

# Let's build something great!

**We now have the technology to build more socially, environmentally, and financially sustainable developments than ever possible before**

*"A resilience-based approach to infrastructure is vital so we can better adapt to change and reduce our exposure to risk."*

*Decisions made today, particularly those related to the redesign and retrofitting of infrastructure, will affect how well our network is able to adapt to change into the future."*

**Main Roads WA**

**INNOVATOR OF THE YEAR  
WORKSAFE AWARD DOH&S  
APPROVED NATIONALLY**

***"The solution is so simple"***

THE SUNDAY TIMES



#### **Stop waste & consumption**

Make concrete reusable, reducing carbon waste and the ongoing consumption of carbon resources to zero for 100 years



#### **Hard work - No thanks!**

Roadworkers are one of the hardest working and least appreciated industries - We're helping change that



#### **Put an end to expensive maintenance**

The only cost for maintenance is labour- no variables or risk of cost overruns



#### **Say goodbye to Risks**

Eradicate literally hundreds of risks, making budgeting a breeze



# 05

**Providing a simple solution to five of the biggest problems facing our industry today**

## **1. Growing damage & waste**

Current methods are consuming vast quantities of carbon intensive concrete. Not only are we playing with fire continuing to consume what we now know are finite resources, with rapid urbanisation the damage and waste is growing.

## **2. Growing disturbance**

With over 300 thousand roadside items damaged every year the disturbance to traffic flow and pedestrians has become a major problem in our cities resulting in a growing number of costly night roadworks and dangerous delays.

## **3. Growing difficulty**

Building and maintaining roads is hard work, dealing with traffic, angry drivers and a growing number of dangerous and poorly mapped underground services, our road workers are risking their lives on daily basis. and with fast growing urbanization this job is becoming increasingly dangerous.

## **4. Risk of cost overruns**

Around 90% of road projects go over budget as we must consider the cost of concrete and paving supplies, traffic management, maintaining heavy equipment, travel to the tip and tipping fees, but it's the unknown variables (such as heavy traffic or rain causing delays, hitting underground services, injury caused by working in traffic or back injuries from digging and heavy labour) that cause havoc with budgets and the risk of cost overruns is growing.

## **5. Growing Costs**

Repeatedly replacing valuable concrete footings provides no future benefit so every year the costs continue to grow. With ever increasing safety and environmental pressures, global unrest and depleting resources, budgeting is about to become more difficult than ever! We decided it was time to put an end to this madness!

***“The solution is so simple”***

**THE SUNDAY TIMES**



ZERO Ubreakable Foundations.....	
Impact Recovery System .....	
Impact Recovery Bollards.....	
Fibre Reinforced Posts.....	
Durable Poly Bollards .....	
Poly Bollards covers.....	

## It's not rocket science

State and Local Government departments spend millions repeatedly replacing valuable concrete footings year after year. For the first time in history we can make valuable foundations re-usable for the entire lifespan of a development saving both the time and money usually spent on repeated repairs for the life of a development.

## Transform your every-day infrastructure

If you're sick of repeatedly repairing footpaths and pavements, sick of posts bending, rusting or corroding or sick of stupid %\$@##@ Bollards and never-ending damage then we have a range of simple solutions to improve the safety and resilience of your infrastructure and greatly improve the sustainability of your development.

## Transform your city

We won't change the world- you will! You have the power to transform your city from a constant state of decline to a cleaner, safer city that remains in pristine condition with zero damage, zero waste and zero disturbance for repairs

## Transform your workforce

Facing rapid urbanisation, climate change disasters with ever increasing costs and risks, it is time to superpower your workforce, greatly improving safety and efficiency and greatly improving your ability to cope with the growing workloads and work within the limited budgets and time constraints.

# ZEROHERO

UNBREAKABLE FOUNDATIONS

**Buy once, use me for a lifetime. Go ahead, use me again and again - you won't break me!**



**For the first time in history, we have the technology to put an end to damage and repeated replacements**

A ground socket (made from a new-age shock absorbing and self-healing plastic) protects the surrounding paving and concrete from damage when items are impacted

A self-locking taper is attached to items making them automatically lock into the ground socket using friction and are only removable using ergonomic tools, (from a standing position)

Using only friction, you can secure any size or weight item and they will remain safe and secure, perfectly aligned year after year.

With no metal or breakable components, they continue working for the entire lifespan of a development. **Go ahead, use me again and again - you won't break me!**

**NATIONALLY APPROVED  
DOH&S WORKSAFE AWARD**

## UNIT INCLUDES

- Ground Socket (150 - 650+ mm depth)
- Self-locking Taper
- Cap
- Self-drilling screws

*"Our selection is not based on price alone - we also took into consideration the safety & saving aspects."*

The Smart Sustainable 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."



**BUY ONCE- REUSE FOR A LIFETIME**



**We get knocked down,  
but we get up again -  
you're never going to  
keep us down!**



We provide a simple and durable solution for securing almost any bollard, making the bollard and valuable foundations re-usable impact after impact.

#### UNIT INCLUDES

- 2 x Shock absorbing Impact Recovery Rings
- 2x Clamps
- Strong Internal steel core

Secured on In-ground Smart Sustainable Foundations or re-usable base plate.

We provide the strength of embedded bollards, with the flexibility of either an in-ground or surface mounted installation and almost no limit on design.

Bollards are highly vulnerable to impact and when impacted- something's gotta give, so unless you incorporate some form of shock absorbing mechanism you will need to replace the bollard and the surrounding foundations impact after impact, year after year

Unlike spring loaded bollards- we are usually mistaken for solid in-ground bollards (we cannot be deflected by hand) but when impacted by a vehicle we deflect (up to a maximum of 20 degrees) and come to a stop.

This is where we really shine- the deflection is limited by a heavy-duty internal steel core which will stop a slow-moving passenger vehicle, we don't make a fuss- we are discreet, we simply self-recover as though nothing happened.

When badly impacted our internal core may bend and need replacing – but don't worry, our foundations (in-ground or surface mount) are too strong for any impact you can deliver, so once the core has been replaced you simply slip the bollard back on, reinsert the stud and we're good to go!

**Smart components and bollards are re-usable impact after impact, saving thousands over the lifespan of a development**



**We're Aussie made high quality bollards from the school of hard knocks**



**Smart bollards are re-usable impact after impact, (even following severe impact) saving thousands over the lifespan of a development**

We provide a range of bollards that can be secured using the Impact Recovery System

- In-ground or
- Surface Mounted

We're serious about sustainability so our bollards are made from Australian steel or stainless steel and durable Poly- designed to withstand impact

#### OPTIONS

- Steel Bollards 165 mm O.D (150NB)  
Powder Coated Safety Yellow
- Stainless-Steel, Heavy-Duty Pipe 168 O.D.  
Polished Satin finish
- Durable Poly Safety Yellow 150 O.D.  
Non-conductive

#### To be Impact Resistant a bollard

1. MUST be heavy walled (so it can take impact without denting)
2. If Stainless- must be Aussie
3. Will be more durable if it is Poly as it won't chip or fade like powder coating
4. Must use some form of shock absorbing mechanism

#### BUYER BEWARE

Imported steel and stainless-steel bollards are creating a major problem as although they appear "cheap" in comparison to Australian made bollards- there's good reason for that!

They might look the same, but they are like tinfoil crumpling upon even light impact from a trolley and they will cost you dearly as they very quickly rust (a slight scrape from a vehicle or trolley and they rust within literally weeks!). Trust only Aussie made bollards to not buckle under pressure!



**Designed to withstand the extreme Aussie conditions. We can take a few knocks and we can take the Aussie sun!**



Aussie made and ideally suited to Aussie conditions we provide a safer more durable alternative to steel signposts. We are both strong and more flexible than steel posts, (who but buckle under pressure). We can take minor impacts and self-recover!

Safety is important to us, so we lay flat on the ground after a bad collision, so we do not pose a danger to vehicles and pedestrians

- Unlike our steel cousins, we are lightweight - up to 51% lighter than steel posts, making us easier to carry and transport
- We're UV stabilised so we don't fade, rust or peel like powder coated posts
- We're fire resistant, chemical and corrosion resistant - well-suited to corrosive environments such as coastal areas
- No powder coating required - solid colour on posts ensures no visible scratches!

- Main Roads approved and compliant with AS3845.2 2017 standard and MASH 2009 - suitable for metropolitan areas and rural areas not subject to tropical cyclones
- Brackets used on steel posts are interchangeable with FRP posts
- Steel or plastic caps available
- Non-hazardous and recyclable for safe disposal
- Can be secured using Smart Sustainable Foundations making us incredibly Smart as we become removable, replaceable, relocatable and 100% recyclable.

**We are such good value for money, but it gets even better- you'll just love our prices**

**MORE RESILIENT THAN YOUR AVERAGE POST**

# ZEROHERO

SMART POSTS



**Simply pop it in and pop it out - there's no need to get down and dirty!**



**For the first time in history, we have the technology to put an end to damage and repeated replacements of expensive foundations**

A ground socket (made from a new-age shock absorbing and self-healing plastic) protects the surrounding paving and concrete from damage for the entire lifespan of a development

A self-locking taper is attached to items making them automatically lock into the ground socket using friction and are only removable using ergonomic tools, (from a standing position)

Using only friction, you can secure any size or weight sign and posts will remain safe and secure, perfectly aligned year after year.

With no metal or breakable components, they continue working for the entire lifespan of a development. **Go ahead, use me again and again - you won't break me!**

## POSTS

- CHS Galvanised Steel
- CHS FRP Posts
- Steel cap

## OPTIONS

- Safety Yellow or Grey (available in other colours Min Qty applied)

## FOUNDATIONS

- Ground Socket (150 - 650+ mm depth)
- Self-locking Taper
- Cap
- Self-drilling screws

**Posts don't get any smarter than this!**

**NATIONALLY APPROVED**

**DOH&S WORKSAFE AWARD**

**SIMPLY SMARTER THAN YOUR AVERAGE POST**

# ZEROHERO

GRABRAILS



**We don't just look good; we offer superior protection and we're quick to respond to your changing needs – no fuss!**



## EFFICIENT INSTALLS

Ground sockets can be installed by simply positioning upright when pouring concrete footings saving hours of digging and heavy labour – saving time & money

This creates a perfect finish, that remains in pristine condition for the entire lifespan of a development. Grab-rails are simply dropped into position, automatically locking in using a self-locking taper.

## FAST, EFFICIENT MAINTENANCE

When impacted by a vehicle the grab-rail bends at ground level and the foundations remain in good working condition for the lifespan of a development. Grab-rails are easily removable from a standing position, facing on-coming traffic, using ergonomic tools

## SIZES

- 600 mm
- 900 mm
- 1200 mm
- 1500 mm

## UNIT INCLUDES

- Quality powder coating
- Reflective striping, to MRWA Standards

## OPTIONAL EXTRAS

- Sustainable Foundations

For more details, please refer to Product Brochure and Specifications

**Never off the job- if one man's down, he is replaced in seconds, keeping our people safe!**

**I REMAIN STRONG- PROTECTING YOU IMPACT AFTER IMPACT**

# ZEROHERO

DURABLE POLY BOLLARDS



**We're kind to cars and bike riders but we're strong**  
**We'll outlast steel bollards any day – just try us!**



We look just like steel or stone bollards but looks can be deceiving- we're far more durable and we don't have their rigid exterior so we can take impact.

You get a lot of bang for your buck- We look just like steel or stone bollards but we're far more durable and we can take impact and recover.

- Durable Poly Bollards 150 ø
- 1200- 1500 Length
- 7 mm wall thickness
- Lightweight
- Durable
- Low Cost
- Easy to use
- Won't dent or scratch vehicles
- If scratched - same colour throughout
- Dents don't show
- Can wipe clean if dirty
- Non-conductive
- Available in range of colours including stone look grey or brown – ask for colour chart

**Steel bollards have a tough exterior, but they can be nasty and they're pussies, cracking under pressure!**

Secure us in-ground or secure using the Smart Impact Recovery System (surface mount or in-ground) making us self-recover from impact and even re-usable following severe impact

We come in a more flexible option for bike riders - unlike unsafe rigid steel bollards that are meant to protect but ask any bike rider- they do more harm than good and don't start me on angry spring-loaded bollards that offer no protection and react to impact by springing back violently, taking on the bike rider who hit them!

We're kind to bike riders. We protect bike riders from errant vehicles and if a bike rider runs into us, we don't get mad- we simply roll with the punches and slowly self-recover. No fuss!

If a vehicle attempts to drive through me - they will find we're not so kind to bullies using our strong resistance core to bring them to a stop! We can be knocked down- but we get up again, they're never going to keep us down.

**MAKE BOLLARDS RE-USEABLE IMPACT AFTER IMPACT**

**Pimp out your old, tired bollards  
upgrade an entire development  
in a single day, and we will  
extend their lifespan by years**



A smart way to bring old, ugly bollards back to life and we don't mind saying- we look great! We're big and we're strong and seriously scary (only you know we're softies)

You get a lot of bang for your buck- We look just like steel or stone bollards but we're far more durable and we can take impact after impact without any tears.

- Provide soft surface for vehicles
- Durable Poly Bollard Covers 190 ø
- 1200 - 1500 Length
- Safety Dome cap
- 7 mm wall thickness
- Lightweight
- Durable
- Low Cost
- Easy to use
- Won't dent or scratch vehicles
- If scratched- same colour throughout
- Dents don't show
- Can wipe clean if dirty
- Non-conductive
- Available in range of colours including stone look grey or brown – ask for colour chart

Made from new-age plastics we won't fade and crack like our inferior grade predecessors- we're made to last and take on the Aussie climate extremes, in fact we'll probably outlast you!

Don't let our soft exterior fool you, unlike steel bollards we can take whatever you can deliver- whether it's taking a beating from trolleys or vehicles, we remain undeterred

We won't buckle under pressure and we're kind to vehicles, and trolleys too – if they run into us, we - we won't chip, fade or be hurt by constant attacks as we're thick skinned and just won't let it show when we're hurt!

We're also very easy to secure using padded tape or a single self-drilling screw (can be supplied). It is just so simple, that you can upgrade an entire development in a single day, and we look seriously good!

For more details, please refer to Product Brochure and Specifications

**We look seriously tough- only you know we're really big ol' softies!**

# ZEROHERO

PEDESTRIAN & TRAFFIC BOLLARDS

Go ahead hit me again  
and again, I refuse to be  
broken!



## EASY TO INSTALL

Sockets can be installed when pouring concrete footings or retrofitted, protecting foundations from damage for the entire lifespan of a development.

Bollards are self-locking. They are simply dropped into the ground socket and automatically lock in using friction remaining perfectly aligned, safe and secure year after year. They cannot become loose or be removed by vandals and are only removable using tools

## ZERO DAMAGE AFTER SEVERE IMPACT

These Pedestrian / Traffic Bollards (for shopfronts; car bays; bike paths; protection for vendors in parklets; on footpaths) and provide a far more durable alternative to other removable bollards secured on metal sockets (which rust, corrode, and distort upon impact) causing bollards to become unstable or loose and costing hundreds to replace time after time.

## MRWA TRAFFIC BOLLARD

Low-cost alternative to retractable bollards for use in high speed zones/ adjacent to roads where access is prohibited for general traffic but allowed for certain traffic, such as heavy vehicle or emergency vehicle U-turn facilities. (MRWA maintenance staff have tools required.

## EASILY REPLACEABLE

Easy to use. No digging, no disturbance or heavy labour and no major traffic management required.

If bollards need removing to enable access, for wide loads, for maintenance or future upgrades, they are simply levered out of the ground socket using the removal tool, from a standing position, facing traffic

## UNIT INCLUDES

- Steel Powder coated Bollard
- Re-usable Taper (attached to Bollard)
- 60 O.D
- 900 H

## FOUNDATIONS

- Ground Socket 350 mm Depth
- Cap

## OPTIONS

- Spring Return Base
- MRWA Striping

Can be made in shiny silver anodized steel or powder coated other colours. For more details, please refer to Product Brochure and Specifications

**NO EXPENSIVE MAINTENANCE SIMPLY POP ME IN & OUT**



**We go where we are needed most and unlike tragic temporary barriers- We stand firm in the face of an attack!**



#### **SAVE ON ANNUAL EVENTS**

Ground sockets can be installed wherever barriers are required, will last a lifetime and barriers can be installed in seconds- safer more secure than any temporary barrier, saving thousands over the life of a development

#### **SAFER WE REFUSE TO BUDGE**

We refuse to budge for strangers! They can give us all they've got, (they can even gang up on us) and we will refuse to budge or even be swayed. We stand firm in the face of danger remaining perfectly aligned safe and secure year after year, and quickly responding to where we are needed the most- offering superior protection

#### **EFFICIENT EVENTS/ DISASTER RECOVERY**

We can be installed in seconds, ready to protect and serve and if you change your mind (or requirements change) we quickly respond.

#### **FAST RESPONSE**

If something unexpected happens (floods/ crowd control problem/ terrorist attack) and you need to block off an area- we're on it in seconds, no dangerous delays or messing around!

#### **OPTIONS**

- 60 O.D x 2.9- or 3.6-mm wall thickness
- Anodised (shiny) or galvanised steel
- We can make barriers to spec
- Sustainable Foundations 350 mm
- Can be Surface Mounted (not removable) using re-usable base plate

For more details, please refer to Product Brochure and Specifications

**We stand strong in the face of danger- keeping our people safe!**

**I REMAIN STRONG- PROTECTING YOU IMPACT AFTER IMPACT**



We aren't going to change the world- **you are**

We can provide you with the technology, but it is up to you to choose a better future. We urge you to join the market leaders building a better future

Leighton and Downer, Georgiou, WBHO, Theiss, BGC, Broadspectrum, Daracon, State Road authorities and WA's and major councils Perth, Fremantle, Joondalup and Stirling in the West to Ryde, Central Coast and Orange in the East are all implementing smart sustainable technology to greatly improve the resilience of their projects, and cities quickly transitioning to a position of financial and environmental sustainability.

**A visit to any one of these cities will not fail to impress. Visit our web site to view projects and a more comprehensive list of ZERO HEROES**

**Don't underestimate your power.** You are building our future and your decision will affect generations to come.

**MIND THE GAP** Whilst traditional cities continue to decline, costing more every year to simply maintain, these Smart cities are better able to cope with the growing workload, so they don't just survive, but thrive in today's challenging times.

As around 80% of the workload comes from repeatedly replacing the most vulnerable items (which represent around 20% of items), within 1-2 years these locations are made sustainable, making 80% of the workload Smart and the only cost is labour for the next 50-100 years.

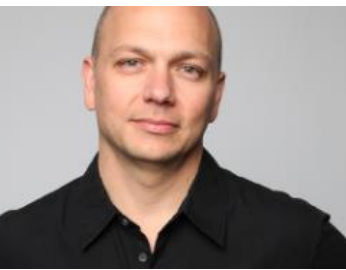


**You are building our future and your decision will affect generations to come**

**A transformation is underway - Mind the Gap!**

# Benefitting almost every facet of an organisation

Making a city sustainable benefits almost every facet of an organisation from planning to end of life



## CEO

### Revolutionise your maintenance operations

This simple technology can help you to revolutionise your maintenance operations greatly improving efficiency and financial sustainability

It is a simple means of substantially improving the safety, sustainability and liveability of your development

It is a simple means of substantially improving the safety, profitability, and effectiveness of your workforce

For maintenance contractors it presents an opportunity to substantially reduce risks and make substantial financial gains whilst improving your service. It's a win-win

## URBAN PLANNER

### You can now create more dynamic developments

that remain in pristine condition year after year.

Urban design is no longer confined to space available as space becomes fluid, able to transform to meet changing needs throughout the day, the season or the decade.

Signage, seating, bins and barriers can be installed, reconfigured or replaced in literally seconds for events, maintenance and upgrades.

Urban spaces can be made multi-use spaces that transform effortlessly from a busy road with traffic by day to a vibrant café strip by night.

Keep your city vibrant- add statues that are replaced or relocated as seasons change.

## SUSTAINABILITY OFFICER

### You can eradicate carbon intensive waste

and the on-going consumption of valuable carbon intensive supplies

Smart Sustainable Foundations are made from 100% recycled petroleum waste and can now be used to heal your city one foundation at a time, reducing your carbon waste from maintenance to zero

All items of infrastructure that are currently disposed of, become recyclable, relocatable and bollards re-usable impact after impact.

As infrastructure and foundations will not grow old the lifespan of the development is greatly improved.

## ASSET MANAGER

### Eradicate capital intensive maintenance practices

You can now totally eradicate capital and resource intensive maintenance practices

This simple technology enables you to super-power your workforce and your budget, substantially reducing risk and improving efficiency

Instead of your service declining as costs grow and populations rise, your services can grow increasingly efficient as the time and money usually spent on repairing valuable foundations and maintaining infrastructure can be used for further improvements, each year instead of declining your city will grow increasingly efficient



#### SAFETY OFFICER

#### OPERATIONS MANAGER

#### ROADWORKER

#### PUBLIC

##### Improve the safety of your developments and workers

No damaged footpaths and no trip factors will substantially reduce the risk of litigation. Items remain safe & secure year after year and cannot be removed by vandals.

##### Substantially improve workplace safety

Most importantly you can eradicate the two major causes of workplace injury.

No dangerous delays replacing damaged bollards, traffic lights or road-side infrastructure. No digging or heavy labour and time in traffic reduced to seconds. No disturbance to underground services or public for maintenance

##### Keep your workers safe and improve efficiency

Using traditional methods this work will become increasingly difficult and dangerous to perform, unless you implement sustainable solutions.

Each year the workload will continue to grow but your costs don't have to.

By installing Smart Sustainable Foundations on every damaged foundation, you substantially improve the effectiveness of your maintenance services.

80% of this workload comes from 20% of locations. By year 2-3 the most vulnerable locations will be sustainable and the only cost for all ongoing maintenance, is labour. You continue saving for decades.

##### Stop working hard- work Smart

You guys are Super-heroes, risking your lives on a daily basis working in dangerous traffic and dealing with the angry public who often do not appreciate all your hard work

A half hour job can turn into a nightmare if you experience rain, underground limestone, heavy traffic or worse still, hit an underground cable!

Although we cannot stop items being hit (and the workload and traffic congestion will continue to grow) Smart Sustainable Foundations take the hard work out of maintaining road-side infrastructure and instead of maintenance being a thankless job- your work will be appreciated for generations to come

##### Keeping your customers and residents happy

Keeping your customers and residents happy is one of the major challenges for State and Local Government Road authorities, Shopping centres, schools and major developments.

No more angry drivers as a result of constant roadworks; no angry residents as a result of dangerous delays or back-logs; No trip factors or disturbance to the public for maintenance; cities become dynamic able to respond quickly to changes and events. Cleaner safer roads and urban spaces means happy residents.

**“So simple, it’s almost embarrassing no-one thought of it before!**

**THE SUNDAY TIMES**

This is what the Sunday Times wrote in response to Smart Urban winning Innovator of the Year, but the truth is that the amazing plastics technology that makes this innovation work so well, was not available and cheap brittle plastics, like metal and concrete, are not impact resistant crating more problems than they solve as every unsustainable device will need to be removed at some stage (creating a major clean up job for the next generation).

#### **INNOVATOR OF THE YEAR**

##### **unlike anything you have seen before**

Unlike metal and brittle plastics that are rigid, Smart Sustainable Foundations are made using a new-age revolutionary “Smart” plastic (previously only used in the aerospace industry) that is shock absorbing and self-healing, protecting the surrounding pavement and concrete from damage indefinitely

To make them even smarter and resilient they use friction to secure items, which ensures items remain perfectly aligned, safe and secure year after year and with no breakable components, impact after impact they refuse to be broken!

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Scan or click on icon to open web site



This new innovative technology provides one of the greatest levers we have against climate change, enabling us to heal cities around the globe, but we cannot do it alone, we need your help.

If you share our passion for building a better future - please get in touch. You can go online and register your interest or give us a call- we promise you will speak to human being!

We hope you're excited about what you can do with this technology and welcome any feedback on how we can do better.

