

DESIGN FUNCTIONS OF RETAINING WALLS

Retaining Walls in Landscaping

- define boundary - security, privacy
- stabilize slopes - land degradation, erosion
- support structures - buildings, table and chairs
- containment - soil, water etc
- separation - different areas, level changes
- increase usable land
- aesthetics

Design considerations for retaining walls

Site factors - soil type, climate, slope stability, vegetation proximity, access, drainage

Appearance - compatibility with surrounds; function of wall, workmanship, skill, material availability, maintenance

Costs - available funds, material expensive, skilled labour, access, design life of wall

Materials - range of materials, style of construction, aesthetics, cost

Construction methods - type of construction, skilled labour, time limit on job, materials available

Important points

- water must be drained
- strong and durable foundation required
- correct fill behind wall
- angle of repose of soil
- wall construction must be strong enough to oppose forces against it
- approval may be required seek engineering advice if in doubt or when council regulations apply.
- surcharge angle

Angle of repose in landscape - is the gradient of the slope at which soil settles naturally
Surcharge angle - is the angle between the slope of soil behind the wall and the horizontal