



ZERO CIVIL

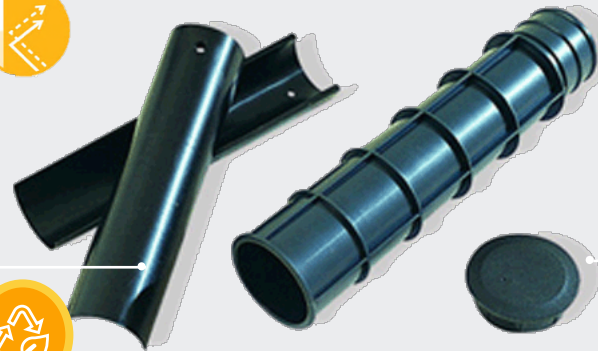
ZERO WASTE FOUNDATIONS

INNOVATION 01 OF 05

01

ITEMS REMAIN FIRMLY SECURED

Our friction-based locking system uses no breakable components, helping maintain secure holding capacity even in high wind conditions and severe impacts. Items remain perfectly aligned and safely secured.



LONG-LIFE GROUND SOCKET

Advanced impact-absorbing polymer compounds are used to provide protection for surrounding paving and foundations over the life of a development



FAST REPLACEMENTS

Damaged items are removed using an ergonomic tool, from a standing position, and a new item is simply dropped into the ground socket, automatically locking in using the self-locking Taper



LOW AND HIGH SPEED LOCATIONS

Impact testing and more than 20 years of in-service performance on roads with speed limits up to 110 km/h demonstrated no diminished holding capacity following repeated impacts.

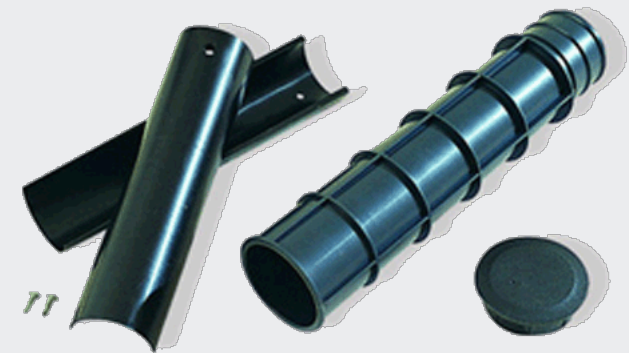


technology that **transforms**

This is all you need to transform operations from repetition to resilience – Reducing costs and risks. Saving, time, money and resources.

It's a small investment for a lifetime of savings—using the latest plastic technology you can now preserve foundations for the life of a development.

**The longer you delay, the greater the cost —
and it may not be financial**



Impacts are **inevitable**

Impacts from vehicles are inevitable- but the damage is not. The cost of these repeated repairs is not only the concrete and waste-

Working on or next to a public road is classified as high risk construction work, costing lives

**Using these methods-
the costs and risks will continue to rise**



but repeated repairs **are not**



Each repeat repair - brings repeated risk.

Classified as high-risk construction work — requiring SWMS documentation, TMP approvals (taking 10-20 days), Before You Dig checks, traffic control, insurance cover and compliance management before work even begins.

These methods are not just financially costly, (utility strikes alone cost the Australian economy \$4.6 billion annually) they keep workers exposed to live traffic, digging, heavy labour, concrete dust, silica hazards and poorly mapped underground services.

In WA road-related workers' compensation claims were \$63.1 million in 2022/23. Workcover WA

from constant decline to continual improvement



Traditional approach

- Repeated excavation and reinstatement
- Damage to paving, asphalt and foundations
- Unstable items and damaged footings increasing safety and liability risks
- Higher labour and traffic management costs
- On-going carbon waste and landfill
- On-going concrete and paving supplies
- Ongoing disruption to road users and pedestrians
- Gradual visual decline of streetscapes
- Risk of damage to dangerous and costly underground services
- High cost, high risk replacements
- Costs and risks continue to climb



ZERO WASTE Approach

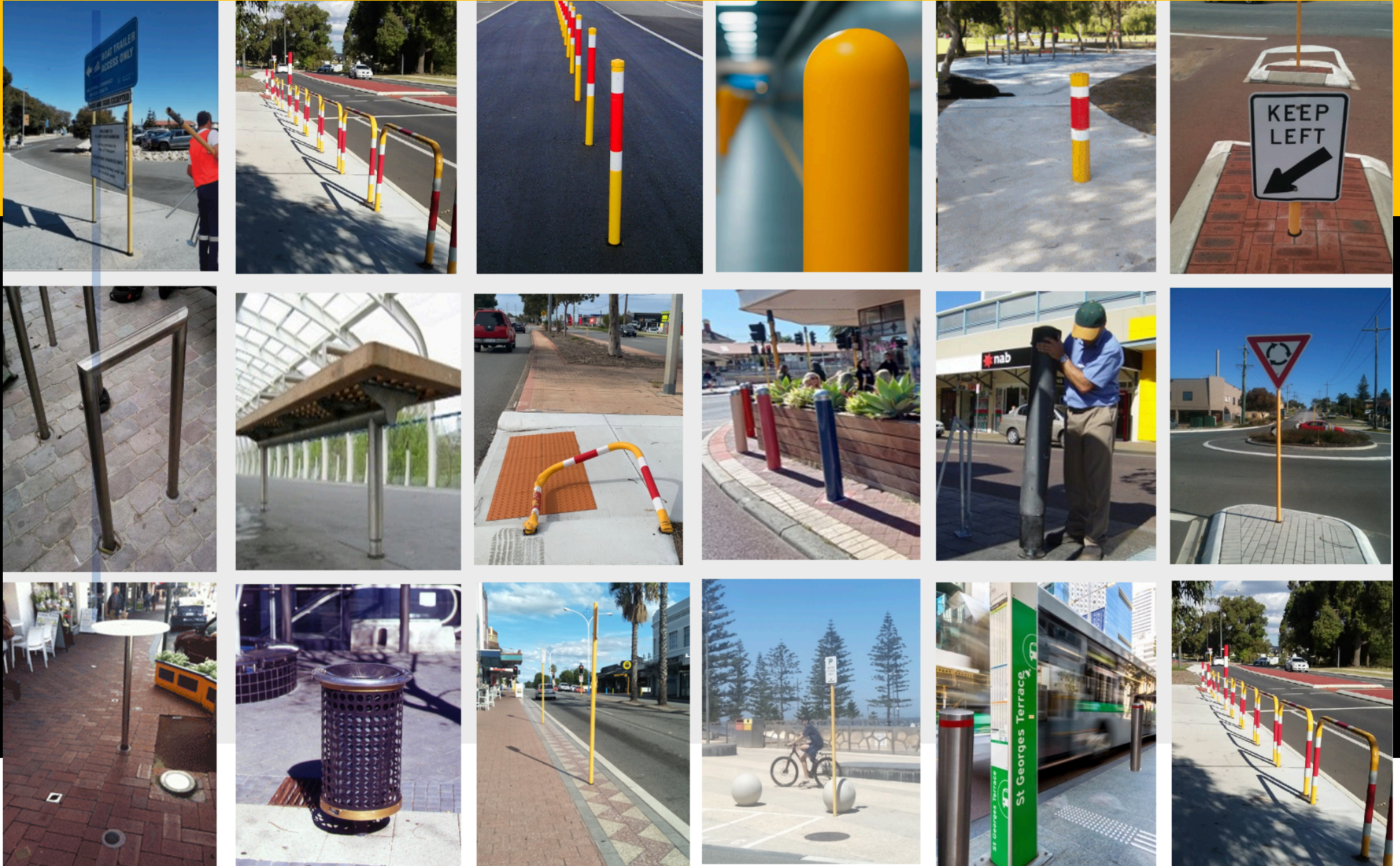
- Reusable foundation remains in good working condition
- Very low cost, low risk replacements
- Damaged items removed and replaced quickly
- Surrounding foundations and paving remain protected
- Zero waste, disturbance or heavy labour
- Faster, more efficient replacements
- No disturbance to underground services
- No delays, TMPs or dial before you dig
- No repeated concrete breakout (removing the risk of silicosis)
- Cleaner, longer-lasting streetscapes
- Cities quickly reduce both costs and risks, with maintenance operations becoming more financially sustainable

Time and money saved can be redirected into further improvements, increasing financial and environmental sustainability.

DOH&S WorkSafe Award

Awarded for substantially reducing risk of workplace injury. Removing the need for digging and heavy labour (No.1 Workplace injury). Substantially reducing time in dangerous traffic (No.1 Serious workplace injury)





IT'S EASY TO SPOT A ZERO WASTE DEVELOPMENT – THEY ARE OBVIOUSLY CLEANER, WITH ALL ITEMS PERFECTLY ALIGNED – A DELIGHT TO SEE

make the move from repetition **to resilience**

Think of this as low cost lifetime insurance against future cost increases. This small investment

- Reduces operating costs
- Improves operational
- Reduces worker exposure to harm

and keeps saving money and saving lives for decades to come



What our clients say



“Our selection is not based on price alone; we also took into consideration the safety & saving aspects”

“ZERO WASTE Foundations allow quick replacement of items with no further effort required to the base, (**providing a significant cost benefit** in replacing the damaged item by re-using the existing footing) and **reduces risk of injury to employees** by reducing time spent on traffic islands exposed to traffic.”

MAIN ROADS WA

advanced engineering

Provides unparalleled resilience

Impact testing and more than 20 years of in-service performance on roads with speed limits up to 110 km/h demonstrated no diminished holding capacity following repeated impacts.

No breakable components

Our friction-based locking system uses no breakable components, helping maintain secure holding capacity even in high wind conditions and severe impacts. Keeping items well aligned, stable and secure

No damage to footings

Our impact-absorbing foundation protects surrounding pavements and foundations from damage during both low- and high-energy impacts.

providing unparalleled
resilience



Flush finish

Installed flush with ground level with no trip hazards.

Impact-absorbing socket

Advanced polymer construction helps absorb impact energy and protect surrounding foundations.

Reinforced body

Vertical and horizontal ribs provide added strength and stability.

Variable depth

Standard 350 mm depth, with shorter or deeper options available to suit site conditions.

Drainage

Weak spot provided to allow drainage.

Reusable self-locking taper

The Taper attaches to item using screws provided and finishes flush when installed.

Reusable cap included

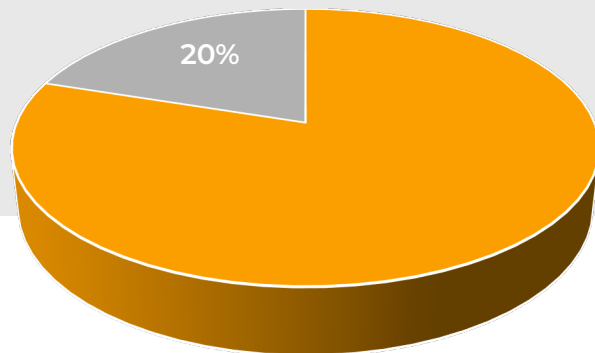
For use during installation and when items are removed. No trip factors.

2-3 yrs to financial sustainability



It will take years for a network or city to become fully sustainable but around 20% of vulnerable roadside assets typically generate around 80% of repeat maintenance workload.

The more vulnerable items are the first to be upgraded and once upgraded; future repeat work becomes simple above-ground swap-outs.



How the transition happens:

- 20% of vulnerable assets create around 80% of maintenance workloads.
- These locations are usually the first damaged and therefore the first upgraded.
- Future repeat work at these locations becomes 100% simple above-ground swap-outs.
- This allows road authorities to convert up to 80% of maintenance activity into swap-outs within 2–3 years.
- Remaining 20% of works will require socket installation until the network is progressively converted.

Greatly improving safety & efficiency –
reducing the risk of cost overruns.

TOOLS



VIEW WEBSITE



SPECIFICATIONS



TESTING & APPROVALS



PRICING



ORDERING



Make all items interchangeable for events, disaster response, disaster recovery, maintenance and future upgrades

The friction-based locking system allows a wide range of posts, signs, barriers, large diameter bollards and street furniture to be secured using the same reusable foundation system – refer to specifications for details.

For bollards, refer to the Impact Recovery System — designed to make both the bollard and footing reusable after impact.

MRWA APPROVED
REF SPEC 601 APPROVED DEVICES

