught between, faulty hand tools , loose bolting	Cut injury, personal injury, fall of colomn	Two person hold the column for approximately fitting of column in fastener. Ensure that inspected hand tools i.e. spanner used for nut bolting. Ensure that nut bolt should be properly tight. Crane boom sling not removed untill the column adeqately fitted in fastener with bolting. Only trained person deployed for errection work.

Activity Name:- Erection of LG, Truss, Beam

Ref- SPCL/APLP/Site/JSA/115 (R-0)

Location:-

Date :

Sr.No.	Activity Name	Type of Hazard	Risk Involved	Risk Control measures
8	Erection of Beam,Rafter on column	Uneven approach, uneven level, inadequate working platform	Fall of person, fall of scaffold, fall of material	Only inspected sccafold having ledger on 500-500 mm distance for the access.
				The ground shall be make level. Provide base plate while erecting on non concreting surface & provide adjustable jacks while erecting on uneven surface to adjust level.
				Ensure that the sccafold should be erect in plumb & maintain the base height ratio 1:4 .
				Provide top rail ,middle rail & sccafold should be inpected before start the activity.
				Provide Green & red tag. Planks should be provide for working platform tied at both ends .
				Materials i.e. hand tools should be shifted with the help of rope.
9	Erection of Beam,	loose materials, loose bolting, faulty handtools	Personal injury, fall of person, stuck to person	No any loose material i.e nut bolt kept on working platform.Erection periphery area should be soft barricaded & no any person stand below suspended load.
				Only inspected handtools should be used & ensure that the beam should be adequarely fitted with bolting.
				Sling should be not removed until the beam adequately fitted with column by nut bolt.
				Wire rope sling loosed in such a way that the sling come near scaffold so the person can easily de-sling the wire rope
				Only trained person deployed for erection work .
Work should be done under continous supervision.				
10	Work During Night	Darkness	Fall of person, personal injury	Ensure Night work permit before work
				Proper illumination should be provide during night work.
				Emergency evacuation plan should be explain to all workers.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Erection of movable scaffold & work on it

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Erection of movable scaffold & work on it	Manual Handling, Fall hazard material fall, man fall)	Personal injury, Fatal accidents	Work area shall be barricaded and warning signs shall be displayed. Ensure height work permit before starting work Ensure safe scaffolding with access, top rail, mid rail, Ensure person above 2mtr. Height with full body safety Harness encourage Ensure person do not come below lifting material Ensure movable scaffold with wheel lock & maintain 1:3 ratio Ensure even surface for movement of movable scaffold Ensure no worker stay on movable scaffold while movement of scaffold Ensure wheel should lock while worker stay on it for work Ensure only trained worker deploy for work Ensure tool and equipment that use on scaffolding must tighten with rope Ensure no heavy weight carrying while climbing on scaffold Ensure hot work permit for welding, gas cutting, grinding. Work area shall be barricaded and warning signs shall be displayed. Work shall be done under close supervision
5	Work during dark hours	Darkness, fall of person, fall of material	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept. Inspected electrical tools shall be used. All distribution boards should have ELCB. Cable shall not interfere traffic and movements. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Erection of Piperack frame

Ref-

Location:-

Date :

Sr.No.	Activity Name	Type of Hazard	Risk Involved	Risk Control measures
1	Mobilisation of manpower	Untrained persons, unexperienced person	Personal injury	Deploy only inducted worker for work
				TBT shall be conducted before starts the activity.
				Provide all PPE'S as i.e.Helmet,Jacket,Shoes,Goggles.
				All required permits should be taken before start activity
				Work should be done under continous supervision.
2	Approch of Heavy Equipment at job location	Uneven vehical Access, uneven work area	fall of materials, Personal injury	Ensure that heavy equipment unloading access should be even surface.
				Access should be safe,clear, & identified.Unloading stacking work area should be soft barricated.
				No any loose materials to be kept inside barricating area.
3	Shifting of fabricated piperack frame by hydra.	Unapproved Vehical, Untrained hydra operator uneven work area	fall of materials	Only authorised person should be deployed for the work.
				Only inspected vehical having valid insurance, form no.11, RTO,licence.& Ensure that head lights,reverse horn,indicators, front horn is in good condition
				Bank'sman should be present contionously for movement control.
				Ensure that hooking shall be adeqately fitted with Gunnybags or sleeves & properly lock safety lutch.
				No any shall be allowed under suspended load.Guide rope thick shall be tied to both ends
				Access should be safe,clear, & identified.Unloading stacking work area should be soft barricated.
				Ensure that the frame are properly tited
				Ensure gied rope with 5mtr. long fixed at both end
				Ensure both gied rope holding person should walk 3mtr. Away from Hydra.
				Bank'sman should be present contionously for movement control.
4	Lifting of frame unloading near erection location	Damage lifting tackle, sling escape	Personal injury	Ensure that hooking shall be adeqately fitted with Gunnybags or Sleeves & properly lock safety latch.
				No any shall be allowed under suspended load.
				Guide rope shall be tied to both ends.All structural properly stacked with wooden piece area shall be identified
				Gunny bags should be used for sharpness protection.
5	Errection of 1st frame	Tilt of hydra,Fall of frame, fall of person	Personal injury, fatal injury	Ensure path should be clear and even surface
				Ensure only one trained signalman should give signal to hydra operator
				Ensure safe access e.g. only inspected scaffold, only inspeced ladder with safe ratio 1:4
				Ensure person should wear only inspected double lanyard full body safety harness
				Ensure person should anchour his safety belt snap hook to 2nd frame resting clit
				Ensure person should hold ladder when one person goes up to tie ladder with rope
				Ensure ladder is tied with rope
				Ensure bolts are fixed at one side
				Ensure clit or clamp is fixed at another end
				Guide rope should be tied during erection of frame.
Ensure that person stand away ; No one put hand below load during fixing & alignment.				
				Ensure safe access e.g. only inspected scaffold, only inspeced ladder with safe ratio 1:4
				Ensure 1st frame bolting & Clits are fixed at another end
				Ensure lifeline shoould fix (coloum to coloum)

6	Erection of 2nd frame	Fall of frame, fall of person	Personal injury, fatal injury	Ensure person should anchor his safety belt snap hook to lifeline
				Ensure that hooking shall be adequately fitted with Gunnybags or Sleeves & properly lock safety latch.
				Ensure hand tools should fix with rope at height
				Ensure only inspected hand tool should use
				Guide rope should be tied at both end during erection of frame.
				Ensure person should not stand below suspended load
				Ensure bolts are fixed at one side
				Ensure clip or clamp is fixed at another end
7	Erection of 3rd frame	Fall of frame, fall of person	Personal injury, fatal injury	Ensure safe access e.g. only inspected scaffold, only inspected ladder with safe ratio 1:4
				Ensure 1st & 2nd frame bolting & clips are fixed at another end
				Ensure lifeline should fix (column to column)
				Ensure person should anchor his safety belt snap hook to lifeline
				Ensure that hooking shall be adequately fitted with Gunnybags or Sleeves & properly lock safety latch.
				Ensure hand tools should fix with rope at height
				Ensure only inspected hand tool should use
				Guide rope should be tied at both end during erection of frame.
				Ensure person should not stand below suspended load
				Ensure bolts are fixed at one side
Ensure clip or clamp is fixed at another end				
8	Erection of 4th frame	Fall of frame, fall of person	Personal injury, fatal injury	Ensure safe access e.g. only inspected scaffold, only inspected ladder with safe ratio 1:4
				Ensure 1st, 2nd, & 3rd frame bolting & clips are fixed at another end
				Ensure lifeline should fix (column to column)
				Ensure person should anchor his safety belt snap hook to lifeline
				Ensure that hooking shall be adequately fitted with Gunnybags or Sleeves & properly lock safety latch.
				Ensure hand tools should fix with rope at height
				Ensure only inspected hand tool should use
				Guide rope should be tied at both end during erection of frame.
				Ensure person should not stand below suspended load
				Ensure bolts are fixed at one side
Ensure clip or clamp is fixed at another end				
9	Work During Night	Darkness	Fall of person, personal injury	Ensure Night work permit before work
				Ensure path should be clear and even surface
				Proper illumination should be provided during night work.
				Emergency evacuation plan should be explained to all workers.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Erection of support beam on bracket in cut-out

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Lifting of material and moving to work location	Trap hazard	person may get injured	Safety shoes safety helmet safety goggle florecent jacket cotten hand gloves to be used. Area under working to be properly cordoned off. Ensure unauthorised entry, ensure safe distance between man and Hydra or Farana Ensure only inspected Hydra or Farana should use for material shifting and erection
		Fall hazard (material fall, Hydra or Farana tilt)	Personal injury, Fatal accidents	Ensure hydra operator have valid licence Before lifting of material with lifting equipment safety supervisor inspect all tied slings are in proper way,then only material to be lifted. No person stand below the lifted load Precautaions to be taken to prevent load swing. Tied with guide rope Predefining all the work location for above work. While moving the material it will be kept tied at both end with guide rope.
3	Fabrication (Welding & Gas cutting)	1) electric shock 2) fire burns 3) toxic fumes 4) explodification	Personal Injury/Fatal Accident	Proper and uniform stacking to be done on leveled surface with packing. ELCB and proper fuse in main supply board to be there. only approved scaffolds to be used for working at height ,Trained persons to be deployed at work competent supervisor to be present at all time during hot work activities. Use of good insulation of welding supply & erecting cable. Joint free cable to be used Inspected welding machine to be used Hot work permit to be taken from concern project and safety dept. Proper earthing to job and welding machine. Proper access & platform shall be provided. Remove all flammable & combustible materiel from work area. Fire extinguisher to be kept available near by working area.
4	Errection of support beam on bracket	Manual Handling, Fall hazard (material fall,man fall)	Personal injury, Fatal accidents	Work area shall be barricaded and warning signs shall be displayed. Ensure rope pully should damage free and fix with firm support Ensure safe scaffolding with access if movable scaffold with wheel lock & maintain 1:3 ratio Ensure even surface for movement of movable scaffold Ensure no worker stay on movable scaffold while movement of scaffold Ensure wheel should lock while worker stay on it for work Guide rope to be used for erection Ensure person above 2mtr. Height with full body safety Harness ancourage Ensure person do not come below lifting material Erected steel members shall be properly braced and supported for stability.
5	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

SAFETY CREW INDIA

JSA (Job Safety Analysis) Sheet

Activity Name:- Excavation

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	a.Only inducted worker shall be deputed at the work place. B.Induction process covers all identified hazards and precautions to be taken. C.Tool Box talk on daily basis to be conducted by Supervisor on (Activities to be performed in day, hazard and precau
2	Excavation (Only using Pockland and JCB)	Underground Utilities	Major Accident	Excavation work permit to be taken from concern engg.and safety dept. Ensure for electrical cable ,any water services before excavation.
		Fall from height	Personal injury	Ensuring all the labour for use safety helmet,refrative jacket,safey shoes PPEs. Checking the competency of the excavator operator.
				Hard barricading around all the excavated pits & soft barrication around the swing area of poclain.
				Competency of driver. Process of displaying the photo along with the driver license on the pockland.
				Daily inspection of the equipment as per the defined checklist
		Fall/Slip of excavator	Major Accident	Comply to the requirement of excavation and height work permit
			Damage to inventory	Distinguishing the stoppage area for vehicle
		Striking by the swing movement of the arm	Injury Major Accident	Provision of banks man for guiding the excavation activity Soft barrication of area being excavated.
		Collapse of sides	Injury	Loose material along the edge shall be removed. Vertical cutting of the pit will be done by giving slops / caving of pits.
		Heat Stroke	Injury	Medical fitness Instruction to drink water at regular intervals Provision for water at each individual location of work
3	Loading & unloading (Besides pit and into dumper)	Fall/Slip of excavator & dumper	Major Injury	Evaluating the capacity of the excavator/dumper. Provision of banks man for guiding the process. Competency of the driver operating dumper or excavator.
				Only the certified driver whose photo is displayed on the dumper or excavator to operate the same. Ensure Hard barricading around all the excavated pits and stopper provided to dumper.
		Slip of excavated material	Personal injury	Material stacking not less than 1.0 mtrs from the edge of the pit . Ensuring the level ground for unloading dumper at dumping area.
4	Movement of Dumper	Striking against the people working at site	Major Injury	Ensuring safe working height for stacking of the material.(1.5 mtrs)
5	Parking of Dumper for Unloading	a.Striking to the person	a. Major Accident	a. Identifying the route of the vehicle. B.Checking the competency of the vehicle driver c. Checking of authorization papers of driver & vehicle. D. Confirming fitness of the vehicle- viz. breaks, tale lamps, reverse horns. E. Operating speed limit of 15K
		b.Fall in the excavated Pit	b. major accident	a.Cleaner available to guide during reverse operation b.Dumper halting at 2mtr distance from the pit c.Reverse horn availability d. Daily checks of the vehicle to check the vehicle fitness of the vehicle.
6	Material transports	Road accident	Personal injury, loss of properly	a.Hard stopper or sand bags to be placed at edge during reverse operation. B.Hard barricade to be available. Identifying the route of the vehicle. Checking the competency of the vehicle driver Checking of authorization papers of driver & vehicle. Confirming fitness of the vehicle- viz. breaks, tale lamps, reverse horns.
7	Open Pit	Pit not covered	Fall hazard	Operating speed limit of 15Km/Hr. The pit to be barricaded from all 4 sides after completion of activity. Night work permit to be taken from concern engg.and safety dept.
8	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

SAFETY CREW INDIA

JSA (Job Safety Analysis) Sheet

Activity Name:- Expansion joints in columns

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Material shifting	Fall/Slip/Trip	Personal injury	Evaluating the capacity of the dumper Provision of banks man for guiding the process and stopper for vehicle. Ensuring the level ground for unloading Material stacking not less than 1.5 mtrs from the edge of the pit .
3	Filling of expansion joint material	Fall	Personal injury	use Inspected scaffold. Use of FBSH Ensure working platform
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Fencing on compound wall

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
				Ensure height work permit before starting work
				Deploy only trained people for work
2	Material shifting	Material fall, man fall, sharpe edge	Personal injury	Ensure path should be clear from any obstruction
				Ensure excess load should not carry by any worker
				Ensure required PPE's eg. Safety shoes, safety jacket, Cotton handgloves, safety helmet, safety goggle etc.
				Provide caution signage to workplace
3	Fixing of Y-pole	Fall of man, Fall of material, fall of handtool	Personal injury, fatal accident	Ensure safe scaffolding e.g. access, working platform with mid rail, top rail with support
				Ensure only trained worker deploy for work
				Ensure Full body safety harness above 2mtr. Height
				Ensure tools and material are fixed with rope
				Ensure person should not stand below height work
4	Fixing of barbed wire	Fall of man, Fall of material, fall of handtool, sharp edge	Personal injury, fatal accident	Ensure safe scaffolding e.g. access, working platform with mid rail, top rail with support
				Ensure only trained worker deploy for work
				Ensure Full body safety harness above 2mtr. Height
				Ensure tools and material are fixed with rope
				Ensure person should not stand below height work
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Finishing of concrete surfaces by using grinder

Ref-

Location:-

Date :

Sr.No	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place. Give Tool Box Talk to all workers.
2	Finishing	Fall of material, Fall of person, electric shock	Personal injury, Fatal accident	Ensure safe scaffolding e.g. access, working platform with mid rail, top rail & support Ensure working platform bind with wire or rope Ensure required ppe's safety shoes, safety helmet, safety jacket, safety goggle, handgloves, ear plug, nose mask before starting work Ensure height work permit above 2mtr. height, also person with FBSH anchorage during height work Ensure grinder m/c should inspected with damage free cable and industrial pin top Ensure electric supply from only inspected panel with 30ma ELCB Ensure worker working on height with Full body harness Ensure tools and other material on working platform should bind Ensure use of inspected tools & tackles
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Fixing of bracket in cutout

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place. Give Tool Box Talk to all workers before work
2	Fixing of bracket in cutout at height	Fall of material, Fall of person, Electric shock, Fire	Personal injury, Property damage	Ensure Hot work permit and height work permit before starting work . Ensure safe scaffolding e.g. access, working platform with mid rail, top rail with support Ensure Welding m/c should inspected with damage free cable industrial pin top and ELCB with leak current 30ma. Ensure fire extinguisher available at work place Ensure Area near work place should be free from combustible material , with soft barricading Ensure work should not allow above and near cutout Ensure close supervision during work time Ensure worker working on height with Full body harness Ensure tools and other material on working platform should bind Ensure use of inspected tools & tackles
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Fixing of glass at bridge

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Staging	Fall of person, material	Personal Injury	Area barricade to restrict entry.
				Ensure (FBSH)full body safety harness anchor by each workmen.
				Cuplock verticals are checked against bending & breakages
				Ledgers shall be placed at every 500mm & same shall be covered with the cups.
				Maintain good house keeping at work site.
3	Moving on to scaffolding	Personal injury	Person may get injured	Use of basic PPEs.
		Fatal accidents	Person may fall from height	Height Work permit to be taken from SPCL safety officer
				One to one communication to be maintain at all time during work.
4	Fixing of glass	Fall of material, fall of man	Personal Injury, cut injury, property damage	Ensure continuous supervision.
				Ensure only inspected web belt and glass suction plate should use for lifting of glass.
				Ensure tying of full length web belt vertically and horizontally on glass for lifting.
				Ensure tools and material is not kept on walking plate.
				Ensure area below the work is barricaded with signage
				Ensure unauthorised entry in barricaded area
5	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Fixing of pre-cast drain cover & Chamber cover

Ref

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
				Required work permits should be taken before start of activity
				Work Shall be carried out under continuous Supervision.
2	Shifting of drain cover	Fall of material, fall of man	Personal Injury,property damage	Ensure person can carry safe load while shifting.
				Ensure path is clear from any obstruction
				Ensure required PPE's eg. Safety shoes, safety jacket, Cotton handgloves, safety helmet, safety goggle etc.
3	Fixing of drain cover	Fall of material, fall of man	Personal Injury,property damage	Ensure only inspected T & L bar should use for fixing of cover
				Ensure leg should not come below lifting cover
				Ensure person can carry safe load while shifting.
				Ensure path is clear from any obstruction
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Ensure path is clear from any obstruction
				Ensure continuos supervision during night work.
	Route shall be illuminated.			

Name & Signature of Site Engineer / Supervisor : _____ Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____ Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Fly ash brick machine maintenance

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Maintenance Work	Unskilled Worker	Personal injury, Property damage	Only Trained Person should be Deployed for work.
				LOCK-OUT-TAG-OUT (LO-TO) before start of the maintenance.
				Work area should be barricaded to avoid unauthorised entry.
				Use all PPE's.
		Faulty hand tools	Personal injury	Hand tools should be inspected for any damage before they use & kept in proper toolkit.
				Work shall be carried out under supervision.
3	Work during dark hours	Darkness, fall of person, fall of material	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Fly ash brick plant erection and operation

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker, lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Foundation Work			
3	Excavation	Uninspected machinery	Personal injury, Property damage	Excavator having valid fitness certificate should be deployed for the work. Excavator should be inspected before use. Operator having valid driving licences. Banks man should be provide for giving signal. Excavated material shall be kept min.1mtr.away from the Pit / Trench edge. Ensure no person working intrenchduring excavation.
		Fall, slip	Personal injury	Hard barrication 1.5mtr away from edge. Hard barrication will be provided surrounded pits Ensure no person working intrenchduring excavation. Provide caution sign board. Entry of personnel is strictly restricted in the area swing of boom. Work shall be carried out under supervision.
4	PCC	Unapproved access	Personal injury	Proper access, railing should be provide.
		Wet cement	Skin irritation	Provide rubber hand gloves, dust mask should provide Provide Eye & hand wash facility near work area
5	Shuttering	Improper material handling	Personal injury, Property damage	Material handling should be done manually. Shoulder pad shall be provide for worker.
6	RCC	Sharp edge	Cut injury	Leather hand gloves shall be provide
		Wet cement	Skin irritation	Dust mask and hand ash facility should be provide. Proper house keeping should be maintain.
7	Erection for mixing drum Unit App. Wt 2 T	Uninspected lifting media	Personal injury, Property damage	Only Third party inspected and having valid Form 12 hydra crane having capacity of 12T should be use. Third party inspected and having valid form 12 D'shackle with capacity 5 T (2no.)should be use. Operator having valid driving licences. Banks man should be provide for giving signal.
		Swing of material	Personal injury	16mm nylon rope should be tied at both end of structure to avoid swinging of material. No work and worker should be deployed under suspended load. Work area should be barricaded to avoid unauthorised entry. Work shall be carried out under supervision.
8	Operation	Untrained worker, lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
		Fall of material	Personal injury	Roof defined for wheel barrow. Hard barrication around any rotating part (Conveyor Belt). Use PPE's - safety helmet,safety shoes,relective jacket,nose mask,hand gloves,safety goggle. Supervision should be provide for giving instructions.
9	Shifting of brick by tractor trolley	Unauthorised driver / Unapproved access	Personal injury,property damage	Bricks shifting by tractor trolley with valid licence driver. Do not overload the bricks into the trolley and stacking upto 1.5 m.
10	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury,damage to property	Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Footing Deshuttering Activity

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	a. Only inducted worker shall be deputed at the work place. B. Induction process covers all identified hazards and precautions to be taken. C. Tool Box talk on daily basis to be conducted by Supervisor on (Activities to be performed in day, hazard and preca
2	Entering Inside the Pit	Fall from height	Personal injury	Use of standard certified ladder Ladder to be rested against the stable base Ladder to rest against the stable back surface Ladder to be projected 1 mtr above the ground To have process of facing the ladder while entering and coming out of the pit. Comply to the requirement of excavation and height work permit
3	Removing of the side barricade for bag filling	Use of tool result into injury	Personnel Injury	Use of PPE (Safety Shoes, Reflective jacket, Safety Helmet and hand gloves.).
4	Removal of the support used for shuttering	Improper handling, Improper placing.	Personnel Injury	Use of PPE (Safety Shoes, Reflective jacket, Safety Helmet and hand gloves.). Store the removed clamp, supports in segregated area. Proper house keeping. Material to be collected and placed in segregated location outside the pit.
5	Removal of shuttering wooden frame	During opening open folding of prefold shuttering frame.	Personnel Injury	Only prefold sheets with support to be used.
		Hand Injury	Personnel Injury	Use of PPE.
		Fall on body	Personnel Injury	Support multi person activity.
6	Placing on edge	Fall hazard	Personnel injury	Fall on person resulting into the injury Placing in the designated locations.
7	Illumination	Insufficient illumination	Personnel Injury	Enough Illumination DG Panel closed DG Panel covered DG with rubber mats.
8	Fall of the person from edge	Fall hazard	Personnel injury	Hard barrication to be provide across the pit.
9	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg. and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire. Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:-Gas Cutting works

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker, lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Shifting Gas Cylinders	Entrapping of part of body below the material.	Injury to the persons	Shifting gas cylinders up right position on trolley. Shifting work to be carried out with authorized persons with continuo
3	Barricading of work area	Personal injury	Major burns	Use of proper PPEs as per SPCL safety norms- safety shoes, safety helmet, safety goggles, reflective jacket.
				Whole area under working will be properly barricaded
				No any unauthorized material to be kept inside barricading area
4	Gas cutting work	fire,burns,explosion,back fire	Property damage fatal injury eye injury	Ensure that hot work permit to be taken before starting work.
				Ensure only inspected gas cylinders shall use.
				No any person allow to stand in front of gas cylinder trolley
				Both cylinders should kept always in vertical position on trolley proper chain.
				Lighter to be used for lighting torch.
				Provision of flash back arrester. Tip cleaning for torch
5	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Check against hose pipe for gas leakage with soap water.
				Ensure that valve protection to fitted on cylinder.
				Night work permit to be taken from concern engg.and safety
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Grinding Operation

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Inspection of grinding wheel	Crack,cut	Personal Injury/Fatal Accident	Check grinding wheel expiry date Check grinding wheel clean & dry before test. Inspection with ring test whether wheel crack.
3	Mounting of grinding wheel	Untrained worker	Personal Injury/Fatal Accident	Grinding wheel mounted by only trained worker according to manufactures instructions. Ensure speed of grinding wheel should not less than speed of grinding m/c Before mounting ensure grinding wheel safe to use. Ensure grinder spindle speed does not exceed the speed marked on wheel. Ensure wheel fits freely but not loosely on spindle. Ensure protective guard is in place. Ensure Inspection Tag is in place.
4	Electrical Connection	Electric shock cation	Personal Injury/Fatal Accident	ELCB in main supply board to be there. Use of good insulation electrical cable. Joint free cable to be used Electrical Cable shall not interfere traffic and movements. Remove all flammable & combustible materiel from work area.
5	Grinding Operation	Crack,cut Splatters	Personal Injury/Fatal Accident Eye Injury	Face shield and all required PPE's to be used for grinding. Work area shall be clear and warning signs shall be displayed. Work permit shall be obtained before start of work.
6	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Grouting of bolts & pockets

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Material shifting	Fall/Slip/Trip	Personal injury	Evaluating the capacity of the dumper Provision of banks man for guiding the process and stopper for vehicle. Ensuring the level ground for unloading Material stacking not less than 1.5 mtrs from the edge of the pit .
3	Grouting of bolts & pockets	Skin irritation	Uneasiness	Check for MSDS before use of grouting material Only trained labour shall be deployed Ensure use of rubber hand gloves before start of activity
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:-Concrete from batching plant to transit mixer

Ref-

Location:- Batching Plant

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Miller allingment	Hit of vehicle to person/Batching plant	Personal injury/damage to property	Ensure banks man for guiding the vehicle movement.
				Providing murum filled gunny bag barrier behind the vehicle.
				Provide stoppper at tyres.
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Concrete placing by using mobile crane through concrete bucket

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures		
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.		
				Given Tool Box Talk to all workers.		
2	concrete by using bucket	Fall of material from height due to failure of derrick or Chain pulley block or wire rope slings for lifting the material./ Fall of bucket	Injury to the persons working below and surrounding areas. Permanent disable or fatality due to fall of material.	Regular inspection of lifting tools & tackles before starting the activity, to ensure that the same are not damaged due to improper use. Area below and surrounding the activity to be cordoned off with barrication tapes. Daily Tool Box Talk to be conducted		
				Ensure latch in place before lifting of bucket		
				Non provision of working platform	Fall of person	Ensure proper access & working platform while unloading the concrete in place using bucket
				Sharp edge	Cut injury	Leather hand gloves shall be provide for handelling of bucket
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Wet cement/slurry leakage		
				Skin irritation	Dust mask and rubber hand gloves shall be provided. Proper house keeping should be maintain.	
				Night work permit to be taken from concern engg.and safety		
				Ensure proper illumination during dark hours.		
				Electrical cable should lead min 2 m height. No exposed		
				Route shall be illuminated.		

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Concreting -PCC in plinth.

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Tool Box talk on Activities to be carried out in day, hazards associated with the activities, Precautions to be taken.
2	Unloading of the stones at the pit edge	Fall of the stones in pit	Personnel Injury	a. Unloading at the distance of 2 mtrs from the pit. b. Pit to be barricaded
		Injury due to person getting striked by dumper	Personnel Injury	a. Cleaner for guidance during the reverse operation b. Hard Barrication c. Reverse Horn provision
		Fall of the dumper in the pit	Personnel Injury	a. Provision of hard barricade. b. Dumper to stop at distance of 2mtrs from the pit c. Use of the metal/wooden stoppers d. Provision of sand barricade or hard barricade.
3	Charging the stones in the pit	a.Fall hazard b.Injury due to sharp edges of the stones.	Personnel Injury	a. Charge only from outside barricade. b. Presence of hard barricade. c. Use of PPE(Helmet,Gloves, reflective jacket,Safety Shoes.)
4	Levelling of the stones in the pit	Injury due to sharp edges	Personnel Injury	a. No person to be present in pit during charging operation b. Use of PPE(Helmet,Gloves, reflective jacket,Safety Shoes.)
5	Work inside excavated pit and assess egress	Improper access.	Fall of person, personal injury.	a. Only approved ladder to be used. b. Ladder to be rested against the firm base c. Ladder to be rested against the firm edge. d. Person to ascend and descend facing towards ladder and firmly having the grip of the ladder. e. Use of the height work permit
		Excavated material like soil, boulder laid on pit edge.	Personal injury, fall of material	a. Remove soil, boulder from the edge of excavated pit. b. Excavated material to be placed at 1mtr distance from the pit
6	Vehicle movement	Uneven surface	Damage to vehicle	Proper route shall be identified and maintained. Vehicle should stop min 2 m from excavated pit edge.
		Vehicle fall down inside the pit	Personal injury, Property damage	Define route for entry and exit from work place. Hard Barricade Using sand bags or hard stopper for stopping of the vehicle. Vehicle should be directed by trained person.
7	Hard Barricading	Fall of person	Personal injury	Provision of chute resting on ledger with proper tying arrangement. General work permit and Height work permit Check all excavated pit covered with hard barrication.Display signage board near work place.
8	Concreting pouring by transit mixer	Fall of person or vehicle into the pit, exposure of skin to cement	Personal injury, damage to property	Work should carried out under close supervision. Use of full body harness with shock absorber hooked with hard barricade if lever operation for concrete pouring is to be carried out by standing at edge of pit inside barricade. Ensure that the workers maintain safe distance while pouring of concreting and is secured properly. Ensure use of relevant PPE's before start of the work. Direct concreting shall be done using a chute, in case it is not possible,concrete to poured in tray and same shall be carried by workers. No person to be available in pit during unloading. Use of wooden or metal stoppers at the rear wheels. In case of person stand inside the hard barrication then he should wear full body safety harness and anchored to ledger. Use of wooden or metal stoppers at the rear wheels. Area to be concreted shall be barricaded against unauthorized entry.
9	Use of the blower to level the concrete in the pit	a. Fall of person in the pit. b. Electrical Shock c. Splash of the concrete in eyes	Personnel Injury	a. Blower to be operated by standing inside the pit or standing outside the pit. b. Use of ELCB, blower to be inspected for electrical connections. c. Use of PPE (Safety Shoes,helmet, Reflective jacket, safety shoes and safety goggles)
10	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Concreting by Mixer Machine

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Machine mixed / Manually Placed / Mechanically vibrated	Hazardous Material, noise, dust, Skin contact with cement & Eye contact	Respirator hazard	Use of Dust mask for handling dry cement.
			Skin Irritation	Thoroughly wash the exposed body part with fresh water and soap after the work.
		Machinery		Injury,cut
			Electrical Hazards, Electrical short fire due to short circuit	
		Proper alignment and positioning of Mixer Machine to be done		
		Use of armoured cable with ELCB power connection		
		Cable Should not lay on ground and adequate clearance shall be maintained from ground for Vehicle or personnel movements i.e 3.0 m above ground level.		
		Fall of person & Fall of material	Injury,cut	Cable laying above 3 mtr.Drop from lower part of work
				Exhaust insulation.
				Hand Gloves and ear plug will be provided .
				If PVC insulated body for that single earthing should provided
				If Metal insulated body for that double earthing should provided
				Auto off when operator release switch & E LCB
				Proper connection through MCB+ELCB with and ensure plug top shall be provided
				Damaged cable shall not be used and proper cable joints shall be made if necessary.
Proper houskeeping of work place.				
Walking platforms shall be made for poring concrete in trenches / pit with side railing.				
Safety Permit shall be taken before start of activity.				
Use of proper PPEs such as safety shoes,gumboots,helmet,rubber hand glovs,dustmask,ear plug				
Ensure access should be clear for unwanted and slippery materials.				
fire extinguisher & sand bucket should be kept at working area.				
Working area should be barricaded to prevent unauthorized entry.				
Ensure all electrical tools should be inspected by the electrical engg.prior to work				

3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury,damage to property	Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Concreting in Foundation

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker, lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Work inside excavated pit and assess egress	Improper access.	Fall of person, personal injury.	Inspected ladder shall be use for access.
		Excavated material like soil, boulder laid on pit edge.	Personal injury, fall of material	Remove soil, boulder from the edge of excavated pit.
3	Vehicle movement	Uneven surface	Personal injury, Property damage	Proper route shall be identified.
		Vehicle fall down inside the pit		Vehicle should stop min 2 m from excavated pit edge. Define route for entry and exit from work place. Vehicle should be directed by trained person.
4	Hard Barricading	Fall of person	Personal injury	Provision of chute resting on ledger with proper tying arrangement. Check all excavated pit covered with hard barrication. Display signage board near work place.
5	Staging	Fall of person, material	Personal Injury	Area barricade to restrict entry.
				Ensure (FBSH)full body safety harness anchor by each workmen.
				Cuplock verticals are checked against bending & breakages
				Ledgers shall be placed at every 500mm & same shall be covered with the cups. Maintain good house keeping at work site.
6	Concreting pouring by transit mixer	Fall of person	Personal injury	Work should carried out under close supervision.
				Ensuring worker for maintaining safe distance while pouring of concreting inside the pit.
				Safe access should be provided for foundation pits.
				Inspection of safety PPEs before start of the works by Site Engineer and Supervisor. Workers inside the pit shall be trained for receiving concrete.
7	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Concreting -PCC in plinth

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Tool Box talk on Activities to be carried out in day, hazards associated with the activities, Precautions to be taken.
2	Vehicle movement	Uneven surface	Personal injury, Property damage	Proper route shall be identified.
		Vehicle fall down inside the pit		Vehicle should stop min 2 m from excavated pit edge.
				Define route for entry and exit from work place. Vehicle should be directed by trained person.
3	Hard Barricading	Fall of person	Personal injury	Area to be concreted shall be barricaded against unauthorized entry
5	Concreting pouring by transit mixer	Fall of person	Personal injury	Work should carried out under close supervision.
				Ensuring worker for maintaining safe distance while pouring of concreting.
				Inspection of safety PPEs before start of the works by Site Engineer and Supervisor. Direct concreting to be done using chute if not possible then concrete to poured in tray and same shall be carried out by labour on manual basis.
6	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Curb stone fixing.

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
				Required work permits should be taken before start of activity
				Work Shall be carried out under continuous Supervision.
2	Shifting of curb stone	Fall of material, fall of man	Personal Injury	Ensure person can carry kg weight
				Ensure path is clear from any obstruction
3	Fixing of curb stone	Fall of material, fall of man	Personal Injury	Ensure person can carry kg weight
				Ensure path is clear from any obstruction
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____ Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____ Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Curing of concrete cube

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Curing of concrete cube mould	slip,trip		Proper access to work place (curing water tank) to be provided. Cube mould should stack properly near the work place Use proper P P E as per work requirement.
		Fall of concrete cube	personal injuey	Use safe system for loading / unloading of concrete cube by manually Use gum boot, rubber hand gloves,safety helmet while unloading of concrete cube into the wter tank. Housekeeping should be done after completion the work.
3	Work during dark hours	Darkness, fall of person	Personal injury	Ensure proper illumination during dark hours. Work area shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Cut outs in slab.

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker, lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Provision of cutouts	Fall of person	fatal accident	Hard barrication around cutout
				covering of cutouts using MS plates/or reinforcement jali.
				Provision of toe guard./morter strip around cutout to avoid fall of rolled out material.
				Provision of warning sign board.
3	Cutting activity	Hand injury Fall Hazard	Personnel Injury	a. PPE Usage. B. Use of fall protection device with clamping arrangements c.Provision of rods to barricade the area.
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Cutout casting

Ref-

Location:-

Date :

Sr. No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place. Give Tool Box Talk to all workers before work Ensure height work permit before starting work
2	Material shifting	Material fall, Man fall	Personal injury	Ensure path should be clear from any obstruction Ensure excess load should not carry by any worker Ensure required PPE's eg. Safety shoes, safety jacket, Cotton handgloves, safety helmet, safety goggle etc.
3	Shuttering of cutout casting	Material fall, Man fall	Personal injury, Fatal accident	Ensure safe scaffolding e.g. access, working platform with mid rail, top rail with support Ensure close supervision during work time Ensure lifeline is fixed in cutout rods which is fixed inside the concrete Ensure worker working on height (Cutout) with Full body safety harness Ensure area below cutout is soft barricated with signage Ensure tools and other material on working platform should bind Ensure use of inspected tools & tackles
4	Reinforcement of cutout casting & Casting of cutout	Material fall, Man fall, sharpe edge	Personal injury, Fatal accident	Ensure safe scaffolding e.g. access, working platform with mid rail, top rail with support Ensure close supervision during work time Ensure lifeline is fixed in cutout rods which is fixed inside the concrete Ensure worker working on height (Cutout) with Full body safety harness Ensure area below cutout is soft barricated with signage Ensure tools and other material on working platform should bind Ensure use of inspected tools & tackles
5	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Ensure continious supervision for night work Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____ **Name & Signature of Site In-charge :** _____

Name & Signature of Project In-charge : _____ **Name & Signature of HSE Officer :** _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Cutting of cement bags by manually

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Cutting of cement bag	slip,trip		Proper access to work place to be provided.
				Material should stack properly near the work place
				Use proper P P E as per work requirement.
		Sharp egde of knife	cut injury	Use proper knife for cutting cement bag
				Use cotton hand gloves for cutting of cement bag
Skin contact with cement material, Dust	Respirator hazard,skin irritation	Use of Dust mask for handling dry cement.		
		Thoroughly wash the exposed body part with fresh water and soap after the work.		
		Use of proper PPEs such as safety shoes,gumboots,helmet,rubber hand glovs,dustmask,ear plug and change frequently		
		Housekeeping should be done after completion the work.		
				Display safety instructions near work platform
3	Work during dark hours	Darkness, fall of person	Personal injury	Ensure proper illumination during dark hours.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- D.G.Set loading,unloading by Hydra and shifting by Dumper
Location:-

**Ref-
Date**

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
				Ensure Work permit during shifting of D.G.set
2	Loading Unloading by Hydra/Farana	Fall of material from height due to failure of derrick or Chain pulley block or wire rope slings for lifting the material.	Injury to the persons working below and surrounding areas. Permanent disable or fatality due to fall of material.	Third party testing to be done for the Lifting derrick and other tools & tackles like wire rope slings, chain pulley blocks for 2 times the actual weight of the heaviest material to be lifted. Regular inspection of lifting tools & tackles before starting . Ensure only inspected Hydra/Farana should use for loading and unloading of D.G.Set.Ensure Operator have valid Licence. Ensure guide rope shall use while lifting / loading of D.G.set.
3	Shifting by Dumper/Trailer	Road Accident, Material Fall	Fatal, Injury, Property damage	Shifting work to be carried out by only inspected Trailer/Dumper , insure Driver have valid licence.work with continuous supervision. Area shall be made clear for any obstruction to the material. D.G. set shall be tied with rope at each end. Ensure path should be clear from any obstruction
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____ Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____ Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Deshuttering of Column

Ref-

Location:-

Date

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Deshuttering	Fall of material	Personal Injury	Area barricade to restrict entry.
				Ensure full body safety harness anchor by each workmen.
				Engaged trained & experienced psreson on the job.
				Maintain good house keeping at work site.
				Ensure all hand tools are inspected.
				Conduct tool box talk before starting the work.
3	Working at height	Uninspected FBSH	Fall of person	Ensure recommended PPE should be worn the worker such as safety shoes,helmet, hand gloves goggles & dust mask.
		Without edge protection	Fall of person	Inspected FBSH having double lanyard, shockabsorber should be provided.
		Unapproved scaffold	Fall of person	Life line, hard barication and safety net should be provided on edge.
				Scaffold shall be erected on even surface by providing base plate, side support, and ledger at every at 500mm with side supports wherever height increases beyond 2 mtrs .
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Deshuttering of Plinth

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Staging	Fall of person,material	Personal Injury	Area barricade to restrict entry.
				Ensure (FBSH)full body safety harness anchor by each workmen.
				Cuplock verticals are checked against bending & breakages
				Ledgers shall be placed at every 500mm & same shall be covered with the cups.
				Maintain good house keeping at work site.
3	Deshuttering	Fall of material	Personal Injury	Area barricade to restrict entry.
				Engaged trained & experienced psreson on the job.
				Maintain good house keeping at work site.
				Conduct tool box talk before starting the work.
				Ensure all hand tools are inspected.
				Ensure recommended PPE should be worn the worker such as safety shoes,helmet, hand gloves goggles & dust mask.
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Deshuttering of Slab

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Deshuttering	Fall of material	Personal Injury	Area barricade to restrict entry. Ensure full body safety harness anchor by each workmen. Engaged trained & experienced person on the job. Maintain good house keeping at work site. Conduct tool box talk before starting the work. Ensure recommended PPE should be worn the worker such as safety shoes, helmet, hand gloves goggles & dust mask.
3	Working at height	Uninspected FBSH	Fall of person	Inspected FBSH having double lanyard, shock absorber should be provided.
		Without edge protection	1	Life line, hard barication and safety net should be provided on edge.
		Unapproved scaffold	Fall of person	Scaffold shall be erected on even surface by providing base plate, side support, and ledger at every at 500mm with side supports wherever height increases beyond 2 mtrs .
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Dewatering by electrical sump pump

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Sump pump shifting	Fall/Slip/Trip	Personal injury	Evaluating the capacity of the dumper
				Provision of banks man for guiding the process and stopper for vehicle.
3	Dewatering	Fall of material due to vibration of pump.	Personal injury	Person to be appointed near pump with proper PPE.
		Fall of sump pump		Pump has to be 2m away from the pit corner.
		Electrical Hazards, Electrical short fire due to short circuit	Electrocution, burn	ELCB and proper fuse in main supply board to be there.
				Joint free cable to be used
		Electrical cable should lead min 2 m height. No exposed electrical wire.		
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:-Diesel Generator operation

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Filling of Diesel.	Spillage of diesel	Slip of person/hazardous environment (prone to fire)	Diesel filling in DG shall only be done using tray.
				Ensure DG is stopped before filling fuel.
3	DG operation	Fire during operation	Burns/loss of property	Ensure fire extinguisher at place
				Cordoning of periphery of DG
				Display safety instructions/checklist. Provide rubber mat around the DG.
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury,damage to property	Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire. Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Diesel unloading,dispencing.

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Diesel unloading	Drum toppling	Personal injury/wastege of material.	Unloading using rubber tyres. Display of MSDS at storage shed & labours are instructed to use rubber hand gloves.
3	Disel dispencing	Spillage of diesel	Slip of person/hazardous envoinment (prone to fire)	Use of dispencing pump(manual operated) for transfering of diesel. Use of tray while transfering the diesel.
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury,damage to property	Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire,Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:-Drain line work

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures	
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.	
				Given Tool Box Talk to all workers.	
				Required work permits should be taken before start of activity	
				Work Shall be carried out under continuous Supervision.	
2	Unloading of pipe from vehicle by using sloop ramp / manually	Improper unloading,Fall of person., material stuck to person,	Personal Injury, property damage.	Ensure general work permit taken by engineer & verified by Safety dept.	
				Ensure safe Access whle unloading of pipe	
				Unloading shall be done in presence of supervisor.	
				Ensure no person shall stand in front of sloop	
				Avoid unauthorised entry.	
3	Shifting of pipe at work location by using hydra / manually	Trap hazard	Personal Injury	Safety shoes safety helmet safety goggle florecent jacket cotten hand gloves to be used.	
				Ensure unauthorised entry, ensure safe distance between man and Hydra or Farana	
				Ensure only inspected Hydra or Farana should use for material shifting and pipe fixing	
		Fall hazard (material fall, Hydra or Farana tilt)	Personal injury, Fatal accidents	Ensure hydra operator have valid licence	
				Only inspected and damage free slings/web belt should use	
	Before lifting of material with lifting equipment safety supervisor inspect all tied slings are in proper way,then only material to be lifted.				
	No person stand below the lifted load Precautaions to be taken to prevent load swing. Tied with guide rope				
	Predefining all the work location for above work.				
	4	Fixing of drain pipe	Trap hazard,Fall hazard (material fall, man fall, Hydra or Farana tilt)	Personal injury, Fatal accidents	While moving the material it will be kept tied at both end with guide rope
					Ensure hydra operator have valid licence
Only inspected and damage free slings/web belt should use					
Ensure area of work with even surface without any obstacle					
Ensure after drain pipe shifting to fix position person will go for alignment					
Ensure persons leg is away from/ not below the load/pipe					
Ensure guide rope to control material swing					
8	Work during dark hours	Darkness, fall of person,	Personal injury, damage to property	Insure only inspected hand tool use for work	
				Work Shall be carried out under contineous Supervision.	
				Night work permit to be taken from concern engg.and safety dept.	
				Ensure proper illumination during dark hours.	
				Electrical cable should lead min 2 m height.No exposed electrical wire Earthing Route shall be illuminated.	

Name & Signature of Site Engineer / Supervisor : _____ **Name & Signature of Site In-charge :** _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Drilling Operation.

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
4	Electrical Connection	Electric shock	Personal Injury/Fatal Accident	ELCB in main supply board to be there. Use of good insulation electrical cable. Joint free cable to be used if joint is there provide shrinkable joint Electrical Cable shall not interfere traffic and movements. Remove all flammable & combustible materiel from work area.
5	Drilling Operation	cutting of drill bit	Personal Injury	All required PPE's to be used for drilling except handgloves. Work area shall be clear and free from any obstruction
		flying chips	Eye Injury	Ensure goggle before starting work
		cleaning of burr on drill bit	cut injury	Ensure machine is stop before cleaning Use small metal stick to remove of burr.
6	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____ Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____ Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Alluminium door fixing.

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
				Required work permits should be taken before start of activity
				Work Shall be carried out under continuous Supervision.
2	Fixing of Frame	Fall of material, fall of man, electric shock, fall of equipment	Personal Injury, proerty damage	Ensure only inspected ladder/ scaffold should use for work
				Ensure only inspected portable equipments should use for work
				Ensure safety belt(FBSH) above 2 mtr. Height
				Ensure tools and material should fix with rope at height (work platform)
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure person can carry weight
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____ Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____ Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Anti-termite treatment

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Anti- Termite Treatment	Toxic Material	Inhaling ,Injecting,Eye irretation	Use of all required PPE's.
				MSDS shall be made availableat the site
				Work shall be carried out as per safe use of chemical.
		Dermitites	Skin irritation	Thoroughly wash the hand and other body part exposed to chemical before intaking the food/ after completion of work.
				Work Permit shall be taken prior to the activity.
				Chemical shall be stored in godown with restricted entry and prperly accounted.
		Waste Transport off site		Empty drums shall be taken out of the site and disposeoff as directed

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Area Hard barrication

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Loading & unloading	Fall/Slip/Trip	Personal injury	Break down
				Ensure daily maintance of excavator
			Personal injury	Evaluating the capacity of the dumper
				Provision of banks man for guiding the process and stopper for vehicle.
Personal injury	Ensuring the level ground for unloading dumper at dumping area.			
	Material stacking not less than 1.5 mtrs from the edge of the pit .			
3	Material transports	Road accident	Personal injury, loss of property	Identifying the route of the vehicle.
				Checking the competency of the vehicle driver
				Checking of authorization papers of driver & vehicle.
				Confirming fitness of the vehicle- viz. breaks, tale lamps, reverse horns.
4	Barrication	Fall of material	Personal Injury	Ensure inducted labour at site
				Ensure sufficient manpower for carriage of material
				Ensure use of FBSH while barrication near edge of the pit.
5	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Backfilling at the side of retaining wall

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Use of dumper to unload murum near wall	Striking of person during reverse operation of dumper,overhead electrical obstruction	Personnel Injury,electrocution.	a.Cleaner to guide during the reverse operation b.Reverse horn during the reverse operation c.Provision of the hard barricade. d.Ensure area is clear from any overhead known obstruction.
		Fall	Personnel Injury	a. Hard barricade provision for backfilling area b. Hard stopper or sand bags to be used as stopper.
3	Levelling of murum by JCB	Fall/Slip of JCB	Personnel Injury,damage to property	a. Ensure only inspected JCB should be use for levelling of murum. b. Ensure only authorised person should operate JCB. c. Ensure area clear from any overhead obstructions. d. Ensure continuos supervision provided at work place.
4	Manualy backfilling	a.Fall from height b.Fall/Slip	Personnel Injury	No person to be available into the depth during charging activity
			Personnel Injury	a. Ensuring all the labour for use safety helmet,reflective jacket,safey shoes PPEs. b. Conducting Tool Box Talk c. Hard barricading around all the backfilling area
		Slip of backfilling material	Personal injury	Ensuring proper spreading of material after unloading of material.
5	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Backfilling in foundation and Plinth

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Use of dumper to unload sand at the edge of the pit	Striking of person during reverse operation of dumper	Personnel Injury	a.Cleaner to guide during the reverse operation b.Reverse horn during the reverse operation c.Provision of the hard barricade.
		Fall in pit	Personnel Injury	a. Hard barricade provision for pit. b. Hard stopper or sand bags to be used as stopper.
3	Use of Pockland JCB to charge the material in pit	Hit or fall	Personnel Injury	No person to be available in pit during charging activity
		a.Fall from height b.Fall/Slip of JCB or Pockland	Personnel Injury Major Injury Damage to inventory	a. Ensuring all the labour for use safety helmet,refractive jacket,safety shoes PPEs. b. Conducting Tool Box Talk c. Hard barricading around all the excavated pits & soft barricading around the swing area of poclairn. d. Distinguishing the stoppage area fo
		Fall/Slip of excavator & dumper	Major Injury	Evaluating the capacity of the dumper for carting & unloading of material
				Provision of banks man for guiding the process.
		Slip of excavated material	Personal injury	Ensuring the level ground for unloading dumper at backfilling area. Ensuring proper spreading of material after unloading of material. Stack height shall one to exceed 5 mtrs.
4	Entry of the person in pit for spraying the water	Fall Hazard	Personnel Injury	a. Only approved standard ladder to be used. b. Placing ladder on the stiff firm base surface. c. Resting ladder against the stiff surface. d. Top of the ladder to project atleast 1 mtr outside the pit e. While accending and descending on the ladder alwa
5	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- **Batching plant erection**

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Foundation Work			
3	Excavation upto 2mtr.	Uninspected machinay	Personal injury, Property damage	Excavator having valid fitness cetificate should be deployed for the work. Excavator should be inspected before use. Operator having valid driving licences. Banks man should be provide for qiving signal. Excaveted material shall be kept min.1mtr.away from the Pit / Trench edge. Ensure no person working intrenchduring excavation.
		Fall, slip	Personal injury	Hard barrication 1.5mtr away from edge. Hard barrication will be provided surrounded pits Ensure no person working intrenchduring excavation. Provide caution sign board. Entry of personnel is strictly restricted in the area swing of Work shall be carried out under supervision.
4	PCC	Unappoved access	Personal injury	Proper access, railing should be provide.
		Wet cement	Skin irreation	Provide rubber hand gloves, dust mask should provide Provide Eye & hand wash facility near work area
5	Shuttring	Improper material handling	Personal injury, Property damage	Material handling should be done manually. Shoulder pad shall be provide for worker.
6	RCC	Sharp edge	Cut injury	Leather hand gloves shall be provide
		Wet cement	Skin irreation	Dust mask and hand ash facility should be provide. Proper house keeping should be maintain.
7	Erection for Mixer Unit App. Wt 12T	Uninspected lifting media	Personal injury, Property damage	Only Third party inspected and havin valid Form 12 Telescopic crane having capacity of 40T should be use. Another crane with capacity 12T which is also third party inspected and having valid Form 12 shall be use if requiried. Third party inspected and having valid form 12 D'shackle with capacity 5t (4no.) sling with capacity 5T (4no.)should be use. Operator having valid driving licences. Banks man should be provide for qiving signal.
		Swing of material	Personal injury	16mm nylon rope should be tied at both end of structer to avoid swining of material. No work and worker should be deployed under suspended load. Work area should be barricated to avoid unauthorised entry. Work shall be carried out under supervision.
8	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury,damage to property	Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Bitumen work.

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
				Required work permits should be taken before start of activity
				Work Shall be carried out under continuous Supervision.
2	Unloading of Bitumen	Improper unloading	Burn	Unloading shall be done in presence of banks man.
				Ensure that the material shall not come in contact with skin.
				Avoid unauthorised entry.
				Workmen should be having nose mask, leather hand gloves, long sleeve, leggaard and coton apron along with all required PPEs
3	Mixing of Bitumen with sand material by using Mixer	Faulty Mixer, Unguarded moving parts, Fall of person	Personal Injury, Burn, Property damage	Unloading area should be identified provide caution sign board.
				Only Inspected mixer should use.
				All moving parts should be guarded
				Provide hard barrication to loading hopper area
4	Spreading of Bitumen by manualy	Improper PPE's	Burn, Property damage	Mixer should operate by trained person only
				All hand tools should be inspected for its defect before it use.
				Carry out periodic inspection and perventive maintenance of all hand tools.
				No person should be allow to stand or work while spreading of bitumen is carried out.
5	Leveling of Bitumen by manualy	Untrained person,contact with skin	Personal injury, Property damage	Only trained person shall be depolyed for the work.
				All the hadntools should be stored at its designed place.
				Eye wash and hand wash facility along with soap should be avabile near job location.
				Only trained person should be deployed the work.
6	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Banksman should be present for guide.
				Entry should be restricatd.
				Work Shall be carried out under contineous Supervision.
				Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height.No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- **Blasting Operation**

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
				Use of required PPEs such as Helmet, Jacket, Safety shoes.
				Required work permits should be taken before start of activity
				All activity shall be carried out as per approved methodology.
2	Drilling for Rock Blasting	Noise & Dust	Personal Injury	Equipment shall be inspected by the safety officer.
	Drilling bore holes with jack hammer (dia of bore 32 mm)			Working area shall be barricaded with safety sign
				Employees shall wear safety PPE like safety shoes, safety goggles, ear plug,nose mask.
				Boring holes shall be marked for locations and covered after the work is completed.
3	Rock Blasting	Handling of explosives	Personal injury,fire	Blasting work permit shall be taken before the start of work
	During transporting , charging the holes with explosives.			Only Govt authorized personnel shall handle the explosives
	Providing muffling on charged holes	Manually Handling	Personal injury,fire	All employees shall wear PPE like safety helmets,safety goggles,cotton hand gloves,coton cloths.
				Explosive van shall have due permit to carry the explosives.
				Transporting of explosives by explosive van shall be done in day light.
				Explosive van or wooden box carrying explosives to charge the holes shall be at the site not more than 30 minutes before commencement of charging the hole.
				Do not store two type of explosive in a one wooden box,store separately.
				Gunny bags containing sands weight of 25 kgs each will be placed on holes.
				The Explosive van shall be parked at designated area and no other personnel than authorized shall be within 20 m of the explosive van.
				The area while loading explosives in the bore shall be barricaded to a minimum distance of 20 m.
				Explosive van shall be parked in designated area safely away from other activities.
				Area of explosive van and loading area will be No Smoking Zone.
				While charging do not use wrist watch or any metal ornament.
				Safety sign boards shall be provided near the van & loading area.
				At each hole to be charged, explosives of only required quantity shall be delivered.
				Holes charged only using 'bamboo',don't use MS rod and plastic material.
				Holes charged shall be suitably plugged (stemming) and identified.
4	Rock Blasting	Blasting of Rock	Personal injury,Damage to property	Time of blasting and location shall be conveyed and displayed prominently.
	Blasting operations to be performed at fixed time			Blasting shall be planned for all holes those are charged in a day.
				Danger and warning sign boards shall be displayed at the entrance,work areas.
				Before charging of hole area of 250m shall be cordoned off with flags at least 30 minutes before firing.
				Only authorised personnel bearing licence shall charge the hole.
				After the charging all connections shall be made by shot firer only.
				Before blasting the cordoned area shall be clear off all men, livestock, machinery.
				Warning siren will be sound with wailing tone 10 minutes before blasting 3 times.
				Blasting will be done by shot firer and he will inspect the site after 10 minutes elapse of time.
				All clear siren will be sound by long tone if it is OK and no misfire took place.
Don't do the blasting operation on thunder,lightening and rany climet.				
5	In case of Emmergency	Confusion	Personal Injury	Emmergency path way and Assembly Point shall be clean and clear.
				Emmergency communication and Emmergency contact nos. shall be displayed.
				Ambulance ready at Blasting time.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Bolts & template fixing

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Material shifting	Fall/Slip/Trip	Personal injury	Evaluating the capacity of the dumper Provision of banks man for guiding the process and stopper for vehicle. Ensuring the level ground for unloading Material stacking not less than 1.5 mtrs from the edge of the pit .
3	Fixing of bolts & template	Fall of material	Personal injury	Ensure template fixed with binding arrangement with pedestal. Ensure sufficient manpower for carriage & fixing of bolts & template at place Ensure use of rubber gloves for fixing template Ensure use of inspected tools & tackles
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Breaking (Breaker) operation by air compressor of concrete **Ref**

Location:- _____ **Date :** _____

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker	Personal injury	Only inducted worker shall be deputed at the work place.
				Give Tool Box Talk to all workers.
				All required permits should be taken before start activity
				Work should be done under continuous supervision.
2	Breaking of RCC by chipping by M/C & Chisel	Unsafe work area	Fall of person	Ensure that breaking activity person stand on clean & safe area.
				Only inspected chipping M/C industrial pin top should be used.
		Improper Approach	Fall of person	Ensure that chipping M/C needle ,body condition should be ok.
				Ensure that required that hand tools i.e. chiesel,hammer should be mashroomfree & are in good condition.
		Faulty equipment	Personal injury	All required hand tools should be welded free.
3	Air Supply hose connection from	Vehicle movement	Personal injury	Provide leather hand gloves, Ear plug, nose mask, goggle during RCC breaking work.
				Provide soft barrication from hose pipe connection to job location.
4	General Assembly	Loose fitting/ Damage hose	Personal injury	Ensure that hose pipe should be properly fitted with clamp.
				provide Ear plug to all workers.
6	Drilling of holes on column	Fall of material, Fall of person	Personal injury	One stand bye person should be deployed for control the air pressure in main supply pipe.
				Ensure safe scaffolding e.g. access, working platform with mid rail, top rail with support
				Ensure drilling m/c should inspected with damage free cable and industrial pin top
				Ensure worker working on height with Full body harness
				Ensure tools and other material on working platform should bind
7	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Ensure use of inspected tools & tackles
				Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Brick work

Location:-

**Ref-
Date :**

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Stacking of the material	Fall of material	personal injury/Wastage of material.	Ensuring safe stack height (1.5 mtrs). Use of PPE
3	Working at height	Uninspected FBSH	Fall of person	Inspected FBSH having double lanyard, shock absorber should be provided.
		Work without edge protection.	Fall of person	Life line, hard barication and safety net should be provided on edge.
		Unapproved scaffold	Fall of person	Scaffold shall be erected on even surface by providing base plate, side support, and ledger at every at 500mm with side supports wherever height increases beyond 2 mtrs .
		Excess stacking of material on working platform.	personal injury/Wastage of material.	Ensuring limited stack of the material.
4	Lintels/Patli beams	Untrained worker,lack of skill awareness	personal injury/Wastage of material.	Ensuring FBSH while shuttering & concreting at height. Use of two planks clamped at two ends for working
5	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Builder Hoist Erection .

Ref-

Location:-

Date :

Sr. No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Fixing of Foundation Frame By using Hydra	Fall of material from height due to failure of derrick or Chain pulley block or wire rope slings for lifting the material.	Property damage,Personal injury.	Ensure General work permit to be taken from concern engg.and Verified by safety Officer. Third party testing to be done for the Lifting derrick and other tools & tackles like wire rope slings, chain pulley blocks for 2 times the actual weight of the heaviest material to be lifted. Regular inspection of lifting tools & tackles before starting . Ensure only inspected Hydra/Farana should use for Fixing Of Foundation Frame .Ensure Operator have valid Licence. Ensure guide rope shall use while lifting Foundation Frame .work with continuous supervision. Area shall be made clear for any obstruction to the material. Work area should be barricaded to avoid unauthorised entry.
		Faulty hand tools	Personal injury	Hand tools should be inected for any damage before they use.
		Swing of material	Personal injury	16mm nylon rope should be tied at both end of structure to avoid swinging of material.
				No work and worker should be deployed under suspended load. Work shall be carried out under supervision.
				Ensure base mast is fixed properly .
3	Erection of Tower mast,material bucket .	Fall of material,Man Fall	Personal injury,Property damage	Ensure General work permit , Height work permit,Scaffold erection & dismantling work permit to be taken from concern engg.and Verified by safety Officer. Use PPE's like Safety Helmet, Safety shoes, fluroscent jacket,Hand gloves. Work area should be barricaded to avoid unauthorised entry. Work shall be carried out under supervision.
				Only inspected FBSH having double lanyard, shock absorber should be use.
		Uninspected FBSH	Personal injury	Ensure Safe Access & support while working at Height . Ensure Chain Pulley is inspected and fixed properly. Ensure area should be clear from any overhead obstruction . No work and worker should be deployed under suspended load.
				Ensure mast which is to be erected is anchored properly.
				Use proper & aproprate electrical handgloves, & must wear ppes as per work requirement..
				Only authorised person shall work.Use standard tools & equipment for electrical work.
				Panel boards shall have ELCB ,earthing, Fuse,to control overload / faults.
				All cable joints to be properly jointed and insulated. All electrical connections shall be made by qualified electrician
4	Electrical Work	Electrical shortcircuit,shock, fire due to short circuit	Electrical burn	Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be clearly Maintained.
5	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	

Name & Signature of Site Engineer / Supervisor : _____ **Name & Signature of Site In-charge :** _____

Name & Signature of Project In-charge : _____ **Name & Signature of HSE Officer :** _____

SAFETY CREW INDIA

JSA (Job Safety Analysis) Sheet

Activity Name:-Cement feeding from Bulker to silo

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
3	Pre-inspection before operation	Negligence of operator	Personal injury Property damage	Use of required PPEs such as safety Helmet, refractive jacket, Safety shoes,Ear Plug, Safety goggle,Nose mask
3	Cement feeding through cement storage to hoper	Cement dust	Silicosis	Use of required PPEs such as safety Helmet, refractive jacket, Safety shoes,Ear Plug, Safety goggle,Nose mask
4	Fixing of Bulker to Air Blower for unloading the Cement / Fly Ash	Un-inspected machinery	Personal injury Property damage	Driver having valid driving licences, and ensure that he will be stand th' out the operation.The vechile have stopper and reverse horn. Banks man should be provide for giving signal.
		Improper fixing of Flange	spread of Cement dust	Flange should be fixed properly by means of nut bolting.
		Uninspected hand tools	Personal injury Property damage	All hand tools should be inspected before its use for damage.
		Damage hose pipe	Air leak	Hose pipe should be inspected periodically and also before its use for any leakage and damage. Pressue gauge should be in working condition. All moving parts should be guarded properly.
		Improper feeding	Spread of Cement dust	Ensure that cement should be fill to its defined mark.
				Provide level indicator.
				Provide caution sign board.
				Entry of personnel is strictly restricted in the area of feeding.
Hand wash and eye wash facility should be provide.				
Work area shall be barricated.				
Work Shall be carried out under contineuous Supervision.				
5	Removing of Bulker from Air Blower	Un-inspected hand tools	Personal injury Property damage	All hand tools should be inspected before its use for damage.
6	Work during night hrs.	Unadequate illumination	Darkness	Adequate illumination should be provided during night hrs.
7	In case of Emmergency	Confusion	Personal Injury	Conducting Mock-Drill For emmergency preparednace
				Emmergency path way and Assembly Point shall be clean and clear.
				Emmergency communication and Emmergency contact nos. should be displayed.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Cement Loading & Unloading manually

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker, lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Masonry	Scaffolds, Fall of person & material	Injury /property damage,Cut, Slip, Impact,	Height work permit must be obtained.
				Errect proper scaffold on levelled & rigid base with side supports.
				Proper access to work place to be provided.
				Material should stack properly near the work place
				Soft barrication around scaffold structure shall be done.
				Work area shall keep clean and tidy
				Use proper P P E as per work requirement.
				Do not stock extra masonry material on working plat form.
			Respirator hazard	Use of Dust mask for handling dry cement.
		Skin contact with cement material, Dust	Skin Irritation	Thoroughly wash the exposed body part with fresh water and soap after the work.
				Use of proper PPEs such as safety shoes,gumboots,helmet,rubber hand glovs,dustmask,ear plug
		Fall of stones	Personal injury	Proper supervision provided.
				Material staking should be 1.5mtr away from working area
				Housekeeping should be done after completion the work.
3	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Cement Pipe loading, unloading and shifting ,erection by using Hydra

Ref-

Location:- Road work

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Loading and Unloading of cement pipe	Fall of material from height due to failure of wire rope slings or web belt for lifting the material.	Injury to the persons working surrounding areas. Permanent disable or fatality due to fall of material.	1.Only inspected Hydra use for loading unloading shifting and erection of cement pipe. 2.Only inspected and damage free tools & tackles like wire rope slings, web belt should use. 3.Regular inspection of lifting tools & tackles before starting the activity latch & hook of the Hydra is checked before lifting, to ensure that the same are not damaged due to improper use. 4.Area below and surrounding the activity to be cordoned off. 5.Use of PPE's like Safety Helmets with chin strap,Safety shoes and Full body harness with double lan yard for persons working at height.Ensure banks man. 6.All the certificate related to sling testing & form no 12 is checked.
3	Shifting and erection of cement pipe	Entrapping of part of body below the material.	Injury to the persons	Shifting work to be carried out with authorized persons with continuous supervision. Area shall be made clear for any obstruction to the material. Guy ropes shall be tied at each end of the material being shifted.
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept. Ensure proper illumination during dark hours. Electrical cable should lead min 2 m height. No exposed electrical wire.Earthing. Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____ Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____ Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Column concreting

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Vehicle movement	Uneven surface		Proper route shall be identified.
		Vehicle fall down inside the pit	Personal injury, Property damage	Vehicle should stop min 2 m from excavated pit edge.
				Define route for entry and exit from work place. Vehicle should be directed by trained person.
3	Hard Barricading	Fall of person	Personal injury	Provision of chute resting on ledger with proper tying arrangement. Check all excavated pit covered with hard barrication.Display signage board near work place.
4	Working at height	Uninspected FBSH	Fall of person	Inspected FBSH having double lanyard, shock absorber should be provided.
		Without edge protection	Fall of person	Life line, hard barication and safety net should be provided on edge.
		Unapproved scaffold		Scaffold shall be erected on even surface by providing base plate, side support, and ledger at every at 500mm with side supports wherever height increases beyond 2 mtrs .
5	Concreting - transported through mixer placed through concrete pump	Fall of pipe line	Fatal accident	If concreting is proposed by pumping then all the pipes are checked at the bends & joints against rigidity. Concrete piepes are tied at the scaffolding to avoid fall during strokes.
6	Concrete pipe cleaning activity	Fall of pipe line/ rebound of pipe due to air pressure	Personal injury	At the time of Ball Passing Activity all the labours are removed from the area & end of the pipe is provided with ball case or catcher to catch the ball. Concrete pipes shall not be facing against confined space to avoid rebound during ball pass (pump cleaning activity) & end pipe must be in straight.
7	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern engg.and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Column Shuttering

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Staging	Fall of person,material	Personal Injury	Area barricade to restrict entry. Ensure (FBSH)full body safety harness anchor by each workmen. Cuplock verticals are checked against bending & breakages Ledgers shall be placed at every 500mm & same shall be covered with the cups. Maintain good house keeping at work site.
3	Shuttering	Fall of material / Collapse of shuttering	Injury/property damage	Use of Basic PPE
				Before erection of steel frame staging is started, a through inspection should be undertaken on it.
		Trip / fall of personnel	Personnel injury / fatal	Proper housekeeping/stacking of material in an isolated area.
				Tubular steel scaffolds / staging to be made as per the scheme.
				Work shall be carried out by competent person under proper supervision of foremen / incharge.
				Struts and diagonal brace must be in proper position and secured for frames to develop full load carrying capacity.
				Lifting of shutter boards & placing in position shall be done by sufficient nos of workers to avoid fall of material.
				Labours standing on scaffolds hall be given FBSH.
	Nail Piercing	Personnel injury	Scaffolds shall be supported to avoid overturning. Loose nail should be removed from site & nails which have came out of ply shall also be bent or removed.	
			Timber jacks, joists, stringers and ledgers should be inspected for defects such as cracks / excessive knots.	
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Night work permit to be taken from concern enqq.and safety
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Concrete cube mould.

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place. Given Tool Box Talk to all workers.
2	Filling of concrete cube mould	slip,trip		Proper access to work place to be provided. Cube mould should stack properly near the work place Use proper P P E as per work requirement.
		Fall of cube mould	personal injuey	Use safe system for loading / unloading cube mould by manually Use safety shoes, rubber hand gloves,safety helmet while lifting of cube mould
		Skin contact with cement material	skin irritation	Thoroughly wash the exposed body part with fresh water and soap after the work. Use of proper PPEs such as safety shoes,gumboots,safety helmet,rubber hand glovs and change frequently Housekeeping should be done after completion the work.
3	Work during dark hours	Darkness, fall of person	Personal injury	Ensure proper illumination during dark hours. Work area shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:-Concrete admixture's drum unloading,dispencing

Ref-

Location:-

Date :

Sr.No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker,lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Chemical unloading	Drum toppling	Personal injury/wastege of material.	Unloading using rubber tyres.
				Display of MSDS at storage shed.
3	Chemical dispencing	Spillage of diesel	Slip of person	Use of rubber hand gloves while connecting pump to batching plant pump.
4	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury,damage to property	Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire. Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____

JSA (Job Safety Analysis) Sheet

Activity Name:- Concrete by concrete boom placer

Ref-

Location:-

Date :

Sr. No.	Sub-Activity Name	Type Of Hazard	Risk(s) Involved	Risk Control measures
1	Manpower Mobilization	Untrained worker, lack of skill awareness	Personal injury	Only inducted worker shall be deputed at the work place.
				Given Tool Box Talk to all workers.
2	Transit mixer moments	Uneven surface Vehicle fall down inside the pit	Damage to vehicle Personal injury, Property damage	Proper route shall be identified and maintained.
				Vehicle should stop min 2 m from excavated pit edge.
				Define route for entry and exit from work place.
				Using sand bags or hard stopper for stopping of the vehicle.
3	Boom placer vehicle movement & Self supporting	Vehicle fall down inside the pit/Uneven surface/failure of balance	Personal injury, Property damage, over turning of vehicle	Vehicle should be driven by licensed driver only.
				Ensure all valid documents of vehicle & driver.
				Vehicle should stop min 2 m from excavated pit edge.
				Define route for entry and exit from work place.
				Vehicle should be driven by licensed driver only.
4	Delivery of concrete	Fall of material/Concrete	Personal injury	Self supporting shall be done on rigid surface only.
				Outriggers must be opened to its fullest.
				Ensure banks man while pouring concrete at specific location.
				Checking of boom swing movement.
				Checking of boom swing clearance.
				Ensure first positioning for water / slurry passing.
5	Work during dark hours	Darkness, fall of person, fall of machinery	Personal injury, damage to property	Ensure final pouring positioning.
				Ensure hose pipe downward direction while cleaning.
				Night work permit to be taken from concern engg. and safety dept.
				Ensure proper illumination during dark hours.
				Electrical cable should lead min 2 m height. No exposed electrical wire. Earthing.
				Route shall be illuminated.

Name & Signature of Site Engineer / Supervisor : _____

Name & Signature of Site In-charge : _____

Name & Signature of Project In-charge : _____

Name & Signature of HSE Officer : _____