



# Guidelines - Excavation



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#### PRIOR TO EXCAVATION

- Identify the presence of underground installations & take necessary safety precautions.
- Obtain NOC from service authorities & Roads Department.
- Ensure that Risk Assessment is done for excavations exceeding 1.2mtrs. & necessary safety precautions taken.
- Employ cable avoidance tool (CAT) prior to excavating.

#### **BARRICADE THE AREA**

- Adequately barricade the area to be excavated.
- Do not stack any material near the edge of any excavation, shaft, pit or opening in the ground.
- No load or plant or equipment shall be placed near excavation to prevent collapse.
- Provide sufficient lighting for safe operations

#### **DISPLAY NOTICES**

- Display adequate warning notices in languages understood by the workers.
- Provide flashing amber lights if excavation is left open overnight & there is a risk of vehicles passing by
- No unauthorized access to be permitted.







## PPE AND FRESH AIR

- Personal protective clothing & equipment shall be provided to the employees & be worn.
- Contractor shall provide instruments to test the atmosphere for oxygen deficiency in any excavation.
- Provide adequate ventilation where there is insufficient movement of air.
- Ensure that minimum of 19.5% & maximum of 23.5% oxygen level by volume is maintained in the air.
- Do not allow any person to enter if the air is suspected to be poisonous or asphyxiating.

## SAFE ACCESS & EGRESS

- Provide ladder or steps for safe access & egress.
- Evacuation plans & procedures must be made known to employees.
- As per DM Regulations an emergency hoisting facility shall be readily available at shafts more than 15 metres. In depth.

#### **SHORING & DEWATERING**

- If the depth of vertical cut exceeds
  1.5m provide shoring.
- Provide shoring if there is a possibility of fall or dislodgement of earth, rock or other material.
- The angle of repose & design of the supporting system shall be based on depth of cut, soil, loading, system of dewatering, vibrations, traffic etc.
- Ensure that surface water does not enter the excavated areas & / or water shall not be allowed to accumulate in an excavation.