

The area to be excavated shall be free and clear of any materials stored related to other packages that might hinder a continuous and smooth working environment. The supervisor will closely monitor the loading of materials and will assign "Spotter" to guide and control the required maximum volume every dump truck should carry. A vantage point in the form of a scaffold tower will be erected for monitoring. A "Checker" will record per trip all dump trucks loaded/leaving from the hauling area and a separate recording will be done while dumping on the temporary stockpile/storage area in order to monitor the volume of excavated materials. All extracted materials from the excavation site shall be properly hauled by loading onto Dump Trucks / Tipper Trailers using Wheel Loaders or Bucket Excavators and shall be disposed only to the approved disposal area directed by the Consultant. Contractor to use multiple excavators and breaking hammer (if required) to adhere to the programme of works provided HSE rules are adhered to. All personnel including operators/riggers shall wear adequate ear protection and respiratory face mask in addition to the required PPE's on site. Loading shall be strictly monitored and ensure all dump trucks/tipper trailers will only carry as per maximum required loading capacity to prevent overloading that will result in an uncontrollable wheel and or tipping or slanting. Adequate safeguards and barriers will be provided to prevent workers inside excavations from surface hazards, as well as to provide pedestrians and motorists with safeguards that prevent falling, walking, or driving into open excavations. Prior to start, the excavation works, the Surveyor will verify the current excavation level by taking the As-built Survey and furnish the site team for their reference. All excavation equipment will be fitted with sound suppression devices such as mufflers or as recommended by manufacturers. Pre-inspection, repairs, greasing, and refueling activities shall be done on the area designated for the project including parking areas at the end of everyday work. Precautions shall be practiced while loading excavated materials since overloading might happen that will be dangerous during transportation. Dust that will be generated during excavation shall be controlled by regular spraying/sprinkling of water through the use of water trucks. This requirement pertains to any excavation within twenty (20) meters of a pedestrian walkway or road. The works shall be closely monitored by Surveyor to ensure that the required formation-level will be reached and avoiding any over-excavation. Where night-time pedestrian or vehicle access is adjacent to excavation, then all solid barriers will be fitted with warning lights. Excavation works shall be done as follows: Excavation will be carried out using a combination of excavators with hydraulic rock breaking hammers. In order to keep dust emission to minimum levels, frequent water spraying will be done on the working area with the water trucks assigned for each location. The contractor shall establish a maintenance scheme considering numerous equipment to be utilized for the project. All trucks/vehicles shall have a maximum speed limit of 15 km/hr. which will be imposed strictly and any violators shall be noted for fine/removal on the site premises. All these materials shall be removed and transferred out of the border of excavation areas. The type of trucks to be used for hauling operation shall have a capacity of between 16m³ – 19m³ for smaller dump trucks and 22m³ – 32m³ for much bigger dump trucks. Solid barriers will be placed around all excavations over 1.2m deep at a distance at least 1.2m. Number of equipment within the combination will be deployed in the project site and shall work simultaneously. To control the weights being loaded on each truck, a weighbridge shall be in place.