



# FUEL RETAIL DESIGN CONSTRAINTS

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# GENERAL CONSTRAINTS:

**PERMITTING**

**DELIVERY  
TANKER  
ACCESS**

**VEHICLE  
STACKING**

**FILLING  
POSITIONS**

**EIA**

**HAZARDOUS  
GOODS**

**SAFETY**

**PROTECTION  
OF THE  
ENVIRONMENT**

**SECURITY**

## Identify All Approvals & Stakeholders upfront:

### PERMITTING REQUIREMENTS

- Energy Regulator approval
- Environmental approval
- Town planning approval
- Road Access approval
- Building control approval
- Site Fuel Trading licence
- Dealer Trading licence



## Site Design:

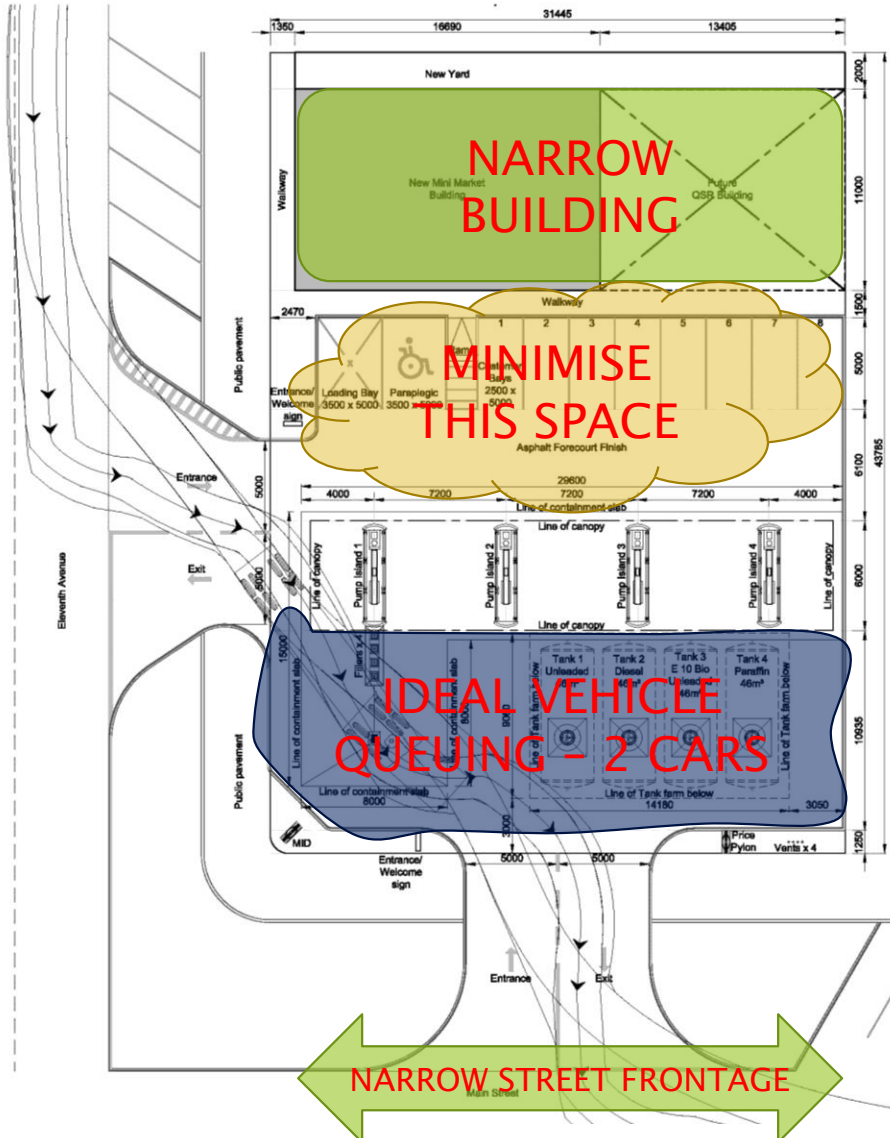
The optimal layout of any individual site requires an in-depth understanding of local context and a thorough site analysis:

- Primary sales building
- Pump island and canopy structure
- Refuse, service and storage area
- Parking & Service bays
- Car wash and other ancillary uses
- Q.S.R. (quick service restaurant)
- ATMs and Telephones

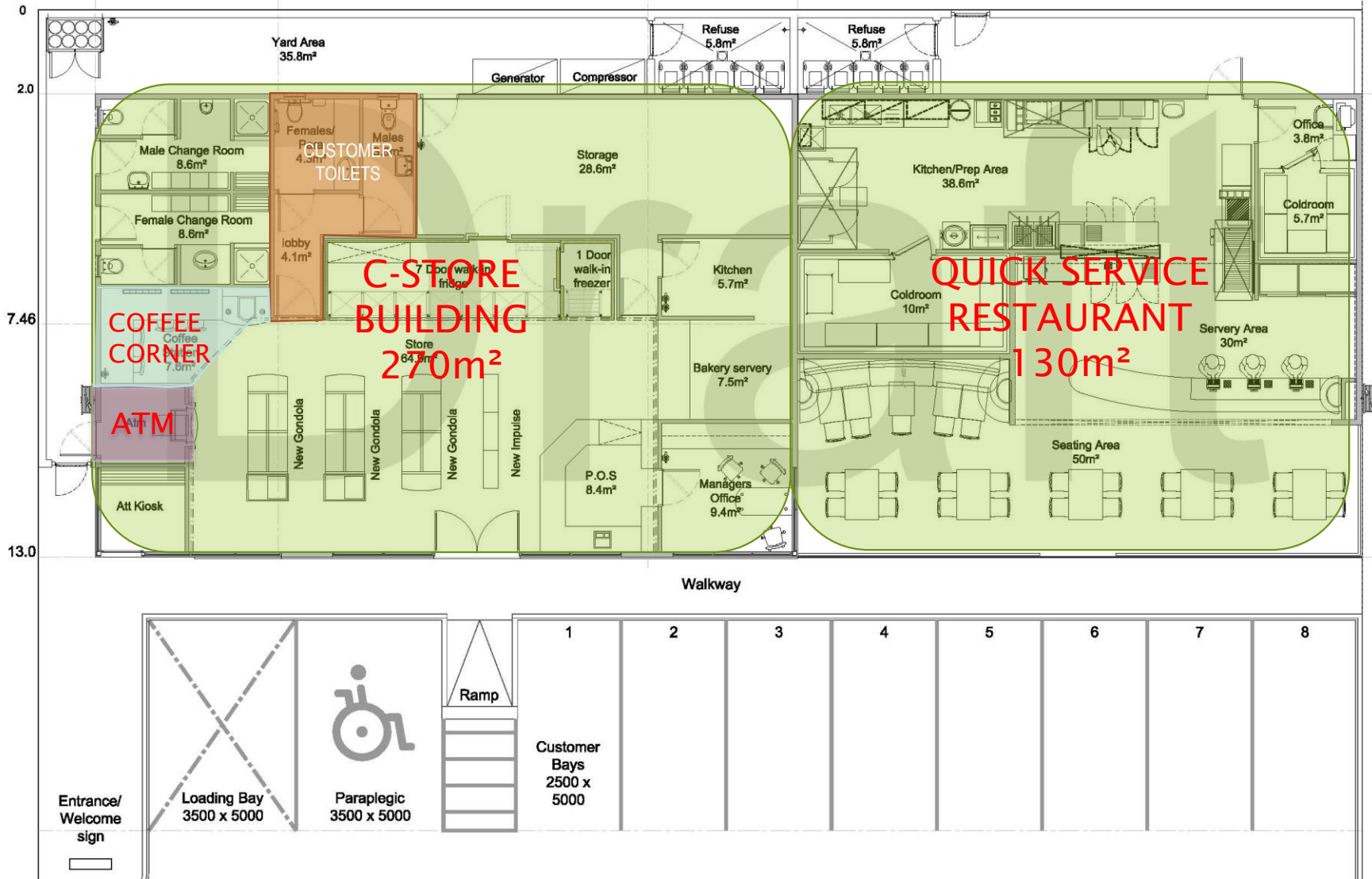
## **Engineering Planning Strength:**

Oil Retail Companies ability to develop standards suited to industry norms without prescribing brands/products available in the marketplace.

## Condensed Design:



## Condensed Design - full offer: 400m<sup>2</sup>





## Constrained:



## Ideal vehicle queueing:





## POOR ACCESS DESIGN

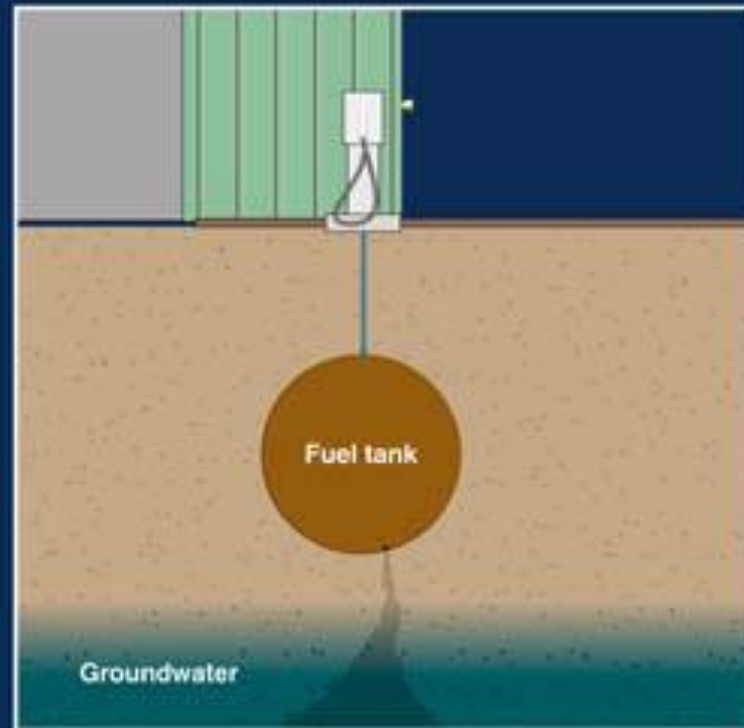
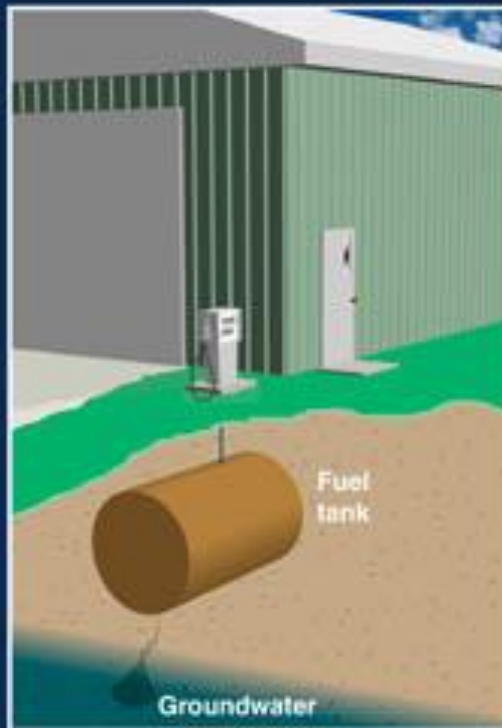


## SHALLOW VEHICLE STACKING AT ISLANDS (on site)



## Protecting the soil and underground water system

### *A leaking underground fuel storage tank*



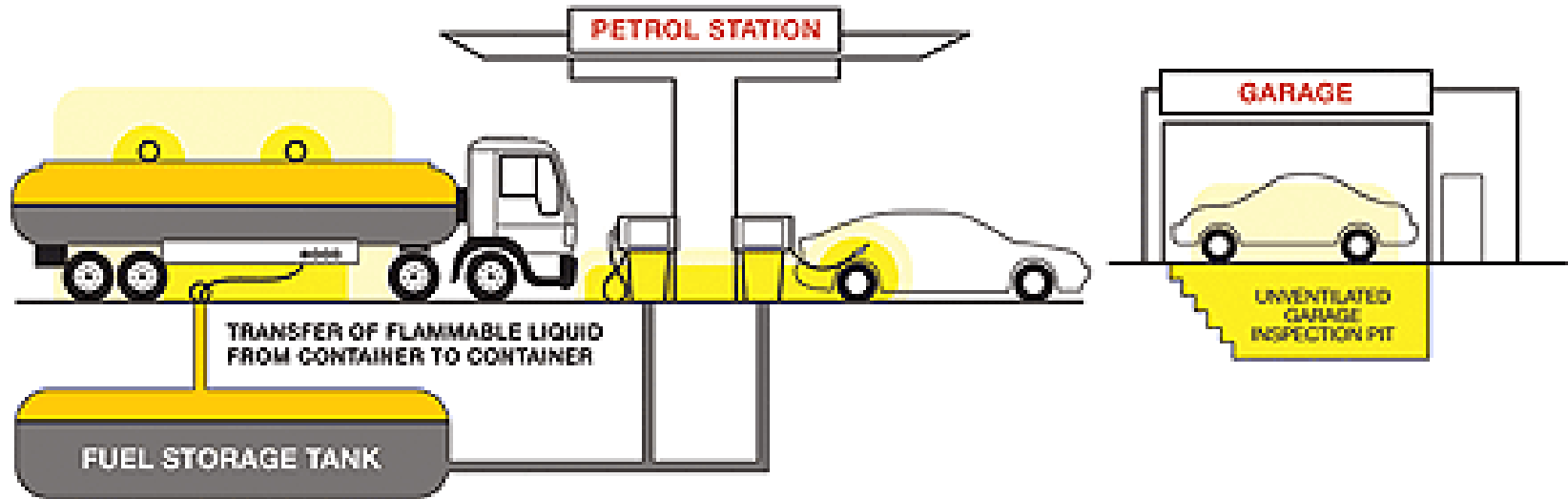


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Design for safe retail environment  
Design to mitigate fire hazards  
Develop the Risk Guidelines

## “THE BLUE BOOK” :

APEA Guidance for Design, Construction, Modification, Maintenance and Decommissioning of Filling Stations

## “THE WHITE BOOK” :

APEA Guidance on Storage and Dispensing of High Blend Ethanol Fuels including E85 at Filling Stations 2008

## SAPRA

South African Petroleum Retailers Association (SAPRA)

## SMTS

SPA/SAPIA Petroleum Retail Contractor Safety Passport training

FUEL EFFICIENT VEHICLES

ACCESS TO ENERGY

FUEL TO ENERGY MINDSET

ENVIRO MINDED CUSTOMERS

BUILDING EFFICIENCY

SAFETY

ENERGY

TOTAL COST OF OWNERSHIP

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