



ECO-MESH

Green Infrastructure Program

AMPS-Arched Mesh Pipe System Applications

Grass Grid Pavement





Green Infrastructure Programs

AMPS-Arched Mesh Pipe System Applications

AMPS-Grass Grid Pavement

Grass Grid Permeable Green Pavement

Mitigates Heating Island Effect 、
Slow Runoff 、 Retention 、
Water Saving



Grass Grid Permeable Green Pavement

AMPS-Arched Mesh Pipe System

Grass Grid Gravel Pavement

Stormwater Detention 、 Infiltration 、
Retention 、 Slow Runoff and Drainage



Clear Gravel (Water detention layer)

Clear gravel porosity 30 ~ 40%, filled with 15cm high gravel roadbed, can be detention 45mm rainfall per square meter .



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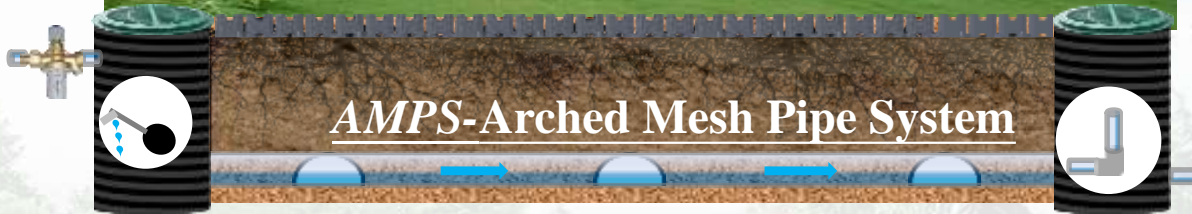
AMPS-Arched Mesh Pipe System Applications

AMPS-Grass Grid Pavement

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



Grass Grid Green Permeable Pavement



AMPS-Arched Mesh Pipe System

Grass Grid Green Permeable Pavement
Parking Lot and Driveway Installation Steps





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AMPS-Arched Mesh Pipe System Applications

AMPS-Grass Grid Pavement

Clay Soil Layer-Green Pavement Irrigation and Drainage



AMPS Water Solutions are water management solutions specializing in water conservation and provide efficient drainage and subsurface wicking irrigation.

AMPS provides these benefits using clog free subsurface pipe that does not require additional filter material but absorbs and distributes water to the growing medium using non-pressurized, gravity driven, capillary physics.



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Clay Soil Layer-Green Pavement Irrigation and Drainage System functions

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AMPS provides these benefits using clog free subsurface pipe that does not require additional filter material but absorbs and distributes water to the growing medium using non-pressurized, gravity driven, capillary physics.

The grass grid load-bearing surface layer enables drainage of surface water which then provides their underground irrigation of the grass root cluster areas by capillary action which in turn supports plant and root growth.



Water ball float valve to control the water intake

Irrigation water moves through the Arched Mesh Pipes and reaches root cluster areas efficiently by soil capillary action.

Water level regulator to adjust the permeability of the capillary action of underground irrigation water level

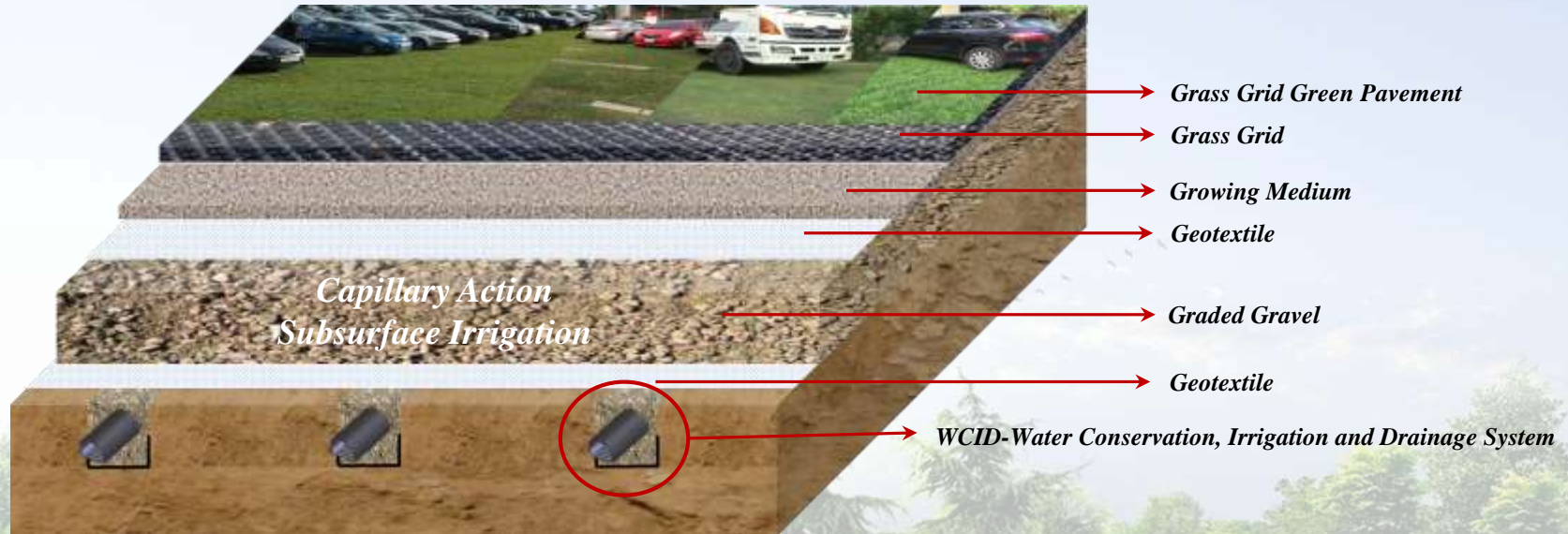


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AMPS-Grass Grid Pavement

Sandy Soil Layer-Green Pavement Irrigation and Drainage



During a rain shower or irrigation application, the soil pores will fill with water, soil moisture content 20~30% in volume. Irrigation water moves through the AMP-Arched Mesh Pipes and reaches root cluster areas efficiently by soil capillary action. Irrigation water requirements and irrigation manpower are reduced, Plant growth increase are equivalent to reduce in fertilizer.

AMP-Arched Mesh Pipe exclude oversaturated soil water and high water table.

AMP-Arched Mesh Pipe install without filter coating, clog-resistant.

AMP-Arched Mesh Pipe high efficiency drainage, the soil is not discharged.

Easy to install, maintenance and management is simple, It is the best water conservation, irrigation and drainage systems for green parking space and green driveway .

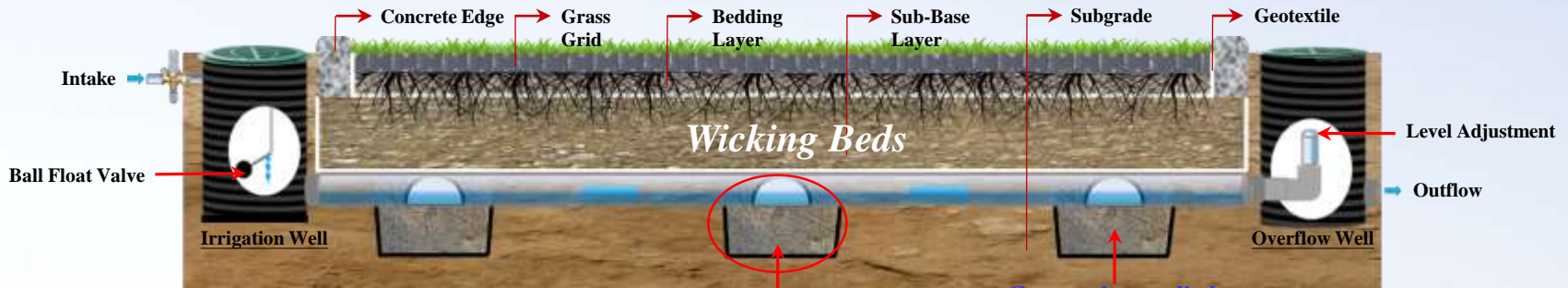


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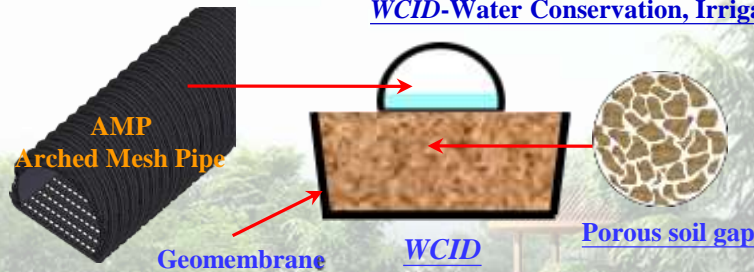
AMPS-Arched Mesh Pipe System Applications

WCID-Water Conservation, Irrigation and Drainage System

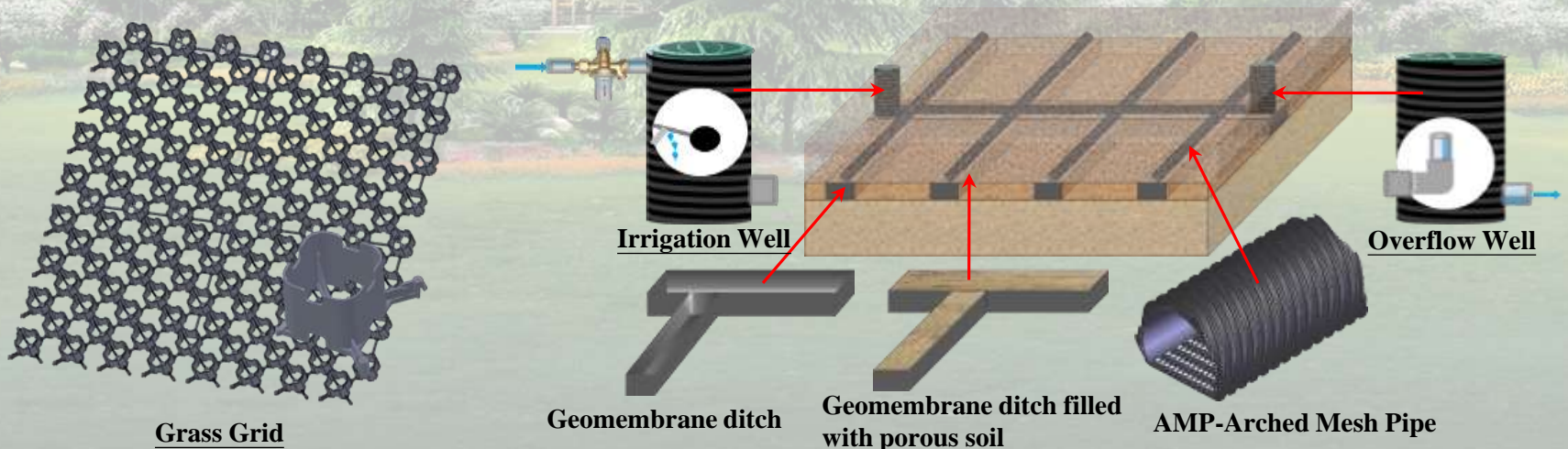
WCID-grass grid permeable green pavement application - Structure



WCID-Water Conservation, Irrigation and Drainage System



Geomembrane ditch stores irrigation water, 20 ~30% of the soil volume. Irrigation water reaches root cluster areas through the system by capillary action.





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AMPS-Arched Mesh Pipe System Applications

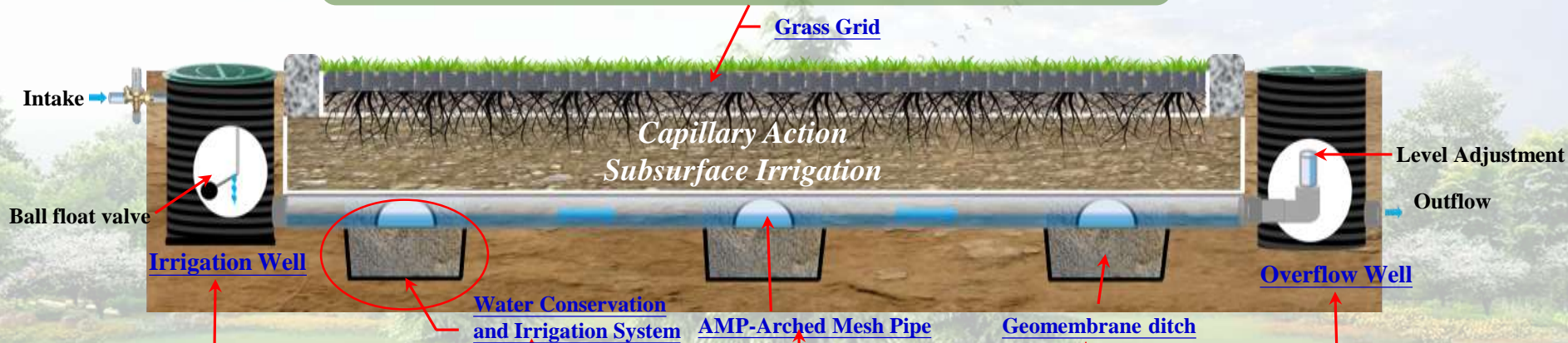
WCID-Water Conservation, Irrigation and Drainage System

WCID-grass grid permeable green pavement application - Features

WCID Water Solutions are water management solutions specializing in water conservation and provide efficient drainage and subsurface wicking irrigation.

WCID provides these benefits using clog free subsurface pipe that does not require additional filter materials but absorb and distribute water to the growing medium by non-pressurized and gravity driven capillary physics.

The grass grid load-bearing surface layer enables drainage of surface water which then provides their underground irrigation of the grass root cluster areas by capillary action which in turn supports plant and root growth.



Water stored in the system reduces surface soil saturation during wet weather providing rainwater recycling and underground irrigation during dry season.

Geomembrane ditch is made by a PE cloth, filled with ditches porous soil. The soil stores water around 20~30% of the soil volume.

Ball float valve is to control the soil saturated and automatic irrigation water supply.

AP-Arched Mesh Pipe has a half-moon shape design. The half-moon (top) part is impermeable and the flat (bottom) part is permeable. The soil particles sink due to gravity and does not flow with the water into the aqueduct. Therefore, the clog-resistant Arched Mesh Pipe solves the blocking problems of the underground drainage pipes without an extra layer of filter material.

Water level regulator to adjust the permeability of the capillary action of underground irrigation water level.

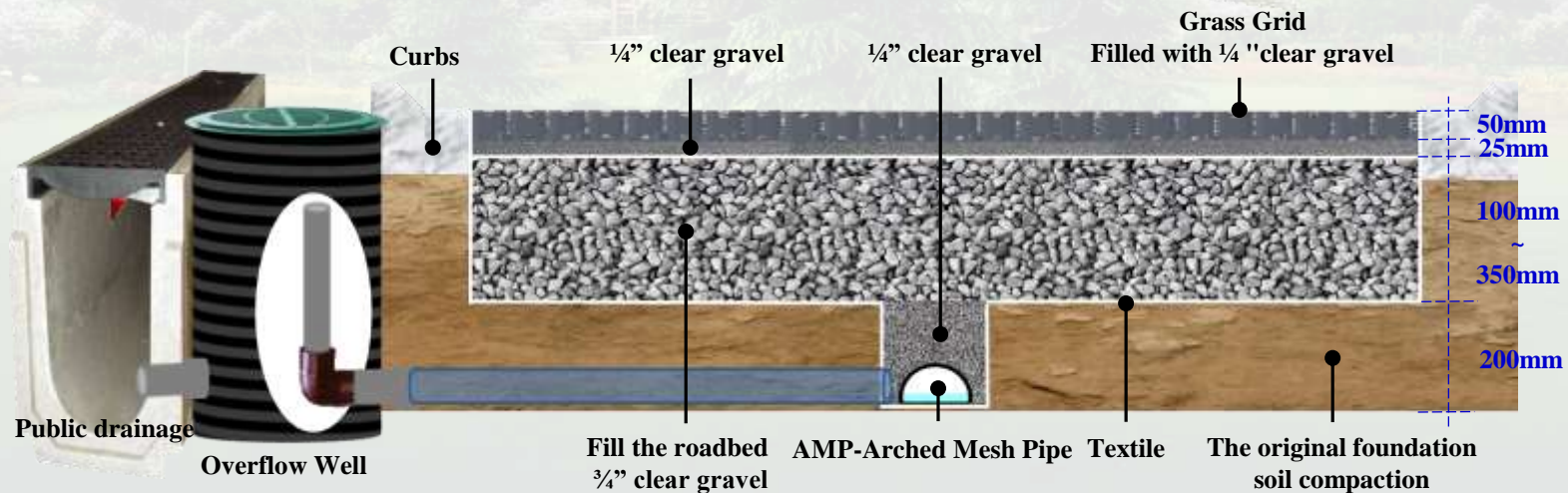


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AMPS-Arched Mesh Pipe System Applications

AMPS-Grass Grid Gravel Pavement

Stormwater Infiltration 、 Detention 、 Retention 、 Slow runoff and Drainage





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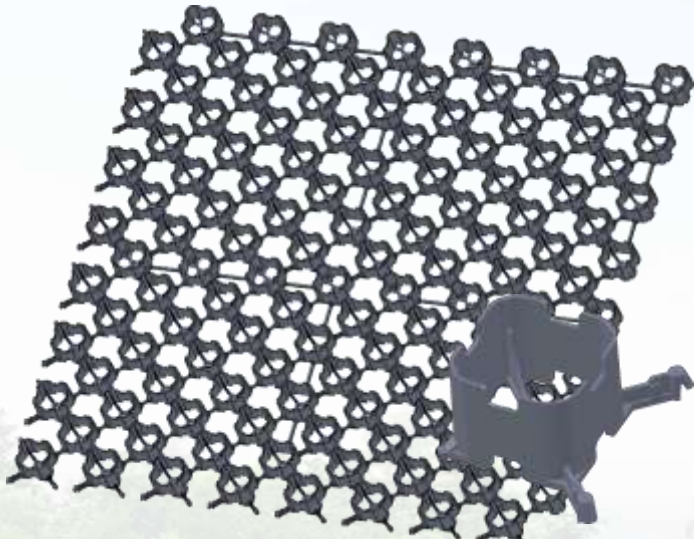
AMPS-Arched Mesh Pipe System Applications

AMPS-Grass Grid Gravel Pavement-Roof Drainage





Materials : Chain Grass Grid



Chain Grass Grid



Chain Grass Grid Marking cover

Reinforcement Grass Grid Material : High-density polyethylene (HDPE)

Reinforcement Grass Grid size : 500mm * 500mm * 50mm \pm 3%

Square tube diameter : 60mm * 60mm * 50mm \pm 3%

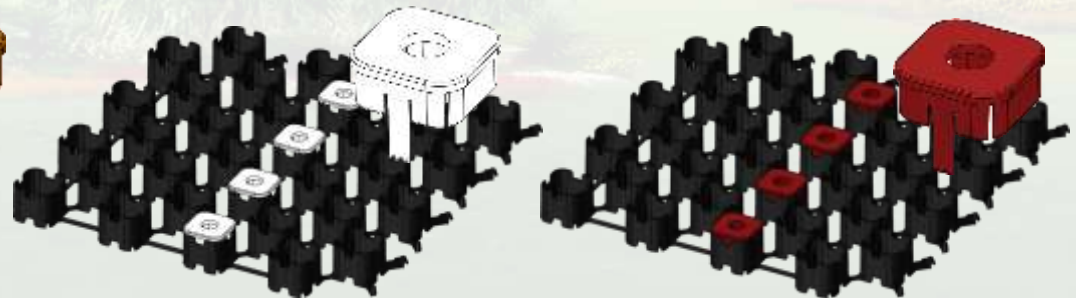
Weight: 4.0KG / M²or more

Compression square tube count : 128/ M²

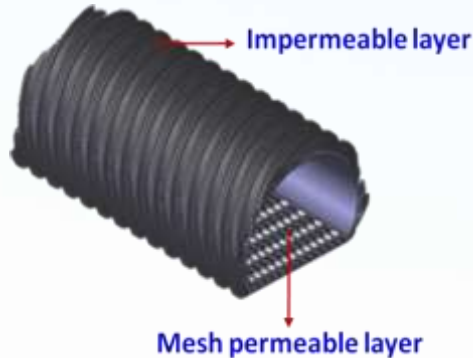
Square tube wall thickness : 2.5mm \pm 3%

Reinforcement Grass Grid combination : Interlock

Grass Grid compression capability up to 150tons /square meter.



Grass Grid Pavement Materials: AMP-Arched Mesh Pipe



AMP-Arched Mesh Pipe Structure

What Is the AMP-Arched Mesh Pipe ?

Subsoil drainage pipe is used to remove excess ground water. Arched Mesh Pipe is a new type of drainage pipe that remains clog free without requiring additional filter material.

Traditional subsoil drainage pipe installations require additional excavation to surround the pipe with gravel to provide sufficient drainage and the addition of filter material to prevent pipe blockages.

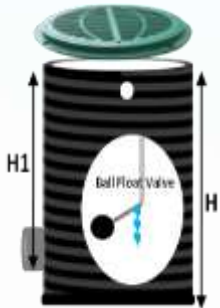
“AMP-Arched Mesh Pipe“ is impermeable on the upper arched surface and permeable on the lower surface. Soil particles sink through the permeable layer due gravity rather than traveling with the water into the aqueduct.

“AMP-Arched Mesh Pipe“ remains clog resistant and prevents drainage pipe blockage without requiring gravel installation or filter coatings.



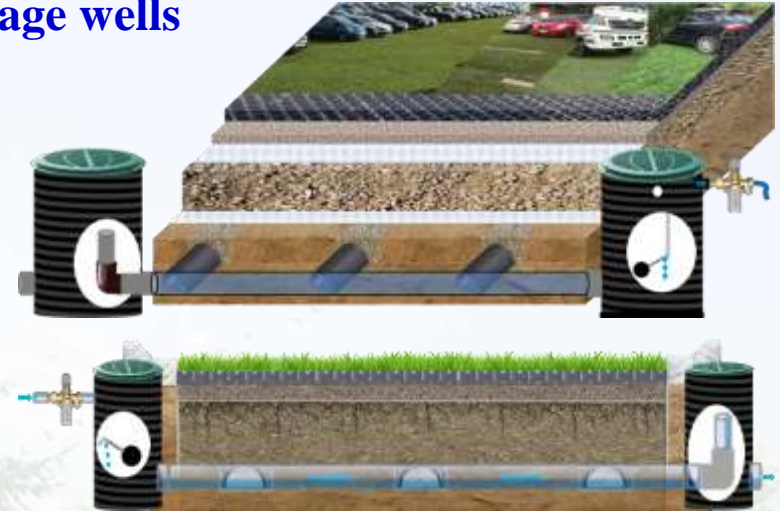
AMP-Arched Mesh Pipe Description

Grass Grid Pavement Materials: Irrigation and Drainage wells



Irrigation Well Specifications

Size	Connector	H	H1
12" Irrigation Well	3"或4"	40cm	30cm
12" Irrigation Well	3"或4"	50cm	40cm
12" Irrigation Well	3"或4"	60cm	50cm
12" Irrigation Well	3"或4"	75cm	65cm
12" Irrigation Well	3"或4"	90cm	80cm



Irrigation Well



Overflow Well Specifications

Size	Connector	H	H1	H2
12" Overflow Well	3"或4"	40cm	30cm	30cm
12" Overflow Well	3"或4"	50cm	40cm	40cm
12" Overflow Well	3"或4"	60cm	50cm	50cm
12" Overflow Well	3"或4"	75cm	65cm	65cm
12" Overflow Well	3"或4"	90cm	80cm	80cm



Overflow Well

AMPS-Arched Mesh Pipe Underground Irrigation and Drainage System Grass Grid Green Pavement Installation Steps



To be turf compaction in the soil when planting sod. Parking can be after water conservation grass survived.





Low Impact Development (LID) – Water Management

AMPS-Arched Mesh Pipe Underground Irrigation And Drainage System

AMPS-Grass Grid Gravel Pavement

Stormwater Infiltration 、 Detention 、 Retention 、 Slow runoff and Drainage

