#### 3.2.2 Plant selection criteria

In any planting scheme, there are certain factors to consider when choosing plants, besides the cost/budget.

#### 3.2.2.1 Environment

- Essential requirements for plant growth are met (light and irrigation)
  - o Sunlight and air captured by the leaves
  - o Water and minerals captured by the roots
- The plant species
- The size of the root ball (pot size) when planting
- The ultimate size of the plant and the rate of growth
- Hardiness zone, temperature and microclimate

#### 3.2.2.2 Design

- Exterior or interior location
- Aesthetics
  - o Colour, form, texture
- Ultimate plant size
  - Living wall cell / panel size is small and affects root growth restricting the size of the plant as it matures
  - o Larger plants affect shading of surrounding smaller / shorter plants
  - o Larger plants affect wind load on the living wall structure and surrounding plants

### 3.2.2.3 Function

- Pollution mitigation
- Thermal properties
- Biodiversity
- Aesthetics

## 3.2.2.4 Maintenance

- Maintenance contracts cost and frequency
- Irrigation and fertigation
- Growth rate
  - o Fast growing plants require more water, fertilizer and pruning than slow growing plants

- Seasonality
  - o Evergreen vs deciduous
  - o Successional flowering and fruiting
- Pests and diseases constant assessment. Living walls can be hostile environments for plants.

# 3.2.2.5 Health and Safety (in design and maintenance)

- Poisonous plants (digestive) or those known as skin, eye or respiratory irritants/toxins
- Plants with thorny spines
- Working at height

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