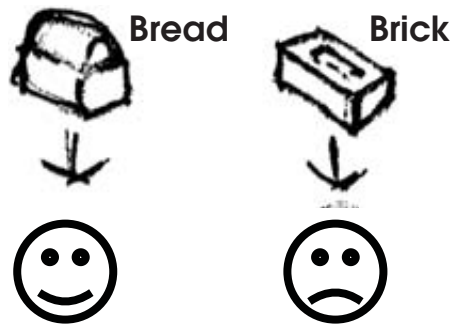
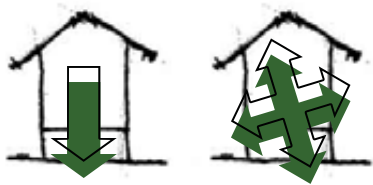


# PLANNING EARTHQUAKE RESISTANT BUILDINGS

## Earthquake Force

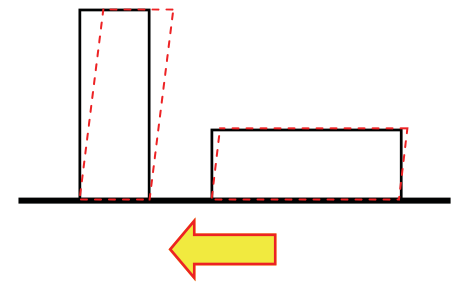
During normal time:

- Gravity force only
- Force applies downward only



$F = m \times a$   
Force = Mass x Earthquake Acceleration

- Heavier building generates stronger force



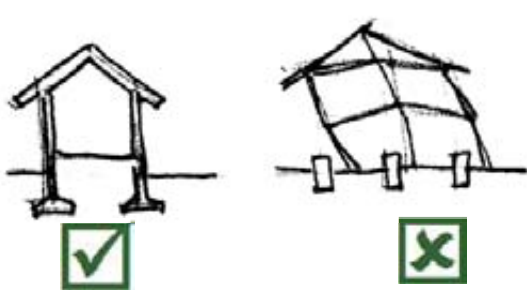
Height matters:

- Ground shakes at the base of the building
- Higher building generates stronger force

During earthquake:

- Not Gravity force only
- Forces apply in random direction
- Most Buildings can resist vertical forces
- Most Buildings can not resist horizontal forces

## Disaster Risk Reduction (DRR) Requirements



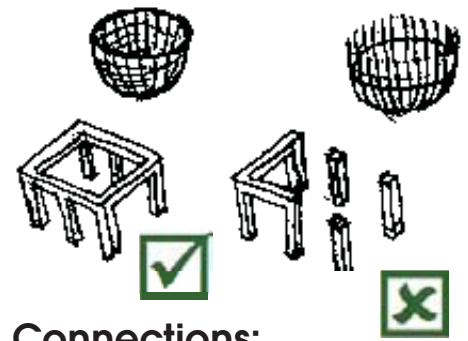
Anchorage:

- Anchor firmly to the ground



Bracing:

- Brace buildings against lateral forces
- Braced or filled



Connections:

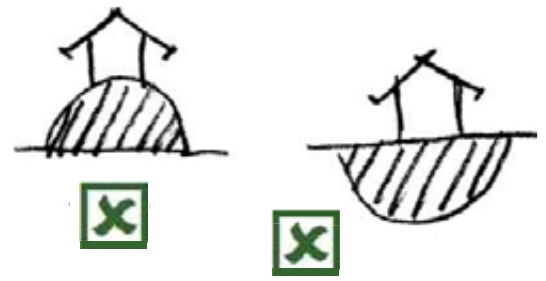
- Connect and tie all around
- Just like basket edge ring

## Location



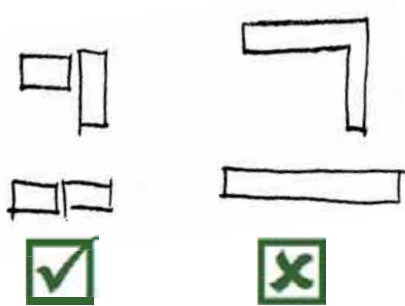
Do not build near hills

Do not build near big trees



Do not build on land fill

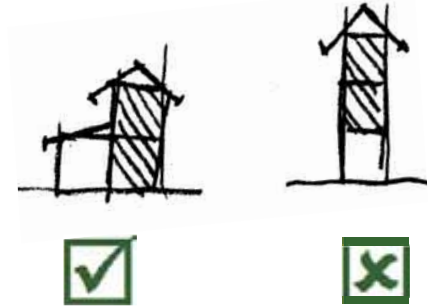
## Configuration



Do not build long buildings



Do not build narrow building



Do not build with soft stories

## Create a Strong Room

Create a Strong Room within a Shelter

