



Safer & More Efficient:

Composite Pitlids for
Drainage Maintenance

Unley City Council is a leafy area, with a large variety of trees growing along roads in the residential areas.

While these trees create a beautiful streetscape, there is the resulting problem of fallen leaves blocking the drainage system. In order to avoid blockage issues, regular cleaning of pits is necessary.

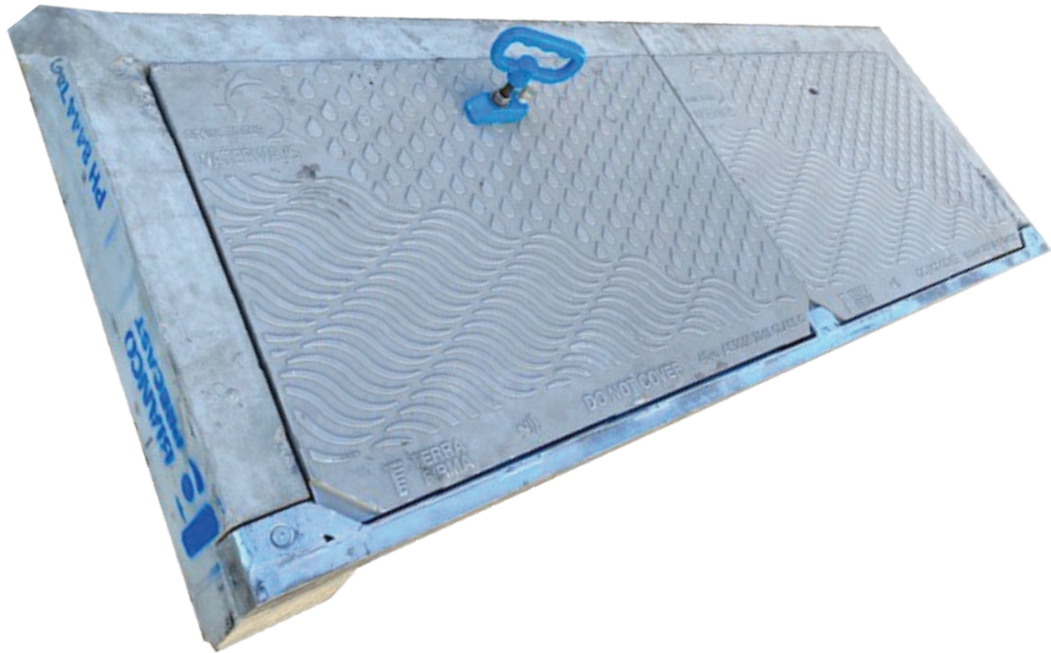
However, due to the heavy and cumbersome nature of traditional pit lids, the process of cleaning pits was a two man job, requiring the street sweeper to be accompanied by a member of the resource team.

They needed to provide two-man crews to lift the lids during maintenance which was expensive, and the heavy

lids put their workers at risk of manual handling injuries. This was not only expensive from a resourcing perspective, but also problematic in terms of OH&S, because even with a two-member team, concrete lids pose safety threats during installation, opening, and maintenance.

Further, coordinating the activities of the two workers was an added inefficiency, as the normal street sweeping routine was disrupted to accommodate the second resource.





Unley identified five very important features required for their pit lids



Strength and Performance



Durability



Weight



OH&S



Value For Money

Another key feature was a product's ability to require only a one-man lift – a characteristic that would reduce the cost of maintenance, as well as reduce the chance of OH&S injuries to workers.



Unley began to explore other options, and identified composite fibreglass as a viable alternative.

Composite fibreglass met all their required needs.



Strength and Performance

Composite fibreglass lids can bear heavy loads, and easily meet Australian standard AS:3996. Terra Firma's B-Class composite fibreglass lids are destructive load tested to 110kN.

Durability

Composite fibreglass lids last much longer than concrete, due to their ability to bear greater loads. For example, there are still Terra Firma lids in use that were installed 20 years ago.

Weight

Composite fibreglass that meets Australian standards are approximately one quarter of the weight of concrete. Terra Firma's composite fibreglass lids are the lightest available in Australia, with a Endurotek 900x600 lid weighing in at 25kg.

This significantly reduces the environmental impact of the lids with manufacturing, distribution and installation of the lids requiring less energy.

OH&S

The lightweight nature of the lids also dramatically reduces the risk of injury to workers –such as finger, shoulder and back injuries. Secondly, these lids and the keys to open them have been ergonomically designed which reduces the risk of injury during maintenance.

Value for money

It is true that composite fibreglass is initially a more expensive investment for an organisation, however the whole-of-life cost for the product is significantly less.

Cheap lids don't end up being that cheap when you consider that concrete breaks more frequently, requiring additional expenditure for new lids and more labour is required to install and maintain the lids, which is an ongoing repetitive cost that councils must take into consideration.





After installing Terra Firma's lids, the Unley City Council was able to achieve:

- Lids that could be opened with a one-man lift
- Reduced OH&S risk
- Resourcing cost savings
- Programming efficiencies (enabling pit cleaning to be performed as part of the regular street sweeping programme)

“After discovering Terra Firma composite fibreglass lids, Unley City Council were able to reduce the number of workers required for installation and maintenance of their drain covers, as well as reducing the risk of injury to their workers”

Alan Johns

Project Manager Capital Works

In the three financial years since installation, Alan has not experienced any issues with Terra Firma's composite fibreglass pit lids.





Terra
Firma™

If you would like to know more about how composite materials could support your next project, get in touch below.

Phone: 1800 PIT LID (1800 748 543)

Email: info@tfpl.com.au

139 Somerset Rd,
Campbellfield Victoria 3061 Australia

terrafirmaindustries.com.au