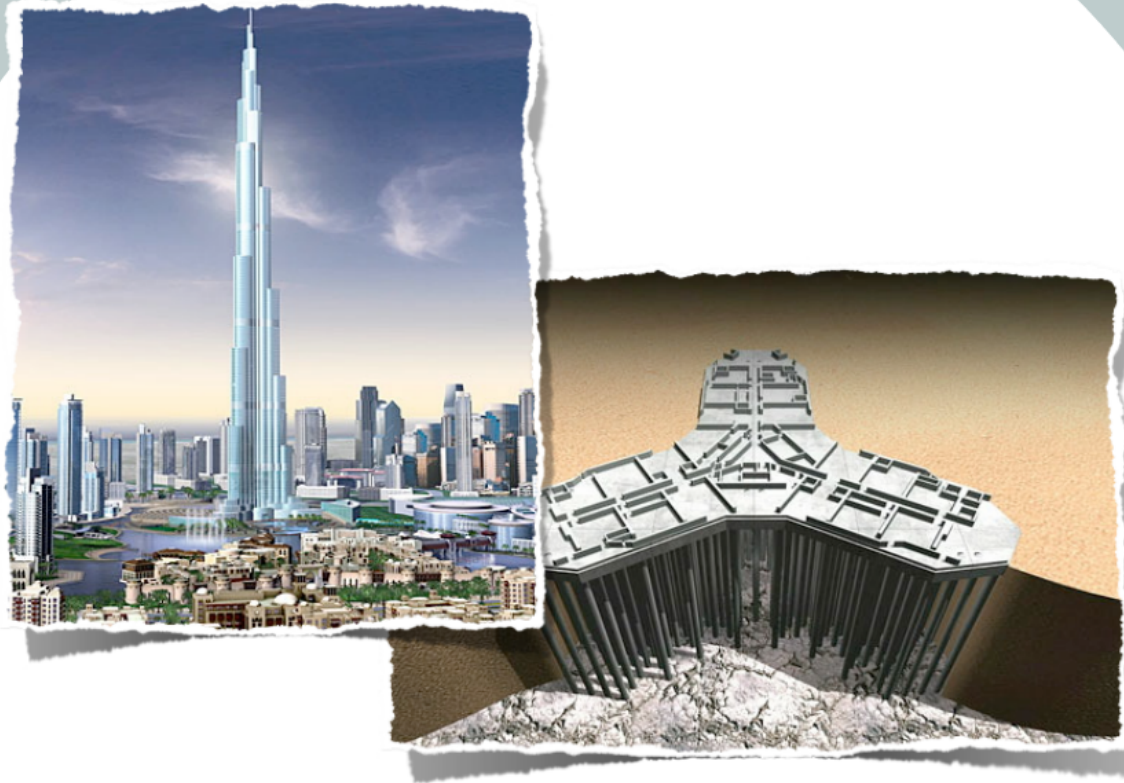


Geo-Tech



TheCaseSolution.Com

Adapted from Sivakugan & Das (2010) & Sivakugan (2009)

Where are we at?

Shallow
Foundations

Deep
Foundations

Slope
Failure

Shallow foundations...

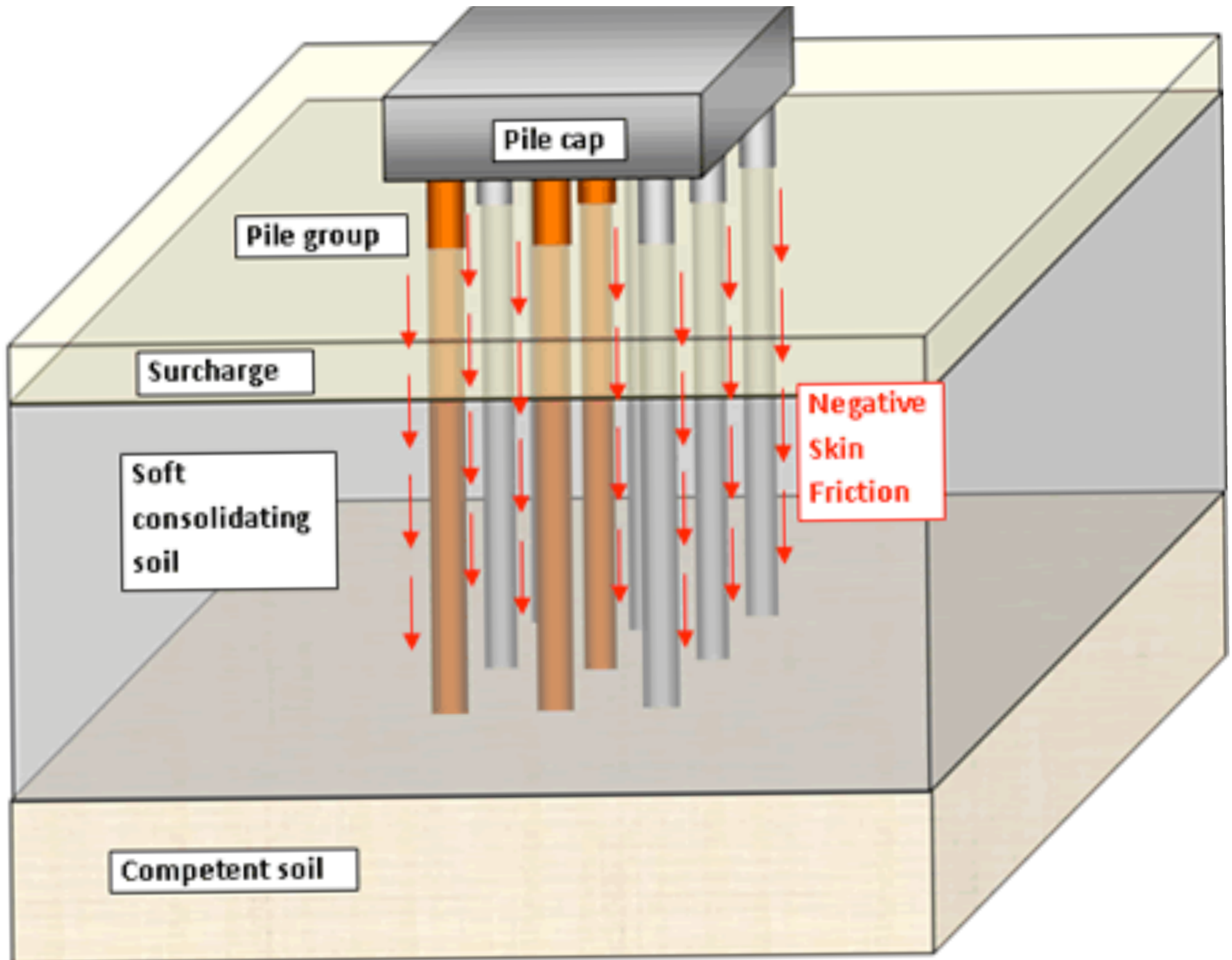
- Generally fail by general shear failure
- RC can be assessed via BS 8004
- Generally three components
- Settlements vary on soil type - equations, tables are used

Shallow foundations...

- Generally fail via general shear failure
- BC can be assessed via BC eqns (generally three components)
- Settlements vary on soil type - equations/tables are used.

This week's questions:

What types of deep foundations are there?
How do piles 'work'?
How do we calculate the bearing capacity
of deep foundations?





What is a pile?

What might they be made of?

How might they be made?

What loads might they have to resist?



Major procedures for constructing large diameter bored piles



Pile shaft

Temporary casing

Extend pile base

Place tremie pipe to the base of shaft

concrete

1. Pre-drilling

2. Drill pile shaft and install temporary casing

3. Construct bell-out

4. Clean pile shaft

5. Install permanent liner and reinforcement cage

6. Clean pile shaft again before concreting

Bedrock