

How to build the most scalable and sustainable public toilet model



**Design, livelihoods,
accountability and wastewater
treatment.**
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Karnataka Urban Infrastructure
& Investment Summit 2026
9 September · Conrad Bengaluru

Lumbini Park · Original project photograph, July 2026



The street I grew up with.



A public space has to let people stay.

This is where we start.



A food stall. Rubbish. A toilet too many people cannot use.

First, make room for people.



Clear the rubbish and repair the walking surface.

One integrated LooCafe.



Shop at the front; toilet entrances on the side and toward the back.

The shop supports the service.



SHOP → UPKEEP

The front shop generates revenue to help pay for cleaning and maintenance.

Advertising helps fund upkeep.



Upper advertising panels provide another source of income for upkeep.

This is the standard LooCafe.



1 Toilets along the side

Dedicated entrances keep the toilet access distinct from the shop.

2 Shop at the front

The operator's business helps support daily toilet care.

3 Advertising above

Upper panels provide space for advertising income.

BANJARA HILLS · ONE INTEGRATED STRUCTURE

Retail at the front. Toilet access along the side. Advertising above.

Inside the toilet: privacy, fixtures and finish.



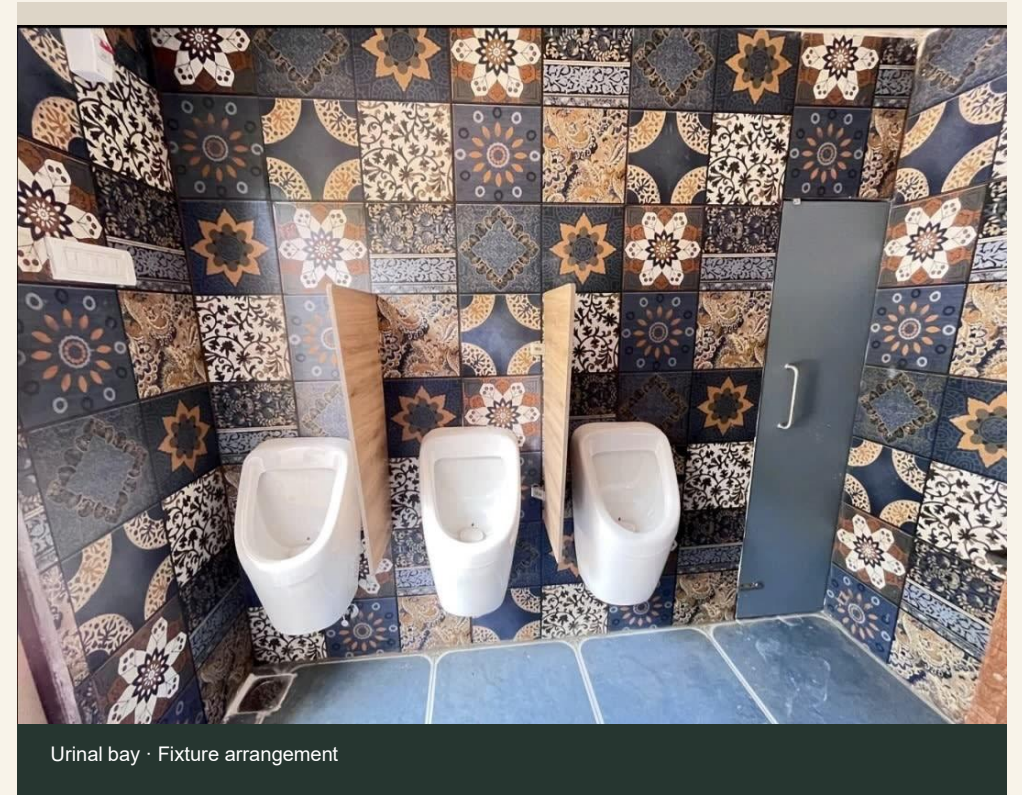
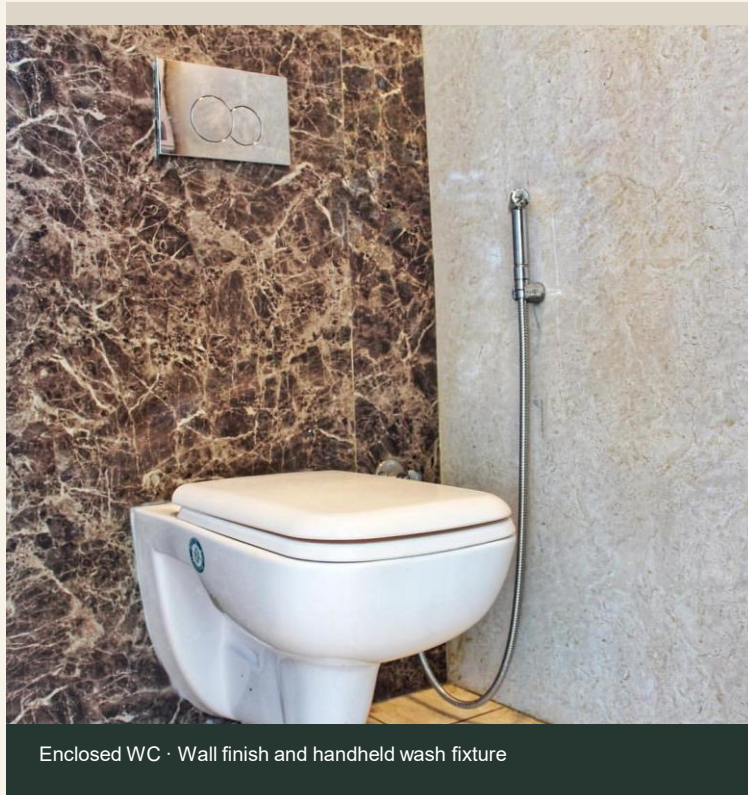
Toilet Tales · Enclosed cubicles and finishes



Lumbini Park · WC, washbasin and hand spray

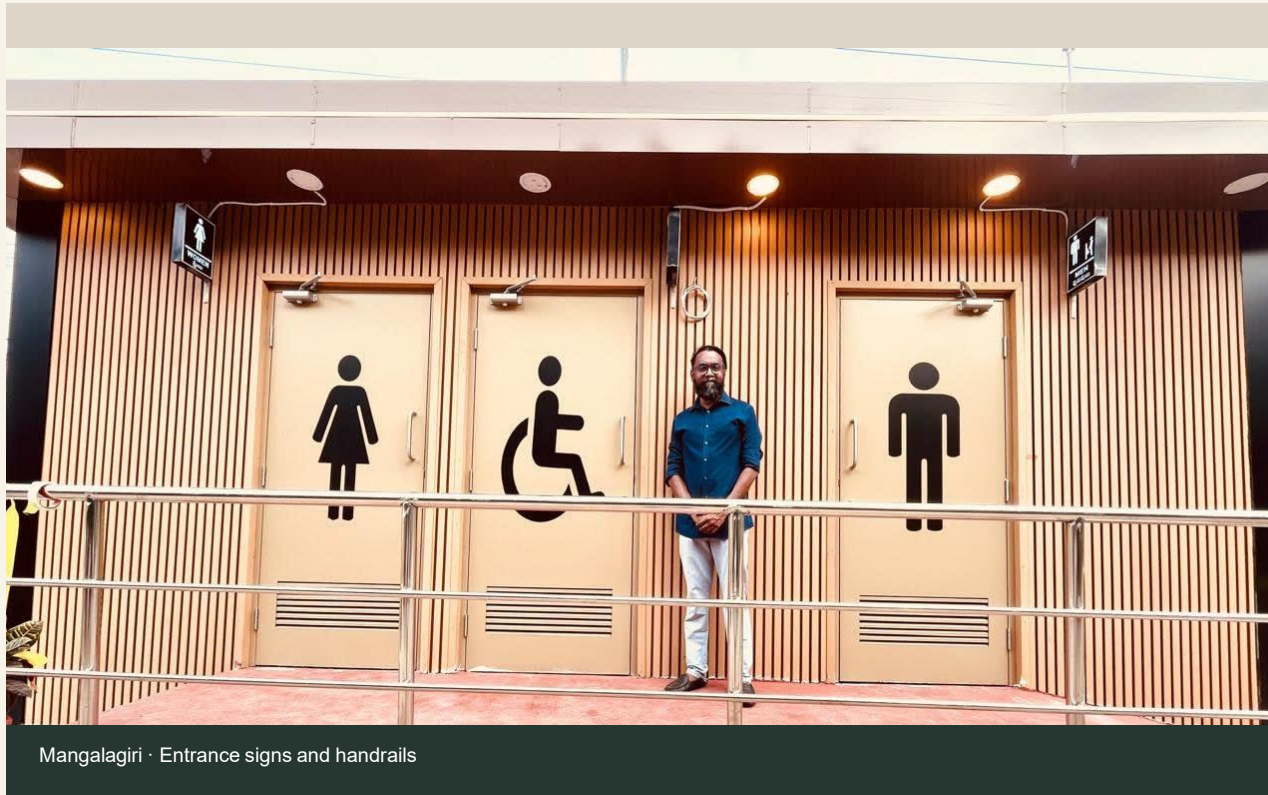
Enclosed cubicles and maintained washing facilities shape the user experience.

“Make sure that it looks really awesome.”



Private cubicles, deliberate finishes and clearly arranged fixtures.

The entrance is part of the toilet.



Make the facility visible, identify the entrances and keep the approach clear.

What makes the model worth repeating?



Cleanliness

A usable cubicle, water and daily care.

Safety and access

Privacy, signs and a clear approach.

Aspirational design

A place people feel comfortable using.

Livelihood

A business with room to earn.

Accountability

Records, checks and follow-up repairs.

Wastewater

A suitable treatment and residuals route.

All six have to survive beyond opening day.

The front shop helps fund the toilets behind it.



Retail and advertising revenue help pay for cleaning and maintenance.

The shop is an operating business.



Retail counter · Display and service space



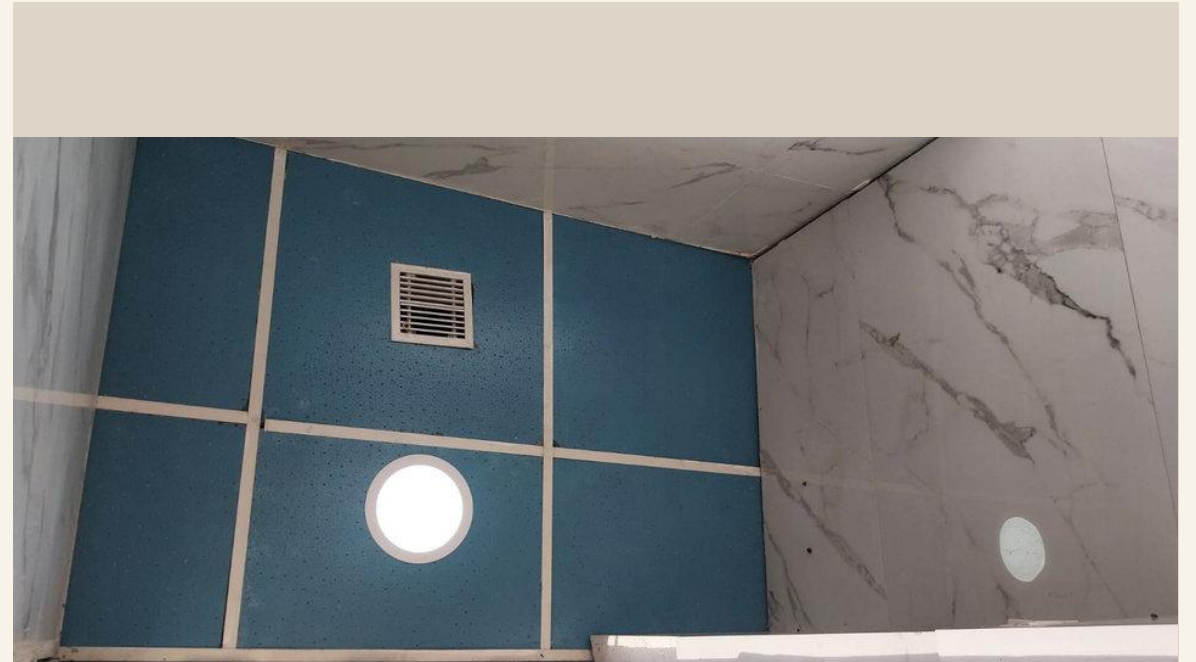
Food counter · The business in use

A working counter at the front helps support toilet care behind it.

ACCOUNTABILITY



Damaged ceiling · Before section, 9 September 2024



Ceiling photograph · Status report, 13 September 2024

Notice the fault. Assign the repair. Check the work.

Accountability: record, check, resolve.

Record

Photograph the condition.



Check

Make a second inspection.



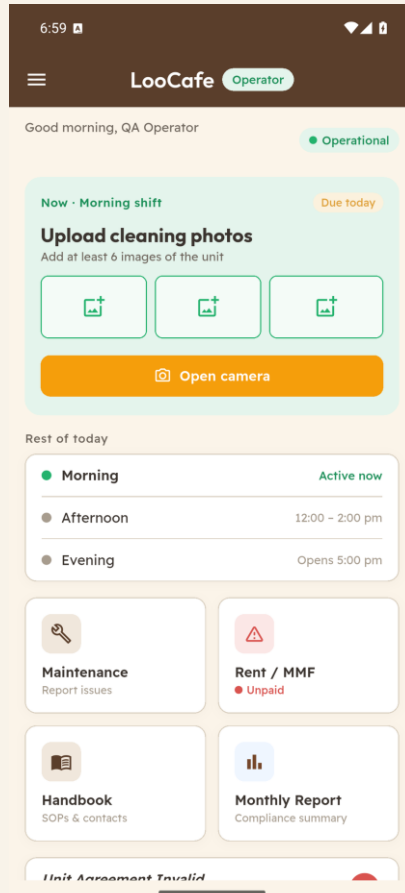
Resolve

Assign the repair and follow up.



A photo record, a second check and a clear route to report a problem.

The operator knows what is due today.



A clear task

The active shift asks for at least six unit photographs.

A daily schedule

Morning, afternoon and evening are shown together.

One place to act

Maintenance, handbook and monthly reporting are available from home.

Daily cleaning records belong in the operating routine.

Turn a problem into a maintenance ticket.

The screenshot shows a mobile app interface for creating a maintenance ticket. At the top is a green header with a back arrow and the text 'Create Ticket'. Below this is a form with three main sections: 1. 'Subject' with a text input containing 'Demo: Tap leaking' and a character count '17/20'. 2. 'Description' with a larger text input containing 'Demo report: Washbasin tap drips after closing. Please inspect the washer.' 3. 'Photo 1' section with a blue cloud upload icon, a camera icon, a trash icon, and an 'Upload' button. Below this is a 'Photo 2' section which is currently empty. At the bottom of the form is a large 'Submit' button.

Describe the problem

A short title and a detailed description record what needs attention.

Show the evidence

The form provides photo uploads alongside the report.

Keep the record

Submitted issues can be reviewed in ticket history.

Describe the issue and attach photographs for review.

Open the record. Inspect the photographs.

Review Photos



Actual submitted review · Toilet and urinal photographs with recorded time and location

The dashboard brings the submitted photographs, time and location together.

A livelihood, with responsibility.



Asif repairing a wheel



Repair workspace · edited photograph

A skill

Bike repair, learned from his father.

A business

A repair shop beside LooCafe Mini.

A daily responsibility

Toilet care before repair work.

Asif paired a LooCafe Mini with bike repair, and made toilet care part of his day.

LooCafe Mini: a smaller unit, the same responsibility.



Mini front: counter and toilet entrance



Mini side: entrance and signs

A front counter, side toilet entrances and visible signs in one compact unit.

Mini: what fits, and what still needs space.



8 × 8 ft

Website-stated Mini footprint.

2 toilets

Website-stated standard configuration.

Site clearance

Approach, utilities and maintenance access.

Allow for access, utilities and maintenance beyond the enclosure.

Toilet Tales: a place to earn.



Reuf at the counter



The stall serving customers

A trade

From electrical retail to a stall.

Customers

An everyday business at the unit.

Toilet care

Part of the daily routine.

Reuf moved from electrical retail into a LooCafe stall.

Toilet Tales: care is work, every day.



Sheikh Mahboob Basha



The stall and toilet entrance

Work

Employment at the stall.

Routine

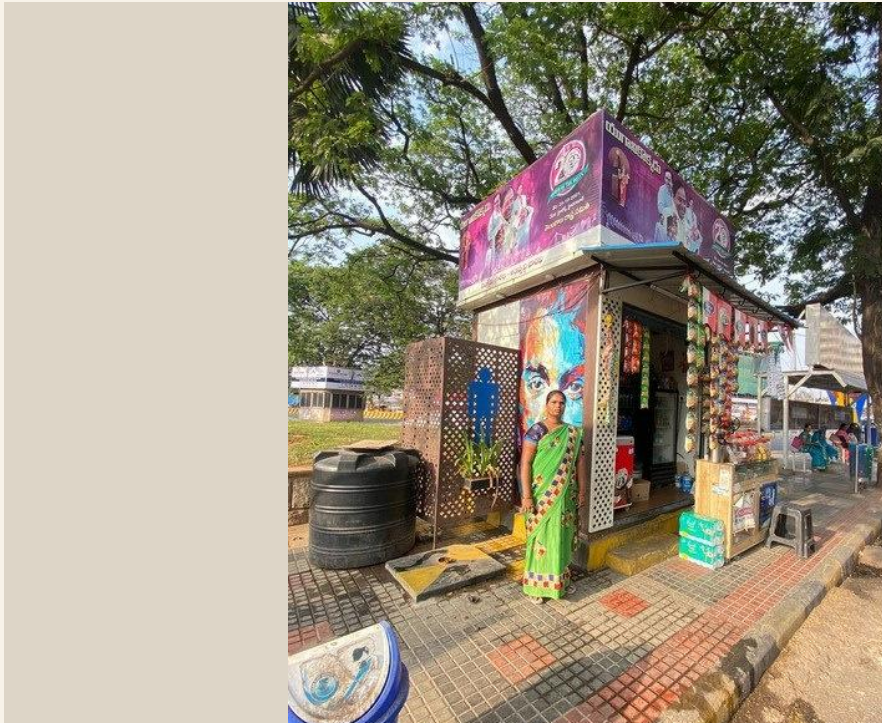
Twice-daily care, as recorded.

Support

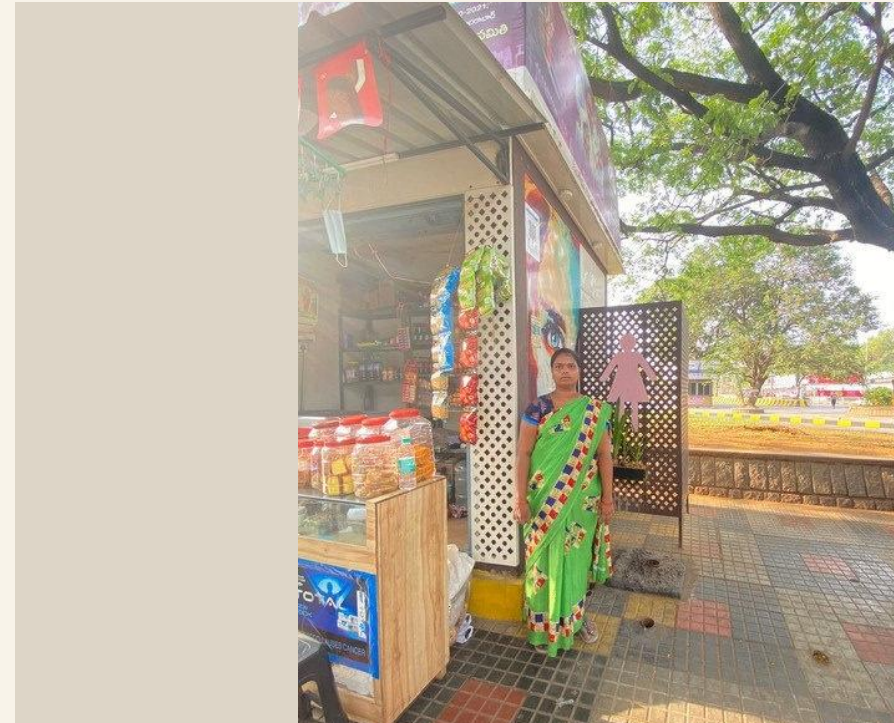
Clear expectations and repair assistance.

Sheikh Mahboob Basha's profile records twice-daily washroom care.

LooCafe Mini: a shop and toilets in one small unit.



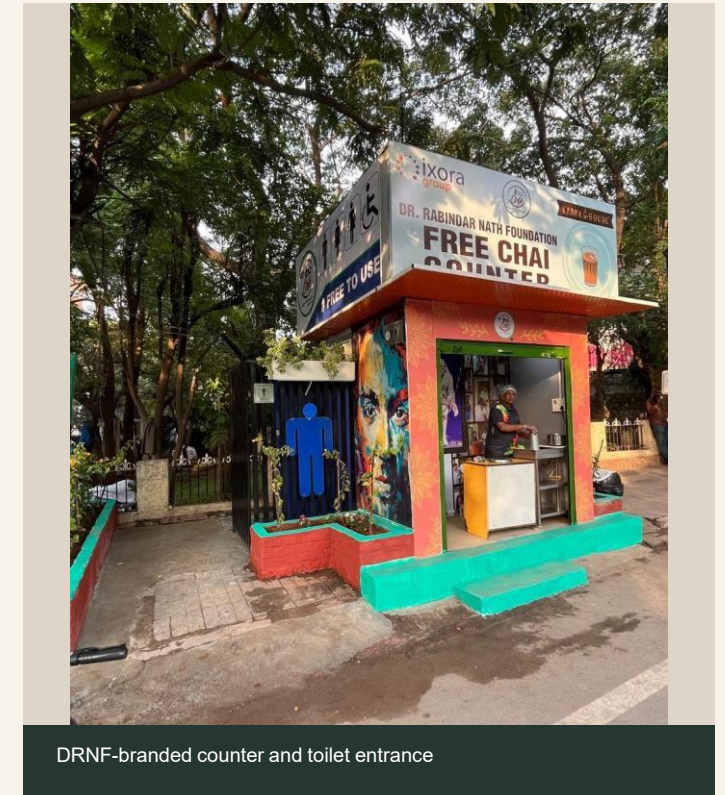
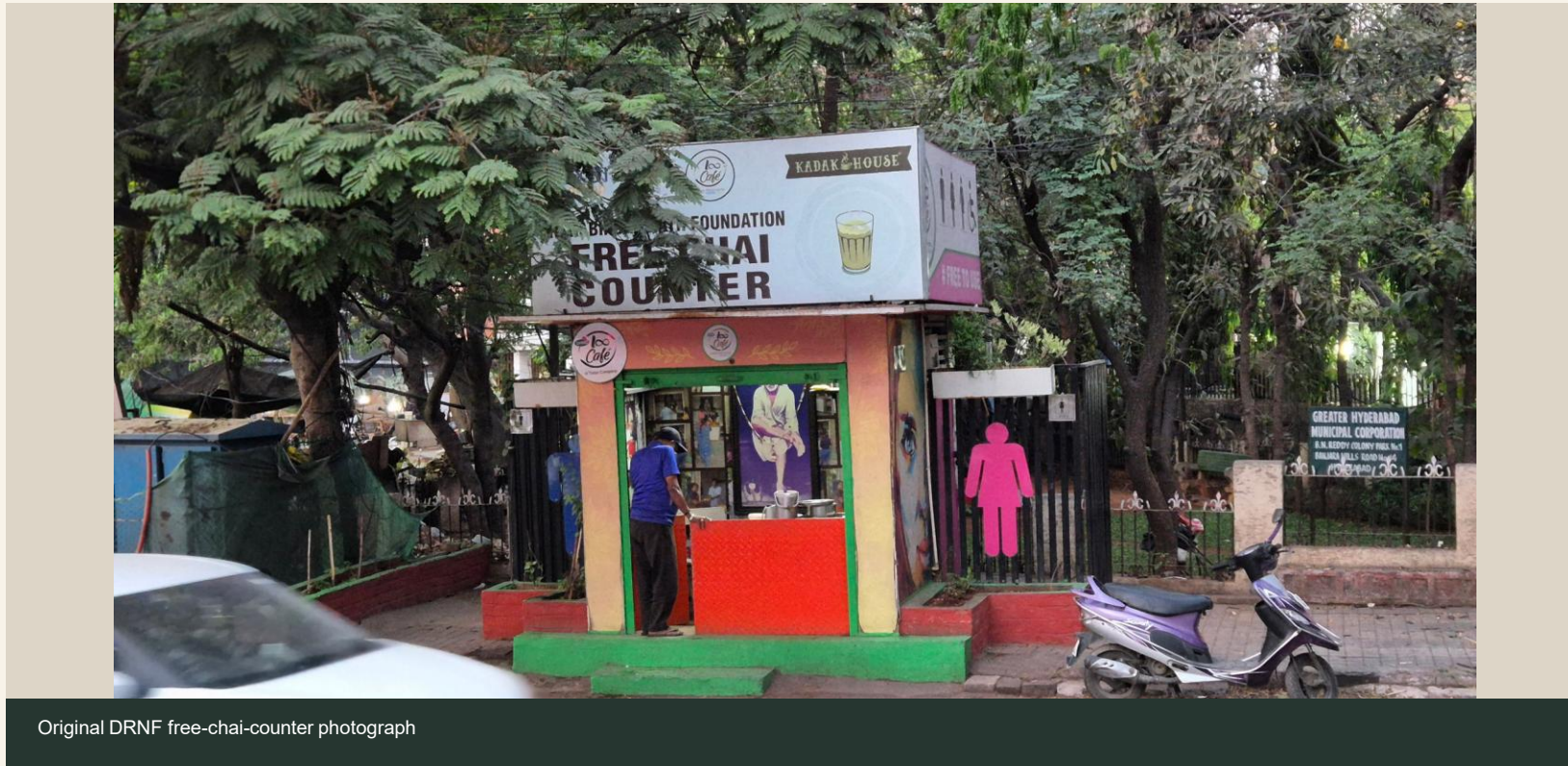
Corner view: shop and toilet entrances



Closer view: counter and women's entrance

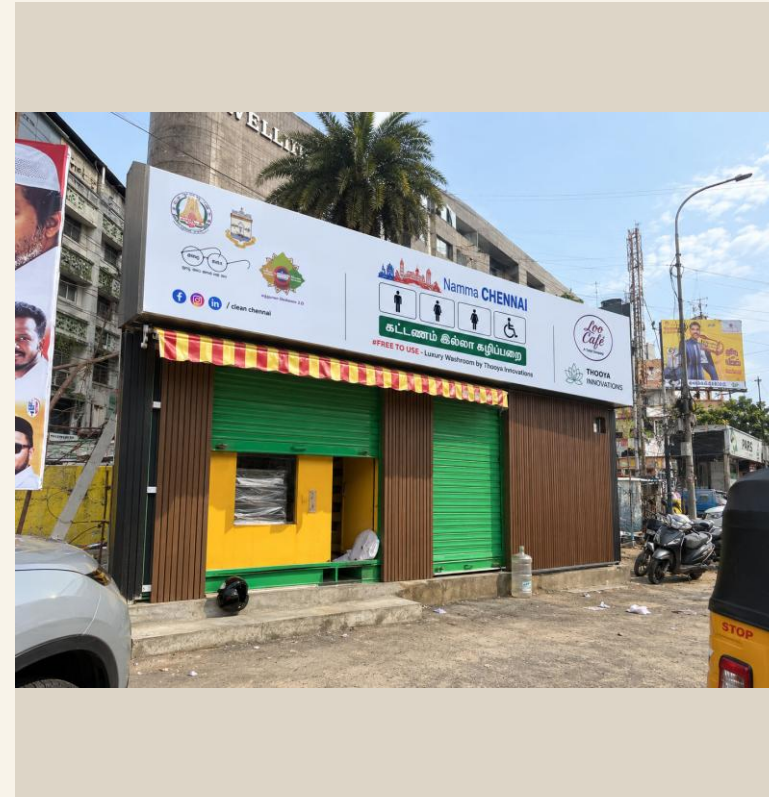
The counter faces the street. Toilet entrances remain beside it.

DRNF: free chai beside public sanitation.



A public-service counter can share the unit with public toilets.

Different streets. A repeatable service.



Different site formats use the same link between business income and toilet care.

Our footprint: different cities and settings.

Mangalagiri

Andhra Pradesh



Landscaped unit

Chennai

Tamil Nadu



Street-side unit

Mumbai

Maharashtra



BMC-linked facility

Each location needs a suitable site, a working toilet and a maintenance plan.

From Hyderabad parks to Dal Lake.



Mir Alam Park · Public park setting



Dal Lake, Srinagar · Night-time frontage

Mir Alam Park, Hyderabad · Dal Lake, Srinagar

A toilet can belong in a well-designed public space.



Mangalagiri · Approach and planting



Tank Bund · Lighting, signs and entrance

A clear approach, visible signs and lighting help people find the facility.

Scalability starts in the workshop.

1 · Enclosure

Build the structure



Container conversion

2 · Exterior

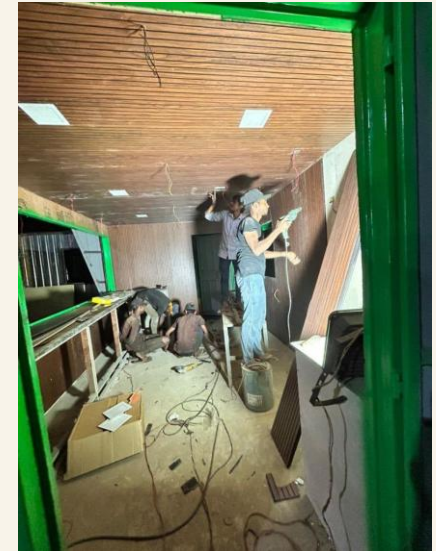
Fabricate and finish



Exterior workshop view

3 · Interior

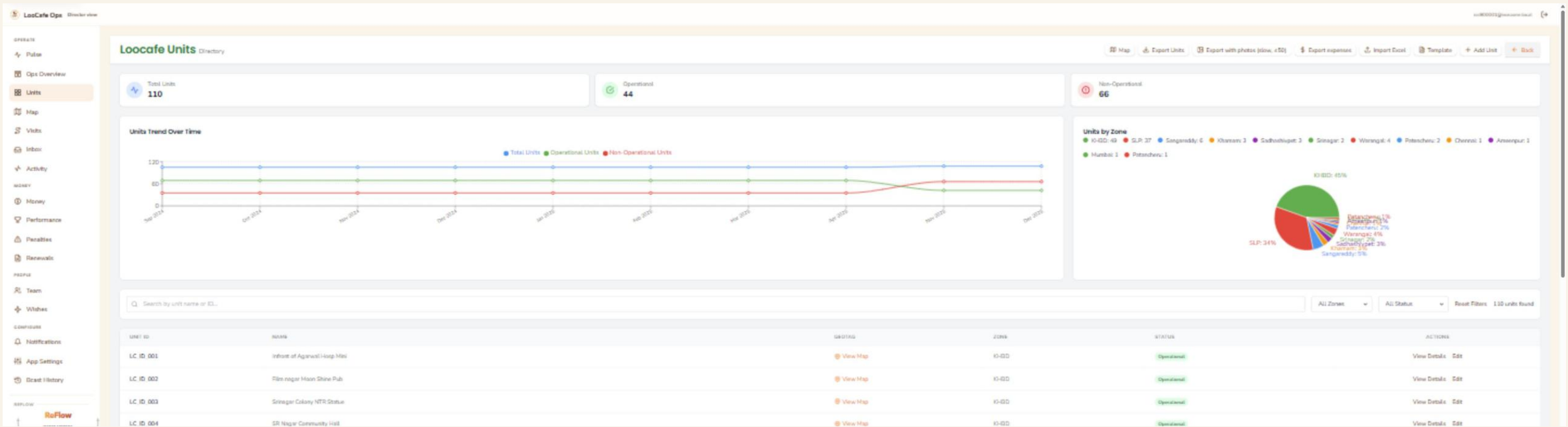
Fit the usable space



Interior fit-out

At every site: prepare, install, commission and maintain.

A unit directory gives the network a shared record.



Find the site

Unit IDs, names and map links

Read the record

Zone and operational status

Keep it current

A registry needs verification in the field

Unit identity, location and recorded status in one place.

LooCafe's published city footprint.



CITIES ON THE LOOCAFE WEBSITE

- 01 Hyderabad
- 02 Srinagar
- 03 Chandigarh / Mohali
- 04 Patna
- 05 Indore
- 06 Mumbai
- 07 Pune
- 08 Warangal
- 09 Bengaluru
- 10 Chennai

City pins, not individual unit addresses.
Published footprint; current status not audited.

Ten website city markers, not an individual-unit operating audit.

But where does the flush go?

URBAN INDIA · 2020 INVENTORY

Estimated sewage generation

72.4 billion L/day



Actual STP utilisation

20.2 billion L/day



Historical national baseline, not current coverage or ReFlow performance.

Choose the treatment route. Fund the operation. Verify the result.

NTR SAMADHI MINI · COMPANY RECORD

10 metres

The unit moved.
The drain connection did not follow.



Our 11 April 2023 letter reports no drain connection at the new location.

The same street. The sewer beneath it.



Toilet outlet → local connection → municipal sewer → downstream treatment.

Bring treatment to the site.



Lumbini Park · ReFlow installation and adjoining kiosk



Factory view · Treatment equipment and pipework

The service bay contains the treatment equipment behind the public toilets.

Outside: the enclosure. Inside: the equipment.



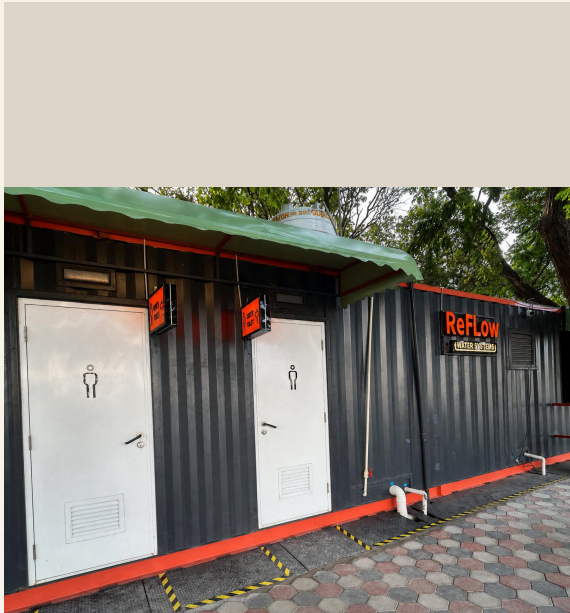
Installed BCRT exterior · enhanced photograph



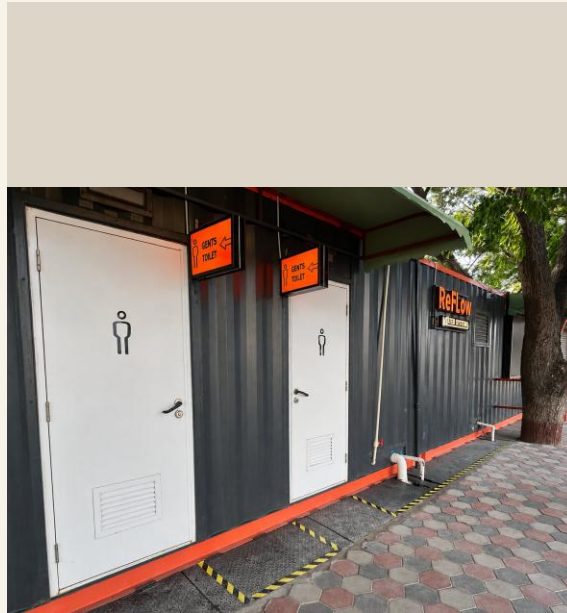
Treatment equipment · original factory photograph

The toilet enclosure also has to accommodate treatment and maintenance access.

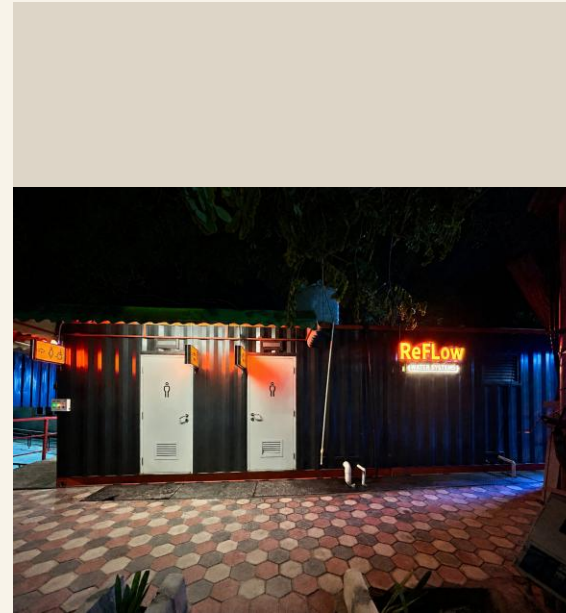
The public side and the service side.



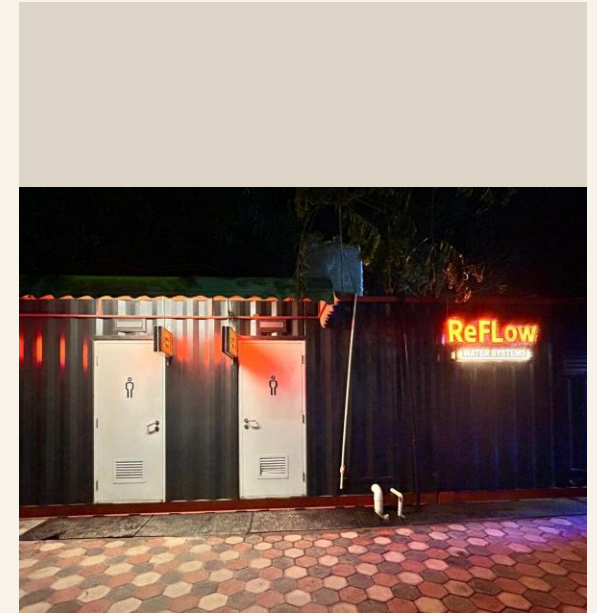
Daylight exterior · enhanced



Second daylight angle · enhanced



Night frontage · enhanced



Night entrance · original

Public entrances, covered approach and illuminated signs.

Follow the water.



FACTORY PHOTOGRAPH · EQUIPMENT CONTEXT

DOCUMENTED FUNCTIONAL SEQUENCE

- | | |
|---|---|
| 1 | Collect
Regulate incoming wastewater. |
| 2 | Biology
Anaerobic + aerobic treatment. |
| 3 | Treat further
Further treatment before reuse. |
| 4 | Disinfect
UV on the documented reuse path. |
| 5 | Reuse
Return treated water for flushing. |

Additional ECR: high loading / unstable effluent.
Non-potable reuse · Simplified process, not a piping plan.

Collect → treat → disinfect → reuse for flushing

The treatment stages—and the return to flushing.



ECR provides additional treatment when required; the reuse route returns water for flushing.

The engineering is in the operating limits.



Commission the biology

Seed the process and increase loading in stages.

Connect controls to use

Reuse-water levels gate pump and UV operation.

Coordinate cleaning

Use a treatment-compatible cleaning protocol.

Hardware, operating conditions and daily care have to work together.

ReFlow issues can be tracked by component.

Tickets

Component faults raised from the field

DEMO

2 open

ID	SUBJECT	COMPONENT	RAISED BY	PRIORITY	STATUS	GPS
TK-2041	ECR salt tank low — dosing dropped Today 09:04	Stage 6 · ECR / salt tank	Ramesh K.	High	Open	—
TK-2036	Reuse-water booster pump noisy Yesterday	Reuse tank · booster pump	Ramesh K.	Medium	In Progress	—
TK-2030	Cubicle 4 tap flow low 2 days ago	Cubicle 4 · wash basin	Ramesh K.	Low	Resolved	—
TK-2018	Blower 2# intermittent hum 6 days ago	Stage 4 · Aerobic O · blower	Priya S.	Medium	Resolved	—

ReFlow dashboard · Demo workflow · Redrawn for legibility

Name the component. Set the priority. Track the response.

BCRT: read the specification before sizing the site.



1,000 L/day

Manual treatment capacity; maximum 1,200 L/day.

180 flushes/day

Manual figure; maximum 200. Not a visitor count.

4.5 kW

Manual installed power, not measured energy consumption.

Reference: 40-foot, seven-cubicle BCRT. Confirm the installed variant separately.

BCRT maintenance needs access and trained people.



Inspect

Check levels, pumps, blowers and pipework.

Maintain

Keep equipment accessible for planned work.

Escalate

Send treatment faults to a trained technician.

A serviceable plant needs more than a sealed enclosure.

A loop has responsibilities.



Flushing reuse still needs makeup water, power, maintenance and residuals handling.

Measure the difference.

400

people/day pre-launch
Speaker-reported activity; not measured treatment performance.

Water reused

litres/day

Freshwater makeup

litres/day

Energy intensity

kWh/m³ treated

Verified service

Availability + sample results

Measure water, reliability and treatment quality together.

One unit becomes a managed network.



A network needs people, maintenance and verified treatment.

Proposed service network

Citywide sanitation uses more than one treatment route.



1 Sewers + treatment

Convey wastewater to a suitable treatment plant.

2 Local treatment

Treat at or near the site; match the reuse or disposal route.

3 Managed residuals

Arrange collection, transport and suitable treatment or disposal.

MATCH THE ROUTE TO THE SITE

Connect suitable sites to sewers; use appropriate local treatment where it fits the service need.

Come and look inside.



The next conversation should happen at the unit.

The market: different ways to fund and run a toilet.



Model	Upkeep funding	Wastewater route	Main dependency
Municipal / contracted	Budget or O&M contract	Sewer or managed local system	Budget and supervision
Pay-per-use	User charges; sometimes subsidy	Site-dependent	Demand and affordability
Retail / advertising	Trading margin and advertising	Site-dependent	Income and enforceable upkeep
LooCafe + BCRT	Operating model + treatment budget	On-site treatment; flushing reuse	Commissioning and technical care

Models can overlap. A prefab shell alone does not determine service quality.

Standard LooCafe and LooCafe with BCRT.



Question	Standard LooCafe	With BCRT / ReFlow
Public service	Toilets, retail and operating responsibility	Retains the public service model
Wastewater	Suitable sewer or another managed route	Treatment at site; flushing reuse
Equipment	Fixtures and facility utilities	Adds process equipment and controls
Daily operation	Cleaning, repairs and utilities	Also commissioning and treatment care
Site decision	Reliable access and sanitation route	Local treatment fits site and resources

BCRT adds treatment capability and responsibility.

PPP: agree who provides what.



Public partner

Site rights, approvals, access and service standards.

Private partner

Delivery, operation and maintenance within the contract.

The agreement

Funding, risks, reporting and remedies for failure.

Public–private partnership is a service contract, not a promise of zero cost.

A contract can cover years of service.



15 years

Concession period in the GHMC certificate.

36 locations

Project scope described in the document.

4 locations

Listed completed, qualified as reported by telephone.

Historical contract scope and recorded progress are different measures.

Karnataka: procure the whole service.

1

CHOOSE THE SITE



Match the treatment route to local conditions.

2

FUND THE SERVICE



Name the operator.
Budget for ongoing care.

3

VERIFY OUTCOMES



Measure performance before scaling.

A site. An operator. Verified treatment. Long-term care.

Proposal for discussion

Karnataka: start with sites that need a service.



Markets and transit

Demand, hours, queues and approach space.

Parks and visitor areas

Public access, landscape fit and wastewater route.

Constrained sites

Check utilities, land rights and treatment access.

Survey the site before choosing Standard, Mini or a treatment-equipped unit.

Karnataka: put the operating duties in writing.



Every day

Operator, cleaning, consumables and opening hours.

When it fails

Repair owner, escalation and response standards.

Over the contract

Replacements, inspections and public reporting.

Specify the service people receive and how it will be checked.

Karnataka: measure the pilot before expanding.



Service

Availability, condition, access and complaints resolved.

Treatment

Quality, reuse, makeup water, energy and residuals.

Economics

Operating cost, retail contribution and cost per use.

Agree the acceptance criteria, record results, then decide where to expand.

A better city starts here.

A public toilet people can use—
and a system that keeps working.

