



INFRAPIPE™
SUSTAINABLE SOLUTIONS FOR GENERATIONS TO FOLLOW

IS INFRAPIPE BETTER THAN CONCRETE?

The purpose of a pipe is to convey fluids and have as long an operational life as possible.

CONCRETE PIPE HAS 18% LESS HYDRAULIC CAPACITY

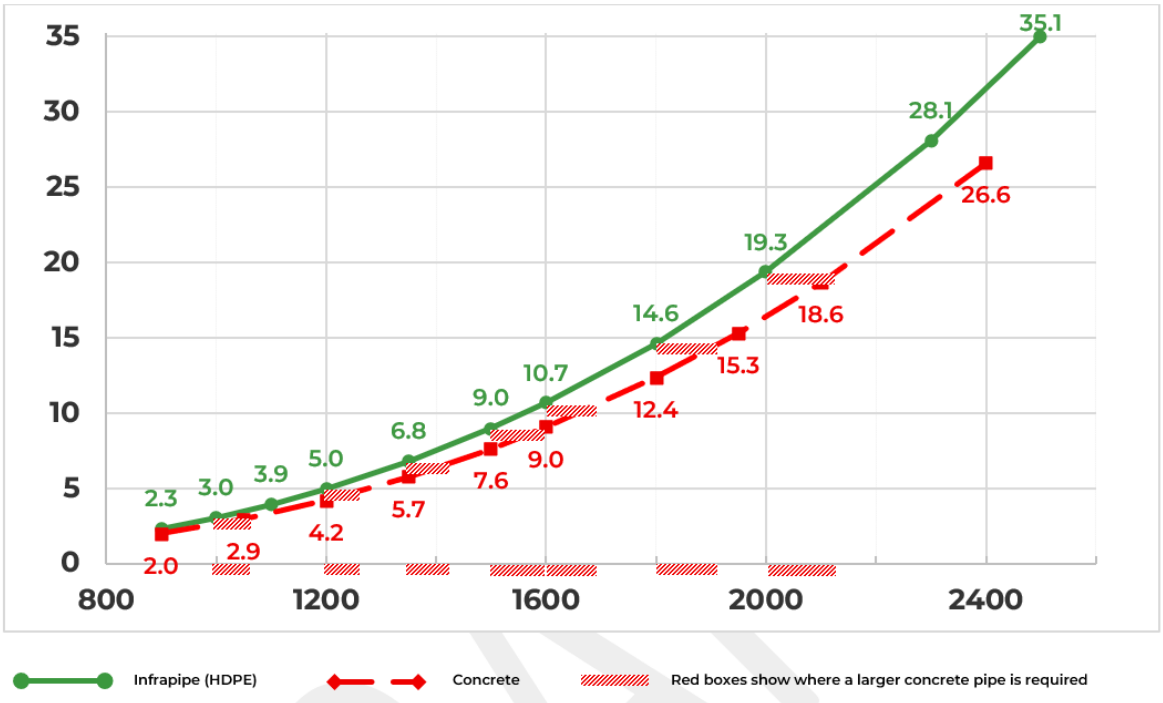
Due to the roughness of the material (especially once abraded, see below), concrete pipe provides a flow rate that is 18% less than thermoplastics (HDPE, PP) such as INFRAPIPE, CIVILPIPE, PKS pipe, BOSSPIPE. This is expressed in the Mannings number - a coefficient used in hydraulic calculations for gravity flow.

NZTA, Kiwirail, Auckland Council and other asset managers require Mannings of 0.013 for concrete and 0.011 for plastic

Pipe volume increases exponentially so the 18% difference translates to a requirement to use a bigger concrete pipe between 40% (smaller pipes) and 70% (larger pipes) as shown by the diagram below.

A larger pipe increases pipe and trench cost by 20-25%

Figure 3 Flow Rate for a given diameter showing where a larger concrete pipe must be used (in red)



CONCRETE PIPE HAS A SHORTER LIFE THAN PLASTIC PIPE

Whilst nominally concrete pipe also has a service life of 100 years like INFRAPIPE, CIVILPIPE, PKS pipe & BOSSPIPE, in the real world concrete suffers from abrasion at a rate 5 times greater than plastic pipes and even when allowing for the differing wall thicknesses, a concrete pipe will only last 70% as long as a plastic pipe for the same abrasion levels.

Nor do plastic pipes crack, rust or react with the soil and the fluids they convey ensuring that their real world lifespan actually is 100 years. The first plastic pipes have been in the ground for 70 years now and analysis of their performance confirms that their material has a greater longevity than required to last 100 years.





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SOME COOL PROJECTS INFRAPIPE™ INFRATANK


AUCKLAND PORT
DN2500
CUSTOM BEND AND RISER


AUCKLAND AIRPORT
DN2500
MANHOLE


PUKEKOHE
DN1500 SN2 40m
STREAM DIVERSION


WAIHEKE
13m DN1600 and DN1500
PILE LINERS


MANGERE
DN3200 SN4 42m
WASTEWATER BRIDGE

PUKEKOHE
60m DN1000
SOLID WALL UNDER RAILWAY


MORRINSVILLE
26m DN2500
CULVERT


WAIKATO
DN1800 SN8 4m


TAUPO
550m SN8
DN375-900
HE AHI


HAMILTON
100m³ DN2500
WASTE WATER TANK


HAMILTON
204m³ TANK DN3200
+ 908m DN525/600

TAMAHERE
86m³ DN2500
FIRE FIGHTING TANK


NEW PLYMOUTH
DN1350 SN11 91m
CULVERT DIVERSION WITH 2 BENDS

NEW PLYMOUTH
118m³ DN3200

BLENHEIM
32*DN1500
MANHOLES
FOR GROWING PLANTS


WELLINGTON
212m DN375-1000
SN16


NELSON
31m DN900
TO REPLACE DESTROYED WATER MAIN

NELSON
240m DN600 and
18m DN1000
FOR AQUACULTURE


NELSON
DN1800 SN8 2*130m
SLIPLINED THROUGH 60m OF BOX CULVERT


KINGSTON
400m SN8 & 16
DN1500 & 1800
STORMWATER UPGRADE


CHRISTCHURCH
28m DN700
& DN2000
MANHOLE

MANAWATU
250m SN6
DN225-450
CULVERT PIPES


PUKETITIRI HAWKE'S BAY
DN2500 SN8 23.2m
& DN900 SN8 11.6m
CYCLONE GABRIEL REPAIRS IN FOREST

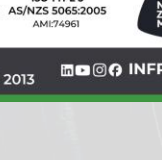
WAIRARAPA
30m DN1000


PALMERSTON NORTH
DN800 SN8 156m
CIVILPIPE FOR SW UPGRADES


MANAWATU
DN2000 SN35 4m
PUMP CHAMBER


PATOKA HAWKE'S BAY
30m of SN8
DN3200
CULVERT PIPE


HAWKE'S BAY
32m SN8 DN3200


HAWKE'S BAY
40m SN4 DN3200


MANAWATU
120m³
DN2500 SN8
FIRE SUPPLY TANK


WHAKAAHU
38m DN2500 SN15.3
STOPBANK REMEDIAL WORK

INVERCARGILL
34m DN2500


WHANGAREI PORT NIKAU
320m SN16
DN225-600
CIVILPIPE CULVERTS

KAIPARA
CULVERTS UP TO SN92 DN600-900
FOR THE NORTHERN LINE KIWIRAIL


TAURANGA
180m DN900
22DEG GRADIENT 4 MANHOLES


TAURANGA
DN2500
& DN2000
CLARIFIER


TAURANGA
40m DN3200
SN40+
WITH RISER AND BEND

NORTHLAND
WHANGAREI
KAIPARA
AUCKLAND
WAIHEKE
MANGERE
PUKEKOHE
MORRINSVILLE
HAMILTON
TAURANGA
TAMAHERE
WAIKATO
BAY OF PLENTY
NORTH ISLAND
GISBORNE
WHAKAAHU
NEW PLYMOUTH
TAUPO
HAWKE'S BAY
TARANAKI
PUKETITIRI
PATOKA
MANAWATU-WANGANUI
FEILDING
PALMERSTON NORTH
WELLINGTON
NELSON
BLENHEIM
TASMAN
MARLBOROUGH
WEST COAST
CHRISTCHURCH
CANTERBURY
OTAGO
KINGSTON
SOUTHLAND
INVERCARGILL
SOUTH ISLAND

This is just a sample of the projects we have fulfilled showing how versatile, how strong and how easy to handle our KRAH™ HDPE product is.

ISO 9001 Certified ApprovalMark
ISO TYPE 5 AS/NZS 4130:2018 AMI:74999
ISO TYPE 5 AS/NZS 5065:2005 AMI:74961
NEW ZEALAND MADE

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