

Engineering Geology (2)

- Strength of ground
- -strength is very important factor for engineering design

- -Two different scales of the ground
- (1) intact rock
- (2) rock mass (including fractures)

- Two different strengths of the ground
- (1) UCS: Uniaxial (or Uncinfinied) Compressive Strength (for intact rock)
- (2) UBP: Ultimate Bearing Pressure (for rock mass)
- (3) SBP: Safe Bearing Pressure ($=\text{UBP}/\text{sf}$)
- *sf: safety factor

- Why two scale of strengths?
- -Strong granite (intact) rock mass can be very weak due to joints.
- Thus, UBP is rather important than UCS for the construction area???

- The role of geology on strength
- (1) mineral fabric affect on intact strength
- (2) joint affect on rock mass strength
- GROUND contains diff. minerals & diff. joints etc.