



Some of the Environmentally Sustainable Design (ESD) features of The new Whyalla Library

1. Building orientation to reduce heat load
2. Well insulated building fabric to minimise running costs
3. All glazing is protected from direct sunlight and is body tinted to reduce heat load, glare and UV
4. Larger window areas providing natural daylight penetration
5. Polished concrete floor for no replacement costs and no VOC for maintenance
6. Use of materials with high recycled components e.g.: rubber flooring to the ancillary spaces; poly-propylene rain water tanks
7. BMS (building management system) to control a zoned air conditioning system and lighting e.g.: night time air purging and fresh air cycling; daylight sensing controlled lighting with movement sensors to ancillary rooms and general public space
8. High efficiency low maintenance lighting
9. Low VOC emitting materials, e.g. paints and adhesives
10. Solar Hot Water
11. No hot water to hand basins in toilets
12. 48,000 litre rainwater storage for toilets and grounds watering (equivalent to 28.5mm of rain on the roof)
13. Solar array integrated into northern façade sun shading to provide a reduction of 12% to 15% of building power consumption
14. Reuse of excavated materials as part of the landscaping
15. Materials can be readily deconstructed for future recycling
16. Inverter technology AC Systems
17. Airconditioning refrigerant will be completely free of ozone depleting agents (not yet mandatory)
18. Efficient building use, user guide - operating manuals
19. WELS rated sanitary and tapware
20. Inclusion of cycle racks
21. Main library ceiling is perforated colourbond steel for minimal lifecycle costing and improved acoustics
22. Technically advanced paint system for minimal life cycle costing, and high thermal radiant heat reflection