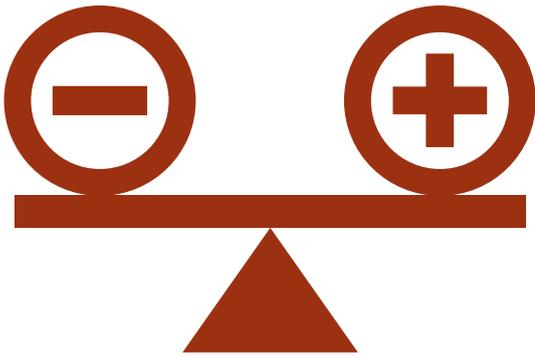


GREENFIELD VS BROWNFIELD



Food and beverage companies are under increasing demand to continuously expand their manufacturing and warehousing operations. Each expansion brings with it the serious consideration of choosing between a Greenfield or Brownfield site.

Greenfield developments are a vacant site, whereas brownfield sites will have existing buildings that may be refurbished to suit. Each option has advantages and disadvantages and you will need to assess these according to individual circumstances.

One factor becomes obvious: Greenfield gives maximum flexibility for the design, and therefore operation of a new facility. Brownfield developments will require some compromises and, in some cases, these constraints may significantly outweigh the higher initial capital investment required in Greenfield sites.

greenfield positives

- Provides maximum design flexibility to meet project requirements.
- New facility will reduce required maintenance.
- Can be designed to meet current & future needs.
- Opportunity to improve corporate image.
- Suitable for either lease or own option.

greenfield negatives

- Some sites are not fully developed & have additional development costs such as headworks costs for sewer & water.
- Council approval time frames may be longer for new sites.
- High demand of industrial sites may mean that sites available have difficulties, e.g. slope, ground conditions.

brownfield positives

- May include existing environmental licences & council approvals.
- Existing infrastructure may already be in place.
- Total project may cost less, but depends on how extensive the fit-out or modifications are, & whether existing structures & services can be utilised without major upgrades (i.e. electrical, drainage).
- Occupancy may be faster depending on the extent of alterations.

brownfield negatives

- Design & operation efficiency is often compromised to suit existing constraints.
- Site location may be inner-city & therefore pose operating difficulties in future (traffic congestion, noise if residential close).
- Older structures can be lightweight design & not meet structural requirements for more advanced fit-out to current standards.
- Fire services often will not comply with regulations & building codes.
- Higher risk of cost blow-outs for unforeseen situations.
- Site/buildings may have contamination issues.
- Existing buildings will often have lower roof heights.
- Extensions may be difficult due to older structure & services.
- Often difficult to find the ideal site.
- Higher maintenance cost.
- Insufficient truck turning space.

While site location may determine that brownfield is the only option available, people tend to believe that they will achieve big savings by altering an existing building, but often the most effective and economical solution is to 'start from scratch'.

A financial assessment is necessary. More often than not the cost of a fit-out with insulated panels, floor drainage and trade waste system installed, concrete floors redone with falls, upgrades to electrical systems, additional lighting, plumbing services and ventilation, to name a few, typically far outweighs the 'salvage value' of an existing building that has depreciated over the number of years it has been standing.

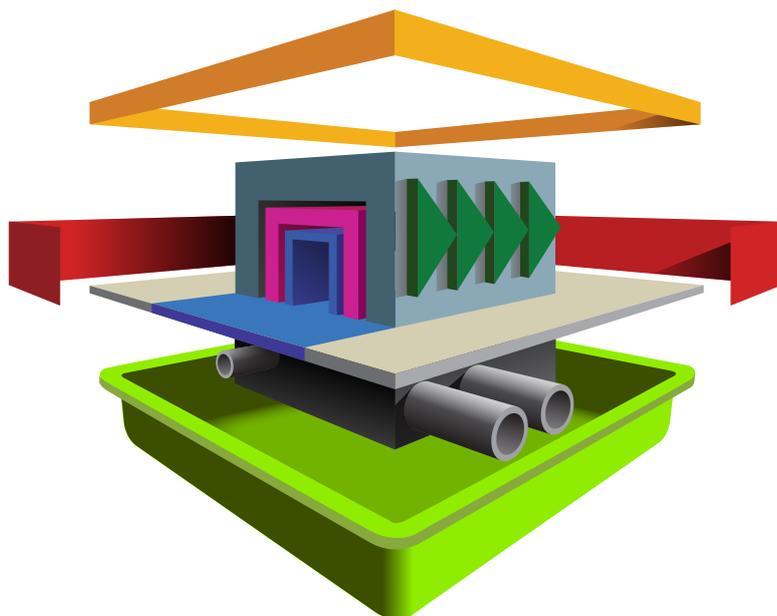
Getting the right advice to help you make an assessment is the best advice.

For further assistance contact Wiley on; 1300 385 998 or connect@wiley.com.au.

Check out our site selection knowledge at wiley.com.au/white-papers/site-selection/

Wiley has used all reasonable efforts to ensure that the information contained in this checklist is accurate and up-to-date, changes in circumstances after the date of publication may impact upon the accuracy of the information. Wiley may change and update the information at any time and from time to time without notice to users. The information contained in this document is for general guidance on matters of interest only. The application and impact can vary widely based on the specific facts.

8 Key Considerations for Brownfield Projects



MAINTAIN PRODUCTION FLOW

Staging. After hours work. Internal partitioning. Scheduled deliveries. Temporary corridors.

HYGIENE MAINTAINED

Temporary hygiene screens. Levels of physical containment. Vermin proofing. Access paths & controls.

SAFETY

OHS Accreditation. Safety plan. HAZOP & HACCP. WHSO Site Managers. Risk analysis.

BUILDER'S ACCESS

Scheduled deliveries. Waste management. Site layout. Lay down areas. Builder's compound. Coordination with shifts. Access for process equipment installation.

MAINTAIN SERVICES

Identify existing services. Temporary service installation. Micro-programming and sub-trade coordination. Vacuum excavation to existing services. Cable locator equipment. Services cut-in.

SECURITY

Scheduled deliveries. Hired security. Temporary hoarding.

STRUCTURAL INTEGRITY

Pre-engineered solution. Remediation. X-ray post tensioned slabs. Supplementary bracing support. Vacuum excavation.

ENVIRONMENTAL MANAGEMENT

Environmental Management plan. Waste management. Noise control. Dust control.