

(EXCAVATION AND BACKFILLING)

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PROJECT / LOCATION:	DATE: 00-00-2024	DATE OF NEXT ASSESSMENT
Job No.		00-00-2025

TASK / ACTIVITY

EXCAVATION AND BACKFILLING

No.	Hazard	Risks	Consequence		Risk	Level	Risk Control Measures		Residual Risk		Remarks
	Hazaru	Nisks	Consequence	P R	S	E/H/M/L/ N			S	E/H/M /L/N	Remarks
1.	Earth work Excavation; i.e. Detection of underground services, Access, regress and barricading, Provision of shoring, Disposal of excavated material, Dewatering, Use of machines for excavation, Transport of excavated materials.	Striking or damaging underground utilities (e.g., gas lines, electrical cables, water pipes). Inadequate access and egress routes leading to difficulty for workers entering/exiting excavations or emergency situations. Excavation collapse due to unstable ground or failure to shore the excavation. Accumulation of excavated material too close to the	Property damage, loss of assets, personnel injury, fatality, death, Accident, explosion, Environmental nuisance, Health impact, Soil & water contamination, Environmental pollution.	3	5	H	Work Permit shall be provided before work commencement. Appropriate PPE should be provided. Induction training and Tool Box Talk should be carried out regularly before the commencement of work. Proper engineering control should be carried out. Direct supervision of supervisor. Define and provide stable barricades. An exclusion zone should be provided. Safety Warning signs shall be in place. Provision of designed and approved shoring. Adequate sloping and benching of sides. Planned / Defined storage of equipment and safe routes for equipment. Post flagman / banksman to control vehicle movements. All equipment is to have reverse alarms. Provision of stand-by pump. A maintenance program should be implemented.	1	5	Ĺ	



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excavation edge		Ensure Maintenance of equipment will be		
leading to collapse	.	carried out regularly.		
Water accumulation	n	Employ trained, competent and experienced		
in excavation lead	ng	operators.		
to ground instabili	ry	Operation manuals are in place. Avoid		
or flooding.		overloading of material.		
Machinery contac		Define Obstruction free access and egress.		
with workers or		Cover transported material.		
underground		All personnel are to use dust masks and		
utilities.		goggles.		
Spillage of materia	ıls			
during transport,				
improper loading				
unloading, vehicle				
accidents.				

Risk Matrix

		Consequences:						
LI		Insignificant	Minor	Moderate	Serious	Major	Catastrophic	6 – Catastrophic – Multiple fatalities
K E	1	1	2	3	4	5	6	5 – Major - Single Fatality
LI	2	2	4	6	8	10	12	4 – Serious – Permanent disability
Н	3	3	6	9	12	15	18	3 - Moderate - Lost Time Injury
0	4	4	8	12	16	20	24	2 - Minor - Medical Treatment
O D	5	5	10	15	20	25	30	1 - Insignificant - First Aid Case
	6	6	12	18	24	30	36	g
	24 - 36 Extreme	Immediate action requi						
	15 - 20 High	Prompt action required action and planning.						



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8 - 12 N	Medium	Schedule action including any interim countermeasures e.g. implement safe work procedures, signage, instructions
4 - 6 I	Low	Activity can operate subject to management and or modification,
1 - 2	Very Low/ Negligible	Risk almost certainly acceptable, no action required unless escalation of risk is possible

Likely Frequency:

Likeli	Likelihood (of Adverse Event Occurring)								
	Description	Health & safety	Environmental						
6	Almost certain or imminent	Occurs all the time	Continuous or will happen frequently						
5	Highly likely	Common occurrence, Occurs multiple times in a year	Happens 5 – 10 times per year						
4	Likely or could occur	Know to occur in the last 12 months	1 – 5 times per Year						
3	Not likely, but possible	Has occurred in an industry worldwide	Once every 5 years						
2	Unlikely	Has not occurred in over 10 years of the same activity	Not happened in over 10 years						
1	Rare	Theoretically possible, but not expected to occur	theoretically possible, but not expected						
	Kale	Theoretically possible, but not expected to occur	to occur						

Prepared by: HSE Engineer		Reviewed by: HSE Mana	ger	Approved by:		
Sign:	Date:	Sign:	Date:	Sign:	Date:	



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