

## **Geomechanical classification scheme for heterogeneous Crocker formation in Kota Kinabalu, Sabah**

### **Abstract**

Geomechanical classification scheme for heterogeneous Crocker Formation in Kota Kinabalu, Sabah has been proposed in 2009 and known as Modified Slope Mass Rating (M-SMR). M-SMR was used to characterize and to propose preliminary rock cut slope design such as slope stabilization and protection measures and recommendation levels for design model review and slope remapping by suitable engineering geologist or geotechnical engineers. The 'Lithological unit thickness' approach, RQD method, weighted average of discontinuity set spacing, weighted average, statistical mode and new approach of adjustment factor (NAAF) methods were used to evaluate the parameters in M-SMR. The classes in MSMR scheme consists of class I (very good) to class VI (extremely bad). Local trimming, slope re-profiling, weep hole, horizontal drainage, concrete dentition or buttress, rock bolting or dowel, wire mesh or rope nets, reinforce shotcrete and benching are proposed slope stabilization and protection measures. Normal to detailed Design Model Review (DMR) and slope remapping are recommended to highly recommended by engineering geologist or geotechnical engineers to expert engineering geologist or geotechnical engineers for class I to class VI, respectively.