

GMP - Geo Mesh Pipe

Low Impact Development – Stormwater Management

GMP - Geo Mesh Pipe

Green Infrastructure Program

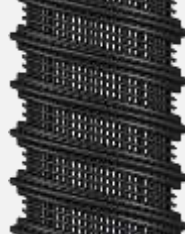
GMP - Geo Mesh Pipe



DMP
Drainage Mesh Pipe



DMW
Drainage Mesh Well



DRWT
Deep Root Watering Tube



AMP
Arched Mesh Pipe



RCM
Rainfall Conservation Module



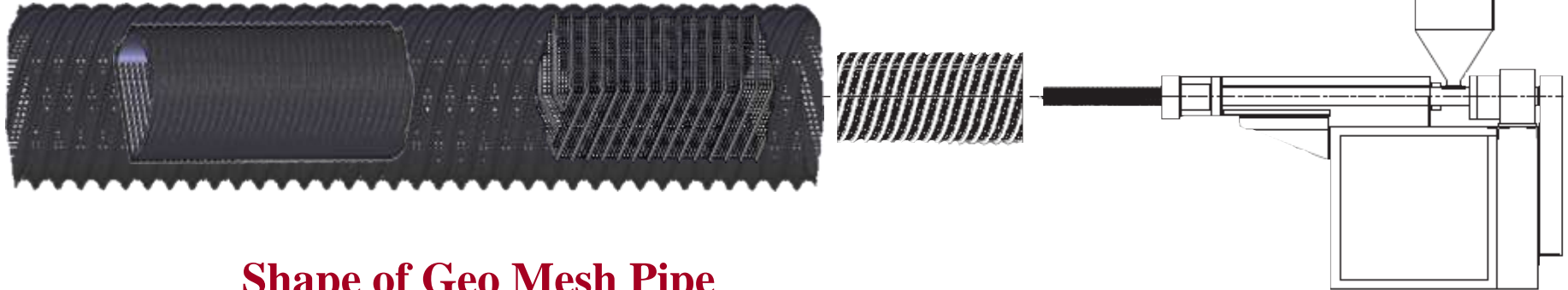
SMP
Square Mesh Pipe

Green Infrastructure Program - Create a Comfortable and Healthy Environment

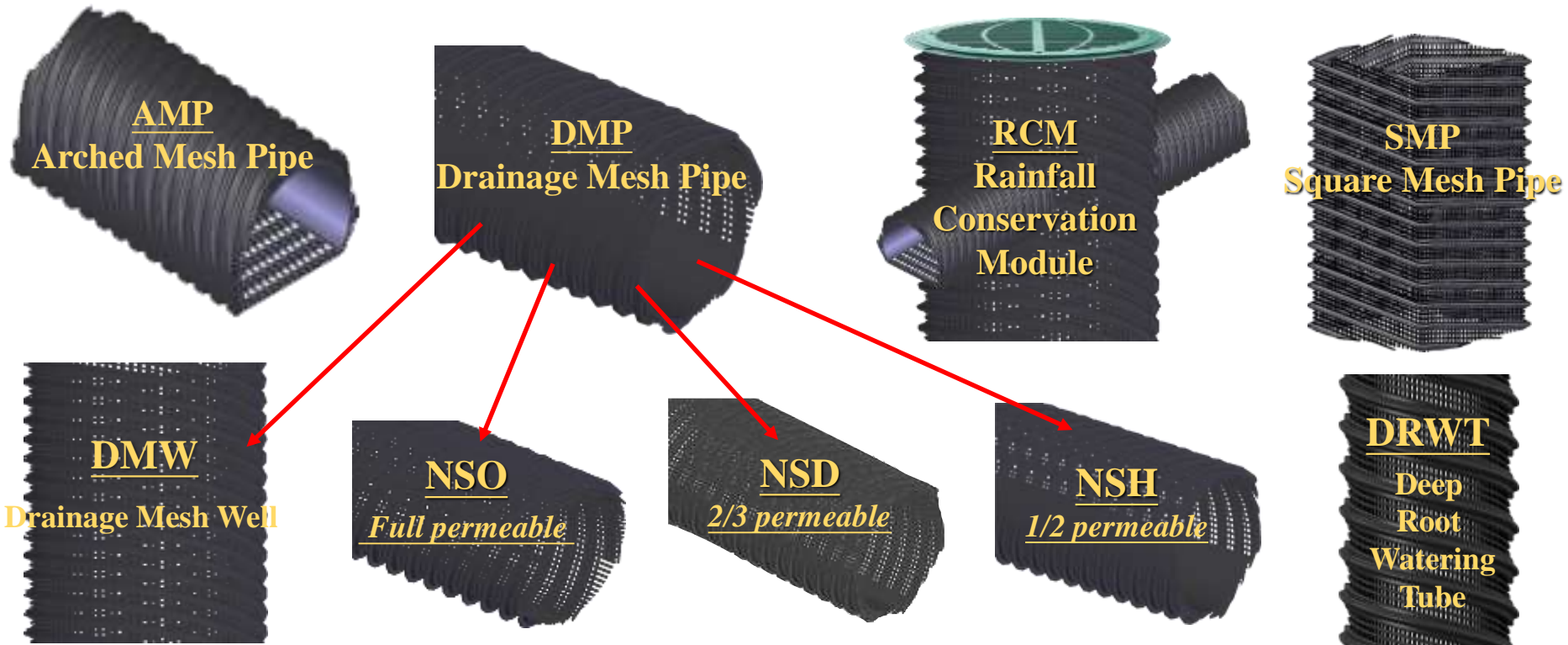
GMP - Geo Mesh Pipe is the Economical & Simple Solutions

GMP - Geo Mesh Pipe - Manufacturing

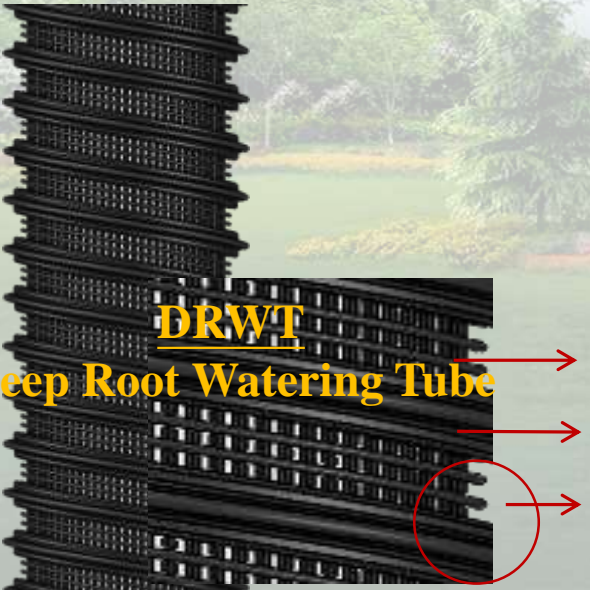
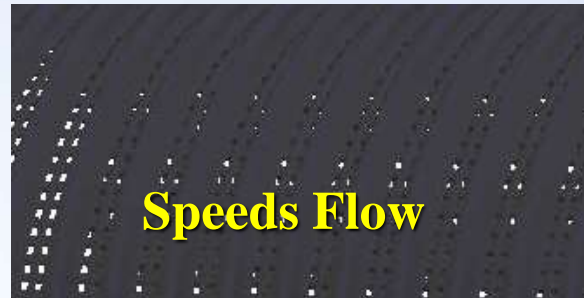
GMP - Geo Mesh Pipe is Made of Extruded Plastic



Shape of Geo Mesh Pipe



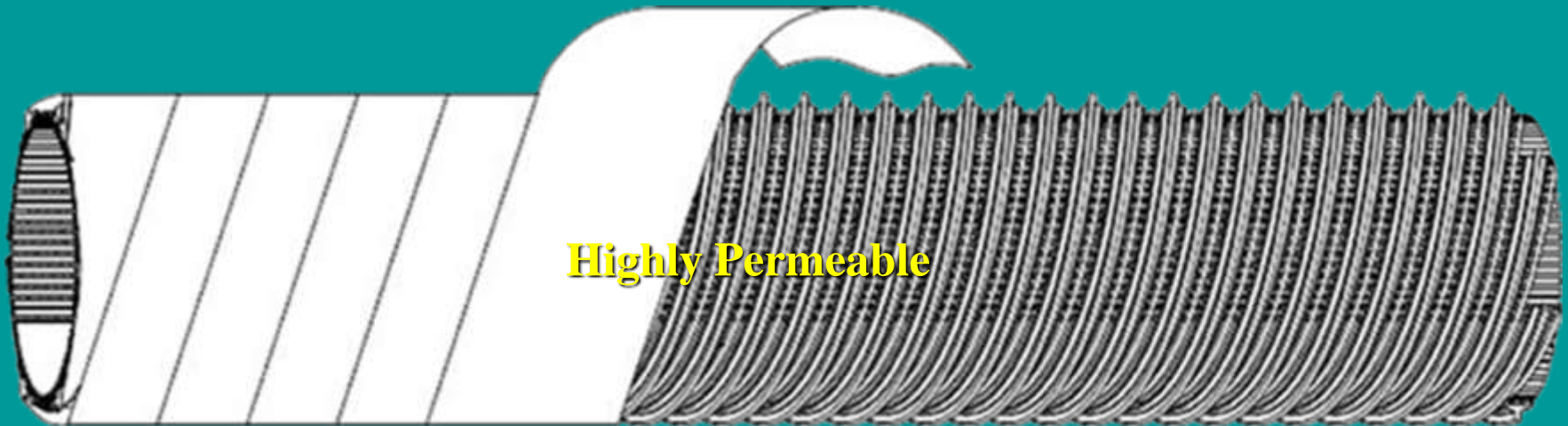
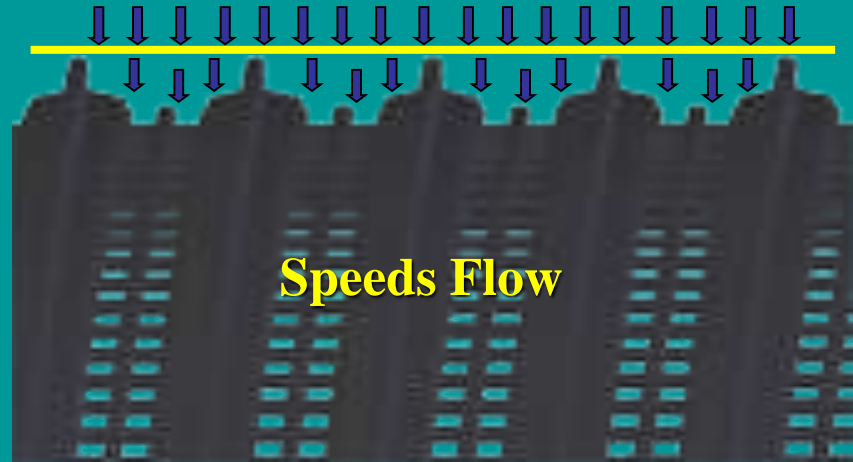
GMP - Geo Mesh Pipe - Features



- The sidewall openings are fine mesh design.
- The sidewall has T-type thread design and high compressive resistance.
- Mesh Tube sidewall is Anti-Clog and minimizes soil entry without extra filter material, such as non-woven fabric.



Unique Characteristics of Drainage Mesh Pipe



DMW - Drainage Mesh Wells–Unique Characteristics

Drainage Mesh Well does not need to use gravel, grading, non-woven fabrics and other filter materials.

The Mesh Well is not blocked, and the ecological engineering method is the best underground collection and drainage material.

DMW- Drainage Mesh Wells–Unique Characteristics

→ The sidewall openings are fine mesh design.

→ The sidewall has T-type thread design and high compressive resistance.

→ *Drainage Mesh Well sidewall is Anti-Clog and minimizes soil entry without extra filter material, such as non-woven fabric.*

(DMW)

Anti-Clog

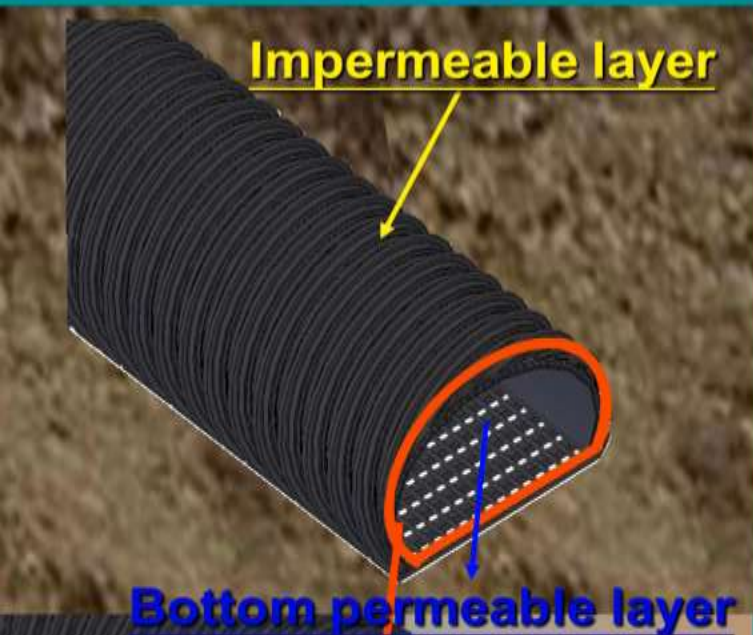
Drainage Mesh Well

Drainage Mesh Well anti-blocking model experiment



Unique Characteristics of Arched Mesh Pipe

Structure



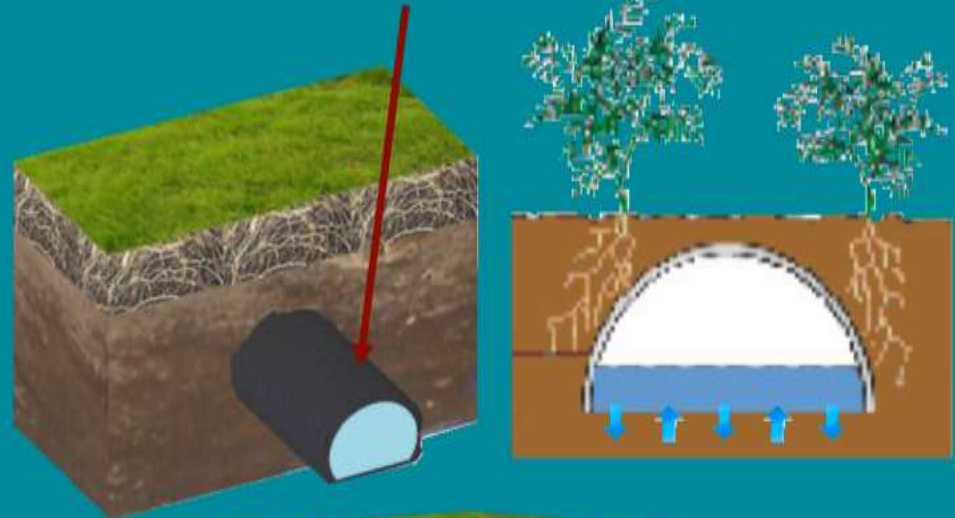
Principle

Half round design

Soil density higher than water
Natural sink of soil particles due to gravity
water chamber obstruction is prevented

Filter Material-Free
Clog-resistant

Arched Mesh Pipe



Traditional installation



Traditional subsoil drainage pipe





RCM

Mesh Well collection of ground surface rainwater is diverted into the ground and percolated to aquifer.



RCM

Composes of Vertical **Mesh Wells** and Horizontal **Arched Mesh Pipe**

Promote Stormwater Infiltration

Conservation Aquifer



Aquifer Recharge and Aquifer Storage and Recovery DMWS – Drainage Mesh Wells System



Aquifer Recharge (AR)

and Aquifer Storage and Recovery (ASR)

Reduce surface runoff

Mitigation the probability of flooding caused by heavy rain

DMWS – Drainage Mesh Wells System

Provide the most economical and simple solution



Stormwater Drainage Mesh Wells System Liquefaction Soil Improvement Wells System



Installation of vertical drains to allow the rapid dissipation of excess pore pressures generated during earthquakes to prevent liquefaction development, or desaturating potentially liquefiable soil, by permanently lowering groundwater or gas entrainment. Generally Earthquake Drains can be installed up to depths of about 25 m.

Drainage Mesh Well sidewall special design, without gravel, and other non-woven filter material, mesh pipe anti-blocking.

liquefaction soil Layer

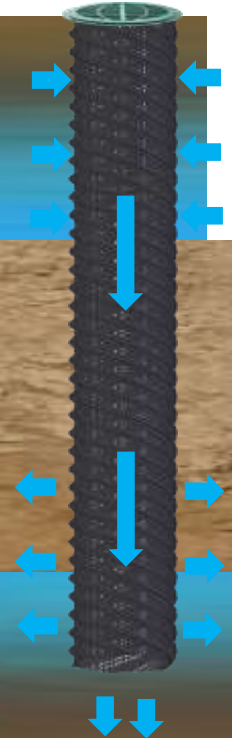
"Sandy soil" combined with "high groundwater level"

When a certain intensity of earthquake is shaken, it causes the phenomenon that sand particles are floating in the water.

Will not liquefaction soil Layer

Vadose Zone

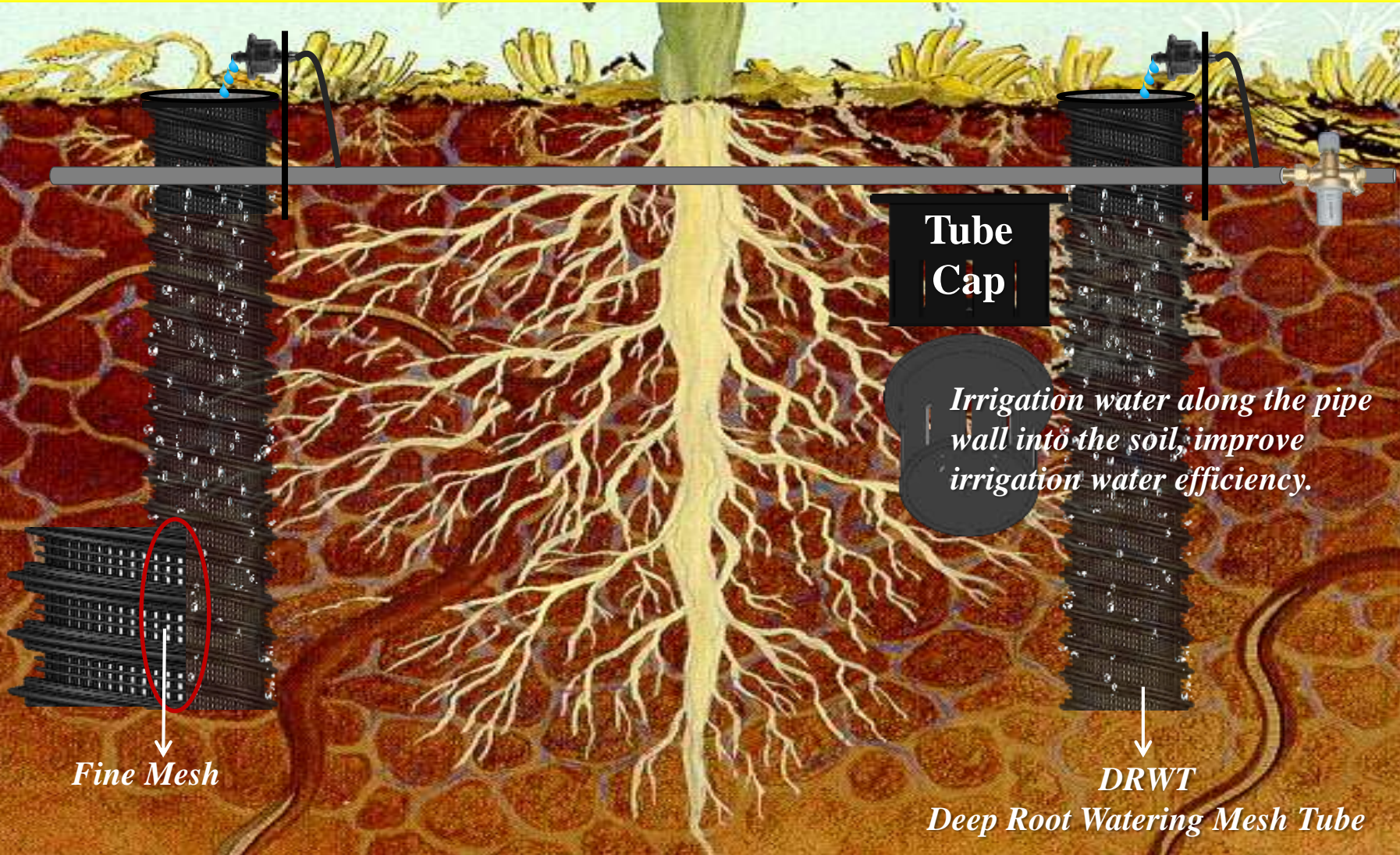
Aquifer





Root Aeration & Deep Root Tree Watering Tubes

DRWT-Deep Root Watering Mesh Tube



DRWT - Deep Root Watering Mesh Tube enables vital water, oxygen, and nutrients to bypass compacted Soil and directly reach tree and shrub root zones to improve tree and shrub investment protection, Watering efficiency and landscape aesthetics through deep root growth and tree development.

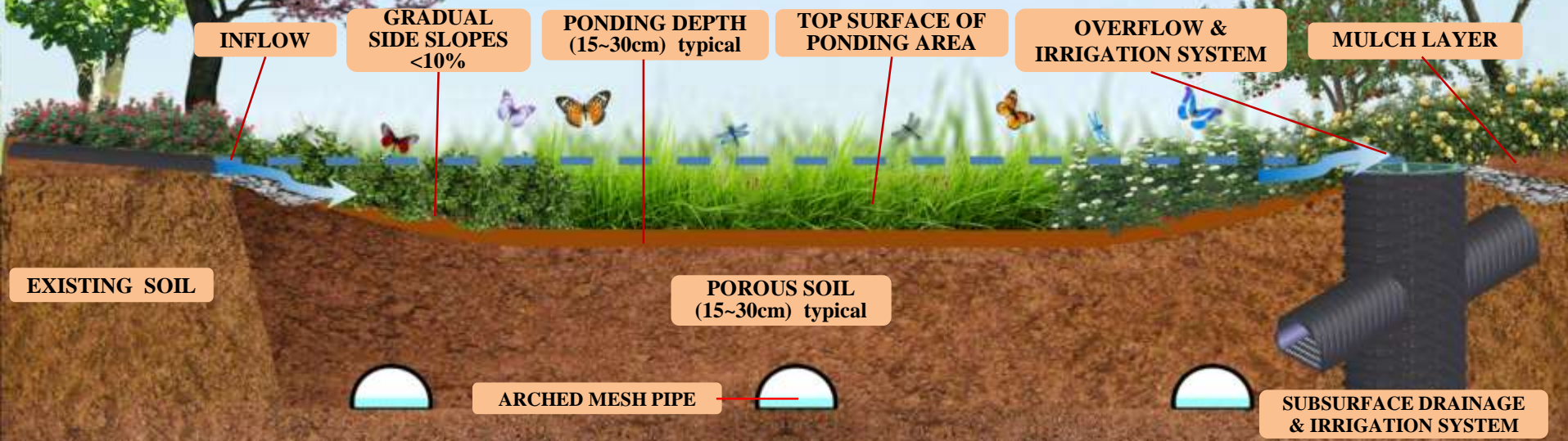
Irrigation Rain Garden

What Is a Underground Irrigation Rain Garden ?

A rain garden is a landscaped area that collects, absorbs, and filters stormwater runoff from roof tops, driveways, patios, and other hard surfaces that don't allow water to soak in. Irrigation and drainage systems provide water detention, drainage and underground wicking irrigation. Rain gardens are sized to accommodate temporary ponding after it rains and are not meant to be permanent ponds. Simply put, rain gardens are shallow depressions that:

- Can be shaped and sized to fit your yard.
- Are constructed with porous soil that allow water to be soaked in rapidly, treat runoff and support plant growth.
- Can be landscaped with a variety of plants to fit the surroundings.
- Can provide underground irrigation during the dry season.

Anatomy of a irrigation Rain Garden





The main purpose of the Trees In Bioswale

1. Collect stormwater from the road and store temporarily in the catchment tree swale to slow road runoff.
2. Place the Anti-Clog Mesh Pipes vertically to promote stormwater infiltration and retention.
3. Collect garbage from road runoff into the tree hole. It is easy to clean and able to avoid blocking the sewer.
4. The tree roots filter stormwater and reduce groundwater contamination.
5. The tree hole is easy to clean.
6. Anti-Clog Mesh Pipe provides soil ventilation and deep root irrigation to create a comfortable space for the plant growth.
7. Only partial excavation needed during construction. This is suitable for the old trees and new construction.
8. The construction is simple, easy, and cost-effective.

Anti-Clog Mesh Pipe provides the most simple and economical way to slow road runoff



Low Impact Development-Stormwater Management Green Infrastructure Program AMPS-Arched Mesh Pipe System

AMPS - Arched Mesh Pipe Underground Irrigation And Drainage System

Subsurface Irrigation by Capillary Action

Irrigation water through Arched Mesh Pipe into the soil, using soil capillary action, supply to the root cluster area. Save 50~80% irrigation water, fertilizer effect increase 40 %, reduction in irrigation manpower 60%.

Underground drainage

- Arched Mesh Pipe Exclude supersaturated soil water and high water table.
- Arched Mesh solve the problem of underground drainage pipe blocking without filter material and clog-resistant.
- Arched Mesh Pipe High efficiency drainage.



Underground Irrigation Capillary Action Demonstration

Arched Mesh Pipe Anti-Clog Drainage Demonstration



Green Infrastructure Program

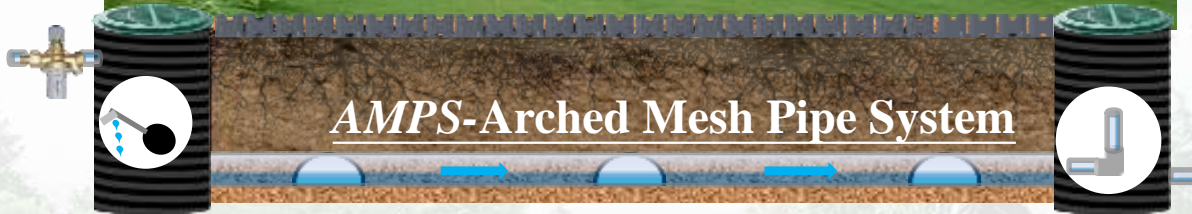
AMPS-Arched Mesh Pipe System Applications

AMPS-Grass Grid Pavement

Mitigates Heating Island Effect 、 Slow Runoff 、 Retention 、 Water Saving Irrigation and Drainage



Grass Grid Green Permeable Pavement



Grass Grid Green Permeable Pavement
Parking Lot and Driveway Installation Steps





Low Impact Development-Stormwater Management

Green Infrastructure Program

AMPS - Arched Mesh Pipe System-Applications



Landscaping

Underground Irrigation and Drainage



Parking Lot \ Driveway

Underground Irrigation and Drainage



Green Roof

Underground Irrigation and Drainage



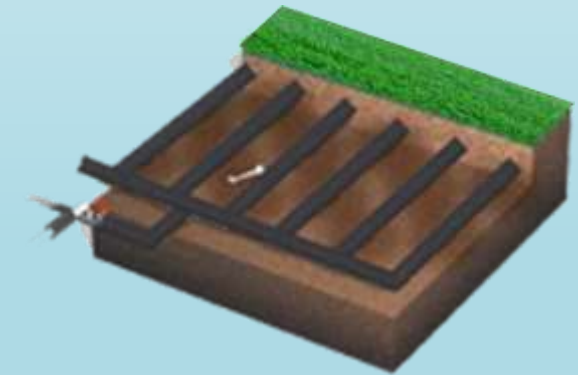
Golf Course

Underground Irrigation and Drainage



Sportfield

Underground Irrigation and Drainage



Agriculture

Underground Irrigation and Drainage

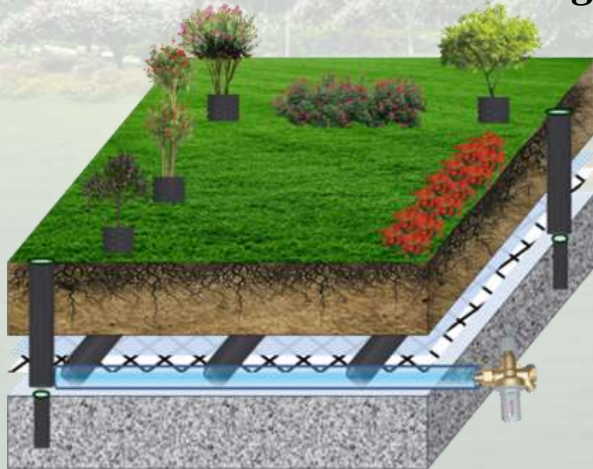
SMP - Square Mesh Pipe

Water Harvesting Self-Watering Wicking System

Water Harvesting From **Green Roof** + **Blue Roof** + **Wicking Beds**



All Features in One System: Green Roof + Blue Roof + Wicking Beds
*20cm height Square Mesh Pipe can store **200mm rainfall***



Green Roof
AMP - Arched Mesh Pipe
Sub-Irrigated Raised System





GMP - Geo Mesh Pipe Horticultural Application

SMP - Square Mesh Pipe Vertical Vegetation Living Wall

**SMP - Square Mesh Pipe
Vertical Vegetation Living Walls**

SMP - Square Mesh Pipe

Vertical Green Fence

Vertical Garden

Vertical Farm

Grass Surrounded by Walls

Drip Irrigation

Worldwide Applications

