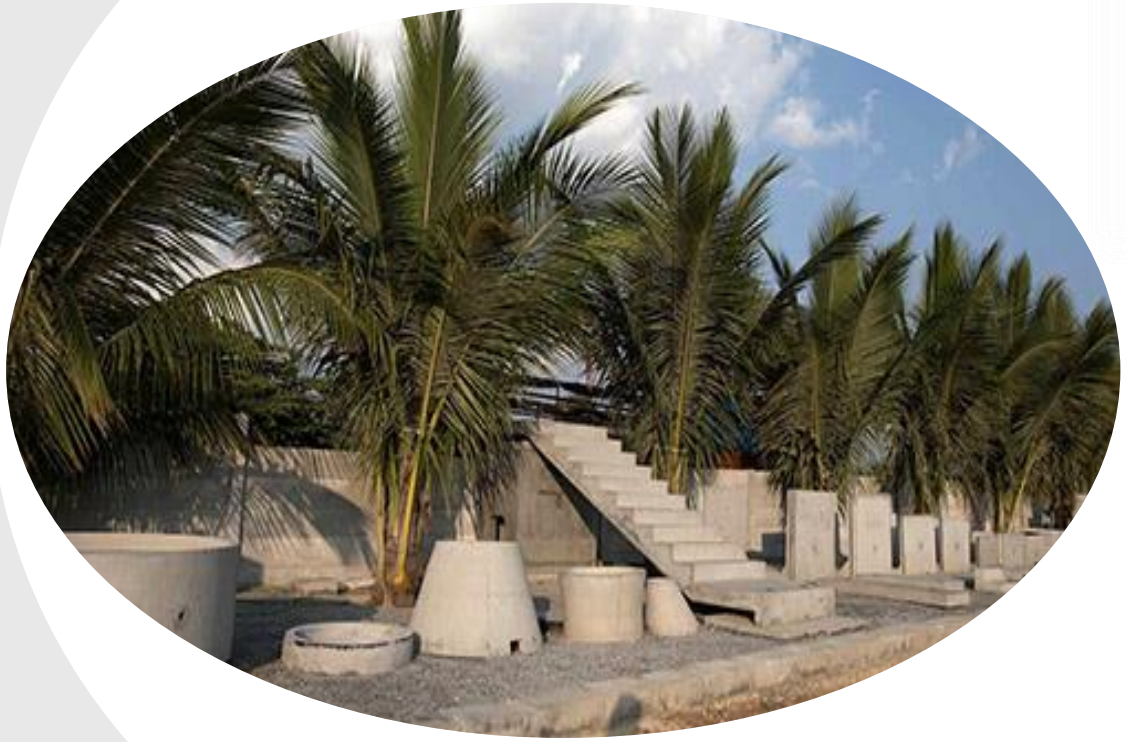

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UNSEEN BENEFITS OF PRECAST

BY ARTO PRECAST CONCRETE

HISTORY OF PRECAST

The Romans were one of the first to use an early form of Precast Concrete. Used molds and wooden forms to create an intricate aqueduct system and catacombs.

Despite these early uses, it didn't become popular till the early part of the 20th century with John Alexander Brodie being one of the first to patent precast paneled construction.

1954, Precast Concrete Institute was formed and still serves as a technical sounding board for all things related to precast.

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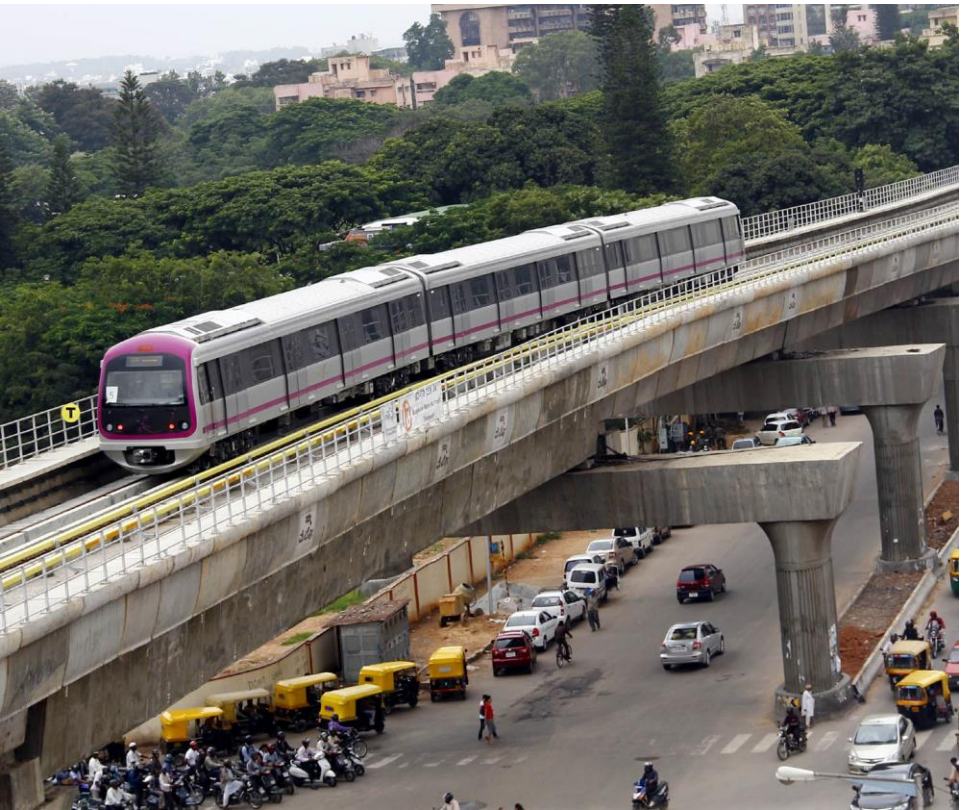
RELEVANT WORK HAPPENING

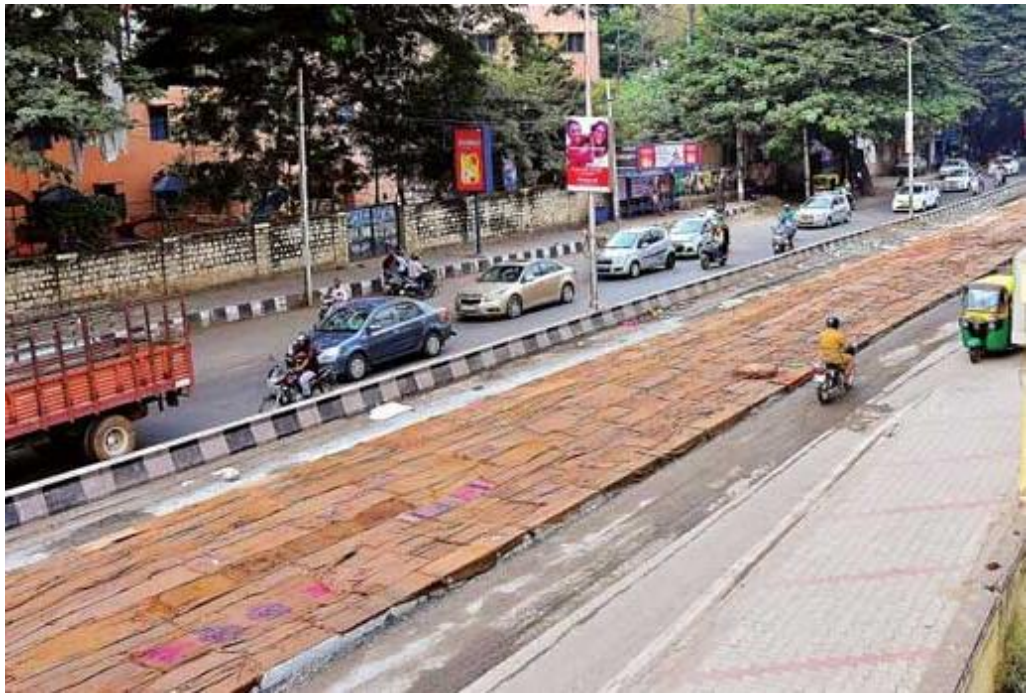
METRO



124 km of metro line

139 km of white topping

Total Road length of 250 km



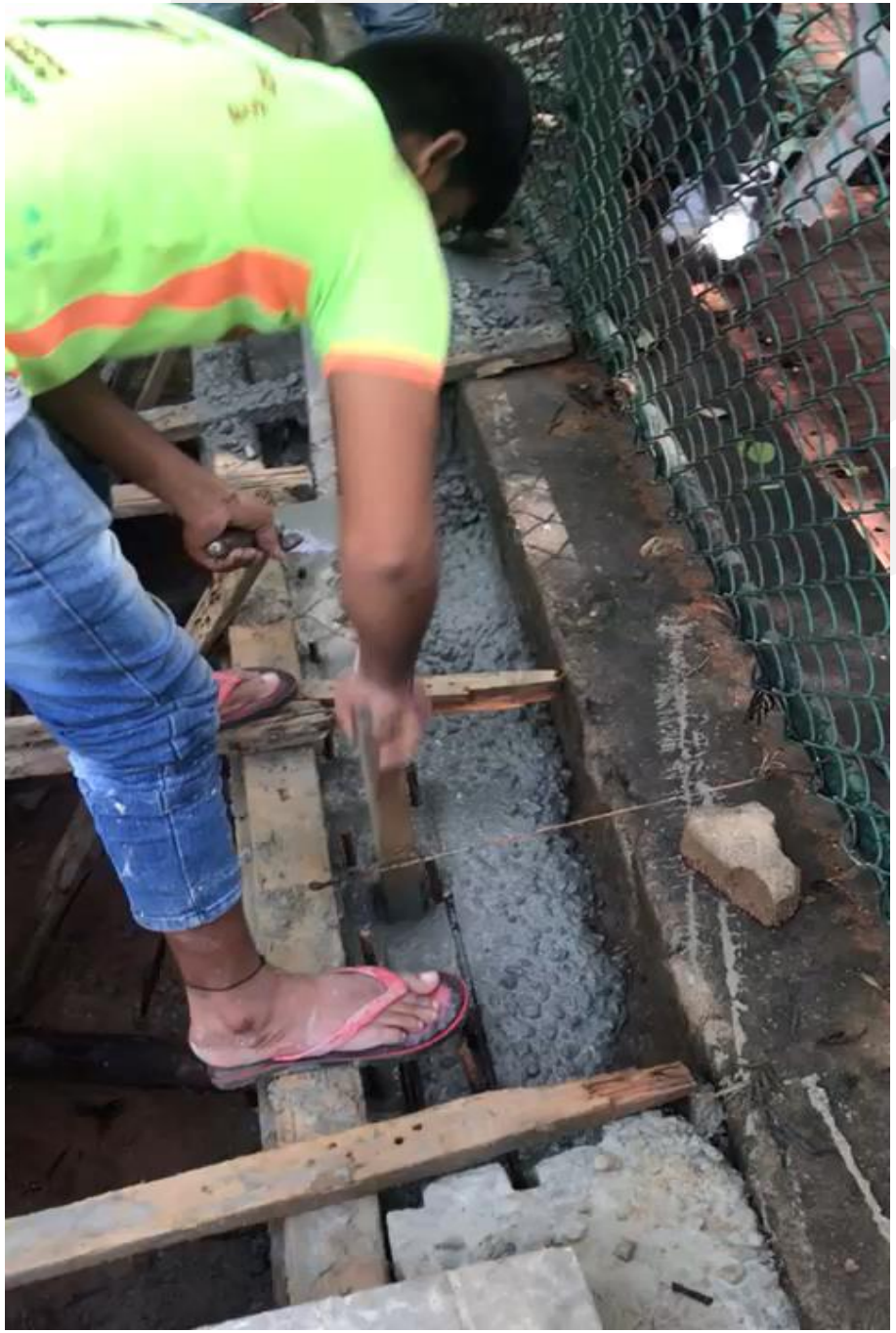
WHITE TOPPING

Approximate combined drain length is 500 km

MATERIAL EFFICIENCY

- Double layer reinforcement
- PCC bed first cast followed by casting and curing of the base
- Insufficient compaction
- Excess concrete

= Wastage of resources



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MATERIAL EFFICIENCY

- Cast in Situ is over engineered because of inherent problems
- Precast can be designed to perform with less material
- Saves material and cost

What does this mean in terms of money, congestion, pollution and the environment…

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COST EFFICIENCY

Potential to save over 6000crores for Bangalores drain networks alone!

COST FOR CAST IN SITU

Rs.4500/rmt all inclusive

Rs. 2700/rmt all inclusive

COST FOR PRECAST

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TIME EFFICIENCY

- Currently only 25% of white topping done
- Major contributing factor is the time taken
- Police hesitate to give clearance due to traffic problems that pile up
- Precast Panels can be employed
- Work would happen much faster reducing disruptions while still having the same long-term benefits

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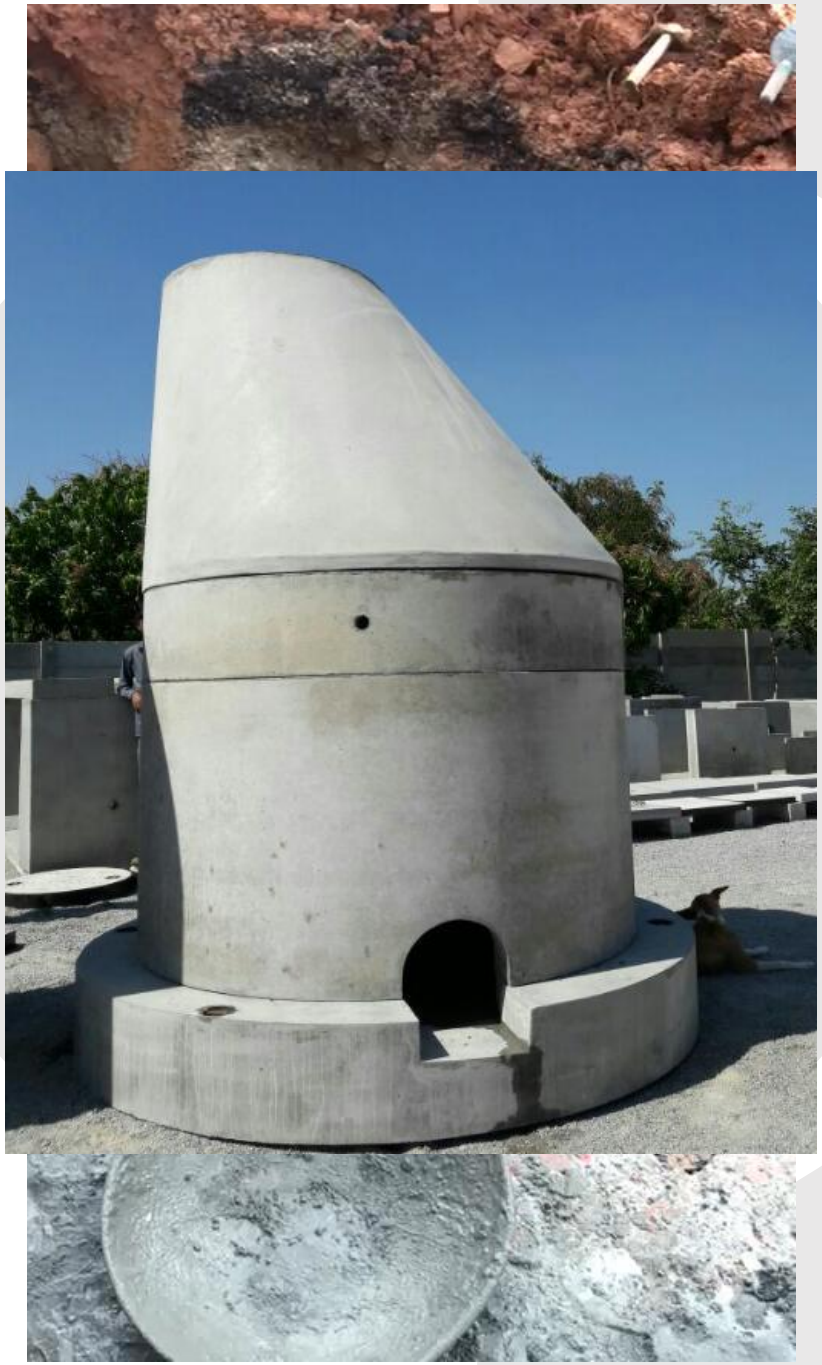
PRACTICAL MANHOLE EXAMPLE

- Brick manholes are slow to install
- Difficult to ensure proper procedure
- We had a challenge to install a precast manhole
- Install overnight, start to finish



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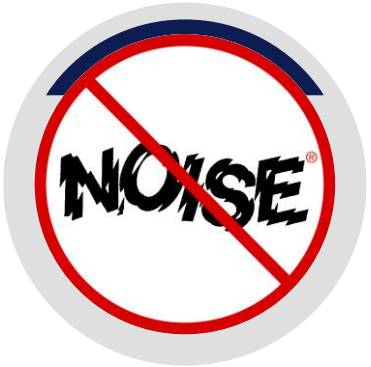
FOR THE PUBLIC



LESS NOISE POLLUTION

LESS DUST POLLUTION

LESS INCONVENIENCE

MORE SAFE

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FOR THE ENVIRONMENT

None of the above would be useful if we did not have an environment.

Using precast and the latest technologies reduces the use of many natural resources.

For example, using precast can save 150 liters/cmt compared to other methods.

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SUMMARY OF THE UNSEEN BENEFITS

- Less material waste
- Less water used
- Less inconvenience
- Less pollution
- More safety
- More longevity
- More money saved

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